

HAZEL MAX



Detailed data sheet

1809/2018

3 step MacAdam Ellipse Initial	2 step MacAdam Ellipse Initial	L70/B50 50.000h
Ra 80	Ra 90	Ra 97



Interior
spot lights
downlight series

LIGHT SOURCE BY
bridgelux

Product description

HAZEL MAX Standard series

HAZEL MAX Standard Series support the seventh generation of the Bridgelux V Series that is a cost-effective light engine. HAZEL MAX Standard Series is the best for commercial and residential lighting applications where cost and quality are essential.

Comes In 2700K, 3000K, 3500K, 4000K, 5000K, 5700 and 6500K CCT and in flux led lumens from 3452 to 4791 lumens delivering CRI(Ra) of 80 and 90 and high R values across all 15 CIE color samples.

The MacAdam steps can be 2 or 3 up to 4000K, and 4 steps for 5000K, 5700K and 6500K.

HAZEL MAX Decor series

HAZEL MAX Decor Series is a exceptional light source for demanding applications. When a pure white with rich colors over the entire visual spectrum is needed, Decor Series is the perfect choice. HAZEL MAX Decor Series comes in 2700K and 3000K CCT and with flux from 3048 to 3245 led lumens delivering CRI(Ra) of 97 and high R values across all 15 CIE color samples. The MacAdam steps are 2 for both CCTs.

Features

- Supports the 7th generation V Series COBs of Bridgelux
- Optionally supports the Decor Series of Bridgelux V Series
- LED power 31W
- LED lumens from 3048lm up to 4791lm
- CCT from 2700K up to 6500K
- CRI Ra 80, 90 and 97
- UGR : <26,6
- Three beam angles
- Available with non dimming driver or with phase cut driver
- Wide angle Pan & Tilt rotation
- Easy selection among one of the 3 phases of the track
- Two colours
- Easy installation in track system
- Fast relocation within the track system with a single move
- Comply with DC central emergency systems (only for Non-Dimmable models)

Areas of application

- Foyers
- Lobbies
- Receptions
- Retail shops
- Halls
- Museums
- Offices
- Conference rooms
- Galleries



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Specifications

Light source	LED COB by BRIDGELUX			
Luminaire lumens	See Photometric Data			
Led Power consumption	CRI80, CRI90 : 30,7W			
	CRI97 : 31,3W			
Luminaire power consumption	CRI80, CRI90 : 34,5W			
	CRI97 : 35,2W			
LED current	30,7W & 31,3W : 900mA			
LED Lumens	30,7W & 31,3W			
	CRI	80	90	97
	2700K	4143	3452	3048
	3000K	4335	3582	3245
	3500K	4446	3712	
	4000K	4489	3841	
	5000K	4625	3936	
	5700K	4704		
	6500K	4791		
LED Efficacy (LPW)	30,7W & 31,3W			
	CRI	80	90	97
	2700K	135	112	97
	3000K	141	117	104
	3500K	145	121	
	4000K	146	125	
	5000K	151	128	
	5700K	153		
	6500K	156		
Luminaire Efficacy (LPW)	See Photometric Data			
Color Temperature (CCT)	CRI80 : 2700K, 3000K, 3500K, 4000K 5000K, 5700K, 6500K			
	CRI90 : 2700K, 3000K, 3500K, 4000K 5000K			
	CRI97 : 2700K, 3000K			
Color Rendering Index (Ra-8)	CRI80, CRI90, CRI97			
Gamut Area Index (GAI_{BB})	CRI80 : GAI _{BB} : 95 / Rr: 85 / Rg: 94			
IES TM-30 (R_f) (R_g)	CRI90 : GAI _{BB} : 102 / Rr: 90 / Rg: 99			
	CRI97 : GAI _{BB} : 106 / Rr: 94 / Rg: 100			
Initial color consistency	CRI80 : 3 SDCM (2 SDCM upon request)			
	CRI90, CRI97 : 2 SDCM			
Lumen maintenance	L70/B50 at 50000 hours			
Product type	Downlight spot for track systems			
Ceiling type	Any type of ceiling			
Material	Spot: aluminum			
	Driver case: aluminum die-cast			
	Heatsink: aluminum			
	Reflector: Polymer			
Color	White, Black			
Optics	High gloss reflector: 25°, 45°, 70°			
Cover	Clear (Tempered glass), Honeycomb (Metal)			
Light distribution	Rotationally symmetric			
Dimming	Phase Cut			
Power supply voltage	220-240VAC /50-60Hz			
Power factor	Non-dimmable ≥ 0,95 ,Phase cut ≥ 0,51			
Flicker ripple	See Driver operation			
Unified Glare Rating (UGR)	See Photometric Data			
Ambient temperature range	-10°C / +40°C			
Protection class	CLASS I			
Ingress Protection	IP40			
Mechanical impact	IK03			
Connection	3 Phase track adaptor			
Dimensions & weight	See Dimensions & Weight			
Pan rotation (horizontal plane)	320°			
Tilt rotation (vertical plane)	100°			
Compliance	LVD directive, EMC directive, RoHS			
Remarks	CRI90 & CRI97 are available upon request			
Luminaire Energy Class	34,5W & 35,2W			
	CRI	80	90	97
	2700K	A+	A+	A
	3000K	A+	A+	A
	3500K	A+	A+	
	4000K	A+	A+	
	5000K	A+	A+	
	5700K	A++		
	6500K	A++		

- Notes.**
1. All above values are typical.
 2. Absolute range of luminous flux is ±10% of typical value.
 3. Specifications are subject to change without notice

Driver operation

Phase Cut Drivers

- Light regulation 0/3 - 100%.
- Compatible with Leading edge (Triac) and Trailing edge (IGBT) dimmers.

Non Dimmable Drivers

- Current Ripple <3%.
- High efficiency.



Photometric data

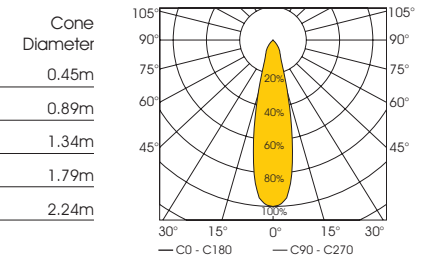
*Note: Use the coefficients, to calculate the Luminous flux, Efficacy and Illuminance for CRI90, CRI97.
All values below, correspond to CRI80.

Power 34.5W	2700K	3000K	3500K	4000K	5000K	5700K	6500K
CRI90 Coeff.*	0.83	0.83	0.83	0.86	0.85		
CRI97 Coeff.*	0.74	0.75					

Reflector 25° (typ.) with Clear cover

Luminaire lm	3180 lm	3328 lm	3413 lm	3446 lm	3550 lm	3611 lm	3678 lm
Efficacy (lm/W)	92	97	99	100	103	105	107
UGR : <21.7							

Illuminance	1m	10994 lx	11504 lx	11798 lx	11913 lx	12274lx	12483 lx	12714 lx
	2m	2749 lx	2876 lx	2950 lx	2978 lx	3069 lx	3121 lx	3179 lx
	3m	1222 lx	1278 lx	1311 lx	1324 lx	1364 lx	1387 lx	1413 lx
	4m	687 lx	719 lx	737 lx	745 lx	767 lx	780 lx	795 lx
	5m	440 lx	460 lx	472 lx	477 lx	491 lx	499 lx	509 lx

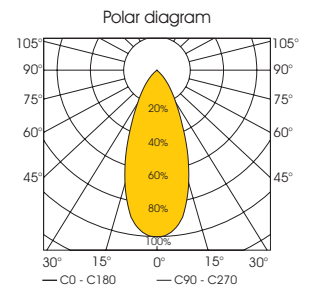
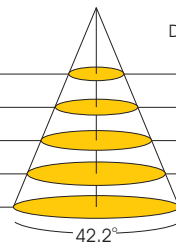


Reflector 45° (typ.) with Clear cover

Power 34.5W	2700K	3000K	3500K	4000K	5000K	5700K	6500K
CRI90 Coeff.*	0.83	0.83	0.83	0.86	0.85		
CRI97 Coeff.*	0.74	0.75					

Luminaire lm	3303 lm	3456 lm	3545lm	3579 lm	3687 lm	3750 lm	3820 lm
Efficacy (lm/W)	96	100	103	104	107	109	111
UGR : <23.0							

Illuminance	1m	5476 lx	5730 lx	5877 lx	5934 lx	6113 lx	6218 lx	6333 lx
	2m	1369 lx	1433 lx	1469 lx	1483 lx	1528 lx	1554 lx	1583 lx
	3m	608 lx	637 lx	653 lx	659 lx	679 lx	691 lx	704 lx
	4m	342 lx	358 lx	367 lx	371 lx	382 lx	389 lx	396 lx
	5m	219 lx	229 lx	235 lx	237 lx	245 lx	249 lx	253 lx

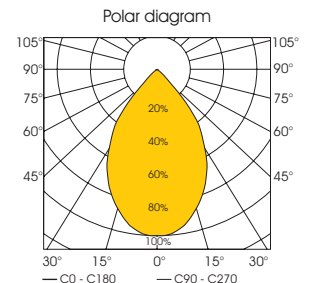
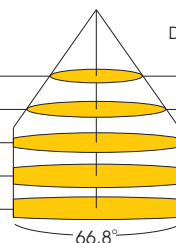


Reflector 70° (typ.) with Clear cover

Power 34.5W	2700K	3000K	3500K	4000K	5000K	5700K	6500K
CRI90 Coeff.*	0.83	0.83	0.83	0.86	0.85		
CRI97 Coeff.*	0.74	0.75					

Luminaire lm	3560 lm	3819 lm	3917 lm	3955 lm	4075 lm	4145 lm	4221 lm
Efficacy (lm/W)	106	111	114	115	118	120	122
UGR : <26.6							

Illuminance	1m	3367 lx	3523 lx	3613 lx	3648 lx	3759 lx	3823 lx	3894 lx
	2m	842 lx	881 lx	903 lx	912 lx	940 lx	956 lx	973 lx
	3m	374 lx	391 lx	401 lx	405 lx	418 lx	425 lx	433 lx
	4m	210 lx	220 lx	226 lx	228 lx	235 lx	239 lx	243 lx
	5m	135 lx	141 lx	145 lx	146 lx	150 lx	153 lx	156 lx



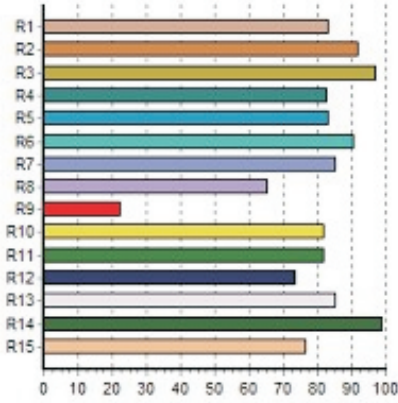
Color metric data

Standard models CRI 80

Typical values for 3000K

Color Rendering Index: CRI(Ra): 83 CRI(Re): 79

R values

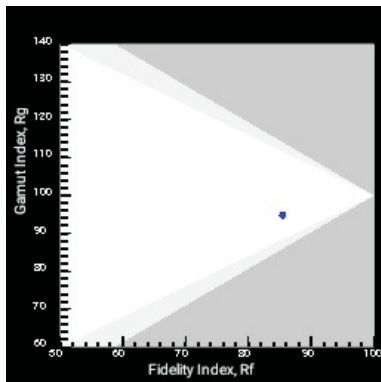


Gamut Area Index: GAI(BB8): 89 GAI(BB15): 95

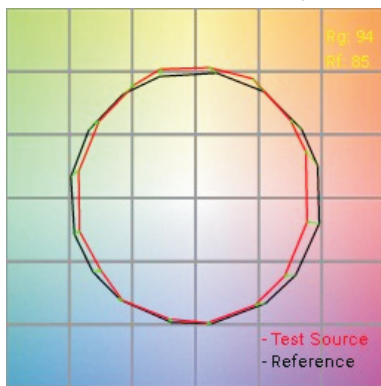
IES TM-30-15 Fidelity Index: Rf 85

IES TM-30-15 Gamut Index: Rg 94

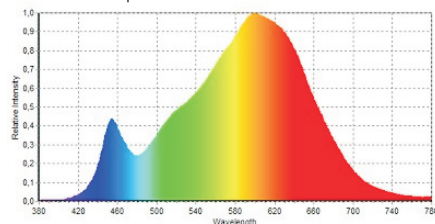
IES TM-30-15 Rf Rg Plot



IES TM-30-15 Color Vector Graphic



Spectral Power Distribution

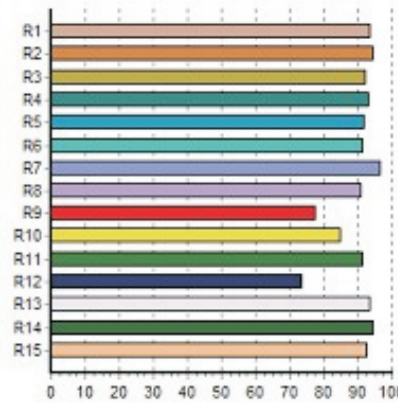


Standard models CRI 90

Typical values for 3000K

Color Rendering Index: CRI(Ra): 93 CRI(Re): 90

R values

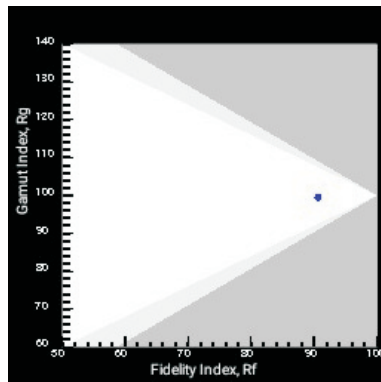


Gamut Area Index: GAI(BB8): 97 GAI(BB15): 102

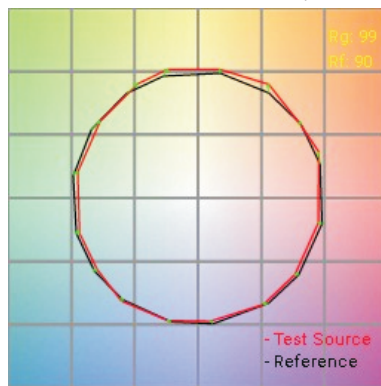
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IES TM-30-15 Gamut Index: Rg 99

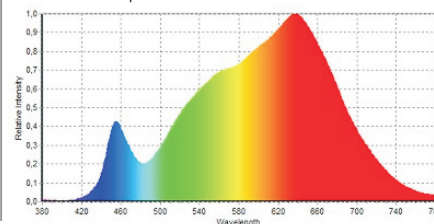
IES TM-30-15 Rf Rg Plot



IES TM-30-15 Color Vector Graphic



Spectral Power Distribution

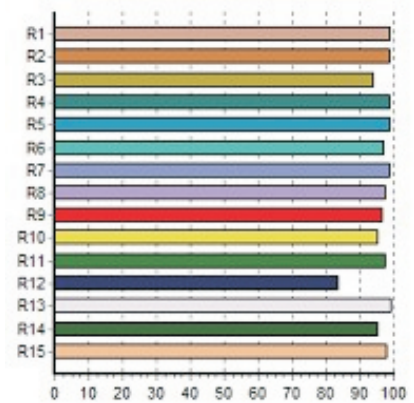


Decor models CRI 97

Typical values for 3000K

Color Rendering Index: CRI(Ra): 97 CRI(Re): 96

R values

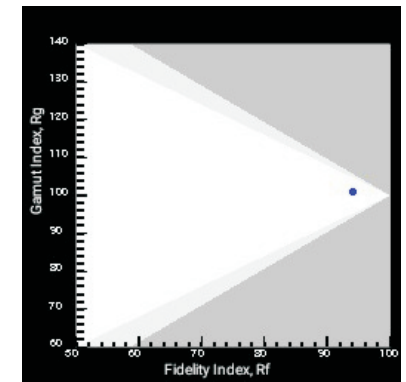


Gamut Area Index: GAI(BB8): 102 GAI(BB15): 106

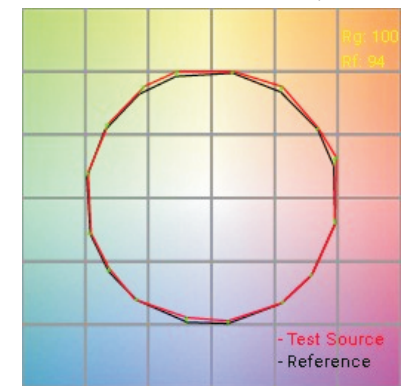
IES TM-30-15 Fidelity Index: Rf 94

IES TM-30-15 Gamut Index: Rg 100

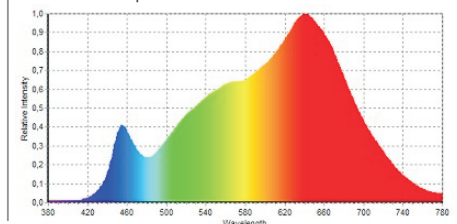
IES TM-30-15 Rf Rg Plot



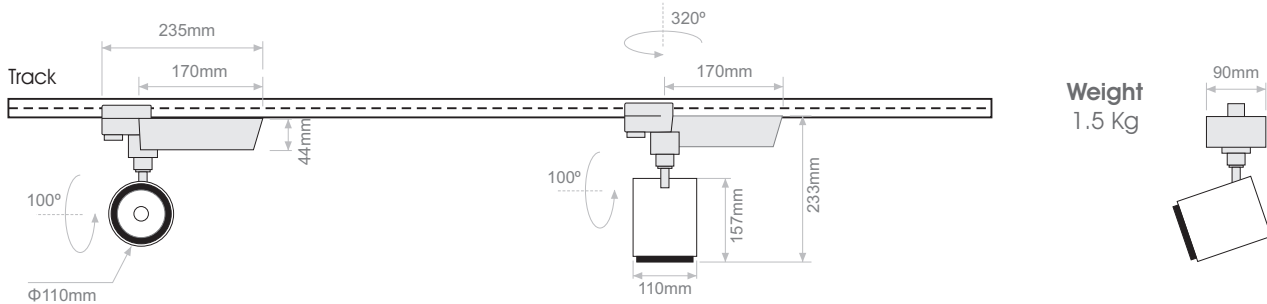
IES TM-30-15 Color Vector Graphic



Spectral Power Distribution



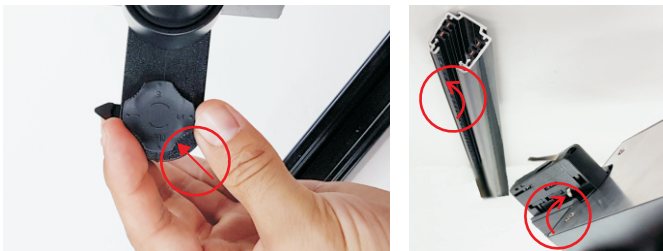
Dimensions & weights



Installation guide

1 Preparations

- Step 1**
Place the phase selection switch to "OFF" position.
- Step 2**
HAZEL MAX can only be placed to the track system with its left side connected to the left side of the track.



3 Phase selection

- Step 1**
Select number 1, 2 or 3 by turning the selection switch for the phases 1, 2 and 3 accordingly.



2 Connection

- Step 1**
Dock HAZEL MAX to the desired position in the track system.
- Step 2**
Secure HAZEL MAX from the back side by turning the safety switch clockwise.
- Step 3**
Secure HAZEL MAX from the front side by turning the safety switch clockwise.



Note: For undocking you must first place the phase selection switch to "OFF" position.

Electrical Installation

Maximum loading of automatic circuit breakers

Model power	34,5/35,2W
Circuit Braker	B10A / B16A
Non dimmable driver	31 / 50
Phase cut driver	25 / 40

Notes.

- Actual quantities may differ due to used circuit breaker types and installation environment.
- In PHASE-CUT models, when a Leading edge dimmer is used, the total power of luminaires must not exceed the 1/5 of the dimmer power.

Ordering code information

Model (Led Power)	Colour Temperature	LED Lumen	Type	CRI	Beam Angle	Colour	Dimming Option	Accessories
HAZEL MAX 30.7W (HAZEL MAX 30)	(27B4143)	2700K - 4143lm	Adjustable (AD)	[80] 80	[25] 25° [45] 45° [70] 70°	[WH] White [BL] Black	[ND] Non-Dimmable [PC] Phase Cut (Trailing Edge dimmer)	COVER [0X] Standard [2X] Honeycomb ↓ [XX] EXTRAS [X0] No Extras
	(30B4335)	3000K - 4335lm						
	(35B4446)*	3500K - 4446lm						
	(40B4489)	4000K - 4489lm						
	(50B4625)*	5000K - 4625lm						
	(57B4704)	5700K - 4704lm						
(65B4791)*	6500K - 4791lm							
HAZEL MAX 30.7W (HAZEL MAX 30)	(27B3452)	2700K - 3452lm	Adjustable (AD)	[90] 90	[25] 25° [45] 45° [70] 70°	[WH] White [BL] Black	[ND] Non-Dimmable [PC] Phase Cut (Trailing Edge dimmer)	COVER [0X] Standard [2X] Honeycomb ↓ [XX] EXTRAS [X0] No Extras
	(30B3582)	3000K - 3582lm						
	(35B3712)*	3500K - 3712lm						
	(40B3841)	4000K - 3841lm						
	(50B3936)*	5000K - 3936lm						
HAZEL MAX 31.3W (HAZEL MAX 30)	(27B3048)	2700K - 3048lm	Adjustable (AD)	[97] 97	[25] 25° [45] 45° [70] 70°	[WH] White [BL] Black	[ND] Non-Dimmable [PC] Phase Cut (Trailing Edge dimmer)	COVER [0X] Standard [2X] Honeycomb ↓ [XX] EXTRAS [X0] No Extras
	(30B3245)	3000K - 3245lm						

(*) Colour temperatures at 3500K, 5000K, and 6500K are available upon request.

Ordering Code Example:

HAZEL MAX 30 - 30B3582 - AD - 90 - 45 - BL - PC - 20

Model Colour Temperature LED Lumen Type Colour Rendering Beam Angle Colour Dimming Option Accessories

Means: HAZEL MAX 30.7W, 3000K, 3582lm, Adjustable, CRI90, 45°, Black, dimming with Phase Cut control and Honeycomb accessory.



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At the end of its lifetime, the product must be delivered in a special waste collection center. The improper disposal can cause damages for the environment and poses dangers for the human health.

