



8165 E Kaiser Blvd. Anaheim, CA 92808
www.lightlaboratory.com

Report No: L122312001



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Report Prepared For: Lumos Architectural Lighting, LLC (DBA: Lumos Custo
2385 S. Delaware St., Denver, CO 80223
Model Number: LR1.5-6-12-SO-835-DIM-PC48-WH-WCC
Test: Photometric/Colorimetric/Electrical Test

Issue Date: 2/16/2024
Reference: N/A
Amendment: N/A

Standards Used: Appropriate part or all test guidelines were used for test performed:
IESNA LM79: 2019 Approved Methods for Electrical and Photometric Measurements of Solid-State Lighting Products
ANSI NEMA ANSLG C78.377: 2017 Specification of the Chromaticity of Solid State Lighting Products
ANSI C82.77-10:2014: Harmonic Emission Limits-Related Quality Requirements for Lighting Equipment

Description of Sample: Client submitted the sample. Received in working and undamaged condition. No modifications were necessary.

Special Test Condition: Fixture is tested with no special conditions.

Date of Tests: 2/16/24

Seasoning of Sample: No seasoning was performed in accordance with IESNA LM-79.

Equipment List

Equipment Used	Model No	Stock No	Calibration Due Date
Chroma Programmable AC Source	61604	PS-AC02	--
Yokogawa Digital Power Meter	WT210	MT-EL06-S4	4/7/25
HP Power Supply	6032A	PS-DC05-S2	--
Fluke Digital Thermometer	52K/J	MT-TP05	5/24/25
LLI Type C Goniophotometer System	RMG-C-MKII	CD-LL04-GC	--
LLI 2M Sphere	2MR97	CD-SN03-S2	--
LLI Spectroradiometer	SPR-3000	MT-SC01-S2	Before Use

General Information

Manufacturer:	Lumos Architectural Lighting, LLC (DBA: Lumos Custom Lighting & Fabrication)
Model Number:	LR1.5-6-12-SO-835-DIM-PC48-WH-WCC
Driver Model Number:	AC25CD700AT2Q

Test Summary

Total Lumens:	958.00
Efficacy:	95.83
Color Redering Index:	81.2
Correlated Color Temperature:	3345
Input Voltage (VAC/60Hz):	120.05
Input Current (Amp):	0.0837
Input Power (W):	10.00
Input Power Factor:	0.9945
Current ATHD (%):	4.2%

Test Condition

Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:55
Total Operating Time (Hours):	1:25

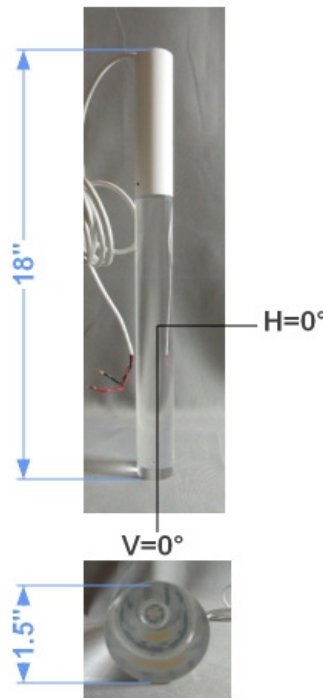
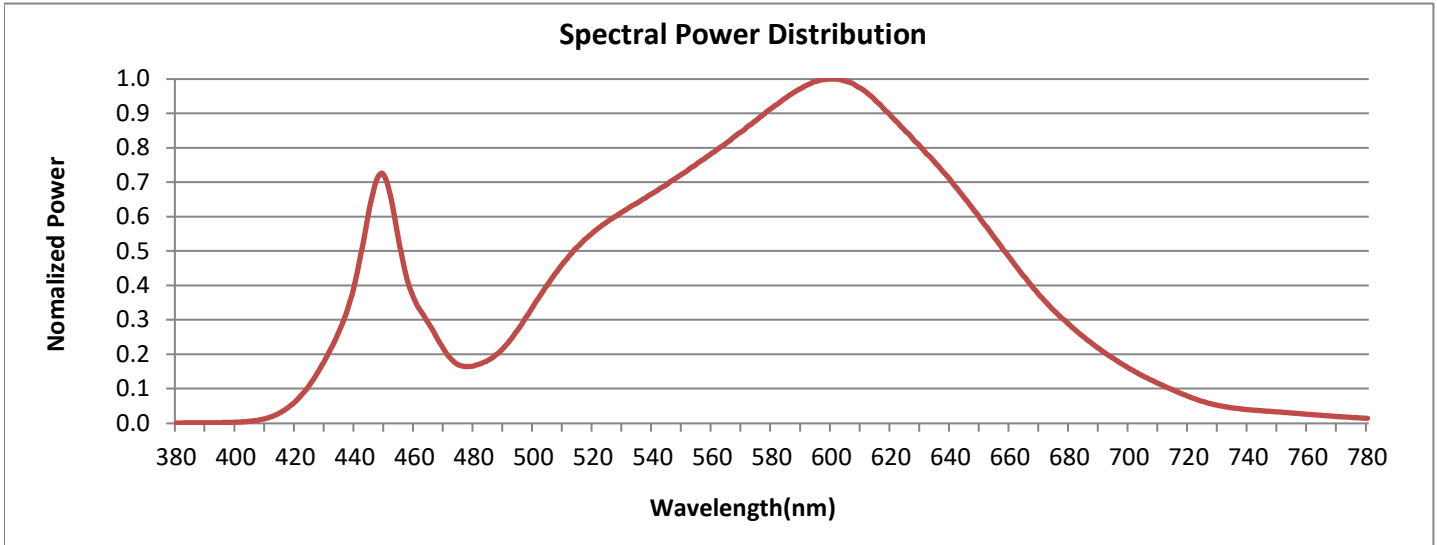


FIG. 1 LUMINAIRE

Colorimetry Test Results

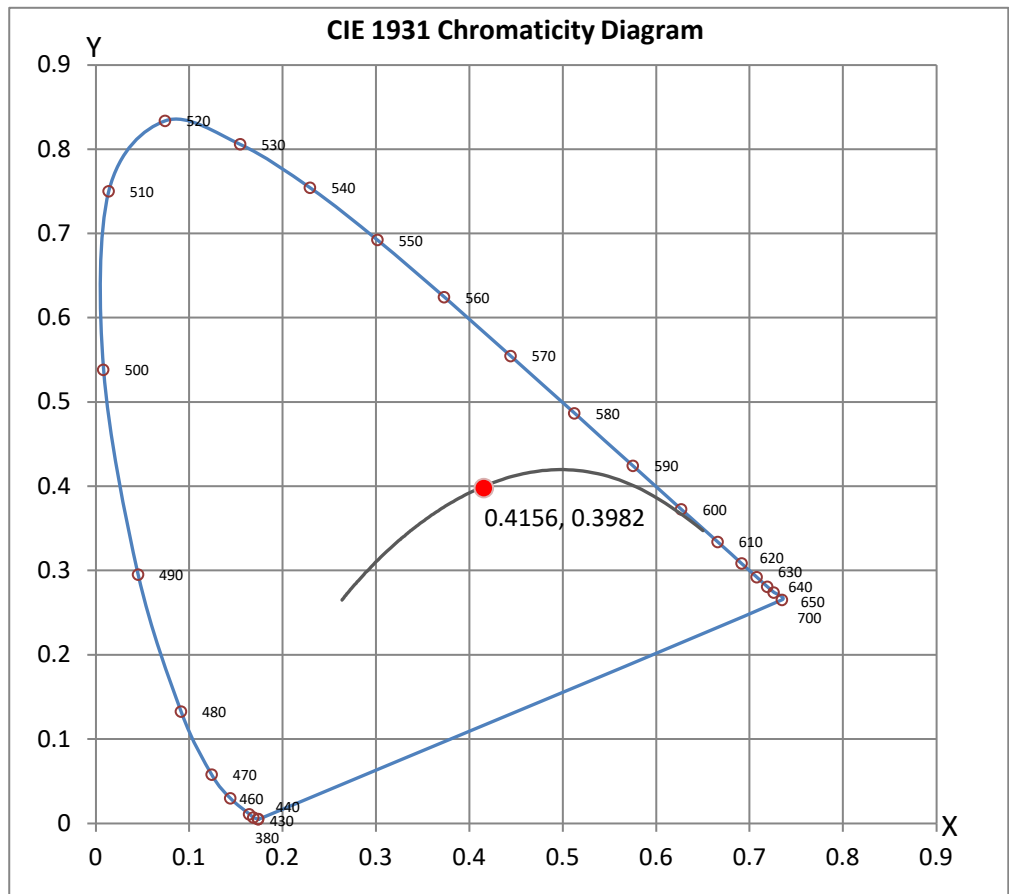


CRI & CCT

x	0.4156
y	0.3982
u'	0.2393
v'	0.5159
CRI	81.20
CCT	3345
Duv	0.00109

R Values

R1	79.31
R2	86.68
R3	93.12
R4	81.11
R5	79.09
R6	82.40
R7	85.39
R8	62.40
R9	7.53
R10	68.95
R11	79.62
R12	62.61
R13	80.57
R14	95.73
R15	73.12



Test Methods

Photometric Measurements - Goniophotometer

A Custom Light Laboratory Type C Rotating Mirror Goniophotometer was used to measure candelas(intensity) at each angle of distribution as defined by IESNA for the appropriate fixture type.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Spectral Measurements - Integrating Sphere

A Sensing Spectroradiometer SPR-3000, in conjunction with Light Laboratory 2 meter integrating sphere was used to measure chromaticity coordinates, correlated color temperature(CCT) and the color rendering index(CRI) for each sample.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

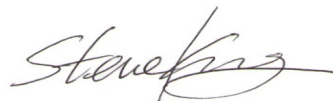
Electrical measurements are measured using the listed equipment.

Disclaimers:

The results related only to the samples as received and tested. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the Federal Government.

Report Prepared by : JG

Test Report Reviewed by:



Steve Kang
Quality Assurance

**Attached are photometric data reports.*



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Photometric Test Report

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L122312001.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L122312001
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUE DATE] 2/16/2024
[MANUFAC] Lumos Architectural Lighting, LLC (DBA: Lumos Custom Lighting & Fabrication)
[LUMCAT] LR1.5-6-12-SO-835-DIM-PC48-WH-WCC
[LUMINAIRE] 1.5" diameter x 6" tall housing, 12" illuminated acrylic rod, (18" OAL),
[MORE] electronic driver in canopy
[BALLASTCAT] AC25CD700AT2Q
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
[INPUT] 120VAC
[TEST PROCEDURE] IESNA:LM-79-19

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	958
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	96
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	0.88
Spacing Criterion (90-270)	0.88
Spacing Criterion (Diagonal)	1.22
Basic Luminous Shape	Circular w/ Sides
Luminous Length (0-180)	0.13 ft (Diameter)
Luminous Width (90-270)	0.13 ft (Diameter)
Luminous Height	1.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	20911	20911	20911
55	11027	11027	11027
65	6622	6622	6622
75	3918	3918	3918
85	2387	2387	2387

IES INDOOR REPORT
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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	155.72	N.A.	16.20
0-30	261.72	N.A.	27.30
0-40	382.83	N.A.	39.90
0-60	647.17	N.A.	67.50
0-80	771.97	N.A.	80.60
0-90	804.00	N.A.	83.90
10-90	761.99	N.A.	79.50
20-40	227.11	N.A.	23.70
20-50	381.84	N.A.	39.80
40-70	338.98	N.A.	35.40
60-80	124.79	N.A.	13.00
70-80	50.16	N.A.	5.20
80-90	32.03	N.A.	3.30
90-110	52.80	N.A.	5.50
90-120	76.63	N.A.	8.00
90-130	98.16	N.A.	10.20
90-150	133.30	N.A.	13.90
90-180	154.30	N.A.	16.10
110-180	101.49	N.A.	10.60
0-180	958.29	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	42.01
10-20	113.71
20-30	106.00
30-40	121.11
40-50	154.73
50-60	109.61
60-70	74.63
70-80	50.16
80-90	32.03
90-100	27.41
100-110	25.39
110-120	23.82
120-130	21.53
130-140	19.06
140-150	16.08
150-160	12.26
160-170	7.07
170-180	1.67

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L122312001.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0	
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	115	115	115	115	115	111	111	111	111	102	102	102	94	94	94	87	87	87	84
1	105	100	96	92	92	101	96	93	89	89	86	84	83	80	78	77	75	73	70
2	96	88	82	76	76	92	85	79	74	79	74	70	73	69	66	68	65	62	59
3	88	78	70	64	64	84	75	68	63	70	64	59	65	60	56	61	57	54	51
4	81	70	61	55	55	78	67	60	54	63	56	51	59	53	49	55	50	47	44
5	75	63	54	48	48	72	61	53	47	57	50	45	53	48	43	50	45	41	39
6	69	57	48	42	42	66	55	47	42	52	45	40	49	43	38	46	41	37	35
7	65	52	44	38	38	62	50	43	37	47	41	36	45	39	34	42	37	33	31
8	60	48	40	34	34	58	46	39	33	44	37	32	41	35	31	39	34	30	28
9	56	44	36	31	31	54	43	35	30	40	34	29	38	33	28	36	31	27	26
10	53	41	33	28	28	51	40	33	28	38	31	27	36	30	26	34	29	25	24

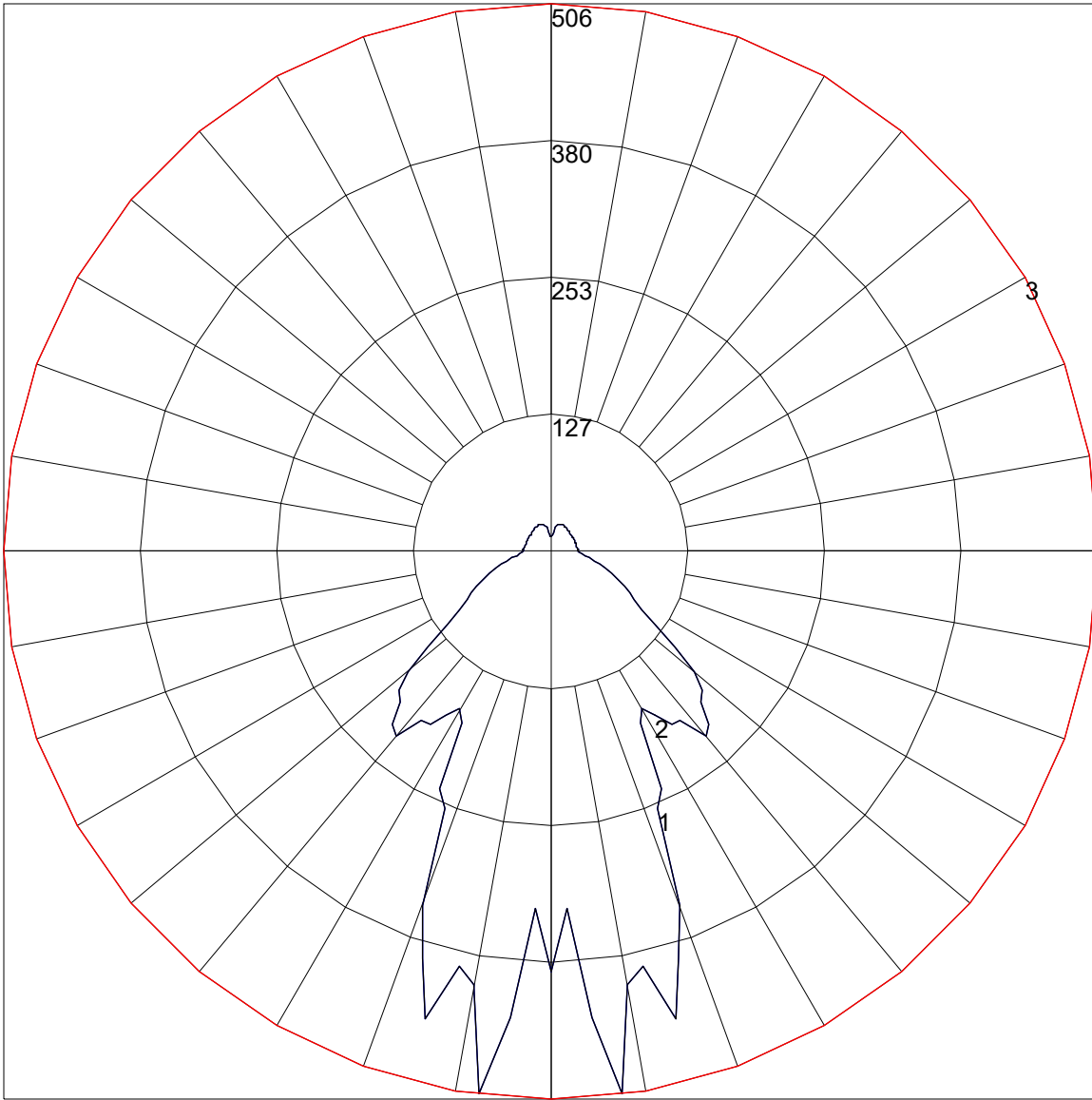
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UGR TABLE - CORRECTED

Reflectances											
Ceiling Cavity	70	70	50	50	30	70	70	50	50	30	
Walls	50	30	50	30	30	50	30	50	30	30	
Floor Cavity	20	20	20	20	20	20	20	20	20	20	
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	17.0	18.2	17.6	18.9	19.5	17.0	18.2	17.6	18.9	19.5
	3H	18.4	19.5	19.0	20.1	20.8	18.4	19.5	19.0	20.1	20.8
	4H	18.8	19.9	19.5	20.6	21.3	18.8	19.9	19.5	20.6	21.3
	6H	19.3	20.3	19.9	20.9	21.7	19.3	20.3	19.9	20.9	21.7
	8H	19.4	20.4	20.1	21.0	21.8	19.4	20.4	20.1	21.0	21.8
	12H	19.6	20.5	20.2	21.1	21.9	19.6	20.5	20.2	21.1	21.9
4H	2H	17.3	18.4	18.0	19.1	19.8	17.3	18.4	18.0	19.1	19.8
	3H	18.9	19.8	19.6	20.5	21.2	18.9	19.8	19.6	20.5	21.2
	4H	19.5	20.3	20.2	21.0	21.8	19.5	20.3	20.2	21.0	21.8
	6H	20.0	20.8	20.7	21.5	22.3	20.0	20.8	20.7	21.5	22.3
	8H	20.3	20.9	21.0	21.6	22.5	20.3	20.9	21.0	21.6	22.5
	12H	20.5	21.1	21.2	21.8	22.6	20.5	21.1	21.2	21.8	22.6
8H	4H	19.7	20.4	20.4	21.1	21.9	19.7	20.4	20.4	21.1	21.9
	6H	20.3	20.9	21.1	21.6	22.5	20.3	20.9	21.1	21.6	22.5
	8H	20.6	21.1	21.4	21.9	22.7	20.6	21.1	21.4	21.9	22.7
	12H	21.0	21.4	21.7	22.1	23.0	21.0	21.4	21.7	22.1	23.0
12H	4H	19.7	20.3	20.4	21.0	21.8	19.7	20.3	20.4	21.0	21.8
	6H	20.4	20.9	21.1	21.6	22.5	20.4	20.9	21.1	21.6	22.5
	8H	20.7	21.2	21.5	21.9	22.8	20.7	21.2	21.5	21.9	22.8

Maximum UGR = 23.0

POLAR GRAPH



Maximum Candela = 506 Located At Horizontal Angle = 0, Vertical Angle = 7.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Vertical Plane Through Horizontal Angles (90 - 270)
3 - Horizontal Cone Through Vertical Angle (7.5) (Through Max. Cd.)