



Accent with higher performance LED retrofits

MR16/GU10/PAR16 LED

Philips MR16 Dimmable LED Lamps provide ambient level light to illuminate hard to maintain applications. Increased transformer compatibility allows for operation on a wider range of transformers. Available in dimmable and non-dimmable versions, these lamps are ideal for track and open recessed fixtures in retail, hospitality and residential spaces.

Benefits

- Long life properties-- lowers maintenance costs by reducing re-lamp frequency
- Will not fade colors, avoids inventory spoilage
- Contains no mercury
- Emits virtually no UV/IR light in the beam
- 3-year or 5-year limited warranty depending upon operating hours

Features

- Available in dimmable* and non-dimmable versions
- Provides quality white light and a crisp, uniform beam
- 7W and 7W HO MRX16s are suitable for use in many enclosed fixtures
- 40,000-hour rated average life⁺ for 7W MRX16
- Instant-on light
- ^{*}Dimmable when using leading edge dimmers (see Philips Website: www.philips.com/ledtechguide for compatible leading edge dimmers.)
- ⁺Rated average life based on engineering testing and probability analysis.

Application

- Ideal for accent and ambient lighting in retail and hospitality spaces.

MR16/GU10/PAR16 LED

Versions



GU5.3 MR16



8-50 W GU5.3 MR16



GU5.3 MR16



GU5.3 MR16



E26 PAR16

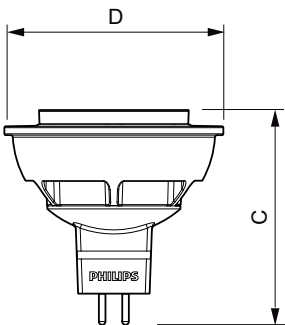
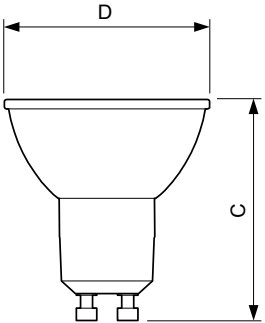


E26 PAR16



GU10 PAR16

Dimensional drawing

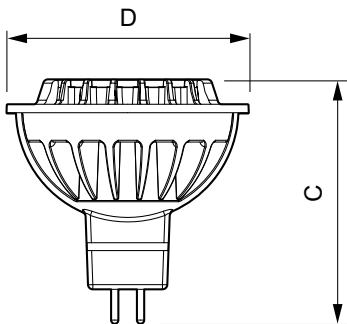
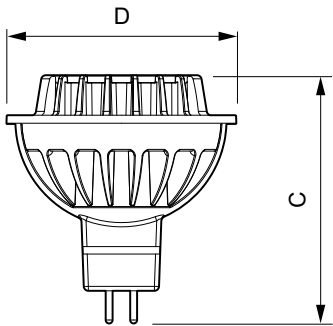
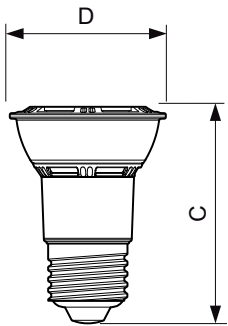
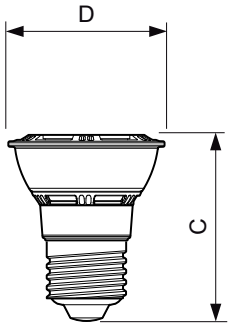


Product	D	C
4.5GU10/LEDCLA/F35/830/DIM 10/1	50 mm	53 mm

Product	D	C
6.4MR16/F35/3000 DIM 12V	51 mm	51 mm
6.4MR16/F25/3000 DIM 12V	51 mm	51 mm
6.5MR16/F35/2700-2200 DIM 12V	51 mm	50 mm
6.6MR16/F35/3000 DIM 12V	51 mm	51 mm
6.6MR16/F25/3000 DIM 12V	51 mm	51 mm
6.5MR16/F25/2700-2200 DIM 12V	51 mm	50 mm

MR16/GU10/PAR16 LED

Dimensional drawing



Product	D	C
AmbientLED PAR16S 7W 35D 830 D	50 mm	60 mm

Product	D	C
AmbientLED PAR16 7W 35D 830 D	50 mm	70 mm

Product	D	C
8.5MRX16/F35 2700 DIM AF 10/1	51 mm	55 mm
8.5MRX16/F25 3000 DIM AF 10/1	51 mm	55 mm
8.5MRX16/F25 2700 DIM AF 10/1	51 mm	55 mm
8.5MRX16/F35 3000 DIM AF 10/1	51 mm	55 mm
8.5MRX16/F25 4000 DIM AF 10/1	51 mm	55 mm
8.5MRX16/F35 4000 DIM AF 10/1	51 mm	55 mm

Product	D	C
7MR16/LED/F35/840/DIM AF2 10/1	51 mm	51 mm
7MR16/LED/F25/827/DIM AF2 10/1	51 mm	51 mm
7MR16/LED/F25/840/DIM AF2 10/1	51 mm	51 mm
7MR16/LED/F25/830/DIM AF2 10/1	51 mm	51 mm
7MR16/LED/F35/827/DIM AF2 10/1	51 mm	51 mm
7MR16/LED/F35/830/DIM AF2 10/1	51 mm	51 mm
7MR16/LED/S15/830/DIM AF2 10/1	51 mm	51 mm
7MR16/LED/S15/840/DIM AF2 10/1	51 mm	51 mm
7MR16/LED/S15/827/DIM AF2 10/1	51 mm	51 mm

MR16/GU10/PAR16 LED

Approval and Application

Energy Efficiency Label (EEL) Not applicable

Controls and Dimming

Dimmable Yes

General Information

Switching Cycle 50000X

Light Technical

Lmf At End Of Nominal Lifetime (Nom) 70 %

Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/1000 h	Order Code	Full Product Name	Energy Consumption kWh/1000 h
454538	6.5MR16/F25/2700-2200 DIM 12V 10/1	- kWh	461525	7MR16/LED/S15/827/DIM AF2 10/1	8 kWh
454546	6.5MR16/F35/2700-2200 DIM 12V 10/1	7 kWh	461533	7MR16/LED/S15/830/DIM AF2 10/1	8 kWh
457507	8.5MRX16/LED/F25 2700 DIM AF 10/1	9 kWh	461541	7MR16/LED/S15/840/DIM AF2 10/1	8 kWh
457515	8.5MRX16/LED/F25 3000 DIM AF 10/1	- kWh	461558	7MR16/LED/F25/827/DIM AF2 10/1	8 kWh
457523	8.5MRX16/LED/F25 4000 DIM AF 10/1	9 kWh	461566	7MR16/LED/F25/830/DIM AF2 10/1	8 kWh
457531	8.5MRX16/LED/F35 2700 DIM AF 10/1	9 kWh	461574	7MR16/LED/F25/840/DIM AF2 10/1	8 kWh
457549	8.5MRX16/LED/F35 3000 DIM AF 10/1	9 kWh	461582	7MR16/LED/F35/827/DIM AF2 10/1	8 kWh
457556	8.5MRX16/LED/F35 4000 DIM AF 10/1	9 kWh	461590	7MR16/LED/F35/830/DIM AF2 10/1	8 kWh
454785	6.6MR16/F25/3000 DIM 12V 10/1	7 kWh	461608	7MR16/LED/F35/840/DIM AF2 10/1	8 kWh
470336	6.4MR16/F25/3000 DIM 12V 10/1	-	464981	BC7PAR16/AMB/830/F35/DIM 120V 4/1	-
457606	6.6MR16/F35/3000 DIM 12V	7 kWh	464999	7PAR16S/LED/3000/F35 Dim 120V	-
470344	6.4MR16/F35/3000 DIM 12V 10/1	-	468140	4.5GU10/LED/F35/830/DIM 10/1	-

Operating and Electrical

Order Code	Full Product Name	Input Frequency	Voltage (Nom)	Wattage Equivalent	Power (Rated) (Nom)	Starting Time (Nom)
454538	6.5MR16/F25/2700-2200 DIM 12V 10/1	50 to 60 Hz	12 V	35 W	6.5 W	0.5 s
454546	6.5MR16/F35/2700-2200 DIM 12V 10/1	50 to 60 Hz	12 V	35 W	6.5 W	0.5 s
457507	8.5MRX16/LED/F25 2700 DIM AF 10/1	60 Hz	12 V	50 W	8.5 W	0.5 s
457515	8.5MRX16/LED/F25 3000 DIM AF 10/1	60 Hz	12 V	50 W	8.5 W	0.5 s
457523	8.5MRX16/LED/F25 4000 DIM AF 10/1	60 Hz	12 V	50 W	8.5 W	0.5 s
457531	8.5MRX16/LED/F35 2700 DIM AF 10/1	60 Hz	12 V	50 W	8.5 W	0.5 s
457549	8.5MRX16/LED/F35 3000 DIM AF 10/1	60 Hz	12 V	50 W	8.5 W	0.5 s
457556	8.5MRX16/LED/F35 4000 DIM AF 10/1	60 Hz	12 V	50 W	8.5 W	0.5 s
454785	6.6MR16/F25/3000 DIM 12V 10/1	60 Hz	12 V	35 W	6.6 W	0.5 s
470336	6.4MR16/F25/3000 DIM 12V 10/1	-	12 V	35 W	6.4 W	0.5 s
457606	6.6MR16/F35/3000 DIM 12V	60 Hz	12 V	35 W	6.6 W	0.5 s
470344	6.4MR16/F35/3000 DIM 12V 10/1	-	12 V	35 W	6.4 W	0.6 s
461525	7MR16/LED/S15/827/DIM AF2 10/1	-	12 V	35 W	7 W	0.5 s
461533	7MR16/LED/S15/830/DIM AF2 10/1	-	12 V	35 W	7 W	0.5 s
461541	7MR16/LED/S15/840/DIM AF2 10/1	-	12 V	35 W	7 W	0.5 s
461558	7MR16/LED/F25/827/DIM AF2 10/1	-	12 V	50 W	7 W	0.5 s
461566	7MR16/LED/F25/830/DIM AF2 10/1	-	12 V	50 W	7 W	0.5 s
461574	7MR16/LED/F25/840/DIM AF2 10/1	-	12 V	50 W	7 W	0.5 s
461582	7MR16/LED/F35/827/DIM AF2 10/1	-	12 V	50 W	7 W	0.5 s
461590	7MR16/LED/F35/830/DIM AF2 10/1	-	12 V	50 W	7 W	0.5 s
461608	7MR16/LED/F35/840/DIM AF2 10/1	-	12 V	50 W	7 W	0.5 s

MR16/GU10/PAR16 LED

Order Code	Full Product Name	Input Frequency	Voltage (Nom)	Wattage Equivalent	Power (Rated) (Nom)	Starting Time (Nom)
464981	BC7PAR16/AMB/830/F35/DIM 120V 4/1	60 Hz	120 V	50 W	7 W	0.5 s
464999	7PAR16S/LED/3000/F35 Dim 120V	60 Hz	120 V	50 W	7 W	0.5 s
468140	4.5GU10/LED/F35/830/DIM 10/1	60 Hz	120 V	50 W	4.5 W	0.5 s

General Information

Order Code	Full Product Name	Cap-Base	Nominal Lifetime (Nom)	Rated Lifetime (Hours)	Order Code	Full Product Name	Cap-Base	Nominal Lifetime (Nom)	Rated Lifetime (Hours)
454538	6.5MR16/F25/2700-2200 DIM 12V 10/1	GU5.3	25000 h	25000 h	470336	6.4MR16/F25/3000 DIM 12V 10/1	GU5.3	25000 h	25000 h
454546	6.5MR16/F35/2700-2200 DIM 12V 10/1	GU5.3	25000 h	25000 h	457606	6.6MR16/F35/3000 DIM 12V	GU5.3	25000 h	25000 h
457507	8.5MRX16/LED/F25 2700 DIM AF 10/1	GU5.3	25000 h	25000 h	470344	6.4MR16/F35/3000 DIM 12V 10/1	GU5.3	25000 h	25000 h
457515	8.5MRX16/LED/F25 3000 DIM AF 10/1	GU5.3	25000 h	25000 h	461525	7MR16/LED/S15/827/DIM AF2 10/1	GU5.3	40000 h	40000 h
457523	8.5MRX16/LED/F25 4000 DIM AF 10/1	GU5.3	25000 h	25000 h	461533	7MR16/LED/S15/830/DIM AF2 10/1	GU5.3	40000 h	40000 h
457531	8.5MRX16/LED/F35 2700 DIM AF 10/1	GU5.3	25000 h	25000 h	461541	7MR16/LED/S15/840/DIM AF2 10/1	GU5.3	40000 h	40000 h
457549	8.5MRX16/LED/F35 3000 DIM AF 10/1	GU5.3	25000 h	25000 h	461558	7MR16/LED/F25/827/DIM AF2 10/1	GU5.3	25000 h	25000 h
457556	8.5MRX16/LED/F35 4000 DIM AF 10/1	GU5.3	25000 h	25000 h	461566	7MR16/LED/F25/830/DIM AF2 10/1	GU5.3	25000 h	25000 h
454785	6.6MR16/F25/3000 DIM 12V 10/1	GU5.3	25000 h	25000 h	461574	7MR16/LED/F25/840/DIM AF2 10/1	GU5.3	25000 h	25000 h
					461582	7MR16/LED/F35/827/DIM AF2 10/1	GU5.3	25000 h	25000 h
					461590	7MR16/LED/F35/830/DIM AF2 10/1	GU5.3	25000 h	25000 h
					461608	7MR16/LED/F35/840/DIM AF2 10/1	GU5.3	25000 h	25000 h
					464981	BC7PAR16/AMB/830/F35/DIM 120V 4/1	E26	25000 h	25000 h
					464999	7PAR16S/LED/3000/F35 Dim 120V	E26	25000 h	25000 h
					468140	4.5GU10/LED/F35/830/DIM 10/1	GU10	25000 h	25000 h

Light Technical (1/2)

Order Code	Full Product Name	Beam Angle (Nom)	Correlated Color		Color Rendering		Luminous Flux	
			Color Code	Temperature (Nom)	Index (Nom)	Light Distribution	Luminous Flux (Nom)	(Rated) (Nom)
454538	6.5MR16/F25/2700-2200 DIM 12V 10/1	25 °	822-827	2200-2700 K	80	25D	410 lm	410 lm
454546	6.5MR16/F35/2700-2200 DIM 12V 10/1	35 °	822-827	2200-2700 K	80	Medium beam 35°	410 lm	410 lm
457507	8.5MRX16/LED/F25 2700 DIM AF 10/1	25 °	827	2700 K	80	25D	635 lm	635 lm
457515	8.5MRX16/LED/F25 3000 DIM AF 10/1	25 °	830	3000 K	80	25D	660 lm	660 lm
457523	8.5MRX16/LED/F25 4000 DIM AF 10/1	25 °	841	4000 K	80	25D	710 lm	710 lm
457531	8.5MRX16/LED/F35 2700 DIM AF 10/1	35 °	827	2700 K	80	Medium beam 35°	635 lm	635 lm
457549	8.5MRX16/LED/F35 3000 DIM AF 10/1	35 °	830	3000 K	80	Medium beam 35°	660 lm	660 lm
457556	8.5MRX16/LED/F35 4000 DIM AF 10/1	35 °	841	4000 K	80	Medium beam 35°	710 lm	710 lm
454785	6.6MR16/F25/3000 DIM 12V 10/1	25 °	830	3000 K	80	25D	395 lm	395 lm
470336	6.4MR16/F25/3000 DIM 12V 10/1	25 °	830	3000 K	80	24D	450 lm	450 lm
457606	6.6MR16/F35/3000 DIM 12V	35 °	830	3000 K	80	Medium beam 35°	395 lm	395 lm
470344	6.4MR16/F35/3000 DIM 12V 10/1	35 °	830	3000 K	80	36D	450 lm	450 lm
461525	7MR16/LED/S15/827/DIM AF2 10/1	15 °	827	2700 K	80	15D	500 lm	-
461533	7MR16/LED/S15/830/DIM AF2 10/1	15 °	930	3000 K	90	15D	500 lm	-
461541	7MR16/LED/S15/840/DIM AF2 10/1	15 °	940	4000 K	90	15D	530 lm	-
461558	7MR16/LED/F25/827/DIM AF2 10/1	25 °	827	2700 K	80	25D	500 lm	500 lm
461566	7MR16/LED/F25/830/DIM AF2 10/1	25 °	930	3000 K	90	25D	500 lm	500 lm
461574	7MR16/LED/F25/840/DIM AF2 10/1	25 °	940	4000 K	90	25D	530 lm	530 lm
461582	7MR16/LED/F35/827/DIM AF2 10/1	35 °	827	2700 K	80	36D	500 lm	500 lm
461590	7MR16/LED/F35/830/DIM AF2 10/1	35 °	930	3000 K	90	Medium beam 35°	500 lm	500 lm
461608	7MR16/LED/F35/840/DIM AF2 10/1	35 °	940	4000 K	90	Medium beam 35°	530 lm	530 lm

MR16/GU10/PAR16 LED

Order Code	Full Product Name	Beam Angle	Correlated Color		Color Rendering		Luminous Flux	
		(Nom)	Color Code	Temperature (Nom)	Index (Nom)	Light Distribution	Luminous Flux (Nom)	(Rated) (Nom)
464981	BC7PAR16/AMB/830/F35/DIM 120V 4/1	35 °	830	3000 K	80	-	500 lm	500 lm
464999	7PAR16S/LED/3000/F35 Dim 120V	35 °	830	3000 K	80	-	500 lm	500 lm
468140	4.5GU10/LED/F35/830/DIM 10/1	35 °	830	3000 K	80	-	400 lm	400 lm

Light Technical (2/2)

Order Code	Full Product Name	Luminous Intensity (Nom)	Rated Beam Angle	Order Code	Full Product Name	Luminous Intensity (Nom)	Rated Beam Angle
454538	6.5MR16/F25/2700-2200 DIM 12V 10/1	1800 cd	25 °	461525	7MR16/LED/S15/827/DIM AF2 10/1	2800 cd	15 °
454546	6.5MR16/F35/2700-2200 DIM 12V 10/1	900 cd	35 °	461533	7MR16/LED/S15/830/DIM AF2 10/1	2950 cd	15 °
457507	8.5MRX16/LED/F25 2700 DIM AF 10/1	3100 cd	25 °	461541	7MR16/LED/S15/840/DIM AF2 10/1	3050 cd	15 °
457515	8.5MRX16/LED/F25 3000 DIM AF 10/1	3250 cd	25 °	461558	7MR16/LED/F25/827/DIM AF2 10/1	2400 cd	25 °
457523	8.5MRX16/LED/F25 4000 DIM AF 10/1	3350 cd	25 °	461566	7MR16/LED/F25/830/DIM AF2 10/1	2500 cd	25 °
457531	8.5MRX16/LED/F35 2700 DIM AF 10/1	1650 cd	35 °	461574	7MR16/LED/F25/840/DIM AF2 10/1	2600 cd	25 °
457549	8.5MRX16/LED/F35 3000 DIM AF 10/1	1700 cd	35 °	461582	7MR16/LED/F35/827/DIM AF2 10/1	1320 cd	35 °
457556	8.5MRX16/LED/F35 4000 DIM AF 10/1	1750 cd	35 °	461590	7MR16/LED/F35/830/DIM AF2 10/1	1350 cd	35 °
454785	6.6MR16/F25/3000 DIM 12V 10/1	1800 cd	25 °	461608	7MR16/LED/F35/840/DIM AF2 10/1	1400 cd	35 °
470336	6.4MR16/F25/3000 DIM 12V 10/1	1800 cd	25 °	464981	BC7PAR16/AMB/830/F35/DIM 120V 4/1	1000 cd	35 °
457606	6.6MR16/F35/3000 DIM 12V	1000 cd	35 °	464999	7PAR16S/LED/3000/F35 Dim 120V	1000 cd	35 °
470344	6.4MR16/F35/3000 DIM 12V 10/1	1000 cd	35 °	468140	4.5GU10/LED/F35/830/DIM 10/1	750 cd	35 °

Mechanical and Housing

Order Code	Full Product Name	Bulb Shape	Order Code	Full Product Name	Bulb Shape
454538	6.5MR16/F25/2700-2200 DIM 12V 10/1	MR16	461525	7MR16/LED/S15/827/DIM AF2 10/1	MR16
454546	6.5MR16/F35/2700-2200 DIM 12V 10/1	MR16	461533	7MR16/LED/S15/830/DIM AF2 10/1	MR16
457507	8.5MRX16/LED/F25 2700 DIM AF 10/1	MR16	461541	7MR16/LED/S15/840/DIM AF2 10/1	MR16
457515	8.5MRX16/LED/F25 3000 DIM AF 10/1	MR16	461558	7MR16/LED/F25/827/DIM AF2 10/1	MR16
457523	8.5MRX16/LED/F25 4000 DIM AF 10/1	MR16	461566	7MR16/LED/F25/830/DIM AF2 10/1	MR16
457531	8.5MRX16/LED/F35 2700 DIM AF 10/1	MR16	461574	7MR16/LED/F25/840/DIM AF2 10/1	MR16
457549	8.5MRX16/LED/F35 3000 DIM AF 10/1	MR16	461582	7MR16/LED/F35/827/DIM AF2 10/1	MR16
457556	8.5MRX16/LED/F35 4000 DIM AF 10/1	MR16	461590	7MR16/LED/F35/830/DIM AF2 10/1	MR16
454785	6.6MR16/F25/3000 DIM 12V 10/1	MR16	461608	7MR16/LED/F35/840/DIM AF2 10/1	MR16
470336	6.4MR16/F25/3000 DIM 12V 10/1	MR16	464981	BC7PAR16/AMB/830/F35/DIM 120V 4/1	PAR16
457606	6.6MR16/F35/3000 DIM 12V	MR16	464999	7PAR16S/LED/3000/F35 Dim 120V	PAR16
470344	6.4MR16/F35/3000 DIM 12V 10/1	MR16	468140	4.5GU10/LED/F35/830/DIM 10/1	PAR16

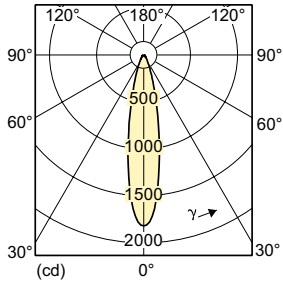
Temperature

Order Code	Full Product Name	T-Case Maximum (Nom)	Order Code	Full Product Name	T-Case Maximum (Nom)
454538	6.5MR16/F25/2700-2200 DIM 12V 10/1	-	457606	6.6MR16/F35/3000 DIM 12V	100 °C
454546	6.5MR16/F35/2700-2200 DIM 12V 10/1	-	470344	6.4MR16/F35/3000 DIM 12V 10/1	100 °C
457507	8.5MRX16/LED/F25 2700 DIM AF 10/1	105 °C	461525	7MR16/LED/S15/827/DIM AF2 10/1	92 °C
457515	8.5MRX16/LED/F25 3000 DIM AF 10/1	105 °C	461533	7MR16/LED/S15/830/DIM AF2 10/1	92 °C
457523	8.5MRX16/LED/F25 4000 DIM AF 10/1	105 °C	461541	7MR16/LED/S15/840/DIM AF2 10/1	92 °C
457531	8.5MRX16/LED/F35 2700 DIM AF 10/1	105 °C	461558	7MR16/LED/F25/827/DIM AF2 10/1	92 °C
457549	8.5MRX16/LED/F35 3000 DIM AF 10/1	105 °C	461566	7MR16/LED/F25/830/DIM AF2 10/1	92 °C
457556	8.5MRX16/LED/F35 4000 DIM AF 10/1	105 °C	461574	7MR16/LED/F25/840/DIM AF2 10/1	92 °C
454785	6.6MR16/F25/3000 DIM 12V 10/1	100 °C	461582	7MR16/LED/F35/827/DIM AF2 10/1	92 °C
470336	6.4MR16/F25/3000 DIM 12V 10/1	100 °C	461590	7MR16/LED/F35/830/DIM AF2 10/1	92 °C

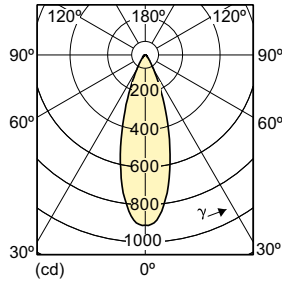
MR16/GU10/PAR16 LED

Order Code	Full Product Name	T-Case Maximum (Nom)	Order Code	Full Product Name	T-Case Maximum (Nom)
461608	7MR16/LED/F35/840/DIM AF2 10/1	92 °C	464999	7PAR16S/LED/3000/F35 Dim 120V	85 °C
464981	BC7PAR16/AMB/830/F35/DIM 120V 4/1	85 °C	468140	4.5GU10/LED/F35/830/DIM 10/1	80 °C

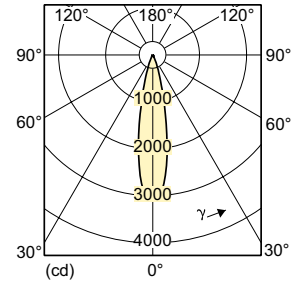
Light Distribution Diagrams



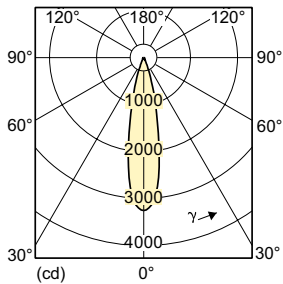
6.5-35 W GU5.3 /827 MR16 24D



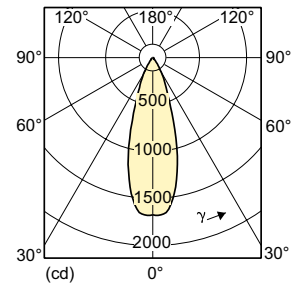
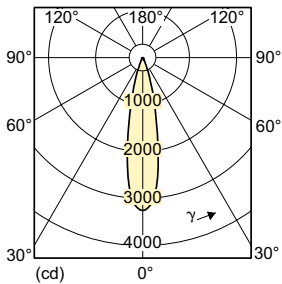
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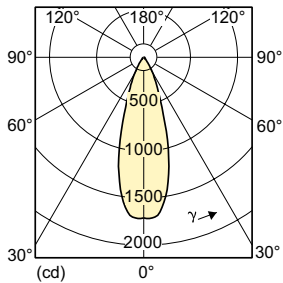
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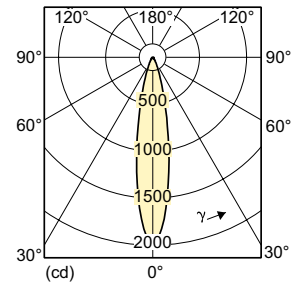
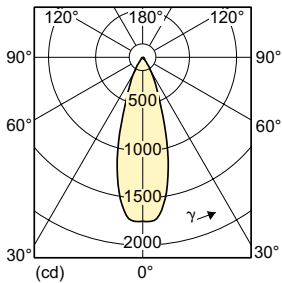
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8-50 W GU5.3 /827 MR16 36D

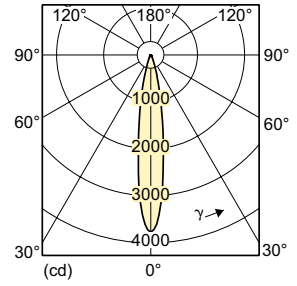
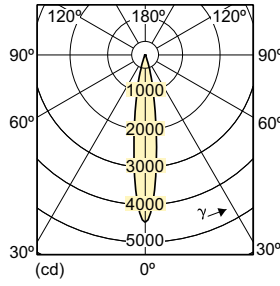
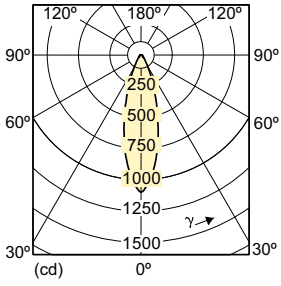


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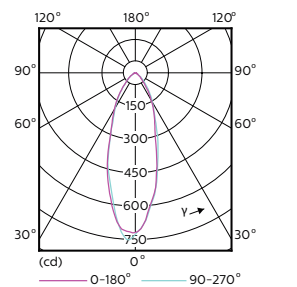
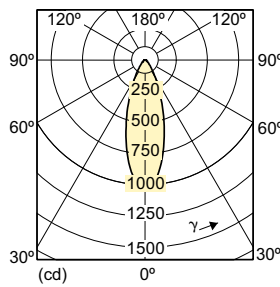
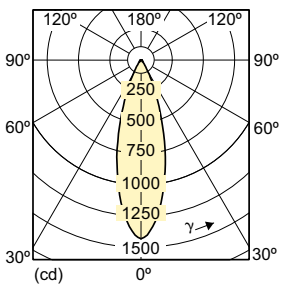
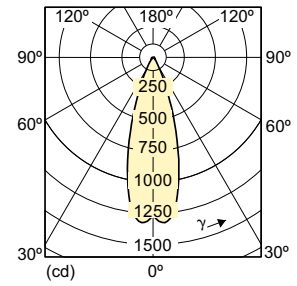
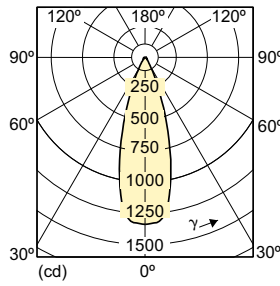
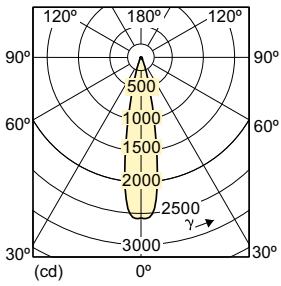
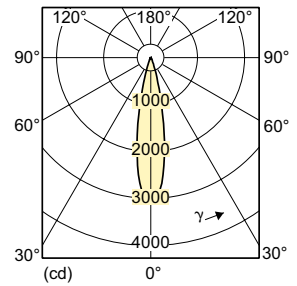
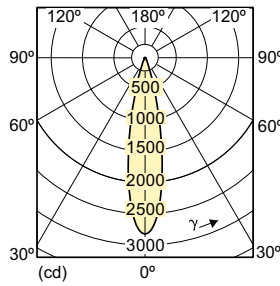


6.3-35 W GU5.3 /830 MR16 24D

Light Distribution Diagrams

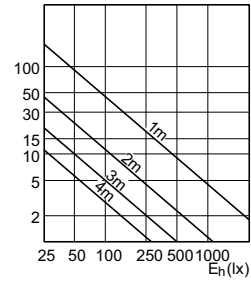
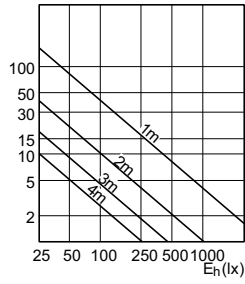
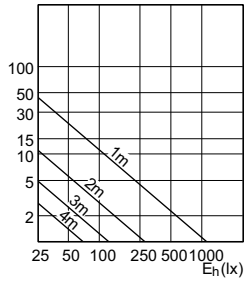
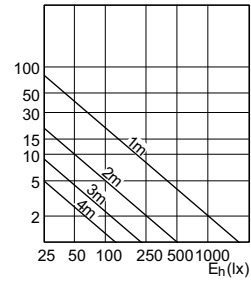
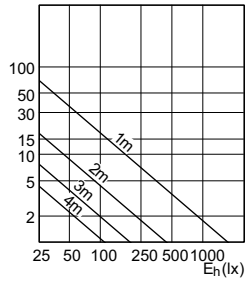
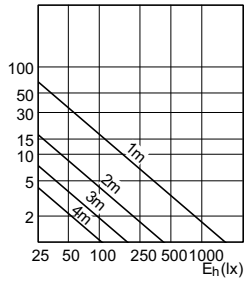
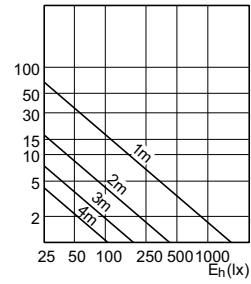
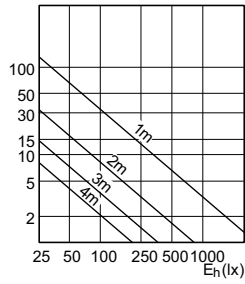
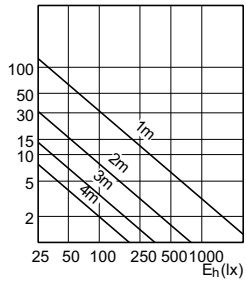
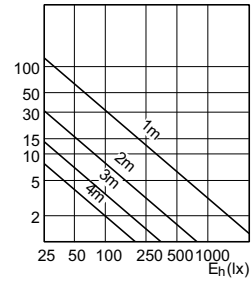
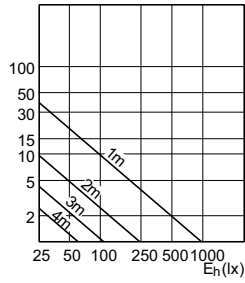
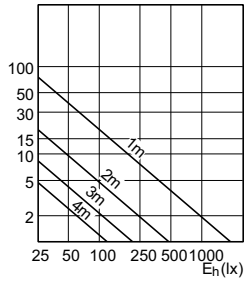


6.3-35 W GU5.3 /830 MR16 36D

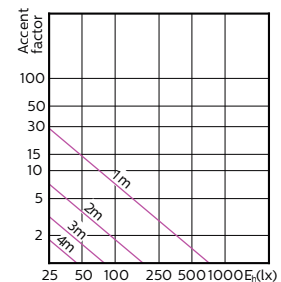
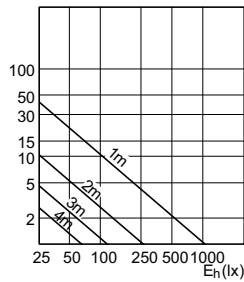
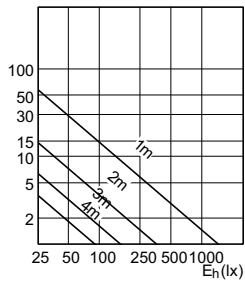
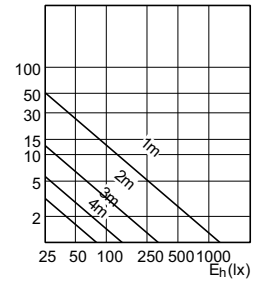
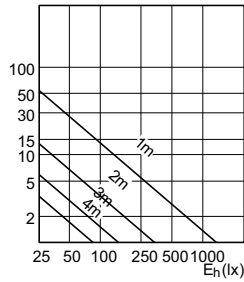
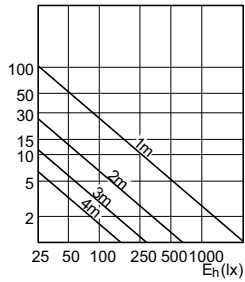
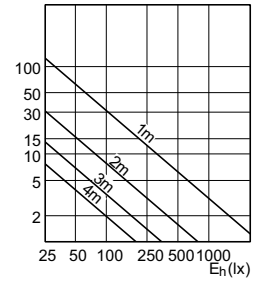
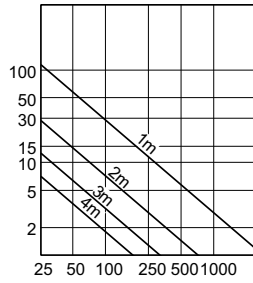
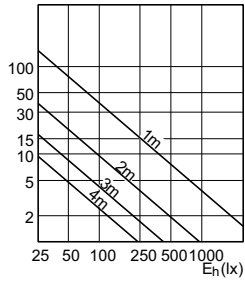


MR16/GU10/PAR16 LED

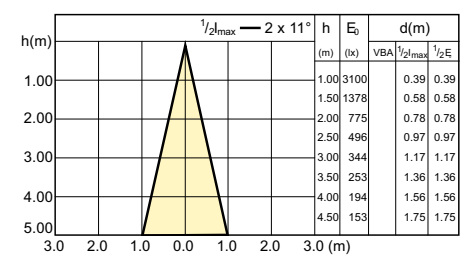
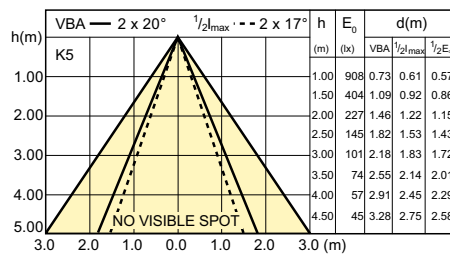
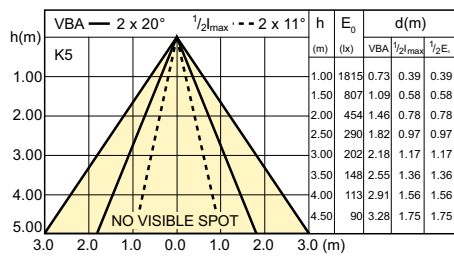
Accent Diagrams



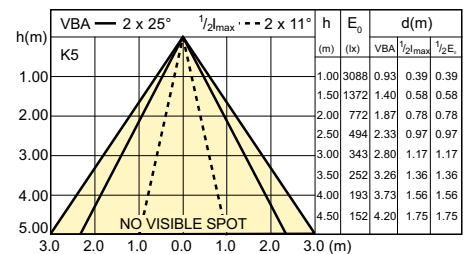
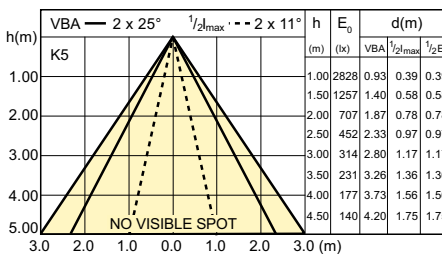
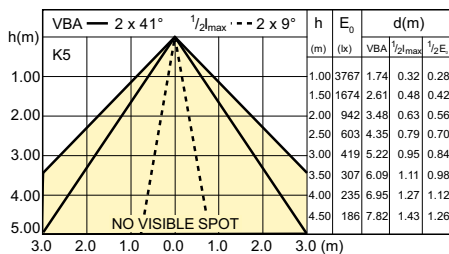
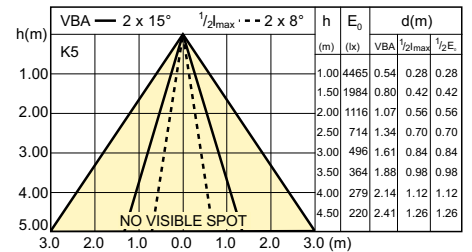
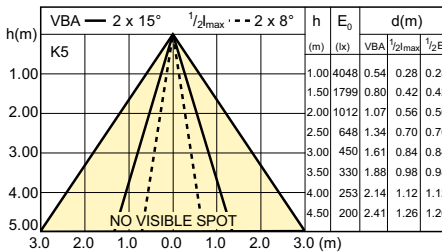
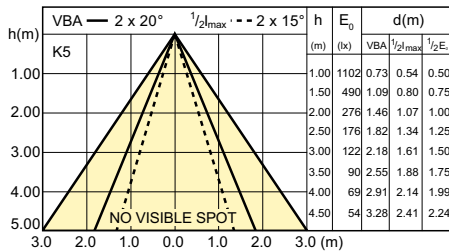
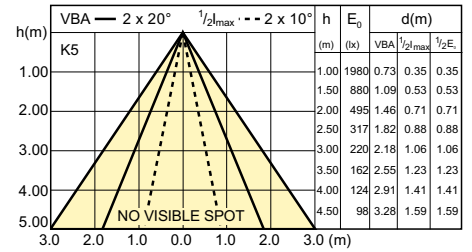
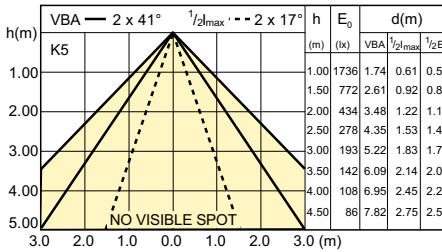
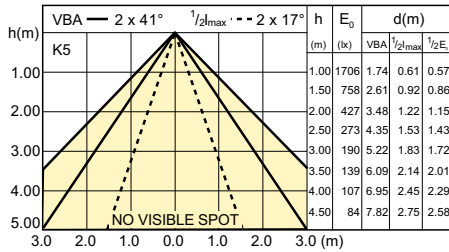
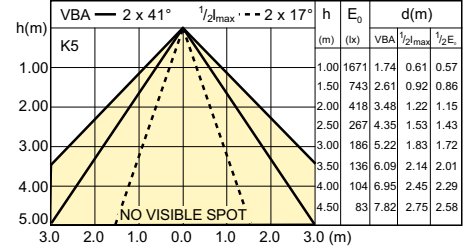
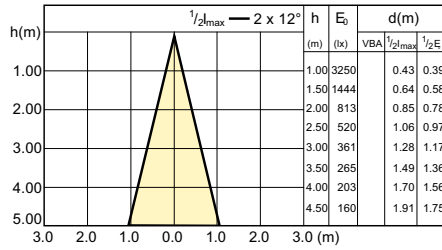
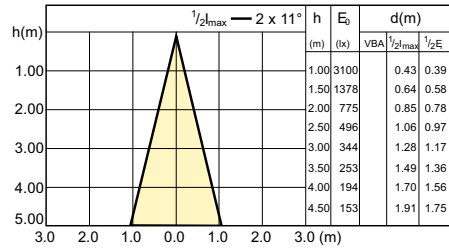
Accent Diagrams



Beam Diagrams



Beam Diagrams



Beam Diagrams

