

Assembled in Canada 

LED DOWNLIGHT **12V DC**
LOW-VOLTAGE LUMINAIRE

MODEL: VBUN-S50-12V

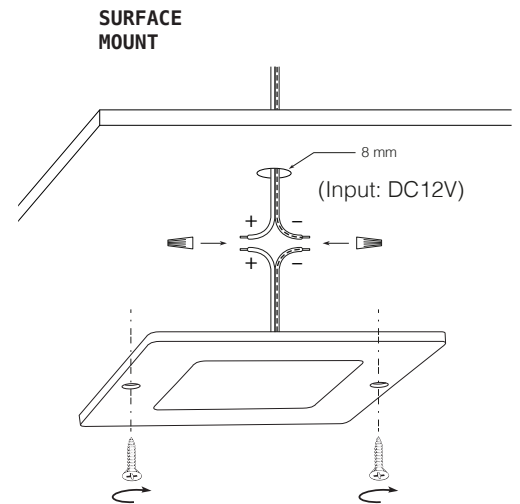
This LED downlight has a dense design with a slim profile of just 4 mm (0.16 inches) depth making it look recessed and seamlessly blends into the surface. This makes it suitable for mounting on any desired location (indoor only). The lightweight aluminum housing can be easily mounted through screws. The downlight uses 5 watts of power, operating on 12V DC. Its modern, sleek design is available in 3 color finish in different color temperatures from amber white, soft white, and warm white tone for soothing light applications to natural white, daylight for offices, and other commercial working spaces. They work with a 12V power supply with low power consumption and high energy efficiency.



PART NUMBER BUILDER / ORDERING GUIDE			
Example part number: VBUN-S50-12V-GOLD-2400K			
MODEL	FIXTURE COLOR	COLOR TEMPERATURE	
VBUN-S50-12V			
	Black	2400K	3500K
	Gold	2700K	4000K
	Brushed Nickel	3000K	5000K

SPECIFICATIONS

Model No	VBUN-S50-12V
LED Type	12 x 5630 SMD
Rendering Index	CRI>90
Input Voltage	12V DC
Power	5W
Brightness	400-450 Lm
Lifespan	>50,000 hours
Color Temperature	2400K, 2700K, 3000K, 3500K, 4000K, 5000K
Fixture Color	Black, Brushed Nickel and Gold
Fixture Material	Aluminum
Diffuser Material	Polycarbonate Plastic
IP rating	IP20
Dimmable	Yes
Beam angle	120°
Installation Type	Surface Mount
Wire Length	1 meter (39 in)
Operating temperature	-15°C to +40°C
Dimensions	79 mm x 79 mm (3.11 in x 3.11 in)
Depth	4 mm (0.16 in)
Certificates	ETL



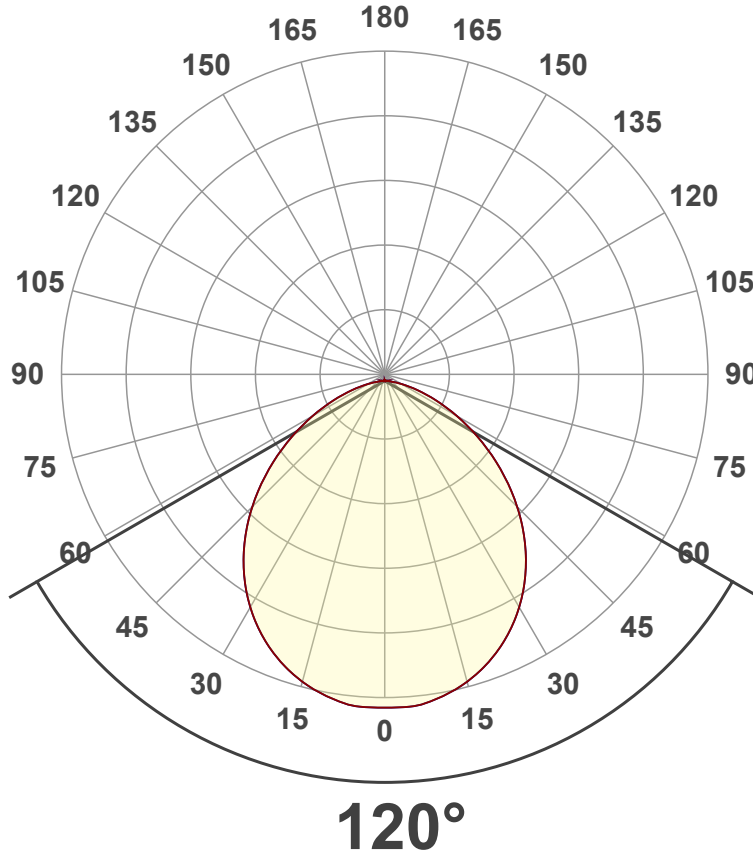
Light Measurement Report

Print date: 2023-01-11

Measurement date and time: 2023-01-10 2:43:26 PM – Measurement no. VFR-230110-0095-MS

Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	450 lm
Lumen Up% / Down%	0.06% / 99.94%
Peak Intensity	184 cd
Beam Angle (50%)	120°
Beam Angle (90%)	100.9°
Beam Angle (10%)	100.9°

Cut-off Angle

Average 2,5%	167°
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Field Angle

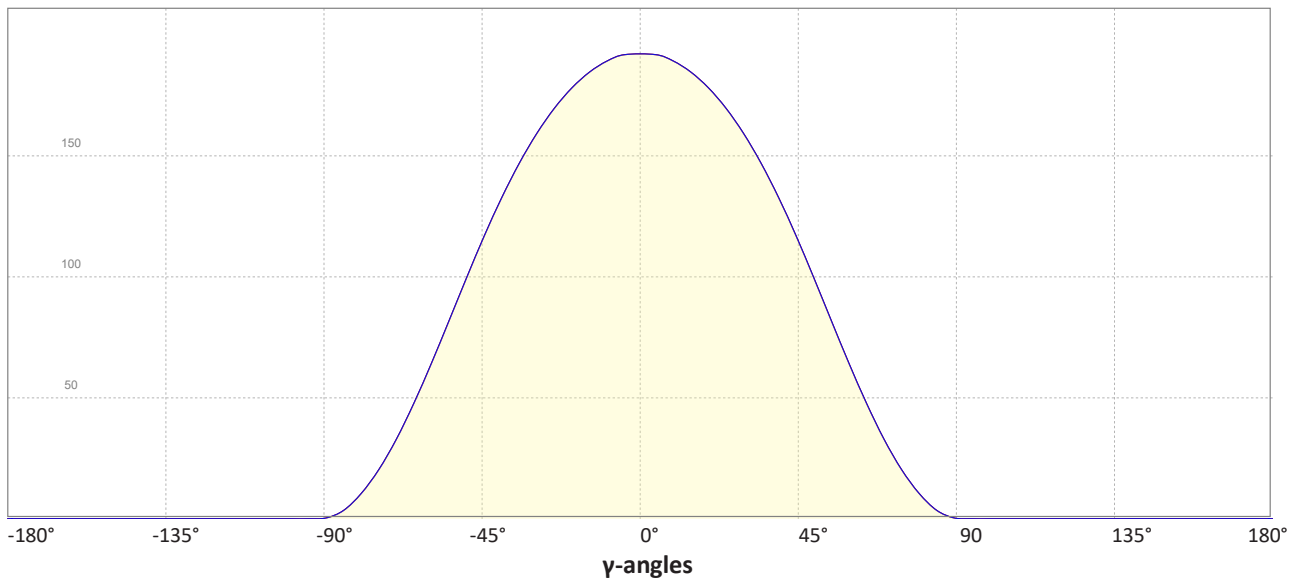
Average 10%	150°
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Intensity Ratio

In 120° cone	84.9%
In 90° cone	60.5%

C000-C180
C090-C270

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



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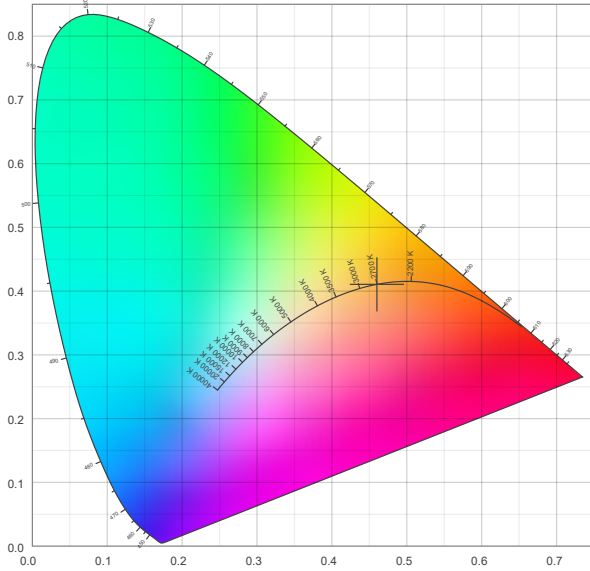
Measurement date and time: 2023-01-10 2:43:26 PM – Measurement no. VFR-230110-0095-M5

Color details

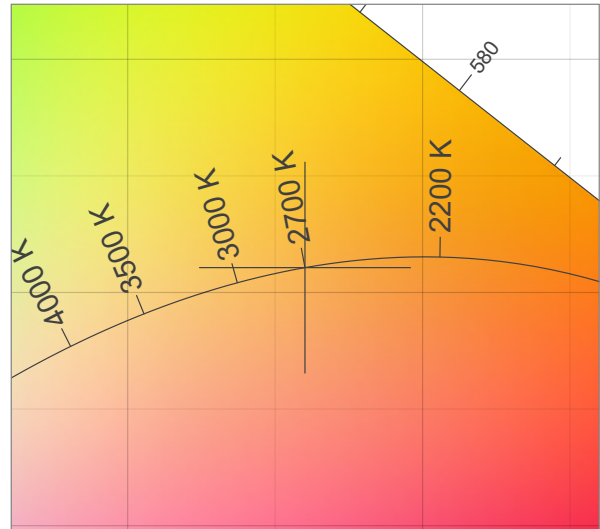
Correlated Color Temperature, Target CCT = 2700 K
 Correlated Color Temperature, Measured CCT = 2607 K
 Color Rendering Index CRI 92
 Color Rendering Index, R9 (red component) R9 = 10.8
 Color Rendering TM30-18 R_f 85.0 – R_g 92.6
 Color Quality Scale CQS = 82.9

MacAdam Steps
 Color coordinates CIE 1931 (x;y) = (0.460;0.411)
 Color coordinate CIEs 1960 (u;v) = (0.263;0.352)
 Color deviation from BBL Duv = 0.0019
 Color coordinate CIEs 1976 (CIELUV) (u';v') = (0.263;0.263)

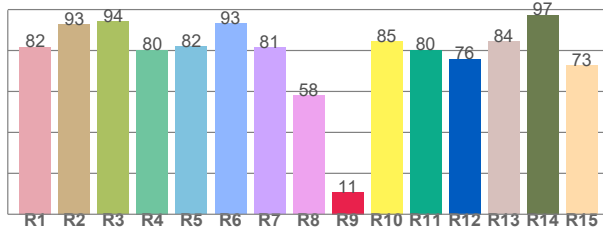
CIE 1931



CIE 1931 – zoomed on Planckian locus



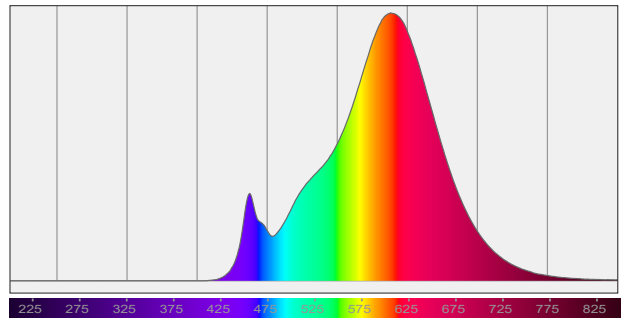
Color Rendering Index per reference color (CIE 1995)



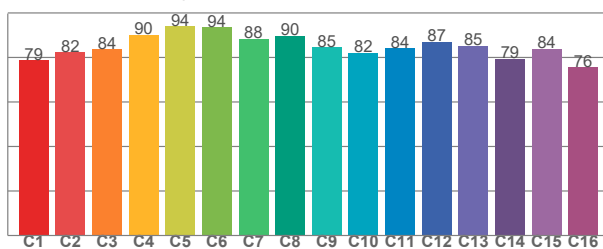
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
81.7	92.9	94.2	80.2	81.9	93.1	81.4	58.0	10.8	84.5	80.2	75.8	84.4	97.5	72.8

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



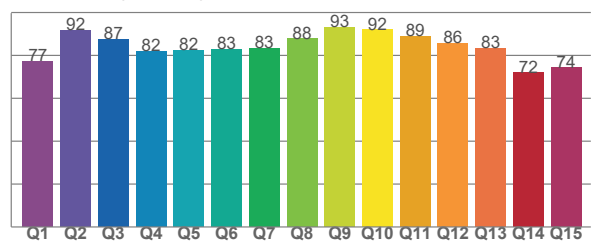
TM30-18 R_f-values per hue bin



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
78.8	82.4	83.6	90.2	94.1	93.5	88.4	89.9	84.6	82.2	84.2	87.1	85.4	79.4	84.0	75.5

Color Quality Scale by reference color



CQS Q values

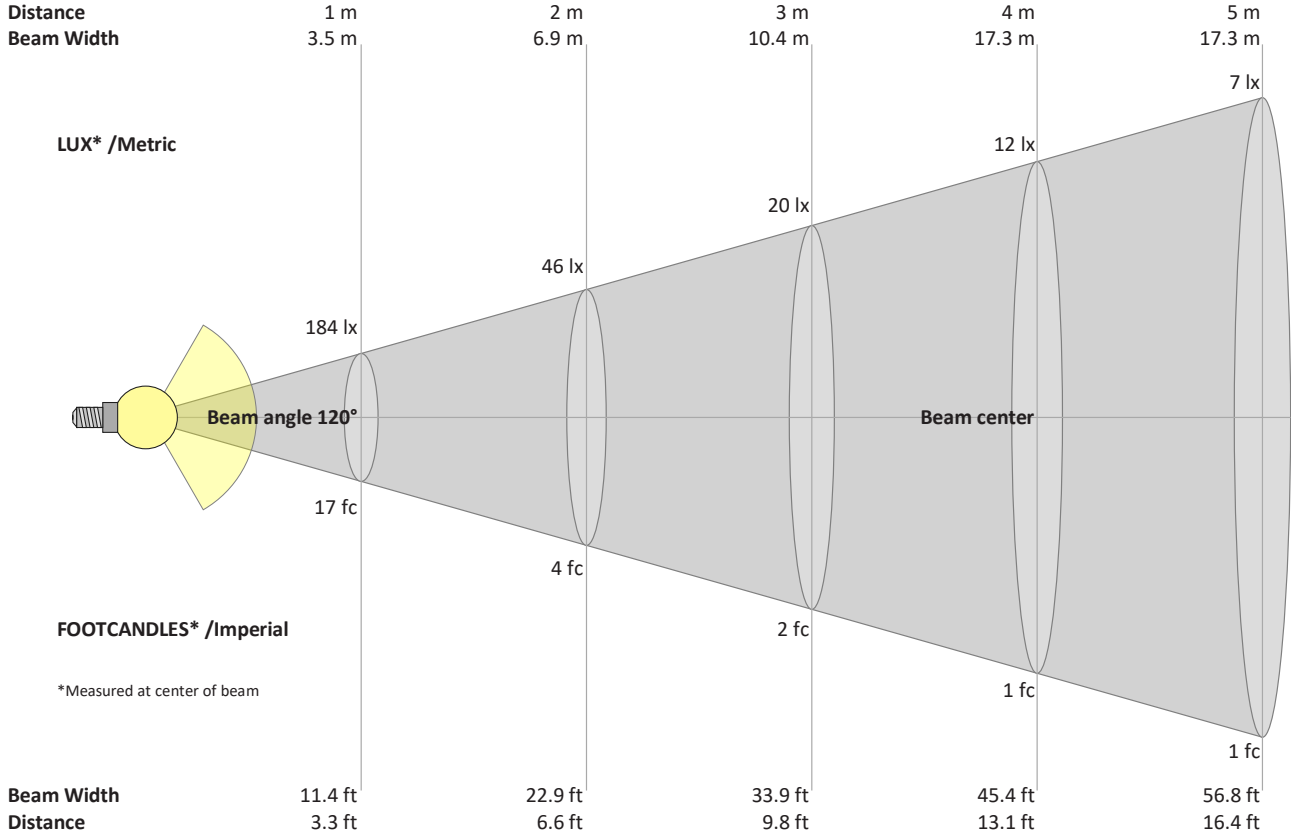
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
77.4	91.7	87.5	81.9	82.5	82.7	83.3	87.8	93.0	92.0	88.8	85.7	83.3	71.9	74.2

Light Measurement Report

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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
184	46	20	12	7	5	4	3	2	2	2	1	1	1	1	1	1	1	1	0	lux
17.1	4.3	1.9	1.1	0.7	0.5	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	fc

Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	y
184	184	181	177	170	162	152	139	126	110	94	77	60	44	30	18	9	3	0	0	cd
100%	100%	98%	96%	92%	88%	82%	76%	68%	60%	51%	42%	33%	24%	16%	10%	5%	2%	0%	0%	of 0°val

Intensities in 90° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	y
184	184	181	177	170	162	152	139	126	110	94	77	60	44	30	18	9	3	0	0	cd
100%	100%	98%	96%	92%	88%	82%	76%	68%	60%	51%	42%	33%	24%	16%	10%	5%	2%	0%	0%	of 0°val

Intensities in 180° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	y
184	184	181	177	170	162	152	139	126	110	94	77	60	44	30	18	9	3	0	0	cd
100%	100%	98%	96%	92%	88%	82%	76%	68%	60%	51%	42%	33%	24%	16%	10%	5%	2%	0%	0%	of 0°val

Intensities in 270° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	y
184	184	181	177	170	162	152	139	126	110	94	77	60	44	30	18	9	3	0	0	cd
100%	100%	98%	96%	92%	88%	82%	76%	68%	60%	51%	42%	33%	24%	16%	10%	5%	2%	0%	0%	of 0°val