

Light Measurement Report

Print date: 2024-04-26
Measurement date and time: 2024-04-25 6:12:38 PM – Measurement no. TR-0066-240425
Operator: NC
SKU: I24VCHAMRGB2105050



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	12 planes – 30°
γ (gamma)-Resolution	5°
Test Distance	4.50 m
Input Power per 1 meter	10.3 W
Input RMS Voltage and Current per 1 meter	24.0 V – 0.428 A
Frequency of Input Power	0 Hz

Tested Light Source

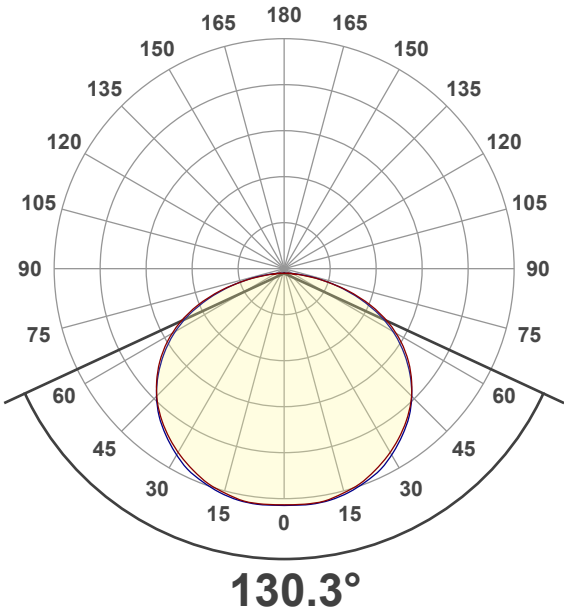
Product Name (-type of measurement if applicable)	I24VCHAMRGB2105050-RGB
Manufacturer	MossLED Inc.
Description and colour tested	72 lpm, RGB

Main Light Measurement Results

Total Lumen Output per 1 meter	412 lm
Efficiency (tested at 1 meter)	40 lm/W
Peak Intensity and Beam Angle	117 cd – 130.3°
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

Product picture

50% Beam angle (absolute values)



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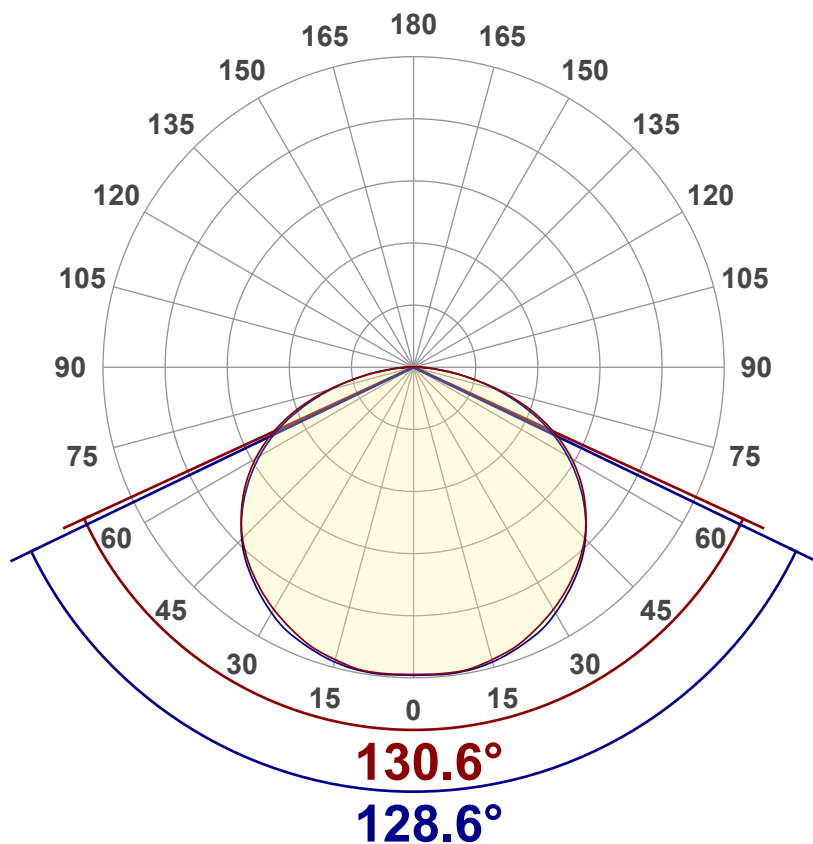
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Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output/m (total Lumen)	412 lm
Lumen Up% / Down%	1.85% / 98.15%
Peak Intensity	117 cd
Beam Angle (50%)	130.3°
Beam Angle (90%)	128.6°
Beam Angle (10%)	130.6°

Cut-off Angle

Average 2,5%	182.1°
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Field Angle

Average 10%	167.5°
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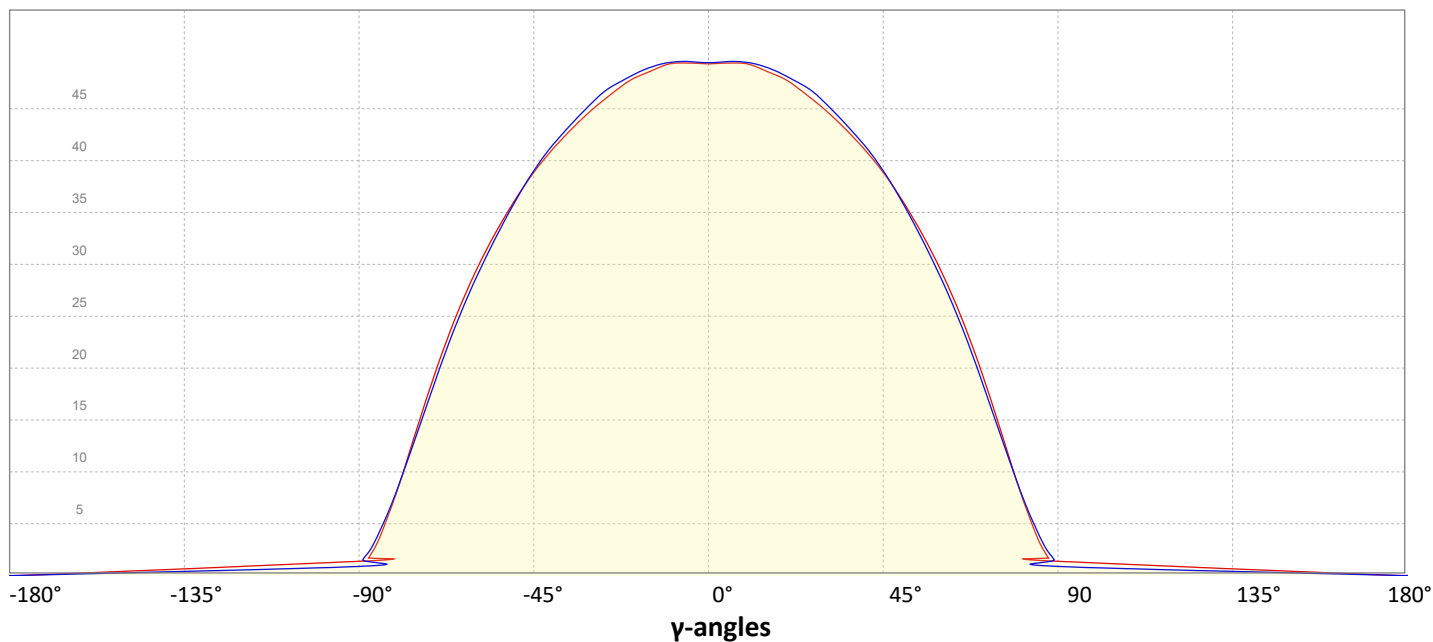
Intensity Ratio

In 120° cone	73.0%
In 90° cone	47.3%

C000-C180

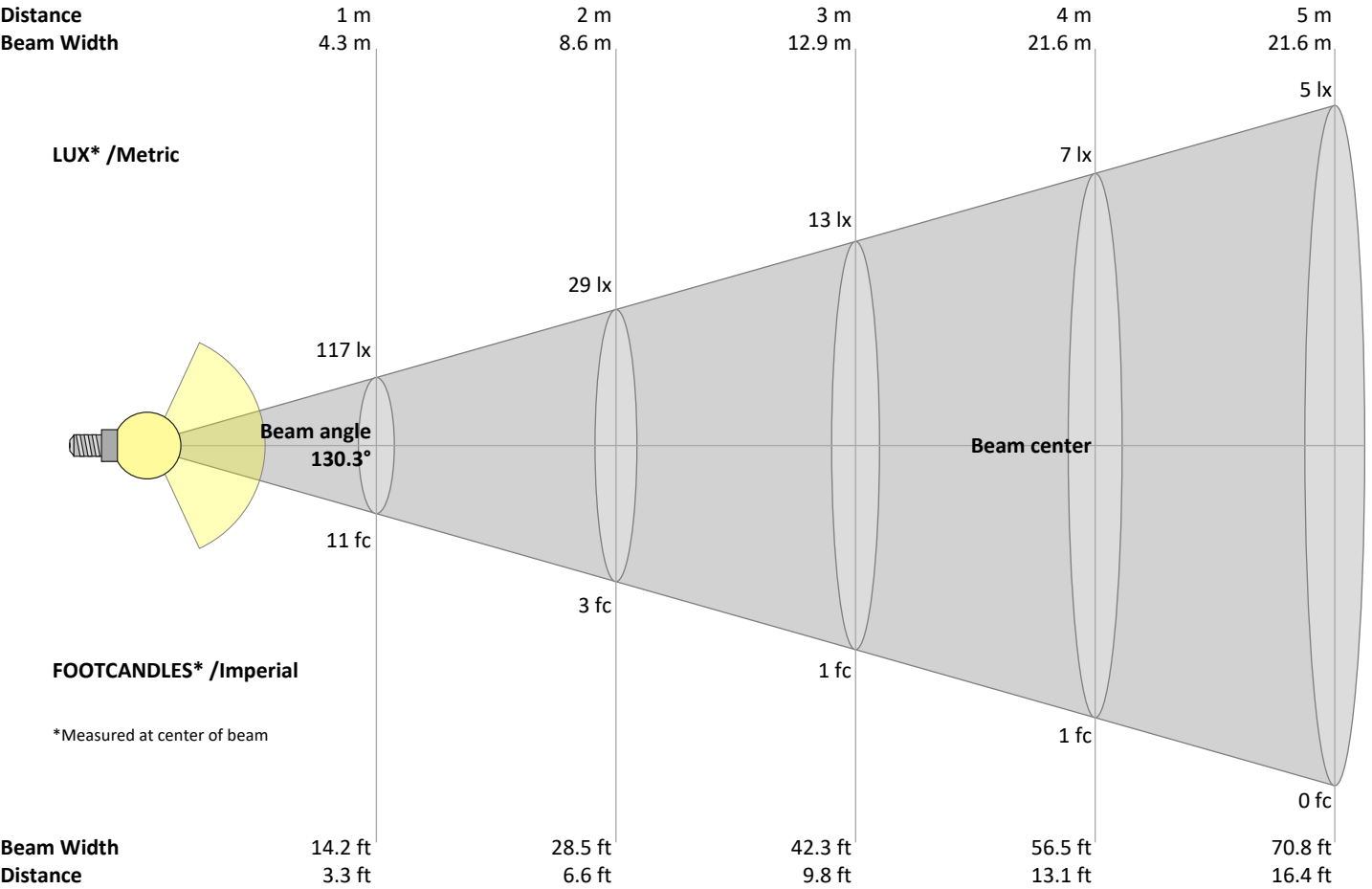
C090-C270

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



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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
117	29	13	7	5	3	2	2	1	1	1	1	1	1	1	0	0	0	0	0	lux
10.9	2.7	1.2	0.7	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	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
0.428 A
10.3 W
0 Hz
1.0

Efficiency

Radiated power efficiency 19.9%
Lumen efficiency 40 lm/W

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Light Planning – UGR table

Uncorrected, comprehensive UGR table according to 117-1995

Reflectances											
ρ Ceiling		70	70	50	50	30	70	70	50	50	30
ρ Walls		50	30	50	30	30	50	30	50	30	30
ρ Floor		20	20	20	20	20	20	20	20	20	20
Room size											
H = mounting height above eye level											
X	Y	Viewed Crosswise					Viewed Endwise				
		(Viewing direction orthogonal to lamp length axis)					(Viewing direction parallel to lamp length axis)				
2H	2H	21.3	22.6	21.6	22.9	23.2	23.0	24.3	23.2	24.6	24.8
	3H	22.6	23.9	23.0	24.2	24.4	24.7	26.0	25.1	26.3	26.5
	4H	23.1	24.4	23.5	24.6	24.9	25.4	26.7	25.8	27.0	27.3
	6H	23.4	24.5	23.7	24.8	25.2	26.1	27.2	26.4	27.5	27.8
	8H	23.4	24.5	23.8	24.8	25.3	26.2	27.3	26.6	27.6	28.1
	12H	23.4	24.5	23.8	24.8	25.3	26.4	27.4	26.7	27.8	28.2
4H	2H	22.0	23.3	22.5	23.6	23.9	23.3	24.6	23.7	24.9	25.2
	3H	23.6	24.7	24.0	25.0	25.5	25.3	26.4	25.7	26.7	27.2
	4H	24.1	25.1	24.5	25.5	26.0	26.0	27.0	26.5	27.4	28.0
	6H	24.4	25.4	24.9	25.7	26.1	26.7	27.6	27.2	28.0	28.4
	8H	24.5	25.3	25.0	25.7	26.1	26.9	27.8	27.4	28.1	28.5
	12H	24.5	25.2	25.0	25.7	26.1	27.1	27.8	27.6	28.2	28.7
8H	4H	24.4	25.2	24.9	25.6	26.0	26.2	27.0	26.7	27.4	27.8
	6H	24.8	25.5	25.3	26.0	26.5	26.9	27.6	27.4	28.0	28.6
	8H	25.0	25.6	25.5	26.1	26.7	27.2	27.8	27.7	28.3	28.9
	12H	25.0	25.5	25.6	26.0	26.6	27.4	27.9	28.0	28.4	29.0
12H	4H	24.4	25.1	24.9	25.5	26.0	26.1	26.9	26.6	27.3	27.8
	6H	24.9	25.5	25.4	26.0	26.6	26.9	27.5	27.4	28.0	28.7
	8H	25.0	25.5	25.6	26.0	26.6	27.2	27.7	27.8	28.2	28.8
Variations with the observer position for the luminaire spacings, S:											
S = 1.0H		0.1 / -0.1					0.1 / -0.1				
S = 1.5H		0.2 / -0.4					0.3 / -0.4				
S = 2.0H		0.5 / -0.8					0.8 / -0.9				

Coefficients of Utilization

Ceiling reflectance	80			70			50			30			10			0		
Wall reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Floor reflectance	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0
RCR		(RCR: Room Cavity Ratio)										Room Values are expressed as percentage of Lumen delivered to the task surface						
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98
1	107	102	98	93	104	100	96	92	95	92	89	91	88	85	87	85	83	80
2	97	88	81	75	94	86	79	74	82	77	72	79	74	70	75	71	68	66
3	88	77	68	61	85	75	67	60	72	65	59	69	63	58	66	61	57	54
4	80	67	58	51	78	66	57	51	63	56	50	61	54	49	58	53	48	46
5	73	60	50	44	71	59	50	43	56	48	42	54	47	42	52	46	41	39
6	68	54	44	38	65	53	44	37	51	43	37	49	42	36	47	41	36	34
7	62	48	39	33	61	47	39	33	46	38	32	44	37	32	43	36	32	29
8	58	44	35	29	56	43	35	29	42	34	29	40	33	28	39	33	28	26
9	54	40	32	26	53	40	31	26	38	31	26	37	30	25	36	30	25	23
10	51	37	29	23	49	36	29	23	35	28	23	34	28	23	33	27	23	21