

VEROBOARD®

LED Type: VBDFS-2835-XXXX-120-24-NS
Colour: 3000K • 4000K • 5000K

Job Name: _____

Distributor: _____

Type: _____

	Wattage	Brightness
Per Foot	5.5W/ft	731-804Lm/ft
Per Meter	18W/m	2400-2640Lm/m

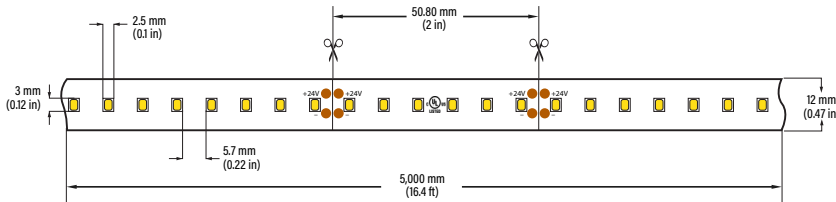


666561423858 666561423865 666561423872

DESCRIPTION

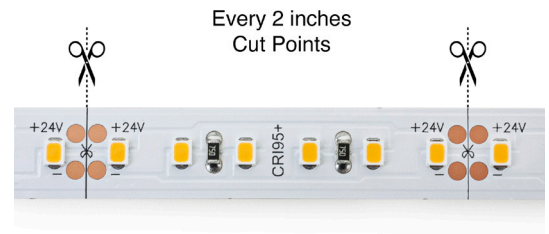
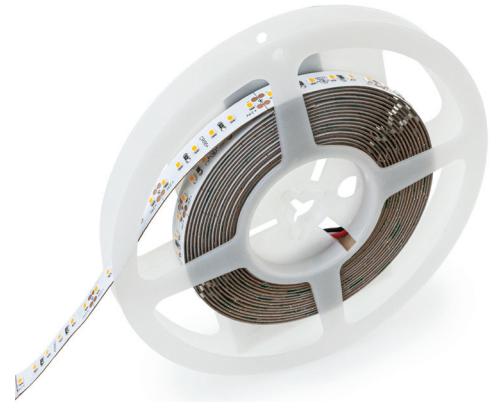
Flexible 12 mm wide linear LED strip. Available in 5 meter (16.4 feet) rolls that can be cut every 6 LEDs (50.8 mm or 2 in). The LED Strip lights are manufactured with high-quality materials and designed for professional lighting. Every strip light begins with a heavy-duty dual-core copper printed circuit board (PC Board), it 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.

DIMENSIONS



SPECIFICATIONS

Model:	VBDFS-2835-xxxx-120-24-NS
Color Temperature:	3000K • 4000K • 5000K
LED Type:	2835 SMD
LED Qty:	120 LEDs per meter
LM/LED:	20-22 Lm per LED
Input Voltage (VF):	24V DC
Power:	18W per meter (5.5W/ft)
Brightness:	2400-2640 Lm/meter (731-804 Lm/ft)
Lifespan:	>50,000 hours
PCB:	4oz PCB, Double-side, white colour 12mm width
IP Rating:	IP20 (Indoor use only)
Rendering Index (Ra):	CRI>95
Beam Angle:	120°
Dimmable:	Yes
Cut Size:	Every 6 LED chips (2")
Operating Temperature:	-15°C to +40°C
Dimensions:	5,000mm x 12mm x 1.5mm (196.8" x 0.47" x 0.05")
Certificates:	UL / RoHs
Roll Length:	5 meter roll (16.4ft)



ORDERING GUIDE

Example part number: **VBDFS - 2835 - XXXX - 120 - 24 - NS**

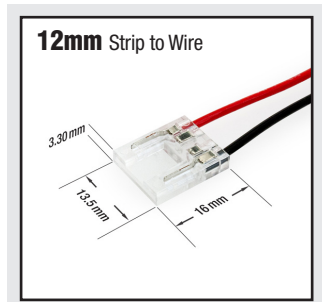
MODEL	SERIES	COLOUR	LEDS/METER	VOLTAGE	LENGTH
VBDFS	2835	XXXX 3000K 4000K 5000K	120	24V	XXXX Custom Length Full Roll (5 Meter)



For more information about our products and services, please visit our website: www.veroboard.com

CONNECTORS (Sold Separately)

Note: Connectors fit in some aluminum channels only.



12mm Strip to Wire

MODEL: VBD-BC-12MM-1S1W

Material: Clear Plastic

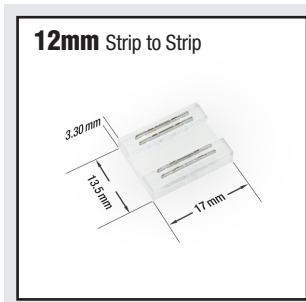
Strip Light Width: 12mm

Package Content: LED Strip to Wire Connectors (Pack of 3)

Dimensions: 16 x 13.5 x 3.5mm
(0.62" x 0.53" x 0.13")

666561428914

*with 7" wire on each connector



12mm Strip to Strip

MODEL: VBD-BC-12MM-2S

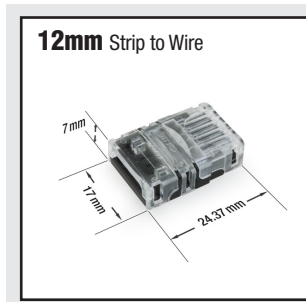
Material: Clear Plastic

Strip Light Width: 12mm

Package Content: LED Strip to Strip Wire Connectors (Pack of 3)

Dimensions: 17 x 13.5 x 3.5mm
(0.66" x 0.53" x 0.13")

666561428921



12mm Strip to Wire

MODEL: VBD-CON-12MM-1S1W

Material: Clear Plastic

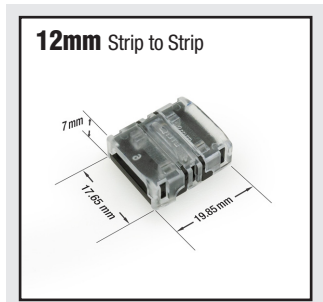
Strip Light Width: 12mm

Package Content: LED Strip to Wire Connectors (Pack of 5)

Dimensions: 24.2 x 17 x 8mm
(0.95" x 0.66" x 0.31")

666561424633

*Wire is NOT included



12mm Strip to Strip

MODEL: VBD-CON-12MM-2S

Material: Clear Plastic

Strip Light Width: 12mm

Package Content: LED Strip to Strip Connectors (Pack of 5)

Dimensions: 19.6 x 17.65 x 8mm
(0.77" x 0.69" x 0.31")

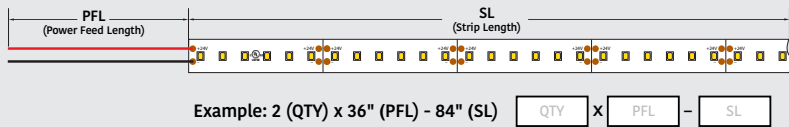
666561424640

Notes:

CUSTOM ORDERING GUIDE ✂

Single Run (Straight Run): The below ordering guide will be used for single run LED strip.

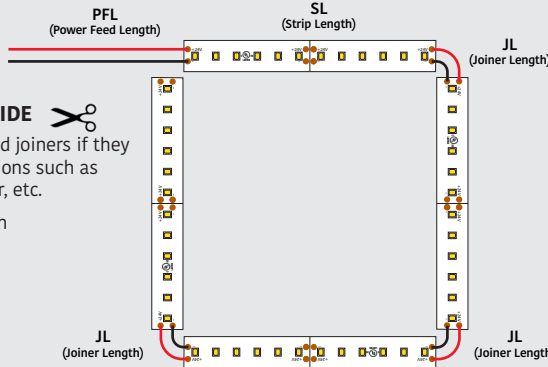
- **PFL:** Power Feed Length
- **SL:** Strip Length



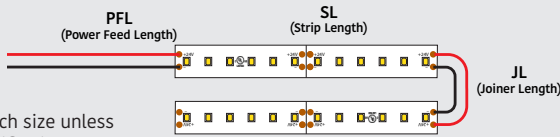
CUSTOM ORDERING GUIDE ✂

Joiner: LED strip lights need joiners if they are used for curve applications such as corner side, behind a mirror, etc.

- **PFL:** Power Feed Length
- **SL:** Strip Length
- **JL:** Joiner Length



Example: 1 (QTY) x 12" (PFL) - 46" (SL) - 1" (JL) - 36" (SL) - 1" (JL) - 46" (SL) - 1" (JL) - 36" (SL)



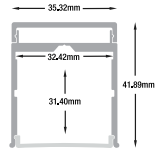
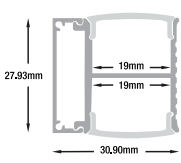
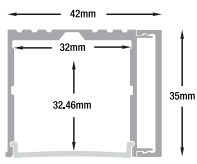
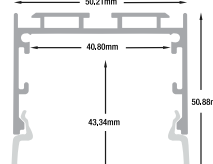
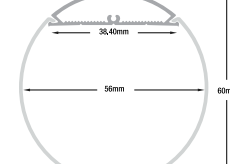
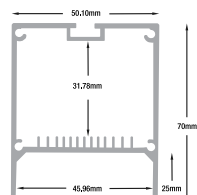
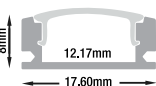
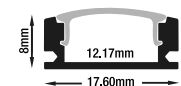
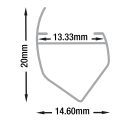
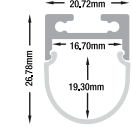
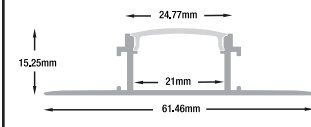
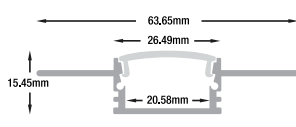
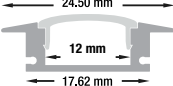
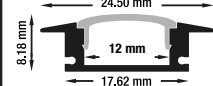
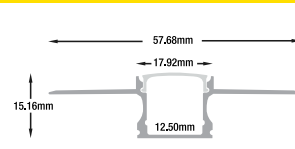
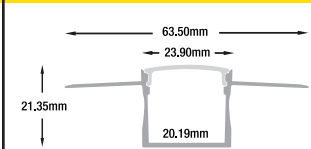
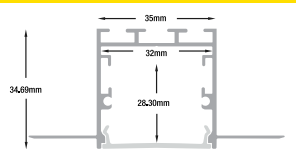

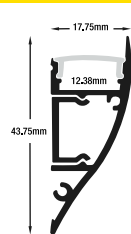
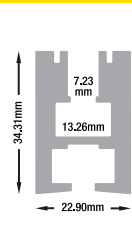
Example: 2 (QTY) x 24" (PFL) - 52" (SL) - 1" (JL) - 52" (SL)

RECOMMENDED LED ALUMINUM CHANNELS

(Sold Separately)

VBD-CH-S4 15.5mm x 12mm x 17.5mm	VBD-CH-S4B 15.5mm x 12mm x 17.5mm	VBD-CH-S6 10.6mm x 20.15mm x 23.44mm
SKU: 666561423278	SKU: 666561423285	SKU: 666561423315
VBD-CH-S5 8mm x 13mm x 17mm	VBD-CH-S5B 8mm x 13mm x 17mm	VBD-CH-B1 6.14mm x 13.89mm x 18.77mm
SKU: 666561423292	SKU: 666561423308	SKU: 666561423360
VBD-CH-C2 18.5mm x 18.5mm x 14mm	VBD-CH-C2B 18.5mm x 18.5mm x 14mm	VBD-CH-RF4 23.4mm x 18.6mm x 12mm
SKU: 666561423506	SKU: 666561423513	SKU: 666561423377
VBD-CH-RF1 12.5mm x 15mm x 17mm	VBD-CH-RF1B 12.5mm x 15mm x 17mm	VBD-CH-C1 25.68mm x 15.07mm x 21.19mm
SKU: 666561423339	SKU: 666561423346	SKU: 666561423490
VBD-CH-C3 30mm x 30mm x 20mm	VBD-CH-C3B 30mm x 30mm x 20mm	VBD-CH-W1 26.16mm x 12mm x 21.43mm
SKU: 666561423520	SKU: 666561423537	SKU: 666561423445
VBD-CH-RF7 32.16mm x 75mm x 90mm	VBD-CH-RF8 32mm x 70.15mm x 75mm	VBD-CH-S2 9.88mm x 56.75mm x 17.29mm
SKU: 666561423407	SKU: 666561423414	SKU: 666561423254
VBD-CH-WC4 45.50mm x 85mm x 37.85mm	VBD-CH-WC5 39mm x 43.03mm x 43.03mm	VBD-CH-ST2 21mm x 95mm x 13mm
SKU: 666561423629	SKU: 666561423636	SKU: 666561423582
VBD-CH-S3 55.38mm x 13.56mm x 7.96mm	VBD-CH-RF6 31.90mm x 46.42mm x 50.20mm	VBD-CH-RF5 32mm x 30.84mm x 34.79mm
SKU: 666561423261	SKU: 666561423391	SKU: 666561423384
VBD-CH-RF2 11mm x 12.15mm x 21.45mm	VBD-CH-RF3 27mm x 20mm x 17mm	VBD-CH-R2 25.95mm x 22.94mm x 17.46mm
SKU: 666561423353	SKU: 666561423360	SKU: 666561423742
VBD-CH-R2B 25.95mm x 22.94mm x 17.46mm	VBD-CH-D10 136mm x 13.66mm x 12mm	136mm x 13.66mm x 12mm
SKU: 666561428280	SKU: 666561420023	SKU: 666561420023

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VBD-CH-WC1  SKU: 666561423599	VBD-CH-WC2  SKU: 666561423605	VBD-CH-WC3  SKU: 666561423612	VBD-CH-S1  SKU: 666561423247	VBD-CH-R3  SKU: 666561423759	VBD-CH-RF10  SKU: 666561423438	
VBD-CH-S55  SKU: 666561429966	VBD-CH-S55B  SKU: 666561429973	VBD-CH-C5  SKU: 666561423568	VBD-CH-R1  SKU: 666561423735	VBD-CH-D1  SKU: 666561423643	VBD-CH-D5  SKU: 666561423681	
VBD-CH-RS5  SKU: 666561428631	VBD-CH-RS5B  SKU: 666561428648	VBD-CH-D7  SKU: 666561423704			VBD-CH-D8  SKU: 666561423711	VBD-CH-D9  SKU: 666561423728
VBD-CH-M1  SKU: 666561423773	VBD-CH-M1B  SKU: 666561431013	VBD-CH-E1  SKU: 666561423483		Note: To avoid a dark spot on the sides of these channels (RF10, RF6, RF8, R3, S1, R3) we recommend installing more than one Run LED Strip. For more details please contact us at: sales@veroboard.com		

RECOMMENDED LED POWER SUPPLIES (Sold Separately)

For more options and varieties, please visit our website: www.veroboard.com

Constant Voltage Dimmable LED Drivers (5 in 1), Triac/Phase, 0-10V, 1-10V, Potentiometer, 10V PWM 5 in 1 Dimming



Model No.	Input Voltage	Output Voltage	Wattage	IP Rating	Class	Max. Strip Length	SKU#
VBD-024-030C2DM5i1	100-277V	24V	30W	IP67	Class 2	4.4ft	666561426033
VBD-024-060C2DM5i1	100-277V	24V	60W	IP67	Class 2	8.7ft	666561426040
VBD-024-080C2DM5i1	100-277V	24V	80W	IP67	Class 2	11.6ft	666561426088
VBD-024-096C2DM5i1	100-277V	24V	96W	IP67	Class 2	14ft	666561426057
VBD-024-192C2DM5i1	100-277V	24V	192W (2x96W)	IP67	Class 2	28ft	666561426064
VBD-024-288C2DM5i1	100-277V	24V	288W (3x96W)	IP67	Class 2	42ft	666561426071

Constant Voltage Triac LED Drivers forward Phase, Magnetic Low Voltage & Triac Dimmers



Model No.	Input Voltage	Output Voltage	Wattage	IP Rating	Class	Max. Strip Length	SKU#
VBD-024-024DM	100-130V	24V	24W	IP20	Class 2	3.5ft	666561415839
VBD-024-048DM	100-130V	24V	48W	IP20	Class 2	7ft	666561415822
VBD-024-060DM	100-130V	24V	60W	IP20	Class 2	8.7ft	666561415815
VBD-024-096DM	100-130V	24V	96W	IP67	Class 2	14ft	666561415808
VBD-024-150DM	100-130V	24V	150W	IP67	-	22ft	666561415792
VBD-024-200DM	100-130V	24V	200W	IP67	-	29ft	666561415785
VBD-024-300VTHWJ	100-277V	24V	300W	IP65	-	43.6ft	666561419806

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Dali Dimming Constant Voltage



Model No.	Input Voltage	Output Voltage	Wattage	IP Rating	Class	Max. Strip Length	SKU#
VBD-024-030DD	100-265V AC	24V	30W	IP20	Class 2	4.3ft	666561427306
VBD-024-060DD	100-265V AC	24V	60W	IP65	Class 2	8.7ft	666561427320
VBD-024-096DD	100-265V AC	24V	96W	IP65	Class 2	14ft	666561427344
VBD-024-150DD	100-265V AC	24V	150W	IP65	-----	21.8ft	666561427368
VBD-024-200DD	100-265V AC	24V	200W	IP65	-----	29ft	666561427375

Plug-in Drivers



Model No.	Input Voltage	Output Voltage	Wattage	IP Rating	Class	Max. Strip Length	SKU#
VBDA-024-024P1J	100-240V AC	24V	24W	IP20	Class 2	3.5ft	666561428969
VBDA-024-036P1J	100-240V AC	24V	36W	IP20	Class 2	5.2ft	666561428983
VBDA-024-060P1J	100-240V AC	24V	60W	IP20	Class 2	8.7ft	666561429003

Notes: _____

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.

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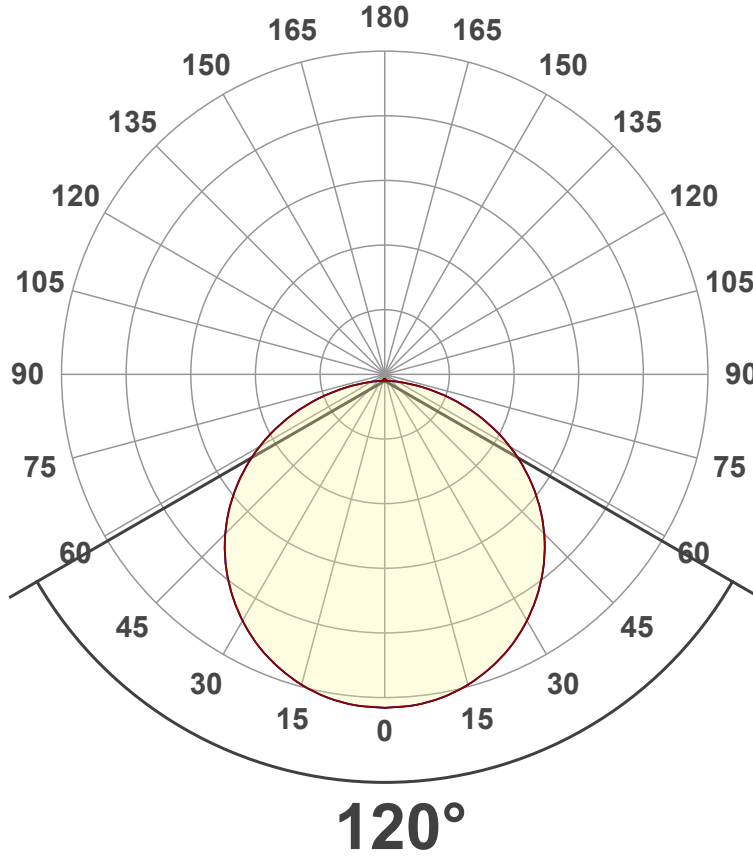
Light Measurement Report

Print date: 2023-05-02

Measurement date and time: 2023-05-02 11:35:51 AM – Measurement no. VFR-230502-0194-MS

Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Lumen Up% / Down%	0.73% / 99.27%
Peak Intensity	49.1 cd
Beam Angle (50%)	120°
Beam Angle (90%)	117.9°
Beam Angle (10%)	117.9°

Cut-off Angle

Average 2,5%	176.7°
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Field Angle

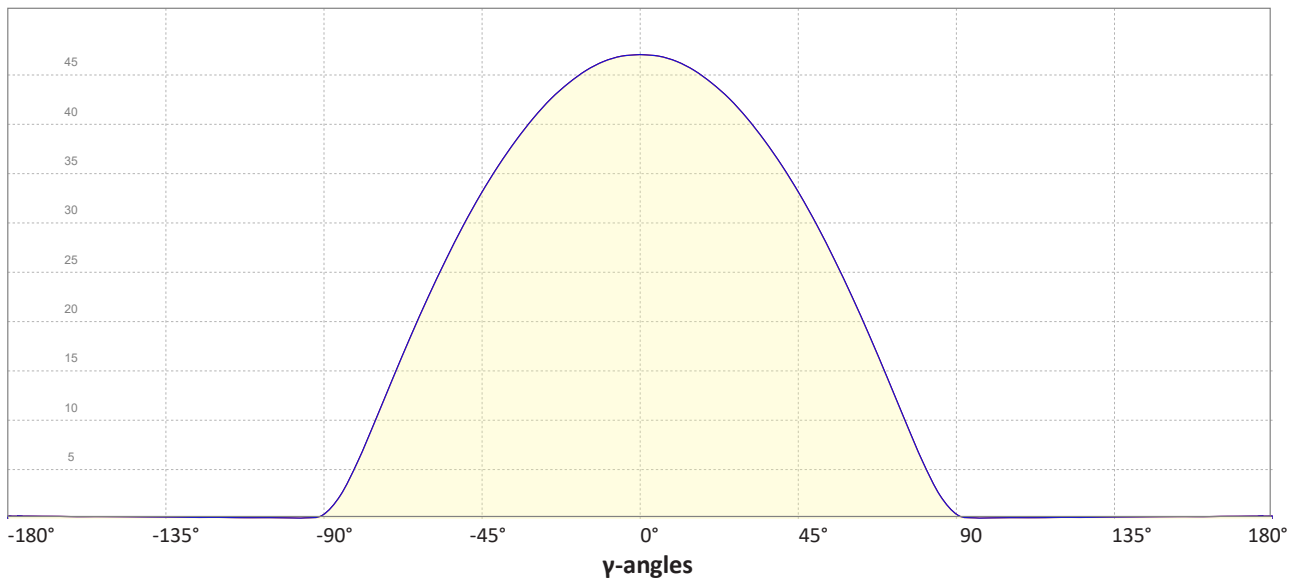
Average 10%	164°
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Intensity Ratio

In 120° cone	76.6%
In 90° cone	51.3%

C000-C180
C090-C270

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



Light Measurement Report

Print date: 2023-05-02

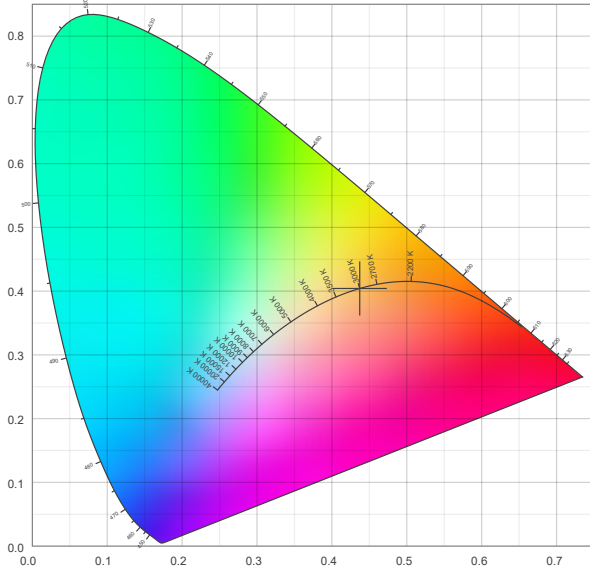
Measurement date and time: 2023-05-02 11:35:51 AM – Measurement no. VFR-230502-0194-MS

Color details

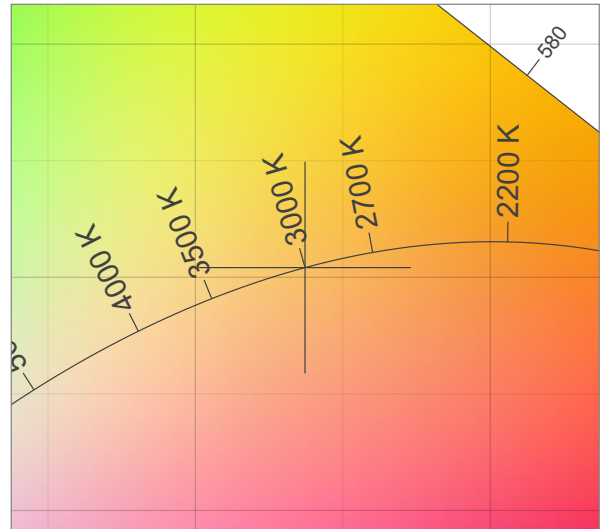
Correlated Color Temperature, Target CCT = 3000 K
 Correlated Color Temperature, Measured CCT = 2953 K
 Color Rendering Index CRI 97.2
 Color Rendering Index, R9 (red component) R9 = 95.8
 Color Rendering TM30-18 R_f 94.8 – R_g 103.5
 Color Quality Scale CQS = 94.4

MacAdam Steps
 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)

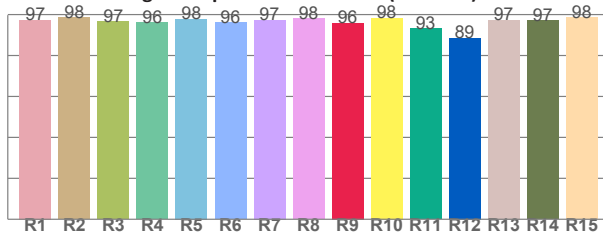
CIE 1931



CIE 1931 – zoomed on Planckian locus



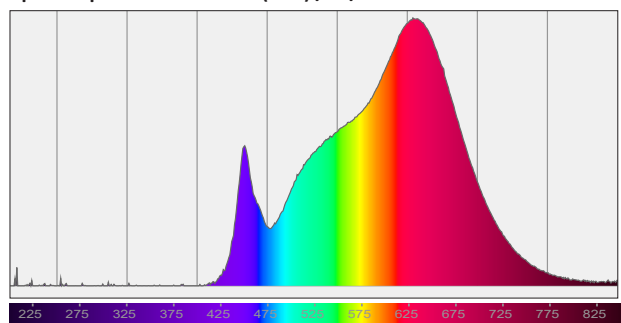
Color Rendering Index per reference color (CIE 1995)



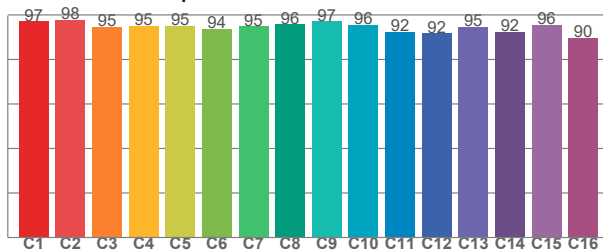
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
97.4	98.5	96.6	96.1	97.8	96.0	97.3	98.1	95.8	98.4	93.3	88.6	97.4	97.0	98.5

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



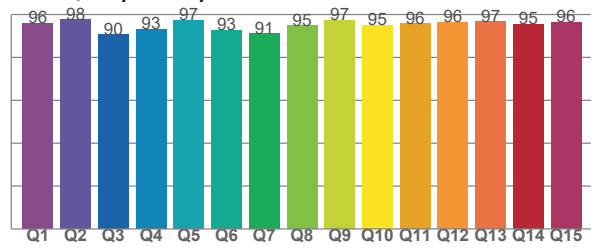
TM30-18 Rf-values per hue bin



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
97.1	97.8	94.7	95.2	95.1	93.8	95.0	95.9	97.1	95.6	92.4	91.8	94.7	92.4	95.7	89.7

Color Quality Scale by reference color



CQS Q values

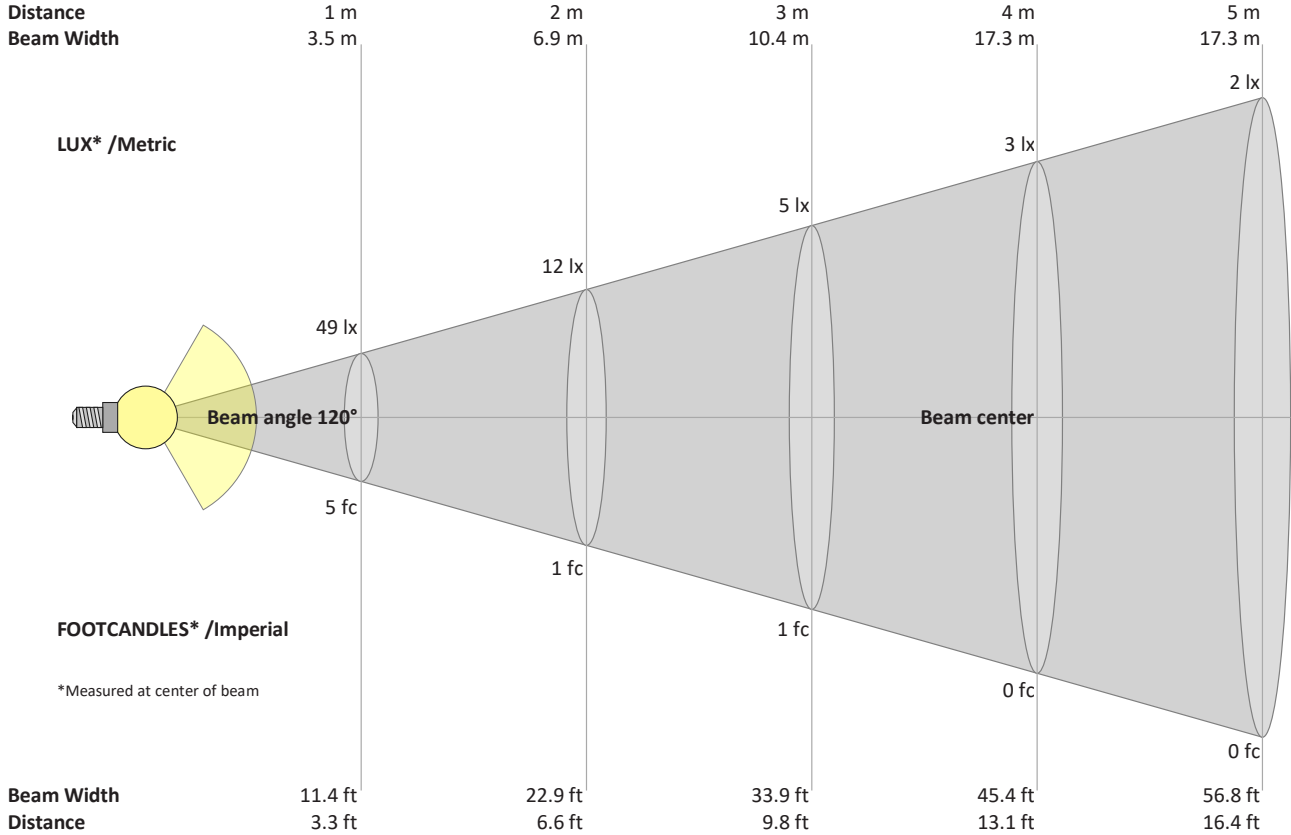
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96.0	97.5	90.5	93.3	97.3	92.7	91.1	94.8	97.2	95.1	95.7	96.2	96.6	95.5	96.5

Light Measurement Report

Print date: 2023-05-02

Measurement date and time: 2023-05-02 11:35:51 AM – Measurement no. VFR-230502-0194-MS

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
49	12	5	3	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	lux
4.6	1.1	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	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
49.1	48.9	48.4	47.5	46.2	44.5	42.5	40.2	37.5	34.5	31.2	27.6	23.7	19.6	15.2	10.7	6.4	2.7	0.5	0.1	cd
100%	100%	99%	97%	94%	91%	87%	82%	76%	70%	64%	56%	48%	40%	31%	22%	13%	6%	1%	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
49.1	48.9	48.4	47.5	46.2	44.5	42.5	40.2	37.5	34.5	31.2	27.6	23.7	19.6	15.2	10.7	6.4	2.7	0.5	0.1	cd
100%	100%	99%	97%	94%	91%	87%	82%	76%	70%	64%	56%	48%	40%	31%	22%	13%	6%	1%	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
49.1	48.9	48.4	47.5	46.2	44.5	42.5	40.2	37.5	34.5	31.2	27.6	23.7	19.6	15.2	10.7	6.4	2.7	0.5	0.1	cd
100%	100%	99%	97%	94%	91%	87%	82%	76%	70%	64%	56%	48%	40%	31%	22%	13%	6%	1%	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
49.1	48.9	48.4	47.5	46.2	44.5	42.5	40.2	37.5	34.5	31.2	27.6	23.7	19.6	15.2	10.7	6.4	2.7	0.5	0.1	cd
100%	100%	99%	97%	94%	91%	87%	82%	76%	70%	64%	56%	48%	40%	31%	22%	13%	6%	1%	0%	of 0°val