

Light Measurement Report

Print date: 2023-09-27

Measurement date and time: 2023-08-29 11:49:24 AM – Measurement no. VFR-230829-0021-MS

Measurement tracking No. and Link: [n/a](#)

Operator: NC



Laboratory and Equipment

Laboratory Owner and Location

Goniospectrometer System and Type

Sensor Name, Calibr. Date and Serial No.

Spectrometer Manufacturer and Model

Moss LED, Toronto, Ontario, Canada

BaseSpion – Type C, horizontal

BaseSensor – 2023-06-27 – 2807073281

Ibsen Photonics, Denmark – Freedom VIS (Custom Viso)

Measurement Conditions

Number of C-planes and Resolution

γ (gamma)-Resolution

Test Distance

Input Power

Input RMS Voltage and Current

Frequency of Input Power

12 planes – 30°

5°

4.50 m

8.8 W

24.0 V – 0.365 A

0 Hz

Tested Light Source

Product Name (-type of measurement if applicable)

Manufacturer

Description and colour tested

CV-DWCOBI1008-2765-95-24-WBEW-CW

MossLED Inc.

Bicolour 1008 leds/m, Cool White 6500K

Main Light Measurement Results

Total Lumen Output per 1 meter

Efficiency (tested at 1 meter)

Peak Intensity and Beam Angle

Correlated Color Temperature, Target/Measured

Color Rendering Index

Color Rendering TM30-18

Color Shift, CIE duv and MacAdam Steps

Flicker

795 lm

91 lm/W

252 cd – 115.9°

CCT = 6500 K / 6398 K

CRI 93.7

R_f 88.2 – R_g 95.2

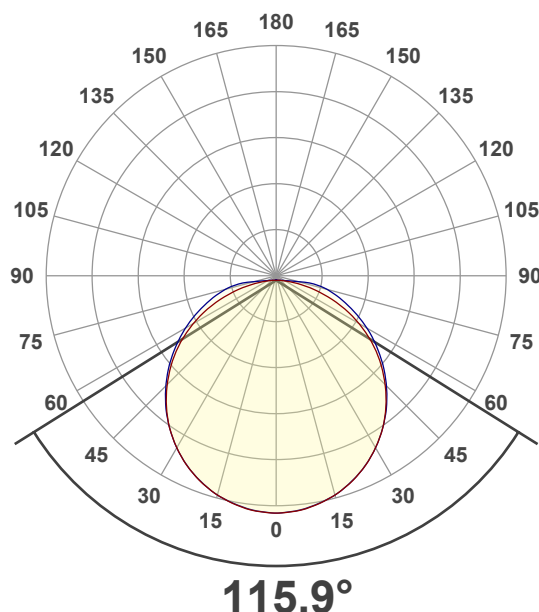
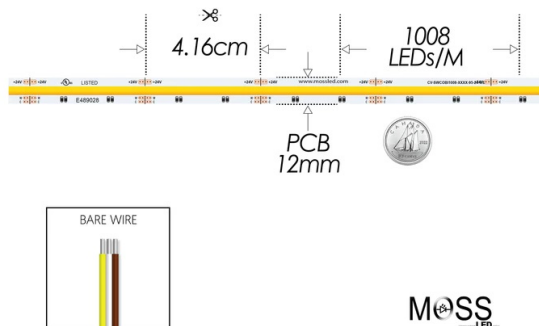
Duv 0.0034 – SDCM 9.1

SVM n/a – PstLM n/a

Product picture

50% Beam angle (absolute values)

CV-DWCOBI1008-2765-95-24-WBEW



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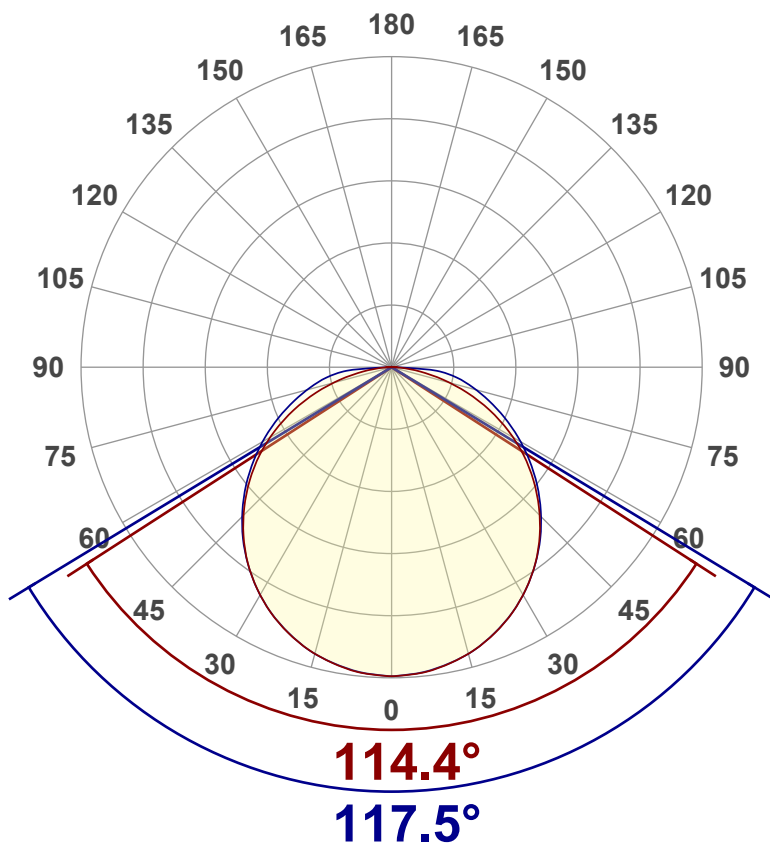
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Report template: Main DC strip-230927-NC



Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output/m (total Lumen)	795 lm
Lumen Up% / Down%	3.5% / 96.5%
Peak Intensity	252 cd
Beam Angle (50%)	115.9°
Beam Angle (90%)	117.5°
Beam Angle (10%)	114.4°

Cut-off Angle

Average 2,5%	208.7°
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Field Angle

Average 10%	170.3°
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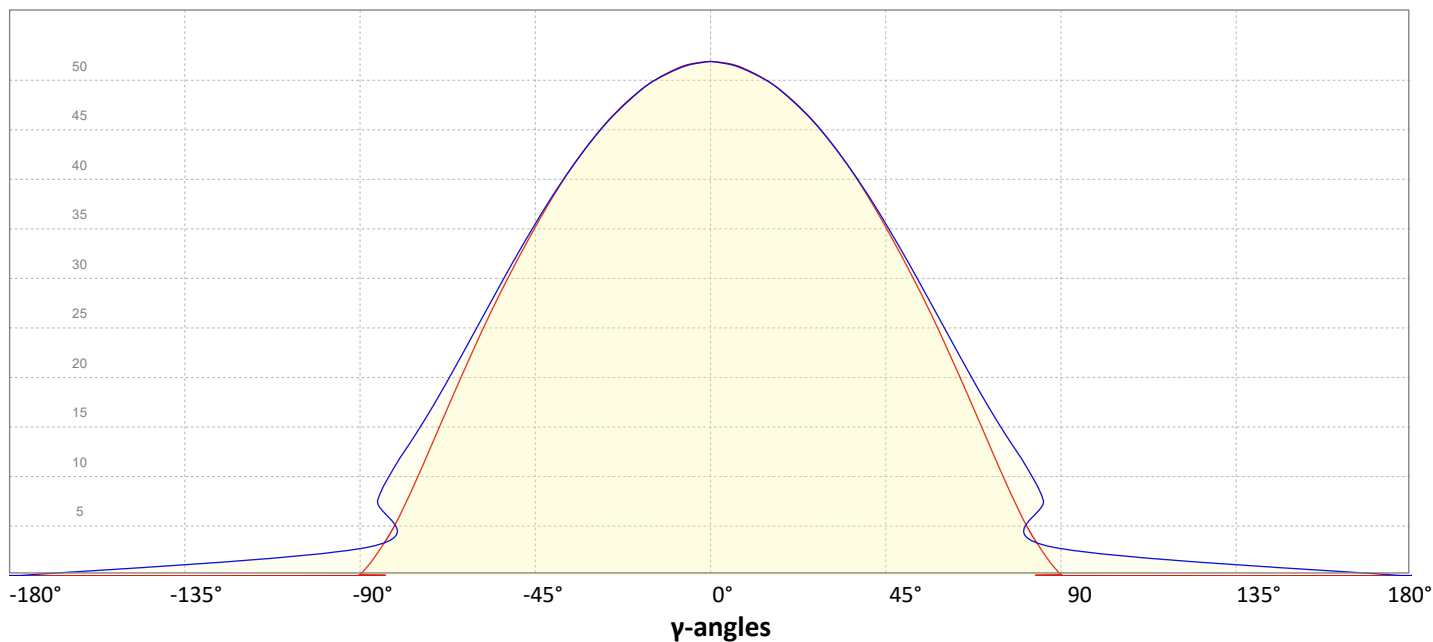
Intensity Ratio

In 120° cone	72.5%
In 90° cone	48.9%

C000-C180

C090-C270

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



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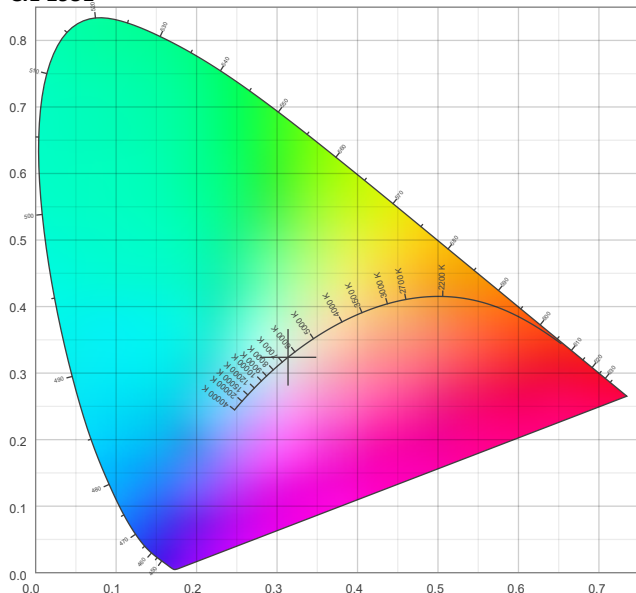


Color details

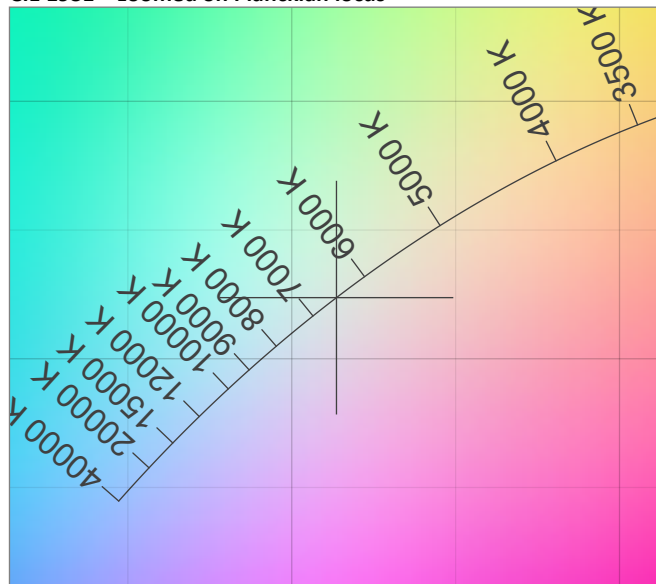
Correlated Color Temperature, Target CCT = 6500 K
Correlated Color Temperature, Measured CCT = 6398 K
Color Rendering Index CRI 93.7
Color Rendering Index, R9 (red component) R9 = 87.2
Color Rendering TM30-18 R_f 88.2 – R_g 95.2
Color Quality Scale CQS = 91.5

MacAdam Steps
Color coordinates CIE 1931 (x;y) = (0.314;0.324)
Color coordinate CIEs 1960 (u;v) = (0.200;0.310)
Color deviation from BBL Duv = 0.0034
Color coordinate CIEs 1976 (CIELUV) (u';v') = (0.200;0.466)

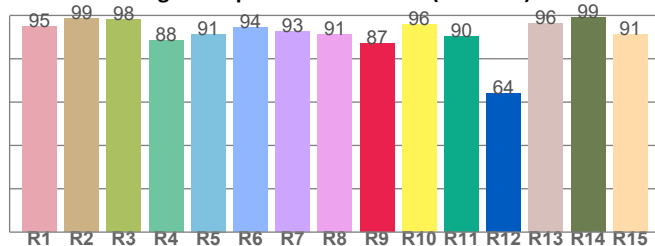
CIE 1931



CIE 1931 – zoomed on Planckian locus



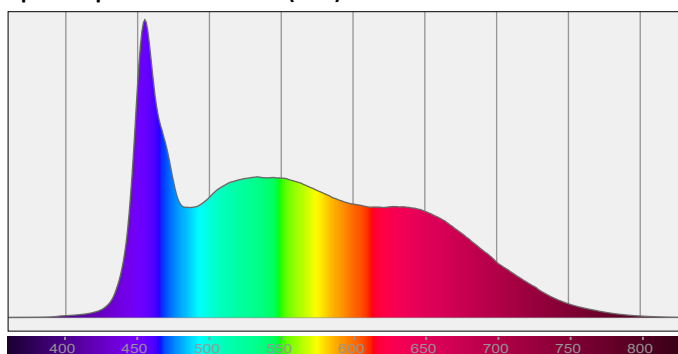
Color Rendering Index per reference color (CIE 1995)



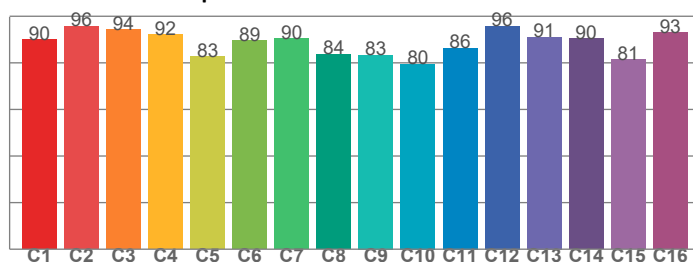
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
94.8	98.5	98.0	88.4	91.4	94.5	92.6	91.3	87.2	95.9	90.4	64.0	96.4	99.1	91.1

Spectral power distribution (SPD) – 0-100%



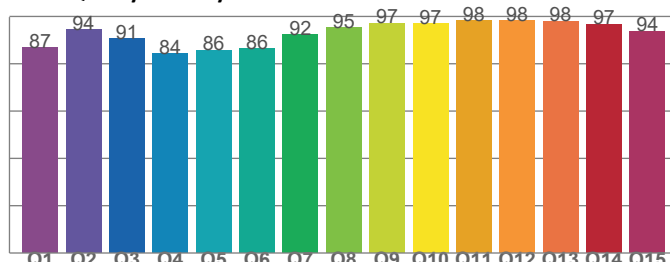
TM30-18 R_f-values per hue bin



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
89.9	95.7	94.2	92.1	82.6	89.5	90.4	83.7	83.4	79.6	86.4	95.9	91.0	90.5	81.4	93.0

Color Quality Scale by reference color

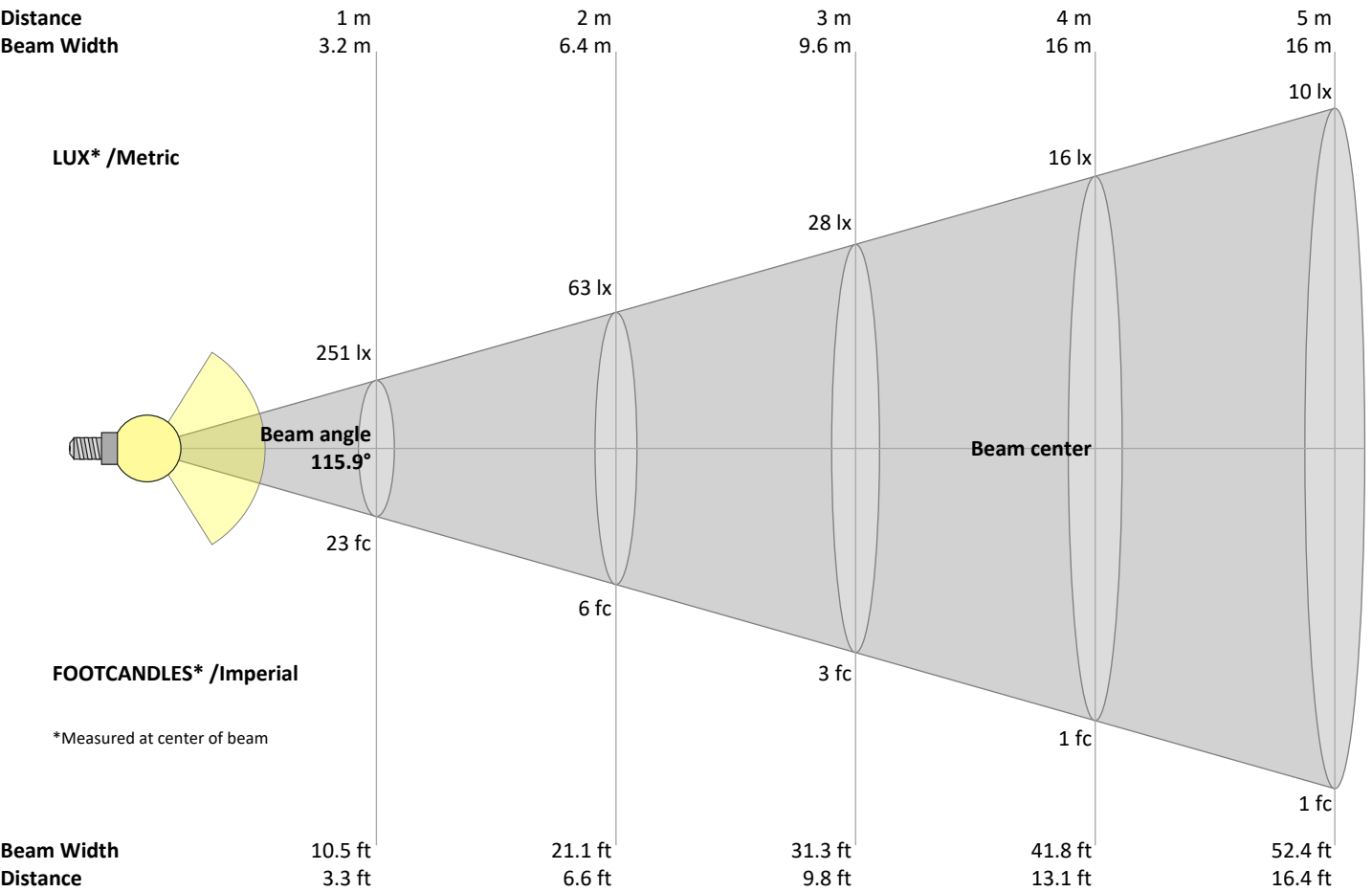


CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
86.8	94.3	90.6	84.4	85.7	86.5	92.2	95.2	97.1	96.9	98.3	98.3	98.0	96.8	93.8

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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
251	63	28	16	10	7	5	4	3	3	2	2	1	1	1	1	1	1	1	1	lux
23.4	5.8	2.6	1.5	0.9	0.6	0.5	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	fc

Power Details

Input Power

RMS Input voltage feed, V_{RMS}
RMS Input current feed, I_{RMS}
Power feed to light source
Frequency of input power
Power factor of AC current feed

24.0 V
0.365 A
8.8 W
0 Hz
1.0

Efficiency

Radiated power efficiency 34.0%
Lumen efficiency 91 lm/W

