

## Detailed data sheet

1809/2018

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



Interior  
spot lights  
downlight series

LIGHT SOURCE BY  


## Product description

### KARIN MAX Standard series

KARIN MAX Standard Series support the seventh generation of the Bridgelux V Series that is a cost-effective light engine.

KARIN 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.

### KARIN MAX Decor series

KARIN 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. KARIN 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
- Low UGR : <25,6
- 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



## Specifications

<b>Light source</b>	LED COB by BRIDGELUX			
<b>Luminaire lumens</b>	See Photometric Data			
<b>Led Power consumption</b>	<b>CRI80, CRI90</b> : 30,7W			
	<b>CRI97</b> : 31,3W			
<b>Luminaire power consumption</b>	<b>CRI80, CRI90</b> : 34,5W			
	<b>CRI97</b> : 35,2W			
<b>LED current</b>	<b>30,7W &amp; 31,3W</b> : 900mA			
<b>LED Lumens</b>	<b>30,7W &amp; 31,3W</b>			
	<b>CRI</b>	<b>80</b>	<b>90</b>	<b>97</b>
	<b>2700K</b>	4143	3452	3048
	<b>3000K</b>	4335	3582	3245
	<b>3500K</b>	4446	3712	
	<b>4000K</b>	4489	3841	
	<b>5000K</b>	4625	3936	
	<b>5700K</b>	4704		
	<b>6500K</b>	4791		
<b>LED Efficacy (LPW)</b>	<b>30,7W &amp; 31,3W</b>			
	<b>CRI</b>	<b>80</b>	<b>90</b>	<b>97</b>
	<b>2700K</b>	135	112	97
	<b>3000K</b>	141	117	104
	<b>3500K</b>	145	121	
	<b>4000K</b>	146	125	
	<b>5000K</b>	151	128	
	<b>5700K</b>	153		
	<b>6500K</b>	156		
<b>Luminaire Efficacy (LPW)</b>	See Photometric Data			
<b>Color Temperature (CCT)</b>	<b>CRI80</b> : 2700K, 3000K, 3500K, 4000K 5000K, 5700K, 6500K			
	<b>CRI90</b> : 2700K, 3000K, 3500K, 4000K 5000K			
	<b>CRI97</b> : 2700K, 3000K			
<b>Color Rendering Index (Ra-8)</b>	CRI80, CRI90, CRI97			
<b>Gamut Area Index (GAI<sub>BB</sub>)</b>	<b>CRI80</b> : GAI <sub>BB</sub> : 95 / R <sub>r</sub> : 85 / R <sub>g</sub> : 94			
<b>IES TM-30 (R<sub>r</sub>) (R<sub>g</sub>)</b>	<b>CRI90</b> : GAI <sub>BB</sub> : 102 / R <sub>r</sub> : 90 / R <sub>g</sub> : 99			
	<b>CRI97</b> : GAI <sub>BB</sub> : 106 / R <sub>r</sub> : 94 / R <sub>g</sub> : 100			
<b>Initial color consistency</b>	<b>CRI80</b> : 3 SDCM (2 SDCM upon request)			
	<b>CRI90, CRI97</b> : 2 SDCM			
<b>Lumen maintenance</b>	L70/B50 at 50000 hours			

- 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.

<b>Product type</b>	Downlight spot for track systems			
<b>Ceiling type</b>	Any type of ceiling			
<b>Material</b>	Spot: aluminum			
	Driver case: aluminum die-cast			
	Heatsink: aluminum die-cast			
	Reflector: Polymer			
<b>Color</b>	White, Black			
<b>Optics</b>	High gloss reflector: 25°, 45°, 70°			
<b>Cover</b>	Clear (Tempered glass), Honeycomb (Metal)			
<b>Light distribution</b>	Rotationally symmetric			
<b>Dimming</b>	Phase Cut			
<b>Power supply voltage</b>	220-240VAC /50-60Hz			
<b>Power factor</b>	Non-dimmable ≥ 0,95 ,Phase cut ≥ 0,51			
<b>Flicker ripple</b>	See Driver operation			
<b>Unified Glare Rating (UGR)</b>	See Photometric Data			
<b>Ambient temperature range</b>	-10°C / +40°C			
<b>Protection class</b>	CLASS I			
<b>Ingress Protection</b>	IP40			
<b>Mechanical impact</b>	IK03			
<b>Connection</b>	3 Phase track adaptor			
<b>Dimensions &amp; weight</b>	See Dimensions & Weight			
<b>Pan rotation (horizontal plane)</b>	320°			
<b>Tilt rotation (vertical plane)</b>	145°			
<b>Compliance</b>	LVD directive, EMC directive, RoHS			
<b>Remarks</b>	CRI90 & CRI97 are available upon request			
<b>Luminaire Energy Class</b>	<b>34,5W &amp; 35,2W</b>			
	<b>CRI</b>	<b>80</b>	<b>90</b>	<b>97</b>
	<b>2700K</b>	A+	A+	A
	<b>3000K</b>	A+	A+	A
	<b>3500K</b>	A+	A+	
	<b>4000K</b>	A+	A+	
	<b>5000K</b>	A++	A+	
	<b>5700K</b>	A++		
	<b>6500K</b>	A++		

### Non Dimmable Drivers

- Current Ripple <3%.
- High efficiency.

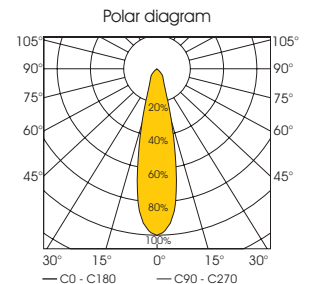
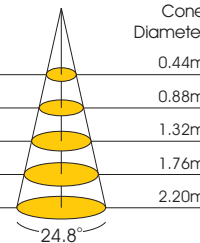
### Photometric data

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

<b>Power 34.5W</b>	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	3311 lm	3464 lm	3553 lm	3587 lm	3696 lm	3759 lm	3829 lm
Efficacy (lm/W)	96	100	103	104	107	109	111
UGR : <21.4							

Illuminance	1m	10672 lx	11167 lx	11453 lx	11564 lx	11914 lx	12118 lx	12342 lx
	2m	2668 lx	2792 lx	2863 lx	2891 lx	2979 lx	3029 lx	3085 lx
	3m	1186 lx	1241 lx	1273 lx	1285 lx	1324 lx	1346 lx	1371 lx
	4m	667 lx	698 lx	716 lx	723 lx	745 lx	757 lx	771 lx
	5m	427 lx	447 lx	458 lx	463 lx	477 lx	485 lx	494 lx

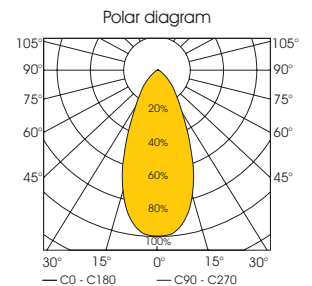
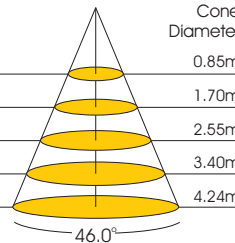


Reflector 25° (typ.) with Clear cover

<b>Power 34.5W</b>	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	3375 lm	3531 lm	3622 lm	3657 lm	3767 lm	3832 lm	3903 lm
Efficacy (lm/W)	98	102	105	106	109	111	113
UGR : <22.6							

Illuminance	1m	4546 lx	4757 lx	4879 lx	4926 lx	5075 lx	5162 lx	5257 lx
	2m	1137 lx	1189 lx	1220 lx	1231 lx	1269 lx	1290 lx	1314 lx
	3m	505 lx	529 lx	542 lx	547 lx	564 lx	574 lx	584 lx
	4m	284 lx	297 lx	305 lx	308 lx	317 lx	323 lx	329 lx
	5m	182 lx	190 lx	195 lx	197 lx	203 lx	206 lx	210 lx

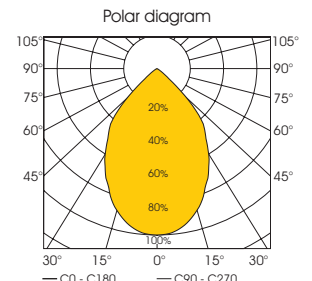
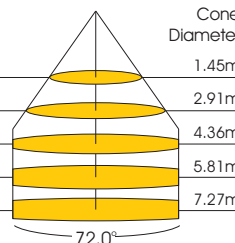


Reflector 45° (typ.) with Clear cover

<b>Power 34.5W</b>	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	3671 lm	3841 lm	3939 lm	3977 lm	4098 lm	4168 lm	4245 lm
Efficacy (lm/W)	106	111	114	115	119	121	123
UGR : <25.6							

Illuminance	1m	2909 lx	3044 lx	3122 lx	3152 lx	3248 lx	3303 lx	3364 lx
	2m	727 lx	761 lx	780 lx	788 lx	812 lx	826 lx	841 lx
	3m	323 lx	338 lx	347 lx	350 lx	361 lx	367 lx	374 lx
	4m	182 lx	190 lx	195 lx	197 lx	203 lx	206 lx	210 lx
	5m	116 lx	122 lx	125 lx	126 lx	130 lx	132 lx	135 lx



Reflector 70° (typ.) with Clear cover

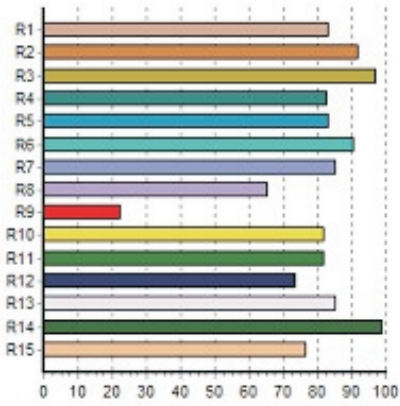
## Color metric data

### Standard models CRI 80

Typical values for 3000K

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

R values

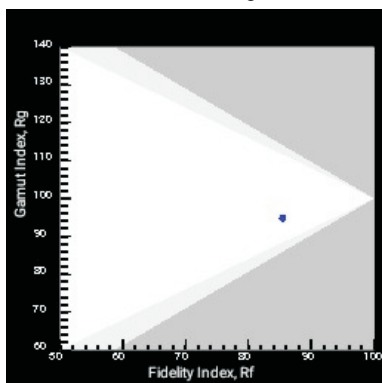


Gamut Area Index: GAI(BB8): 89 GAI(BB15): 95

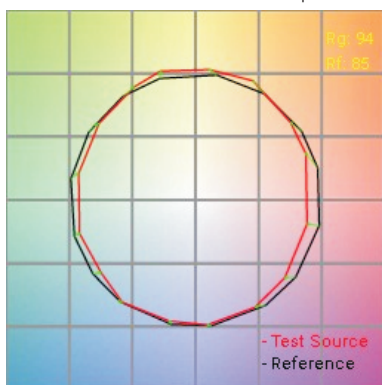
IES TM-30-15 Fidelity Index: Rf 85

IES TM-30-15 Gamut Index: Rg 94

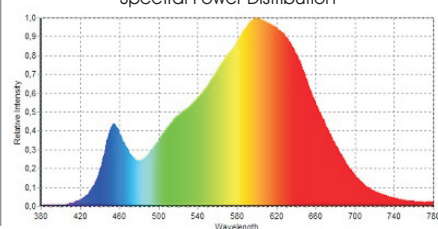
IES TM-30-15 Rf Rg Plot



IES TM-30-15 Color Vector Graphic



Spectral Power Distribution

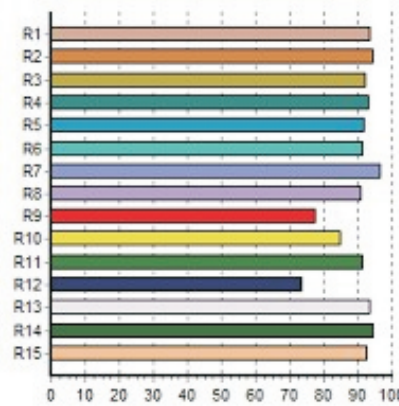


### Standard models CRI 90

Typical values for 3000K

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

R values

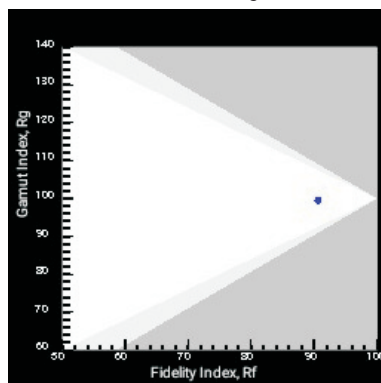


Gamut Area Index: GAI(BB8): 97 GAI(BB15): 102

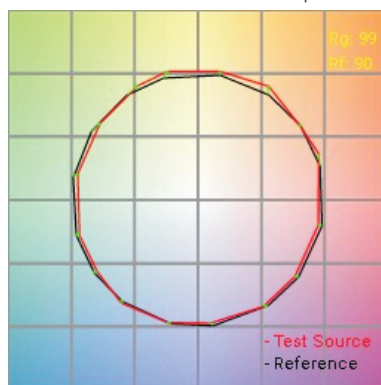
IES TM-30-15 Fidelity Index: Rf 90

IES TM-30-15 Gamut Index: Rg 99

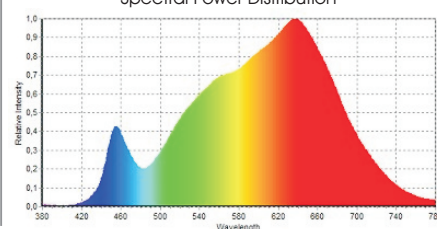
IES TM-30-15 Rf Rg Plot



IES TM-30-15 Color Vector Graphic



Spectral Power Distribution

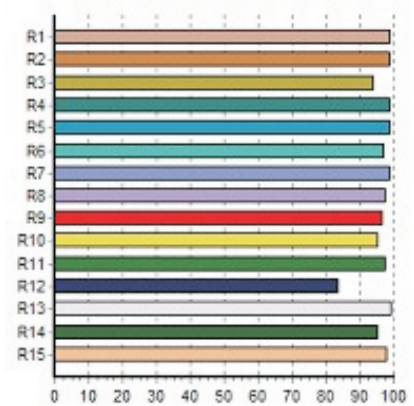


### Decor models CRI 97

Typical values for 3000K

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

R values

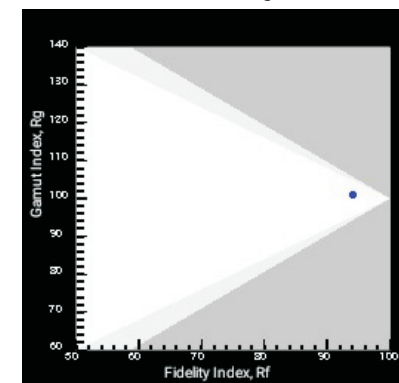


Gamut Area Index: GAI(BB8): 102 GAI(BB15): 106

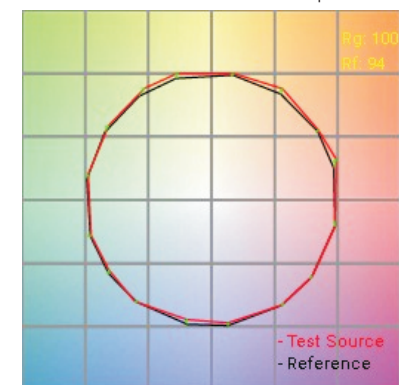
IES TM-30-15 Fidelity Index: Rf 94

IES TM-30-15 Gamut Index: Rg 100

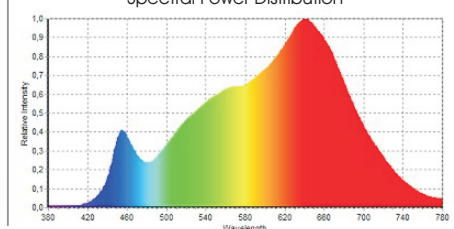
IES TM-30-15 Rf Rg Plot



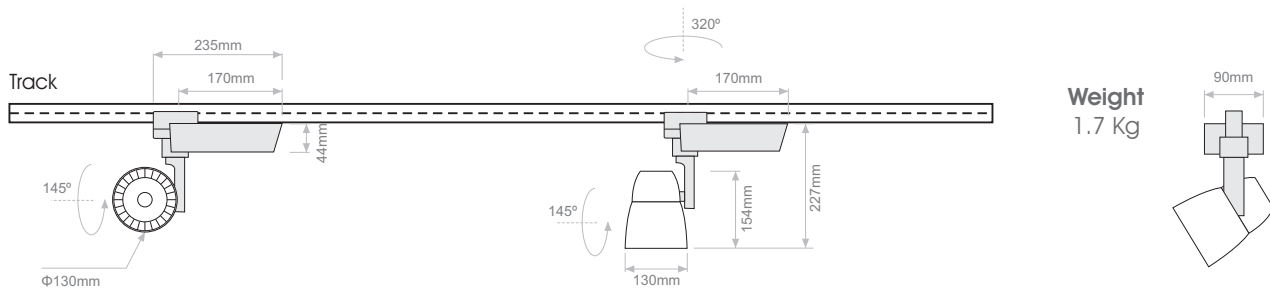
IES TM-30-15 Color Vector Graphic



Spectral Power Distribution



## Dimensions & weights



## Installation guide

### 1 Preparations

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



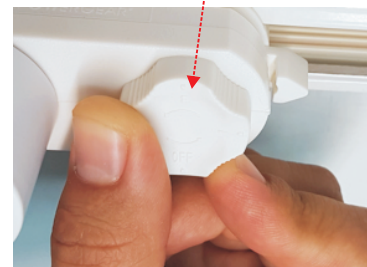
### 3 Phase selection

- 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 KARIN MAX to the desired position in the track system.
- Step 2**  
Secure KARIN MAX from the back side by turning the safety switch clockwise.
- Step 3**  
Secure KARIN 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
<b>KARIN MAX 30.7W</b> <i>(KARIN MAX 30)</i>	[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)	<b>COVER</b> [0X] Standard [2X] Honeycomb ↓ [XX] <b>EXTRAS</b> [X0] No Extras
	[30B4335]	3000K - 4335lm						
	[35B4446]*	3500K - 4446lm						
	[40B4489]	4000K - 4489lm						
	[50B4625]*	5000K - 4625lm						
	[57B4704]	5700K - 4704lm						
[65B4791]*	6500K - 4791lm							
<b>KARIN MAX 30.7W</b> <i>(KARIN MAX 30)</i>	[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)	<b>COVER</b> [0X] Standard [2X] Honeycomb ↓ [XX] <b>EXTRAS</b> [X0] No Extras
	[30B3582]	3000K - 3582lm						
	[35B3712]*	3500K - 3712lm						
	[40B3841]	4000K - 3841lm						
	[50B3936]*	5000K - 3936lm						
<b>KARIN MAX 31.3W</b> <i>(KARIN MAX 30)</i>	[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)	<b>COVER</b> [0X] Standard [2X] Honeycomb ↓ [XX] <b>EXTRAS</b> [X0] No Extras
	[30B3245]	3000K - 3245lm						

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

### Ordering Code Example:

**KARIN MAX 30 - 30B3582 - AD - 90 - 45 - BL - PC - 20**

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

Means: KARIN 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.