



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

Report No: L022511402



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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: CV1A - 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:	CV1A - 35K - M - 4'
Driver Model Number:	PART # XC1050C140V048BPT1

Photometric & Electrical Test Results

Total Lumens:	2991.00
Efficacy:	100.52
Input Voltage (VAC/60Hz):	120.02
Input Current (Amp):	0.2496
Input Power (W):	29.76
Input Power Factor:	0.9932
Current ATHD (%):	8.4%

Test Condition

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

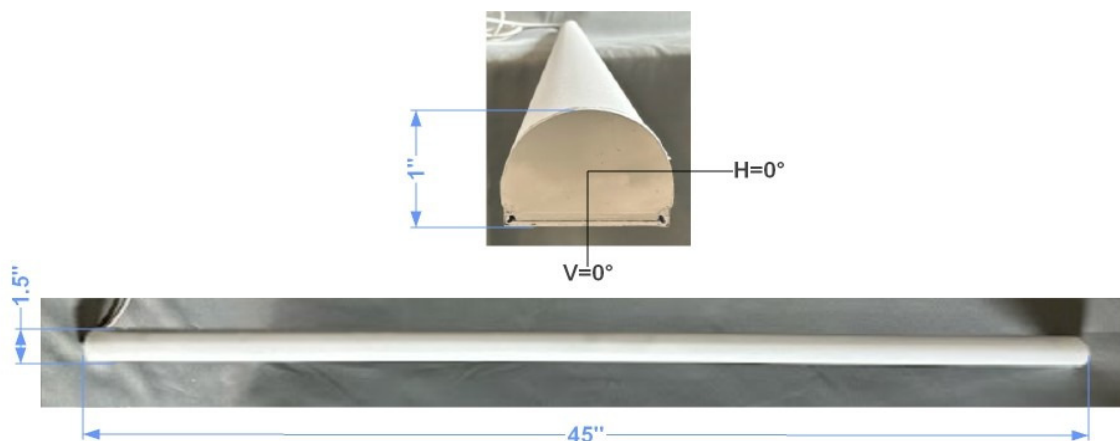


FIG. 1 LUMINAIRE



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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 : L022511402.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] L022511402

[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)

[ISSUEDATE] 2/20/2025

[MANUFAC] Primus Lighting, Inc.

[LUMCAT] CV1A - 35K - M - 4'

[LUMINAIRE] COVE 1 ASYMMETRIC 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	2991
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	29.76
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
Luminous Length (0-180)	0.13 ft
Luminous Width (90-270)	3.75 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2932	1248	0
55	1692	2731	0
65	11274	2140	0
75	24376	14574	0
85	91369	58719	0

IES INDOOR REPORT
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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	3	3	0	0	0	0	0	4	4
35	49	33	3	0	0	0	3	5	10
40	71	61	3	0	0	0	3	10	12
45	94	83	40	0	0	0	9	12	15
50	53	95	54	0	0	0	9	15	15
55	44	39	71	3	0	0	11	10	11
60	182	155	31	22	0	0	9	15	43
65	216	192	41	30	0	6	10	45	54
70	252	229	139	41	0	6	35	56	68
75	286	262	171	34	0	7	46	69	85
80	324	296	200	86	0	18	58	85	99
85	361	334	232	105	0	28	74	104	120
90	399	373	268	138	2	44	96	126	142
95	439	411	306	174	48	67	120	149	167
100	479	452	333	220	99	99	150	178	195
105	516	492	388	271	152	138	184	209	226
110	555	530	432	321	208	182	219	241	257
115	593	569	478	374	267	231	260	277	292
120	627	606	519	427	324	282	302	314	328
125	660	640	562	474	379	331	343	347	362
130	690	671	601	522	434	382	388	389	400
135	714	699	635	565	484	431	432	426	438
140	736	721	666	603	532	478	472	465	473
145	753	740	692	638	574	523	514	503	510
150	764	753	713	666	611	565	552	538	544
155	771	761	729	691	646	603	590	574	578
160	772	764	739	708	672	636	623	606	611
165	767	761	744	721	694	666	653	639	641
170	758	752	742	727	710	690	682	668	671
175	744	738	735	727	720	708	704	695	700
180	721	721	721	721	721	721	721	721	721

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L022511402.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	0.00	N.A.	0.00
0-30	0.17	N.A.	0.00
0-40	5.72	N.A.	0.20
0-60	47.93	N.A.	1.60
0-80	212.85	N.A.	7.10
0-90	366.57	N.A.	12.30
10-90	366.57	N.A.	12.30
20-40	5.72	N.A.	0.20
20-50	23.30	N.A.	0.80
40-70	102.24	N.A.	3.40
60-80	164.92	N.A.	5.50
70-80	104.89	N.A.	3.50
80-90	153.72	N.A.	5.10
90-110	507.37	N.A.	17.00
90-120	866.36	N.A.	29.00
90-130	1268.31	N.A.	42.40
90-150	2055.13	N.A.	68.70
90-180	2624.2	N.A.	87.70
110-180	2116.82	N.A.	70.80
0-180	2990.76	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	0.00
10-20	0.00
20-30	0.17
30-40	5.55
40-50	17.58
50-60	24.64
60-70	60.02
70-80	104.89
80-90	153.72
90-100	216.15
100-110	291.23
110-120	358.99
120-130	401.95
130-140	410.04
140-150	376.78
150-160	303.64
160-170	197.09
170-180	68.34

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	98	98	98	98	86	86	86	86	62	62	62	41	41	41	21	21	21	12
1	87	82	77	73	75	71	67	64	51	48	46	32	31	29	15	14	13	5
2	78	70	64	58	68	61	55	51	43	40	36	27	25	23	12	11	10	3
3	71	61	53	47	61	53	47	41	38	33	30	23	21	18	10	9	7	2
4	65	54	46	39	56	46	40	34	33	28	25	21	18	15	9	7	6	1
5	59	47	39	33	51	41	34	29	29	24	21	18	15	13	8	6	5	1
6	54	42	34	28	47	37	30	25	26	21	18	16	13	11	7	5	4	1
7	50	38	30	24	43	33	26	21	23	19	15	15	12	9	6	5	4	0
8	46	34	26	21	40	30	23	19	21	17	13	13	10	8	6	4	3	0
9	43	31	23	19	37	27	20	16	19	15	12	12	9	7	5	4	3	0
10	40	28	21	16	34	24	18	14	17	13	10	11	8	6	5	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	9.7	10.3	10.9	11.5	13.2
	3H	17.6	18.1	18.8	19.4	21.1
	4H	20.6	21.2	21.8	22.4	24.1
	6H	23.7	24.2	25.0	25.5	27.2
	8H	25.4	25.9	26.6	27.1	28.8
	12H	27.1	27.6	28.4	28.8	30.6

UGR Viewed Endwise

3.8	3.8	3.8	3.8	3.8
3.8	3.8	3.8	3.8	3.8
3.8	3.8	3.8	3.8	3.8
3.8	3.8	3.8	3.8	5.5
3.8	3.8	4.5	5.0	6.7
4.1	4.6	5.4	5.8	7.6

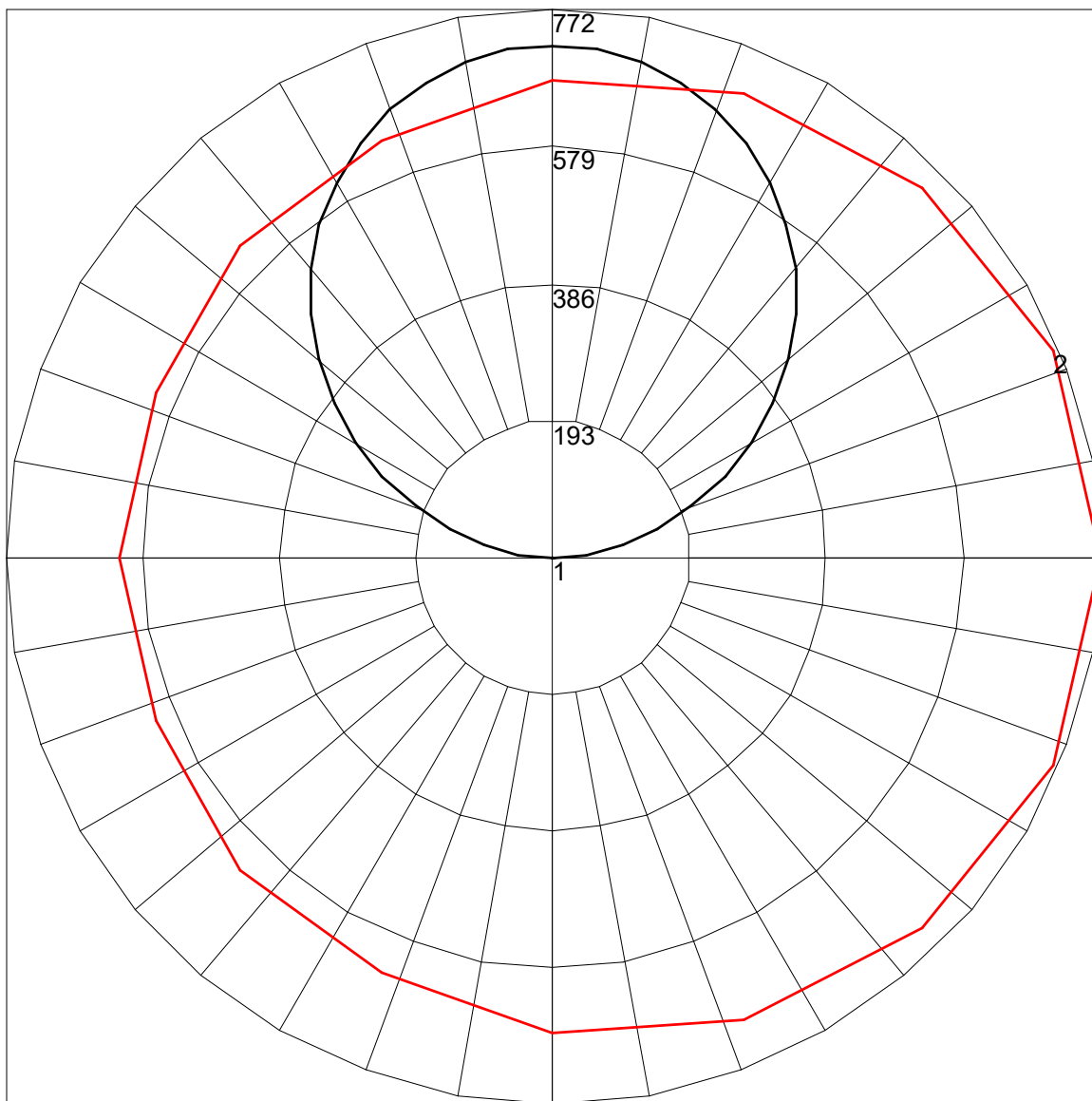
4H	2H	9.6	10.1	10.8	11.3	13.1	3.8	3.8	3.8	3.8	3.8
	3H	18.5	19.0	19.7	20.2	21.9	6.2	6.7	7.5	7.9	9.7
	4H	21.9	22.3	23.1	23.5	25.3	7.2	7.6	8.4	8.8	10.6
	6H	25.2	25.6	26.5	26.9	28.6	9.6	10.0	10.8	11.2	13.0
	8H	27.0	27.4	28.2	28.6	30.3	10.7	11.1	12.0	12.3	14.1
	12H	28.9	29.2	30.2	30.5	32.3	11.6	11.9	12.9	13.2	15.0

8H	4H	22.3	22.7	23.6	23.9	25.7	14.2	14.6	15.4	15.8	17.6
	6H	26.1	26.4	27.3	27.6	29.4	16.3	16.6	17.5	17.8	19.6
	8H	28.1	28.4	29.3	29.6	31.4	17.2	17.5	18.5	18.8	20.5
	12H	30.3	30.6	31.6	31.8	33.6	18.1	18.3	19.3	19.6	21.4

12H	4H	22.4	22.7	23.6	24.0	25.7	16.0	16.3	17.2	17.5	19.3
	6H	26.2	26.5	27.5	27.8	29.5	18.3	18.6	19.6	19.9	21.6
	8H	28.4	28.6	29.6	29.9	31.7	19.5	19.8	20.8	21.0	22.8

Maximum UGR = 33.6

POLAR GRAPH



Maximum Candela = 772 Located At Horizontal Angle = 0, Vertical Angle = 160
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (160) (Through Max. Cd.)