

# VEROBOARD®

**LED Type:** VBDFS-COB896W6.6-RGB27-24S  
**Colour:** RGB+2700K (Soft White)



**Contact Name:** \_\_\_\_\_

**Company:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

**Email:** \_\_\_\_\_

## DESCRIPTION

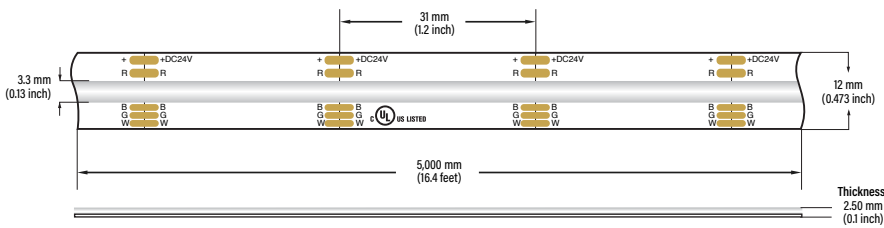
Flexible 12mm wide linear LED strip. Available in 5 meter (16.4 feet) rolls that can be cut every 2 inches. The LED Strip lights are manufactured with high-quality materials and designed for professional lighting. Every strip light begins with a heavyduty dual-core copper printed circuit board (PC Board), which is then soldered with an array of chips and color options. Moreover, the strip lights come with a strong 3M adhesive backing. They can be cut to any size (marked interval points) and rejoined by soldering. The RGB27 COB LED Strips can work with LED Controllers to adjust the static shade or dynamic settings, you can readjust the rate of dynamic setting or the illumination of fixed color.

	Wattage
Per Foot	6.6W/ft
Per Meter	20W/m



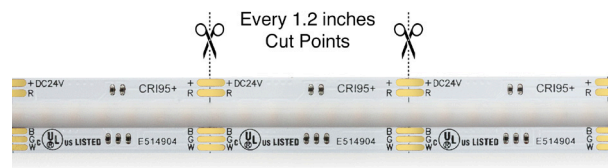
666561429300

## DIMENSIONS



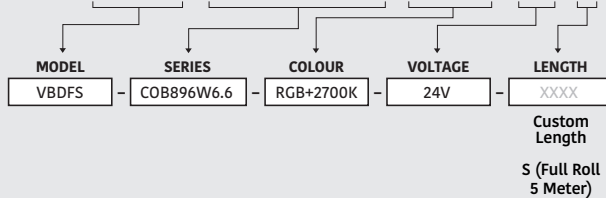
## SPECIFICATIONS

<b>Model:</b>	VBDFS-COB896W6.6-RGB27-24S
<b>Color Temperature:</b>	RGB+2700K (Soft White)
<b>LED Type:</b>	COB
<b>LED Qty:</b>	896 LEDs per meter
<b>Input Voltage (VF):</b>	24V DC
<b>Power:</b>	20W per meter (6.6W/ft)
<b>Lifespan:</b>	>50,000 hours
<b>PCB:</b>	3oz PCB, Double-side, white colour 12mm width
<b>IP Rating:</b>	IP20 (Indoor use only)
<b>Rendering Index (Ra):</b>	CRI>95
<b>Beam Angle:</b>	180°
<b>Dimmable:</b>	Yes
<b>Cut Size:</b>	Every 1.2"
<b>Operating Temperature:</b>	-15°C to +40°C
<b>Dimensions:</b>	5,000 x 12 x 2.15mm (196.8" x 0.473" x 0.08")
<b>Certificates:</b>	UL / RoHs
<b>Roll Length:</b>	5 meter roll (16.4ft)



### ORDERING GUIDE

Example part number: **VBDFS - COB896W6.6 - RGB27 - 24 - S**



For more information about our products and services, please visit our website: [www.veroboard.com](http://www.veroboard.com)

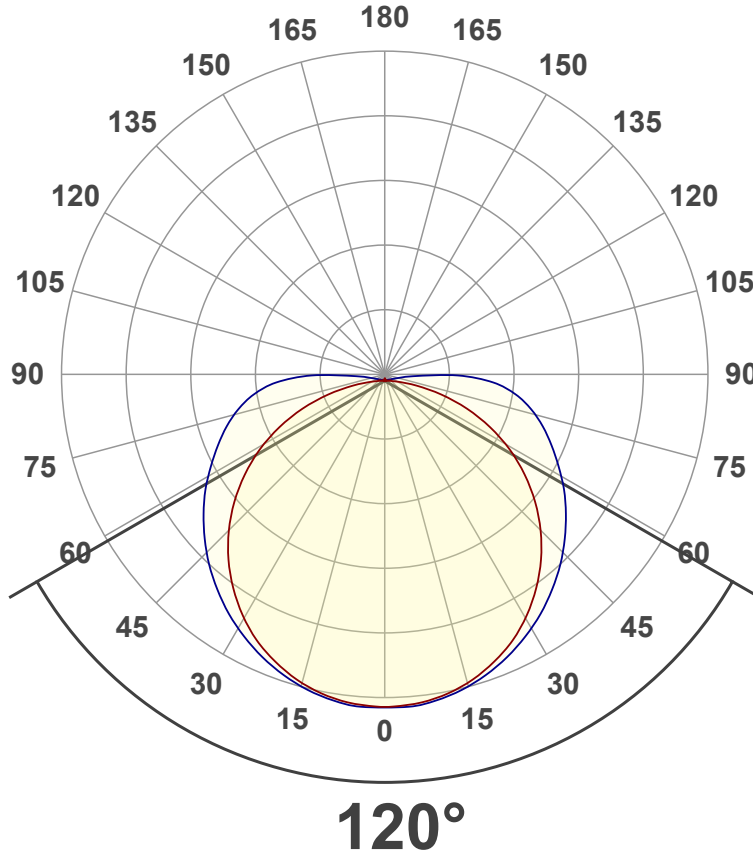
# Light Measurement Report

Print date: 2023-05-02

Measurement date and time: 2023-05-02 12:40:15 PM – Measurement no. VFR-230502-0197-MS

## Luminous Intensity diagram

Unit: 0-100% of peak intensity



## Main Values

Lumen Up% / Down%	3.87% / 96.13%
Peak Intensity	5.38 cd
Beam Angle (50%)	120°
Beam Angle (90%)	150.8°
Beam Angle (10%)	116.2°

## Cut-off Angle

Average 2,5%	192.7°
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## Field Angle

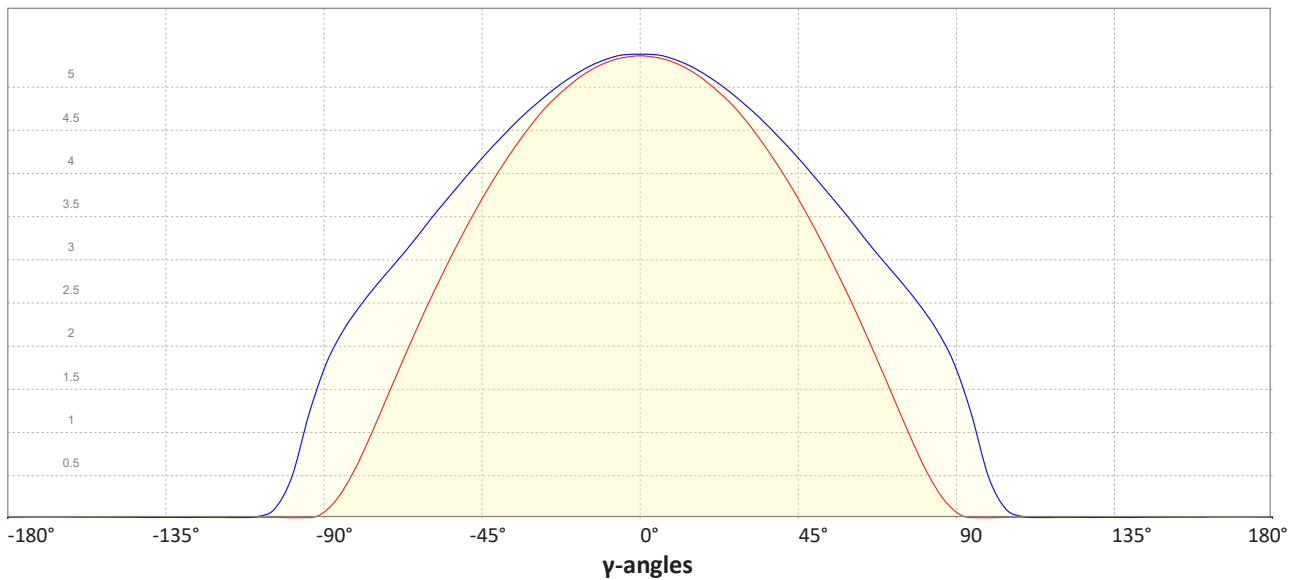
Average 10%	180.5°
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## Intensity Ratio

In 120° cone	65.9%
In 90° cone	43.2%

**C000-C180**  
**C090-C270**

## Linear distribution diagram - Intensity (candela) vs $\gamma$ -angle



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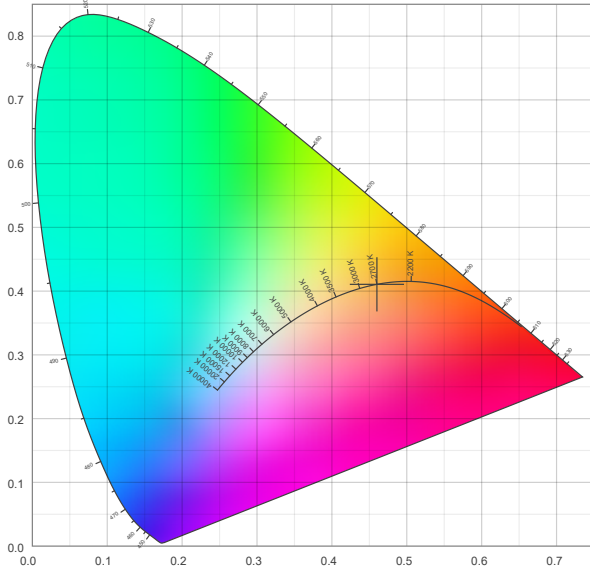
Measurement date and time: 2023-05-02 12:40:15 PM – Measurement no. VFR-230502-0197-MS

## Color details

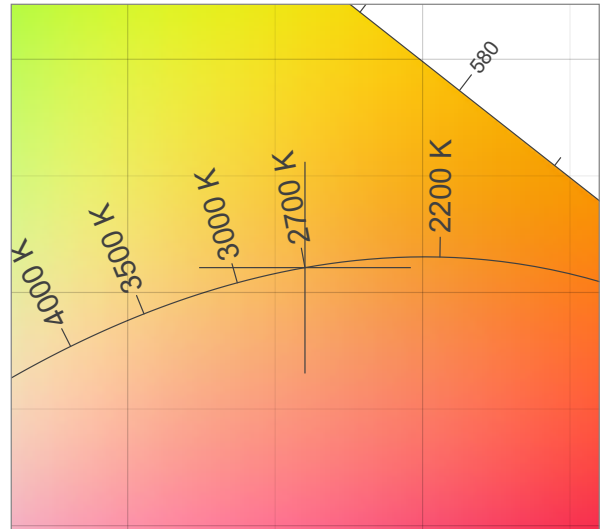
Correlated Color Temperature, Target CCT = 2700 K  
 Correlated Color Temperature, Measured CCT = 2642 K  
 Color Rendering Index CRI 95.3  
 Color Rendering Index, R9 (red component) R9 = 74.6  
 Color Rendering TM30-18 R<sub>f</sub> 91.6 – R<sub>g</sub> 94.0  
 Color Quality Scale CQS = 82.9

MacAdam Steps SDCM = 8.8  
 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 = 0.0069  
 Color coordinate CIEs 1976 (CIELUV) (u'';v'') = (0.263;0.263)

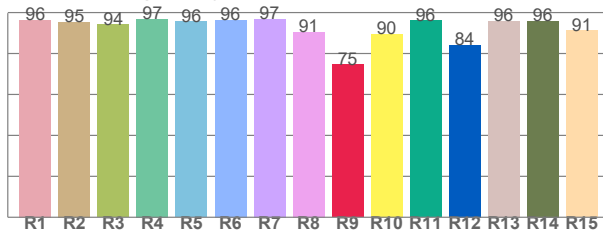
CIE 1931



CIE 1931 – zoomed on Planckian locus



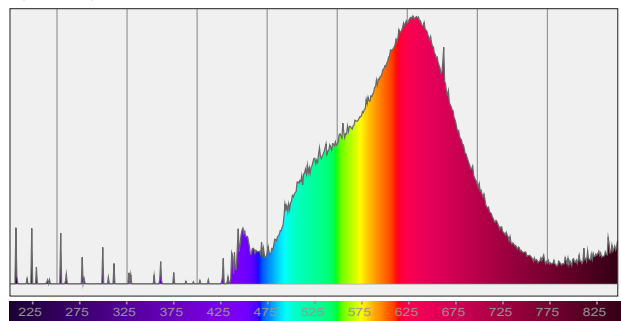
Color Rendering Index per reference color (CIE 1995)



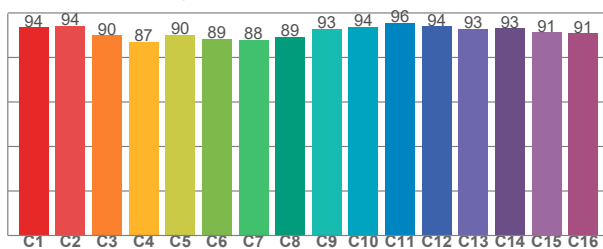
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
96.4	95.5	94.2	96.9	95.6	96.5	96.9	90.6	74.6	89.5	96.2	84.2	95.9	95.9	91.1

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



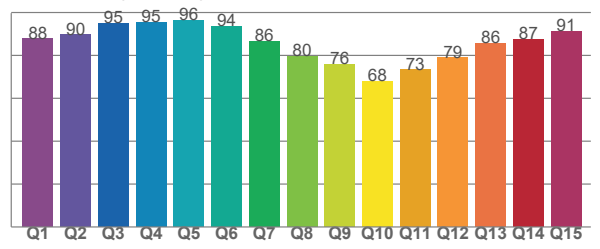
TM30-18 R<sub>f</sub>-values per hue bin



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
93.5	94.3	89.9	87.0	90.3	88.5	87.9	89.3	92.9	93.8	95.6	93.9	92.9	93.2	91.4	90.9

Color Quality Scale by reference color



CQS Q values

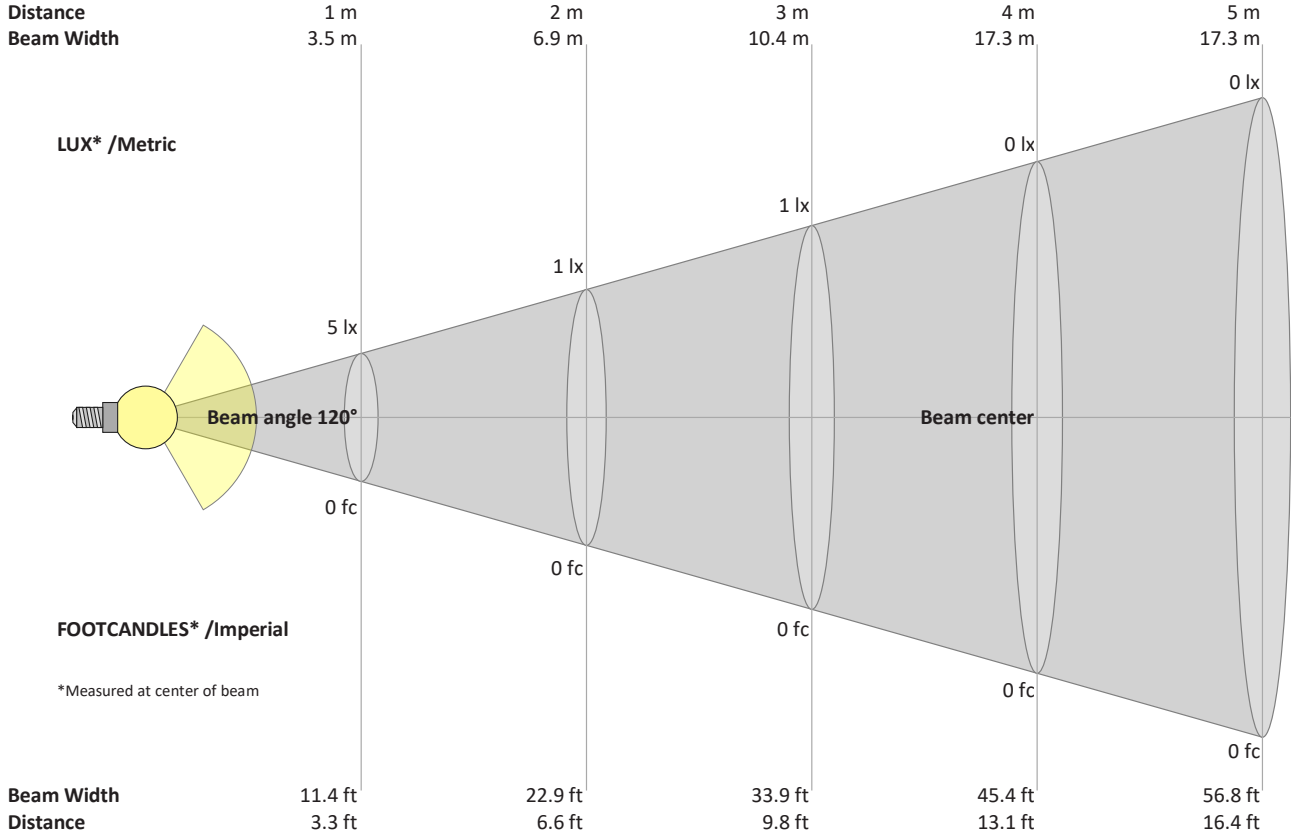
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87.8	89.6	95.0	95.5	96.3	93.6	86.5	79.7	75.8	67.9	73.3	78.9	85.6	87.4	91.3

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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	
5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	lux
0.5	0.1	0.1	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°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°	y	
5.37	5.29	5.09	4.76	4.28	3.70	3.02	2.25	1.41	0.59	0.09	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	cd
100%	99%	95%	89%	80%	69%	56%	42%	26%	11%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	of 0°val

### Intensities in 90° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°	y	
5.37	5.33	5.16	4.89	4.56	4.18	3.75	3.29	2.85	2.39	1.72	0.51	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	cd
100%	99%	96%	91%	85%	78%	70%	61%	53%	45%	32%	9%	1%	0%	0%	0%	0%	0%	0%	0%	0%	of 0°val

### Intensities in 180° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°	y	
5.37	5.29	5.09	4.76	4.28	3.70	3.02	2.25	1.41	0.59	0.09	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	cd
100%	99%	95%	89%	80%	69%	56%	42%	26%	11%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	of 0°val

### Intensities in 270° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°	y	
5.37	5.33	5.16	4.89	4.56	4.18	3.75	3.29	2.85	2.39	1.72	0.51	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	cd
100%	99%	96%	91%	85%	78%	70%	61%	53%	45%	32%	9%	1%	0%	0%	0%	0%	0%	0%	0%	0%	of 0°val