

VEROBOARD®

Low Voltage Recessed IC Rated LED Step Light

This low voltage recessed LED step light is ideal for walls or in steps. Recessed lights in those areas provide edge lighting that adds sleek sophistication to contemporary and modern staircases. It is an IC-rated fixture. The air gap between the housing can and the light fixture creates an insulating effect that keeps the outer can cooler. Therefore, it has less risk of combustion when installed in direct contact with insulation. The light fixture is available in both round and square shapes in different color finishes.

SPECIFICATIONS

Voltage:	12V DC
Wattage:	1W
Color Temperature:	3000K (Warm White)
Brightness:	80~100 Lumens
LED Type:	Integrated LED
Insulation Contact:	Type IC
Rendering Index:	CRI>80
Fixture Style:	Round and Square
Fixture Material:	Die-cast Aluminum
Housing Material:	Metallic Housing
Available Fixture Finish:	White, Black, Brushed Aluminum
Rated Life:	50,000 Hours
IP Rating:	IP20 (Indoor Rated)
Beam Angle:	35°
Dimmable:	Yes
Installation:	Recessed Installation
Included Content::	Light Fixture, Metallic Housing, Butterfly Clips



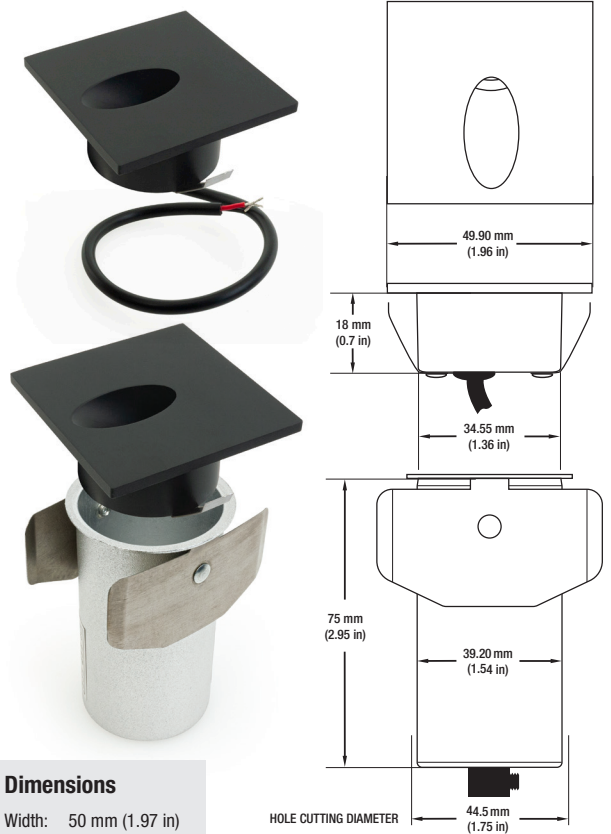
Name: _____

Company: _____

Phone: _____

Email: _____

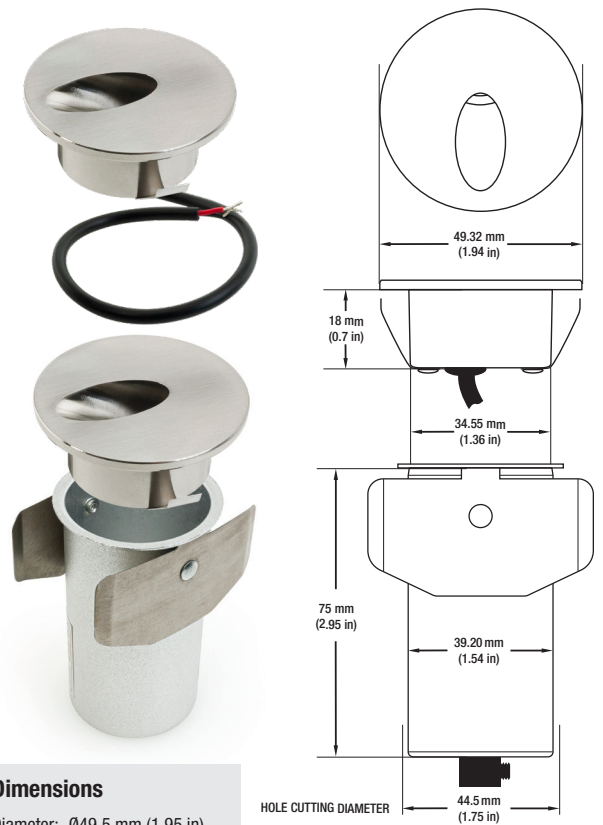
Model: VBD-SQ25-1W-3K



Dimensions

Width: 50 mm (1.97 in)
Length: 50 mm (1.97 in)
Height: 82 mm (3.2 in)

Model: VBD-RD25-1W-3K



Dimensions

Diameter: Ø49.5 mm (1.95 in)
Height: 82 mm (3.2 in)

PART NUMBER BUILDER / ORDERING GUIDE

Example part number: **VBD-SQ25-1W-3K-DB**

MODEL

VBD-SQ25-1W

FIXTURE COLOR

WH (White) BN (Brushed Nickel)
BK (Black) DB (Dark Bronze)



White (WH)

Black (BK)

Brushed Nickel (BN)

Dark Bronze (DB)

SKU: 666561425333 SKU: 666561425340 SKU: 666561425319 SKU: 666561418243

PART NUMBER BUILDER / ORDERING GUIDE

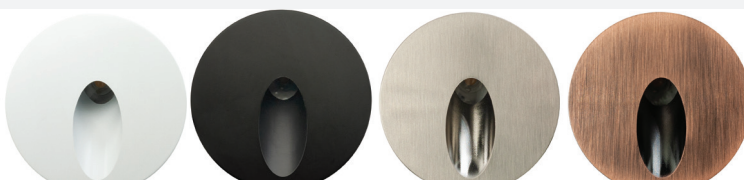
Example part number: **VBD-RD25-1W-3K-DB**

MODEL

VBD-RD25-1W

FIXTURE COLOR

WH (White) BN (Brushed Nickel)
BK (Black) DB (Dark Bronze)



White (WH)

Black (BK)

Brushed Nickel (BN)

Dark Bronze (DB)

SKU: 666561425296 SKU: 666561425302 SKU: 666561425326 SKU: 666561418250

Disclaimer:

The data and information contained in this specification sheet are subject to change without notice; the ratings supplied are provided based on the product manufacturer. The information contained in this specification sheet should not be considered a warranty, expressed or implied, including, but not limited to, a warranty of merchantability or fitness for a particular purpose. In no event shall Veroboard be liable for any incidental or consequential damages resulting from the use, misuse, or inability to use the product. This exclusion applies regardless of whether such damages are sought based on breach of warranty, breach of contract, negligence, strict liability in tort, or any other legal theory.

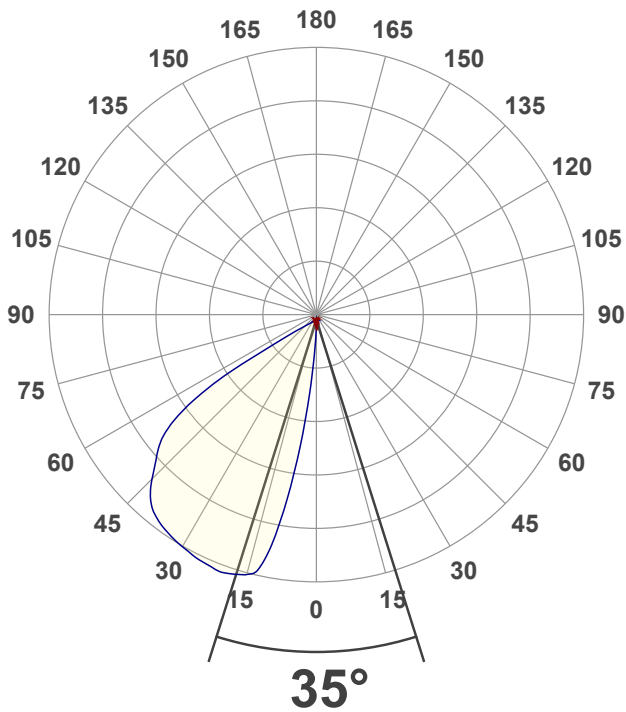
Light Measurement Report

Print date: 2023-01-30

Measurement date and time: 2023-01-30 12:30:33 PM – Measurement no. VFR-230130-0030-MS

Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	
Lumen Up% / Down%	0.22% / 99.78%
Peak Intensity	52.0 cd
Beam Angle (50%)	35°
Beam Angle (90%)	50.2°
Beam Angle (10%)	20.1°

Cut-off Angle

Average 2,5%	85.6°
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Field Angle

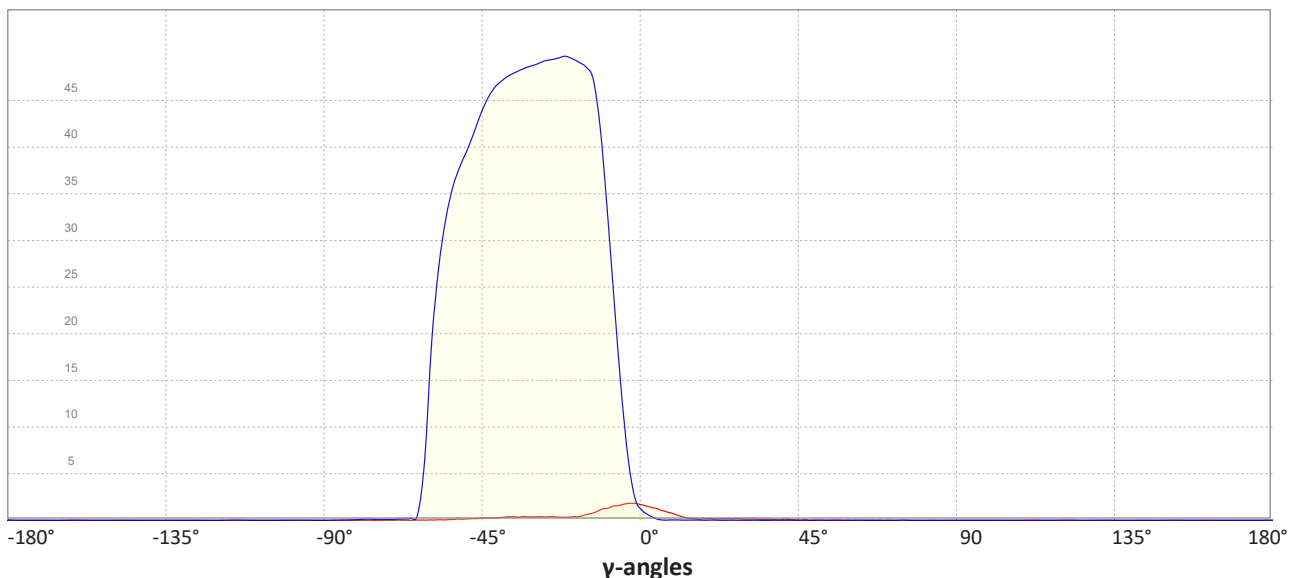
Average 10%	67.8°
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Intensity Ratio

In 120° cone	98.0%
In 90° cone	64.6%

C000-C180
C090-C270

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

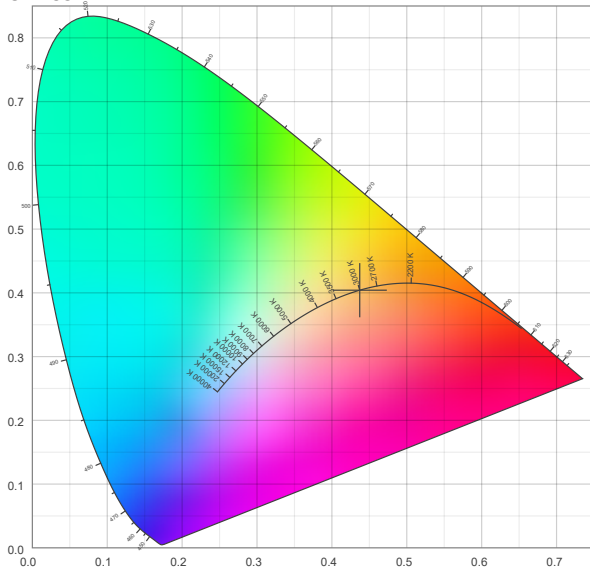


Color details

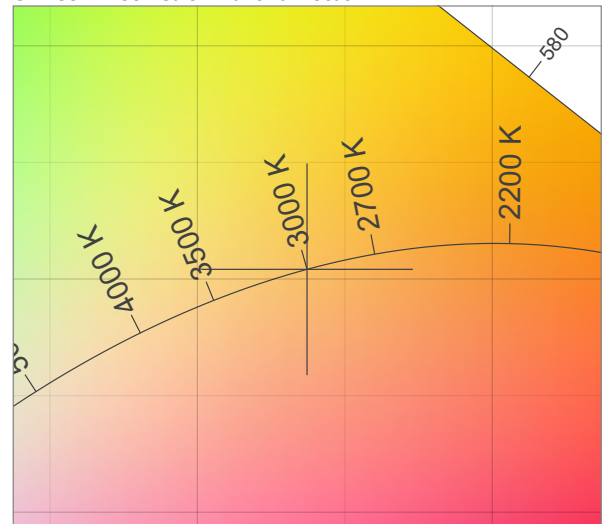
Correlated Color Temperature, Target	CCT = 3000 K
Correlated Color Temperature, Measured	CCT = 2904 K
Color Rendering Index	CRI 93.1
Color Rendering Index, R9 (red component)	R9 = 65.7
Color Rendering TM30-18	R _f 90.4 – R _g 97.8
Color Quality Scale	CQS = 91.2

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 = -0.0038
Color coordinate CIEs 1976 (CIELUV)	(u';v') = (0.251;0.251)

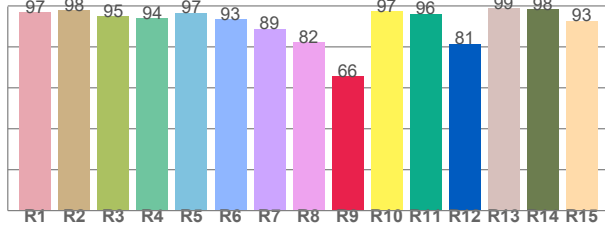
CIE 1931



CIE 1931 – zoomed on Planckian locus



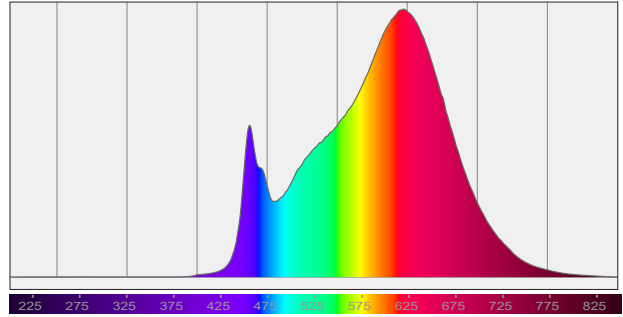
Color Rendering Index per reference color (CIE 1995)



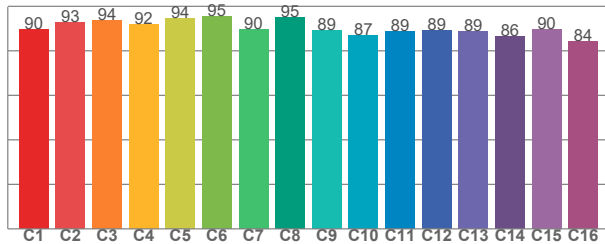
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
96.8	97.9	94.9	93.9	96.6	93.3	88.9	82.3	65.7	97.3	96.2	81.4	98.8	98.3	92.7

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



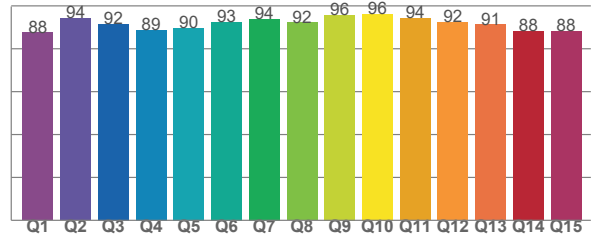
TM30-18 Rf-values per hue bin



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
89.6	92.7	93.7	91.8	94.4	95.4	89.6	94.9	89.1	86.8	88.9	89.2	88.6	86.5	89.7	84.1

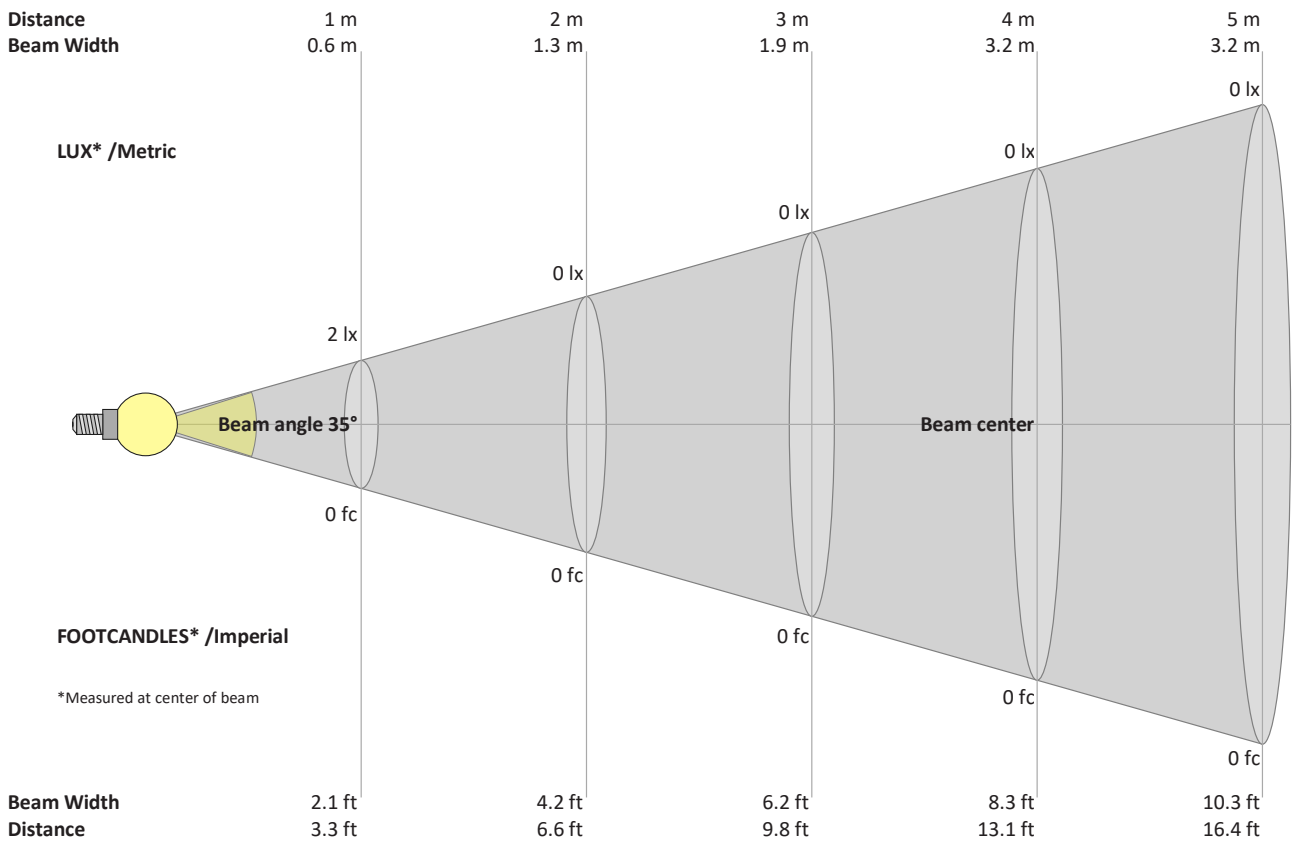
Color Quality Scale by reference color



CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87.5	94.1	91.5	88.6	89.8	92.6	93.9	92.2	95.8	96.3	94.2	92.3	91.2	88.3	88.1

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
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	lux
0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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°	γ
1.63	1.92	1.86	1.68	1.58	1.33	1.05	0.77	0.58	0.41	0.38	0.36	0.38	0.41	0.41	0.39	0.39	0.38	0.41	0.39	cd
100%	117%	114%	103%	97%	81%	64%	47%	35%	25%	23%	22%	23%	25%	25%	24%	24%	23%	25%	24%	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°	γ
1.63	0.72	0.28	0.07	0.04	0.05	0.04	0.03	0.04	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.01	0.01	cd
100%	44%	17%	5%	3%	3%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	0%	1%	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°	γ
1.63	1.58	1.38	1.11	0.89	0.66	0.41	0.24	0.19	0.19	0.22	0.17	0.17	0.17	0.20	0.15	0.16	0.14	0.12	0.12	cd
100%	97%	85%	68%	54%	41%	25%	15%	11%	12%	13%	10%	11%	10%	12%	9%	10%	8%	7%	7%	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°	γ
1.6	3.7	9.1	17.5	27.6	37.6	45.7	49.9	51.0	51.5	51.9	52.0	51.8	51.6	51.4	51.1	50.8	50.5	50.1	49.7	cd
100%	225%	559%	1075%	1692%	2305%	2799%	3056%	3124%	3154%	3177%	3184%	3172%	3162%	3149%	3129%	3114%	3094%	3071%	3044%	of 0°val