

VEROBOARD®

2" Round Regressed Downlight



Veroboard 2-inch regressed downlight is specially designed to eliminate the glare when illuminated. It is an IC-rated fixture that comes along with a junction box LED driver. They come in both white and Black reflector trims. It has the option of choosing desired color temperature from 2700K-3000K-3500K-4000K-5000K. Moreover, the fixture comes with an FT6 rated certification cable.

SPECIFICATIONS

Engine Model No:	LED-2-S12W-5CCTWH
Voltage:	120V AC
Frequency:	60Hz
Power Factor (PF):	0.9
Wattage:	12W
LED Driver:	IC Rated
Color Temperature:	5CCT Selectable Color Temperature (2700K-3000K-3500K-4000K-5000K)
Dimmable:	Yes
Dimming:	100 - 10% (Triac Dimming)
Dimmers:	LED/CEL Dimmers
Brightness:	800 Lumens
Rendering Index:	CRI>90
LED Type:	Integrated COB LED
Engine Material:	Die-Cast Aluminum
Trim Material:	Galvanized Steel
Available Trim Cone Colors:	White and Black (Black trim ring and cone sold separately)
Available Trim Ring Colors:	White and Black (Black trim ring and cone sold separately)
Rated Life:	50,000 Hours
Installation:	Recessed/Flush Mount
IP Rating:	IP20 (Damp Locations)
Outer Dimensions:	Ø79.3mm (Ø3.1") x Depth 107.64mm (4.24")
LED Driver Dimensions:	96.75mm x 58.3mm x 38.5mm (3.8" x 2.3" x 1.5")
Cut Size:	72mm (2.875")
Package Content:	Light Fixture with IC-Rated LED Driver
Package Dimensions:	5.5" x 4.5" x 5.1" (14cm x 11.6cm x 13cm)
Package Weight:	0.652 Kg
Certification:	FCC/ETL/Energy Star/RoHS

Job Name: _____

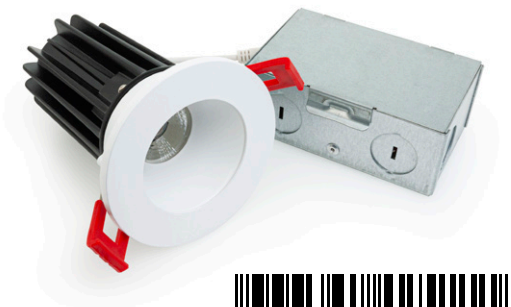
Distributor: _____

Type: _____

Trim Options: Black* White



*Black trim ring and cone sold separately
(SKU: 666561425128)



Selectable
Color Temperature
Switch



LED Driver Dimensions:
Length: 96.75mm (3.8")
Width: 58.3mm (2.3")
Depth: 38.5mm (1.5")

Included Content:

- 2" Regressed Downlight Engine
- White Reflector Cone with Outer Trim Ring
- IC Rated LED Driver with FT6 Rated Cable
- Installation Instruction Manual

Safety and Warning

The fixture must be wired in accordance with local electrical codes. All the installation must be done by a certified electrician. Do not modify the product, any modification may render the product unsafe and void the warranty.



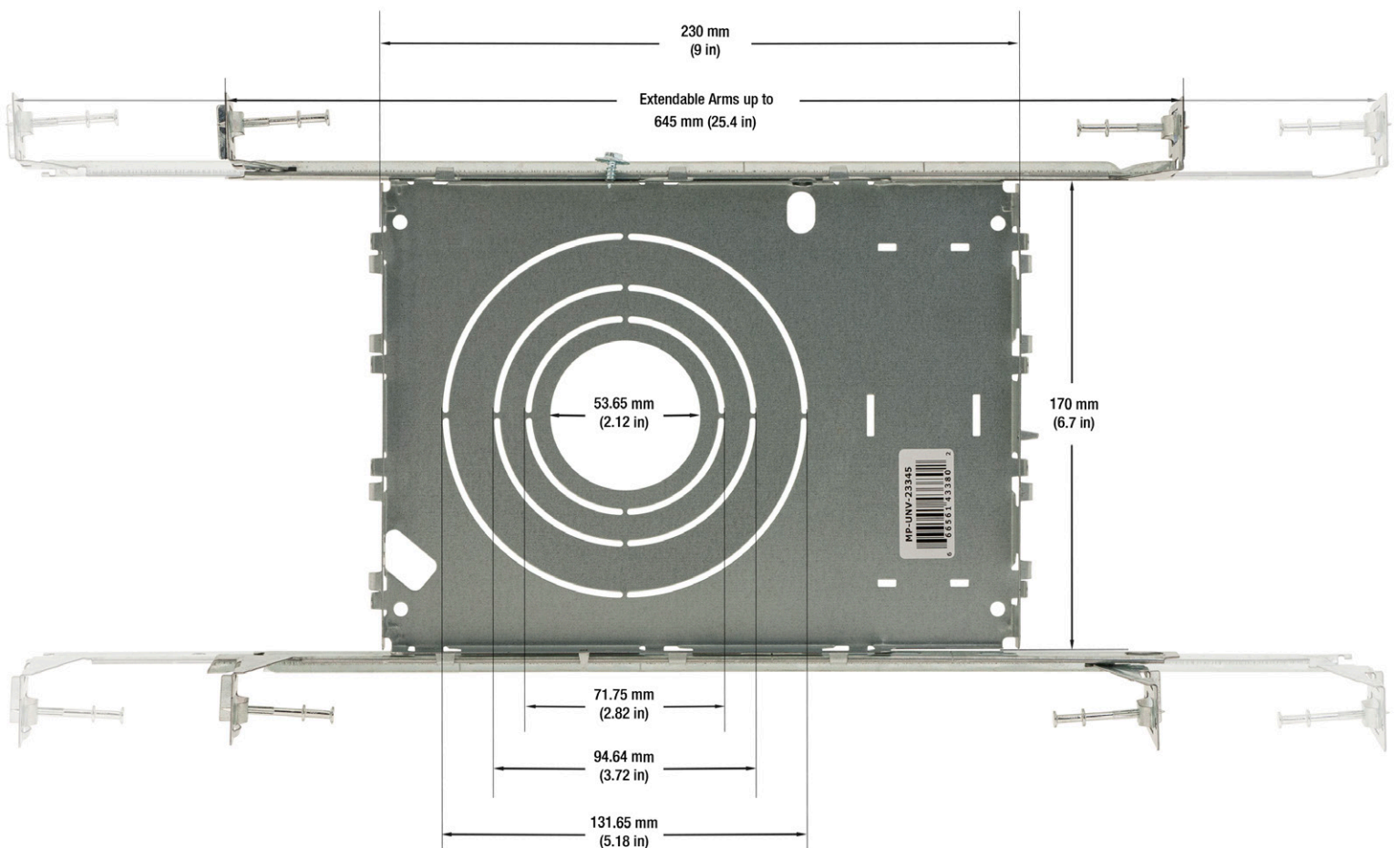
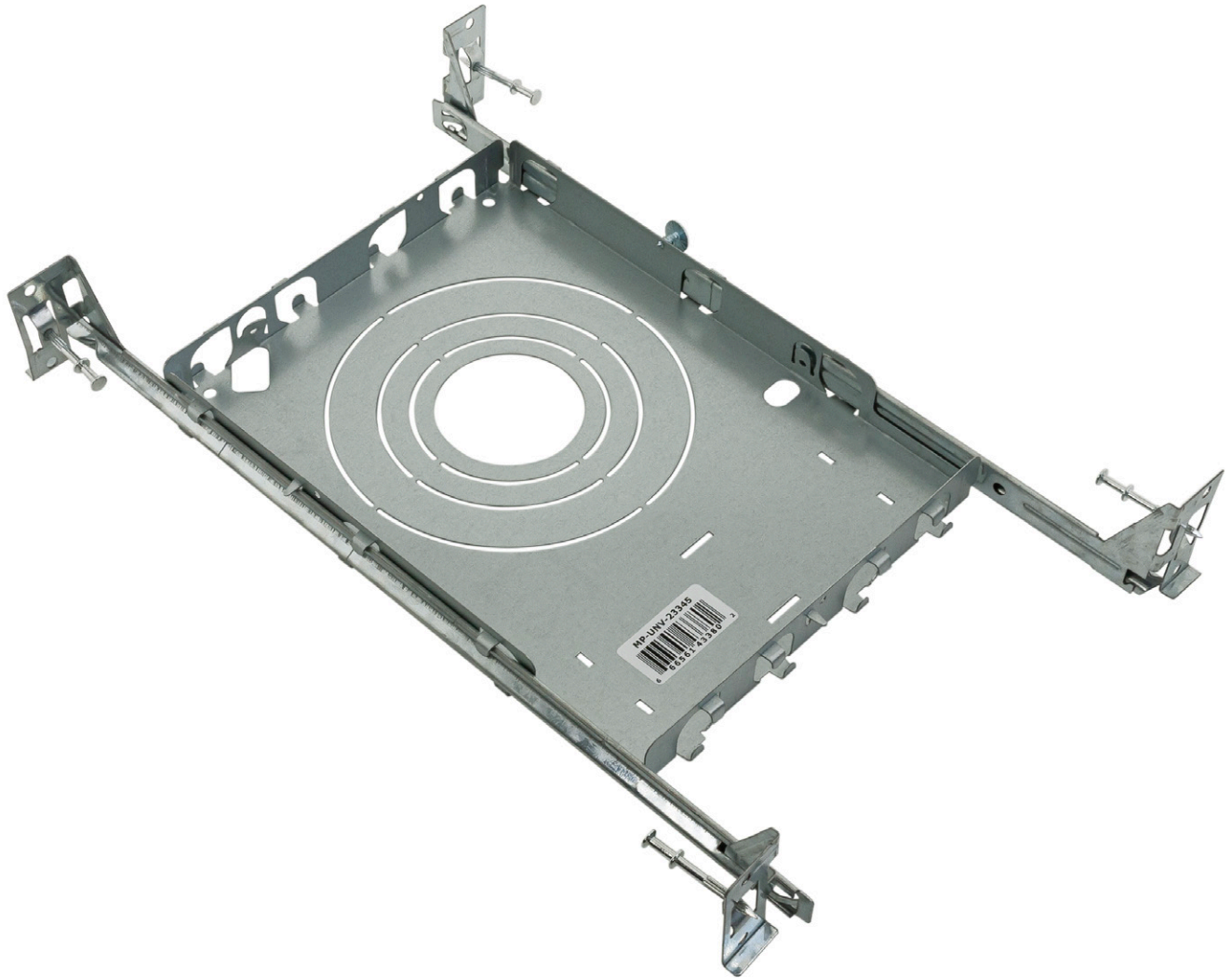
SKU: 666561425111

New Construction Universal Mounting Plate

(Sold separately)

New Construction Universal Mounting Plate suitable for 2, 3, 3.5, and 5-inch sizes, with two hanger bars.

Model: **MP-UNV-23345** | SKU: **666561433802**



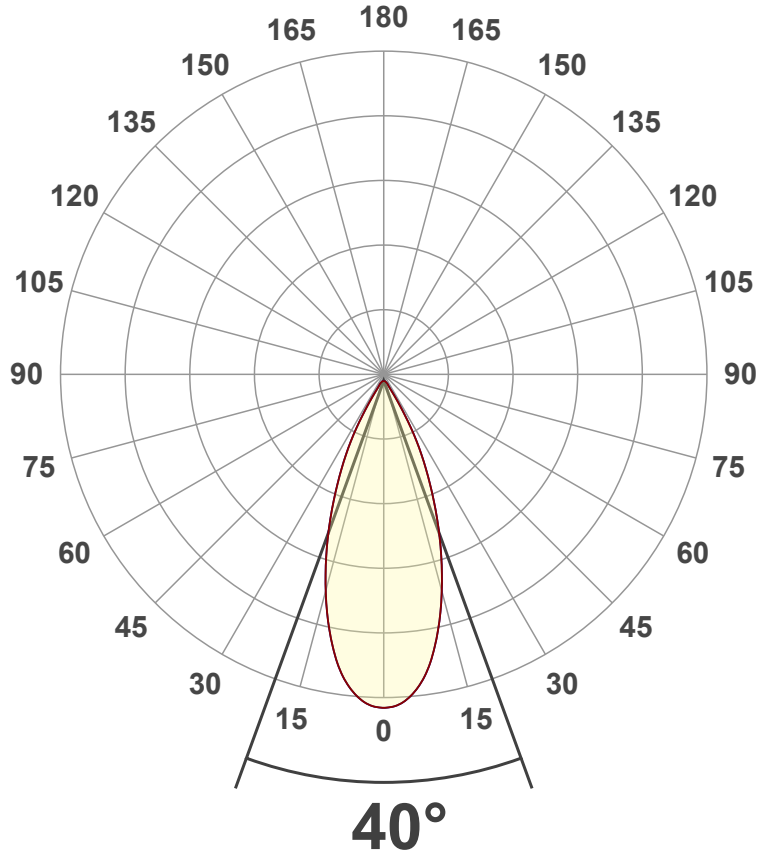
Light Measurement Report

Print date: 2023-01-06

Measurement date and time: 2023-01-06 3:36:28 PM – Measurement no. VFR-230106-0059-MS

Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	800 lm
Lumen Up% / Down%	0.01% / 99.99%
Peak Intensity	1546 cd
Beam Angle (50%)	40°
Beam Angle (90%)	40.4°
Beam Angle (10%)	40.4°

Cut-off Angle

Average 2,5%	84.1°
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Field Angle

Average 10%	66.3°
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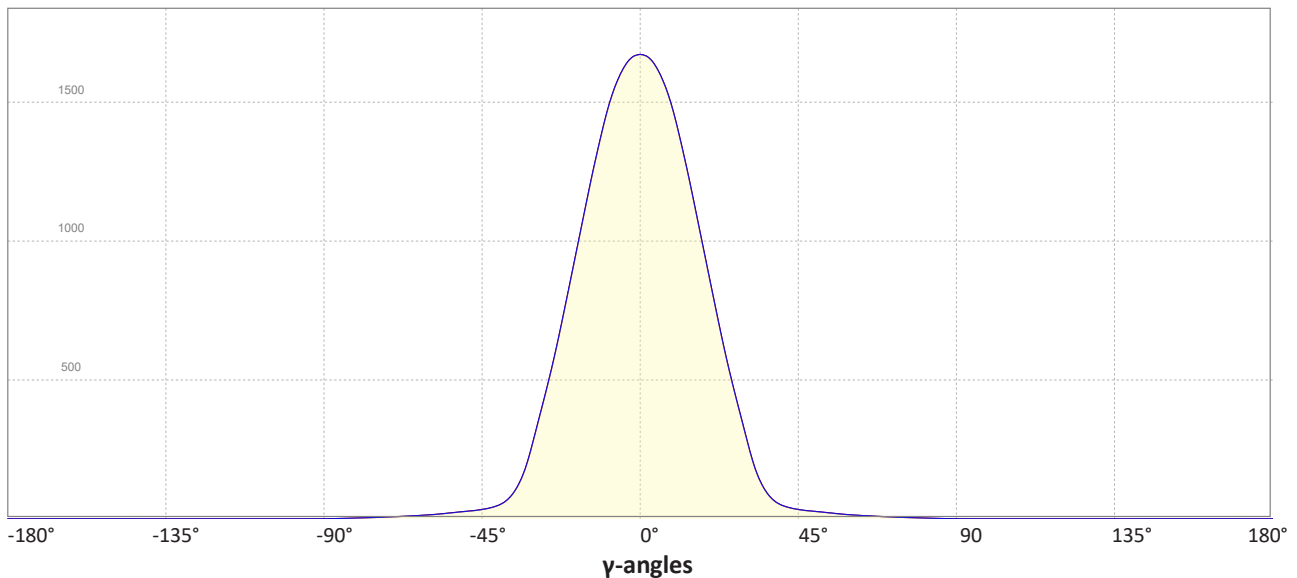
Intensity Ratio

In 120° cone	97.9%
In 90° cone	94.4%

C000-C180

C090-C270

Linear distribution diagram - Intensity (candela) vs γ -angle



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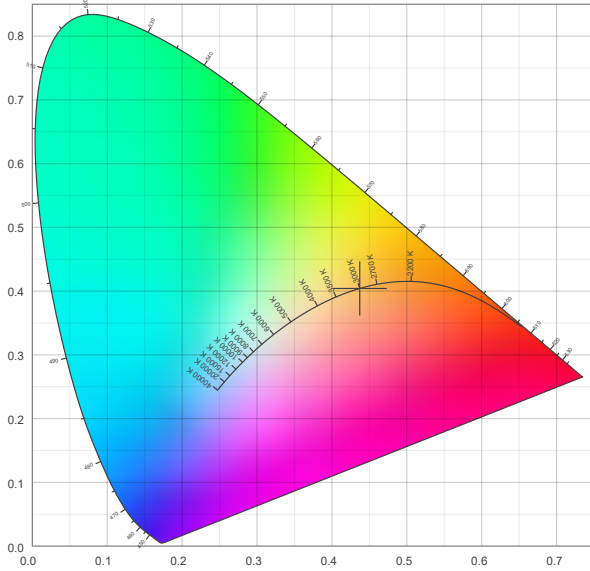
Measurement date and time: 2023-01-06 3:36:28 PM – Measurement no. VFR-230106-0059-MS

Color details

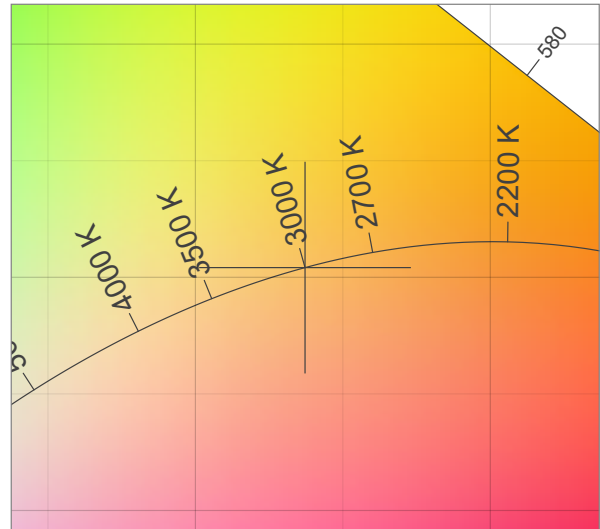
Correlated Color Temperature, Target CCT = 3000 K
 Correlated Color Temperature, Measured CCT = 2939 K
 Color Rendering Index CRI 93.3
 Color Rendering Index, R9 (red component) R9 = 57.2
 Color Rendering TM30-18 R_f 90.3 – R_g 95.2
 Color Quality Scale CQS = 90.7

MacAdam Steps SDCM = 4.5
 Color coordinates CIE 1931 (x;y) = (0.437;0.404)
 Color coordinate CIEs 1960 (u';v') = (0.251;0.348)
 Color deviation from BBL Duv = 0.0033
 Color coordinate CIEs 1976 (CIELUV) (u'';v'') = (0.251;0.251)

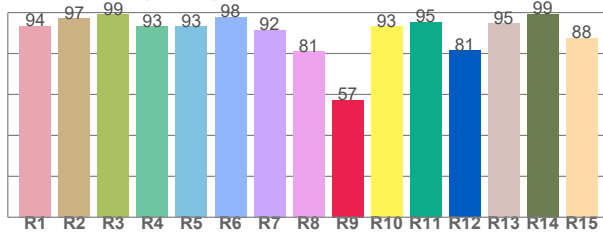
CIE 1931



CIE 1931 – zoomed on Planckian locus



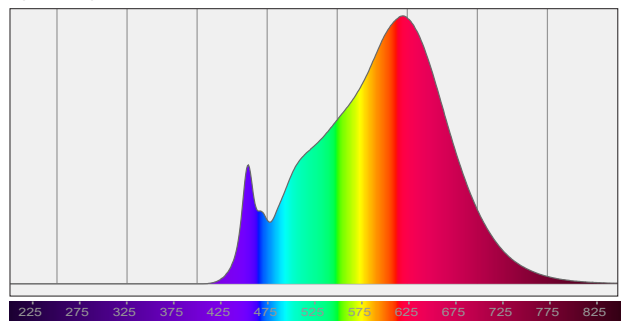
Color Rendering Index per reference color (CIE 1995)



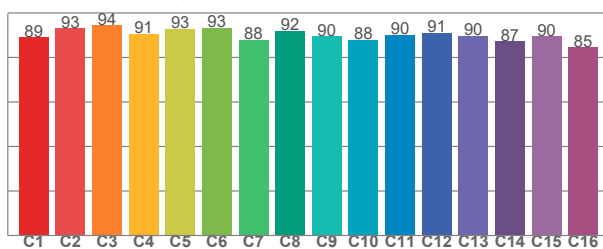
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93.5	97.2	99.0	93.2	93.2	97.8	91.6	81.0	57.2	93.3	95.5	81.5	94.6	99.4	87.6

Spectral power distribution (SPD) / W/nm – 0-100%



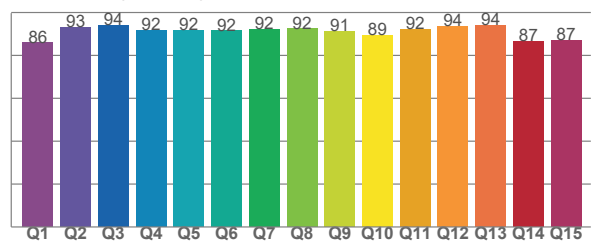
TM30-18 Rf-values per hue bin



TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89.1	93.0	94.4	90.6	92.8	93.3	87.8	92.1	89.5	87.9	90.2	91.0	89.8	87.3	89.6	84.6

Color Quality Scale by reference color



CQS Q values

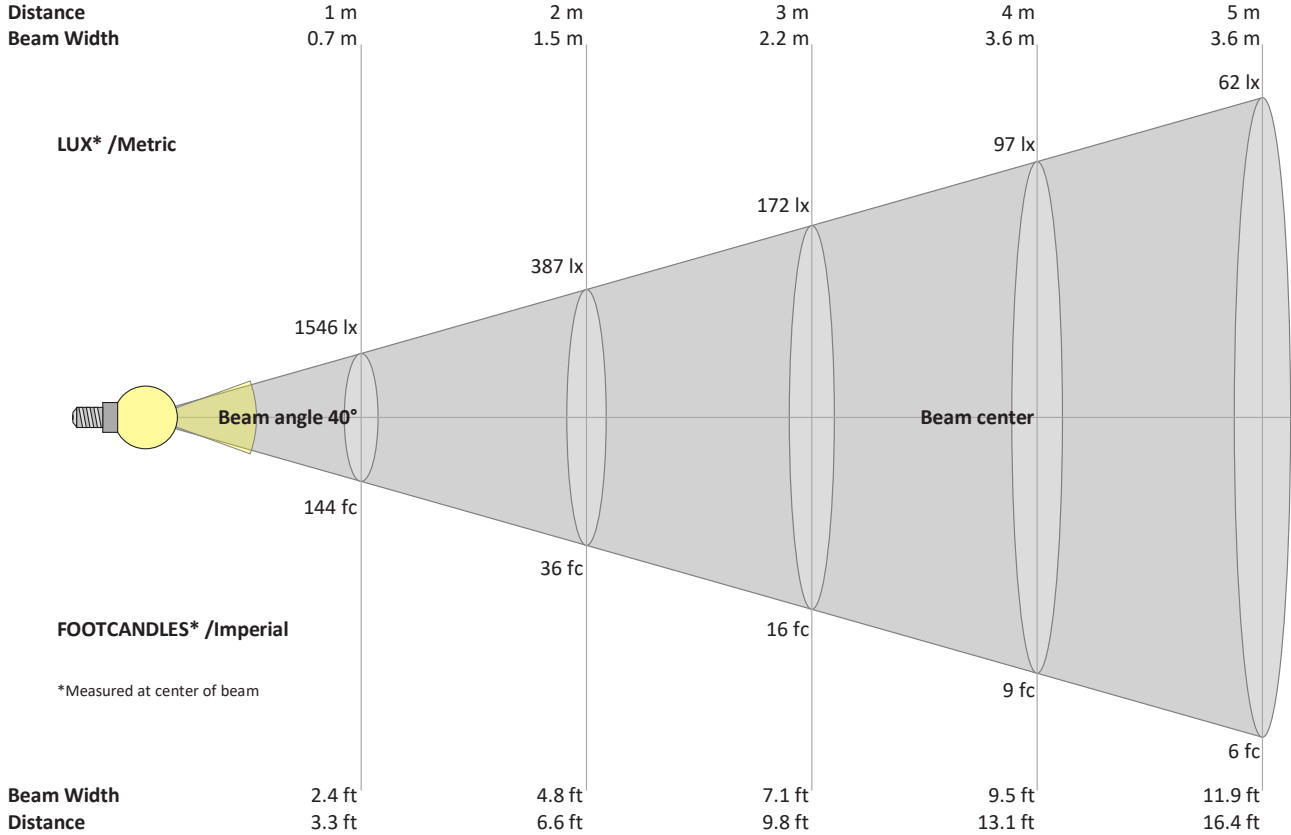
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
86.0	93.2	94.1	91.7	91.6	91.6	92.2	92.4	91.2	89.3	92.3	93.7	93.9	86.5	87.1

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Beam Details



Beam intensities from 1 – 20 m

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	m
3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6	ft
1546	387	172	97	62	43	32	24	19	15	13	11	9	8	7	6	5	5	4	4	lux
143.6	35.9	16	9	5.7	4	2.9	2.2	1.8	1.4	1.2	1	0.8	0.7	0.6	0.6	0.5	0.4	0.4	0.4	fc

Intensities in 0° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°	y
1546	1540	1514	1471	1412	1330	1233	1128	1015	900	786	673	563	463	371	280	194	131	89	62	cd
100%	100%	98%	95%	91%	86%	80%	73%	66%	58%	51%	43%	36%	30%	24%	18%	13%	8%	6%	4%	of 0°val

Intensities in 90° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°	y
1546	1540	1514	1471	1412	1330	1233	1128	1015	900	786	673	563	463	371	280	194	131	89	62	cd
100%	100%	98%	95%	91%	86%	80%	73%	66%	58%	51%	43%	36%	30%	24%	18%	13%	8%	6%	4%	of 0°val

Intensities in 180° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°	y
1546	1540	1514	1471	1412	1330	1233	1128	1015	900	786	673	563	463	371	280	194	131	89	62	cd
100%	100%	98%	95%	91%	86%	80%	73%	66%	58%	51%	43%	36%	30%	24%	18%	13%	8%	6%	4%	of 0°val

Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°	y
1546	1540	1514	1471	1412	1330	1233	1128	1015	900	786	673	563	463	371	280	194	131	89	62	cd
100%	100%	98%	95%	91%	86%	80%	73%	66%	58%	51%	43%	36%	30%	24%	18%	13%	8%	6%	4%	of 0°val