



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

Report No: L022511602



**Report No:** L022511602

**Issue Date:** 2/20/2025

**Report Prepared For:** Primus Lighting, Inc.  
25072 Anza Drive, Santa Clarita, CA 91355

**Reference:**N/A

**Amendment:**N/A

**Model Number:** CV5-RL - 35K - M - 4'

**Test:** Photometric/Electrical Test

**Standards Used:** Appropriate part or all test guidelines were used for test performed:

*IES LM79: 2008* Approved Methods for Electrical and Photometric Measurements of Solid-State Lighting Products

*ANSI/IES LM79: 2019* Approved Methods for Optical and Electrical Measurements of Solid-State Lighting Products

*ANSI/NEMA 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:** 2/19/25

**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-S3	6/21/26
HP Power Supply	6032A	PS-DC05-S2	--
Fluke Digital Thermometer	52K/J	MT-TP05	6/25/26
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

<b>Manufacturer:</b>	Primus Lighting, Inc.
<b>Model Number:</b>	CV5-RL - 35K - M - 4'
<b>Driver Model Number:</b>	XC1050C140V048BPT1

### Photometric & Electrical Test Results

<b>Total Lumens:</b>	2454.00
<b>Efficacy:</b>	82.86
<b>Input Voltage (VAC/60Hz):</b>	120.04
<b>Input Current (Amp):</b>	0.2485
<b>Input Power (W):</b>	29.62
<b>Input Power Factor:</b>	0.9930
<b>Current ATHD (%):</b>	7.7%

### Test Condition

<b>Ambient Temperature (°C):</b>	25.0
<b>Stabilization Time (Hours):</b>	0:35
<b>Total Operating Time (Hours):</b>	1:05

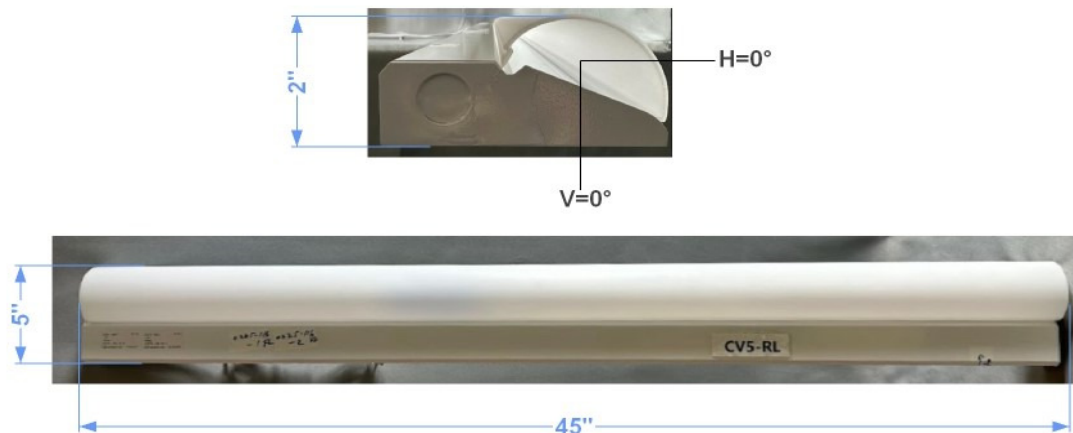


FIG. 1 LUMINAIRE

## 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 : L022511602.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] L022511602  
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)  
[ISSUE DATE] 2/19/2025  
[MANUFAC] Primus Lighting, Inc.  
[LUMCAT] CV5-RL - 35K - M - 4'  
[LUMINAIRE] COVE 5 ROUND LENS 3500K (90CRI) MEDIUM LUMEN 4' LONG  
[BALLASTCAT] XC1050C140V048BPT1  
[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	2454
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	83
Total Luminaire Watts	29.62
Ballast Factor	1.00
CIE Type	Semi-Indirect
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.75 ft
Luminous Width (90-270)	0.42 ft
Luminous Height	0.17 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	582	557	0
55	2180	385	0
65	4270	1575	35
75	7920	2653	42
85	21363	4561	56

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : L022511602.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0
10	3	3	3	0	0	0	0	0	0
15	7	6	3	0	0	0	0	0	0
20	49	42	4	0	0	0	0	0	0
25	65	56	35	0	0	0	0	0	0
30	82	75	45	3	0	0	0	0	0
35	98	92	56	9	0	0	0	0	0
40	106	98	67	29	0	0	0	0	0
45	63	74	76	34	0	0	0	0	0
50	72	47	83	38	0	0	0	0	0
55	195	154	47	45	0	0	0	0	0
60	252	227	64	48	3	0	0	0	0
65	290	261	164	49	4	0	0	0	0
70	322	293	194	34	4	0	0	0	0
75	351	323	220	87	4	0	0	3	3
80	383	351	245	109	4	3	3	9	20
85	414	381	270	127	4	4	28	41	53
90	442	410	298	153	5	26	59	74	87
95	470	439	323	175	36	49	85	100	112
100	495	461	349	204	78	68	103	122	133
105	517	484	374	238	109	94	124	140	151
110	537	504	401	271	149	123	147	160	170
115	555	523	425	306	190	156	173	183	192
120	569	540	451	340	231	190	202	208	216
125	583	556	472	370	269	224	230	233	240
130	593	568	493	399	307	260	259	259	266
135	600	577	510	426	339	295	289	285	291
140	603	583	523	448	374	328	317	310	314
145	603	585	534	469	405	359	346	334	339
150	599	583	540	485	430	388	373	361	363
155	591	577	543	498	454	416	401	386	388
160	580	567	542	507	473	440	426	411	414
165	564	555	538	512	488	462	449	437	437
170	546	539	530	514	500	480	472	460	462
175	527	521	520	511	506	494	491	482	486
180	506	506	506	506	506	506	506	506	506

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L022511602.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1.04	N.A.	0.00
0-30	8.13	N.A.	0.30
0-40	24.39	N.A.	1.00
0-60	84.01	N.A.	3.40
0-80	265.79	N.A.	10.80
0-90	415.58	N.A.	16.90
10-90	415.55	N.A.	16.90
20-40	23.35	N.A.	1.00
20-50	44.65	N.A.	1.80
40-70	134.21	N.A.	5.50
60-80	181.77	N.A.	7.40
70-80	107.19	N.A.	4.40
80-90	149.80	N.A.	6.10
90-110	455.14	N.A.	18.50
90-120	744.02	N.A.	30.30
90-130	1053.74	N.A.	42.90
90-150	1633.72	N.A.	66.60
90-180	2038.13	N.A.	83.10
110-180	1582.99	N.A.	64.50
0-180	2453.71	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	0.03
10-20	1.00
20-30	7.09
30-40	16.26
40-50	21.30
50-60	38.33
60-70	74.58
70-80	107.19
80-90	149.80
90-100	203.99
100-110	251.15
110-120	288.88
120-130	309.72
130-140	305.74
140-150	274.24
150-160	217.14
160-170	139.28
170-180	47.98

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L022511602.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	99	99	99	99	87	87	87	87	65	65	65	45	45	45	26	26	26	17
1	87	82	77	73	76	72	68	64	52	50	47	35	33	31	18	17	16	8
2	79	70	63	58	68	61	55	51	44	40	37	29	26	24	15	13	11	5
3	71	61	53	47	62	53	46	41	38	34	30	25	22	19	12	10	9	3
4	65	53	45	39	56	47	39	34	34	29	25	22	18	16	11	9	7	2
5	59	47	39	33	51	41	34	29	30	25	21	19	16	13	9	7	6	2
6	54	42	34	28	47	37	30	24	26	21	18	17	14	11	8	6	5	1
7	50	37	29	24	43	33	26	21	24	19	15	15	12	10	7	6	4	1
8	46	34	26	21	40	29	23	18	21	17	13	14	11	8	7	5	4	1
9	43	31	23	18	37	27	20	16	19	15	12	13	10	7	6	4	3	1
10	40	28	21	16	34	24	18	14	18	13	10	12	9	6	6	4	3	1

**IES INDOOR REPORT**  
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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

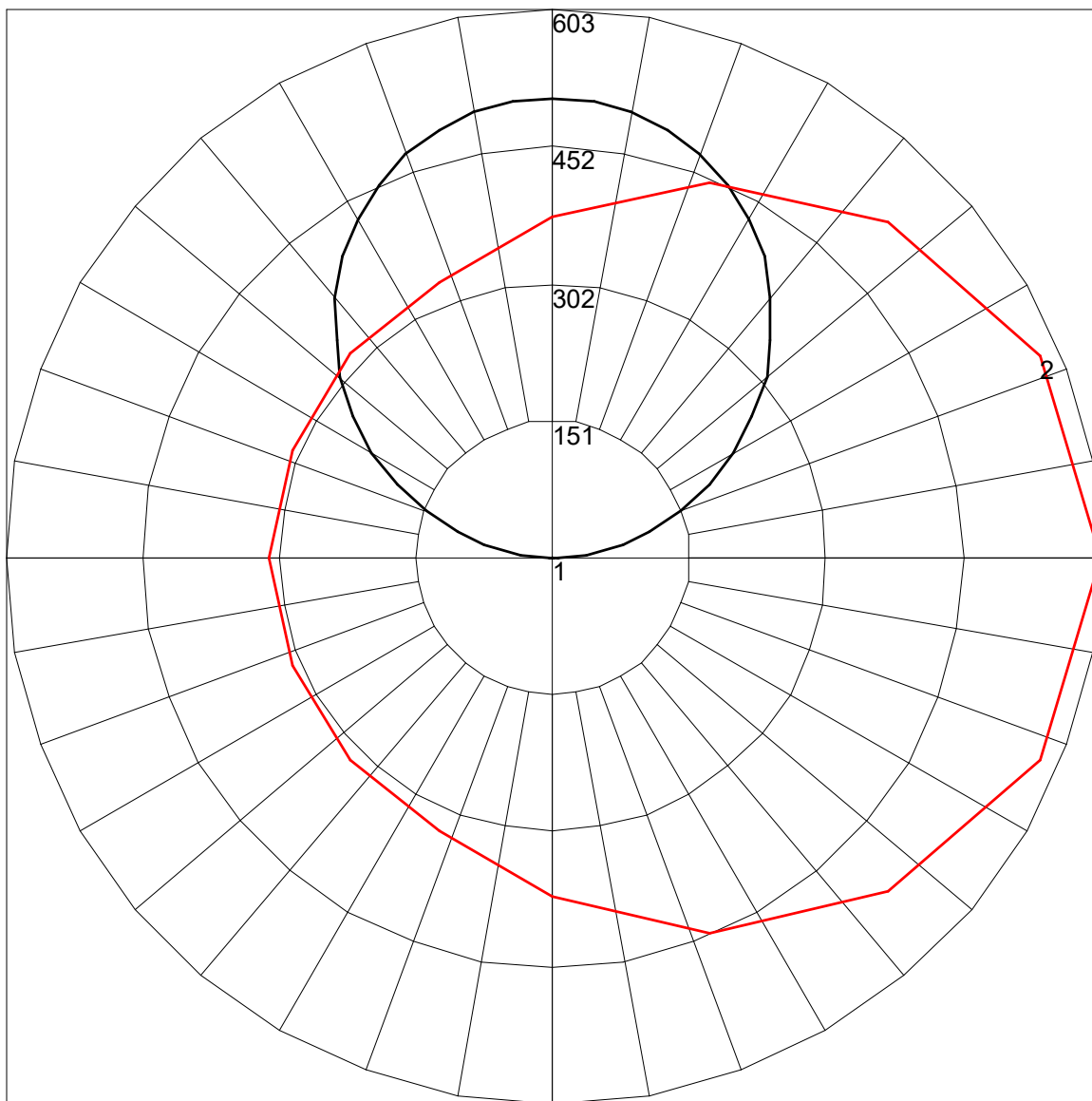
Room Size UGR Viewed Crosswise

X=2H	Y=2H	9.1	9.8	10.3	11.0	12.6	3.1	3.1	3.1	3.1	3.1
	3H	14.1	14.7	15.3	15.9	17.6	3.1	3.1	3.1	3.1	3.1
	4H	16.3	16.9	17.5	18.1	19.8	3.1	3.1	3.1	3.1	3.1
	6H	18.5	19.1	19.7	20.3	22.0	3.1	3.1	3.1	3.3	5.0
	8H	19.6	20.1	20.8	21.3	23.0	3.1	3.1	3.5	4.0	5.7
	12H	20.7	21.2	21.9	22.4	24.1	3.1	3.4	4.1	4.6	6.3
4H	2H	9.7	10.3	10.9	11.5	13.2	3.1	3.3	3.9	4.4	6.1
	3H	15.0	15.5	16.2	16.7	18.4	4.8	5.3	6.0	6.5	8.2
	4H	17.5	18.0	18.7	19.2	20.9	6.3	6.8	7.5	8.0	9.7
	6H	19.9	20.4	21.1	21.6	23.3	7.8	8.2	9.0	9.5	11.2
	8H	21.1	21.5	22.3	22.7	24.4	8.5	8.9	9.7	10.1	11.8
	12H	22.3	22.6	23.5	23.9	25.6	9.0	9.4	10.2	10.6	12.3
8H	4H	17.9	18.3	19.1	19.5	21.2	10.2	10.6	11.4	11.8	13.6
	6H	20.7	21.0	21.9	22.3	24.0	12.0	12.3	13.2	13.6	15.3
	8H	22.1	22.4	23.3	23.6	25.3	12.8	13.1	14.0	14.3	16.0
	12H	23.5	23.7	24.7	25.0	26.7	13.5	13.7	14.7	14.9	16.7
12H	4H	18.0	18.3	19.2	19.5	21.3	11.2	11.6	12.4	12.8	14.5
	6H	20.8	21.1	22.0	22.3	24.1	13.2	13.6	14.5	14.8	16.5
	8H	22.3	22.6	23.5	23.8	25.6	14.3	14.5	15.5	15.7	17.5

Maximum UGR = 26.7



POLAR GRAPH



Maximum Candela = 603 Located At Horizontal Angle = 0, Vertical Angle = 140

# 1 - Vertical Plane Through Horizontal Angles (90 - 270)

# 2 - Horizontal Cone Through Vertical Angle (140) (Through Max. Cd.)