

Light Measurement Report

Print date: 2024-12-13
Measurement date and time: 2024-12-13 11:43:49 AM – Measurement no. VFR-241213-0094-MS
Operator: NC
SKU: SPFX-O24V-RGBW30-210-30-5M-BEW - RGB Only



Laboratory and Equipment

Laboratory Owner and Location	Moss LED, Toronto, Ontario, Canada
Goniospectrometer System and Type	BaseSpion – Type C, horizontal
Sensor Name, Calibr. Date and Serial No.	BaseSensor – 2023-06-27 – 2807073281
Spectrometer Manufacturer and Model	Ibsen Photonics, Denmark – Freedom VIS (Custom Viso)

Measurement Conditions

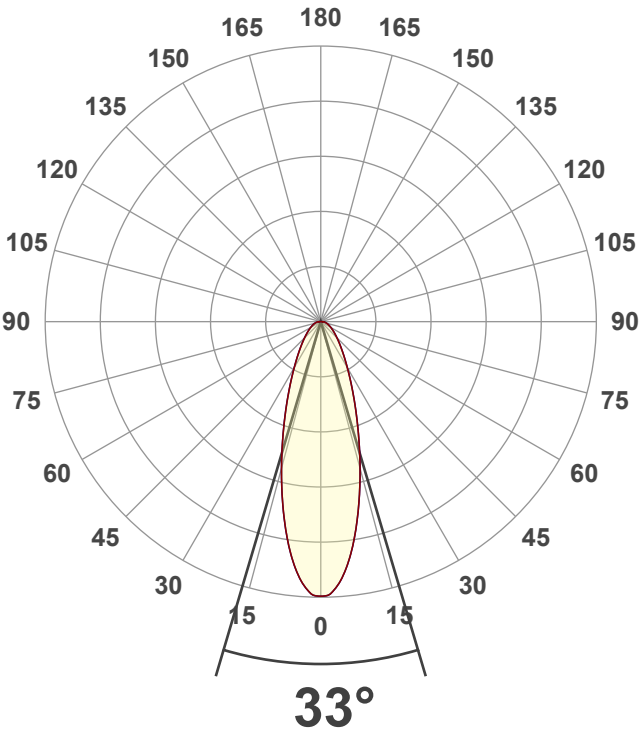
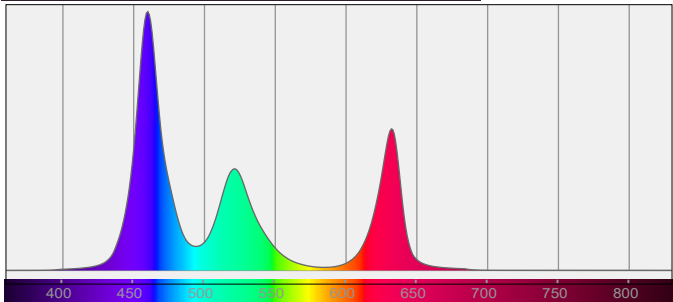
Number of C-planes and Resolution	48 planes – 7.5°
γ (gamma)-Resolution	1.5°
Test Distance	2.50 m
Input Power, Power and Displ. Factors	18.0 W – PF 1.0 – DPF 0.0
Input RMS Voltage and Current	24.0 V – 0.750 A
Frequency of Input Power	0 Hz

Tested Light Source

Product Name	SPFX-O24V-RGBW30-210-30-5M-BEW
Item No. and Manufacturer	24V, RGB+WW, 42 LPM, RGB test. – MossLED

Main Light Measurement Results

Output	903 lm
Efficiency	50 lm/W
Peak Intensity and Beam Angle	1386 cd – 33°
Correlated Color Temperature, Target/Measured	CCT = 0 K / 0 K
Color Rendering Index	CRI 0.0
Color Rendering TM30-18	R _f 0.0 – R _g 0.0
Color Shift, CIE duv and MacAdam Steps	Duv n/a – SDCM n/a
Flicker	SVM n/a – PstLM n/a

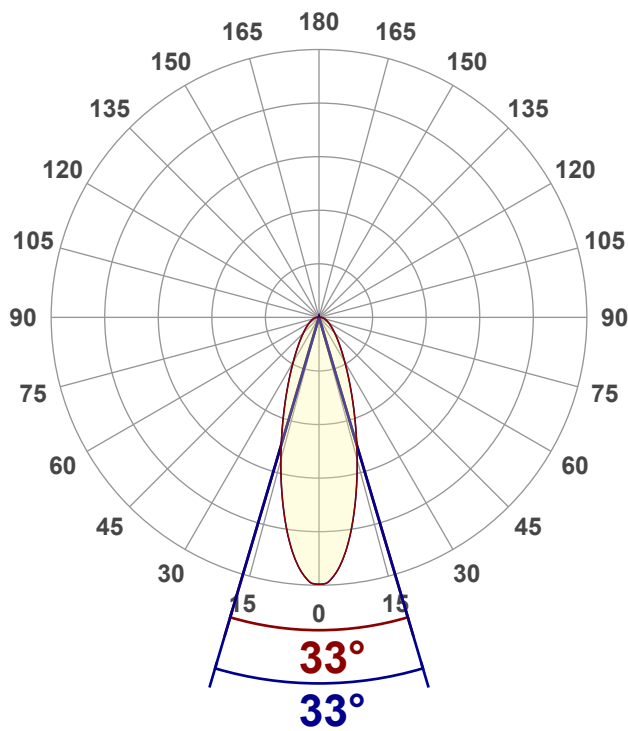


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Luminous Intensity diagram Unit: 0-100% of peak intensity



Main Values	
Output (total Lumen)	903 lm
Peak Intensity	1386 cd
Beam Angle (50%)	33°
Beam Angle (90%)	33°
Beam Angle (10%)	33°

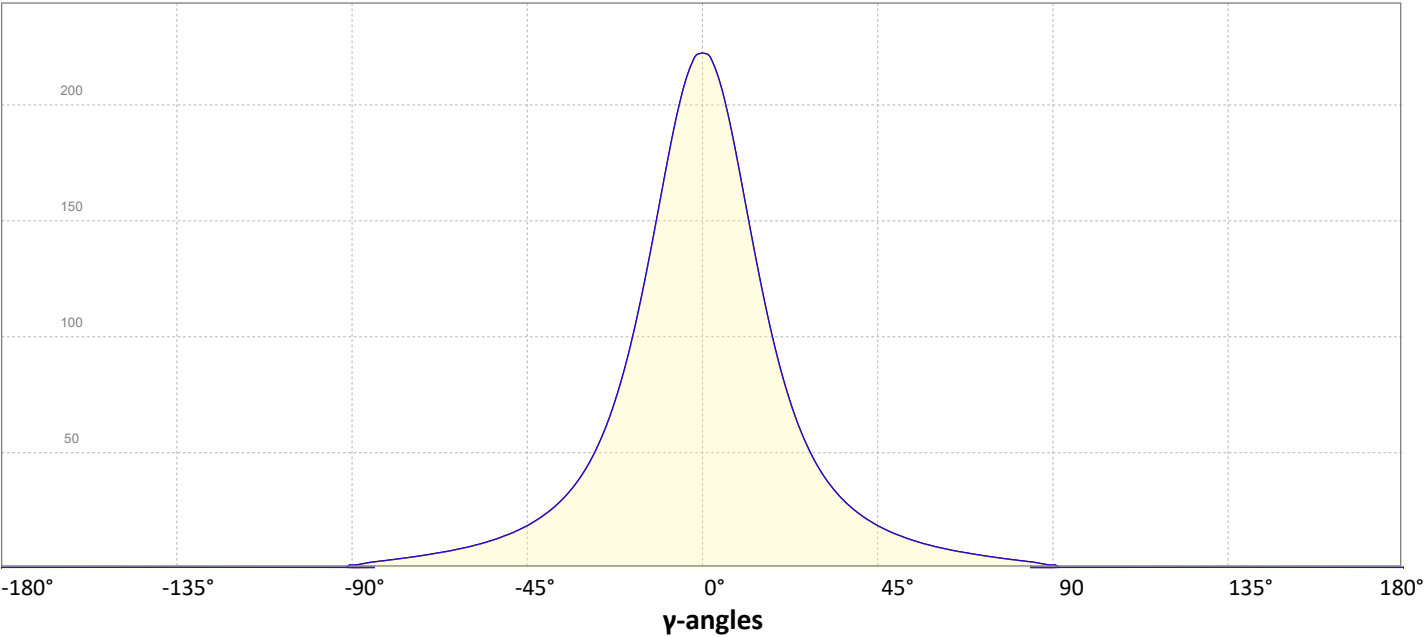
Cut-off Angle	
Average 2,5%	144.7°

Field Angle	
Average 10%	82.9°

Intensity Ratio	
In 120° cone	86.7%
In 90° cone	74.8%

C000-C180 Horizontal
C090-C270 Vertical

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



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Color details

Correlated Color Temperature, Target

Correlated Color Temperature, Measured

Color Rendering Index

Color Rendering Index, R9 (red component)

Color Rendering TM30-18

Color Quality Scale

CCT = 0 K

CCT = 0 K

CRI 0.0

R9 = 0.0

R_f 0.0 – R_g 0.0

CQS = 0.0

MacAdam Steps

Color coordinates CIE 1931

Color coordinate CIEs 1960

Color deviation from BBL

Color coordinate CIEs 1976 (CIELUV)

SDCM = n/a

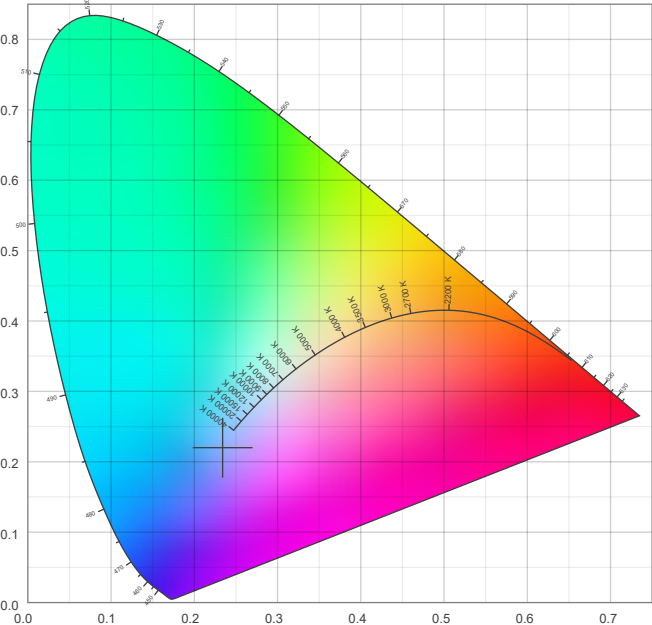
(x;y) = (0.234;0.220)

(u;v) = (0.181;0.255)

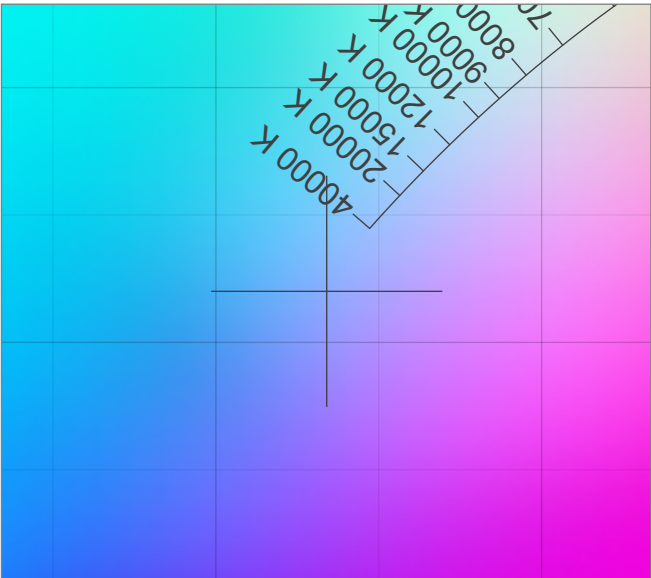
Duv = n/a

(u';v') = (0.181;0.383)

CIE 1931



CIE 1931 – zoomed on Planckian locus



Color Rendering Index per reference color (CIE 1995)

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	

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
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

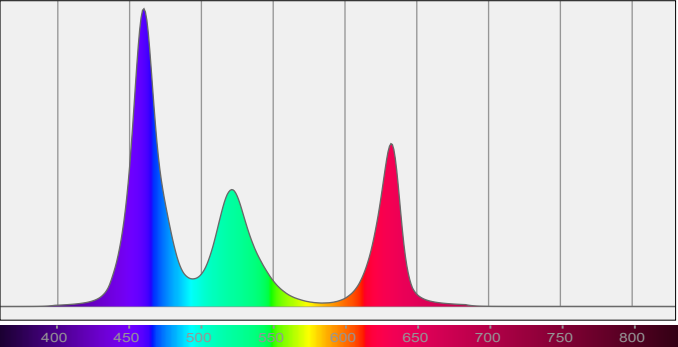
TM30-18 Rf-values per hue bin

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16

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
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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



Color Quality Scale by reference color

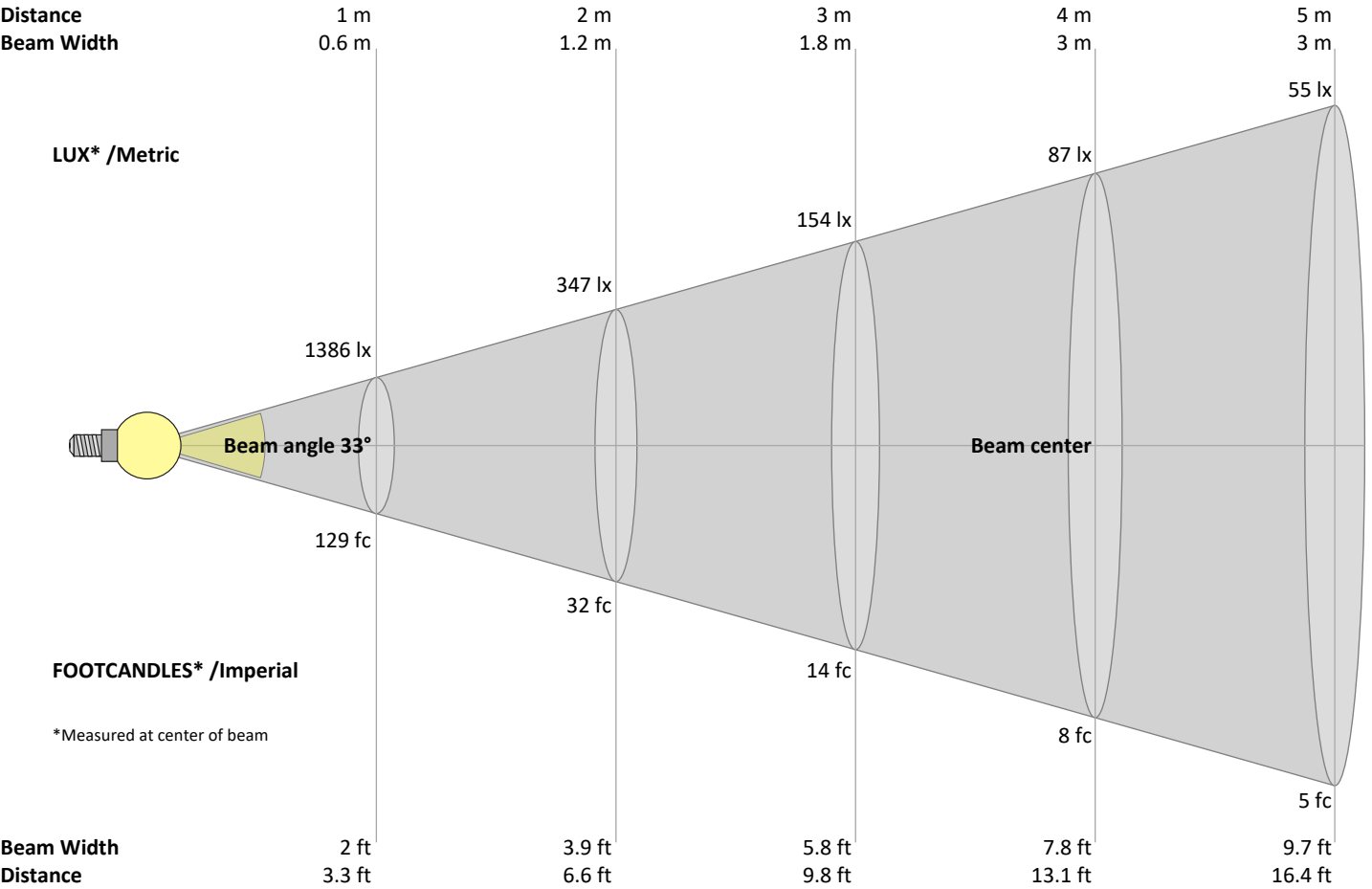
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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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
1386	347	154	87	55	39	28	22	17	14	11	10	8	7	6	5	5	4	4	3	lux
128.8	32.2	14.3	8	5.2	3.6	2.6	2	1.6	1.3	1.1	0.9	0.8	0.7	0.6	0.5	0.4	0.4	0.4	0.3	fc

Power Details

Input Power

Power feed to light source	18.0 W
Frequency of input power	0 Hz
RMS Input voltage feed, V_{RMS}	24.0 V
RMS Input current feed, I_{RMS}	0.750 A
Volt-Ampere or apparent power = $V_{RMS} * I_{RMS}$	18.0 VA
Displacement factor of AC power feed	0.0
Power factor of AC current feed	1.0
Total harmonic distortion of the current	0%
Total harmonic distortion of the voltage	0%

Efficiency

