



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

Report No: L022511401



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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: CV1 - 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: 2/20/25

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

Manufacturer:	Primus Lighting, Inc.
Model Number:	CV1 - 35K - M - 4'
Driver Model Number:	PART # XC1050C140V048BPT1

Photometric & Electrical Test Results

Total Lumens:	2446.00
Efficacy:	82.03
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.2502
Input Power (W):	29.82
Input Power Factor:	0.9931
Current ATHD (%):	8.4%

Test Condition

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

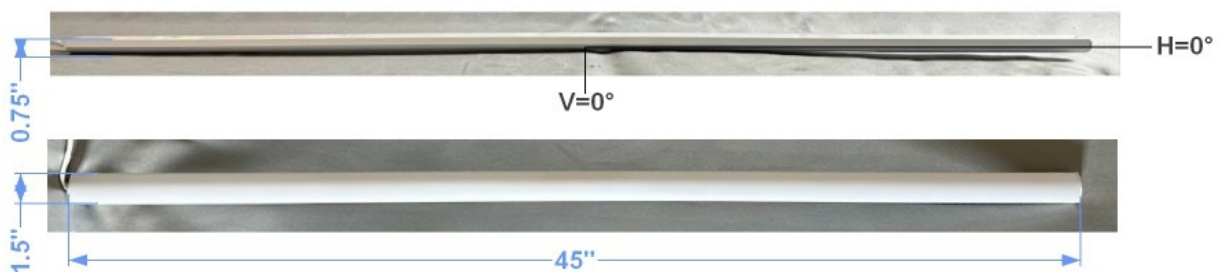


FIG. 1 LUMINAIRE

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 : L022511401.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L022511401
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUE DATE] 2/20/2025
[MANUFAC] Primus Lighting, Inc.
[LUMCAT] CV1 - 35K - M - 4'
[LUMINAIRE] COVE 1 3500K (90CRI) MEDIUM LUMEN 4' LONG
[BALLASTCAT] PART # 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	2446
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	82
Total Luminaire Watts	29.82
Ballast Factor	1.00
CIE Type	Indirect
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.75 ft
Luminous Width (90-270)	0.13 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	0	0	187
55	0	0	192
65	0	261	1670
75	0	2557	5540
85	253	16958	27841

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L022511401.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	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0
30	0	0	0	0	3	0	0	0	0
35	0	0	0	3	4	0	0	0	0
40	0	0	0	5	5	0	0	0	0
45	0	0	0	5	6	0	0	0	0
50	0	0	0	7	6	0	0	0	0
55	0	0	0	5	5	0	0	0	0
60	0	2	4	10	19	5	4	2	0
65	0	3	5	27	32	24	4	2	0
70	0	3	18	41	47	36	19	3	0
75	0	4	30	58	65	52	31	3	0
80	0	13	46	85	86	71	47	10	0
85	1	27	67	103	110	96	67	23	1
90	1	50	91	132	139	122	94	42	1
95	44	86	123	164	171	154	126	72	49
100	95	124	161	200	208	191	162	112	99
105	148	174	202	240	246	229	205	158	154
110	208	230	249	284	287	272	252	213	213
115	269	285	299	328	327	318	300	270	269
120	326	342	344	375	376	358	352	325	329
125	381	399	398	424	421	408	405	378	387
130	437	450	451	470	467	457	454	435	440
135	489	502	500	516	513	503	503	486	492
140	536	549	545	560	555	546	549	532	541
145	580	590	586	598	594	587	589	576	583
150	620	628	625	634	631	624	627	616	622
155	655	661	657	665	661	656	660	650	656
160	682	687	684	690	687	683	686	679	683
165	705	709	706	710	708	705	707	702	705
170	721	724	721	724	723	721	722	719	722
175	731	732	731	732	732	730	731	730	731
180	734	734	734	734	734	734	734	734	734

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L022511401.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	0.00	N.A.	0.00
0-30	0.05	N.A.	0.00
0-40	0.59	N.A.	0.00
0-60	3.92	N.A.	0.20
0-80	50.12	N.A.	2.00
0-90	118.93	N.A.	4.90
10-90	118.93	N.A.	4.90
20-40	0.59	N.A.	0.00
20-50	1.68	N.A.	0.10
40-70	16.04	N.A.	0.70
60-80	46.20	N.A.	1.90
70-80	33.50	N.A.	1.40
80-90	68.81	N.A.	2.80
90-110	343.22	N.A.	14.00
90-120	640.16	N.A.	26.20
90-130	999.89	N.A.	40.90
90-150	1754.87	N.A.	71.70
90-180	2327.1	N.A.	95.10
110-180	1983.88	N.A.	81.10
0-180	2446.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	0.00
10-20	0.00
20-30	0.05
30-40	0.54
40-50	1.09
50-60	2.24
60-70	12.70
70-80	33.50
80-90	68.81
90-100	129.86
100-110	213.36
110-120	296.94
120-130	359.73
130-140	387.01
140-150	367.97
150-160	303.34
160-170	199.40
170-180	69.50

IES INDOOR REPORT
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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	96	96	96	96	83	83	83	83	58	58	58	36	36	36	15	15	15	5
1	86	82	78	74	74	70	67	64	49	47	45	29	28	27	11	10	10	2
2	78	71	65	60	67	61	56	52	42	39	36	25	23	22	9	8	8	1
3	71	62	55	49	61	53	48	43	37	33	30	22	20	18	8	7	6	0
4	65	55	47	41	55	47	41	36	33	29	25	19	17	15	7	6	5	0
5	59	48	41	35	51	42	35	30	29	25	22	17	15	13	6	5	4	0
6	54	43	35	30	46	37	31	26	26	22	19	15	13	11	6	5	4	0
7	50	39	31	26	43	33	27	23	23	19	16	14	11	10	5	4	3	0
8	46	35	27	22	40	30	24	20	21	17	14	13	10	8	5	4	3	0
9	43	31	24	20	37	27	21	17	19	15	12	11	9	7	4	3	3	0
10	40	29	22	17	34	25	19	15	17	13	11	10	8	6	4	3	2	0

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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

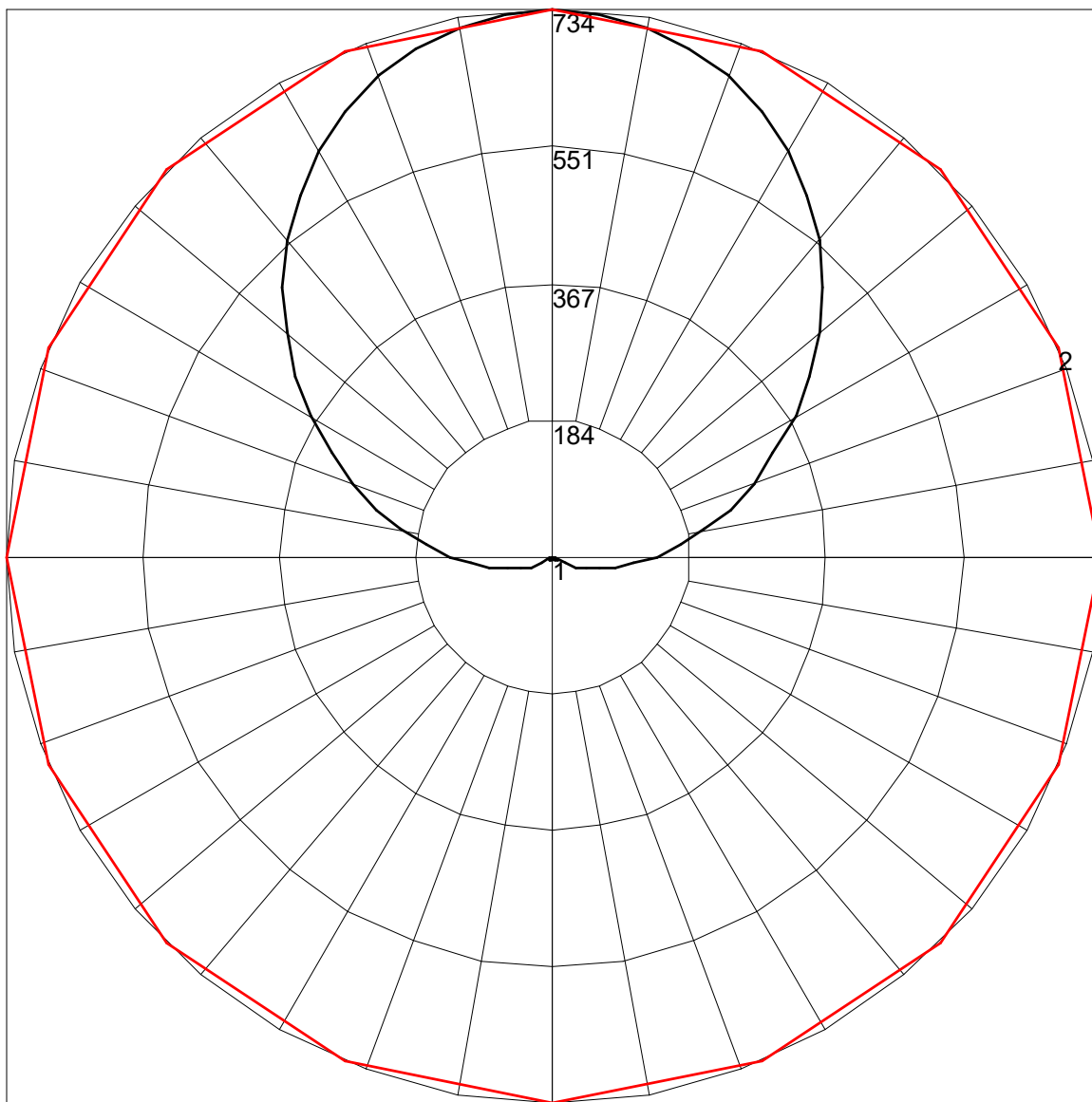
X=2H	Y=2H	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
	3H	3.1	3.1	3.1	3.1	3.1	5.5	6.0	6.7	7.2
	4H	3.1	3.1	3.1	3.1	3.1	9.9	10.4	11.1	11.6
	6H	3.1	3.1	3.1	3.1	3.1	14.2	14.7	15.5	15.9
	8H	3.1	3.1	3.1	3.1	3.1	16.4	16.8	17.6	18.1
	12H	3.1	3.1	3.1	3.1	3.1	18.7	19.1	20.0	20.4

UGR Viewed Endwise

4H	2H	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
	3H	3.1	3.1	3.1	3.1	3.1	6.5	6.9	7.8	8.2
	4H	3.1	3.1	3.1	3.1	3.1	11.2	11.6	12.5	12.8
	6H	3.1	3.1	3.1	3.1	3.1	15.8	16.1	17.1	17.4
	8H	3.1	3.1	3.1	3.1	4.2	18.1	18.4	19.3	19.6
	12H	3.1	3.1	4.0	4.3	6.2	20.5	20.8	21.8	22.1
8H	4H	5.5	5.9	6.8	7.1	8.9	11.7	12.0	13.0	13.3
	6H	7.7	7.9	9.0	9.2	11.1	16.7	17.0	18.0	18.3
	8H	8.9	9.1	10.1	10.4	12.2	19.3	19.5	20.6	20.8
	12H	10.1	10.3	11.4	11.6	13.5	22.0	22.2	23.3	23.5
12H	4H	8.4	8.7	9.7	9.9	11.8	11.8	12.1	13.1	13.3
	6H	10.8	11.0	12.1	12.3	14.1	16.9	17.1	18.2	18.4
	8H	12.1	12.3	13.4	13.6	15.5	19.6	19.8	20.9	21.1

Maximum UGR = 25.3

POLAR GRAPH



Maximum Candela = 734 Located At Horizontal Angle = 0, Vertical Angle = 180

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

2 - Horizontal Cone Through Vertical Angle (180) (Through Max. Cd.)