

# mn sistema marionanni

sistema di illuminazione per interni IP40 a luce diretta realizzato con corpo in alluminio verniciato e trappola di luce nero opaco.

modelli:

mn soffitto h32mm alimentatore escluso,

mn soffitto h45mm alimentatore integrato regolabile on/off, dali o casambi,

mn incasso h26mm alimentatore escluso,

mn incasso h26mm alimentatore remoto incluso regolabile on/off, dali o casambi,

mn scomparsa totale h32 alimentatore escluso,

mn scomparsa totale h32 alimentatore remoto incluso regolabile on/off, dali o casambi,

dimensioni: 130x130mm, 130x250mm, 130x370mm, 250x250mm, ,

30x370mm, 30x730mm, 30x1450mm

mn A sistema h32mm 48Vdc regolabile on/off o casambi

dimensioni: 130x130mm, 130x250mm, 130x370mm, 30x730mm

mn binario VbB h32mm alimentatore integrato regolabile on/off, dali o casambi

dimensioni: 130x130mm, 130x250mm, 130x370mm, 30x730mm, 30x1450mm

mn traccia sistema h32mm 24Vdc regolabile pwm o casambi

dimensioni: 130x130mm, 130x250mm, 30x370mm, 30x730mm

modelli matrice cablati con lampadina mn sorgente elettronica modulare

130x130mm ra97 2 step macadam fino a 13W 1539lm

dimensione 130x130mm un modulo lampadina, dimensione 130x250mm due

moduli lampadina, 130x370mm tre moduli lampadina, 250x250mm quattro

moduli lampadina.

modelli lineari cablati con lampadina mn sorgente elettronica modulare

30x370mm ra97 2 step macadam fino a 9,5W 1032lm

dimensione 30x370mm un modulo lampadina, dimensione 30x730mm due

moduli lampadina, 30x1450mm quattro moduli lampadina

sorgente elettronica disponibile a 2700K, 3000K o 3500K

il sistema ottico 44° garantisce ugr<10 e lm<1000 cd/m<sup>2</sup> per angolo di

osservazione>65°, il sistema ottico 70° garantisce ugr<19 conforme alla norma

uni en 12464-1.

finiture: argento hacca con adattatore a binario nero; nero55 con adattatore a

binario nero; my bianco con adattatore a binario bianco, trappola di luce nero

opaco.

mn sistema è gestibile da device mobile tramite app Viascenario, il sistema di

controllo wireless d'illuminazione Viabizzuno

IP40 indoor use direct light lighting system made with painted aluminum body and matte black light trap.

versions:

mn soffitto h32mm power supply excluded,

mn soffitto h45mm built-in power supply dimmer on/off, dali or casambi,

mn incasso h26mm power supply excluded,

mn incasso h26mm remote power supply included dimmer on/off, dali or

casambi,

mn scomparsa totale h32 power supply excluded,

mn scomparsa totale h32 remote power supply included dimmer on/off, dali or

casambi,

dimensions: 130x130mm, 130x250mm, 130x370mm, 250x250mm, 30x370mm,

30x730mm, 30x1450mm

mn A sistema h32mm 48Vdc dimmer on/off or casambi

dimensions: 130x130mm, 130x250mm, 130x370mm, 30x730mm

mn binario VbB h32mm built-in power supply dimmer on/off or casambi

dimensions: 130x130mm, 130x250mm, 130x370mm, 30x730mm, 30x1450mm

mn traccia sistema h32mm 24Vdc dimmer pwm or casambi

dimensions: 130x130mm, 130x250mm, 30x370mm, 30x730mm

matrix models wired with mn bulb modular electronic source 130x130mm ra97 2

step macadam until 13W 1539lm

dimension 130x130mm one light bulb module, dimension 130x250mm two light

bulb modules, 130x370 three light bulb modules, 250x250mm four light bulb

modules.

linear models wired mn bulb modular electronic source 30x370mm ra97 2 step

macadam until 9,5W 1032lm

dimension 30x370mm one light bulb module, dimension 30x730mm two light

bulb modules, 30x1450 four light bulb modules.

electronic source available at 2700K, 3000K or 3500K

the 44° optical system guarantees ugr<10 and lm<1000 cd/m<sup>2</sup> for viewing

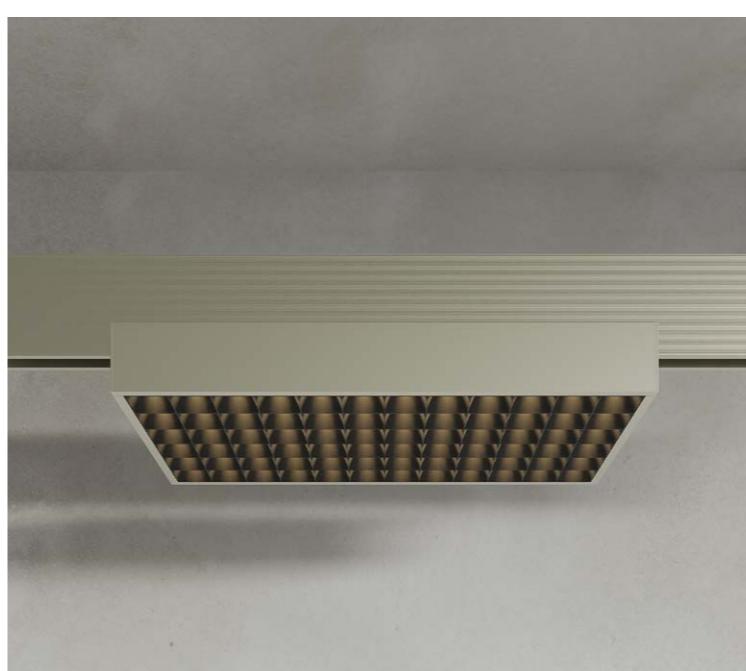
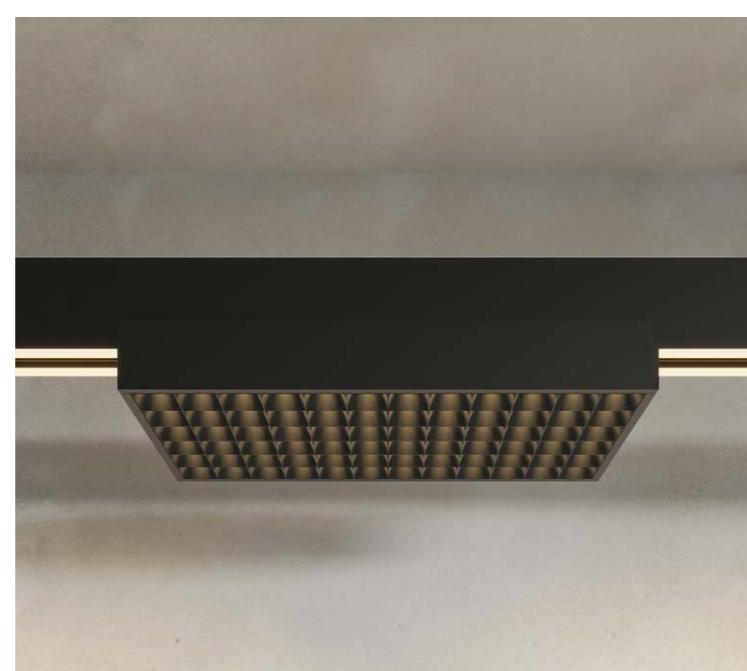
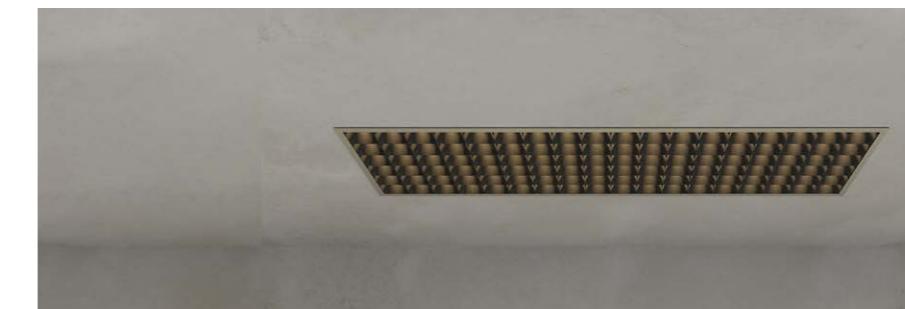
angle>65°, the 70° optical system guarantees ugr<19 complying with uni en

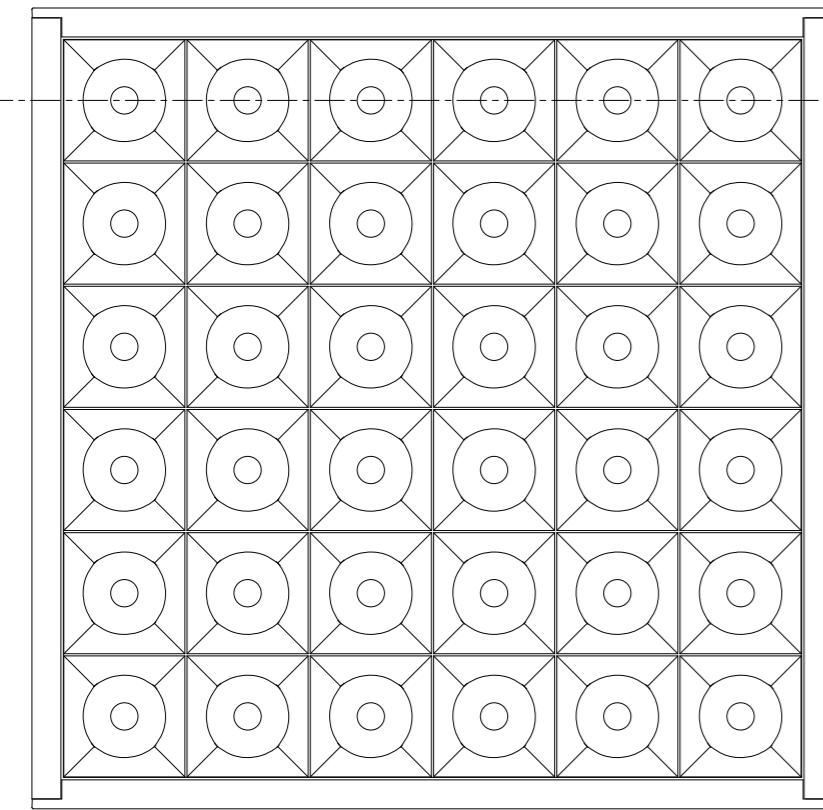
12464-1.

finishes: silver hacca, white V, my white, black55, matte black light trap

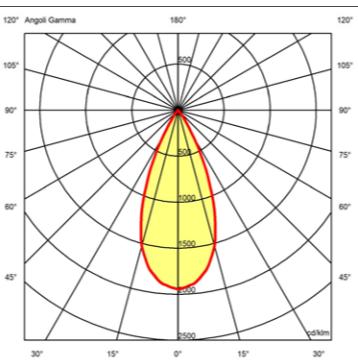
mn sistema can be managed from a mobile device via Viascenario app, the

Viabizzuno wireless lighting control system.

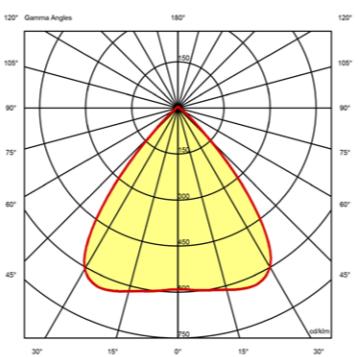




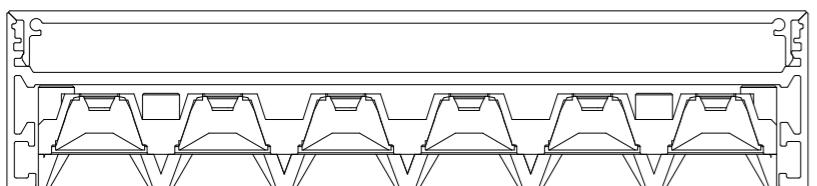
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44°

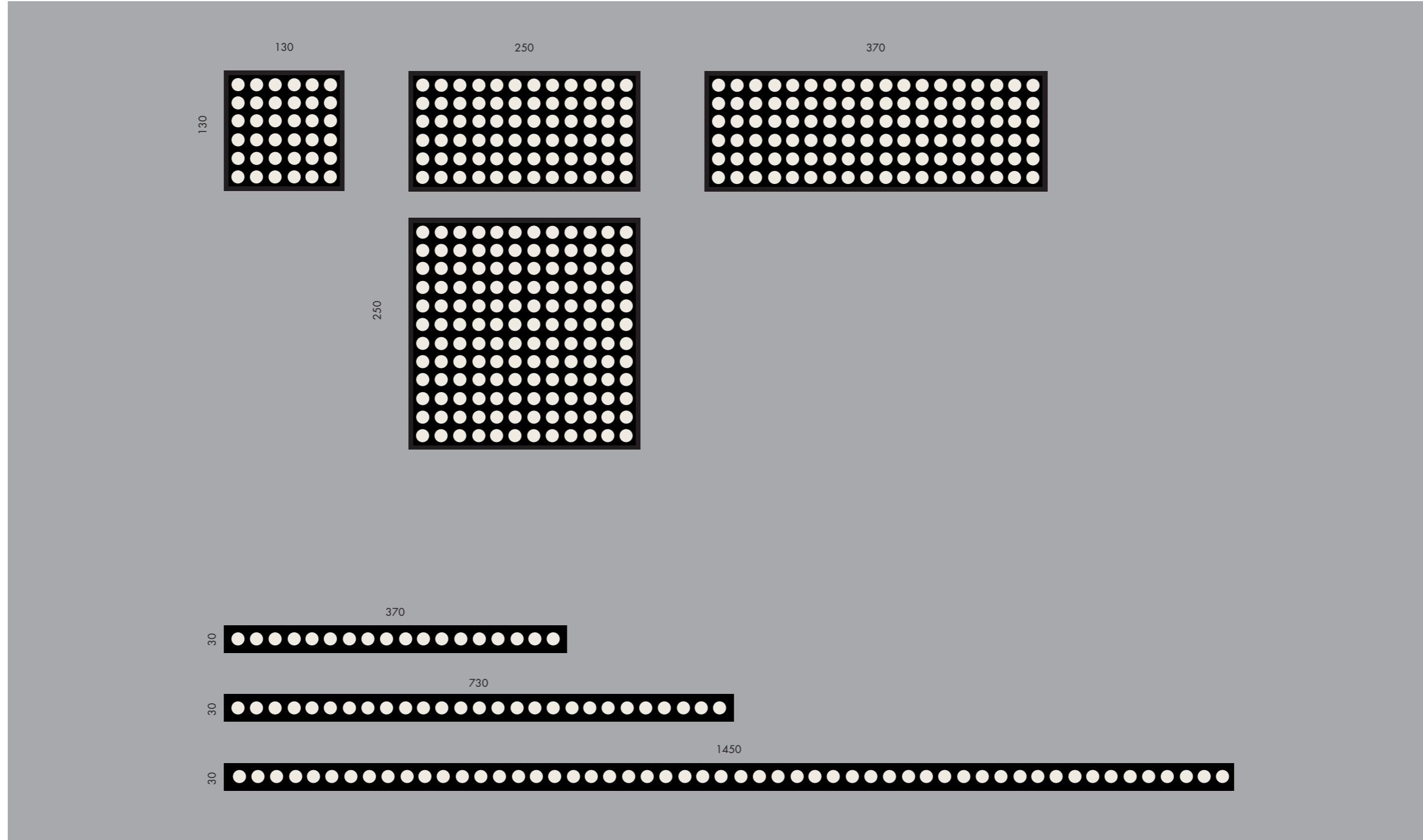


70°

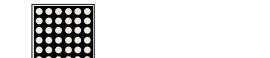
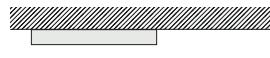
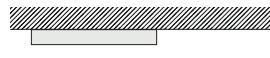
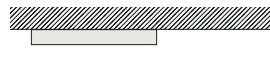
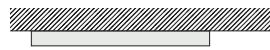
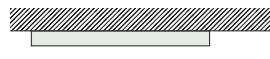
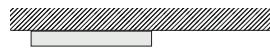


sezione A - A





**luce diretta****direct light**

mn soffitto	mn soffitto alimentatore incluso	mn adattatore A1	mn adattatore VbB	mn adattatore traccia sistema	mn incasso	mn scomparsa totale
						
						
						
						
						
						
						
						

## ugr

la norma EN12464-1 definisce i Valori massimi per questo parametro distinti a seconda delle tipologie di area ed attività lavorativa riportate in una tabella dedicata, tipicamente per le aree adibite ad uffici **l'UGR deve essere pari o inferiore a 19.**

il parametro è valutato secondo un calcolo matematico svolto solitamente da software dedicati, in funzione di una specifica posizione dell'osservatore nello spazio e del suo orientamento in una determinata direzione: la formula matematica Valuta principalmente la luminanza prodotta da ogni singolo apparecchio di illuminazione che rientra nel campo Visivo dell'osservatore, unitamente alla luminanza dello sfondo.

il Valore UGR (unified glare rating – indice unificato di abbagliamento) indica il livello di abbagliamento generato da un sistema di illuminazione.

H= distanza tra l'altezza degli occhi dell'osservatore seduto (1,2 m) e il piano degli apparecchi di illuminazione= 2m.

x= larghezza del locale= 4H= 8m

y= lunghezza del locale= 8H= 16m

s= interasse degli apparecchi d'illuminazione= 0,25H= 0,5m

fattori di riflessione:

p soffitto = 70%

p parete = 50%

p pavimento = 20%

definito dalla CIE (commissione internazionale per l'illuminazione), dedicato alla Verifica dell'abbagliamento generato dalla luce artificiale e che può assumere i valori 10, 13, 16, 19, 22, 25, 28: i valori più bassi indicano un livello di abbagliamento ben controllato.

i costruttori di apparecchi di illuminazione forniscono un'analisi tabulare dell'UGR secondo posizioni predefinite, indipendenti da uno specifico progetto illuminotecnico. L'utilizzo di queste tabelle presuppone determinate condizioni dell'impianto, quali:

1. una stanza a pianta rettangolare,
2. apparecchi dello stesso tipo
3. apparecchi installati alla stessa altezza rispetto al pavimento.
4. indici di riflessione delle superfici predefinite indicati in tabella
5. dimensioni della stanza predefinite secondo multipli del parametro H che a sua volta indica la distanza verticale tra gli apparecchi di illuminazione e l'altezza dell'occhio umano di un operatore seduto posizionata per convenzione a 1,2m dal pavimento.

per semplicità in questo documento vengono valutate solo le dimensioni  $x=2H$   $y=4H$  e  $x=4H$   $y=8H$ .

al contrario, nell'ambito del progetto di un impianto di illuminazione, se le posizioni delle postazioni di lavoro sono definite è opportuno calcolare e verificare l'UGR nei punti specifici.

the unified glare rating (UGR) value indicates the level of glare generated by a lighting system.

H = distance between the eye level of a seated observer (1.2 m) and the plane of the lighting fixtures = 2 m.

x = room width = 4H = 8 m

y = room length = 8H = 16 m

s = spacing of lighting fixtures =  $0.25H = 0.5 \text{ m}$

reflection factors:

p ceiling = 70%

p wall = 50%

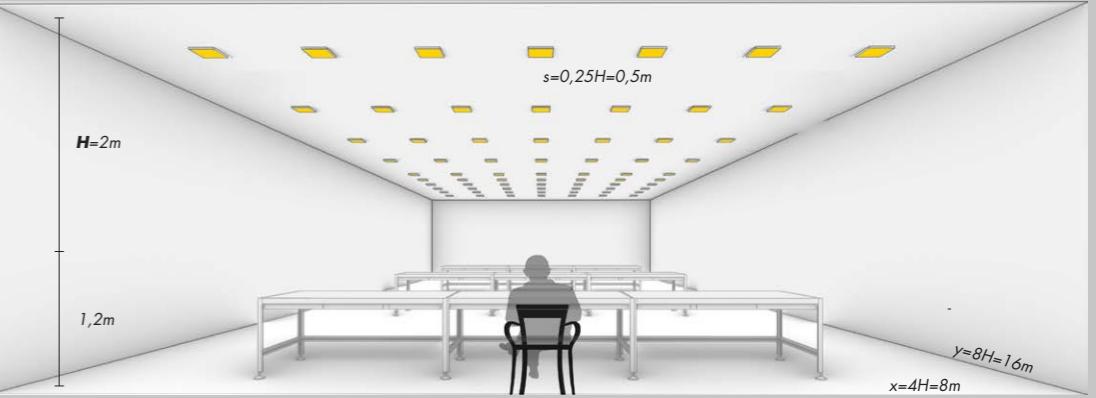
p floor = 20%

manufacturers of lighting fixtures provide a tabular analysis of the UGR according to predetermined positions, independent from a specific lighting design.

the use of these tables assumes certain conditions of the installation, such as:

1. a room with a rectangular floor plan;
2. lighting fixtures of the same type;
3. lighting fixtures installed at the same height above the floor;
4. predetermined surface reflection indices shown in the table;
5. predetermined room sizes

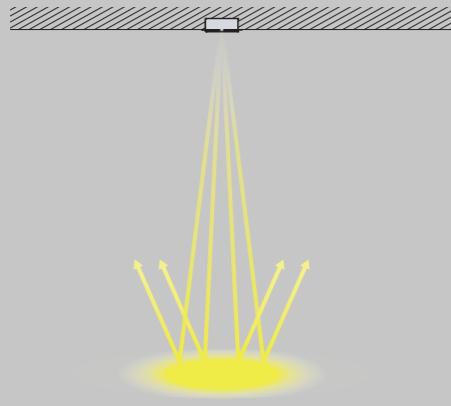
according to multiples of the parameter H, which in turn indicates the vertical distance between the lighting fixtures and the eye level of a seated operator positioned by convention at 1.2 m from the floor. for the sake of simplicity, only the dimensions  $x=2H$   $y=4H$  and  $x=4H$   $y=8H$  are evaluated in this document. conversely, in the context of the design of a lighting installation, if the locations of the workstations are defined, it is advisable to calculate and verify the UGR at specific points.



### **flusso luminoso luminous flux**

flusso luminoso: quantità di luce emessa da una sorgente luminosa.

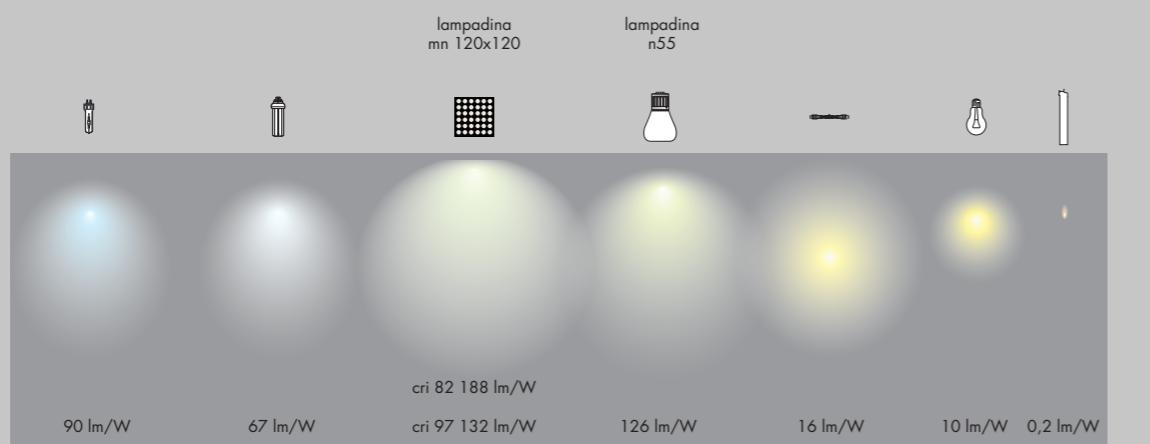
luminous flux: amount of light emitted by a light source.



### **efficienza luminosa luminous efficiency**

efficienza luminosa, unità di misura lumen per Watt, (lm/W). L'efficienza luminosa indica quanta della potenza elettrica assorbita viene trasformata in luce.

Luminous efficiency, unit of measurement lumen per Watt, (lm / W). The luminous efficiency indicates how much of the absorbed electrical power is transformed into light.



### **luminanza luminance**

luminanza: intensità luminosa emessa in una determinata direzione da una superficie luminosa o illuminata (sorgente secondaria di luce). In altri termini esprime l'effetto di luminosità che una superficie produce sull'occhio umano, sia essa sorgente primaria (lampada o apparecchio di illuminazione) o secondaria (piano di un tavolo che riflette la luce).

La distribuzione della luminanza nel campo Visivo determina appunto il livello di adattamento degli occhi: una distribuzione delle luminanze ben bilanciata aumenta la nitidezza della Visione, la sensibilità al contrasto e l'efficienza delle funzioni oculari riducendone l'affaticamento.

Occorre invece evitare luminanze troppo elevate e contrasti di luminanza eccessivi. All'opposto, luminanze e contrasti troppo bassi determinano un ambiente di lavoro poco stimolante.

simbolo:  $L$

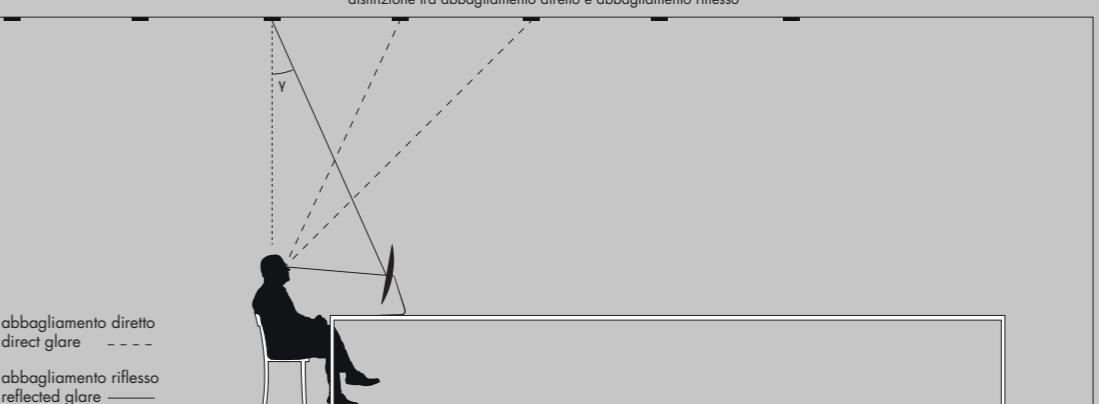
unità di misura: candela al metro quadrato ( $\text{cd}/\text{m}^2$ ).

Luminance: ratio of luminous intensity and apparent emitting area. The source of luminance can be an emitting surface or a surface reflecting incident light. Luminance is a measure of how much a surface seems brilliant to the human eye.

A well balanced luminance distribution inside the field of view increases the visual performance and reduces fatigue. On the other hand, high luminance levels and excessive luminance contrasts can produce glare and discomfort.

symbol:  $L$  unit of measure: candle per square meter  $\text{cd}/\text{m}^2$

distinzione tra abbagliamento diretto e abbagliamento riflesso



la norma UNI EN 12464-1 ha come obiettivo definire i requisiti illuminotecnici per i posti di lavoro in interni, al fine di garantire il comfort e le prestazioni visive di persone aventi normale capacità oftalmica.

sono considerati tutti i compiti visivi abituali, suddivisi per tipologie di attività, inclusi quelli che comportano l'utilizzo di videoterminali. I requisiti sono stati definiti sulla base di tre principali necessità dell'uomo:

1.comfort Visivo, ovvero di benessere del lavoratore, che indirettamente contribuisce anche ad una maggiore qualità e produttività

2.prestazioni Visive, tenendo in considerazione anche le diverse possibili circostanze e la durata dell'attività lavorativa

3.sicurezza  
la norma valuta la qualità della luce sia naturale che artificiale secondo i seguenti parametri:

- 3.1.distribuzione della luminanza
- 3.2.illuminamento
- 3.3.direzionalità della luce
- 3.4.Variazionalità della luce
- 3.5.resa del colore e colore apparente della luce
- 3.6.abbagliamento
- 3.7.sfarfallamento ed effetto

stroboscopico  
per il calcolo delle luminanze la norma raccomanda i seguenti Valori sulle principali superfici:

soffitto:  
da 0.7 a 0.9;  
pareti:  
da 0.5 a 0.8;  
piani di lavoro:  
da 0.2 a 0.7;  
pavimento:  
da 0.2 a 0.4.

l'illuminamento e la sua distribuzione hanno un importante impatto sulla rapidità, sicurezza e comfort con cui la persona svolge il compito Visivo. per questo la norma indica di Valutare l'illuminamento medio (Em), misurato in lux (lx), e la sua uniformità UO sulle seguenti superfici:

3.2.1. superficie del compito Visivo. i livelli di illuminamento medio e uniformità sono specificati per ogni tipologia di area e di attività, a seconda delle esigenze, tramite una apposita tabella. per gli uffici con la lavorazione al videoterminali la norma indica Em≥500lx e UO≥0,60  
3.2.2. area circostante:  
l'illuminamento può essere più basso di quanto previsto per l'area del

compito ma non deve essere minore dei Valori indicati di seguito:

compito (Em)	≥ 750lx
	500lx
	300lx
	200lx
< 200lx zone circostanti (Em)	
	500lx
	300lx
	200lx
	150lx

stesso Em del compito Visivo uniformità richiesta: UO ≥0,40

3.2.3. sfondo: Viene indicato un illuminamento medio Em pari o superiore ad 1/3 dell'illuminamento nella rispettiva area circostante. l'uniformità richiesta è sempre UO>=0,40

inoltre la norma chiede di rispettare i seguenti vincoli più generici:

- per zone occupate continuativamente l'illuminamento non deve essere minore di 200lx.
- le superfici delle pareti devono avere sempre illuminamento Em≥50lx e UO≥0,10
- le superfici dei soffitti devono avere sempre illuminamento Em≥30lx e UO≥0,10

la norma inoltre richiede che

per illuminamento medio si intenda sempre quello mantenuto, ovvero l'illuminamento che deve essere garantito dall'impianto di illuminazione al netto della minore efficienza valutata in funzione

a. dell'invecchiamento degli apparecchi, della sorgente luminosa e delle componenti ottiche,

b. della tipologia di area, che a sua volta permette di definire la quantità e la rapidità con cui la polvere si accumula sulle superfici dell'ambiente e sugli apparecchi luminosi,

c. della frequenza di manutenzione e pulizia degli apparecchi, definiti dal piano di manutenzione dell'impianto queste informazioni contribuiscono al calcolo del fattore di manutenzione MF, parametro con valore compreso tra 0 e 1 che esprime proprio il calo di prestazioni dell'impianto dopo un determinato periodo rispetto alle prestazioni iniziali, relativo al periodo immediatamente successivo all'installazione.

la direzionalità della luce permette di sottolineare i dettagli all'interno del compito Visivo, rendendoli più visibili ed allo stesso tempo

facilitando il lavoro. questo tipo di luce inoltre permette di produrre ombre che se opportunamente studiate possono aiutare ad aumentare la visibilità degli oggetti e della loro profondità. allo stesso tempo la norma richiama l'attenzione sui possibili rischi: se non opportunamente progettate le ombre generate possono interferire con lo svolgimento del compito Visivo.

la variabilità della luce nell'arco della giornata può essere ottenuta con l'integrazione di luce naturale e luce artificiale, coinvolge i diversi parametri quali l'illuminamento delle superfici, la distribuzione delle luminanze ed il variazione della temperatura colore. seppure la norma EN12464-1 non entri nello specifico di come attuare queste variazioni, ne riconosce comunque l'efficacia e l'utilità in termini di stimolo per l'attività e di benessere delle persone. a tale proposito si menziona anche il ciclo circadiano, ovvero il ritmo ed i complessi meccanismi che si attivano all'interno del corpo umano nell'arco delle 24 ore e che subisce sicuramente l'influenza dalla luce percepita dall'individuo.

la qualità del compito Visivo e le sue prestazioni dipendono in modo particolare dalla resa cromatica della luce e dal suo colore apparente. sono due concetti diversi, che seppure legati al colore, devono essere considerati separatamente in quanto tra loro indipendenti. la resa cromatica della luce, indicata con il simbolo Ra indica la capacità della luce in un ambiente a rappresentare correttamente tutti i colori ed è indicata da un numero intero con valore massimo 100 che equivale ad una resa perfetta ed uniforme di tutti i colori, come quella della luce solare.

l'abbagliamento è la sensazione visiva prodotta da superfici di elevata luminanza all'interno del campo Visivo e viene distinto in due tipologie: l'abbagliamento molesto e l'abbagliamento debilitante. se non controllato l'abbagliamento

può causare errori, fatica, incidenti e talvolta danni alla vista.

l'abbagliamento molesto è provocato principalmente dalle sorgenti luminose, cioè dagli apparecchi di illuminazione o dalle finestre. è quello che più comunemente si riscontra negli interni e comporta una sensazione di disagio continuativo.

l'abbagliamento debilitante è generato invece da luminanze elevate ed improvvise e comporta un peggioramento istantaneo delle funzioni visive. impedisce la sensibilità al contrasto dell'occhio e quindi la visione. nell'ambito della luce per ambienti di lavoro in interni il verificarsi di questa tipologia è più raro se sono rispettati i vincoli per evitare l'abbagliamento molesto.

per poter controllare il fenomeno di abbagliamento molesto sin dalla fase della progettazione della luce si utilizza il parametro UGR.

la norma disciplina anche l'abbagliamento riflesso, che insieme al fenomeno delle riflessioni velate deve essere tenuto sotto controllo con le seguenti misure:

- disposizione delle postazioni di lavoro rispetto agli apparecchi, alle finestre e ai lucernari
- verifica delle finiture che interverranno nel compito Visivo, affinché siano opache o comunque poco riflettenti
- limitazione della luminanza tramite la selezione di apparecchi di illuminazione idonei e sistemi di oscuramento di finestre e lucernari. in particolare le riflessioni su attrezzi e macchinari dotati di monitor (denominati DSE: display screen equipment) e le riflessioni sulla tastiera possono causare disabilità e abbagliamento molesto in alcune circostanze. per questo la norma indica di selezionare,

localizzare e disporre gli apparecchi per evitare riflessioni con elevata luminosità considerando come riferimento un monitor verticale o al più inclinato di 15°. vengono quindi indicati i limiti di luminanza media, valutati per angoli di elevazione di 65° ed oltre, in rapporto alla verticale, in funzione della qualità dello schermo (classificazione definita dalla norma ISO 9241-307): qualità dello schermo buona bassa

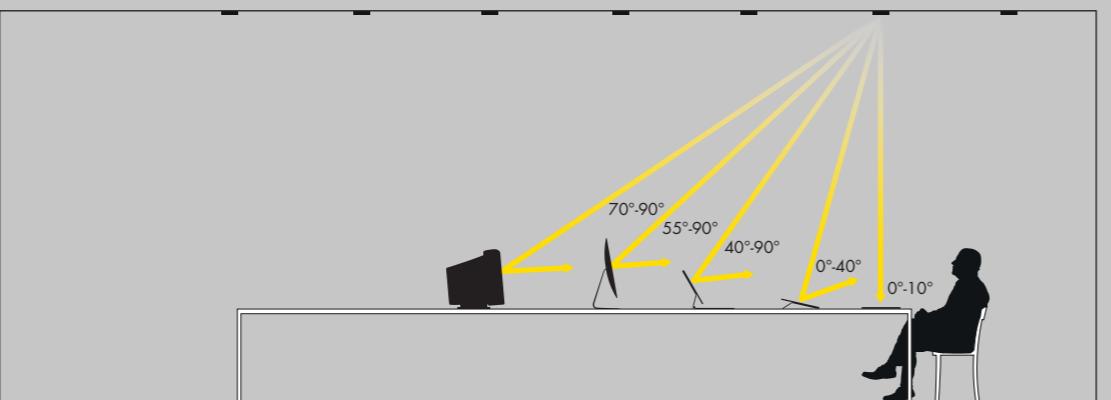
luminanza media degli apparecchi ≤1000 cd/m² ≤200 cd/m²

l'immagine sotto mostra come la possibilità di avere riflessioni su uno schermo è ulteriormente aumentata dall'ormai diffuso utilizzo dei dispositivi smart (telefoni, tablet, computer portatili) in cui l'inclinazione dello schermo non è fissata. questo rende ancora più complessa la progettazione della luce si utilizza il parametro UGR.

effetti assolutamente indesiderati e dannosi sono lo sfarfallamento (flicker) e l'effetto stroboscopico, entrambi provocati dalla pulsazione del flusso luminoso, la cui frequenza è determinata dalla tecnologia utilizzata nell'alimentatore.

il primo, è causa di distrazioni e a lungo andare anche di disturbi più gravi come le cefalee, ma non sempre è sempre visibile e riconoscibile ad occhio nudo, seppure dannoso.

il secondo è percepito soprattutto nel momento in cui vi sono macchinari o oggetti in movimento, quali ad esempio un tornio, con cui si può creare una pericolosa illusione ottica tale per cui l'attrezzo può sembrare addirittura fermo, determinando così una situazione anche di estremo pericolo.



lo sfarfallamento e l'effetto stroboscopico si possono evitare utilizzando alimentatori e dimmer di elevata qualità, in grado di produrre pulsazioni ad alta frequenza o di utilizzare altre tecniche di regolazione dell'alimentazione, private di pulsazione. La norma non specifica particolari parametri limite da rispettare, altre norme sono state dedicate alla definizione dei confini oltre i quali questi effetti di ventano nocivì o pericolosi: tra le più diffuse la norma IEEE1789 e IEC TR 61547-1.

standard UNI EN 12464-1 aims to define the lighting requirements for indoor workstations in order to ensure the comfort and visual performance of people with normal ophthalmic capacity.

all regular Visual tasks are covered, broken down by types of activities, including those involving the use of Visual display units.

The requirements were defined on the basis of three main human needs:

1. Visual comfort, i.e. the well-being of the worker, which indirectly also contributes to higher quality and productivity

2. Visual performance, also taking into account the different possible circumstances and duration of the work activity

3. safety  
this standard evaluates the quality of both natural and artificial light according to the following parameters:

- 3.1. luminance distribution
- 3.2. illuminance
- 3.3. light directionality
- 3.4. light Variability
- 3.5. colour rendering and apparent colour of the light
- 3.6. glare

### 3.7. flickering and the stroboscopic effect

for the calculation of luminance, the standard recommends the following Values on the main surfaces:

ceiling  
from 0.7 to 0.9;  
walls  
from 0.5 to 0.8;  
worktops  
from 0.2 to 0.7;  
floor  
from 0.2 to 0.4.

illuminance and its distribution have a significant impact on the speed, safety, and comfort with which a person performs the visual task. For this reason the standard recommends evaluating the average illuminance ( $E_m$ ), measured in lux ( $lx$ ), and its uniformity ( $U_0$ ) over the following four factors:

3.2.1. surface of the Visual task.  
 aVerage illuminance and uniformity  
 leVels are specified for each type  
 of area and actiVity, according to  
 requirements, by means of a specific  
 table. for offices with VDT work, the  
 standard indicates  $Em \geq 500$  lux and  
 $UO \geq 0.60$

3.2.2. surrounding area: the illuminance may be lower than that specified for the task area, but must not be less than the following Values:

task (Em)  
≥ 750 lx  
500 lx  
300 lx  
200 lx  
< 200 lx surrounding areas (Em)  
500 lx

300 lx  
300 lx  
200 lx  
150 lx  
same Em as the Visual task  
required uniformity:  $U_0 \geq 0.40$

### 3.2.3. background: an average

Illuminance Em equal to or greater than 1/3 of the illuminance in the respective surrounding area is indicated. the required uniformity is always  $U_0 \geq 0.40$ .

Furthermore, the standard requires the following more general constraints to be observed:

- for continuously occupied areas, illuminance must be no less than 200 lx.
- wall surfaces must always have the following illuminance:  $E_m \geq 50$  lx and  $U_{10} \geq 0.10$ .

ceiling surfaces must always have the following illuminance:  $E_m \geq 30 \text{ lx}$  and  $U_0 \geq 0.10$

The standard also requires that average illuminance always means maintained illuminance, that is, the illuminance that must be guaranteed by the lighting installation net of the reduced efficiency evaluated on the basis of:

i. the ageing of the lighting fixtures, light source, and optical components;

b. the type of area, which in turn allows the amount and speed with which dust accumulates on room surfaces.

the frequency of maintenance and cleaning of the lighting fixtures as

This information is used to calculate the maintenance factor (MF), a parameter with a value between 0 and 1 that expresses precisely the drop in performance of the lighting installation after a certain period of time compared to its initial performance, calculated in the period immediately following installation.

The directionality of the light makes it possible to emphasise the details

in the Visual task, making them Visible and at the same time facilitating the work. This type of interface also allows the creation of windows that, if properly designed, help increase the visibility of objects and their depth. At the same time, the standard draws attention to the possible risks: if the windows generated are not properly designed, they can interfere with the performance of the Visual task.

Variability of light throughout the day can be achieved through a combination of natural and artificial light, involving various parameters such as surface illuminance,inance distribution, and colour temperature variation. Although standard EN12464-1 does not go into detail on how to implement these changes, it does recognise their effectiveness and usefulness in terms of stimulating people's activity and well-being. In this respect, it also mentions the circadian cycle, which is the rhythm and the complex mechanisms that are activated within the human body over a 24-hour period and that is certainly influenced by the light perceived by an individual.

quality of the Visual task and its performance depend in particular on colour rendering of the light and apparent colour.

There are two different concepts, which, although linked to colour, must be considered separately as they are independent of each other.

**colour rendering** of light, denoted by the symbol Ra, indicates the ability of light in a space to correctly reveal all colours and is indicated by an integer with a maximum value of 100, which is equivalent to a perfect and uniform rendering of all colours, such as that of sunlight.

This parameter has a direct

relationship with Visual comfort and performance, as it determines whether the individual can correctly identify objects and finishes as they appear naturally. A low Ra index subsequently leads to an alteration in the colour range of illuminated objects.

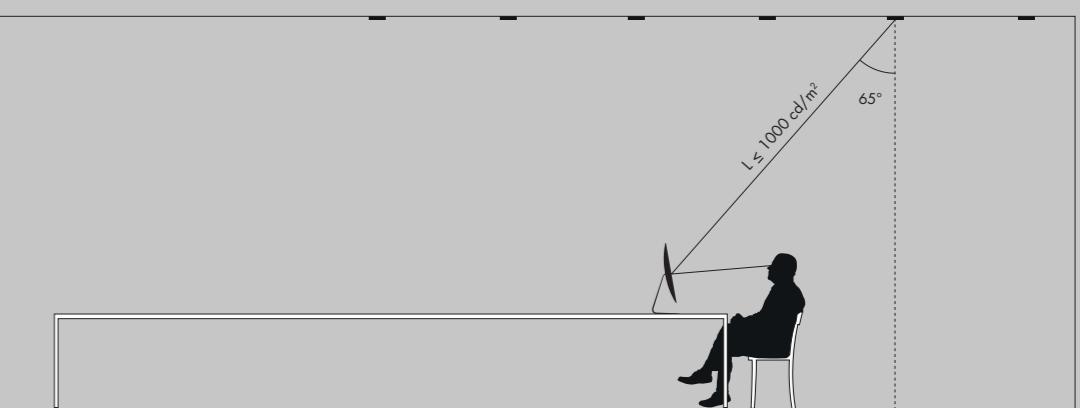
**apparent colour** of a lamp refers instead to the shade of white light it produces and is identified by the correlated colour temperature (CCT) indicated with the symbol TCP. this parameter has no direct influence on colour rendering. The choice of the apparent colour of light depends on psychological and aesthetic factors and is usually made according to the finish of the space, architecture and, above all, the climate: in warmer geographical areas a cold light is usually preferred conversely, in regions with a harsher climate, a warm light is preferred. These reasons, the colour temperature is not usually specified according to the type of work

Vity, except for some particular as such as pharmaceutical oratories for colour inspection, for ch a temperature between 6000 and 6500 K is required.

In particular, reflections on equipment and machinery equipped with monitors (called DSE: display screen equipment) and reflections on keyboards can cause disability and discomforting glare in some circumstances. For this reason, the standard advises to select, locate, and arrange equipment in order to avoid reflections with high brightness, taking as a reference a vertical monitor or, at most, a monitor tilted by 15°. Average luminance limits are then indicated, evaluated for elevation angles of 65° and higher, in relation to the vertical, depending on the quality of the screen (classification defined by ISO 9241-307):

aVerage luminance of the lighting fixtures  
 $\leq 1000 \text{ cd/m}^2$        $\leq 200 \text{ cd/m}^2$

the image below shows how the possibility of reflections on a screen is further increased by the widespread use of smart deVices (phones, tablets, laptops) in which the angle of the screen is not fixed. this makes it eVen more complex to design the lighting, which therefore requires targeted checks for



**certificazione leed  
leed certification**



leed, or leadership in energy and environmental design, is the most widespread green building voluntary assessment system in the world. green building is the practice of designing, building and managing buildings in an integrated way, to maximize the health and productivity of the occupants, use less resources, reduce waste and negative environmental impacts, reduce life cycle costs. leed certification assesses the sustainability of a building of any category by recognizing its performance in different classification areas, from its own design to effective construction.

leed, o leadership nel campo energetico e della progettazione ambientale, è il sistema di valutazione volontaria per la bioedilizia più diffuso al mondo.

la bioedilizia è la pratica di progettare, costruire e gestire edifici in modo integrato, per massimizzare l'accoglienza e la produttività degli occupanti, utilizzare meno risorse, ridurre gli sprechi e l'impatto ambientale dannoso, ridurre i costi del ciclo di vita. la certificazione leed valuta la sostenibilità di un edificio di qualsiasi categoria riconoscendone le prestazioni

con classificazioni per le diverse aree; dal proprio design all'effettiva efficacia della costruzione.

le aree di classificazione sono:

- 1 sostenibilità del sito
- 2 efficiente gestione dell'acqua
- 3 energia e ambiente
- 4 materiali e risorse
- 5 qualità degli interni
- 6 innovazione nel design
- 7 priorità locali

In relazione all'abbagliamento riflesso in presenza di videoterminali, la certificazione leed prescrive:  
 $L \leq 7000 \text{ cd/m}^2$  per angoli  $\gamma \geq 45^\circ$

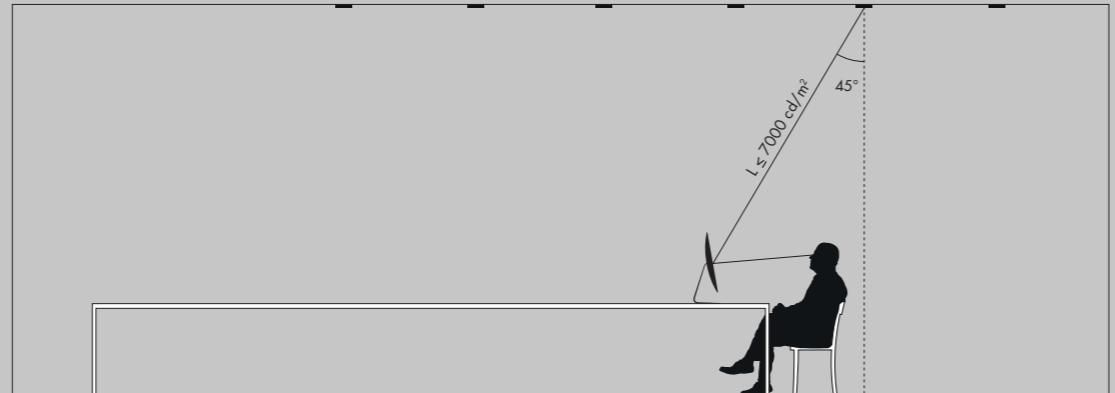
i sistemi di illuminazione viabizzuno sono progettati rispettando i parametri di certificazione leed nell'ambito della qualità degli ambienti interni.

classification areas:

- 1 site sustainability
- 2 efficient water management
- 3 energy and atmosphere
- 4 materials and resources
- 5 indoor quality
- 6 innovation in design
- 7 regional priorities

regarding reflected glare in presence of display screen equipment, leed certification requires:  
 $L \leq 7000 \text{ cd/m}^2$  at angles  $\gamma \geq 45^\circ$

viabizzuno lighting systems are designed respecting the parameters of the leed certification within the quality of the indoor environments.



**certificazione well  
well certification**



the well certification deals with evaluating the health and mental well-being conditions of the users of an internal environment; it is based on concepts that are born to better manage and live the time spent in closed environments, that is about ninety percent of our day. these concepts apply mostly on workplaces, places where the achievement of a serenity condition can also have positive implications for the productivity of the entire company. the aspects that the well certification aims to evaluate are:

- 1 psychophysical well-being
- 2 thermal comfort
- 3 movement
- 4 light
- 5 power supply
- 6 water
- 7 air
- 8 sound
- 9 materials
- 10 community

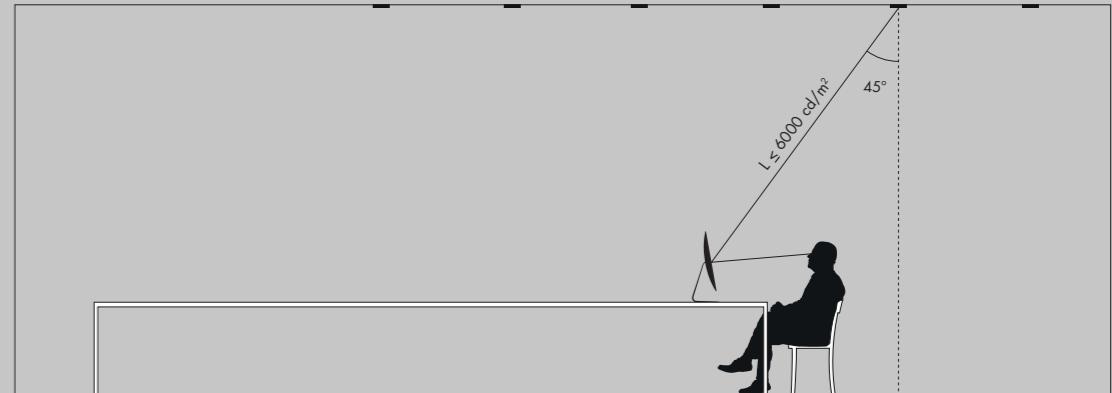
regarding reflected glare in presence of display screen equipment, leed certification requires:  
 $L \leq 6000 \text{ cd/m}^2$  at angles  $\gamma \geq 45^\circ$

analyzing the light of an internal space, the well certification, through objective measurements, assesses how a built space receives the light and warmth essential to health and serenity.

- 1 benessere psicofisico
- 2 comfort termico
- 3 movimento
- 4 luce
- 5 alimentazione
- 6 acqua
- 7 aria
- 8 suono
- 9 materiali
- 10 comunità

In relazione all'abbagliamento riflesso in presenza di videoterminali, la certificazione well prescrive:  
 $L \leq 6000 \text{ cd/m}^2$  per angoli  $\gamma \geq 45^\circ$

analizzando la luce di uno spazio interno, la certificazione well, tramite il rilevamento con misurazioni oggettive, valuta come spazio costruito riceve la luce e il calore, elementi essenziali per la salute e il benessere.



## deviazione cromatica delle sorgenti luminose chromatic deViation of light sources

tutte le sorgenti luminose, a causa dei processi di produzione presentano una inevitabile variazione dei parametri tecnici per cui le caratteristiche cromatiche ed illuminotecniche della luce emessa, possono variare anche tra sorgenti a Venti le stesse caratteristiche nominali. macadam definì all'interno del diagramma CIE della scala cromatica sulle coordinate xy delle ellissi per descrivere le deviazioni cromatiche, suddivise su una scala da 1 a 7; maggiore è la dimensione dell'ellisse e tanto più la qualità della luce risulta disomogenea. osservando simultaneamente due sorgenti luminose risulta che:

1-step sdcm l'ellisse corrispondente è talmente piccola che non è percepibile nessuna differenza cromatica tra le sorgenti,

2-step sdcm significa che non vi è quasi alcuna differenza cromatica visibile.

all the light sources, due to the production processes could have variation of the lighting parameters, so that the chromatic and illuminotecnical characteristics of the light emitted can vary even between sources with the same technical characteristics.

macadam defined some

ellipses

xy coordinates on the

CIE

diagram of the chromatic

range to describe the chromatic

deviations, evaluated on 1 to 7 scale.

bigger

is the ellipse than

larger

is the

irregularity

of the light.

observing simultaneously

two light source results as follows:

1-step sdcm

the corresponding ellipse

is so small

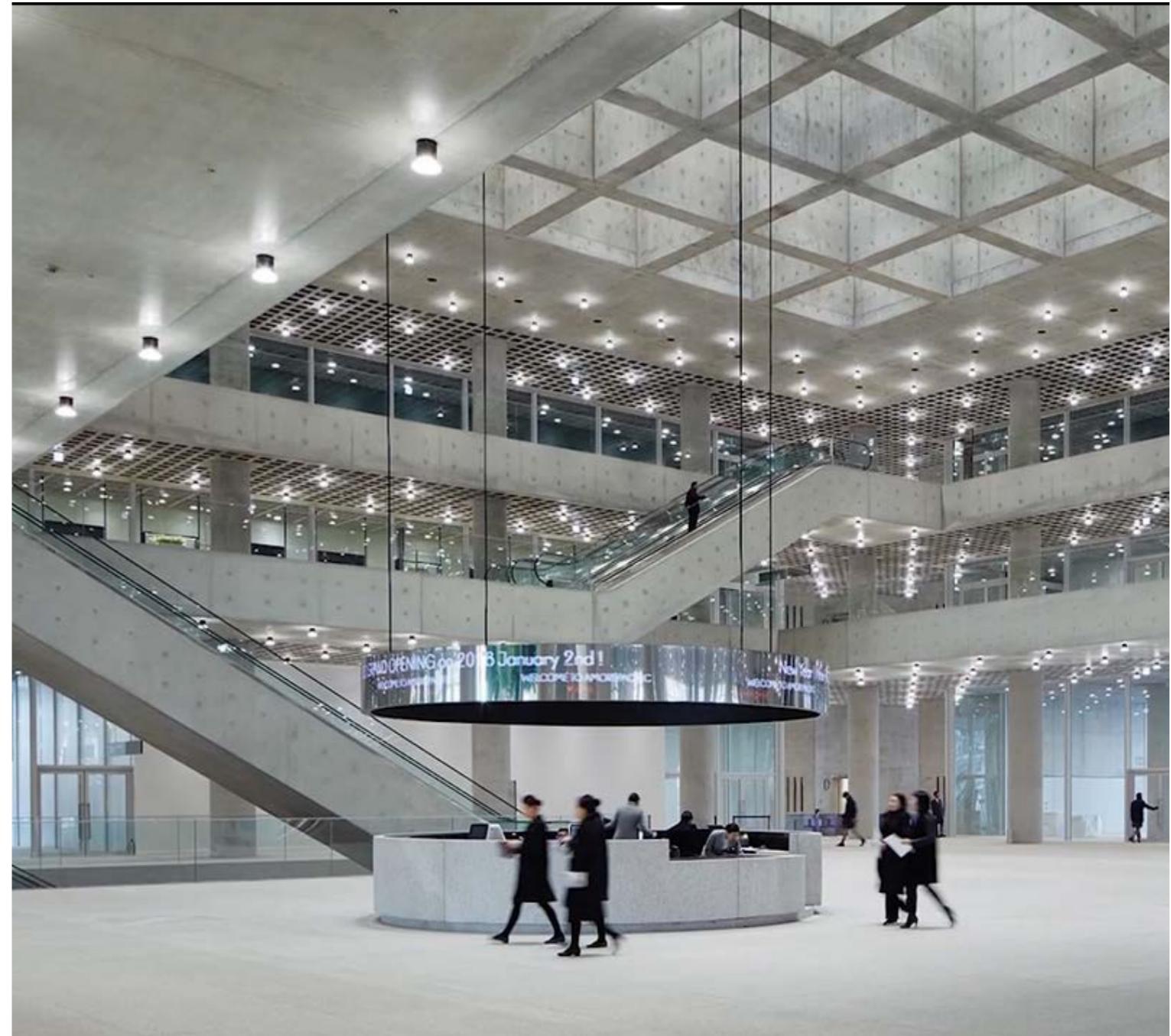
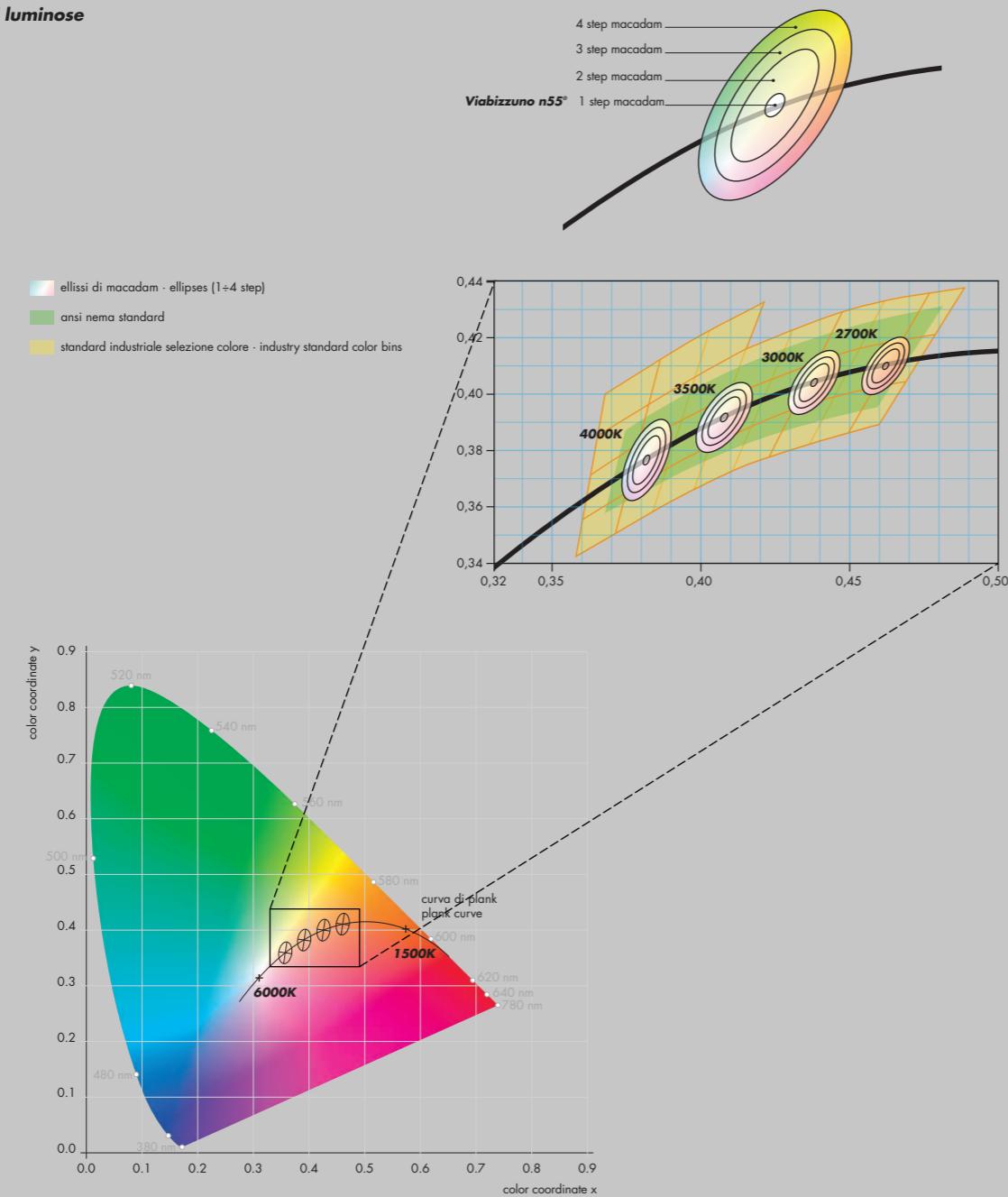
that no difference is

perceptible

between the two sources,

2-step sdcm means that there is almost

no visible color difference.



## indice di resa cromatica colour rendering index

### CRI / Ra 98

secondo lo standard CIE, si Valutano le sorgenti elettroniche led solo nei primi 8 riferimenti di colore: da R1 a R8.

nella nostra selezione disorgenti elettroniche, abbiamo introdotto altri 7 campioni di colore: da R9 a R15 che sono già considerati come indici aggiuntivi CIE e fanno riferimento soprattutto ai colori saturi e ai colori della pelle fondamentali per l'utilizzo nell'ambito residenziale e dell'alta moda. le temperature di colore a disposizione sono 2700K, 3000K, 3000Vb K e 4000K. l'accuRata selezione delle sorgenti elettroniche e un'altissima tecnologia dei fosfori applicata ci ha permesso di avere il Vled xm000 con Ra 98.

### ies tm-30

è il metodo di Valutazione della luce di qualità che determina quanto naturali appaiano i colori degli oggetti da essa illuminati, su un campione di 99 colori calcolando due diversi indici:

#### Rf

- indice di fedeltà colore (color fidelity index) con Valori 0÷100, dove 100 rappresenta il risultato ottimale, ottenuto come media sui 99 colori campione;

#### Rg

- indice di saturazione colore (color gamut index) con Valori 60 < Rg < 140 range, where Rg>100 are the supersaturated colors compared to the reference, and Rg<100 are the undersaturated colors compared to the reference.

### CRI / Ra 98

according to CIE standard, led sources are evaluated in the first 8 color references only: from R1 to R8.

in our led sources selection we introduced 7 additional colour samples:

from R9 to R15 that are already considered as additional CIE index referring mainly to the saturated colors and the skin colors fundamentals in residential and haute couture field. the available color temperatures are 2700K, 3000K, 3000Vb K and 4000K. the accurate led sources selection and the really high phosphors technology allowed us to obtain the Vled xm000 with Ra 98.

### ies tm-30

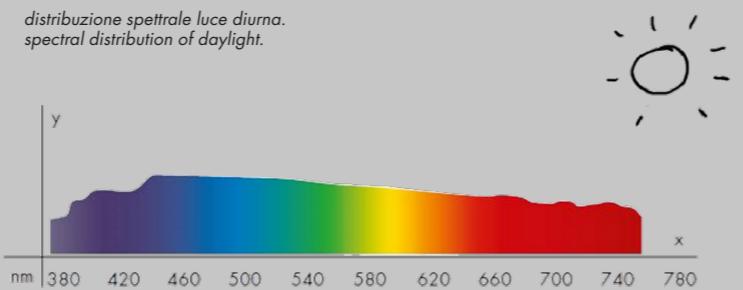
it is the method of assessing the quality of light that determines how natural can appear the colours of the illuminated objects on a 99 colours sample, calculating two different indexes:

#### Rf

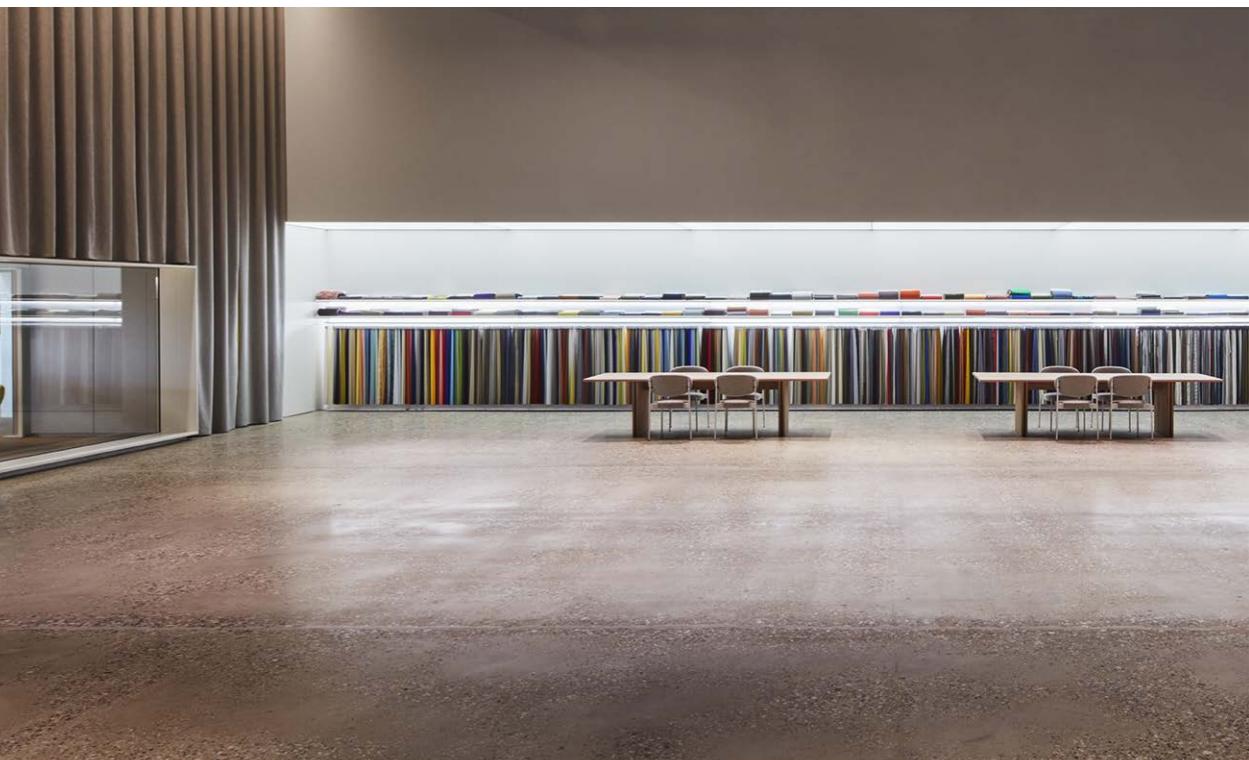
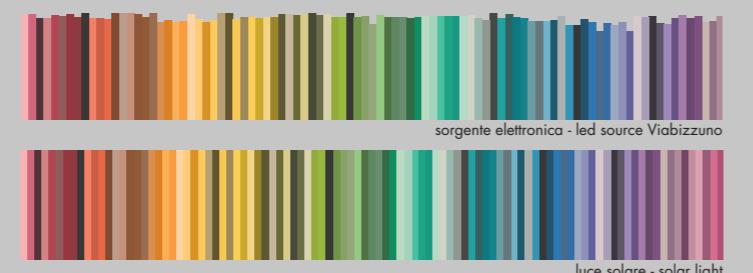
- color fidelity index with 0÷100 range, where 100 is the optimal result obtained as average of 99 sample colors;

#### Rg

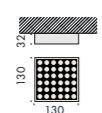
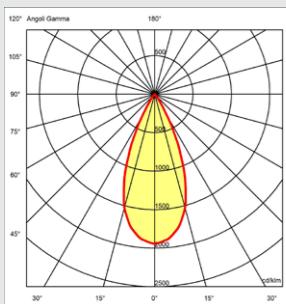
- color gamut index with 60 < Rg < 140 range, where Rg>100 are the supersaturated colors compared to the reference, and Rg<100 are the undersaturated colors compared to the reference.



Ra	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
98	98	99	98	98	98	97	98	98	98	99	98	98	98	98	98



gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



**mn soffitto 01 130X130 h.32**

			IP40	C	E	☆	i
<b>Vb5.650.001</b>	nero55			2700K	44°	2	
<b>Vb5.650.007</b>	argento hacca			2700K	44°	2	
<b>Vb5.650.013</b>	biancoV			2700K	44°	2	

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	250	24.8	771	6.2	124
					350	25.5	1047	8.9	118
					500	26.0	1414	13.0	109

mn2797p1 vita media · average life 80000 h L90 B10

UGR<10

Lmγ>65° < 1000cd/m<sup>2</sup>

Lmγ>45° < 6000cd/m<sup>2</sup>

<b>Vb5.650.002</b>	nero55			3000K	44°	2	
<b>Vb5.650.008</b>	argento hacca			3000K	44°	2	
<b>Vb5.650.014</b>	biancoV			3000K	44°	2	

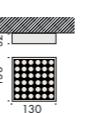
Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	250	24.8	817	6.2	132
					350	25.5	1109	8.9	125
					500	26.0	1498	13.0	115

mn3097p1 vita media · average life 80000 h L90 B10

<b>Vb5.650.003</b>	nero55			3500K	44°	2	
<b>Vb5.650.009</b>	argento hacca			3500K	44°	2	
<b>Vb5.650.015</b>	biancoV			3500K	44°	2	

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	250	24.8	840	6.2	135
					350	25.5	1140	8.9	128
					500	26.0	1539	13.0	118

mn3597p1 vita media · average life 80000 h L90 B10



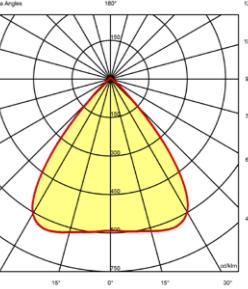
**mn soffitto 01 130X130 h.32**

		IP40	C	E	☆	i
<b>Vb5.650.004</b>	nero55			2700K	70°	2
<b>Vb5.650.010</b>	argento hacca			2700K	70°	2
<b>Vb5.650.016</b>	biancoV			2700K	70°	2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	250	24.8	771	6.2	124
					350	25.5	1047	8.9	118
					500	26.0	1414	13.0	109

mn2797p1 vita media · average life 80000 h L90 B10

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

<b>Vb5.650.005</b>	nero55			3000K	70°	2	
<b>Vb5.650.011</b>	argento hacca			3000K	70°	2	
<b>Vb5.650.017</b>	biancoV			3000K	70°	2	

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	250	24.8	817	6.2	132
					350	25.5	1109	8.9	125
					500	26.0	1498	13.0	115

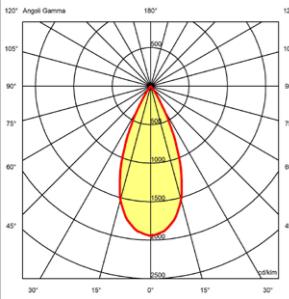
mn3097p1 vita media · average life 80000 h L90 B10

<b>Vb5.650.006</b>	nero55			3500K	70°	2	
<b>Vb5.650.012</b>	argento hacca			3500K	70°	2	
<b>Vb5.650.018</b>	biancoV			3500K	70°	2	

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	250	24.8	840	6.2	135
					350	25.5	1140	8.9	128
					500	26.0	1539	13.0	118

mn3597p1 vita media · average life 80000 h L90 B10

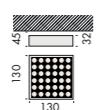
gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lm<sub>y</sub>>65° < 1000cd/m<sup>2</sup>

Lm<sub>y</sub>>45° < 6000cd/m<sup>2</sup>



**mn soffitto 01 130X130 a.i. h.45**

240V 50/60Hz CE

<b>Vb5.650.145</b>	nero55	on-off	2700K	44°	2
<b>Vb5.650.151</b>	argento hacca	on-off	2700K	44°	2
<b>Vb5.650.157</b>	biancoV	on-off	2700K	44°	2
<b>Vb5.650.289</b>	nero55	dali	2700K	44°	2
<b>Vb5.650.295</b>	argento hacca	dali	2700K	44°	2
<b>Vb5.650.301</b>	biancoV	dali	2700K	44°	2
<b>Vb5.650.433</b>	nero55	casambi	2700K	44°	2
<b>Vb5.650.439</b>	argento hacca	casambi	2700K	44°	2
<b>Vb5.650.445</b>	biancoV	casambi	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	500	26.0	1414	13.0
vita media · average life 80000 h L90 B10								

**Vb5.650.146** nero55 on-off 3000K 44° 2

**Vb5.650.152** argento hacca on-off 3000K 44° 2

**Vb5.650.158** biancoV on-off 3000K 44° 2

**Vb5.650.290** nero55 dali 3000K 44° 2

**Vb5.650.296** argento hacca dali 3000K 44° 2

**Vb5.650.302** biancoV dali 3000K 44° 2

**Vb5.650.434** nero55 casambi 3000K 44° 2

**Vb5.650.440** argento hacca casambi 3000K 44° 2

**Vb5.650.446** biancoV casambi 3000K 44° 2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	500	26.0	1498	13.0
vita media · average life 80000 h L90 B10								

**Vb5.650.147** nero55 on-off 3500K 44° 2

**Vb5.650.153** argento hacca on-off 3500K 44° 2

**Vb5.650.159** biancoV on-off 3500K 44° 2

**Vb5.650.291** nero55 dali 3500K 44° 2

**Vb5.650.297** argento hacca dali 3500K 44° 2

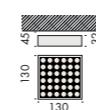
**Vb5.650.303** biancoV dali 3500K 44° 2

**Vb5.650.435** nero55 casambi 3500K 44° 2

**Vb5.650.441** argento hacca casambi 3500K 44° 2

**Vb5.650.447** biancoV casambi 3500K 44° 2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	500	26.0	1539	13.0
vita media · average life 80000 h L90 B10								



**mn soffitto 01 130X130 a.i. h.45**

240V 50/60Hz CE

<b>Vb5.650.148</b>	nero55	on-off	2700K	70°	2
<b>Vb5.650.154</b>	argento hacca	on-off	2700K	70°	2
<b>Vb5.650.160</b>	biancoV	on-off	2700K	70°	2
<b>Vb5.650.292</b>	nero55	dali	2700K	70°	2
<b>Vb5.650.298</b>	argento hacca	dali	2700K	70°	2
<b>Vb5.650.304</b>	biancoV	dali	2700K	70°	2
<b>Vb5.650.436</b>	nero55	casambi	2700K	70°	2
<b>Vb5.650.442</b>	argento hacca	casambi	2700K	70°	2
<b>Vb5.650.448</b>	biancoV	casambi	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	500	26.0	1414	13.0
vita media · average life 80000 h L90 B10								

**Vb5.650.149** nero55 on-off 3000K 70° 2

**Vb5.650.155** argento hacca on-off 3000K 70° 2

**Vb5.650.161** biancoV on-off 3000K 70° 2

**Vb5.650.293** nero55 dali 3000K 70° 2

**Vb5.650.299** argento hacca dali 3000K 70° 2

**Vb5.650.305** biancoV dali 3000K 70° 2

**Vb5.650.437** nero55 casambi 3000K 70° 2

**Vb5.650.443** argento hacca casambi 3000K 70° 2

**Vb5.650.449** biancoV casambi 3000K 70° 2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	500	26.0	1498	13.0
vita media · average life 80000 h L90 B10								

**Vb5.650.150** nero55 on-off 3500K 70° 2

**Vb5.650.156** argento hacca on-off 3500K 70° 2

**Vb5.650.162** biancoV on-off 3500K 70° 2

**Vb5.650.294** nero55 dali 3500K 70° 2

**Vb5.650.300** argento hacca dali 3500K 70° 2

**Vb5.650.306** biancoV dali 3500K 70° 2

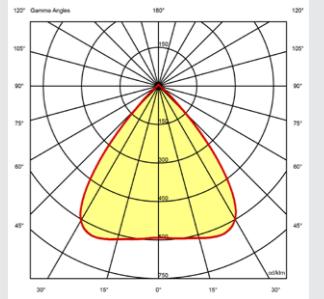
**Vb5.650.438** nero55 casambi 3500K 70° 2

**Vb5.650.444** argento hacca casambi 3500K 70° 2

**Vb5.650.450** biancoV casambi 3500K 70° 2

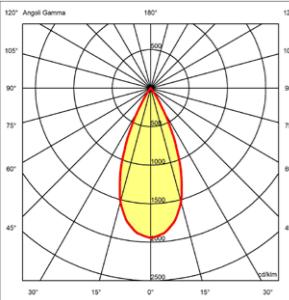
Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	500	26.0	1539	13.0
vita media · average life 80000 h L90 B10								

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°

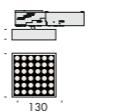
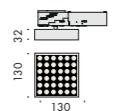


UGR<10

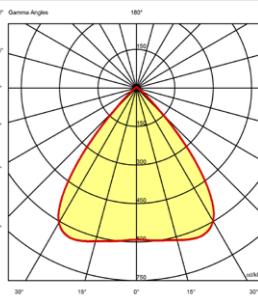
Lmγ > 65° < 1000cd/m<sup>2</sup>

Lmγ > 45° < 6000cd/m<sup>2</sup>

mn adattatore A1 O1 130X130 h.32			48Vdc			IP40		CE	
<b>Vb7.650.331</b>	nero55 · nero	on-off		2700K	44°			2	
<b>Vb7.650.337</b>	argento hacca · nero	on-off		2700K	44°			2	
<b>Vb7.650.343</b>	biancoV · nero	on-off		2700K	44°			2	
<b>Vb7.650.439</b>	nero55 · nero	casambi		2700K	44°			2	
<b>Vb7.650.445</b>	argento hacca · nero	casambi		2700K	44°			2	
<b>Vb7.650.451</b>	biancoV · nero	casambi		2700K	44°			2	



gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

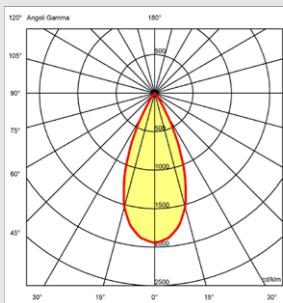
<b>Vb7.650.332</b>	nero55 · nero	on-off	3000K	44°	2
<b>Vb7.650.338</b>	argento hacca · nero	on-off	3000K	44°	2
<b>Vb7.650.344</b>	biancoV · nero	on-off	3000K	44°	2
<b>Vb7.650.440</b>	nero55 · nero	casambi	3000K	44°	2
<b>Vb7.650.446</b>	argento hacca · nero	casambi	3000K	44°	2
<b>Vb7.650.452</b>	biancoV · nero	casambi	3000K	44°	2

<b>Vb7.650.335</b>	nero55 · nero	on-off	3000K	70°	2			
<b>Vb7.650.341</b>	argento hacca · nero	on-off	3000K	70°	2			
<b>Vb7.650.347</b>	biancoV · nero	on-off	3000K	70°	2			
<b>Vb7.650.443</b>	nero55 · nero	casambi	3000K	70°	2			
<b>Vb7.650.449</b>	argento hacca · nero	casambi	3000K	70°	2			
<b>Vb7.650.455</b>	biancoV · nero	casambi	3000K	70°	2			
Ra	R9	ies tm-30	sdcm	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	500	26.0	1498	13.0
mn3097p1		vita media · average life	80000 h	I90	B10			

<b>Vb7.650.333</b>	nero55 · nero	on-off	3500K	44°	2
<b>Vb7.650.339</b>	argento hacca · nero	on-off	3500K	44°	2
<b>Vb7.650.345</b>	biancoV · nero	on-off	3500K	44°	2
<b>Vb7.650.441</b>	nero55 · nero	casambi	3500K	44°	2
<b>Vb7.650.447</b>	argento hacca · nero	casambi	3500K	44°	2
<b>Vb7.650.453</b>	biancoV · nero	casambi	3500K	44°	2

<b>Vb7.650.336</b>	nero55 · nero	on-off	3500K	44°	2
<b>Vb7.650.342</b>	argento hacca · nero	on-off	3500K	44°	2
<b>Vb7.650.348</b>	biancoV · nero	on-off	3500K	44°	2
<b>Vb7.650.444</b>	nero55 · nero	casambi	3500K	44°	2
<b>Vb7.650.450</b>	argento hacca · nero	casambi	3500K	44°	2
<b>Vb7.650.456</b>	biancoV · nero	casambi	3500K	44°	2

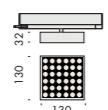
gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lmγ>65° < 1000cd/m²

Lmγ>45° < 6000cd/m²



mn adattatore VbB 01 130x130 h.32			240V 50/60Hz	A	IP40	▲	CE	●
<b>Vb7.650.001</b>	nero55 · nero	on-off	2700K	44°	2			
<b>Vb7.650.007</b>	argento hacca · nero	on-off	2700K	44°	2			
<b>Vb7.650.013</b>	biancoV · bianco	on-off	2700K	44°	2			
<b>Vb7.650.109</b>	nero55 · nero	dali	2700K	44°	2			
<b>Vb7.650.115</b>	argento hacca · nero	dali	2700K	44°	2			
<b>Vb7.650.121</b>	biancoV · bianco	dali	2700K	44°	2			
<b>Vb7.650.217</b>	nero55 · nero	casambi	2700K	44°	2			
<b>Vb7.650.223</b>	argento hacca · nero	casambi	2700K	44°	2			
<b>Vb7.650.229</b>	biancoV · bianco	casambi	2700K	44°	2			

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	500	26.0	1414	13.0
vita media · average life 80000 h L90 B10								

**Vb7.650.002** nero55 · nero on-off 3000K 44° 2

**Vb7.650.008** argento hacca · nero on-off 3000K 44° 2

**Vb7.650.014** biancoV · bianco on-off 3000K 44° 2

**Vb7.650.110** nero55 · nero dali 3000K 44° 2

**Vb7.650.116** argento hacca · nero dali 3000K 44° 2

**Vb7.650.122** biancoV · bianco dali 3000K 44° 2

**Vb7.650.218** nero55 · nero casambi 3000K 44° 2

**Vb7.650.224** argento hacca · nero casambi 3000K 44° 2

**Vb7.650.230** biancoV · bianco casambi 3000K 44° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	500	26.0	1498	13.0
vita media · average life 80000 h L90 B10								

**Vb7.650.003** nero55 · nero on-off 3500K 44° 2

**Vb7.650.009** argento hacca · nero on-off 3500K 44° 2

**Vb7.650.015** biancoV · bianco on-off 3500K 44° 2

**Vb7.650.111** nero55 · nero dali 3500K 44° 2

**Vb7.650.117** argento hacca · nero dali 3500K 44° 2

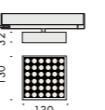
**Vb7.650.123** biancoV · bianco dali 3500K 44° 2

**Vb7.650.219** nero55 · nero casambi 3500K 44° 2

**Vb7.650.225** argento hacca · nero casambi 3500K 44° 2

**Vb7.650.231** biancoV · bianco casambi 3500K 44° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	500	26.0	1539	13.0
vita media · average life 80000 h L90 B10								



mn adattatore VbB 01 130x130 h.32			240V 50/60Hz	A	IP40	▲	CE	●
<b>Vb7.650.004</b>	nero55 · nero	on-off	2700K	70°	2			
<b>Vb7.650.010</b>	argento hacca · nero	on-off	2700K	70°	2			
<b>Vb7.650.016</b>	biancoV · bianco	on-off	2700K	70°	2			
<b>Vb7.650.112</b>	nero55 · nero	dali	2700K	70°	2			
<b>Vb7.650.118</b>	argento hacca · nero	dali	2700K	70°	2			
<b>Vb7.650.124</b>	biancoV · bianco	dali	2700K	70°	2			
<b>Vb7.650.220</b>	nero55 · nero	casambi	2700K	70°	2			
<b>Vb7.650.226</b>	argento hacca · nero	casambi	2700K	70°	2			
<b>Vb7.650.232</b>	biancoV · bianco	casambi	2700K	70°	2			

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	500	26.0	1414	13.0
vita media · average life 80000 h L90 B10								

**Vb7.650.005** nero55 · nero on-off 3000K 70° 2

**Vb7.650.011** argento hacca · nero on-off 3000K 70° 2

**Vb7.650.017** biancoV · nero on-off 3000K 70° 2

**Vb7.650.113** nero55 · nero dali 3000K 70° 2

**Vb7.650.119** argento hacca · nero dali 3000K 70° 2

**Vb7.650.125** biancoV · nero dali 3000K 70° 2

**Vb7.650.221** nero55 · nero casambi 3000K 70° 2

**Vb7.650.227** argento hacca · nero casambi 3000K 70° 2

**Vb7.650.233** biancoV · bianco casambi 3000K 70° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	500	26.0	1498	13.0
vita media · average life 80000 h L90 B10								

**Vb7.650.006** nero55 · nero on-off 3500K 70° 2

**Vb7.650.012** argento hacca · nero on-off 3500K 70° 2

**Vb7.650.018** biancoV · nero on-off 3500K 70° 2

**Vb7.650.114** nero55 · nero dali 3500K 70° 2

**Vb7.650.120** argento hacca · nero dali 3500K 70° 2

**Vb7.650.126** biancoV · nero dali 3500K 70° 2

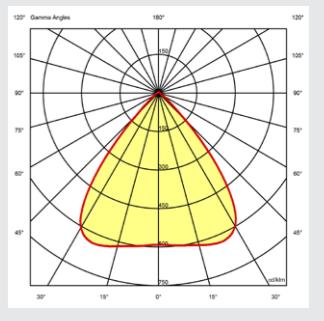
**Vb7.650.222** nero55 · nero casambi 3500K 70° 2

**Vb7.650.228** argento hacca · nero casambi 3500K 70° 2

**Vb7.650.234** biancoV · bianco casambi 3500K 70° 2

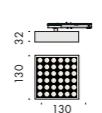
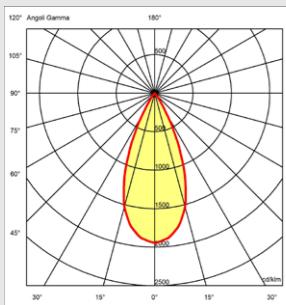
Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	500	26.0	1539	13.0
vita media · average life 80000 h L90 B10								

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



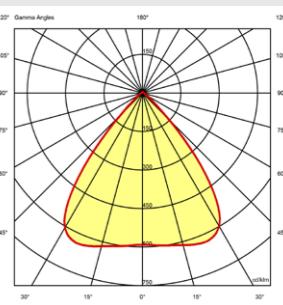
mn adattatore traccia sistema 01 130X130 h.32		24Vdc							
Vb7.650.551	nero55 · nero	pwm	2700K	44°	2				
Vb7.650.557	argento hacca · nero	pwm	2700K	44°	2				
Vb7.650.563	my bianco · nero	pwm	2700K	44°	2				
Vb7.650.623	nero55 · nero	casambi	2700K	44°	2				
Vb7.650.629	argento hacca · nero	casambi	2700K	44°	2				
Vb7.650.635	my bianco · nero	casambi	2700K	44°	2				
Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	500	17.0	997	8.5	117
mn2797plv1		vita media · average life		70000 h		l90 B10			

UGR<10

Lmγ>65° < 1000cd/m<sup>2</sup>  
Lmγ>45° < 6000cd/m<sup>2</sup>

mn adattatore traccia sistema 01 130X130 h.32		24Vdc							
Vb7.650.554	nero55 · nero	pwm	2700K	70°	2				
Vb7.650.560	argento hacca · nero	pwm	2700K	70°	2				
Vb7.650.566	my bianco · nero	pwm	2700K	70°	2				
Vb7.650.626	nero55 · nero	casambi	2700K	70°	2				
Vb7.650.632	argento hacca · nero	casambi	2700K	70°	2				
Vb7.650.638	my bianco · nero	casambi	2700K	70°	2				
Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	500	17.0	997	8.5	117
mn2797plv1		vita media · average life		70000 h		l90 B10			

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

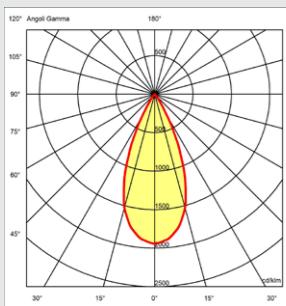
Vb7.650.552	nero55 · nero	pwm	3000K	44°	2				
Vb7.650.558	argento hacca · nero	pwm	3000K	44°	2				
Vb7.650.564	my bianco · nero	pwm	3000K	44°	2				
Vb7.650.624	nero55 · nero	casambi	3000K	44°	2				
Vb7.650.630	argento hacca · nero	casambi	3000K	44°	2				
Vb7.650.636	my bianco · nero	casambi	3000K	44°	2				
Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	500	17.0	1056	8.5	124
mn3097plv1		vita media · average life		70000 h		l90 B10			

Vb7.650.555	nero55 · nero	pwm	3000K	70°	2				
Vb7.650.561	argento hacca · nero	pwm	3000K	70°	2				
Vb7.650.567	my bianco · nero	pwm	3000K	70°	2				
Vb7.650.627	nero55 · nero	casambi	3000K	70°	2				
Vb7.650.633	argento hacca · nero	casambi	3000K	70°	2				
Vb7.650.639	my bianco · nero	casambi	3000K	70°	2				
Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	500	17.0	1056	8.5	124
mn3097plv1		vita media · average life		70000 h		l90 B10			

Vb7.650.553	nero55 · nero	pwm	3500K	44°	2				
Vb7.650.559	argento hacca · nero	pwm	3500K	44°	2				
Vb7.650.565	my bianco · nero	pwm	3500K	44°	2				
Vb7.650.625	nero55 · nero	casambi	3500K	44°	2				
Vb7.650.631	argento hacca · nero	casambi	3500K	44°	2				
Vb7.650.637	my bianco · nero	casambi	3500K	44°	2				
Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	500	17.0	1086	8.5	128
mn3597plv1		vita media · average life		70000 h		l90 B10			

Vb7.650.556	nero55 · nero	pwm	3500K	70°	2				
Vb7.650.562	argento hacca · nero	pwm	3500K	70°	2				
Vb7.650.568	my bianco · nero	pwm	3500K	70°	2				
Vb7.650.628	nero55 · nero	casambi	3500K	70°	2				
Vb7.650.634	argento hacca · nero	casambi	3500K	70°	2				
Vb7.650.640	my bianco · nero	casambi	3500K	70°	2				
Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	500	17.0	1086	8.5	128
mn3597plv1		vita media · average life		70000 h		l90 B10			

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lm γ > 65° < 1000cd/m²  
Lm γ > 45° < 6000cd/m²

**mn incasso 01 130X130 h.26**

IP40 | C E ⚡

<b>Vb6.650.001</b>	nero55	2700K	44°	2
<b>Vb6.650.007</b>	argento hacca	2700K	44°	2
<b>Vb6.650.013</b>	biancoV	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	250	24.8	771	6.2	124
					350	25.5	1047	8.9	118
					500	26.0	1414	13.0	109

mn2797p1 vita media · average life 80000 h L90 B10

**mn incasso 01 130X130 h.26**

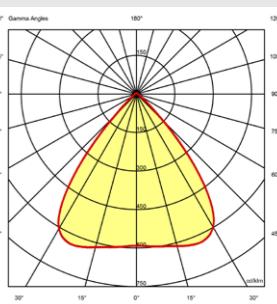
IP40 | C E ⚡

<b>Vb6.650.004</b>	nero55	2700K	70°	2
<b>Vb6.650.010</b>	argento hacca	2700K	70°	2
<b>Vb6.650.016</b>	biancoV	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	250	24.8	771	6.2	124
					350	25.5	1047	8.9	118
					500	26.0	1414	13.0	109

mn2797p1 vita media · average life 80000 h L90 B10

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

<b>Vb6.650.002</b>	nero55	3000K	44°	2
<b>Vb6.650.008</b>	argento hacca	3000K	44°	2
<b>Vb6.650.014</b>	biancoV	3000K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	250	24.8	817	6.2	132
					350	25.5	1109	8.9	125
					500	26.0	1498	13.0	115

mn3097p1 vita media · average life 80000 h L90 B10

<b>Vb6.650.005</b>	nero55	3000K	70°	2
<b>Vb6.650.011</b>	argento hacca	3000K	70°	2
<b>Vb6.650.017</b>	biancoV	3000K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	250	24.8	817	6.2	132
					350	25.5	1109	8.9	125
					500	26.0	1498	13.0	115

mn3097p1 vita media · average life 80000 h L90 B10

<b>Vb6.650.003</b>	nero55	3500K	44°	2
<b>Vb6.650.009</b>	argento hacca	3500K	44°	2
<b>Vb6.650.015</b>	biancoV	3500K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	250	24.8	840	6.2	135
					350	25.5	1140	8.9	128
					500	26.0	1539	13.0	118

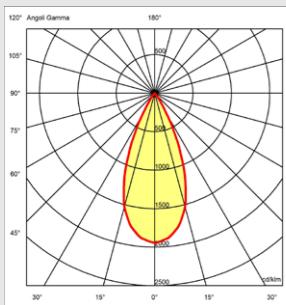
mn3597p1 vita media · average life 80000 h L90 B10

<b>Vb6.650.006</b>	nero55	3500K	70°	2
<b>Vb6.650.012</b>	argento hacca	3500K	70°	2
<b>Vb6.650.018</b>	biancoV	3500K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	250	24.8	840	6.2	135
					350	25.5	1140	8.9	128
					500	26.0	1539	13.0	118

mn3597p1 vita media · average life 80000 h L90 B10

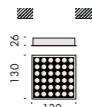
gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lm<sub>y</sub>>65° < 1000cd/m<sup>2</sup>

Lm<sub>y</sub>>45° < 6000cd/m<sup>2</sup>



**mn incasso 01 130X130 a.i. h.26**

240V 50/60Hz

<b>Vb6.650.127</b>	nero55	on-off	2700K	44°	2
<b>Vb6.650.133</b>	argento hacca	on-off	2700K	44°	2
<b>Vb6.650.139</b>	biancoV	on-off	2700K	44°	2
<b>Vb6.650.253</b>	nero55	dali	2700K	44°	2
<b>Vb6.650.259</b>	argento hacca	dali	2700K	44°	2
<b>Vb6.650.265</b>	biancoV	dali	2700K	44°	2
<b>Vb6.650.379</b>	nero55	casambi	2700K	44°	2
<b>Vb6.650.385</b>	argento hacca	casambi	2700K	44°	2
<b>Vb6.650.391</b>	biancoV	casambi	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	500	26.0	1414	13.0
vita media · average life 80000 h L90 B10								

mn2797p1

<b>Vb6.650.128</b>	nero55	on-off	3000K	44°	2
<b>Vb6.650.134</b>	argento hacca	on-off	3000K	44°	2
<b>Vb6.650.140</b>	biancoV	on-off	3000K	44°	2
<b>Vb6.650.254</b>	nero55	dali	3000K	44°	2
<b>Vb6.650.260</b>	argento hacca	dali	3000K	44°	2
<b>Vb6.650.266</b>	biancoV	dali	3000K	44°	2
<b>Vb6.650.380</b>	nero55	casambi	3000K	44°	2
<b>Vb6.650.386</b>	argento hacca	casambi	3000K	44°	2
<b>Vb6.650.392</b>	biancoV	casambi	3000K	44°	2

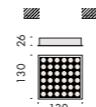
Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	500	26.0	1498	13.0
vita media · average life 80000 h L90 B10								

mn3097p1

<b>Vb6.650.129</b>	nero55	on-off	3500K	44°	2
<b>Vb6.650.135</b>	argento hacca	on-off	3500K	44°	2
<b>Vb6.650.141</b>	biancoV	on-off	3500K	44°	2
<b>Vb6.650.255</b>	nero55	dali	3500K	44°	2
<b>Vb6.650.261</b>	argento hacca	dali	3500K	44°	2
<b>Vb6.650.267</b>	biancoV	dali	3500K	44°	2
<b>Vb6.650.381</b>	nero55	casambi	3500K	44°	2
<b>Vb6.650.387</b>	argento hacca	casambi	3500K	44°	2
<b>Vb6.650.393</b>	biancoV	casambi	3500K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	500	26.0	1539	13.0
vita media · average life 80000 h L90 B10								

mn3597p1



**mn incasso 01 130X130 a.i. h.26**

240V 50/60Hz

<b>Vb6.650.130</b>	nero55	on-off	2700K	70°	2
<b>Vb6.650.136</b>	argento hacca	on-off	2700K	70°	2
<b>Vb6.650.142</b>	biancoV	on-off	2700K	70°	2
<b>Vb6.650.256</b>	nero55	dali	2700K	70°	2
<b>Vb6.650.262</b>	argento hacca	dali	2700K	70°	2
<b>Vb6.650.268</b>	biancoV	dali	2700K	70°	2
<b>Vb6.650.382</b>	nero55	casambi	2700K	70°	2
<b>Vb6.650.388</b>	argento hacca	casambi	2700K	70°	2
<b>Vb6.650.394</b>	biancoV	casambi	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	500	26.0	1414	13.0
vita media · average life 80000 h L90 B10								

mn2797p1



**mn incasso 01 130X130 a.i. h.26**

240V 50/60Hz

<b>Vb6.650.131</b>	nero55	on-off	3000K	70°	2
<b>Vb6.650.137</b>	argento hacca	on-off	3000K	70°	2
<b>Vb6.650.143</b>	biancoV	on-off	3000K	70°	2
<b>Vb6.650.257</b>	nero55	dali	3000K	70°	2
<b>Vb6.650.263</b>	argento hacca	dali	3000K	70°	2
<b>Vb6.650.269</b>	biancoV	dali	3000K	70°	2
<b>Vb6.650.383</b>	nero55	casambi	3000K	70°	2
<b>Vb6.650.389</b>	argento hacca	casambi	3000K	70°	2
<b>Vb6.650.395</b>	biancoV	casambi	3000K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	500	26.0	1498	13.0
vita media · average life 80000 h L90 B10								

mn3097p1



**mn incasso 01 130X130 a.i. h.26**

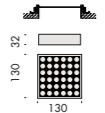
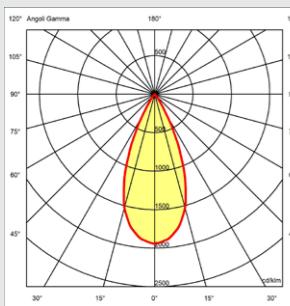
240V 50/60Hz

<b>Vb6.650.132</b>	nero55	on-off	3500K	70°	2
<b>Vb6.650.138</b>	argento hacca	on-off	3500K	70°	2
<b>Vb6.650.144</b>	biancoV	on-off	3500K	70°	2
<b>Vb6.650.258</b>	nero55	dali	3500K	70°	2
<b>Vb6.650.264</b>	argento hacca	dali	3500K	70°	2
<b>Vb6.650.270</b>	biancoV	dali	3500K	70°	2
<b>Vb6.650.384</b>	nero55	casambi	3500K	70°	2
<b>Vb6.650.390</b>	argento hacca	casambi	3500K	70°	2
<b>Vb6.650.396</b>	biancoV	casambi	3500K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V<sub>f</sub> [min]	lm	w	lm/W


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gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



**mn scomparsa totale 01 130X130 h.32**

			IP40	C	E	☆	■
<b>Vb6.650.601</b>	nero55			2700K	44°	2	
<b>Vb6.650.607</b>	argento hacca			2700K	44°	2	
<b>Vb6.650.613</b>	biancoV			2700K	44°	2	

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	250	24.8	771	6.2	124
					350	25.5	1047	8.9	118
					500	26.0	1414	13.0	109

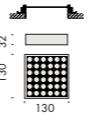
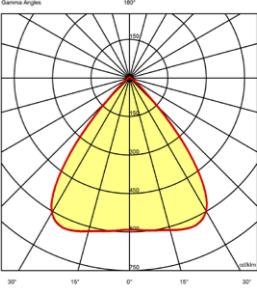
mn2797p1 vita media · average life 80000 h L90 B10

UGR<10

Lmγ>65° < 1000cd/m<sup>2</sup>

Lmγ>45° < 6000cd/m<sup>2</sup>

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



**mn scomparsa totale 01 130X130 h.32**

		IP40	C	E	☆	■
<b>Vb6.650.604</b>	nero55			2700K	70°	2
<b>Vb6.650.610</b>	argento hacca			2700K	70°	2
<b>Vb6.650.616</b>	biancoV			2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	250	24.8	771	6.2	124
					350	25.5	1047	8.9	118
					500	26.0	1414	13.0	109

mn2797p1 vita media · average life 80000 h L90 B10

UGR<19

<b>Vb6.650.602</b>	nero55	3000K	44°	2
<b>Vb6.650.608</b>	argento hacca	3000K	44°	2
<b>Vb6.650.614</b>	biancoV	3000K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	250	24.8	817	6.2	132
					350	25.5	1109	8.9	125
					500	26.0	1498	13.0	115

mn3097p1 vita media · average life 80000 h L90 B10

<b>Vb6.650.605</b>	nero55	3000K	70°	2
<b>Vb6.650.611</b>	argento hacca	3000K	70°	2
<b>Vb6.650.617</b>	biancoV	3000K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	250	24.8	817	6.2	132
					350	25.5	1109	8.9	125
					500	26.0	1498	13.0	115

mn3097p1 vita media · average life 80000 h L90 B10

<b>Vb6.650.603</b>	nero55	3500K	44°	2
<b>Vb6.650.609</b>	argento hacca	3500K	44°	2
<b>Vb6.650.615</b>	biancoV	3500K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	250	24.8	840	6.2	135
					350	25.5	1140	8.9	128
					500	26.0	1539	13.0	118

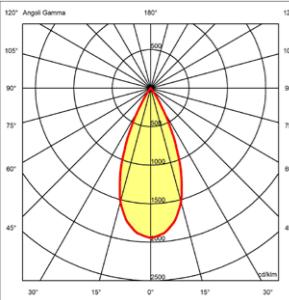
mn3597p1 vita media · average life 80000 h L90 B10

<b>Vb6.650.606</b>	nero55	3500K	70°	2
<b>Vb6.650.612</b>	argento hacca	3500K	70°	2
<b>Vb6.650.618</b>	biancoV	3500K	70°	2

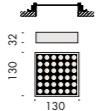
Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	250	24.8	840	6.2	135
					350	25.5	1140	8.9	128
					500	26.0	1539	13.0	118

mn3597p1 vita media · average life 80000 h L90 B10

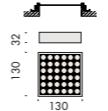
gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10  
Lmγ>65° < 1000cd/m<sup>2</sup>  
Lmγ>45° < 6000cd/m<sup>2</sup>

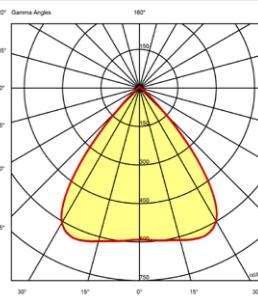


mn scomparsa totale 01 130X130 a.i. h.32			240V 50/60Hz					
<b>Vb6.650.745</b>	nero55		on-off		2700K	44°		2
<b>Vb6.650.751</b>	argento hacca		on-off		2700K	44°		2
<b>Vb6.650.757</b>	biancoV		on-off		2700K	44°		2
<b>Vb6.650.889</b>	nero55		dali		2700K	44°		2
<b>Vb6.650.895</b>	argento hacca		dali		2700K	44°		2
<b>Vb6.650.901</b>	biancoV		dali		2700K	44°		2
<b>Vb6.650.1033</b>	nero55		casambi		2700K	44°		2
<b>Vb6.650.1039</b>	argento hacca		casambi		2700K	44°		2
<b>Vb6.650.1045</b>	biancoV		casambi		2700K	44°		2
Ra	R9	ies tm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	500	26.0	1414	13.0
mn2797p1		vita media · average life			80000 h	L90 B10		

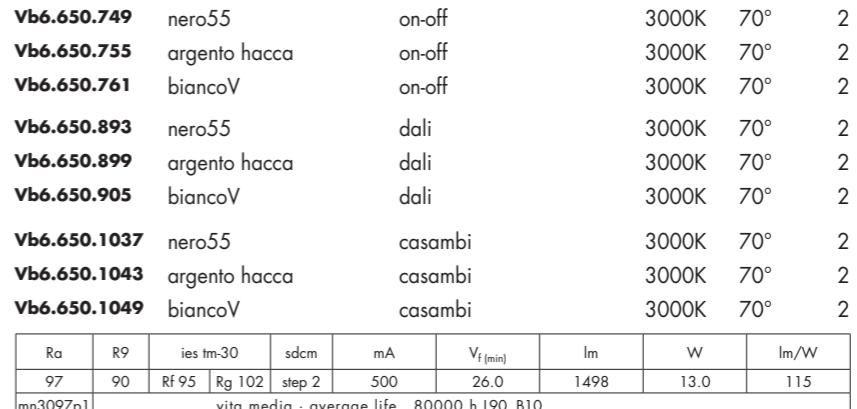
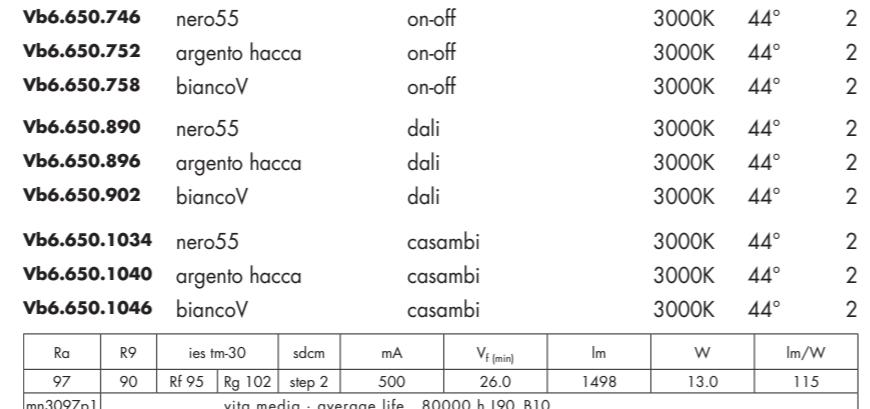


mn scomparsa totale	01	130X130 a.i.	h.32	240V 50/60Hz	A	IP40	CE	i
<b>Vb6.650.748</b>	nero55			on-off	2700K	70°	2	
<b>Vb6.650.754</b>	argento hacca			on-off	2700K	70°	2	
<b>Vb6.650.760</b>	biancoV			on-off	2700K	70°	2	
<b>Vb6.650.892</b>	nero55			dali	2700K	70°	2	
<b>Vb6.650.898</b>	argento hacca			dali	2700K	70°	2	
<b>Vb6.650.904</b>	biancoV			dali	2700K	70°	2	
<b>Vb6.650.1036</b>	nero55			casambi	2700K	70°	2	
<b>Vb6.650.1042</b>	argento hacca			casambi	2700K	70°	2	
<b>Vb6.650.1048</b>	biancoV			casambi	2700K	70°	2	
Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	500	26.0	1414	13.0
mn2797p1		vita media · average life		80000 h	L90	B10		

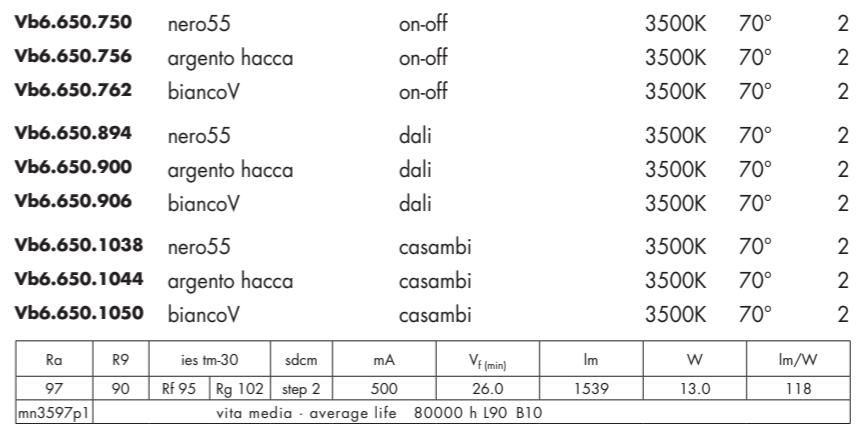
gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



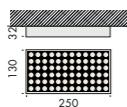
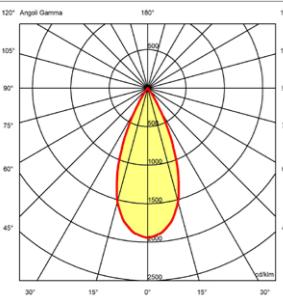
UGR<19



<b>Vb6.650.747</b>	nero55	on-off	3500K	44°	2			
<b>Vb6.650.753</b>	argento hacca	on-off	3500K	44°	2			
<b>Vb6.650.759</b>	biancoV	on-off	3500K	44°	2			
<b>Vb6.650.891</b>	nero55	dali	3500K	44°	2			
<b>Vb6.650.897</b>	argento hacca	dali	3500K	44°	2			
<b>Vb6.650.903</b>	biancoV	dali	3500K	44°	2			
<b>Vb6.650.1035</b>	nero55	casambi	3500K	44°	2			
<b>Vb6.650.1041</b>	argento hacca	casambi	3500K	44°	2			
<b>Vb6.650.1047</b>	biancoV	casambi	3500K	44°	2			
Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	RF 95	Rg 102	step 2	500	26.0	1539	13.0
mn3597p1	vita media - average life			80000 h	I90 B10			118



gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



**mn soffitto 02 130X250 h.32**

			IP40	C	E	★	■
<b>Vb5.650.019</b>	nero55			2700K	44°	2	
<b>Vb5.650.025</b>	argento hacca			2700K	44°	2	
<b>Vb5.650.031</b>	biancoV			2700K	44°	2	

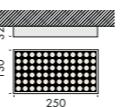
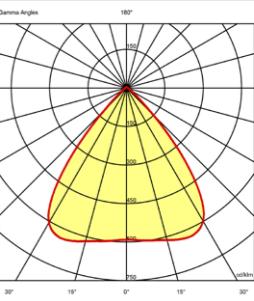
Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	500	24.8	1542	12.5
					700	25.5	2094	17.7
					1050	26.1	2922	27.4

mn2797p2 vita media · average life 80000 h L90 B10

UGR<10

Lmγ>65° < 1000cd/m<sup>2</sup>  
Lmγ>45° < 6000cd/m<sup>2</sup>

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



**mn soffitto 02 130X250 h.32**

			IP40	C	E	★	■
<b>Vb5.650.022</b>	nero55			2700K	70°	2	
<b>Vb5.650.028</b>	argento hacca			2700K	70°	2	
<b>Vb5.650.034</b>	biancoV			2700K	70°	2	

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	500	24.8	1542	12.5
					700	25.5	2094	17.7
					1050	26.1	2922	27.4

mn2797p2 vita media · average life 80000 h L90 B10

UGR<19

				3000K	44°	2
<b>Vb5.650.020</b>	nero55			3000K	44°	2
<b>Vb5.650.026</b>	argento hacca			3000K	44°	2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	500	24.8	1634	12.5
					700	25.5	2218	17.7
					1050	26.1	3096	27.4

mn3097p2 vita media · average life 80000 h L90 B10

				3000K	70°	2
<b>Vb5.650.023</b>	nero55			3000K	70°	2
<b>Vb5.650.029</b>	argento hacca			3000K	70°	2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	500	24.8	1634	12.5
					700	25.5	2218	17.7
					1050	26.1	3096	27.4

mn3097p2 vita media · average life 80000 h L90 B10

				3500K	44°	2
<b>Vb5.650.021</b>	nero55			3500K	44°	2
<b>Vb5.650.027</b>	argento hacca			3500K	44°	2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	500	24.8	1680	12.5
					700	25.5	2280	17.7
					1050	26.1	3183	27.4

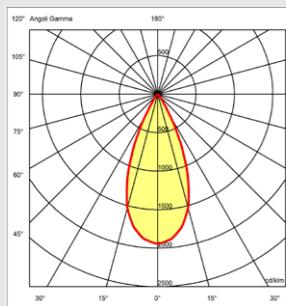
mn3597p2 vita media · average life 80000 h L90 B10

				3500K	70°	2
<b>Vb5.650.024</b>	nero55			3500K	70°	2
<b>Vb5.650.030</b>	argento hacca			3500K	70°	2

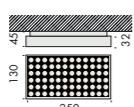
Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	500	24.8	1680	12.5
					700	25.5	2280	17.7
					1050	26.1	3183	27.4

mn3597p2 vita media · average life 80000 h L90 B10

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10  
Lmγ>65° < 1000cd/m²  
Lmγ>45° < 6000cd/m²



**mn soffitto 02 130X250 a.i. h.45**

240V 50/60Hz CE

<b>Vb5.650.163</b>	nero55	on-off	2700K	44°	2
<b>Vb5.650.169</b>	argento hacca	on-off	2700K	44°	2
<b>Vb5.650.175</b>	biancoV	on-off	2700K	44°	2
<b>Vb5.650.307</b>	nero55	dali	2700K	44°	2
<b>Vb5.650.313</b>	argento hacca	dali	2700K	44°	2
<b>Vb5.650.319</b>	biancoV	dali	2700K	44°	2
<b>Vb5.650.451</b>	nero55	casambi	2700K	44°	2
<b>Vb5.650.457</b>	argento hacca	casambi	2700K	44°	2
<b>Vb5.650.463</b>	biancoV	casambi	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	1050	26.1	2922	27.4
vita media · average life 80000 h L90 B10								

**Vb5.650.164** nero55 on-off 3000K 44° 2

**Vb5.650.170** argento hacca on-off 3000K 44° 2

**Vb5.650.176** biancoV on-off 3000K 44° 2

**Vb5.650.308** nero55 dali 3000K 44° 2

**Vb5.650.314** argento hacca dali 3000K 44° 2

**Vb5.650.320** biancoV dali 3000K 44° 2

**Vb5.650.452** nero55 casambi 3000K 44° 2

**Vb5.650.458** argento hacca casambi 3000K 44° 2

**Vb5.650.464** biancoV casambi 3000K 44° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	1050	26.1	3096	27.4
vita media · average life 80000 h L90 B10								

**Vb5.650.165** nero55 on-off 3500K 44° 2

**Vb5.650.171** argento hacca on-off 3500K 44° 2

**Vb5.650.177** biancoV on-off 3500K 44° 2

**Vb5.650.309** nero55 dali 3500K 44° 2

**Vb5.650.315** argento hacca dali 3500K 44° 2

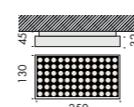
**Vb5.650.321** biancoV dali 3500K 44° 2

**Vb5.650.453** nero55 casambi 3500K 44° 2

**Vb5.650.459** argento hacca casambi 3500K 44° 2

**Vb5.650.465** biancoV casambi 3500K 44° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	1050	26.1	3183	27.4
vita media · average life 80000 h L90 B10								



**mn soffitto 02 130X250 a.i. h.45**

240V 50/60Hz CE

<b>Vb5.650.166</b>	nero55	on-off	2700K	70°	2
<b>Vb5.650.172</b>	argento hacca	on-off	2700K	70°	2
<b>Vb5.650.178</b>	biancoV	on-off	2700K	70°	2
<b>Vb5.650.310</b>	nero55	dali	2700K	70°	2
<b>Vb5.650.316</b>	argento hacca	dali	2700K	70°	2
<b>Vb5.650.322</b>	biancoV	dali	2700K	70°	2
<b>Vb5.650.454</b>	nero55	casambi	2700K	70°	2
<b>Vb5.650.460</b>	argento hacca	casambi	2700K	70°	2
<b>Vb5.650.466</b>	biancoV	casambi	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	1050	26.1	2922	27.4
vita media · average life 80000 h L90 B10								

**Vb5.650.167** nero55 on-off 3000K 70° 2

**Vb5.650.173** argento hacca on-off 3000K 70° 2

**Vb5.650.179** biancoV on-off 3000K 70° 2

**Vb5.650.311** nero55 dali 3000K 70° 2

**Vb5.650.317** argento hacca dali 3000K 70° 2

**Vb5.650.323** biancoV dali 3000K 70° 2

**Vb5.650.455** nero55 casambi 3000K 70° 2

**Vb5.650.461** argento hacca casambi 3000K 70° 2

**Vb5.650.467** biancoV casambi 3000K 70° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	1050	26.1	3096	27.4
vita media · average life 80000 h L90 B10								

**Vb5.650.168** nero55 on-off 3500K 70° 2

**Vb5.650.174** argento hacca on-off 3500K 70° 2

**Vb5.650.180** biancoV on-off 3500K 70° 2

**Vb5.650.312** nero55 dali 3500K 70° 2

**Vb5.650.318** argento hacca dali 3500K 70° 2

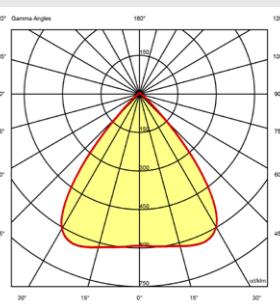
**Vb5.650.324** biancoV dali 3500K 70° 2

**Vb5.650.456** nero55 casambi 3500K 70° 2

**Vb5.650.462** argento hacca casambi 3500K 70° 2

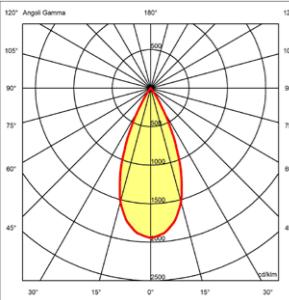
**Vb5.650.468** biancoV casambi 3500K 70° 2

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°

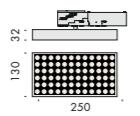


UGR<10

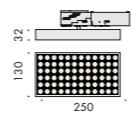
Lm γ > 65° < 1000cd/m<sup>2</sup>

Lm γ > 45° < 6000cd/m<sup>2</sup>

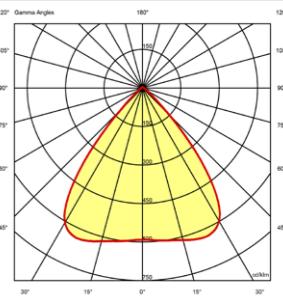
mn adattatore A1 02 130X250 h.32		48Vdc			IP40		CE	
<b>Vb7.650.349</b>	nero55 · nero	on-off		2700K	44°		2	
<b>Vb7.650.355</b>	argento hacca · nero	on-off		2700K	44°		2	
<b>Vb7.650.361</b>	biancoV · nero	on-off		2700K	44°		2	
<b>Vb7.650.457</b>	nero55 · nero	casambi		2700K	44°		2	
<b>Vb7.650.463</b>	argento hacca · nero	casambi		2700K	44°		2	
<b>Vb7.650.469</b>	biancoV · nero	casambi		2700K	44°		2	
Ra	R9	ies tm-30	sdcm	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	1050	26.1	2922	27.4
mn2797p2		vita media · average life	80000 h	l90	B10			107



mn adattatore A1 02 130X250 h.32				48Vdc		IP40		CE
<b>Vb7.650.352</b>	nero55 · nero	on-off		2700K	70°	2		
<b>Vb7.650.358</b>	argento hacca · nero	on-off		2700K	70°	2		
<b>Vb7.650.364</b>	biancoV · nero	on-off		2700K	70°	2		
<b>Vb7.650.460</b>	nero55 · nero	casaambi		2700K	70°	2		
<b>Vb7.650.466</b>	argento hacca · nero	casaambi		2700K	70°	2		
<b>Vb7.650.472</b>	biancoV · nero	casaambi		2700K	70°	2		
Ra	R9	ies tm-30	sdcm	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	1050	26.1	2922	27.4
mn2797p2		vita media · average life	80000 h	L90 B10				107



gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°

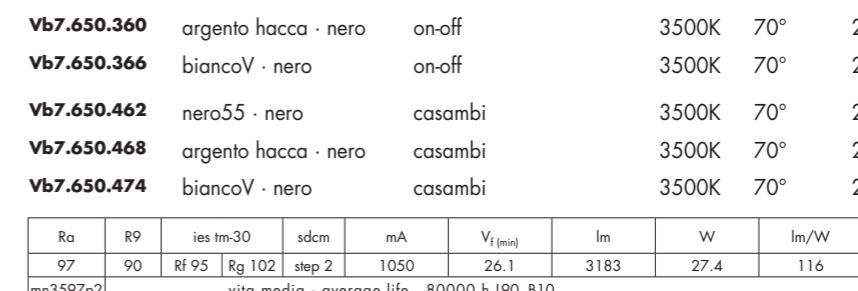


UGR<19

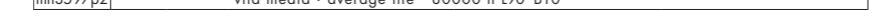
<b>Vb7.650.350</b>	nero55 · nero	on-off	3000K	44°	2				
<b>Vb7.650.356</b>	argento hacca · nero	on-off	3000K	44°	2				
<b>Vb7.650.362</b>	biancoV · nero	on-off	3000K	44°	2				
<b>Vb7.650.458</b>	nero55 · nero	casambi	3000K	44°	2				
<b>Vb7.650.464</b>	argento hacca · nero	casambi	3000K	44°	2				
<b>Vb7.650.470</b>	biancoV · nero	casambi	3000K	44°	2				
Ra	R9	ies tm-30	sdcm	mA	Vf [min]	lm	W	lm/W	
97	90	Rf 95	Rg 102	step 2	1050	26.1	3096	27.4	113
mn3097p2	vita media · average life		80000 h	L90	B10				



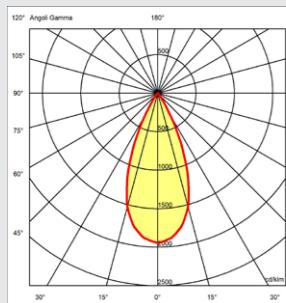
<b>Vb7.650.353</b>	nero55 · nero	on-off	3000K	70°	2
<b>Vb7.650.359</b>	argento hacca · nero	on-off	3000K	70°	2
<b>Vb7.650.365</b>	biancoV · nero	on-off	3000K	70°	2
<b>Vb7.650.461</b>	nero55 · nero	casambi	3000K	70°	2
<b>Vb7.650.467</b>	argento hacca · nero	casambi	3000K	70°	2
<b>Vb7.650.473</b>	biancoV · nero	casambi	3000K	70°	2



<b>Vb7.650.351</b>	nero55 · nero	on-off	3500K	44°	2
<b>Vb7.650.357</b>	argento hacca · nero	on-off	3500K	44°	2
<b>Vb7.650.363</b>	biancoV · nero	on-off	3500K	44°	2
<b>Vb7.650.459</b>	nero55 · nero	casambi	3500K	44°	2
<b>Vb7.650.465</b>	argento hacca · nero	casambi	3500K	44°	2
<b>Vb7.650.471</b>	biancoV · nero	casambi	3500K	44°	2



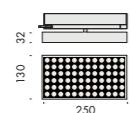
gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lmγ>65° < 1000cd/m²

Lmγ>45° < 6000cd/m²



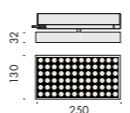
mn adattatore VbB 02 130x250 h.32			240V 50/60Hz	A	<input type="checkbox"/>	IP40	<input checked="" type="checkbox"/>	C E	<input checked="" type="checkbox"/>
<b>Vb7.650.019</b>	nero55 · nero	on-off	2700K	44°	2				
<b>Vb7.650.025</b>	argento hacca · nero	on-off	2700K	44°	2				
<b>Vb7.650.031</b>	biancoV · bianco	on-off	2700K	44°	2				
<b>Vb7.650.127</b>	nero55 · nero	dali	2700K	44°	2				
<b>Vb7.650.133</b>	argento hacca · nero	dali	2700K	44°	2				
<b>Vb7.650.139</b>	biancoV · bianco	dali	2700K	44°	2				
<b>Vb7.650.235</b>	nero55 · nero	casambi	2700K	44°	2				
<b>Vb7.650.241</b>	argento hacca · nero	casambi	2700K	44°	2				
<b>Vb7.650.247</b>	biancoV · bianco	casambi	2700K	44°	2				

Vb7.650.020			nero55 · nero	on-off	3000K	44°	2	
<b>Vb7.650.026</b>	argento hacca · nero	on-off	3000K	44°	2			
<b>Vb7.650.032</b>	biancoV · bianco	on-off	3000K	44°	2			
<b>Vb7.650.128</b>	nero55 · nero	dali	3000K	44°	2			
<b>Vb7.650.134</b>	argento hacca · nero	dali	3000K	44°	2			
<b>Vb7.650.140</b>	biancoV · bianco	dali	3000K	44°	2			
<b>Vb7.650.236</b>	nero55 · nero	casambi	3000K	44°	2			
<b>Vb7.650.242</b>	argento hacca · nero	casambi	3000K	44°	2			
<b>Vb7.650.248</b>	biancoV · bianco	casambi	3000K	44°	2			

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	1050	26.1	2922	27.4
vita media · average life 80000 h L90 B10								

Vb7.650.021			nero55 · nero	on-off	3500K	44°	2
<b>Vb7.650.027</b>	argento hacca · nero	on-off	3500K	44°	2		
<b>Vb7.650.033</b>	biancoV · bianco	on-off	3500K	44°	2		
<b>Vb7.650.129</b>	nero55 · nero	dali	3500K	44°	2		
<b>Vb7.650.135</b>	argento hacca · nero	dali	3500K	44°	2		
<b>Vb7.650.141</b>	biancoV · bianco	dali	3500K	44°	2		
<b>Vb7.650.237</b>	nero55 · nero	casambi	3500K	44°	2		
<b>Vb7.650.243</b>	argento hacca · nero	casambi	3500K	44°	2		
<b>Vb7.650.249</b>	biancoV · bianco	casambi	3500K	44°	2		

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	1050	26.1	3183	27.4
vita media · average life 80000 h L90 B10								

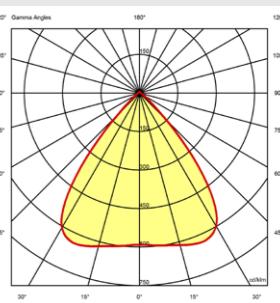


mn adattatore VbB 02 130x250 h.32			240V 50/60Hz	A	<input type="checkbox"/>	IP40	<input checked="" type="checkbox"/>	C E	<input checked="" type="checkbox"/>
<b>Vb7.650.022</b>	nero55 · nero	on-off	2700K	70°	2				
<b>Vb7.650.028</b>	argento hacca · nero	on-off	2700K	70°	2				
<b>Vb7.650.034</b>	biancoV · bianco	on-off	2700K	70°	2				
<b>Vb7.650.130</b>	nero55 · nero	dali	2700K	70°	2				
<b>Vb7.650.136</b>	argento hacca · nero	dali	2700K	70°	2				
<b>Vb7.650.142</b>	biancoV · bianco	dali	2700K	70°	2				
<b>Vb7.650.238</b>	nero55 · nero	casambi	2700K	70°	2				
<b>Vb7.650.244</b>	argento hacca · nero	casambi	2700K	70°	2				
<b>Vb7.650.250</b>	biancoV · bianco	casambi	2700K	70°	2				

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	1050	26.1	3096	27.4
vita media · average life 80000 h L90 B10								

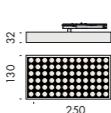
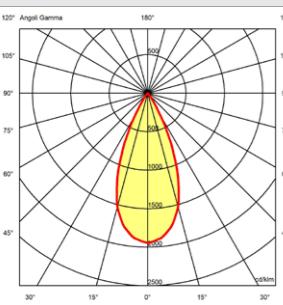
Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	1050	26.1	3183	27.4
vita media · average life 80000 h L90 B10								

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



**mn adattatore traccia sistema 02 130X250 h.32** 24Vdc

<b>Vb7.650.569</b>	nero55 · nero	pwm	2700K	44°	2
<b>Vb7.650.575</b>	argento hacca · nero	pwm	2700K	44°	2
<b>Vb7.650.581</b>	my bianco · nero	pwm	2700K	44°	2
<b>Vb7.650.641</b>	nero55 · nero	casambi	2700K	44°	2
<b>Vb7.650.647</b>	argento hacca · nero	casambi	2700K	44°	2
<b>Vb7.650.653</b>	my bianco · nero	casambi	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	700	16.7	1440	11.7
mn2797plv2 vita media · average life 70000 h L90 B10								

UGR<10

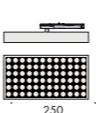
Lmγ>65° < 1000cd/m<sup>2</sup>  
Lmγ>45° < 6000cd/m<sup>2</sup>

<b>Vb7.650.570</b>	nero55 · nero	pwm	3000K	44°	2
<b>Vb7.650.576</b>	argento hacca · nero	pwm	3000K	44°	2
<b>Vb7.650.582</b>	my bianco · nero	pwm	3000K	44°	2
<b>Vb7.650.642</b>	nero55 · nero	casambi	3000K	44°	2
<b>Vb7.650.648</b>	argento hacca · nero	casambi	3000K	44°	2
<b>Vb7.650.654</b>	my bianco · nero	casambi	3000K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	16.7	1525	11.7
mn3097plv2 vita media · average life 70000 h L90 B10								

<b>Vb7.650.571</b>	nero55 · nero	pwm	3500K	44°	2
<b>Vb7.650.577</b>	argento hacca · nero	pwm	3500K	44°	2
<b>Vb7.650.583</b>	my bianco · nero	pwm	3500K	44°	2
<b>Vb7.650.643</b>	nero55 · nero	casambi	3500K	44°	2
<b>Vb7.650.649</b>	argento hacca · nero	casambi	3500K	44°	2
<b>Vb7.650.655</b>	my bianco · nero	casambi	3500K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	16.7	1568	11.7
mn3597plv2 vita media · average life 70000 h L90 B10								

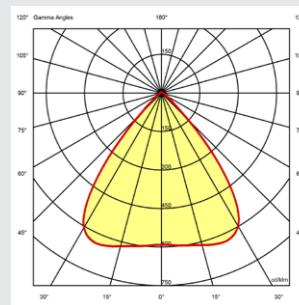


**mn adattatore traccia sistema 02 130X250 h.32** 24Vdc

<b>Vb7.650.572</b>	nero55 · nero	pwm	2700K	70°	2
<b>Vb7.650.578</b>	argento hacca · nero	pwm	2700K	70°	2
<b>Vb7.650.584</b>	my bianco · nero	pwm	2700K	70°	2
<b>Vb7.650.644</b>	nero55 · nero	casambi	2700K	70°	2
<b>Vb7.650.650</b>	argento hacca · nero	casambi	2700K	70°	2
<b>Vb7.650.656</b>	my bianco · nero	casambi	2700K	70°	2

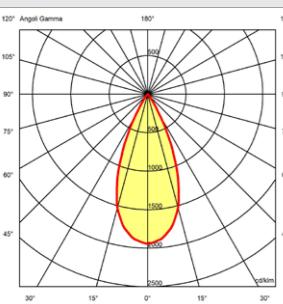
Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	700	16.7	1440	11.7
mn2797plv2 vita media · average life 70000 h L90 B10								

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lm γ > 65° < 1000cd/m²

Lm γ > 45° < 6000cd/m²

**mn incasso 02 130X250 h.26**

IP40

CE

2

**Vb6.650.019** nero55 2700K 44° 2

**Vb6.650.025** argento hacca 2700K 44° 2

**Vb6.650.031** biancoV 2700K 44° 2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	500	24.8	1542	12.5
					700	25.5	2094	17.7
					1050	26.1	2922	27.4

mn2797p2 vita media · average life 80000 h L90 B10

**mn incasso 02 130X250 h.26**

IP40

CE

2

**Vb6.650.022** nero55 2700K 70° 2

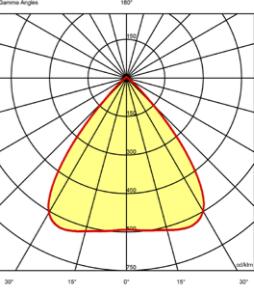
**Vb6.650.028** argento hacca 2700K 70° 2

**Vb6.650.034** biancoV 2700K 70° 2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	500	24.8	1542	12.5
					700	25.5	2094	17.7
					1050	26.1	2922	27.4

mn2797p2 vita media · average life 80000 h L90 B10

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

**Vb6.650.020** nero55 3000K 44° 2

**Vb6.650.026** argento hacca 3000K 44° 2

**Vb6.650.032** biancoV 3000K 44° 2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	500	24.8	1634	12.5
					700	25.5	2218	17.7
					1050	26.1	3096	27.4

mn3097p2 vita media · average life 80000 h L90 B10

**Vb6.650.023** nero55 3000K 70° 2

**Vb6.650.029** argento hacca 3000K 70° 2

**Vb6.650.035** biancoV 3000K 70° 2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	500	24.8	1634	12.5
					700	25.5	2218	17.7
					1050	26.1	3096	27.4

mn3097p2 vita media · average life 80000 h L90 B10

**Vb6.650.021** nero55 3500K 44° 2

**Vb6.650.027** argento hacca 3500K 44° 2

**Vb6.650.033** biancoV 3500K 44° 2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	500	24.8	1680	12.5
					700	25.5	2280	17.7
					1050	26.1	3183	27.4

mn3597p2 vita media · average life 80000 h L90 B10

**Vb6.650.024** nero55 3500K 70° 2

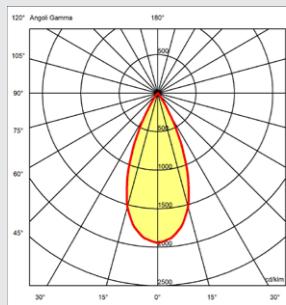
**Vb6.650.030** argento hacca 3500K 70° 2

**Vb6.650.036** biancoV 3500K 70° 2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	500	24.8	1680	12.5
					700	25.5	2280	17.7
					1050	26.1	3183	27.4

mn3597p2 vita media · average life 80000 h L90 B10

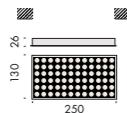
gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lmγ>65° < 1000cd/m²

Lmγ>45° < 6000cd/m²



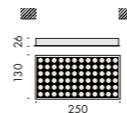
**mn incasso 02 130X250 a.i. h.26**

240V 50/60Hz

<b>Vb6.650.145</b>	nero55	on-off	2700K	44°	2
<b>Vb6.650.151</b>	argento hacca	on-off	2700K	44°	2
<b>Vb6.650.157</b>	biancoV	on-off	2700K	44°	2
<b>Vb6.650.271</b>	nero55	dali	2700K	44°	2
<b>Vb6.650.277</b>	argento hacca	dali	2700K	44°	2
<b>Vb6.650.283</b>	biancoV	dali	2700K	44°	2
<b>Vb6.650.397</b>	nero55	casambi	2700K	44°	2
<b>Vb6.650.403</b>	argento hacca	casambi	2700K	44°	2
<b>Vb6.650.409</b>	biancoV	casambi	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	1050	26.1	2922	27.4
vita media · average life 80000 h L90 B10								

mn2797p2



**mn incasso 02 130X250 a.i. h.26**

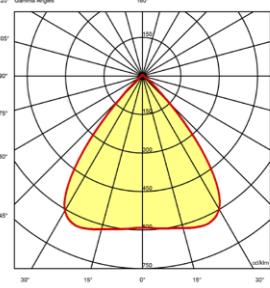
240V 50/60Hz

<b>Vb6.650.148</b>	nero55	on-off	2700K	70°	2
<b>Vb6.650.154</b>	argento hacca	on-off	2700K	70°	2
<b>Vb6.650.160</b>	biancoV	on-off	2700K	70°	2
<b>Vb6.650.274</b>	nero55	dali	2700K	70°	2
<b>Vb6.650.280</b>	argento hacca	dali	2700K	70°	2
<b>Vb6.650.286</b>	biancoV	dali	2700K	70°	2
<b>Vb6.650.400</b>	nero55	casambi	2700K	70°	2
<b>Vb6.650.406</b>	argento hacca	casambi	2700K	70°	2
<b>Vb6.650.412</b>	biancoV	casambi	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	1050	26.1	2922	27.4
vita media · average life 80000 h L90 B10								

mn2797p2

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

<b>Vb6.650.146</b>	nero55	on-off	3000K	44°	2
<b>Vb6.650.152</b>	argento hacca	on-off	3000K	44°	2
<b>Vb6.650.158</b>	biancoV	on-off	3000K	44°	2
<b>Vb6.650.272</b>	nero55	dali	3000K	44°	2
<b>Vb6.650.278</b>	argento hacca	dali	3000K	44°	2
<b>Vb6.650.284</b>	biancoV	dali	3000K	44°	2
<b>Vb6.650.398</b>	nero55	casambi	3000K	44°	2
<b>Vb6.650.404</b>	argento hacca	casambi	3000K	44°	2
<b>Vb6.650.410</b>	biancoV	casambi	3000K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	1050	26.1	3096	27.4
vita media · average life 80000 h L90 B10								

mn3097p2

<b>Vb6.650.147</b>	nero55	on-off	3500K	44°	2
<b>Vb6.650.153</b>	argento hacca	on-off	3500K	44°	2
<b>Vb6.650.159</b>	biancoV	on-off	3500K	44°	2
<b>Vb6.650.273</b>	nero55	dali	3500K	44°	2
<b>Vb6.650.279</b>	argento hacca	dali	3500K	44°	2
<b>Vb6.650.285</b>	biancoV	dali	3500K	44°	2
<b>Vb6.650.399</b>	nero55	casambi	3500K	44°	2
<b>Vb6.650.405</b>	argento hacca	casambi	3500K	44°	2
<b>Vb6.650.411</b>	biancoV	casambi	3500K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	1050	26.1	3183	27.4
vita media · average life 80000 h L90 B10								

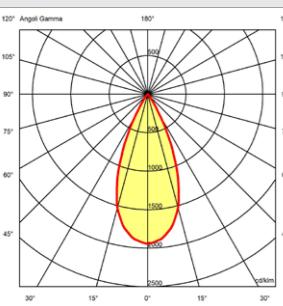
mn3597p2

<b>Vb6.650.150</b>	nero55	on-off	3500K	70°	2
<b>Vb6.650.156</b>	argento hacca	on-off	3500K	70°	2
<b>Vb6.650.162</b>	biancoV	on-off	3500K	70°	2
<b>Vb6.650.276</b>	nero55	dali	3500K	70°	2
<b>Vb6.650.282</b>	argento hacca	dali	3500K	70°	2
<b>Vb6.650.288</b>	biancoV	dali	3500K	70°	2
<b>Vb6.650.402</b>	nero55	casambi	3500K	70°	2
<b>Vb6.650.408</b>	argento hacca	casambi	3500K	70°	2
<b>Vb6.650.414</b>	biancoV	casambi	3500K	70°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	1050	26.1	3183	27.4
vita media · average life 80000 h L90 B10								

mn3597p2

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

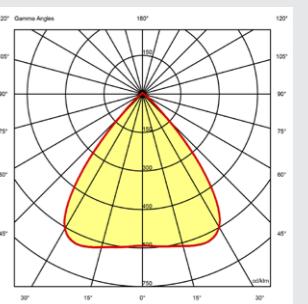
Lm γ > 65° < 1000cd/m²

Lm γ > 45° < 6000cd/m²

mn scomparsa totale 02 130X250 h.32									
				IP40	C	E	☆	■	
<b>Vb6.650.619</b>	nero55			2700K	44°	2			
<b>Vb6.650.625</b>	argento hacca			2700K	44°	2			
<b>Vb6.650.631</b>	biancoV			2700K	44°	2			
Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	500	24.8	1542	12.5	123
					700	25.5	2094	17.7	118
					1050	26.1	2922	27.4	107
mn2797p2 vita media · average life 80000 h L90 B10									

mn scomparsa totale 02 130X250 h.32									
				IP40	C	E	☆	■	
<b>Vb6.650.622</b>	nero55			2700K	70°	2			
<b>Vb6.650.628</b>	argento hacca			2700K	70°	2			
<b>Vb6.650.634</b>	biancoV			2700K	70°	2			
Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	500	24.8	1542	12.5	123
					700	25.5	2094	17.7	118
					1050	26.1	2922	27.4	107
mn2797p2 vita media · average life 80000 h L90 B10									

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

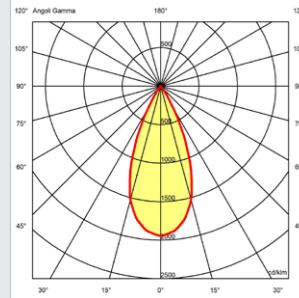
<b>Vb6.650.620</b>	nero55	3000K	44°	2					
<b>Vb6.650.626</b>	argento hacca	3000K	44°	2					
<b>Vb6.650.632</b>	biancoV	3000K	44°	2					
Ra R9 ies tm-30 sdcn mA V <sub>f</sub> [min] lm W lm/W									
97	90	Rf 95	Rg 102	step 2	500	24.8	1634	12.5	131
					700	25.5	2218	17.7	125
					1050	26.1	3096	27.4	113
mn3097p2 vita media · average life 80000 h L90 B10									

<b>Vb6.650.623</b>	nero55	3000K	70°	2					
<b>Vb6.650.629</b>	argento hacca	3000K	70°	2					
<b>Vb6.650.635</b>	biancoV	3000K	70°	2					
Ra R9 ies tm-30 sdcn mA V <sub>f</sub> [min] lm W lm/W									
97	90	Rf 95	Rg 102	step 2	500	24.8	1634	12.5	131
					700	25.5	2218	17.7	125
					1050	26.1	3096	27.4	113
mn3097p2 vita media · average life 80000 h L90 B10									

<b>Vb6.650.621</b>	nero55	3500K	44°	2					
<b>Vb6.650.627</b>	argento hacca	3500K	44°	2					
<b>Vb6.650.633</b>	biancoV	3500K	44°	2					
Ra R9 ies tm-30 sdcn mA V <sub>f</sub> [min] lm W lm/W									
97	90	Rf 95	Rg 102	step 2	500	24.8	1680	12.5	134
					700	25.5	2280	17.7	129
					1050	26.1	3183	27.4	116
mn3597p2 vita media · average life 80000 h L90 B10									

<b>Vb6.650.624</b>	nero55	3500K	70°	2					
<b>Vb6.650.630</b>	argento hacca	3500K	70°	2					
<b>Vb6.650.636</b>	biancoV	3500K	70°	2					
Ra R9 ies tm-30 sdcn mA V <sub>f</sub> [min] lm W lm/W									
97	90	Rf 95	Rg 102	step 2	500	24.8	1680	12.5	134
					700	25.5	2280	17.7	129
					1050	26.1	3183	27.4	116
mn3597p2 vita media · average life 80000 h L90 B10									

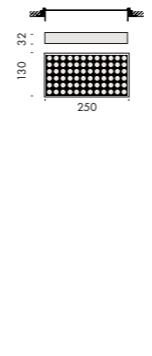
gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10  
 $Lm\gamma > 65^\circ < 1000 \text{cd/m}^2$   
 $Lm\gamma > 45^\circ < 6000 \text{cd/m}^2$

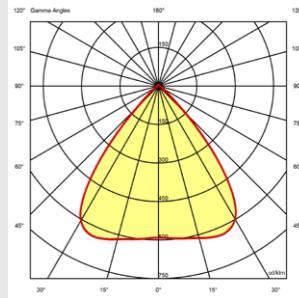


mn scomparsa totale 02 130X250 a.i. h.32	240V 50/60Hz	A	IP40	CE	i
<b>Vb6.650.763</b>	nero55	on-off	2700K	44°	2
<b>Vb6.650.769</b>	argento hacca	on-off	2700K	44°	2
<b>Vb6.650.775</b>	biancoV	on-off	2700K	44°	2
<b>Vb6.650.907</b>	nero55	dali	2700K	44°	2
<b>Vb6.650.913</b>	argento hacca	dali	2700K	44°	2
<b>Vb6.650.919</b>	biancoV	dali	2700K	44°	2
<b>Vb6.650.1051</b>	nero55	casambi	2700K	44°	2
<b>Vb6.650.1057</b>	argento hacca	casambi	2700K	44°	2
<b>Vb6.650.1063</b>	biancoV	casambi	2700K	44°	2



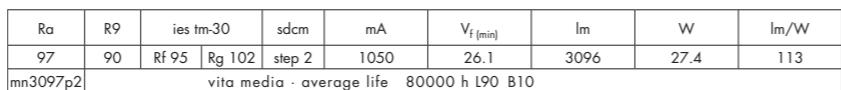
mn scomparsa totale 02 130X250 a.i. h.32			240V 50/60Hz				IP40		CE	
<b>Vb6.650.766</b>	nero55		on-off		2700K	70°				
<b>Vb6.650.772</b>	argento hacca		on-off		2700K	70°				
<b>Vb6.650.778</b>	biancoV		on-off		2700K	70°				
<b>Vb6.650.910</b>	nero55		dali		2700K	70°				
<b>Vb6.650.916</b>	argento hacca		dali		2700K	70°				
<b>Vb6.650.922</b>	biancoV		dali		2700K	70°				
<b>Vb6.650.1054</b>	nero55		casambi		2700K	70°				
<b>Vb6.650.1060</b>	argento hacca		casambi		2700K	70°				
<b>Vb6.650.1066</b>	biancoV		casambi		2700K	70°				
Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W		
97	90	Rf 93	Rg 102	step 2	1050	26.1	2922	27.4		107
mn2797p2		vito media · average life		80000 h	L90 B10					

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°

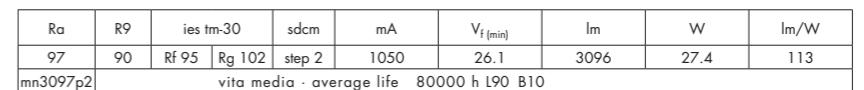


UGR<19

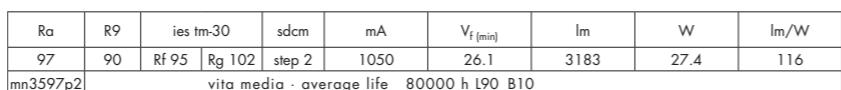
<b>Vb6.650.764</b>	nero55	on-off	3000K	44°	2
<b>Vb6.650.770</b>	argento hacca	on-off	3000K	44°	2
<b>Vb6.650.776</b>	biancoV	on-off	3000K	44°	2
<b>Vb6.650.908</b>	nero55	dali	3000K	44°	2
<b>Vb6.650.914</b>	argento hacca	dali	3000K	44°	2
<b>Vb6.650.920</b>	biancoV	dali	3000K	44°	2
<b>Vb6.650.1052</b>	nero55	casambi	3000K	44°	2
<b>Vb6.650.1058</b>	argento hacca	casambi	3000K	44°	2
<b>Vb6.650.1064</b>	biancoV	casambi	3000K	44°	2



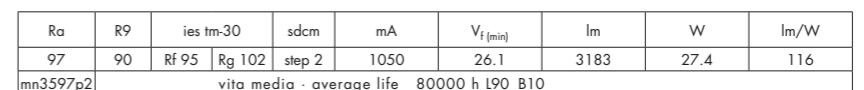
<b>Vb6.650.767</b>	nero55	on-off	3000K	70°	2
<b>Vb6.650.773</b>	argento hacc	on-off	3000K	70°	2
<b>Vb6.650.779</b>	biancoV	on-off	3000K	70°	2
<b>Vb6.650.911</b>	nero55	dali	3000K	70°	2
<b>Vb6.650.917</b>	argento hacc	dali	3000K	70°	2
<b>Vb6.650.923</b>	biancoV	dali	3000K	70°	2
<b>Vb6.650.1055</b>	nero55	casambi	3000K	70°	2
<b>Vb6.650.1061</b>	argento hacc	casambi	3000K	70°	2
<b>Vb6.650.1067</b>	biancoV	casambi	3000K	70°	2



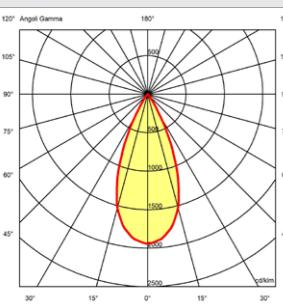
<b>Vb6.650.765</b>	nero55	on-off	3500K	44°	2
<b>Vb6.650.771</b>	argento hacca	on-off	3500K	44°	2
<b>Vb6.650.777</b>	biancoV	on-off	3500K	44°	2
<b>Vb6.650.909</b>	nero55	dali	3500K	44°	2
<b>Vb6.650.915</b>	argento hacca	dali	3500K	44°	2
<b>Vb6.650.921</b>	biancoV	dali	3500K	44°	2
<b>Vb6.650.1053</b>	nero55	casambi	3500K	44°	2
<b>Vb6.650.1059</b>	argento hacca	casambi	3500K	44°	2
<b>Vb6.650.1065</b>	biancoV	casambi	3500K	44°	2



<b>Vb6.650.768</b>	nero55	on-off	3500K	70°	2
<b>Vb6.650.774</b>	argento hacca	on-off	3500K	70°	2
<b>Vb6.650.780</b>	biancoV	on-off	3500K	70°	2
<b>Vb6.650.912</b>	nero55	dali	3500K	70°	2
<b>Vb6.650.918</b>	argento hacca	dali	3500K	70°	2
<b>Vb6.650.924</b>	biancoV	dali	3500K	70°	2
<b>Vb6.650.1056</b>	nero55	casambi	3500K	70°	2
<b>Vb6.650.1062</b>	argento hacca	casambi	3500K	70°	2
<b>Vb6.650.1068</b>	biancoV	casambi	3500K	70°	2



gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lm γ > 65° < 1000cd/m²

Lm γ > 45° < 6000cd/m²

**mn soffitto 03 130X370 h.32**

IP40



<b>Vb5.650.037</b>	nero55	2700K	44°	2
<b>Vb5.650.043</b>	argento hacca	2700K	44°	2
<b>Vb5.650.049</b>	biancoV	2700K	44°	2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	700	24.9	2161	17.5
					1050	25.3	3140	26.6
					1400	26.1	3897	36.5

mn2797p3 vita media · average life 80000 h L90 B10

**mn soffitto 03 130X370 h.32**

IP40



<b>Vb5.650.040</b>	nero55	2700K	70°	2
<b>Vb5.650.046</b>	argento hacca	2700K	70°	2
<b>Vb5.650.052</b>	biancoV	2700K	70°	2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	700	24.9	2161	17.5
					1050	25.3	3140	26.6
					1400	26.1	3897	36.5

mn2797p3 vita media · average life 80000 h L90 B10

<b>Vb5.650.038</b>	nero55	3000K	44°	2
<b>Vb5.650.044</b>	argento hacca	3000K	44°	2
<b>Vb5.650.050</b>	biancoV	3000K	44°	2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	24.9	2289	17.5
					1050	25.3	3326	26.6
					1400	26.1	4128	36.5

mn3097p3 vita media · average life 80000 h L90 B10

<b>Vb5.650.041</b>	nero55	3000K	70°	2
<b>Vb5.650.047</b>	argento hacca	3000K	70°	2
<b>Vb5.650.053</b>	biancoV	3000K	70°	2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	24.9	2289	17.5
					1050	25.3	3326	26.6
					1400	26.1	4128	36.5

mn3097p3 vita media · average life 80000 h L90 B10

<b>Vb5.650.039</b>	nero55	3500K	44°	2
<b>Vb5.650.045</b>	argento hacca	3500K	44°	2
<b>Vb5.650.051</b>	biancoV	3500K	44°	2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	24.9	2353	17.5
					1050	25.3	3419	26.6
					1400	26.1	4244	36.5

mn3597p3 vita media · average life 80000 h L90 B10

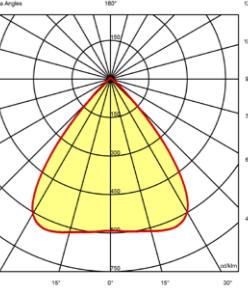
<b>Vb5.650.042</b>	nero55	3500K	70°	2
<b>Vb5.650.048</b>	argento hacca	3500K	70°	2
<b>Vb5.650.054</b>	biancoV	3500K	70°	2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	24.9	2353	17.5
					1050	25.3	3419	26.6
					1400	26.1	4244	36.5

mn3597p3 vita media · average life 80000 h L90 B10

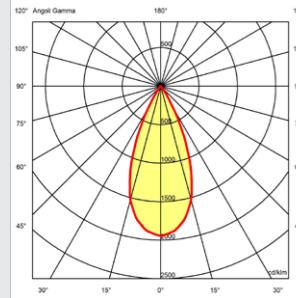


gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°

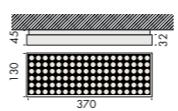
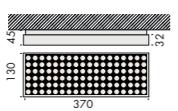


UGR<19

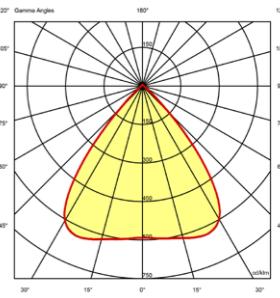
gradi di apertura fascio luminoso  $44^\circ$   
beam's angle degrees  $44^\circ$



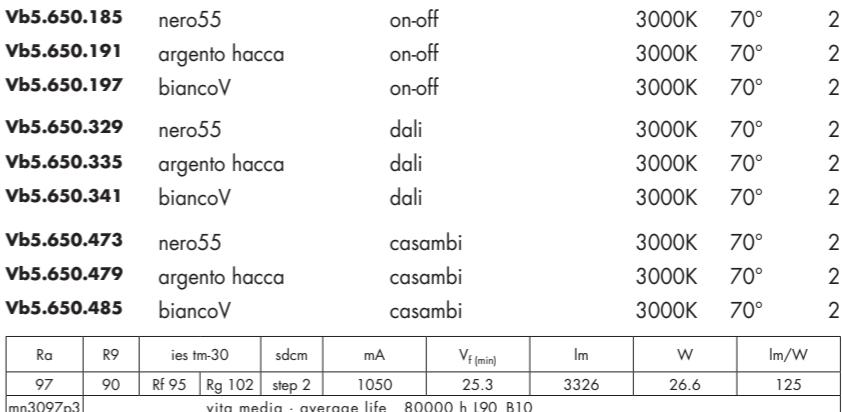
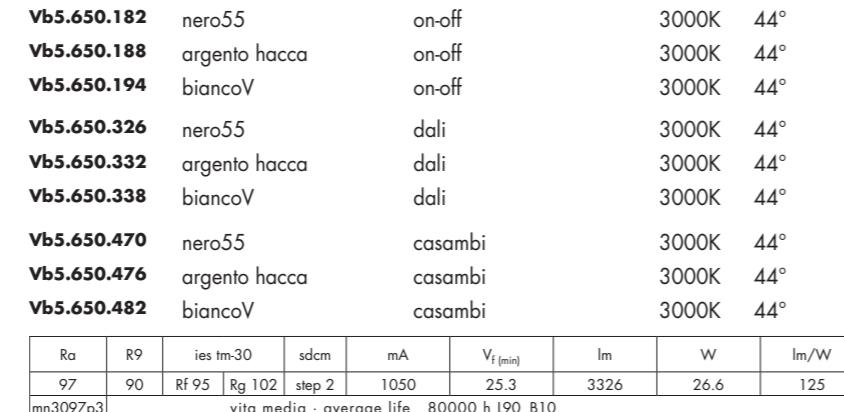
UGR<10  
 $Lm\gamma > 65^\circ < 1000 \text{cd/m}^2$   
 $Lm\gamma > 45^\circ < 6000 \text{cd/m}^2$



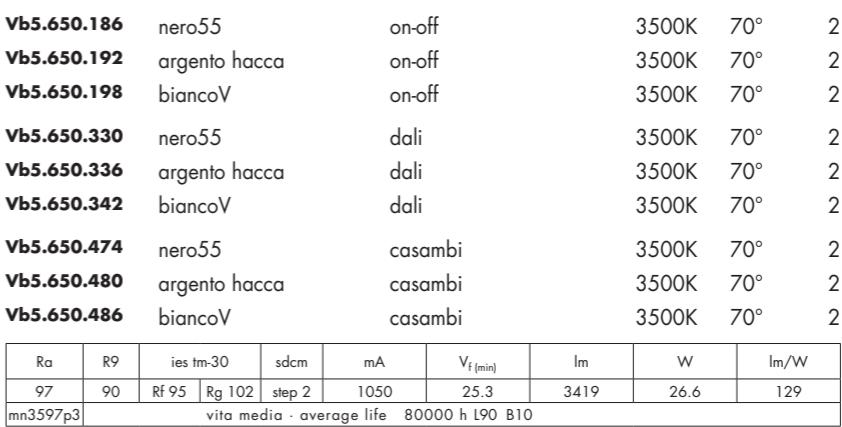
gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



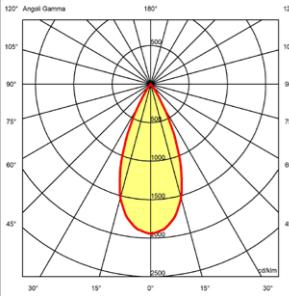
UGR<19



<b>Vb5.650.183</b>	nero55	on-off	3500K	44°
<b>Vb5.650.189</b>	argento hacca	on-off	3500K	44°
<b>Vb5.650.195</b>	biancoV	on-off	3500K	44°
<b>Vb5.650.327</b>	nero55	dali	3500K	44°
<b>Vb5.650.333</b>	argento hacca	dali	3500K	44°
<b>Vb5.650.339</b>	biancoV	dali	3500K	44°
<b>Vb5.650.471</b>	nero55	casambi	3500K	44°
<b>Vb5.650.477</b>	argento hacca	casambi	3500K	44°
<b>Vb5.650.483</b>	biancoV	casambi	3500K	44°



gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°

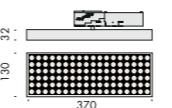
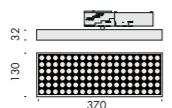


UGR<10

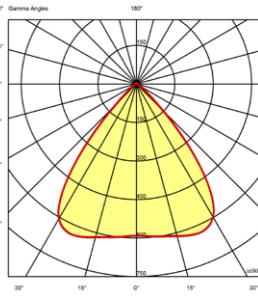
Lmγ > 65° < 1000cd/m<sup>2</sup>

Lm γ > 45° < 6000cd/m<sup>2</sup>

mn adattatore A1 03 130x370 h.32			48Vdc			IP40		CE	
<b>Vb7.650.367</b>	nero55 · nero	on-off	2700K	44°		2			
<b>Vb7.650.373</b>	argento hacca · nero	on-off	2700K	44°		2			
<b>Vb7.650.379</b>	biancoV · nero	on-off	2700K	44°		2			
<b>Vb7.650.475</b>	nero55 · nero	casambi	2700K	44°		2			
<b>Vb7.650.481</b>	argento hacca · nero	casambi	2700K	44°		2			
<b>Vb7.650.487</b>	biancoV · nero	casambi	2700K	44°		2			



gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



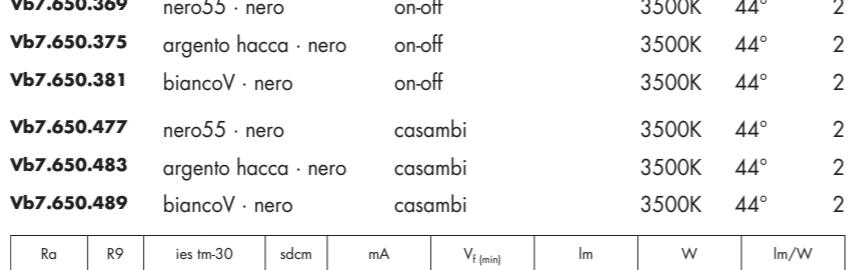
UGR<19

<b>Vb7.650.368</b>	nero55 · nero	on-off	3000K	44°	2			
<b>Vb7.650.374</b>	argento hacca · nero	on-off	3000K	44°	2			
<b>Vb7.650.380</b>	biancoV · nero	on-off	3000K	44°	2			
<b>Vb7.650.476</b>	nero55 · nero	casambi	3000K	44°	2			
<b>Vb7.650.482</b>	argento hacca · nero	casambi	3000K	44°	2			
<b>Vb7.650.488</b>	biancoV · nero	casambi	3000K	44°	2			
Ra	R9	ies tm-30	sdcm	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	1050	25.3	3326	26.6
mn3097p3	vita media · average life			80000 h	L90 B10			125

<b>Vb7.650.369</b>	nero55 · nero	on-off	3500K	44°	2
<b>Vb7.650.375</b>	argento hacca · nero	on-off	3500K	44°	2
<b>Vb7.650.381</b>	biancoV · nero	on-off	3500K	44°	2
<b>Vb7.650.477</b>	nero55 · nero	casambi	3500K	44°	2
<b>Vb7.650.483</b>	argento hacca · nero	casambi	3500K	44°	2
<b>Vb7.650.489</b>	biancoV · nero	casambi	3500K	44°	2

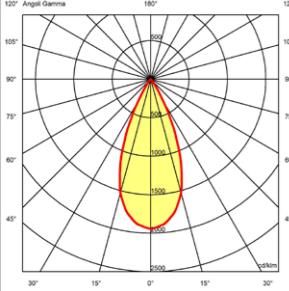
Ra	R9	ies tm-30		sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	1050	25.3	3419	26.6	129
mn3597p3		vita media · average life		80000 h	L90	B10			



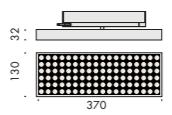
<b>Vb7.650.371</b>	nero55 · nero	on-off	3000K	70°	2			
<b>Vb7.650.377</b>	argento hacca · nero	on-off	3000K	70°	2			
<b>Vb7.650.383</b>	biancoV · nero	on-off	3000K	70°	2			
<b>Vb7.650.479</b>	nero55 · nero	casambi	3000K	70°	2			
<b>Vb7.650.485</b>	argento hacca · nero	casambi	3000K	70°	2			
<b>Vb7.650.491</b>	biancoV · nero	casambi	3000K	70°	2			
Ra	R9	ies tm-30	sdcm	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	1050	25.3	3326	26.6
mn3097p3		vita media · average life		80000 h	L90	B10		

<b>Vb7.650.372</b>	nero55 · nero	on-off	3500K	70°	2
<b>Vb7.650.378</b>	argento hacca · nero	on-off	3500K	70°	2
<b>Vb7.650.384</b>	biancoV · nero	on-off	3500K	70°	2
<b>Vb7.650.480</b>	nero55 · nero	casambi	3500K	70°	2
<b>Vb7.650.486</b>	argento hacca · nero	casambi	3500K	70°	2
<b>Vb7.650.492</b>	biancoV · nero	casambi	3500K	70°	2

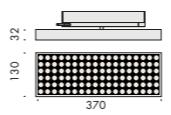
gradi di apertura fascio luminoso  $44^\circ$   
beam's angle degrees  $44^\circ$



UGR<10  
 $Lm\gamma > 65^\circ < 1000 \text{cd/m}^2$   
 $Lm\gamma > 45^\circ < 6000 \text{cd/m}^2$

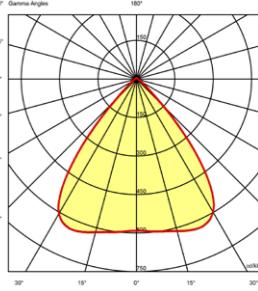


mn adattatore	VbB 03 130x370 h.32		240V 50/60Hz	A	□	IP40	▲	C €	●
<b>Vb7.650.037</b>	nero55 · nero	on-off		2700K	44°			2	
<b>Vb7.650.043</b>	argento hacca · nero	on-off		2700K	44°			2	
<b>Vb7.650.049</b>	biancoV · bianco	on-off		2700K	44°			2	
<b>Vb7.650.145</b>	nero55 · nero	dali		2700K	44°			2	
<b>Vb7.650.151</b>	argento hacca · nero	dali		2700K	44°			2	
<b>Vb7.650.157</b>	biancoV · bianco	dali		2700K	44°			2	
<b>Vb7.650.253</b>	nero55 · nero	casambi		2700K	44°			2	
<b>Vb7.650.259</b>	argento hacca · nero	casambi		2700K	44°			2	
<b>Vb7.650.265</b>	biancoV · bianco	casambi		2700K	44°			2	
Ra	R9	ies tm-30	sdcn	mA	Vf [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	1050	25.3	3140	26.6	118
mn2797p3	vita media · average life	80000 h	L90	B10					

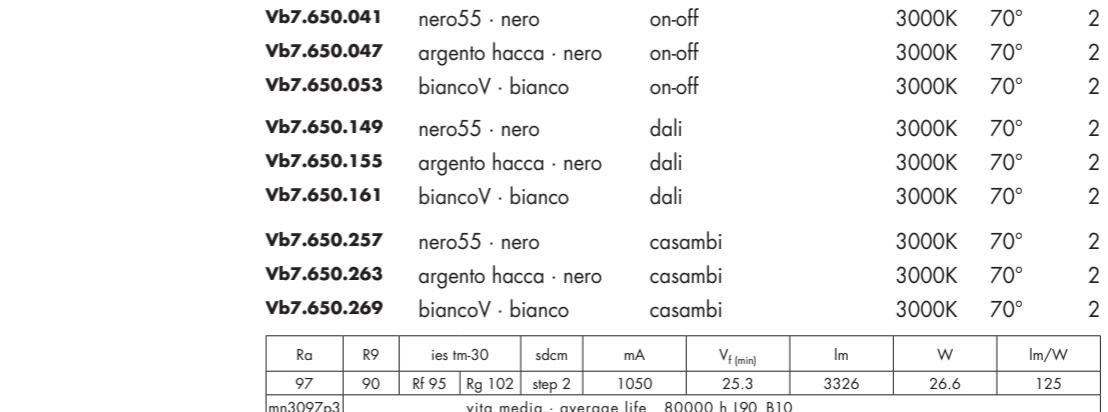
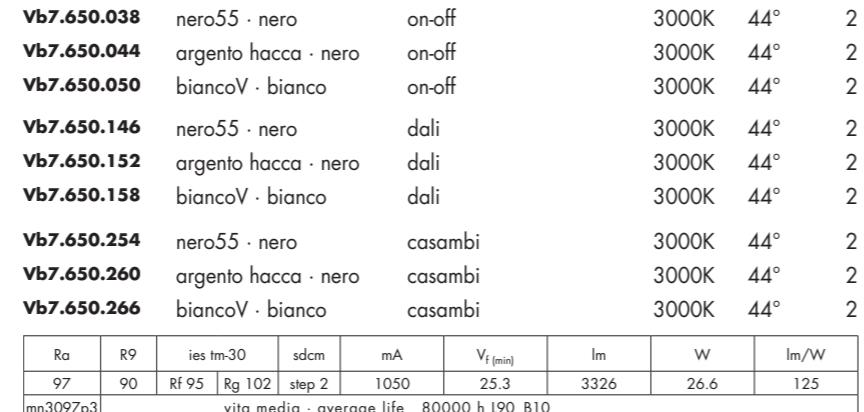


mn adattatore VbB 03 130x370 h.32	240V 50/60Hz	A	□	IP40	▲	CE	●		
<b>Vb7.650.040</b>	nero55 · nero	on-off		2700K	70°		2		
<b>Vb7.650.046</b>	argento hacca · nero	on-off		2700K	70°		2		
<b>Vb7.650.052</b>	biancoV · bianco	on-off		2700K	70°		2		
<b>Vb7.650.148</b>	nero55 · nero	dali		2700K	70°		2		
<b>Vb7.650.154</b>	argento hacca · nero	dali		2700K	70°		2		
<b>Vb7.650.160</b>	biancoV · bianco	dali		2700K	70°		2		
<b>Vb7.650.256</b>	nero55 · nero	casambi		2700K	70°		2		
<b>Vb7.650.262</b>	argento hacca · nero	casambi		2700K	70°		2		
<b>Vb7.650.268</b>	biancoV · bianco	casambi		2700K	70°		2		
Ra	R9	ies tm-30	sdcm	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	1050	25.3	3140	26.6	118
mn2797p3	vita media · average life	80000 h	L90	B10					

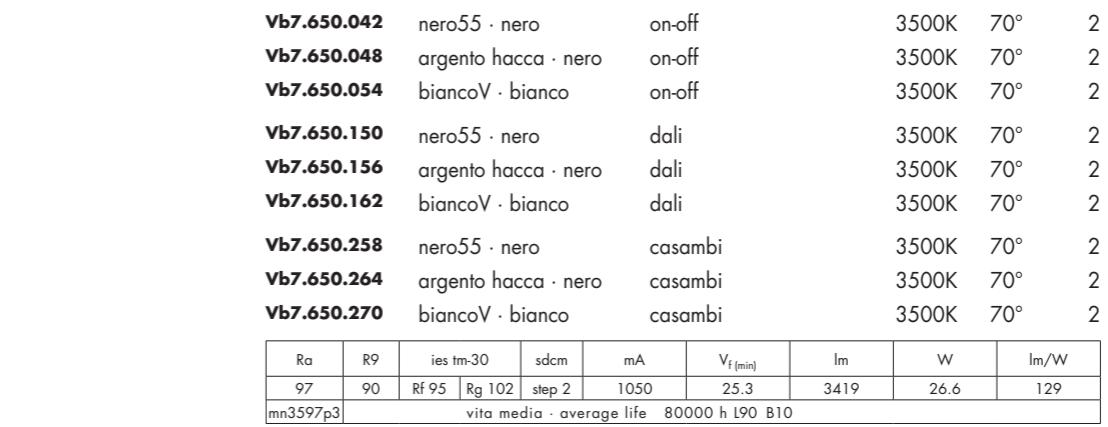
gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



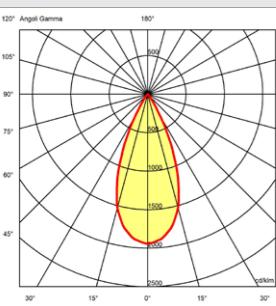
UGR<19



<b>Vb7.650.039</b>	nero55 · nero	on-off	3500K	44°	2			
<b>Vb7.650.045</b>	argento hacca · nero	on-off	3500K	44°	2			
<b>Vb7.650.051</b>	biancoV · bianco	on-off	3500K	44°	2			
<b>Vb7.650.147</b>	nero55 · nero	dali	3500K	44°	2			
<b>Vb7.650.153</b>	argento hacca · nero	dali	3500K	44°	2			
<b>Vb7.650.159</b>	biancoV · bianco	dali	3500K	44°	2			
<b>Vb7.650.255</b>	nero55 · nero	casambi	3500K	44°	2			
<b>Vb7.650.261</b>	argento hacca · nero	casambi	3500K	44°	2			
<b>Vb7.650.267</b>	biancoV · bianco	casambi	3500K	44°	2			
Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	1050	25.3	3419	26.6
mn3597p3		vita media · average life	80000 h	L90	B10			



gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lm γ > 65° < 1000cd/m²

Lm γ > 45° < 6000cd/m²

**mn incasso 03 130X370 h.26**



<b>Vb6.650.037</b>	nero55	2700K	44°	2
<b>Vb6.650.043</b>	argento hacca	2700K	44°	2
<b>Vb6.650.049</b>	biancoV	2700K	44°	2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	700	24.9	2161	17.5
					1050	25.3	3140	26.6
					1400	26.1	3897	36.5

mn2797p3 vita media · average life 80000 h L90 B10

**mn incasso 03 130X370 h.26**



<b>Vb6.650.040</b>	nero55	2700K	70°	2
<b>Vb6.650.046</b>	argento hacca	2700K	70°	2
<b>Vb6.650.052</b>	biancoV	2700K	70°	2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	700	24.9	2161	17.5
					1050	25.3	3140	26.6
					1400	26.1	3897	36.5

mn2797p3 vita media · average life 80000 h L90 B10

<b>Vb6.650.038</b>	nero55	3000K	44°	2
<b>Vb6.650.044</b>	argento hacca	3000K	44°	2
<b>Vb6.650.050</b>	biancoV	3000K	44°	2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	24.9	2289	17.5
					1050	25.3	3326	26.6
					1400	26.1	4128	36.5

mn3097p3 vita media · average life 80000 h L90 B10

<b>Vb6.650.041</b>	nero55	3000K	70°	2
<b>Vb6.650.047</b>	argento hacca	3000K	70°	2
<b>Vb6.650.053</b>	biancoV	3000K	70°	2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	24.9	2289	17.5
					1050	25.3	3326	26.6
					1400	26.1	4128	36.5

mn3097p3 vita media · average life 80000 h L90 B10

<b>Vb6.650.039</b>	nero55	3500K	44°	2
<b>Vb6.650.045</b>	argento hacca	3500K	44°	2
<b>Vb6.650.051</b>	biancoV	3500K	44°	2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	24.9	2353	17.5
					1050	25.3	3419	26.6
					1400	26.1	4244	36.5

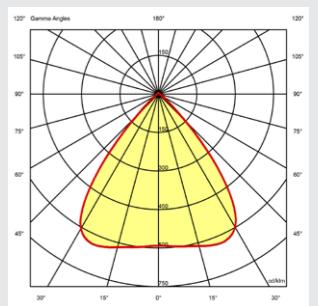
mn3597p3 vita media · average life 80000 h L90 B10

<b>Vb6.650.042</b>	nero55	3500K	70°	2
<b>Vb6.650.048</b>	argento hacca	3500K	70°	2
<b>Vb6.650.054</b>	biancoV	3500K	70°	2

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	24.9	2353	17.5
					1050	25.3	3419	26.6
					1400	26.1	4244	36.5

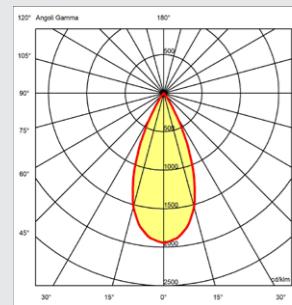
mn3597p3 vita media · average life 80000 h L90 B10

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lmγ>65° < 1000cd/m²

Lmγ>45° < 6000cd/m²

**mn incasso 03 130X370 a.i. h.26**

240V 50/60Hz

AR

IP40

▲

CE

i

<b>Vb6.650.163</b>	nero55	on-off	2700K	44°	2
<b>Vb6.650.169</b>	argento hacca	on-off	2700K	44°	2
<b>Vb6.650.175</b>	biancoV	on-off	2700K	44°	2
<b>Vb6.650.289</b>	nero55	dali	2700K	44°	2
<b>Vb6.650.295</b>	argento hacca	dali	2700K	44°	2
<b>Vb6.650.301</b>	biancoV	dali	2700K	44°	2
<b>Vb6.650.415</b>	nero55	casambi	2700K	44°	2
<b>Vb6.650.421</b>	argento hacca	casambi	2700K	44°	2
<b>Vb6.650.427</b>	biancoV	casambi	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	1050	25.3	3140	26.6
mn2797p3 vita media · average life 80000 h L90 B10								

**mn incasso 03 130X370 a.i. h.26**

240V 50/60Hz

AR

IP40

▲

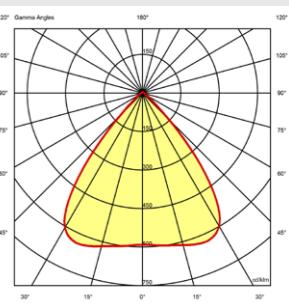
CE

i

<b>Vb6.650.166</b>	nero55	on-off	2700K	70°	2
<b>Vb6.650.172</b>	argento hacca	on-off	2700K	70°	2
<b>Vb6.650.178</b>	biancoV	on-off	2700K	70°	2
<b>Vb6.650.292</b>	nero55	dali	2700K	70°	2
<b>Vb6.650.298</b>	argento hacca	dali	2700K	70°	2
<b>Vb6.650.304</b>	biancoV	dali	2700K	70°	2
<b>Vb6.650.418</b>	nero55	casambi	2700K	70°	2
<b>Vb6.650.424</b>	argento hacca	casambi	2700K	70°	2
<b>Vb6.650.430</b>	biancoV	casambi	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	1050	25.3	3140	26.6
mn2797p3 vita media · average life 80000 h L90 B10								

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

<b>Vb6.650.164</b>	nero55	on-off	3000K	44°	2
<b>Vb6.650.170</b>	argento hacca	on-off	3000K	44°	2
<b>Vb6.650.176</b>	biancoV	on-off	3000K	44°	2
<b>Vb6.650.290</b>	nero55	dali	3000K	44°	2
<b>Vb6.650.296</b>	argento hacca	dali	3000K	44°	2
<b>Vb6.650.302</b>	biancoV	dali	3000K	44°	2
<b>Vb6.650.416</b>	nero55	casambi	3000K	44°	2
<b>Vb6.650.422</b>	argento hacca	casambi	3000K	44°	2
<b>Vb6.650.428</b>	biancoV	casambi	3000K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	1050	25.3	3326	26.6
mn3097p3 vita media · average life 80000 h L90 B10								

<b>Vb6.650.167</b>	nero55	on-off	3000K	70°	2
<b>Vb6.650.173</b>	argento hacca	on-off	3000K	70°	2
<b>Vb6.650.179</b>	biancoV	on-off	3000K	70°	2
<b>Vb6.650.293</b>	nero55	dali	3000K	70°	2
<b>Vb6.650.299</b>	argento hacca	dali	3000K	70°	2
<b>Vb6.650.305</b>	biancoV	dali	3000K	70°	2
<b>Vb6.650.419</b>	nero55	casambi	3000K	70°	2
<b>Vb6.650.425</b>	argento hacca	casambi	3000K	70°	2
<b>Vb6.650.431</b>	biancoV	casambi	3000K	70°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	1050	25.3	3326	26.6
mn3097p3 vita media · average life 80000 h L90 B10								

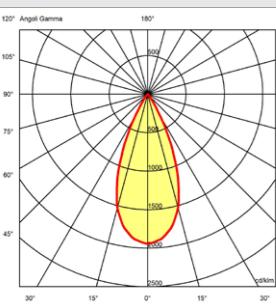
<b>Vb6.650.165</b>	nero55	on-off	3500K	44°	2
<b>Vb6.650.171</b>	argento hacca	on-off	3500K	44°	2
<b>Vb6.650.177</b>	biancoV	on-off	3500K	44°	2
<b>Vb6.650.291</b>	nero55	dali	3500K	44°	2
<b>Vb6.650.297</b>	argento hacca	dali	3500K	44°	2
<b>Vb6.650.303</b>	biancoV	dali	3500K	44°	2
<b>Vb6.650.417</b>	nero55	casambi	3500K	44°	2
<b>Vb6.650.423</b>	argento hacca	casambi	3500K	44°	2
<b>Vb6.650.429</b>	biancoV	casambi	3500K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	1050	25.3	3419	26.6
mn3597p3 vita media · average life 80000 h L90 B10								

<b>Vb6.650.168</b>	nero55	on-off	3500K	70°	2
<b>Vb6.650.174</b>	argento hacca	on-off	3500K	70°	2
<b>Vb6.650.180</b>	biancoV	on-off	3500K	70°	2
<b>Vb6.650.294</b>	nero55	dali	3500K	70°	2
<b>Vb6.650.300</b>	argento hacca	dali	3500K	70°	2
<b>Vb6.650.306</b>	biancoV	dali	3500K	70°	2
<b>Vb6.650.420</b>	nero55	casambi	3500K	70°	2
<b>Vb6.650.426</b>	argento hacca	casambi	3500K	70°	2
<b>Vb6.650.432</b>	biancoV	casambi	3500K	70°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	1050	25.3	3419	26.6
mn3597p3 vita media · average life 80000 h L90 B10								

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

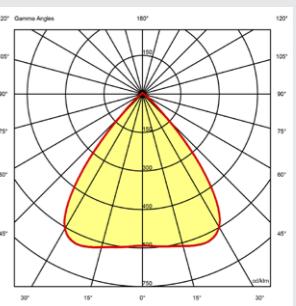
Lm γ > 65° < 1000cd/m²

Lm γ > 45° < 6000cd/m²

mn scomparsa totale 03 130X370 h.32									
				IP40		CE		star	
<b>Vb6.650.637</b>		nero55		2700K		44°		2	
<b>Vb6.650.643</b>		argento hacca		2700K		44°		2	
<b>Vb6.650.649</b>		biancoV		2700K		44°		2	
Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	700	24.9	2161	17.5	123
					1050	25.3	3140	26.6	118
					1400	26.1	3897	36.5	107
mn2797p3 vita media · average life 80000 h l90 B10									

mn scomparsa totale 03 130X370 h.32									
				IP40		CE		star	
<b>Vb6.650.640</b>		nero55		2700K		70°		2	
<b>Vb6.650.646</b>		argento hacca		2700K		70°		2	
<b>Vb6.650.652</b>		biancoV		2700K		70°		2	
Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	700	24.9	2161	17.5	123
					1050	25.3	3140	26.6	118
					1400	26.1	3897	36.5	107
mn2797p3 vita media · average life 80000 h l90 B10									

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

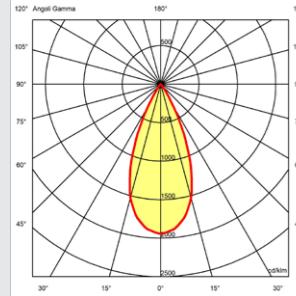
<b>Vb6.650.638</b>	nero55	3000K	44°	2					
<b>Vb6.650.644</b>	argento hacca	3000K	44°	2					
<b>Vb6.650.650</b>	biancoV	3000K	44°	2					
Ra R9 ies tm-30 sdcn mA V <sub>f</sub> [min] lm W lm/W									
97	90	Rf 95	Rg 102	step 2	700	24.9	2289	17.5	131
					1050	25.3	3326	26.6	125
					1400	26.1	4128	36.5	113
mn3097p3 vita media · average life 80000 h l90 B10									

<b>Vb6.650.641</b>	nero55	3000K	70°	2					
<b>Vb6.650.647</b>	argento hacca	3000K	70°	2					
<b>Vb6.650.653</b>	biancoV	3000K	70°	2					
Ra R9 ies tm-30 sdcn mA V <sub>f</sub> [min] lm W lm/W									
97	90	Rf 95	Rg 102	step 2	700	24.9	2289	17.5	131
					1050	25.3	3326	26.6	125
					1400	26.1	4128	36.5	113
mn3097p3 vita media · average life 80000 h l90 B10									

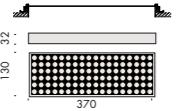
<b>Vb6.650.639</b>	nero55	3500K	44°	2					
<b>Vb6.650.645</b>	argento hacca	3500K	44°	2					
<b>Vb6.650.651</b>	biancoV	3500K	44°	2					
Ra R9 ies tm-30 sdcn mA V <sub>f</sub> [min] lm W lm/W									
97	90	Rf 95	Rg 102	step 2	700	24.9	2353	17.5	134
					1050	25.3	3419	26.6	129
					1400	26.1	4244	36.5	116
mn3597p3 vita media · average life 80000 h l90 B10									

<b>Vb6.650.642</b>	nero55	3500K	70°	2					
<b>Vb6.650.648</b>	argento hacca	3500K	70°	2					
<b>Vb6.650.654</b>	biancoV	3500K	70°	2					
Ra R9 ies tm-30 sdcn mA V <sub>f</sub> [min] lm W lm/W									
97	90	Rf 95	Rg 102	step 2	700	24.9	2353	17.5	134
					1050	25.3	3419	26.6	129
					1400	26.1	4244	36.5	116
mn3597p3 vita media · average life 80000 h l90 B10									

gradi di apertura fascio luminoso  $44^\circ$   
beam's angle degrees  $44^\circ$



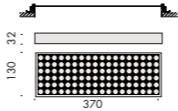
UGR<10  
 $Lm\gamma > 65^\circ < 1000 \text{cd/m}^2$   
 $Lm\gamma > 45^\circ < 6000 \text{cd/m}^2$



mn	scomparsa	totale	03	130X370	a.i.	h.32	240V	50/60Hz	A		IP40		€	i
<b>Vb6.650.781</b>	nero	55				on-off			2700K		44°		2	
<b>Vb6.650.787</b>	argento	hacca				on-off			2700K		44°		2	
<b>Vb6.650.793</b>	bianco	V				on-off			2700K		44°		2	
<b>Vb6.650.925</b>	nero	55				dali			2700K		44°		2	
<b>Vb6.650.931</b>	argento	hacca				dali			2700K		44°		2	
<b>Vb6.650.937</b>	bianco	V				dali			2700K		44°		2	
<b>Vb6.650.1069</b>	nero	55				casambi			2700K		44°		2	
<b>Vb6.650.1075</b>	argento	hacca				casambi			2700K		44°		2	
<b>Vb6.650.1081</b>	bianco	V				casambi			2700K		44°		2	

<b>Vb6.650.782</b>	nero55	on-off	3000K	44°	2
<b>Vb6.650.788</b>	argento hacca	on-off	3000K	44°	2
<b>Vb6.650.794</b>	biancoV	on-off	3000K	44°	2
<b>Vb6.650.926</b>	nero55	dali	3000K	44°	2
<b>Vb6.650.932</b>	argento hacca	dali	3000K	44°	2
<b>Vb6.650.938</b>	biancoV	dali	3000K	44°	2
<b>Vb6.650.1070</b>	nero55	casambi	3000K	44°	2
<b>Vb6.650.1076</b>	argento hacca	casambi	3000K	44°	2
<b>Vb6.650.1082</b>	biancoV	casambi	3000K	44°	2

<b>Vb6.650.783</b>	nero55	on-off	3500K	44°	2
<b>Vb6.650.789</b>	argento hacca	on-off	3500K	44°	2
<b>Vb6.650.795</b>	biancoV	on-off	3500K	44°	2
<b>Vb6.650.927</b>	nero55	dali	3500K	44°	2
<b>Vb6.650.933</b>	argento hacca	dali	3500K	44°	2
<b>Vb6.650.939</b>	biancoV	dali	3500K	44°	2
<b>Vb6.650.1071</b>	nero55	casambi	3500K	44°	2
<b>Vb6.650.1077</b>	argento hacca	casambi	3500K	44°	2
<b>Vb6.650.1083</b>	biancoV	casambi	3500K	44°	2

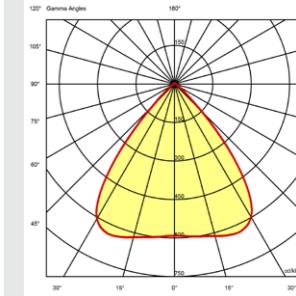


mn scomparsa totale	03 130X370 a.i. h.32	240V 50/60Hz	A	W	IP40	CE	I
<b>Vb6.650.784</b>	nero55	on-off		2700K	70°		
<b>Vb6.650.790</b>	argento hacca	on-off		2700K	70°		
<b>Vb6.650.796</b>	biancoV	on-off		2700K	70°		
<b>Vb6.650.928</b>	nero55	dali		2700K	70°		
<b>Vb6.650.934</b>	argento hacca	dali		2700K	70°		
<b>Vb6.650.940</b>	biancoV	dali		2700K	70°		
<b>Vb6.650.1072</b>	nero55	casambi		2700K	70°		
<b>Vb6.650.1078</b>	argento hacca	casambi		2700K	70°		
<b>Vb6.650.1084</b>	biancoV	casambi		2700K	70°		

<b>Vb6.650.785</b>	nero55	on-off	3000K	70°
<b>Vb6.650.791</b>	argento hacca	on-off	3000K	70°
<b>Vb6.650.797</b>	biancoV	on-off	3000K	70°
<b>Vb6.650.929</b>	nero55	dali	3000K	70°
<b>Vb6.650.935</b>	argento hacca	dali	3000K	70°
<b>Vb6.650.941</b>	biancoV	dali	3000K	70°
<b>Vb6.650.1073</b>	nero55	casambi	3000K	70°
<b>Vb6.650.1079</b>	argento hacca	casambi	3000K	70°
<b>Vb6.650.1085</b>	biancoV	casambi	3000K	70°

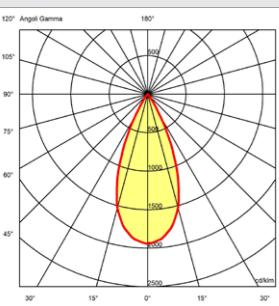
<b>Vb6.650.786</b>	nero55	on-off	3500K	70°
<b>Vb6.650.792</b>	argento hacca	on-off	3500K	70°
<b>Vb6.650.798</b>	biancoV	on-off	3500K	70°
<b>Vb6.650.930</b>	nero55	dali	3500K	70°
<b>Vb6.650.936</b>	argento hacca	dali	3500K	70°
<b>Vb6.650.942</b>	biancoV	dali	3500K	70°
<b>Vb6.650.1074</b>	nero55	casambi	3500K	70°
<b>Vb6.650.1080</b>	argento hacca	casambi	3500K	70°
<b>Vb6.650.1086</b>	biancoV	casambi	3500K	70°

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°

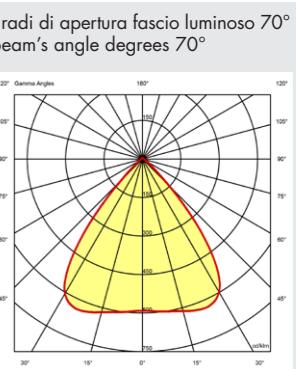


UGR<10

Lm γ > 65° < 1000cd/m²  
Lm γ > 45° < 6000cd/m²

mn soffitto 04 250X250 h.32									
				IP40	C	€	★	■	
<b>Vb5.650.055</b>	nero55			2700K	44°	2			
<b>Vb5.650.061</b>	argento hacca			2700K	44°	2			
<b>Vb5.650.067</b>	biancoV			2700K	44°	2			
Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	500	49.8	3086	24.9	124
					700	50.6	4187	35.4	118
					1050	52.2	5846	54.8	107
mn2797p4 vita media · average life 80000 h L90 B10									

mn soffitto 04 250X250 h.32									
				IP40	C	€	★	■	
<b>Vb5.650.058</b>	nero55			2700K	70°	2			
<b>Vb5.650.064</b>	argento hacca			2700K	70°	2			
<b>Vb5.650.070</b>	biancoV			2700K	70°	2			
Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	500	49.8	3086	24.9	124
					700	50.6	4187	35.4	118
					1050	52.2	5846	54.8	107
mn2797p4 vita media · average life 80000 h L90 B10									



UGR<19

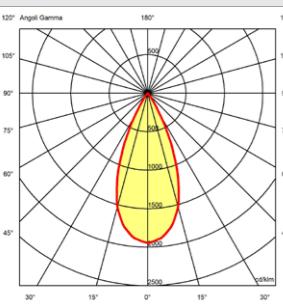
<b>Vb5.650.056</b>	nero55	3000K	44°	2					
<b>Vb5.650.062</b>	argento hacca	3000K	44°	2					
<b>Vb5.650.068</b>	biancoV	3000K	44°	2					
Ra R9 ies lm-30 sdcn mA V <sub>f</sub> [min] lm W lm/W									
97	90	Rf 95	Rg 102	step 2	500	49.8	3269	24.9	131
					700	50.6	4435	35.4	125
					1050	52.2	6192	54.8	113
mn3097p4 vita media · average life 80000 h L90 B10									

<b>Vb5.650.059</b>	nero55	3000K	70°	2					
<b>Vb5.650.065</b>	argento hacca	3000K	70°	2					
<b>Vb5.650.071</b>	biancoV	3000K	70°	2					
Ra R9 ies lm-30 sdcn mA V <sub>f</sub> [min] lm W lm/W									
97	90	Rf 95	Rg 102	step 2	500	49.8	3269	24.9	131
					700	50.6	4435	35.4	125
					1050	52.2	6192	54.8	113
mn3097p4 vita media · average life 80000 h L90 B10									

<b>Vb5.650.057</b>	nero55	3500K	44°	2					
<b>Vb5.650.063</b>	argento hacca	3500K	44°	2					
<b>Vb5.650.069</b>	biancoV	3500K	44°	2					
Ra R9 ies lm-30 sdcn mA V <sub>f</sub> [min] lm W lm/W									
97	90	Rf 95	Rg 102	step 2	500	49.8	3360	24.9	135
					700	50.6	4560	35.4	129
					1050	52.2	6365	54.8	116
mn3597p4 vita media · average life 80000 h L90 B10									

<b>Vb5.650.060</b>	nero55	3500K	70°	2					
<b>Vb5.650.066</b>	argento hacca	3500K	70°	2					
<b>Vb5.650.072</b>	biancoV	3500K	70°	2					
Ra R9 ies lm-30 sdcn mA V <sub>f</sub> [min] lm W lm/W									
97	90	Rf 95	Rg 102	step 2	500	49.8	3360	24.9	135
					700	50.6	4560	35.4	129
					1050	52.2	6365	54.8	116
mn3597p4 vita media · average life 80000 h L90 B10									

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lm γ > 65° < 1000cd/m²

Lm γ > 45° < 6000cd/m²

**mn incasso 04 250X250 h.26**

IP40



<b>Vb6.650.055</b>	nero55	2700K	44°	2
<b>Vb6.650.061</b>	argento hacca	2700K	44°	2
<b>Vb6.650.067</b>	biancoV	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	500	49.8	3086	24.9
					700	50.6	4187	35.4
					1050	52.2	5846	54.8

mn2797p4 vita media · average life 80000 h L90 B10

**mn incasso 04 250X250 h.26**

IP40



<b>Vb6.650.058</b>	nero55	2700K	70°	2
<b>Vb6.650.064</b>	argento hacca	2700K	70°	2
<b>Vb6.650.070</b>	biancoV	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	500	49.8	3086	24.9
					700	50.6	4187	35.4
					1050	52.2	5846	54.8

mn2797p4 vita media · average life 80000 h L90 B10

<b>Vb6.650.056</b>	nero55	3000K	44°	2
<b>Vb6.650.062</b>	argento hacca	3000K	44°	2
<b>Vb6.650.068</b>	biancoV	3000K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	500	49.8	3269	24.9
					700	50.6	4435	35.4
					1050	52.2	6192	54.8

mn3097p4 vita media · average life 80000 h L90 B10

<b>Vb6.650.059</b>	nero55	3000K	70°	2
<b>Vb6.650.065</b>	argento hacca	3000K	70°	2
<b>Vb6.650.071</b>	biancoV	3000K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	500	49.8	3269	24.9
					700	50.6	4435	35.4
					1050	52.2	6192	54.8

mn3097p4 vita media · average life 80000 h L90 B10

<b>Vb6.650.057</b>	nero55	3500K	44°	2
<b>Vb6.650.063</b>	argento hacca	3500K	44°	2
<b>Vb6.650.069</b>	biancoV	3500K	44°	2

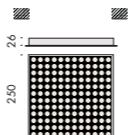
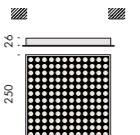
Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	500	49.8	3360	24.9
					700	50.6	4560	35.4
					1050	52.2	6365	54.8

mn3597p4 vita media · average life 80000 h L90 B10

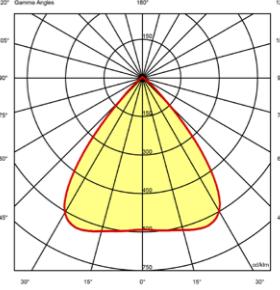
<b>Vb6.650.060</b>	nero55	3500K	70°	2
<b>Vb6.650.066</b>	argento hacca	3500K	70°	2
<b>Vb6.650.072</b>	biancoV	3500K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	500	49.8	3360	24.9
					700	50.6	4560	35.4
					1050	52.2	6365	54.8

mn3597p4 vita media · average life 80000 h L90 B10

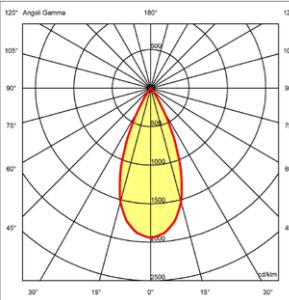


gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°

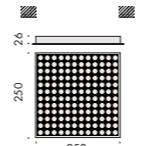
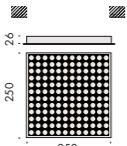


UGR<19

gradi di apertura fascio luminoso  $44^\circ$   
beam's angle degrees  $44^\circ$

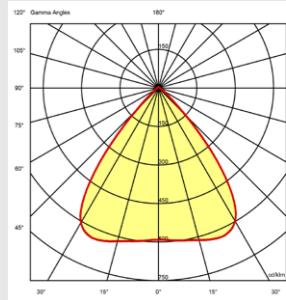


UGR<10  
 $Lm\gamma > 65^\circ < 1000cd/m^2$   
 $Lm\gamma > 45^\circ < 6000cd/m^2$



mn incasso	04 250X250 a.i. h.26	240V 50/60Hz	AR	IP40	CE
<b>Vb6.650.184</b>	nero55	on-off	2700K	70°	
<b>Vb6.650.190</b>	argento hacca	on-off	2700K	70°	
<b>Vb6.650.196</b>	biancoV	on-off	2700K	70°	
<b>Vb6.650.310</b>	nero55	dali	2700K	70°	
<b>Vb6.650.316</b>	argento hacca	dali	2700K	70°	
<b>Vb6.650.322</b>	biancoV	dali	2700K	70°	
<b>Vb6.650.436</b>	nero55	casambi	2700K	70°	
<b>Vb6.650.442</b>	argento hacca	casambi	2700K	70°	
<b>Vb6.650.448</b>	biancoV	casambi	2700K	70°	

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

<b>Vb6.650.182</b>	nero55	on-off	3000K	44°	2
<b>Vb6.650.188</b>	argento hacca	on-off	3000K	44°	2
<b>Vb6.650.194</b>	biancoV	on-off	3000K	44°	2
<b>Vb6.650.308</b>	nero55	dali	3000K	44°	2
<b>Vb6.650.314</b>	argento hacca	dali	3000K	44°	2
<b>Vb6.650.320</b>	biancoV	dali	3000K	44°	2
<b>Vb6.650.434</b>	nero55	casambi	3000K	44°	2
<b>Vb6.650.440</b>	argento hacca	casambi	3000K	44°	2
<b>Vb6.650.446</b>	nero55	casambi	3000K	44°	2

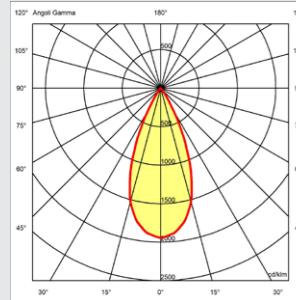
<b>Vb6.650.185</b>	nero55	on-off	3000K	70°	2
<b>Vb6.650.191</b>	argento hacca	on-off	3000K	70°	2
<b>Vb6.650.197</b>	biancoV	on-off	3000K	70°	2
<b>Vb6.650.311</b>	nero55	dali	3000K	70°	2
<b>Vb6.650.317</b>	argento hacca	dali	3000K	70°	2
<b>Vb6.650.323</b>	biancoV	dali	3000K	70°	2
<b>Vb6.650.437</b>	nero55	casambi	3000K	70°	2
<b>Vb6.650.443</b>	argento hacca	casambi	3000K	70°	2
<b>Vb6.650.449</b>	biancoV	casambi	3000K	70°	2

<b>Vb6.650.183</b>	nero55	on-off	3500K	44°	2
<b>Vb6.650.189</b>	argento hacca	on-off	3500K	44°	2
<b>Vb6.650.195</b>	biancoV	on-off	3500K	44°	2
<b>Vb6.650.309</b>	nero55	dali	3500K	44°	2
<b>Vb6.650.315</b>	argento hacca	dali	3500K	44°	2
<b>Vb6.650.321</b>	biancoV	dali	3500K	44°	2
<b>Vb6.650.435</b>	nero55	casambi	3500K	44°	2
<b>Vb6.650.441</b>	argento hacca	casambi	3500K	44°	2

<b>Vb6.650.186</b>	nero55	on-off	3500K	70°	2
<b>Vb6.650.192</b>	argento hacca	on-off	3500K	70°	2
<b>Vb6.650.198</b>	biancoV	on-off	3500K	70°	2
<b>Vb6.650.312</b>	nero55	dali	3500K	70°	2
<b>Vb6.650.318</b>	argento hacca	dali	3500K	70°	2
<b>Vb6.650.324</b>	biancoV	dali	3500K	70°	2
<b>Vb6.650.438</b>	nero55	casambi	3500K	70°	2
<b>Vb6.650.444</b>	argento hacca	casambi	3500K	70°	2
<b>Vb6.650.570</b>	nero55	casambi	3500K	70°	2

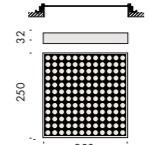


gradi di apertura fascio luminoso  $44^\circ$   
beam's angle degrees  $44^\circ$

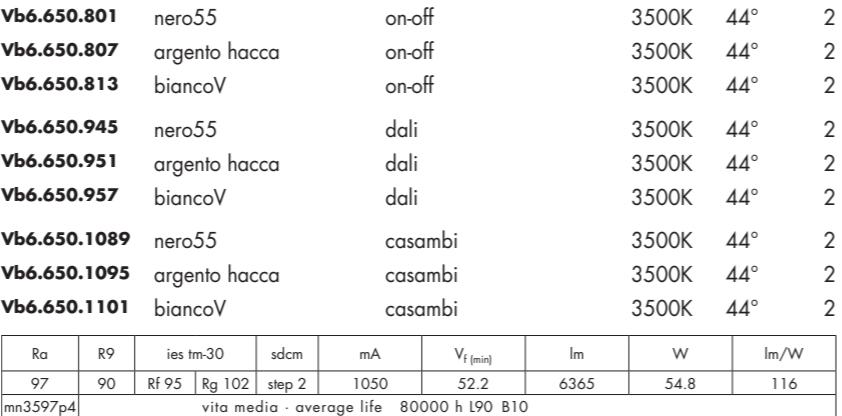


UGR<10  
 $Lm\gamma > 65^\circ < 1000 \text{cd/m}^2$   
 $Lm\gamma > 45^\circ < 6000 \text{cd/m}^2$

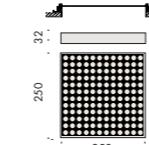
mn scomparsa totale 04 250x250 a.i. h.32	240V 50/60Hz	A	IP40	C	E
<b>Vb6.650.799</b>	nero55	on-off	2700K	44°	2
<b>Vb6.650.805</b>	argento hacca	on-off	2700K	44°	2
<b>Vb6.650.811</b>	biancoV	on-off	2700K	44°	2
<b>Vb6.650.943</b>	nero55	dali	2700K	44°	2
<b>Vb6.650.949</b>	argento hacca	dali	2700K	44°	2
<b>Vb6.650.955</b>	biancoV	dali	2700K	44°	2
<b>Vb6.650.1087</b>	nero55	casambi	2700K	44°	2
<b>Vb6.650.1093</b>	argento hacca	casambi	2700K	44°	2
<b>Vb6.650.1099</b>	biancoV	casambi	2700K	44°	2



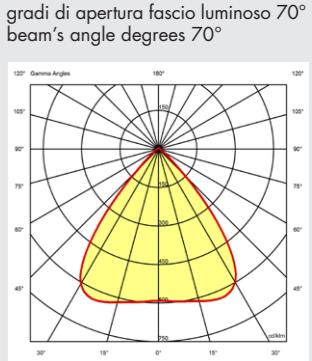
<b>Vb6.650.800</b>	nero55	on-off	3000K	44°	2			
<b>Vb6.650.806</b>	argento hacca	on-off	3000K	44°	2			
<b>Vb6.650.812</b>	biancoV	on-off	3000K	44°	2			
<b>Vb6.650.944</b>	nero55	dali	3000K	44°	2			
<b>Vb6.650.950</b>	argento hacca	dali	3000K	44°	2			
<b>Vb6.650.956</b>	biancoV	dali	3000K	44°	2			
<b>Vb6.650.1088</b>	nero55	casambi	3000K	44°	2			
<b>Vb6.650.1094</b>	argento hacca	casambi	3000K	44°	2			
<b>Vb6.650.1100</b>	biancoV	casambi	3000K	44°	2			
Ra	R9	ies tm-30	sdcm	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	1050	52.2	6192	54.8
mn3097p4		vita media · average life				80000 h	L90	B10



mn scomparsa totale 04 250x250 a.i. h.32	240V 50/60Hz	A	IP40	CE
<b>Vb6.650.802</b> nero55	on-off	2700K	70°	
<b>Vb6.650.808</b> argento hacca	on-off	2700K	70°	
<b>Vb6.650.814</b> biancoV	on-off	2700K	70°	
<b>Vb6.650.946</b> nero55	dali	2700K	70°	
<b>Vb6.650.952</b> argento hacca	dali	2700K	70°	
<b>Vb6.650.958</b> biancoV	dali	2700K	70°	
<b>Vb6.650.1090</b> nero55	casambi	2700K	70°	
<b>Vb6.650.1096</b> argento hacca	casambi	2700K	70°	
<b>Vb6.650.1102</b> biancoV	casambi	2700K	70°	

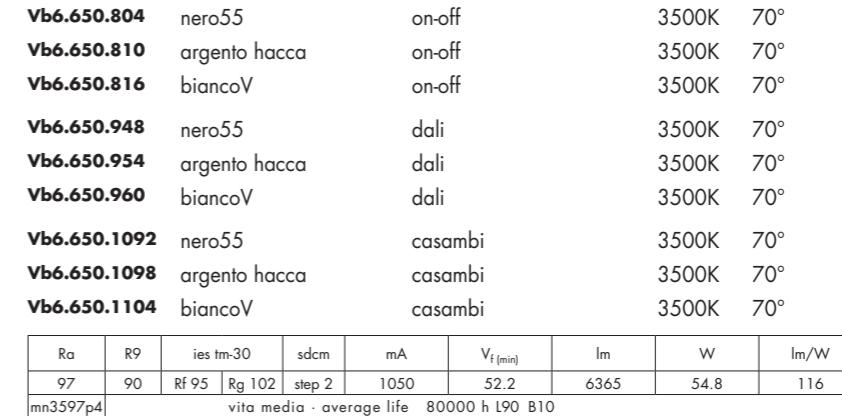


<b>Vb6.650.803</b>	nero55	on-off	3000K	70°
<b>Vb6.650.809</b>	argento hacca	on-off	3000K	70°
<b>Vb6.650.815</b>	biancoV	on-off	3000K	70°
<b>Vb6.650.947</b>	nero55	dali	3000K	70°
<b>Vb6.650.953</b>	argento hacca	dali	3000K	70°
<b>Vb6.650.959</b>	biancoV	dali	3000K	70°
<b>Vb6.650.1091</b>	nero55	casambi	3000K	70°
<b>Vb6.650.1097</b>	argento hacca	casambi	3000K	70°
<b>Vb6.650.1103</b>	biancoV	casambi	3000K	70°

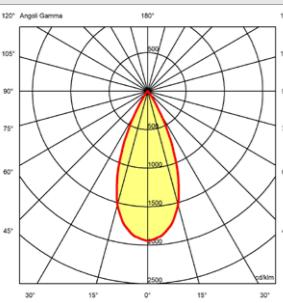


UGR<19

<b>Vb6.650.804</b>	nero55	on-off	3500K	70°
<b>Vb6.650.810</b>	argento hacca	on-off	3500K	70°
<b>Vb6.650.816</b>	biancoV	on-off	3500K	70°
<b>Vb6.650.948</b>	nero55	dali	3500K	70°
<b>Vb6.650.954</b>	argento hacca	dali	3500K	70°
<b>Vb6.650.960</b>	biancoV	dali	3500K	70°
<b>Vb6.650.1092</b>	nero55	casambi	3500K	70°
<b>Vb6.650.1098</b>	argento hacca	casambi	3500K	70°
<b>Vb6.650.1104</b>	biancoV	casambi	3500K	70°



gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lm γ > 65° < 1000cd/m²

Lm γ > 45° < 6000cd/m²

#### mn soffitto 30x370 h.32

Vb5.650.091	nero55	2700K	44°	2
Vb5.650.097	argento hacca	2700K	44°	2
Vb5.650.103	biancoV	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	175	25.5	535	4.5
					250	26.0	724	6.5
					350	27.0	948	9.5

mn2797i2 vita media · average life 70000 h l90 B10

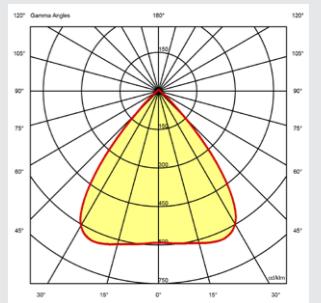
#### mn soffitto 30x370 h.32

Vb5.650.094	nero55	2700K	70°	2
Vb5.650.100	argento hacca	2700K	70°	2
Vb5.650.106	biancoV	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	175	25.5	535	4.5
					250	26.0	724	6.5
					350	27.0	948	9.5

mn2797i2 vita media · average life 70000 h l90 B10

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

Vb5.650.092	nero55	3000K	44°	2
Vb5.650.098	argento hacca	3000K	44°	2
Vb5.650.104	biancoV	3000K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	175	25.5	567	4.5
					250	26.0	767	6.5
					350	27.0	1004	9.5

mn3097i2 vita media · average life 70000 h l90 B10

Vb5.650.095	nero55	3000K	70°	2
Vb5.650.101	argento hacca	3000K	70°	2
Vb5.650.107	biancoV	3000K	70°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	175	25.5	567	4.5
					250	26.0	767	6.5
					350	27.0	1004	9.5

mn3097i2 vita media · average life 70000 h l90 B10

Vb5.650.093	nero55	3500K	44°	2
Vb5.650.099	argento hacca	3500K	44°	2
Vb5.650.105	biancoV	3500K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	175	25.5	583	4.5
					250	26.0	788	6.5
					350	27.0	1032	9.5

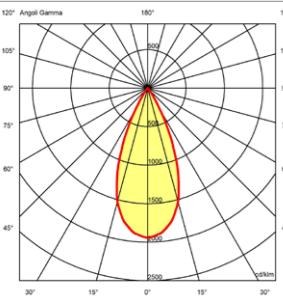
mn3597i2 vita media · average life 70000 h l90 B10

Vb5.650.096	nero55	3500K	70°	2
Vb5.650.102	argento hacca	3500K	70°	2
Vb5.650.108	biancoV	3500K	70°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	175	25.5	583	4.5
					250	26.0	788	6.5
					350	27.0	1032	9.5

mn3597i2 vita media · average life 70000 h l90 B10

gradi di apertura fascio luminoso  $44^\circ$   
beam's angle degrees  $44^\circ$



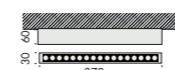
UGR<10

Lm γ >65° < 1000cd/m<sup>2</sup>

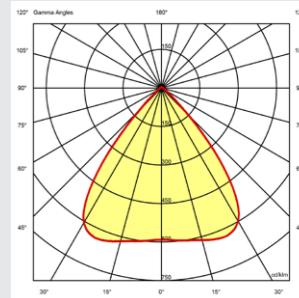
Lmγ > 45° < 6000cd/m<sup>2</sup>



mn soffitto 30x370 a.i. h.60		240V 50/60Hz	A	IP40	CE	i			
<b>Vb5.650.238</b>	nero55	on-off	2700K	70°	2				
<b>Vb5.650.244</b>	argento hacca	on-off	2700K	70°	2				
<b>Vb5.650.250</b>	biancoV	on-off	2700K	70°	2				
<b>Vb5.650.382</b>	nero55	dali	2700K	70°	2				
<b>Vb5.650.388</b>	argento hacca	dali	2700K	70°	2				
<b>Vb5.650.394</b>	biancoV	dali	2700K	70°	2				
Ra	R9	ies lm-30	sdcm	mA	V <sub>f</sub> [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	350	27.0	948	9.5	100
mn2797i2		vita media · average life			70000 h	L90 B10			



gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

<b>Vb5.650.236</b>	nero55	on-off	3000K	44°				
<b>Vb5.650.242</b>	argento hacca	on-off	3000K	44°				
<b>Vb5.650.248</b>	biancoV	on-off	3000K	44°				
<b>Vb5.650.380</b>	nero55	dali	3000K	44°				
<b>Vb5.650.386</b>	argento hacca	dali	3000K	44°				
<b>Vb5.650.392</b>	biancoV	dali	3000K	44°				
Ra	R9	ies tm-30	sdcm	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	350	27.0	1004	9.5
mn309712	vita media - average life		70000 h l90 B10					

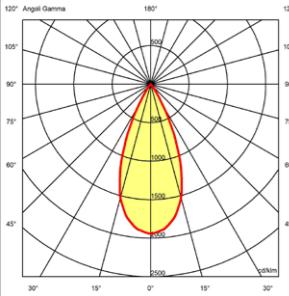
<b>Vb5.650.239</b>	nero55	on-off	3000K	70°	2			
<b>Vb5.650.245</b>	argento hacca	on-off	3000K	70°	2			
<b>Vb5.650.251</b>	biancoV	on-off	3000K	70°	2			
<b>Vb5.650.383</b>	nero55	dali	3000K	70°	2			
<b>Vb5.650.389</b>	argento hacca	dali	3000K	70°	2			
<b>Vb5.650.395</b>	biancoV	dali	3000K	70°	2			
Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	350	27.0	1004	9.5
mn3097:2		vita media - average life				70000 h	L90	B10

<b>Vb5.650.237</b>	nero55	on-off	3500K	44°				
<b>Vb5.650.243</b>	argento hacca	on-off	3500K	44°				
<b>Vb5.650.249</b>	biancoV	on-off	3500K	44°				
<b>Vb5.650.381</b>	nero55	dali	3500K	44°				
<b>Vb5.650.387</b>	argento hacca	dali	3500K	44°				
<b>Vb5.650.393</b>	biancoV	dali	3500K	44°				
Ra	R9	ies tm-30	sdcm	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	350	27.0	1032	9.5
mn3597i2		vita media - average life			70000 h	L90 B10		

<b>Vb5.650.240</b>	nero55	on-off	3500K	70°	2			
<b>Vb5.650.246</b>	argento hacca	on-off	3500K	70°	2			
<b>Vb5.650.252</b>	biancoV	on-off	3500K	70°	2			
<b>Vb5.650.384</b>	nero55	dali	3500K	70°	2			
<b>Vb5.650.390</b>	argento hacca	dali	3500K	70°	2			
<b>Vb5.650.396</b>	biancoV	dali	3500K	70°	2			
Ra	R9	ies tm-30	sdcm	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	350	27.0	1032	9.5
mn3597i2		vita media · average life	70000 h		L90 B10			

Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	Im	W	Im/W
97	90	Rf 95	Rg 102	step 2	350	27.0	1032	9.5
mn3597i2	vita media · average life	70000 h	L90	B10				

gradi di apertura fascio luminoso  $44^\circ$   
beam's angle degrees  $44^\circ$



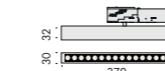
UGR<10

Lm  $\gamma > 65^\circ < 1000 \text{cd/m}^2$

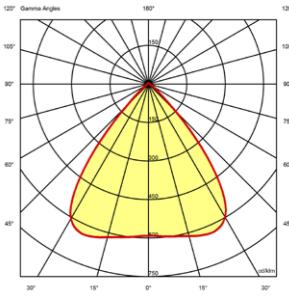
Lmγ > 45° < 6000cd/m<sup>2</sup>



mn adattatore A1 30x370 h.32			48Vdc			IP40		CE
<b>Vb7.650.388</b>	nero55 · nero	on-off		2700K	70°			
<b>Vb7.650.394</b>	argento hacca · nero	on-off		2700K	70°			
<b>Vb7.650.400</b>	biancoV · nero	on-off		2700K	70°			
<b>Vb7.650.496</b>	nero55 · nero	casambi		2700K	70°			
<b>Vb7.650.502</b>	argento hacca · nero	casambi		2700K	70°			
<b>Vb7.650.508</b>	biancoV · nero	casambi		2700K	70°			
Ra	R9	ies tm-30	sdcm	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	350	27.0	948	9.5
mn279712	vita media · average life			70000 h	l90	B10		



gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

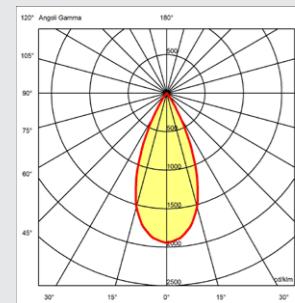
<b>Vb7.650.386</b>	nero55 · nero	on-off	3000K	44°	2
<b>Vb7.650.392</b>	argento hacca · nero	on-off	3000K	44°	2
<b>Vb7.650.398</b>	biancoV · nero	on-off	3000K	44°	2
<b>Vb7.650.494</b>	nero55 · nero	casambi	3000K	44°	2
<b>Vb7.650.500</b>	argento hacca · nero	casambi	3000K	44°	2
<b>Vb7.650.506</b>	biancoV · nero	casambi	3000K	44°	2

<b>Vb7.650.389</b>	nero55 · nero	on-off	3000K	70°
<b>Vb7.650.395</b>	argento hacca · nero	on-off	3000K	70°
<b>Vb7.650.401</b>	biancoV · nero	on-off	3000K	70°
<b>Vb7.650.497</b>	nero55 · nero	casambi	3000K	70°
<b>Vb7.650.503</b>	argento hacca · nero	casambi	3000K	70°
<b>Vb7.650.509</b>	biancoV · nero	casambi	3000K	70°

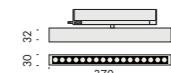
<b>Vb7.650.387</b>	nero55 · nero	on-off	3500K	44°	2
<b>Vb7.650.393</b>	argento hacca · nero	on-off	3500K	44°	2
<b>Vb7.650.399</b>	biancoV · nero	on-off	3500K	44°	2
<b>Vb7.650.495</b>	nero55 · nero	casambi	3500K	44°	2
<b>Vb7.650.501</b>	argento hacca · nero	casambi	3500K	44°	2
<b>Vb7.650.507</b>	biancoV · nero	casambi	3500K	44°	2

<b>Vb7.650.390</b>	nero55 · nero	on-off	3500K	70°
<b>Vb7.650.396</b>	argento hacca · nero	on-off	3500K	70°
<b>Vb7.650.402</b>	biancoV · nero	on-off	3500K	70°
<b>Vb7.650.498</b>	nero55 · nero	casambi	3500K	70°
<b>Vb7.650.504</b>	argento hacca · nero	casambi	3500K	70°
<b>Vb7.650.510</b>	biancoV · nero	casambi	3500K	70°

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10  
Lmγ>65° < 1000cd/m²  
Lmγ>45° < 6000cd/m²



mn adattatore VbB 30x370 h.32			240V 50/60Hz		A	IP40	CE	I
<b>Vb7.650.055</b>	nero55 · nero	on-off	2700K	44°	2			
<b>Vb7.650.061</b>	argento hacca · nero	on-off	2700K	44°	2			
<b>Vb7.650.067</b>	biancoV · bianco	on-off	2700K	44°	2			
<b>Vb7.650.163</b>	nero55 · nero	dali	2700K	44°	2			
<b>Vb7.650.169</b>	argento hacca · nero	dali	2700K	44°	2			
<b>Vb7.650.175</b>	biancoV · bianco	dali	2700K	44°	2			
<b>Vb7.650.271</b>	nero55 · nero	casambi	2700K	44°	2			
<b>Vb7.650.277</b>	argento hacca · nero	casambi	2700K	44°	2			
<b>Vb7.650.283</b>	biancoV · bianco	casambi	2700K	44°	2			

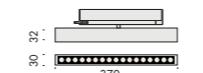
Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	350	27.0	948	9.5
vita media · average life 70000 h L90 B10								

<b>Vb7.650.056</b>	nero55 · nero	on-off	3000K	44°	2
<b>Vb7.650.062</b>	argento hacca · nero	on-off	3000K	44°	2
<b>Vb7.650.068</b>	biancoV · bianco	on-off	3000K	44°	2
<b>Vb7.650.164</b>	nero55 · nero	dali	3000K	44°	2
<b>Vb7.650.170</b>	argento hacca · nero	dali	3000K	44°	2
<b>Vb7.650.176</b>	biancoV · bianco	dali	3000K	44°	2
<b>Vb7.650.272</b>	nero55 · nero	casambi	3000K	44°	2
<b>Vb7.650.278</b>	argento hacca · nero	casambi	3000K	44°	2
<b>Vb7.650.284</b>	biancoV · bianco	casambi	3000K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	350	27.0	1004	9.5
vita media · average life 70000 h L90 B10								

<b>Vb7.650.057</b>	nero55 · nero	on-off	3500K	44°	2
<b>Vb7.650.063</b>	argento hacca · nero	on-off	3500K	44°	2
<b>Vb7.650.069</b>	biancoV · bianco	on-off	3500K	44°	2
<b>Vb7.650.165</b>	nero55 · nero	dali	3500K	44°	2
<b>Vb7.650.171</b>	argento hacca · nero	dali	3500K	44°	2
<b>Vb7.650.177</b>	biancoV · bianco	dali	3500K	44°	2
<b>Vb7.650.273</b>	nero55 · nero	casambi	3500K	44°	2
<b>Vb7.650.279</b>	argento hacca · nero	casambi	3500K	44°	2
<b>Vb7.650.285</b>	biancoV · bianco	casambi	3500K	44°	2

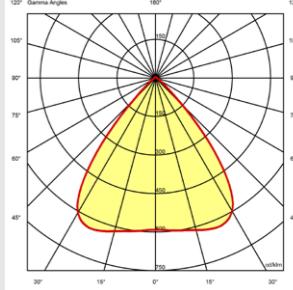
Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	350	27.0	1032	9.5
vita media · average life 70000 h L90 B10								



mn adattatore VbB 30x370 h.32			240V 50/60Hz		A	IP40	CE	I
<b>Vb7.650.058</b>	nero55 · nero	on-off	2700K	70°	2			
<b>Vb7.650.064</b>	argento hacca · nero	on-off	2700K	70°	2			
<b>Vb7.650.070</b>	biancoV · bianco	on-off	2700K	70°	2			
<b>Vb7.650.166</b>	nero55 · nero	dali	2700K	70°	2			
<b>Vb7.650.172</b>	argento hacca · nero	dali	2700K	70°	2			
<b>Vb7.650.178</b>	biancoV · bianco	dali	2700K	70°	2			
<b>Vb7.650.274</b>	nero55 · nero	casambi	2700K	70°	2			
<b>Vb7.650.280</b>	argento hacca · nero	casambi	2700K	70°	2			
<b>Vb7.650.286</b>	biancoV · bianco	casambi	2700K	70°	2			

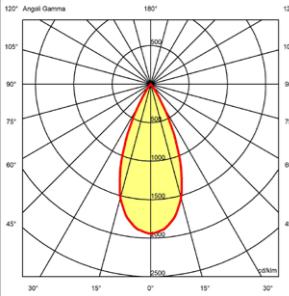
Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	350	27.0	948	9.5
vita media · average life 70000 h L90 B10								

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

gradi di apertura fascio luminoso  $44^\circ$   
beam's angle degrees  $44^\circ$

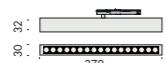


UGR<10

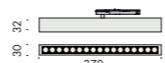
Lmγ > 65° < 1000cd/m<sup>2</sup>

Lmγ > 45° < 6000cd/m<sup>2</sup>

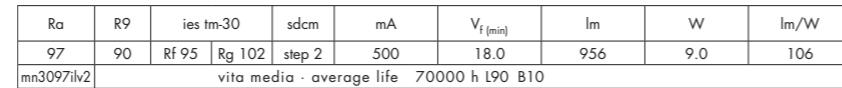
mn adattatore traccia sistema 30X370 h.32			24Vdc			IP40		C	€	★	
<b>Vb7.650.587</b>	nero55 · nero	pwm			2700K	44°			2		
<b>Vb7.650.593</b>	argento hacca · nero	pwm			2700K	44°			2		
<b>Vb7.650.599</b>	my bianco · nero	pwm			2700K	44°			2		
<b>Vb7.650.659</b>	nero55 · nero	casambi			2700K	44°			2		
<b>Vb7.650.665</b>	argento hacca · nero	casambi			2700K	44°			2		
<b>Vb7.650.671</b>	my bianco · nero	casambi			2700K	44°			2		



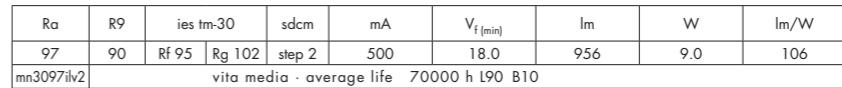
mn adattatore traccia sistema 30X370 h.32			24Vdc			IP40		€	★	i
<b>Vb7.650.590</b>	nero55	· nero	pwm			2700K	70°			2
<b>Vb7.650.596</b>	argento	hacca · nero	pwm			2700K	70°			2
<b>Vb7.650.602</b>	my bianco	· nero	pwm			2700K	70°			2
<b>Vb7.650.662</b>	nero55	· nero	casambi			2700K	70°			2
<b>Vb7.650.668</b>	argento	hacca · nero	casambi			2700K	70°			2
<b>Vb7.650.674</b>	my bianco	· nero	casambi			2700K	70°			2
Ra	R9	ies tm-30	sdcm	mA	V <sub>f</sub> [min]	lm	W	lm/W		
97	90	Rf 93	Rg 102	step 2	500	18.0	902	9.0	100	
mn2797ilv2		vita media · average life	70000 h	L90	B10					



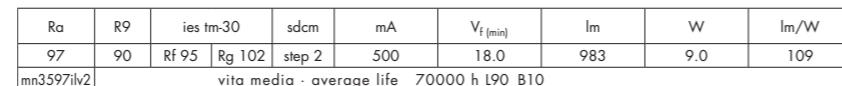
<b>Vb7.650.588</b>	nero55 · nero	pwm	3000K	44°				
<b>Vb7.650.594</b>	argento hacca · nero	pwm	3000K	44°				
<b>Vb7.650.600</b>	my bianco · nero	pwm	3000K	44°				
<b>Vb7.650.660</b>	nero55 · nero	casambi	3000K	44°				
<b>Vb7.650.666</b>	argento hacca · nero	casambi	3000K	44°				
<b>Vb7.650.672</b>	my bianco · nero	casambi	3000K	44°				
Ra	R9	ies tm-30	sdcm	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	500	18.0	956	9.0
mn3097ilv2	vita media · average life					70000 h	L90	B10



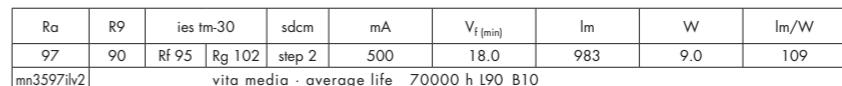
<b>Vb7.650.591</b>	nero55 · nero	pwm	3000K	70°	2
<b>Vb7.650.597</b>	argento hacca · nero	pwm	3000K	70°	2
<b>Vb7.650.603</b>	my bianco · nero	pwm	3000K	70°	2
<b>Vb7.650.663</b>	nero55 · nero	casambi	3000K	70°	2
<b>Vb7.650.669</b>	argento hacca · nero	casambi	3000K	70°	2
<b>Vb7.650.675</b>	my bianco · nero	casambi	3000K	70°	2



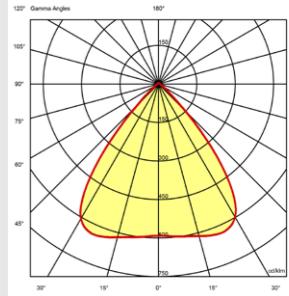
<b>Vb7.650.589</b>	nero55 · nero	pwm	3500K	44°	
<b>Vb7.650.595</b>	argento hacca · nero	pwm	3500K	44°	
<b>Vb7.650.601</b>	my bianco · nero	pwm	3500K	44°	
<b>Vb7.650.661</b>	nero55 · nero	casambi	3500K	44°	
<b>Vb7.650.667</b>	argento hacca · nero	casambi	3500K	44°	
<b>Vb7.650.673</b>	my bianco · nero	casambi	3500K	44°	



<b>Vb7.650.592</b>	nero55 · nero	pwm	3500K	70°	2
<b>Vb7.650.598</b>	argento hacca · nero	pwm	3500K	70°	2
<b>Vb7.650.604</b>	my bianco · nero	pwm	3500K	70°	2
<b>Vb7.650.664</b>	nero55 · nero	casambi	3500K	70°	2
<b>Vb7.650.670</b>	argento hacca · nero	casambi	3500K	70°	2
<b>Vb7.650.676</b>	my bianco · nero	casambi	3500K	70°	2

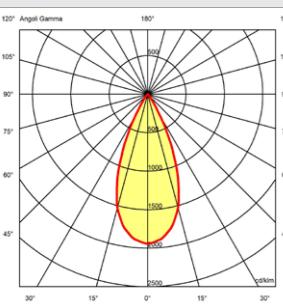


gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lm γ > 65° < 1000cd/m²  
Lm γ > 45° < 6000cd/m²

#### mn incasso 30x370 h.26

IP40 C E

Vb6.650.073	nero55	2700K	44°	2
Vb6.650.079	argento hacca	2700K	44°	2
Vb6.650.085	biancoV	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	175	25.5	535	4.5
					250	26.0	724	6.5
					350	27.0	948	9.5

mn2797i2 vita media · average life 70000 h l90 B10

#### mn incasso 30x370 h.26

IP40 C E

Vb6.650.076	nero55	2700K	70°	2
Vb6.650.082	argento hacca	2700K	70°	2
Vb6.650.088	biancoV	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	175	25.5	535	4.5
					250	26.0	724	6.5
					350	27.0	948	9.5

mn2797i2 vita media · average life 70000 h l90 B10

Vb6.650.074 nero55 3000K 44° 2

Vb6.650.080 argento hacca 3000K 44° 2

Vb6.650.086 biancoV 3000K 44° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	175	25.5	567	4.5
					250	26.0	767	6.5
					350	27.0	1004	9.5

mn3097i2 vita media · average life 70000 h l90 B10

Vb6.650.077 nero55 3000K 70° 2

Vb6.650.083 argento hacca 3000K 70° 2

Vb6.650.089 biancoV 3000K 70° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	175	25.5	567	4.5
					250	26.0	767	6.5
					350	27.0	1004	9.5

mn3097i2 vita media · average life 70000 h l90 B10

Vb6.650.075 nero55 3500K 44° 2

Vb6.650.081 argento hacca 3500K 44° 2

Vb6.650.087 biancoV 3500K 44° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	175	25.5	583	4.5
					250	26.0	788	6.5
					350	27.0	1032	9.5

mn3597i2 vita media · average life 70000 h l90 B10

Vb6.650.078 nero55 3500K 70° 2

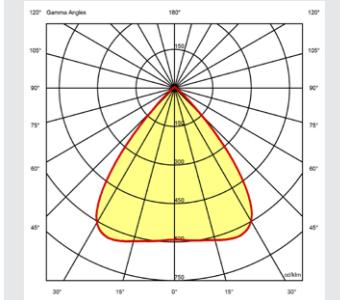
Vb6.650.084 argento hacca 3500K 70° 2

Vb6.650.090 biancoV 3500K 70° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	175	25.5	583	4.5
					250	26.0	788	6.5
					350	27.0	1032	9.5

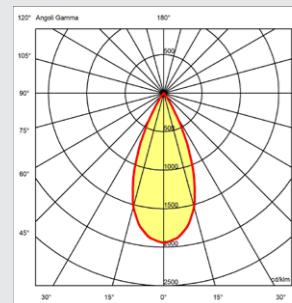
mn3597i2 vita media · average life 70000 h l90 B10

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lmγ>65° < 1000cd/m²

Lmγ>45° < 6000cd/m²

**mn incasso 30X370 a.i. h.26**

			240V 50/60Hz	AR	IP40	CE	i
<b>Vb6.650.199</b>	nero55	on-off	2700K	44°	2		
<b>Vb6.650.205</b>	argento hacca	on-off	2700K	44°	2		
<b>Vb6.650.211</b>	biancoV	on-off	2700K	44°	2		
<b>Vb6.650.325</b>	nero55	dali	2700K	44°	2		
<b>Vb6.650.331</b>	argento hacca	dali	2700K	44°	2		
<b>Vb6.650.337</b>	biancoV	dali	2700K	44°	2		
<b>Vb6.650.451</b>	nero55	casambi	2700K	44°	2		
<b>Vb6.650.457</b>	argento hacca	casambi	2700K	44°	2		
<b>Vb6.650.463</b>	biancoV	casambi	2700K	44°	2		

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	350	27.0	948	9.5
vita media · average life 70000 h L90 B10								

mn2797i2

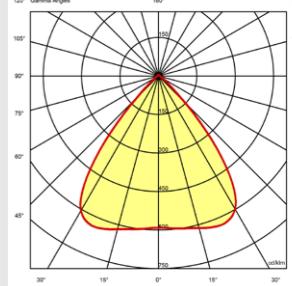
**mn incasso 30X370 a.i. h.26**

			240V 50/60Hz	AR	IP40	CE	i
<b>Vb6.650.202</b>	nero55	on-off	2700K	70°	2		
<b>Vb6.650.208</b>	argento hacca	on-off	2700K	70°	2		
<b>Vb6.650.214</b>	biancoV	on-off	2700K	70°	2		
<b>Vb6.650.328</b>	nero55	dali	2700K	70°	2		
<b>Vb6.650.334</b>	argento hacca	dali	2700K	70°	2		
<b>Vb6.650.340</b>	biancoV	dali	2700K	70°	2		
<b>Vb6.650.454</b>	nero55	casambi	2700K	70°	2		
<b>Vb6.650.460</b>	argento hacca	casambi	2700K	70°	2		
<b>Vb6.650.466</b>	biancoV	casambi	2700K	70°	2		

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	350	27.0	948	9.5
vita media · average life 70000 h L90 B10								

mn2797i2

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

**Vb6.650.200** nero55 on-off 3000K 44° 2

**Vb6.650.206** argento hacca on-off 3000K 44° 2

**Vb6.650.212** biancoV on-off 3000K 44° 2

**Vb6.650.326** nero55 dali 3000K 44° 2

**Vb6.650.332** argento hacca dali 3000K 44° 2

**Vb6.650.338** biancoV dali 3000K 44° 2

**Vb6.650.452** nero55 casambi 3000K 44° 2

**Vb6.650.458** argento hacca casambi 3000K 44° 2

**Vb6.650.464** biancoV casambi 3000K 44° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	350	27.0	1004	9.5
vita media · average life 70000 h L90 B10								

mn3097i2

**Vb6.650.203** nero55 on-off 3000K 70° 2

**Vb6.650.209** argento hacca on-off 3000K 70° 2

**Vb6.650.215** biancoV on-off 3000K 70° 2

**Vb6.650.329** nero55 dali 3000K 70° 2

**Vb6.650.335** argento hacca dali 3000K 70° 2

**Vb6.650.341** biancoV dali 3000K 70° 2

**Vb6.650.455** nero55 casambi 3000K 70° 2

**Vb6.650.461** argento hacca casambi 3000K 70° 2

**Vb6.650.467** biancoV casambi 3000K 70° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	350	27.0	1004	9.5
vita media · average life 70000 h L90 B10								

mn3097i2

**Vb6.650.201** nero55 on-off 3500K 44° 2

**Vb6.650.207** argento hacca on-off 3500K 44° 2

**Vb6.650.213** biancoV on-off 3500K 44° 2

**Vb6.650.327** nero55 dali 3500K 44° 2

**Vb6.650.333** argento hacca dali 3500K 44° 2

**Vb6.650.339** biancoV dali 3500K 44° 2

**Vb6.650.453** nero55 casambi 3500K 44° 2

**Vb6.650.459** argento hacca casambi 3500K 44° 2

**Vb6.650.465** biancoV casambi 3500K 44° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	350	27.0	1032	9.5
vita media · average life 70000 h L90 B10								

mn3597i2

**Vb6.650.204** nero55 on-off 3500K 70° 2

**Vb6.650.210** argento hacca on-off 3500K 70° 2

**Vb6.650.216** biancoV on-off 3500K 70° 2

**Vb6.650.330** nero55 dali 3500K 70° 2

**Vb6.650.336** argento hacca dali 3500K 70° 2

**Vb6.650.342** biancoV dali 3500K 70° 2

**Vb6.650.456** nero55 casambi 3500K 70° 2

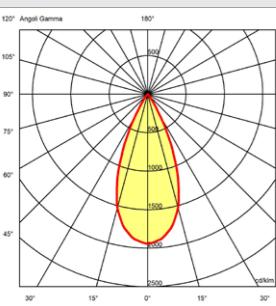
**Vb6.650.462** argento hacca casambi 3500K 70° 2

**Vb6.650.468** biancoV casambi 3500K 70° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	350	27.0	1032	9.5
vita media · average life 70000 h L90 B10								

mn3597i2

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lm γ > 65° < 1000cd/m²  
Lm γ > 45° < 6000cd/m²

**mn scomparsa totale 30x370 h.32**

IP40



<b>Vb6.650.691</b>	nero55	2700K	44°	2
<b>Vb6.650.697</b>	argento hacca	2700K	44°	2
<b>Vb6.650.703</b>	biancoV	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	175	25.5	535	4.5
					250	26.0	724	6.5
					350	27.0	948	9.5

mn2797i2 vita media · average life 70000 h l90 B10

**mn scomparsa totale 30x370 h.32**

IP40



<b>Vb6.650.694</b>	nero55	2700K	70°	2
<b>Vb6.650.700</b>	argento hacca	2700K	70°	2
<b>Vb6.650.706</b>	biancoV	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	175	25.5	535	4.5
					250	26.0	724	6.5
					350	27.0	948	9.5

mn2797i2 vita media · average life 70000 h l90 B10

<b>Vb6.650.692</b>	nero55	3000K	44°	2
<b>Vb6.650.698</b>	argento hacca	3000K	44°	2
<b>Vb6.650.704</b>	biancoV	3000K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	175	25.5	567	4.5
					250	26.0	767	6.5
					350	27.0	1004	9.5

mn3097i2 vita media · average life 70000 h l90 B10

<b>Vb6.650.695</b>	nero55	3000K	70°	2
<b>Vb6.650.701</b>	argento hacca	3000K	70°	2
<b>Vb6.650.707</b>	biancoV	3000K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	175	25.5	567	4.5
					250	26.0	767	6.5
					350	27.0	1004	9.5

mn3097i2 vita media · average life 70000 h l90 B10

<b>Vb6.650.693</b>	nero55	3500K	44°	2
<b>Vb6.650.699</b>	argento hacca	3500K	44°	2
<b>Vb6.650.705</b>	biancoV	3500K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	175	25.5	583	4.5
					250	26.0	788	6.5
					350	27.0	1032	9.5

mn3597i2 vita media · average life 70000 h l90 B10

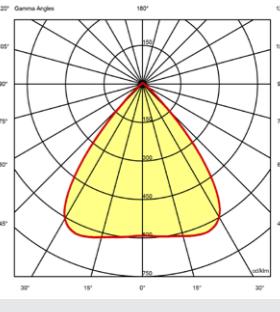
<b>Vb6.650.696</b>	nero55	3500K	70°	2
<b>Vb6.650.702</b>	argento hacca	3500K	70°	2
<b>Vb6.650.708</b>	biancoV	3500K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	175	25.5	583	4.5
					250	26.0	788	6.5
					350	27.0	1032	9.5

mn3597i2 vita media · average life 70000 h l90 B10

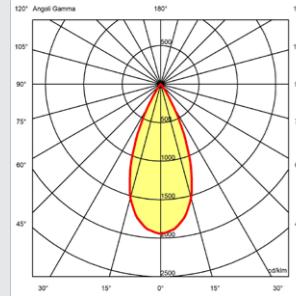


gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°

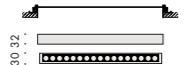


UGR<19

gradi di apertura fascio luminoso  $44^\circ$   
beam's angle degrees  $44^\circ$



UGR<10  
 $Lm\gamma > 65^\circ < 1000 \text{cd/m}^2$   
 $Lm\gamma > 45^\circ < 6000 \text{cd/m}^2$

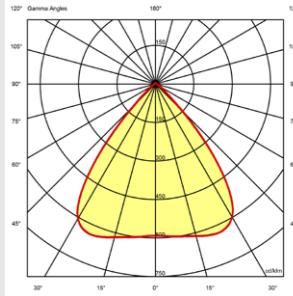


mn scomparsa totale 30x370 a.i. h.32			240V 50/60Hz		A	IP40	C	E	I
<b>Vb6.650.835</b>	nero55		on-off		2700K	44°	2		
<b>Vb6.650.841</b>	argento hacca		on-off		2700K	44°	2		
<b>Vb6.650.847</b>	biancoV		on-off		2700K	44°	2		
<b>Vb6.650.979</b>	nero55		dali		2700K	44°	2		
<b>Vb6.650.985</b>	argento hacca		dali		2700K	44°	2		
<b>Vb6.650.991</b>	biancoV		dali		2700K	44°	2		
<b>Vb6.650.1123</b>	nero55		casambi		2700K	44°	2		
<b>Vb6.650.1129</b>	argento hacca		casambi		2700K	44°	2		
<b>Vb6.650.1135</b>	biancoV		casambi		2700K	44°	2		

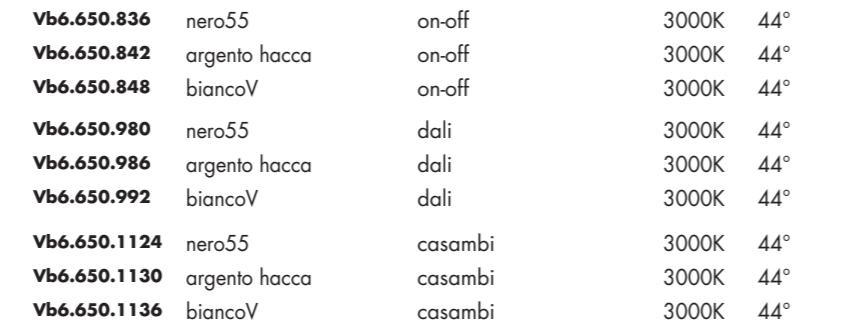


mn scomparsa totale 30x370 a.i. h.32			240V 50/60Hz				
<b>Vb6.650.838</b>	nero55		on-off		2700K	70°	
<b>Vb6.650.844</b>	argento hacca		on-off		2700K	70°	
<b>Vb6.650.850</b>	biancoV		on-off		2700K	70°	
<b>Vb6.650.982</b>	nero55		dali		2700K	70°	
<b>Vb6.650.988</b>	argento hacca		dali		2700K	70°	
<b>Vb6.650.994</b>	biancoV		dali		2700K	70°	
<b>Vb6.650.1126</b>	nero55		casambi		2700K	70°	
<b>Vb6.650.1132</b>	argento hacca		casambi		2700K	70°	
<b>Vb6.650.1138</b>	biancoV		casambi		2700K	70°	

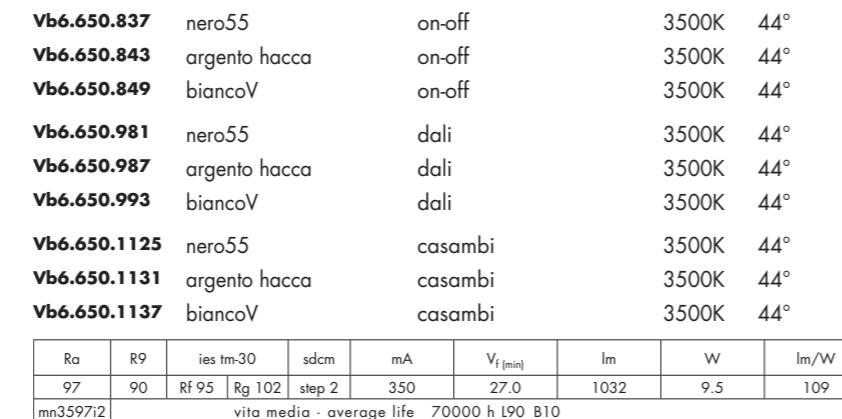
gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

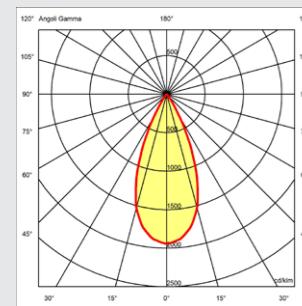


<b>Vb6.650.839</b>	nero55	on-off	3000K	70°
<b>Vb6.650.845</b>	argento hacca	on-off	3000K	70°
<b>Vb6.650.851</b>	biancoV	on-off	3000K	70°
<b>Vb6.650.983</b>	nero55	dali	3000K	70°
<b>Vb6.650.989</b>	argento hacca	dali	3000K	70°
<b>Vb6.650.995</b>	biancoV	dali	3000K	70°
<b>Vb6.650.1127</b>	nero55	casambi	3000K	70°
<b>Vb6.650.1133</b>	argento hacca	casambi	3000K	70°
<b>Vb6.650.1139</b>	biancoV	casambi	3000K	70°



<b>Vb6.650.840</b>	nero55	on-off	3500K	70°
<b>Vb6.650.846</b>	argento hacca	on-off	3500K	70°
<b>Vb6.650.852</b>	biancoV	on-off	3500K	70°
<b>Vb6.650.984</b>	nero55	dali	3500K	70°
<b>Vb6.650.990</b>	argento hacca	dali	3500K	70°
<b>Vb6.650.996</b>	biancoV	dali	3500K	70°
<b>Vb6.650.1128</b>	nero55	casambi	3500K	70°
<b>Vb6.650.1134</b>	argento hacca	casambi	3500K	70°
<b>Vb6.650.1140</b>	biancoV	casambi	3500K	70°

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lm γ > 65° < 1000cd/m²

Lm γ > 45° < 6000cd/m²

#### mn soffitto 30x730 h.32

IP40 CE

Vb5.650.109	nero55	2700K	44°	2
Vb5.650.115	argento hacca	2700K	44°	2
Vb5.650.121	biancoV	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	350	25.5	1070	8.9
					500	26.0	1448	13.0
					700	27.0	1896	18.9

mn2797i4 vita media · average life 70000 h l90 B10

#### mn soffitto 30x730 h.32

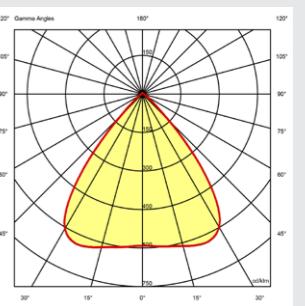
IP40 CE

Vb5.650.112	nero55	2700K	70°	2
Vb5.650.118	argento hacca	2700K	70°	2
Vb5.650.124	biancoV	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	350	25.5	1070	8.9
					500	26.0	1448	13.0
					700	27.0	1896	18.9

mn2797i4 vita media · average life 70000 h l90 B10

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

#### Vb5.650.110 nero55

3000K 44° 2

#### Vb5.650.116 argento hacca

3000K 44° 2

#### Vb5.650.122 biancoV

3000K 44° 2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	350	25.5	1134	8.9
					500	26.0	1534	13.0
					700	27.0	2008	18.9

mn3097i4 vita media · average life 70000 h l90 B10

#### Vb5.650.113 nero55

3000K 70° 2

#### Vb5.650.119 argento hacca

3000K 70° 2

#### Vb5.650.125 biancoV

3000K 70° 2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	350	25.5	1134	8.9
					500	26.0	1534	13.0
					700	27.0	2008	18.9

mn3097i4 vita media · average life 70000 h l90 B10

#### Vb5.650.111 nero55

3500K 44° 2

#### Vb5.650.117 argento hacca

3500K 44° 2

#### Vb5.650.123 biancoV

3500K 44° 2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	350	25.5	1166	4.0
					500	26.0	1576	13.0
					700	27.0	2064	18.9

mn3597i4 vita media · average life 70000 h l90 B10

#### Vb5.650.114 nero55

3500K 70° 2

#### Vb5.650.120 argento hacca

3500K 70° 2

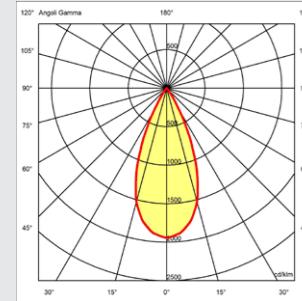
#### Vb5.650.126 biancoV

3500K 70° 2

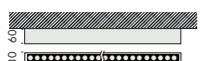
Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	350	25.5	1166	4.0
					500	26.0	1576	13.0
					700	27.0	2064	18.9

mn3597i4 vita media · average life 70000 h l90 B10

gradi di apertura fascio luminoso  $44^\circ$   
beam's angle degrees  $44^\circ$

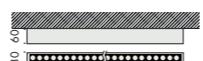


UGR<10  
Lm γ>65° < 1000cd/m<sup>2</sup>  
Lm γ>45° < 6000cd/m<sup>2</sup>



**mn soffitto 30x730 a.i. h.60**

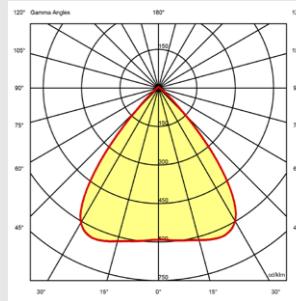
mn soffitto 30x730 a.i. h.60		240V 50/60Hz	A	IP40	▲	CE	i
<b>Vb5.650.253</b>	nero55	on-off	2700K	44°	2		
<b>Vb5.650.259</b>	argento hacca	on-off	2700K	44°	2		
<b>Vb5.650.265</b>	biancoV	on-off	2700K	44°	2		
<b>Vb5.650.397</b>	nero55	dali	2700K	44°	2		
<b>Vb5.650.403</b>	argento hacca	dali	2700K	44°	2		
<b>Vb5.650.409</b>	biancoV	dali	2700K	44°	2		
<b>Vb5.650.541</b>	nero55	casambi	2700K	44°	2		
<b>Vb5.650.547</b>	argento hacca	casambi	2700K	44°	2		
<b>Vb5.650.553</b>	biancoV	casambi	2700K	44°	2		



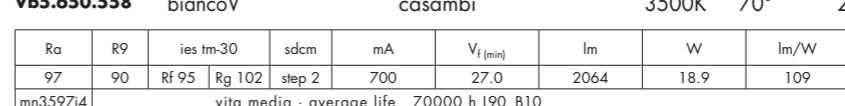
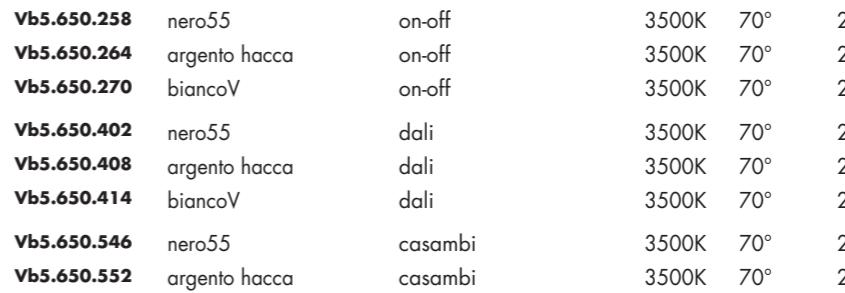
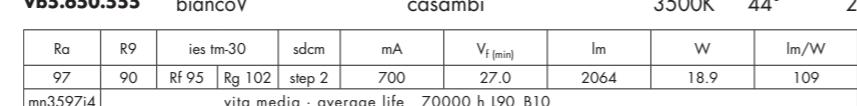
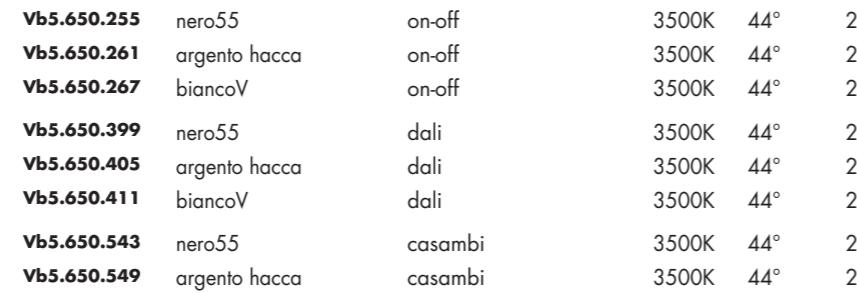
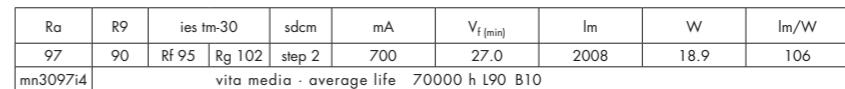
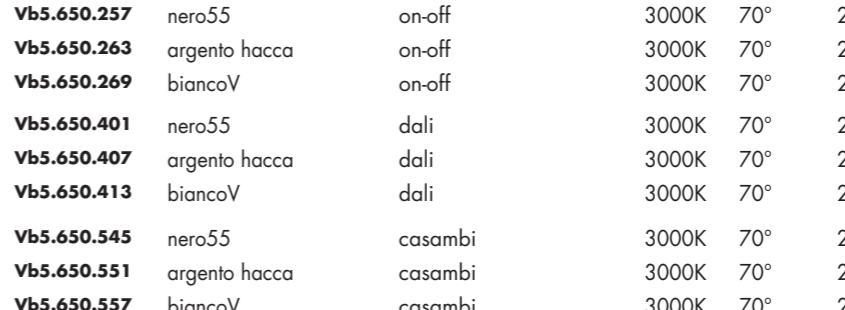
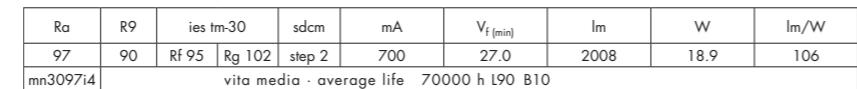
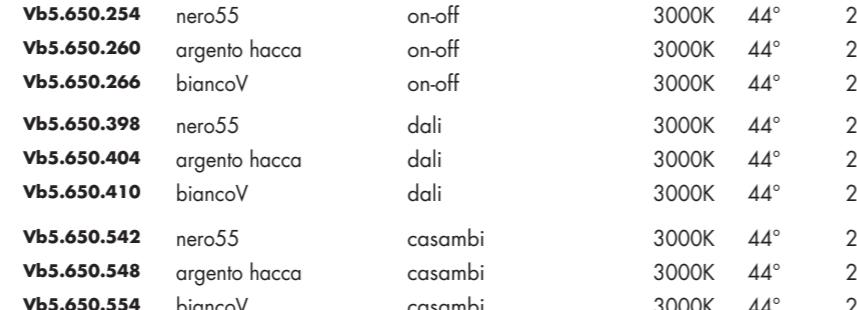
**mn soffitto 30x730 a.i. h.60**

mn soffitto 30x730 a.i. h.60		240V 50/60Hz	A	IP40	CE	i
<b>Vb5.650.256</b>	nero55	on-off	2700K	70°	2	
<b>Vb5.650.262</b>	argento hacca	on-off	2700K	70°	2	
<b>Vb5.650.268</b>	biancoV	on-off	2700K	70°	2	
<b>Vb5.650.400</b>	nero55	dali	2700K	70°	2	
<b>Vb5.650.406</b>	argento hacca	dali	2700K	70°	2	
<b>Vb5.650.412</b>	biancoV	dali	2700K	70°	2	
<b>Vb5.650.544</b>	nero55	casambi	2700K	70°	2	
<b>Vb5.650.550</b>	argento hacca	casambi	2700K	70°	2	
<b>Vb5.650.556</b>	biancoV	casambi	2700K	70°	2	

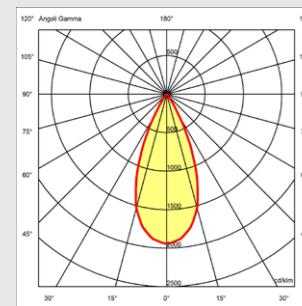
gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19



gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lmγ>65° < 1000cd/m²

Lmγ>45° < 6000cd/m²

**mn adattatore A1 30x730 h.32**

48Vdc IP40 CE i

<b>Vb7.650.403</b>	nero55 · nero	on-off	2700K	44°	2
<b>Vb7.650.409</b>	argento hacca · nero	on-off	2700K	44°	2
<b>Vb7.650.415</b>	biancoV · nero	on-off	2700K	44°	2
<b>Vb7.650.511</b>	nero55 · nero	casambi	2700K	44°	2
<b>Vb7.650.517</b>	argento hacca · nero	casambi	2700K	44°	2
<b>Vb7.650.523</b>	biancoV · nero	casambi	2700K	44°	2

Ra	R9	ies tm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	700	27.0	1896	18.9
mn2797i4 vita media · average life 70000 h L90 B10								

**mn adattatore A1 30x730 h.32**

48Vdc IP40 CE i

<b>Vb7.650.406</b>	nero55 · nero	on-off	2700K	70°	2
<b>Vb7.650.412</b>	argento hacca · nero	on-off	2700K	70°	2
<b>Vb7.650.418</b>	biancoV · nero	on-off	2700K	70°	2
<b>Vb7.650.514</b>	nero55 · nero	casambi	2700K	70°	2
<b>Vb7.650.520</b>	argento hacca · nero	casambi	2700K	70°	2
<b>Vb7.650.526</b>	biancoV · nero	casambi	2700K	70°	2

Ra	R9	ies tm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	700	27.0	1896	18.9
mn2797i4 vita media · average life 70000 h L90 B10								

**Vb7.650.404** nero55 · nero on-off 3000K 44° 2

**Vb7.650.410** argento hacca · nero on-off 3000K 44° 2

**Vb7.650.416** biancoV · nero on-off 3000K 44° 2

**Vb7.650.512** nero55 · nero casambi 3000K 44° 2

**Vb7.650.518** argento hacca · nero casambi 3000K 44° 2

**Vb7.650.524** biancoV · nero casambi 3000K 44° 2

Ra	R9	ies tm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	27.0	2008	18.9
mn3097i4 vita media · average life 70000 h L90 B10								

**Vb7.650.407** nero55 · nero on-off 3000K 70° 2

**Vb7.650.413** argento hacca · nero on-off 3000K 70° 2

**Vb7.650.419** biancoV · nero on-off 3000K 70° 2

**Vb7.650.515** nero55 · nero casambi 3000K 70° 2

**Vb7.650.521** argento hacca · nero casambi 3000K 70° 2

**Vb7.650.527** biancoV · nero casambi 3000K 70° 2

Ra	R9	ies tm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	27.0	2008	18.9
mn3097i4 vita media · average life 70000 h L90 B10								

**Vb7.650.405** nero55 · nero on-off 3500K 44° 2

**Vb7.650.411** argento hacca · nero on-off 3500K 44° 2

**Vb7.650.417** biancoV · nero on-off 3500K 44° 2

**Vb7.650.513** nero55 · nero casambi 3500K 44° 2

**Vb7.650.519** argento hacca · nero casambi 3500K 44° 2

**Vb7.650.525** biancoV · nero casambi 3500K 44° 2

Ra	R9	ies tm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	27.0	2064	18.9
mn3597i4 vita media · average life 70000 h L90 B10								

**Vb7.650.408** nero55 · nero on-off 3500K 70° 2

**Vb7.650.414** argento hacca · nero on-off 3500K 70° 2

**Vb7.650.420** biancoV · nero on-off 3500K 70° 2

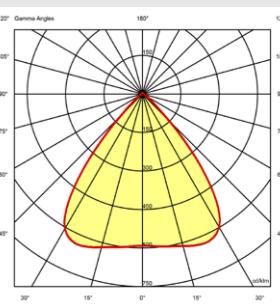
**Vb7.650.516** nero55 · nero casambi 3500K 70° 2

**Vb7.650.522** argento hacca · nero casambi 3500K 70° 2

**Vb7.650.528** biancoV · nero casambi 3500K 70° 2

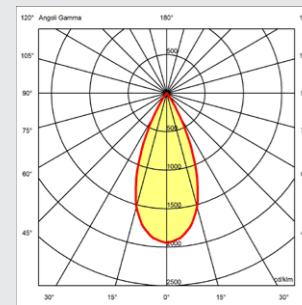
Ra	R9	ies tm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	27.0	2064	18.9
mn3597i4 vita media · average life 70000 h L90 B10								

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10  
Lmγ>65° < 1000cd/m²  
Lmγ>45° < 6000cd/m²



mn adattatore VbB 30x730 h.32			240V 50/60Hz		A	IP40	CE	i
<b>Vb7.650.073</b>	nero55 · nero	on-off	2700K	44°	2			
<b>Vb7.650.079</b>	argento hacca · nero	on-off	2700K	44°	2			
<b>Vb7.650.085</b>	biancoV · bianco	on-off	2700K	44°	2			
<b>Vb7.650.181</b>	nero55 · nero	dali	2700K	44°	2			
<b>Vb7.650.187</b>	argento hacca · nero	dali	2700K	44°	2			
<b>Vb7.650.193</b>	biancoV · bianco	dali	2700K	44°	2			
<b>Vb7.650.289</b>	nero55 · nero	casambi	2700K	44°	2			
<b>Vb7.650.295</b>	argento hacca · nero	casambi	2700K	44°	2			
<b>Vb7.650.301</b>	biancoV · bianco	casambi	2700K	44°	2			

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	700	27.0	1896	18.9
vita media · average life 70000 h L90 B10								

<b>Vb7.650.074</b>	nero55 · nero	on-off	3000K	44°	2
<b>Vb7.650.080</b>	argento hacca · nero	on-off	3000K	44°	2
<b>Vb7.650.086</b>	biancoV · bianco	on-off	3000K	44°	2
<b>Vb7.650.182</b>	nero55 · nero	dali	3000K	44°	2
<b>Vb7.650.188</b>	argento hacca · nero	dali	3000K	44°	2
<b>Vb7.650.194</b>	biancoV · bianco	dali	3000K	44°	2
<b>Vb7.650.290</b>	nero55 · nero	casambi	3000K	44°	2
<b>Vb7.650.296</b>	argento hacca · nero	casambi	3000K	44°	2
<b>Vb7.650.302</b>	biancoV · bianco	casambi	3000K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	700	27.0	2008	18.9
vita media · average life 70000 h L90 B10								

<b>Vb7.650.075</b>	nero55 · nero	on-off	3500K	44°	2
<b>Vb7.650.081</b>	argento hacca · nero	on-off	3500K	44°	2
<b>Vb7.650.087</b>	biancoV · bianco	on-off	3500K	44°	2
<b>Vb7.650.183</b>	nero55 · nero	dali	3500K	44°	2
<b>Vb7.650.189</b>	argento hacca · nero	dali	3500K	44°	2
<b>Vb7.650.195</b>	biancoV · bianco	dali	3500K	44°	2
<b>Vb7.650.291</b>	nero55 · nero	casambi	3500K	44°	2
<b>Vb7.650.297</b>	argento hacca · nero	casambi	3500K	44°	2
<b>Vb7.650.303</b>	biancoV · bianco	casambi	3500K	44°	2

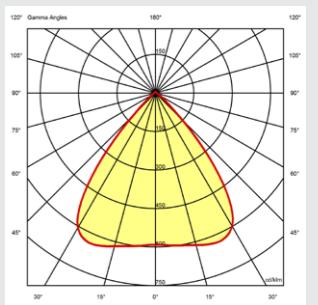
Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	700	27.0	2064	18.9
vita media · average life 70000 h L90 B10								



mn adattatore VbB 30x730 h.32			240V 50/60Hz		A	IP40	CE	i
<b>Vb7.650.076</b>	nero55 · nero	on-off	2700K	70°	2			
<b>Vb7.650.082</b>	argento hacca · nero	on-off	2700K	70°	2			
<b>Vb7.650.088</b>	biancoV · bianco	on-off	2700K	70°	2			
<b>Vb7.650.184</b>	nero55 · nero	dali	2700K	70°	2			
<b>Vb7.650.190</b>	argento hacca · nero	dali	2700K	70°	2			
<b>Vb7.650.196</b>	biancoV · bianco	dali	2700K	70°	2			
<b>Vb7.650.292</b>	nero55 · nero	casambi	2700K	70°	2			
<b>Vb7.650.298</b>	argento hacca · nero	casambi	2700K	70°	2			
<b>Vb7.650.304</b>	biancoV · bianco	casambi	2700K	70°	2			

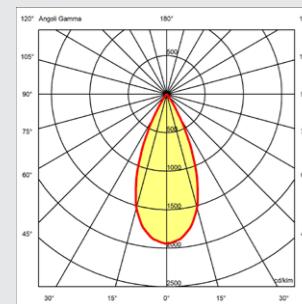
Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	700	27.0	1896	18.9
vita media · average life 70000 h L90 B10								

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lmγ>65° < 1000cd/m²  
Lmγ>45° < 6000cd/m²

**mn adattatore traccia sistema 30X730 h.32**

24Vdc

<b>Vb7.650.605</b>	nero55 · nero	pwm	2700K	44°	2
<b>Vb7.650.611</b>	argento hacca · nero	pwm	2700K	44°	2
<b>Vb7.650.617</b>	my bianco · nero	pwm	2700K	44°	2
<b>Vb7.650.677</b>	nero55 · nero	casambi	2700K	44°	2
<b>Vb7.650.683</b>	argento hacca · nero	casambi	2700K	44°	2
<b>Vb7.650.689</b>	my bianco · nero	casambi	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	700	17.5	1351	12.3
mn2797ilv4 vita media · average life 70000 h L90 B10								

**mn adattatore traccia sistema 30X730 h.32**

24Vdc

<b>Vb7.650.608</b>	nero55 · nero	pwm	2700K	70°	2
<b>Vb7.650.614</b>	argento hacca · nero	pwm	2700K	70°	2
<b>Vb7.650.620</b>	my bianco · nero	pwm	2700K	70°	2
<b>Vb7.650.680</b>	nero55 · nero	casambi	2700K	70°	2
<b>Vb7.650.686</b>	argento hacca · nero	casambi	2700K	70°	2
<b>Vb7.650.692</b>	my bianco · nero	casambi	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	700	17.5	1351	12.3
mn2797ilv4 vita media · average life 70000 h L90 B10								

**Vb7.650.606** nero55 · nero pwm 3000K 44° 2

**Vb7.650.612** argento hacca · nero pwm 3000K 44° 2

**Vb7.650.618** my bianco · nero pwm 3000K 44° 2

**Vb7.650.678** nero55 · nero casambi 3000K 44° 2

**Vb7.650.684** argento hacca · nero casambi 3000K 44° 2

**Vb7.650.690** my bianco · nero casambi 3000K 44° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	17.5	1432	12.3
mn3097ilv4 vita media · average life 70000 h L90 B10								

**Vb7.650.609** nero55 · nero pwm 3000K 70° 2

**Vb7.650.615** argento hacca · nero pwm 3000K 70° 2

**Vb7.650.621** my bianco · nero pwm 3000K 70° 2

**Vb7.650.681** nero55 · nero casambi 3000K 70° 2

**Vb7.650.687** argento hacca · nero casambi 3000K 70° 2

**Vb7.650.693** my bianco · nero casambi 3000K 70° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	17.5	1432	12.3
mn3097ilv4 vita media · average life 70000 h L90 B10								

**Vb7.650.607** nero55 · nero pwm 3500K 44° 2

**Vb7.650.613** argento hacca · nero pwm 3500K 44° 2

**Vb7.650.619** my bianco · nero pwm 3500K 44° 2

**Vb7.650.679** nero55 · nero casambi 3500K 44° 2

**Vb7.650.685** argento hacca · nero casambi 3500K 44° 2

**Vb7.650.691** my bianco · nero casambi 3500K 44° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	17.5	1472	12.3
mn3597ilv4 vita media · average life 70000 h L90 B10								

**Vb7.650.610** nero55 · nero pwm 3500K 70° 2

**Vb7.650.616** argento hacca · nero pwm 3500K 70° 2

**Vb7.650.622** my bianco · nero pwm 3500K 70° 2

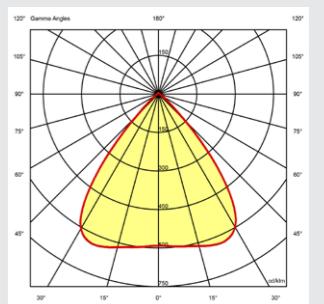
**Vb7.650.682** nero55 · nero casambi 3500K 70° 2

**Vb7.650.688** argento hacca · nero casambi 3500K 70° 2

**Vb7.650.694** my bianco · nero casambi 3500K 70° 2

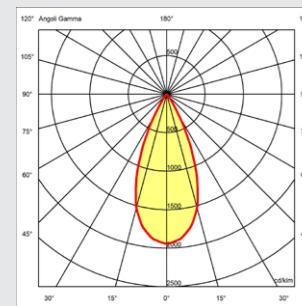
Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	17.5	1472	12.3
mn3597ilv4 vita media · average life 70000 h L90 B10								

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lm γ > 65° < 1000cd/m²

Lm γ > 45° < 6000cd/m²

#### mn incasso 30x730 h.26

Vb6.650.091	nero55	2700K	44°	2
Vb6.650.097	argento hacca	2700K	44°	2
Vb6.650.103	biancoV	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	350	25.5	1070	8.9
					500	26.0	1448	13.0
					700	27.0	1896	18.9

mn2797i4 vita media · average life 70000 h l90 B10

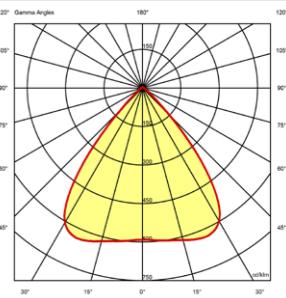
#### mn incasso 30x730 h.26

Vb6.650.094	nero55	2700K	70°	2
Vb6.650.100	argento hacca	2700K	70°	2
Vb6.650.106	biancoV	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	350	25.5	1070	8.9
					500	26.0	1448	13.0
					700	27.0	1896	18.9

mn2797i4 vita media · average life 70000 h l90 B10

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

Vb6.650.092	nero55	3000K	44°	2
Vb6.650.098	argento hacca	3000K	44°	2
Vb6.650.104	biancoV	3000K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	25.4	2268	17.8
					1050	26.0	3220	27.4
					1400	27.0	4014	37.8

mn3097i8 vita media · average life 70000 h l90 B10

Vb6.650.095	nero55	3000K	70°	2
Vb6.650.101	argento hacca	3000K	70°	2
Vb6.650.107	biancoV	3000K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	25.4	2268	17.8
					1050	26.0	3220	27.4
					1400	27.0	4014	37.8

mn3097i8 vita media · average life 70000 h l90 B10

Vb6.650.093	nero55	3500K	44°	2
Vb6.650.099	argento hacca	3500K	44°	2
Vb6.650.105	biancoV	3500K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	350	25.5	1166	4.0
					500	26.0	1576	13.0
					700	27.0	2064	18.9

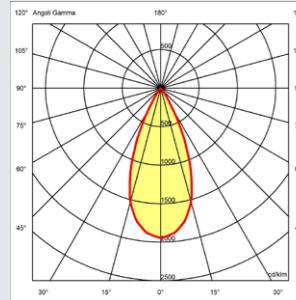
mn3597i4 vita media · average life 70000 h l90 B10

Vb6.650.096	nero55	3500K	70°	2
Vb6.650.102	argento hacca	3500K	70°	2
Vb6.650.108	biancoV	3500K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	350	25.5	1166	4.0
					500	26.0	1576	13.0
					700	27.0	2064	18.9

mn3597i4 vita media · average life 70000 h l90 B10

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10  
 $Lm\gamma > 65^\circ < 1000 \text{cd/m}^2$   
 $Lm\gamma > 45^\circ < 6000 \text{cd/m}^2$



**mn incasso 30x730 a.i. h.26**

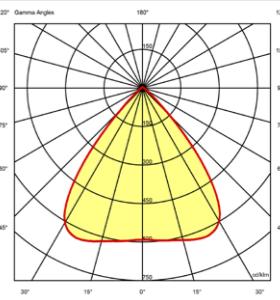
mn incasso 30X730 a.i. h.26		24V 50/60Hz					
<b>Vb6.650.217</b>	nero55	on-off	2700K	44°	2		
<b>Vb6.650.223</b>	argento hacca	on-off	2700K	44°	2		
<b>Vb6.650.229</b>	biancoV	on-off	2700K	44°	2		
<b>Vb6.650.343</b>	nero55	dali	2700K	44°	2		
<b>Vb6.650.349</b>	argento hacca	dali	2700K	44°	2		
<b>Vb6.650.355</b>	biancoV	dali	2700K	44°	2		
<b>Vb6.650.469</b>	nero55	casambi	2700K	44°	2		
<b>Vb6.650.475</b>	argento hacca	casambi	2700K	44°	2		
<b>Vb6.650.481</b>	biancoV	casambi	2700K	44°	2		



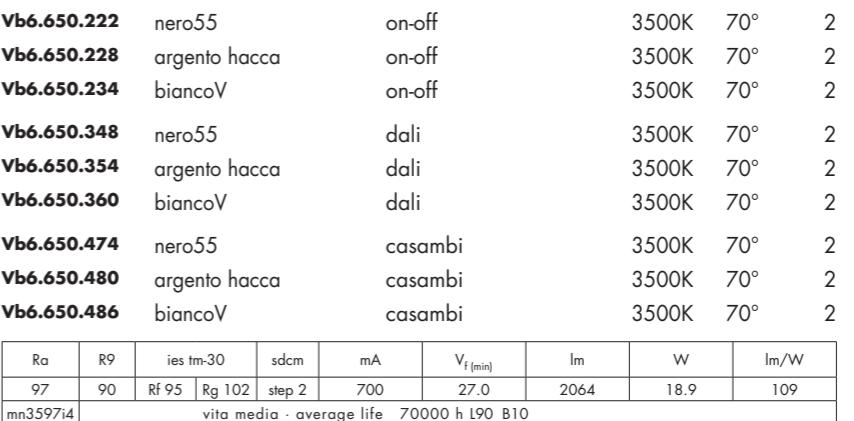
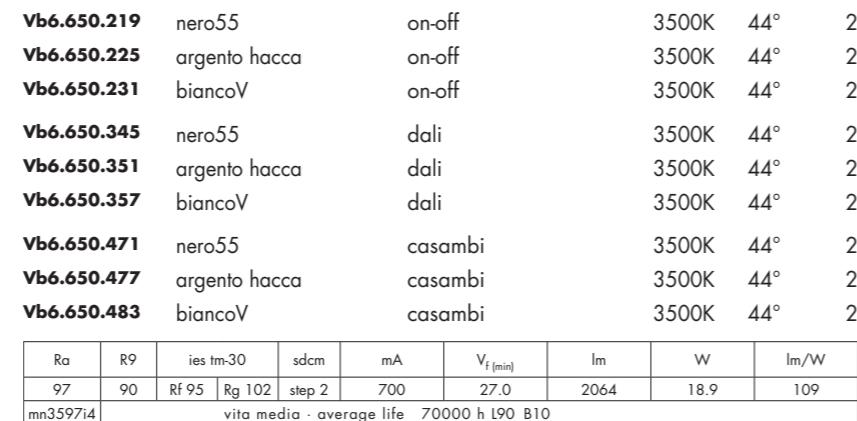
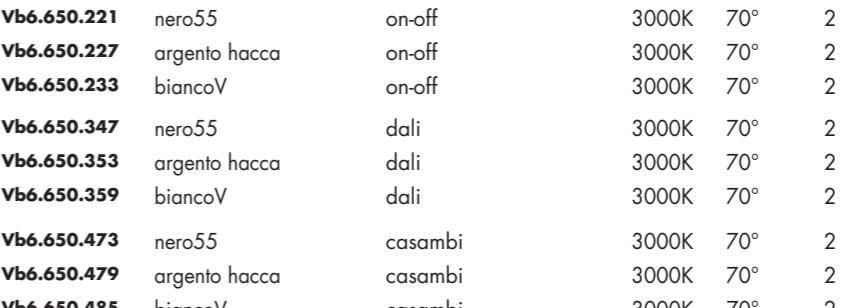
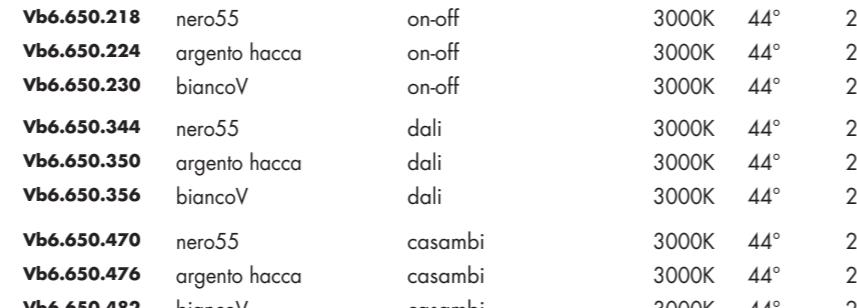
**mn incasso 30X730 a.i. h.26**

mn incasso 30X730 a.i. h.26		240V 50/60Hz	AR	IP40	CE	i
<b>Vb6.650.220</b>	nero55	on-off	2700K	70°	2	
<b>Vb6.650.226</b>	argento hacca	on-off	2700K	70°	2	
<b>Vb6.650.232</b>	biancoV	on-off	2700K	70°	2	
<b>Vb6.650.346</b>	nero55	dali	2700K	70°	2	
<b>Vb6.650.352</b>	argento hacca	dali	2700K	70°	2	
<b>Vb6.650.358</b>	biancoV	dali	2700K	70°	2	
<b>Vb6.650.472</b>	nero55	casambi	2700K	70°	2	
<b>Vb6.650.478</b>	argento hacca	casambi	2700K	70°	2	
<b>Vb6.650.484</b>	biancoV	casambi	2700K	70°	2	

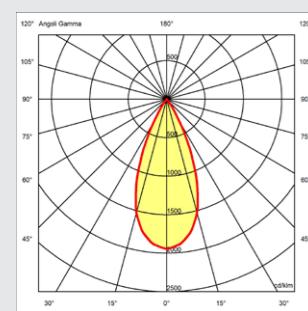
gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19



gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lm γ > 65° < 1000cd/m²

Lm γ > 45° < 6000cd/m²

**mn scomparsa totale 30x730 h.32**

<b>Vb6.650.709</b>	nero55	2700K	44°	2
<b>Vb6.650.715</b>	argento hacca	2700K	44°	2
<b>Vb6.650.721</b>	biancoV	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	350	25.5	1070	8.9
					500	26.0	1448	13.0
					700	27.0	1896	18.9

mn2797i4 vita media · average life 70000 h l90 B10

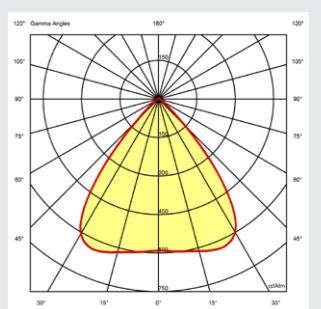
**mn scomparsa totale 30x730 h.32**

<b>Vb6.650.712</b>	nero55	2700K	70°	2
<b>Vb6.650.718</b>	argento hacca	2700K	70°	2
<b>Vb6.650.724</b>	biancoV	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	350	25.5	1070	8.9
					500	26.0	1448	13.0
					700	27.0	1896	18.9

mn2797i4 vita media · average life 70000 h l90 B10

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

**Vb6.650.710** nero55 3000K 44° 2

**Vb6.650.716** argento hacca 3000K 44° 2

**Vb6.650.722** biancoV 3000K 44° 2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	350	25.5	1134	8.9
					500	26.0	1534	13.0
					700	27.0	2008	18.9

mn3097i4 vita media · average life 70000 h l90 B10

**Vb6.650.713** nero55 3000K 70° 2

**Vb6.650.719** argento hacca 3000K 70° 2

**Vb6.650.725** biancoV 3000K 70° 2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	350	25.5	1134	8.9
					500	26.0	1534	13.0
					700	27.0	2008	18.9

mn3097i4 vita media · average life 70000 h l90 B10

**Vb6.650.711** nero55 3500K 44° 2

**Vb6.650.717** argento hacca 3500K 44° 2

**Vb6.650.723** biancoV 3500K 44° 2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	350	25.5	1166	4.0
					500	26.0	1576	13.0
					700	27.0	2064	18.9

mn3597i4 vita media · average life 70000 h l90 B10

**Vb6.650.714** nero55 3500K 70° 2

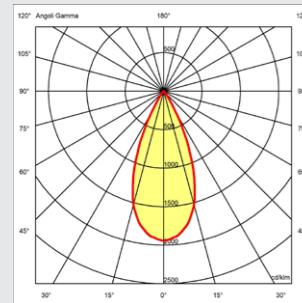
**Vb6.650.720** argento hacca 3500K 70° 2

**Vb6.650.726** biancoV 3500K 70° 2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	350	25.5	1166	4.0
					500	26.0	1576	13.0
					700	27.0	2064	18.9

mn3597i4 vita media · average life 70000 h l90 B10

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°

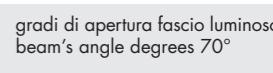


UGR<10  
 $Lm\gamma > 65^\circ < 1000 \text{cd/m}^2$   
 $Lm\gamma > 45^\circ < 6000 \text{cd/m}^2$

mn scomparsa totale	30x730 a.i. h.32	240V 50/60Hz	A	IP40	CE	i			
<b>Vb6.650.853</b>	nero55	on-off	2700K	44°	2				
<b>Vb6.650.859</b>	argento hacca	on-off	2700K	44°	2				
<b>Vb6.650.865</b>	biancoV	on-off	2700K	44°	2				
<b>Vb6.650.997</b>	nero55	dali	2700K	44°	2				
<b>Vb6.650.1003</b>	argento hacca	dali	2700K	44°	2				
<b>Vb6.650.1009</b>	biancoV	dali	2700K	44°	2				
<b>Vb6.650.1141</b>	nero55	casambi	2700K	44°	2				
<b>Vb6.650.1147</b>	argento hacca	casambi	2700K	44°	2				
<b>Vb6.650.1153</b>	biancoV	casambi	2700K	44°	2				
Ra	R9	ies tm-30	sdcn	mA	Vf [min]	lm	W	lm/W	
97	90	Rf 93	Rg 102	step 2	700	27.0	1896	18.9	100
mn22797i4	vita media · average life	70000 h	L90	B10					



mn scomparsa totale 30x730 a.i. h.32			240V 50/60Hz				IP40		
<b>Vb6.650.856</b>	nero55		on-off		2700K		70°		
<b>Vb6.650.862</b>	argento hacca		on-off		2700K		70°		
<b>Vb6.650.868</b>	biancoV		on-off		2700K		70°		
<b>Vb6.650.1000</b>	nero55		dali		2700K		70°		
<b>Vb6.650.1006</b>	argento hacca		dali		2700K		70°		
<b>Vb6.650.1012</b>	biancoV		dali		2700K		70°		
<b>Vb6.650.1144</b>	nero55		casambi		2700K		70°		
<b>Vb6.650.1150</b>	argento hacca		casambi		2700K		70°		
<b>Vb6.650.1156</b>	biancoV		casambi		2700K		70°		



UGR<19

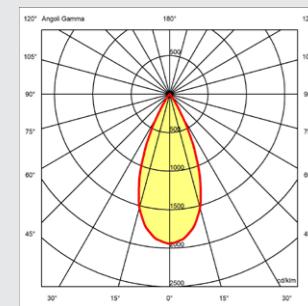
<b>Vb6.650.854</b>	nero55	on-off	3000K	44°	2			
<b>Vb6.650.860</b>	argento hacca	on-off	3000K	44°	2			
<b>Vb6.650.866</b>	biancoV	on-off	3000K	44°	2			
<b>Vb6.650.998</b>	nero55	dali	3000K	44°	2			
<b>Vb6.650.1004</b>	argento hacca	dali	3000K	44°	2			
<b>Vb6.650.1010</b>	biancoV	dali	3000K	44°	2			
<b>Vb6.650.1142</b>	nero55	casambi	3000K	44°	2			
<b>Vb6.650.1148</b>	argento hacca	casambi	3000K	44°	2			
<b>Vb6.650.1154</b>	biancoV	casambi	3000K	44°	2			
Ra	R9	ies tm-30	sdcm	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	27.0	2008	18.9
mn3097i4		vite media	- average life	70000 h	L90 B10			

<b>Vb6.650.857</b>	nero55	on-off	3000K	70°
<b>Vb6.650.863</b>	argento hacca	on-off	3000K	70°
<b>Vb6.650.869</b>	biancoV	on-off	3000K	70°
<b>Vb6.650.1001</b>	nero55	dali	3000K	70°
<b>Vb6.650.1007</b>	argento hacca	dali	3000K	70°
<b>Vb6.650.1013</b>	biancoV	dali	3000K	70°
<b>Vb6.650.1145</b>	nero55	casambi	3000K	70°
<b>Vb6.650.1151</b>	argento hacca	casambi	3000K	70°
<b>Vb6.650.1157</b>	biancoV	casambi	3000K	70°

<b>Vb6.650.855</b>	nero55	on-off	3500K	44°	2			
<b>Vb6.650.861</b>	argento hacca	on-off	3500K	44°	2			
<b>Vb6.650.867</b>	biancoV	on-off	3500K	44°	2			
<b>Vb6.650.999</b>	nero55	dali	3500K	44°	2			
<b>Vb6.650.1005</b>	argento hacca	dali	3500K	44°	2			
<b>Vb6.650.1011</b>	biancoV	dali	3500K	44°	2			
<b>Vb6.650.1143</b>	nero55	casambi	3500K	44°	2			
<b>Vb6.650.1149</b>	argento hacca	casambi	3500K	44°	2			
<b>Vb6.650.1155</b>	biancoV	casambi	3500K	44°	2			
Ra	R9	ies tm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	27.0	2064	18.9
mn3597i4		vito media	· average life	70000 h	L90 B10			

<b>Vb6.650.858</b>	nero55	on-off	3500K	70°
<b>Vb6.650.864</b>	argento hacca	on-off	3500K	70°
<b>Vb6.650.870</b>	biancoV	on-off	3500K	70°
<b>Vb6.650.1002</b>	nero55	dali	3500K	70°
<b>Vb6.650.1008</b>	argento hacca	dali	3500K	70°
<b>Vb6.650.1014</b>	biancoV	dali	3500K	70°
<b>Vb6.650.1146</b>	nero55	casambi	3500K	70°
<b>Vb6.650.1152</b>	argento hacca	casambi	3500K	70°
<b>Vb6.650.1158</b>	biancoV	casambi	3500K	70°

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lm γ > 65° < 1000cd/m²

Lm γ > 45° < 6000cd/m²

**mn soffitto 30x1450 h.32**



<b>Vb5.650.127</b>	nero55	2700K	44°	2
<b>Vb5.650.133</b>	argento hacca	2700K	44°	2
<b>Vb5.650.139</b>	biancoV	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	700	25.4	2141	17.8
					1050	26.0	3040	27.4
					1400	27.0	3789	37.8

mn2797i8 vita media · average life 70000 h l90 B10

**mn soffitto 30x1450 h.32**

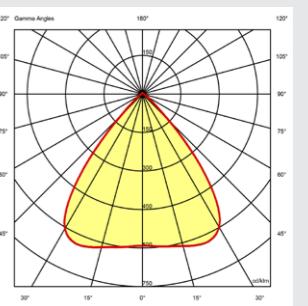


<b>Vb5.650.130</b>	nero55	2700K	70°	2
<b>Vb5.650.136</b>	argento hacca	2700K	70°	2
<b>Vb5.650.142</b>	biancoV	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	700	25.4	2141	17.8
					1050	26.0	3040	27.4
					1400	27.0	3789	37.8

mn2797i8 vita media · average life 70000 h l90 B10

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

**Vb5.650.128** nero55



<b>Vb5.650.128</b>	nero55	3000K	44°	2
<b>Vb5.650.134</b>	argento hacca	3000K	44°	2
<b>Vb5.650.140</b>	biancoV	3000K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	25.4	2268	17.8
					1050	26.0	3220	27.4
					1400	27.0	4014	37.8

mn3097i8 vita media · average life 70000 h l90 B10

**Vb5.650.131** nero55



<b>Vb5.650.131</b>	nero55	3000K	70°	2
<b>Vb5.650.137</b>	argento hacca	3000K	70°	2
<b>Vb5.650.143</b>	biancoV	3000K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	25.4	2268	17.8
					1050	26.0	3220	27.4
					1400	27.0	4014	37.8

mn3097i8 vita media · average life 70000 h l90 B10

**Vb5.650.129** nero55



<b>Vb5.650.129</b>	nero55	3500K	44°	2
<b>Vb5.650.135</b>	argento hacca	3500K	44°	2
<b>Vb5.650.141</b>	biancoV	3500K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	25.4	2331	17.8
					1050	26.0	3310	27.4
					1400	27.0	4126	37.8

mn3597i8 vita media · average life 70000 h l90 B10

**Vb5.650.132** nero55

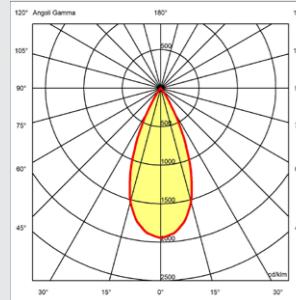


<b>Vb5.650.132</b>	nero55	3500K	70°	2
<b>Vb5.650.138</b>	argento hacca	3500K	70°	2
<b>Vb5.650.144</b>	biancoV	3500K	70°	2

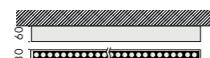
Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	25.4	2331	17.8
					1050	26.0	3310	27.4
					1400	27.0	4126	37.8

mn3597i8 vita media · average life 70000 h l90 B10

gradi di apertura fascio luminoso  $44^\circ$   
beam's angle degrees  $44^\circ$

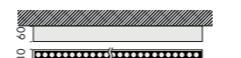


UGR<10  
 $Lm\gamma > 65^\circ < 1000 \text{cd/m}^2$   
 $Lm\gamma > 45^\circ < 6000 \text{cd/m}^2$



**mn soffitto 30x1450 a.i. h.60**

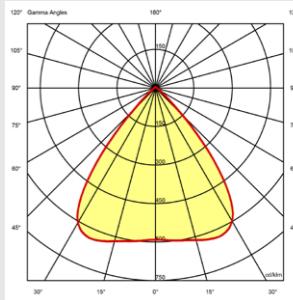
mn soffitto 30x1450 a.i. h.60		240V 50/60Hz	A		IP40		CE	
<b>Vb5.650.271</b>	nero55	on-off		2700K	44°		2	
<b>Vb5.650.277</b>	argento hacca	on-off		2700K	44°		2	
<b>Vb5.650.283</b>	biancoV	on-off		2700K	44°		2	
<b>Vb5.650.415</b>	nero55	dali		2700K	44°		2	
<b>Vb5.650.421</b>	argento hacca	dali		2700K	44°		2	
<b>Vb5.650.427</b>	biancoV	dali		2700K	44°		2	
<b>Vb5.650.559</b>	nero55	casambi		2700K	44°		2	
<b>Vb5.650.565</b>	argento hacca	casambi		2700K	44°		2	
<b>Vb5.650.571</b>	biancoV	casambi		2700K	44°		2	



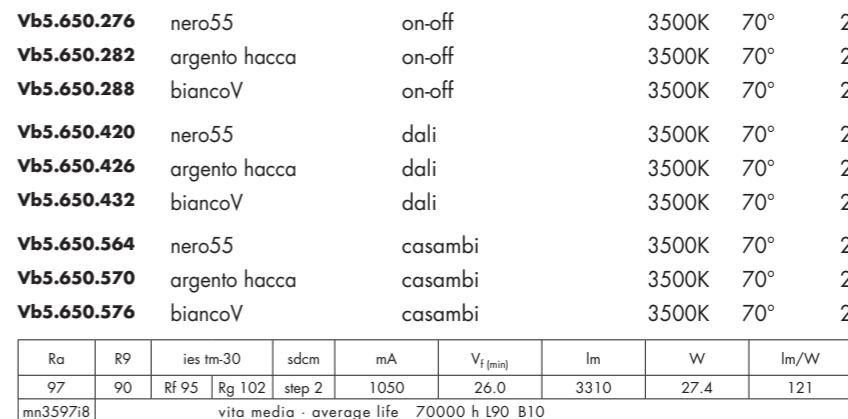
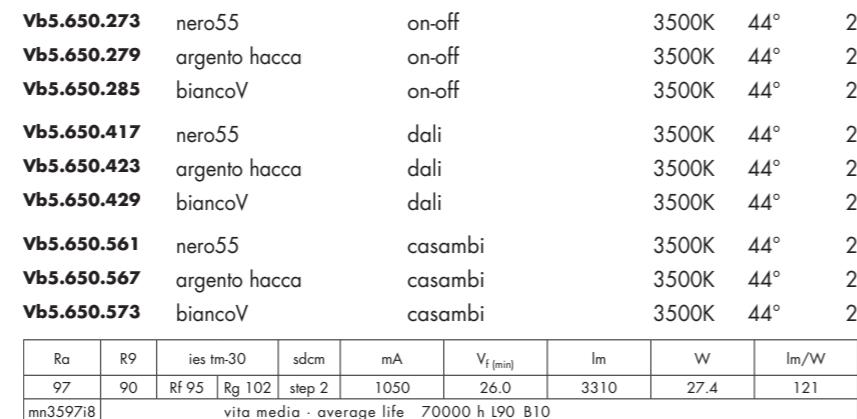
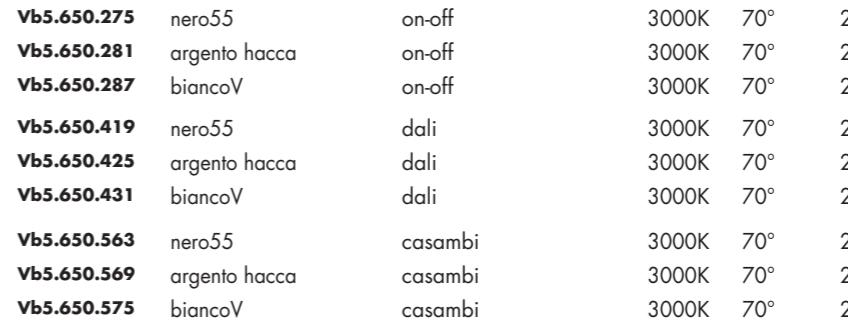
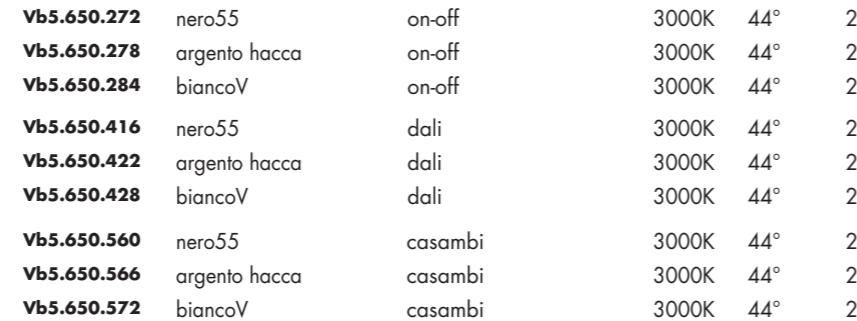
**mn soffitto 30x1450 a.i. h.60**

mn soffitto 30x1450 a.i. h.60		240V 50/60Hz	A	IP40	CE	i
<b>Vb5.650.274</b>	nero55	on-off	2700K	70°	2	
<b>Vb5.650.280</b>	argento hacca	on-off	2700K	70°	2	
<b>Vb5.650.286</b>	biancoV	on-off	2700K	70°	2	
<b>Vb5.650.418</b>	nero55	dali	2700K	70°	2	
<b>Vb5.650.424</b>	argento hacca	dali	2700K	70°	2	
<b>Vb5.650.430</b>	biancoV	dali	2700K	70°	2	
<b>Vb5.650.562</b>	nero55	casambi	2700K	70°	2	
<b>Vb5.650.568</b>	argento hacca	casambi	2700K	70°	2	
<b>Vb5.650.574</b>	biancoV	casambi	2700K	70°	2	

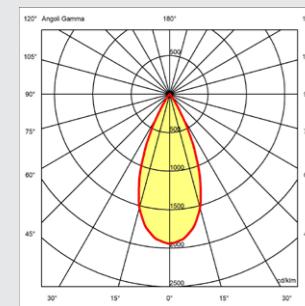
gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19



gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10  
Lmγ>65° < 1000cd/m²  
Lmγ>45° < 6000cd/m²



**mn adattatore VbB 30x1450 h.32**

240V 50/60Hz  A  IP40  C E

<b>Vb7.650.091</b>	nero55 · nero	on-off	2700K	44°	2
<b>Vb7.650.097</b>	argento hacca · nero	on-off	2700K	44°	2
<b>Vb7.650.103</b>	biancoV · bianco	on-off	2700K	44°	2
<b>Vb7.650.199</b>	nero55 · nero	dali	2700K	44°	2
<b>Vb7.650.205</b>	argento hacca · nero	dali	2700K	44°	2
<b>Vb7.650.211</b>	biancoV · bianco	dali	2700K	44°	2
<b>Vb7.650.307</b>	nero55 · nero	casambi	2700K	44°	2
<b>Vb7.650.313</b>	argento hacca · nero	casambi	2700K	44°	2
<b>Vb7.650.319</b>	biancoV · bianco	casambi	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	1050	26.0	3040	27.4
vita media · average life 70000 h L90 B10								

**Vb7.650.092** nero55 · nero on-off 3000K 44° 2

**Vb7.650.098** argento hacca · nero on-off 3000K 44° 2

**Vb7.650.104** biancoV · bianco on-off 3000K 44° 2

**Vb7.650.200** nero55 · nero dali 3000K 44° 2

**Vb7.650.206** argento hacca · nero dali 3000K 44° 2

**Vb7.650.212** biancoV · bianco dali 3000K 44° 2

**Vb7.650.308** nero55 · nero casambi 3000K 44° 2

**Vb7.650.314** argento hacca · nero casambi 3000K 44° 2

**Vb7.650.320** biancoV · bianco casambi 3000K 44° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	1050	26.0	3220	27.4
vita media · average life 70000 h L90 B10								

**Vb7.650.093** nero55 · nero on-off 3500K 44° 2

**Vb7.650.099** argento hacca · nero on-off 3500K 44° 2

**Vb7.650.105** biancoV · bianco on-off 3500K 44° 2

**Vb7.650.201** nero55 · nero dali 3500K 44° 2

**Vb7.650.207** argento hacca · nero dali 3500K 44° 2

**Vb7.650.213** biancoV · bianco dali 3500K 44° 2

**Vb7.650.309** nero55 · nero casambi 3500K 44° 2

**Vb7.650.315** argento hacca · nero casambi 3500K 44° 2

**Vb7.650.321** biancoV · bianco casambi 3500K 44° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	1050	26.0	3310	27.4
vita media · average life 70000 h L90 B10								



**mn adattatore VbB 30x1450 h.32**

240V 50/60Hz  A  IP40  C E

<b>Vb7.650.094</b>	nero55 · nero	on-off	2700K	70°	2
<b>Vb7.650.100</b>	argento hacca · nero	on-off	2700K	70°	2
<b>Vb7.650.106</b>	biancoV · bianco	on-off	2700K	70°	2
<b>Vb7.650.202</b>	nero55 · nero	dali	2700K	70°	2
<b>Vb7.650.208</b>	argento hacca · nero	dali	2700K	70°	2
<b>Vb7.650.214</b>	biancoV · bianco	dali	2700K	70°	2
<b>Vb7.650.310</b>	nero55 · nero	casambi	2700K	70°	2
<b>Vb7.650.316</b>	argento hacca · nero	casambi	2700K	70°	2
<b>Vb7.650.322</b>	biancoV · bianco	casambi	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 93	Rg 102	step 2	1050	26.0	3040	27.4
vita media · average life 70000 h L90 B10								

**Vb7.650.095** nero55 · nero on-off 3000K 70° 2

**Vb7.650.101** argento hacca · nero on-off 3000K 70° 2

**Vb7.650.107** biancoV · bianco on-off 3000K 70° 2

**Vb7.650.203** nero55 · nero dali 3000K 70° 2

**Vb7.650.209** argento hacca · nero dali 3000K 70° 2

**Vb7.650.215** biancoV · bianco dali 3000K 70° 2

**Vb7.650.311** nero55 · nero casambi 3000K 70° 2

**Vb7.650.317** argento hacca · nero casambi 3000K 70° 2

**Vb7.650.323** biancoV · bianco casambi 3000K 70° 2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	w	lm/W
97	90	Rf 95	Rg 102	step 2	1050	26.0	3220	27.4
vita media · average life 70000 h L90 B10								

**Vb7.650.096** nero55 · nero on-off 3500K 70° 2

**Vb7.650.102** argento hacca · nero on-off 3500K 70° 2

**Vb7.650.108** biancoV · bianco on-off 3500K 70° 2

**Vb7.650.204** nero55 · nero dali 3500K 70° 2

**Vb7.650.210** argento hacca · nero dali 3500K 70° 2

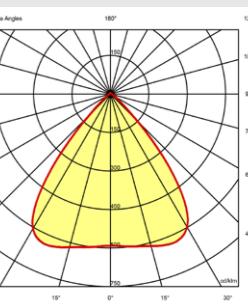
**Vb7.650.216** biancoV · bianco dali 3500K 70° 2

**Vb7.650.312** nero55 · nero casambi 3500K 70° 2

**Vb7.650.318** argento hacca · nero casambi 3500K 70° 2

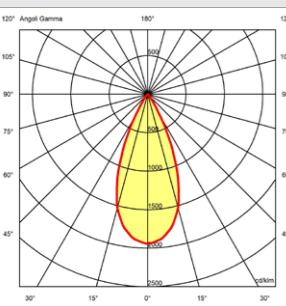
**Vb7.650.324** biancoV · bianco casambi 3500K 70° 2

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lmγ>65° < 1000cd/m²

Lmγ>45° < 6000cd/m²

#### mn incasso 30x1450 h.26

IP40

Vb6.650.109	nero55	2700K	44°	2
Vb6.650.115	argento hacca	2700K	44°	2
Vb6.650.121	biancoV	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	700	25.4	2141	17.8
					1050	26.0	3040	27.4
					1400	27.0	3789	37.8

mn2797i8 vita media · average life 70000 h l90 B10

#### mn incasso 30x1450 h.26

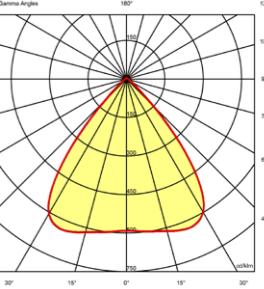
IP40

Vb6.650.112	nero55	2700K	70°	2
Vb6.650.118	argento hacca	2700K	70°	2
Vb6.650.124	biancoV	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	700	25.4	2141	17.8
					1050	26.0	3040	27.4
					1400	27.0	3789	37.8

mn2797i8 vita media · average life 70000 h l90 B10

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

#### Vb6.650.110 nero55

3000K 44° 2

Vb6.650.116	argento hacca	3000K	44°	2
Vb6.650.122	biancoV	3000K	44°	2

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	25.4	2268	17.8
					1050	26.0	3220	27.4
					1400	27.0	4014	37.8

mn3097i8 vita media · average life 70000 h l90 B10

#### Vb6.650.113 nero55

3000K 70° 2

Vb6.650.119	argento hacca
Vb6.650.125	biancoV

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	25.4	2268	17.8
					1050	26.0	3220	27.4
					1400	27.0	4014	37.8

mn3097i8 vita media · average life 70000 h l90 B10

#### Vb6.650.111 nero55

3500K 44° 2

Vb6.650.117	argento hacca
Vb6.650.123	biancoV

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	25.4	2331	17.8
					1050	26.0	3310	27.4
					1400	27.0	4126	37.8

mn3597i8 vita media · average life 70000 h l90 B10

#### Vb6.650.114 nero55

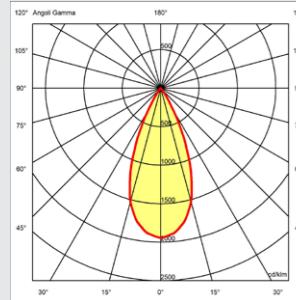
3500K 70° 2

Vb6.650.120	argento hacca
Vb6.650.126	biancoV

Ra	R9	ies lm-30	sdcn	mA	Vf [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	25.4	2331	17.8
					1050	26.0	3310	27.4
					1400	27.0	4126	37.8

mn3597i8 vita media · average life 70000 h l90 B10

gradi di apertura fascio luminoso  $44^\circ$   
beam's angle degrees  $44^\circ$



UGR<10  
 $Lm\gamma > 65^\circ < 1000 \text{cd/m}^2$   
 $Lm\gamma > 45^\circ < 6000 \text{cd/m}^2$



**mn incasso 30X1450 a.i. h.26**

mn incasso 30X1450 a.i. h.26		24V 50/60Hz					
<b>Vb6.650.235</b>	nero55	on-off	2700K	44°	2		
<b>Vb6.650.241</b>	argento hacca	on-off	2700K	44°	2		
<b>Vb6.650.247</b>	biancoV	on-off	2700K	44°	2		
<b>Vb6.650.361</b>	nero55	dali	2700K	44°	2		
<b>Vb6.650.367</b>	argento hacca	dali	2700K	44°	2		
<b>Vb6.650.373</b>	biancoV	dali	2700K	44°	2		
<b>Vb6.650.487</b>	nero55	casambi	2700K	44°	2		
<b>Vb6.650.493</b>	argento hacca	casambi	2700K	44°	2		
<b>Vb6.650.499</b>	biancoV	casambi	2700K	44°	2		

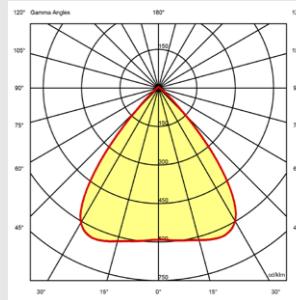


**mn incasso 30X1450 a.i. h.26**

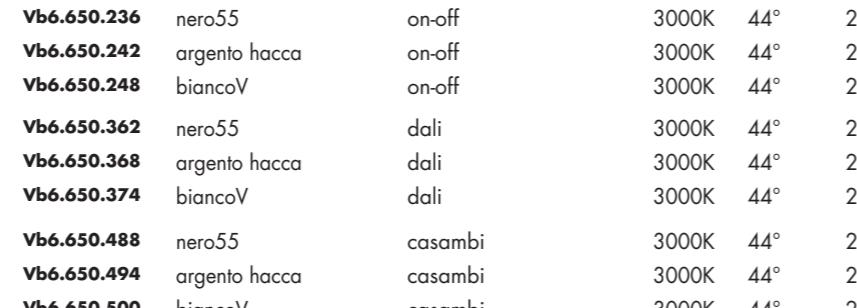
mn incasso	30X1450 a.i. h.26	240V 50/60Hz	AR		IP40		CE	
<b>Vb6.650.238</b>	nero55	on-off	2700K	70°	2			
<b>Vb6.650.244</b>	argento hacca	on-off	2700K	70°	2			
<b>Vb6.650.250</b>	biancoV	on-off	2700K	70°	2			
<b>Vb6.650.364</b>	nero55	dali	2700K	70°	2			
<b>Vb6.650.370</b>	argento hacca	dali	2700K	70°	2			
<b>Vb6.650.376</b>	biancoV	dali	2700K	70°	2			
<b>Vb6.650.490</b>	nero55	casambi	2700K	70°	2			
<b>Vb6.650.496</b>	argento hacca	casambi	2700K	70°	2			
<b>Vb6.650.502</b>	biancoV	casambi	2700K	70°	2			

Ra	R9	ies tm-30		sdcm	mA	V <sub>f</sub> [min]	lm	W	lm/W		
97	90	Rf	93	Rg	102	step 2	1050	26.0	3040	27.4	111
mn2797/18	vita	media	.	average	life	70000	h	I90	B10		

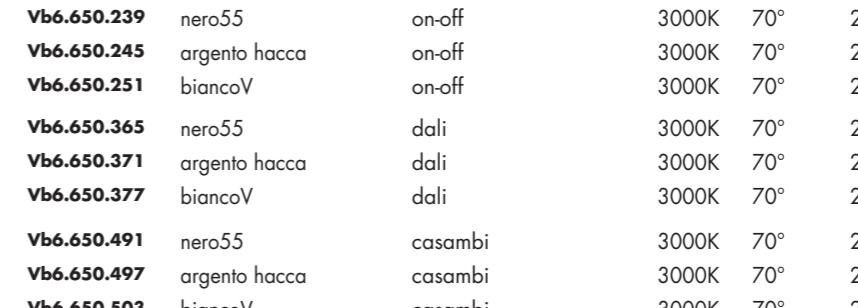
gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



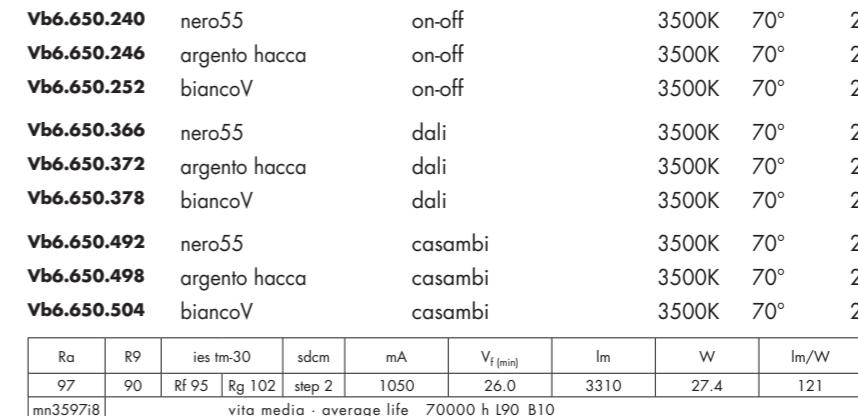
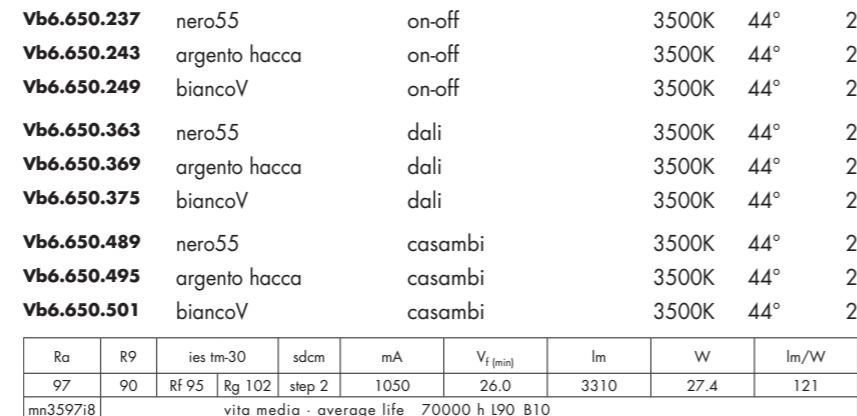
UGR<19



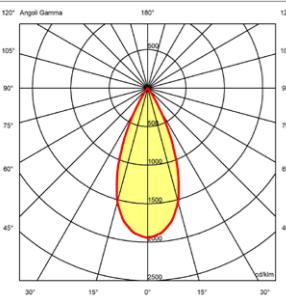
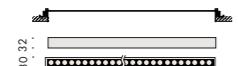
Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	Im	W	Im/W
97	90	Rf 95	Rg 102	step 2	1050	26.0	3220	27.4
mn3097i8		vita media · average life			70000 h 190 B10			



Ra	R9	ies tm-30	sdcm	mA	$V_f$ [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	1050	26.0	3220	27.4
mn3097i8				vita media - average life	70000 h	190 B10		



gradi di apertura fascio luminoso 44°  
beam's angle degrees 44°



UGR<10

Lm γ > 65° < 1000cd/m²

Lm γ > 45° < 6000cd/m²

**mn scomparsa totale 30x1450 h.32**

<b>Vb6.650.727</b>	nero55	2700K	44°	2
<b>Vb6.650.733</b>	argento hacca	2700K	44°	2
<b>Vb6.650.739</b>	biancoV	2700K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	700	25.4	2141	17.8
					1050	26.0	3040	27.4
					1400	27.0	3789	37.8

mn2797i8 vita media · average life 70000 h l90 B10

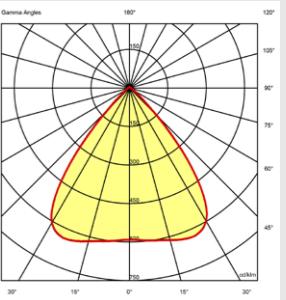
**mn scomparsa totale 30x1450 h.32**

<b>Vb6.650.730</b>	nero55	2700K	70°	2
<b>Vb6.650.736</b>	argento hacca	2700K	70°	2
<b>Vb6.650.742</b>	biancoV	2700K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 93	Rg 102	step 2	700	25.4	2141	17.8
					1050	26.0	3040	27.4
					1400	27.0	3789	37.8

mn2797i8 vita media · average life 70000 h l90 B10

gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19

<b>Vb6.650.728</b>	nero55	3000K	44°	2
<b>Vb6.650.734</b>	argento hacca	3000K	44°	2
<b>Vb6.650.740</b>	biancoV	3000K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	25.4	2268	17.8
					1050	26.0	3220	27.4
					1400	27.0	4014	37.8

mn3097i8 vita media · average life 70000 h l90 B10

<b>Vb6.650.731</b>	nero55	3000K	70°	2
<b>Vb6.650.737</b>	argento hacca	3000K	70°	2
<b>Vb6.650.743</b>	biancoV	3000K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	25.4	2268	17.8
					1050	26.0	3220	27.4
					1400	27.0	4014	37.8

mn3097i8 vita media · average life 70000 h l90 B10

<b>Vb6.650.729</b>	nero55	3500K	44°	2
<b>Vb6.650.735</b>	argento hacca	3500K	44°	2
<b>Vb6.650.741</b>	biancoV	3500K	44°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	25.4	2331	17.8
					1050	26.0	3310	27.4
					1400	27.0	4126	37.8

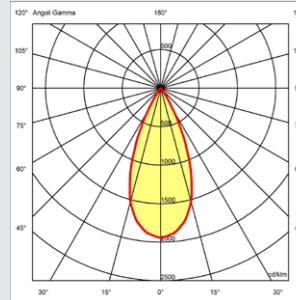
mn3597i8 vita media · average life 70000 h l90 B10

<b>Vb6.650.732</b>	nero55	3500K	70°	2
<b>Vb6.650.738</b>	argento hacca	3500K	70°	2
<b>Vb6.650.744</b>	biancoV	3500K	70°	2

Ra	R9	ies lm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	700	25.4	2331	17.8
					1050	26.0	3310	27.4
					1400	27.0	4126	37.8

mn3597i8 vita media · average life 70000 h l90 B10

gradi di apertura fascio luminoso  $44^\circ$   
beam's angle degrees  $44^\circ$



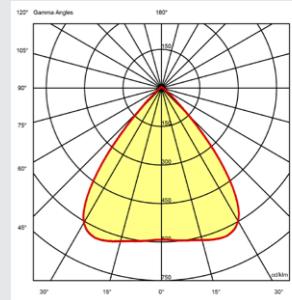
UGR<10  
 $Lm\gamma > 65^\circ < 1000 \text{cd/m}^2$   
 $Lm\gamma > 45^\circ < 6000 \text{cd/m}^2$



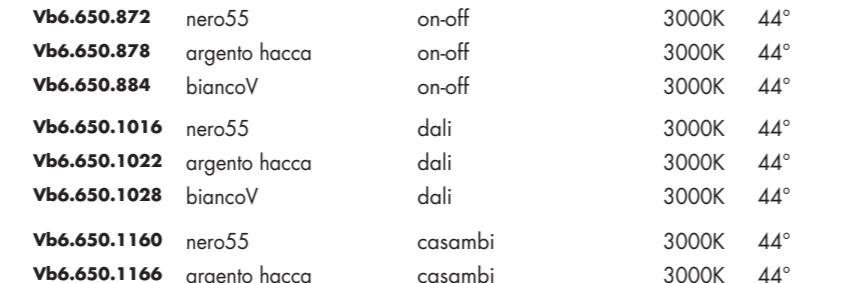
mn scomparsa totale 30x1450 a.i. h.32			240V 50/60Hz				
<b>Vb6.650.871</b>	nero55	on-off	2700K	44°			
<b>Vb6.650.877</b>	argento hacca	on-off	2700K	44°			
<b>Vb6.650.883</b>	biancoV	on-off	2700K	44°			
<b>Vb6.650.1015</b>	nero55	dali	2700K	44°			
<b>Vb6.650.1021</b>	argento hacca	dali	2700K	44°			
<b>Vb6.650.1027</b>	biancoV	dali	2700K	44°			
<b>Vb6.650.1159</b>	nero55	casambi	2700K	44°			
<b>Vb6.650.1165</b>	argento hacca	casambi	2700K	44°			
<b>Vb6.650.1171</b>	biancoV	casambi	2700K	44°			



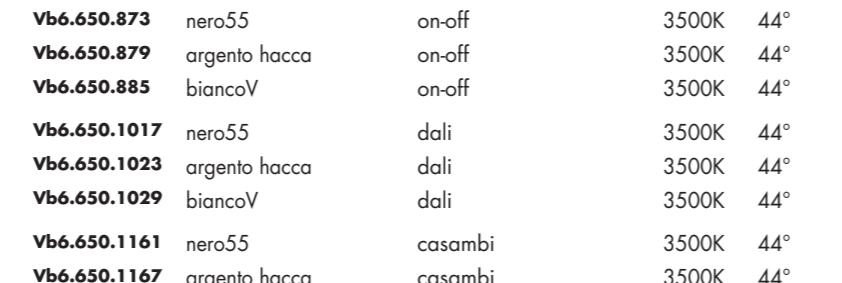
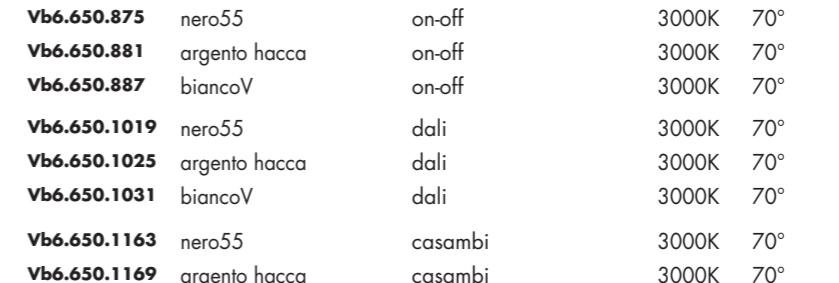
gradi di apertura fascio luminoso 70°  
beam's angle degrees 70°



UGR<19



Ra	R9	ies tm-30	sdcn	mA	V <sub>f</sub> [min]	lm	W	lm/W
97	90	Rf 95	Rg 102	step 2	1050	26.0	3220	27.4
mn3097i8		vita media	· average life	70000 h	L90 B10			



Ra	R9	ies fm-30	sdcn	mA	V <sub>f</sub> [min]	Im	W	Im/W
97	90	Rf 95	Rg 102	step 2	1050	26.0	3310	27.4
mn3597i8		vita media	· average life	70000 h	L90 B10			

