



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

Report No: L022511802



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Issue Date: 2/25/2025

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

Reference:N/A

Amendment:N/A

Model Number: RC2 - FRL - 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: 2/24/25

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:	RC2 - FRL - 35K - M - 4'
Driver Model Number:	XC1050C140V048BPT1

Photometric & Electrical Test Results

Total Lumens:	2812.00
Efficacy:	94.45
Input Voltage (VAC/60Hz):	120.01
Input Current (Amp):	0.2499
Input Power (W):	29.77
Input Power Factor:	0.9927
Current ATHD (%):	8.9%

Test Condition

Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:40
Total Operating Time (Hours):	1:10



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 : L022511802.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L022511802
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUE DATE] 2/25/2025
[MANUFAC] Primus Lighting, Inc.
[LUMCAT] RC2 - FRL - 35K - M - 4'
[LUMINAIRE] RECESSED 2" FLAT SEMI ROUND LENS 3500K 90CRI MEDIUM LUMEN 4'
[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	2812
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	94
Total Luminaire Watts	29.77
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.40
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.75 ft
Luminous Width (90-270)	0.17 ft
Luminous Height	0.04 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	14210	12376	11973
55	13586	11308	10918
65	12838	9681	9736
75	11784	8537	8676
85	9316	6996	7712

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	909	909	909	909	909	909	909	909	909
5	904	905	904	906	906	904	905	903	905
10	891	894	891	895	894	891	893	890	893
15	870	875	872	877	874	871	874	869	873
20	842	849	844	852	848	843	848	840	846
25	805	814	808	819	814	807	814	803	811
30	764	773	768	778	774	767	772	762	768
35	715	727	720	733	728	719	725	712	722
40	659	673	666	682	676	666	673	657	668
45	602	617	609	626	620	610	618	600	611
50	537	552	546	565	560	548	553	535	547
55	469	487	480	502	496	483	489	467	479
60	401	420	415	437	432	418	423	400	411
65	329	347	333	370	367	334	353	329	335
70	256	276	277	307	306	290	286	257	266
75	188	208	216	249	250	234	223	190	198
80	120	139	159	193	196	180	163	124	126
85	54	86	108	145	147	131	115	70	85
90	0	41	70	103	108	93	86	32	4
95	0	11	39	70	79	61	43	4	0
100	0	0	7	37	40	27	11	0	0
105	0	0	0	6	8	0	0	0	0
110	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L022511802.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	332.36	N.A.	11.80
0-30	706.20	N.A.	25.10
0-40	1158.33	N.A.	41.20
0-60	2064.84	N.A.	73.40
0-80	2642.86	N.A.	94.00
0-90	2763.98	N.A.	98.30
10-90	2678.00	N.A.	95.20
20-40	825.97	N.A.	29.40
20-50	1298.6	N.A.	46.20
40-70	1251.41	N.A.	44.50
60-80	578.02	N.A.	20.60
70-80	233.12	N.A.	8.30
80-90	121.11	N.A.	4.30
90-110	48.40	N.A.	1.70
90-120	48.40	N.A.	1.70
90-130	48.40	N.A.	1.70
90-150	48.40	N.A.	1.70
90-180	48.40	N.A.	1.70
110-180	0.00	N.A.	0.00
0-180	2812.37	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	85.97
10-20	246.39
20-30	373.84
30-40	452.13
40-50	472.62
50-60	433.89
60-70	344.90
70-80	233.12
80-90	121.11
90-100	43.39
100-110	5.01
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98
1	107	102	97	93	104	99	95	91	95	91	88	90	88	85	87	84	82	80
2	97	88	81	75	94	86	79	74	82	76	72	79	74	70	75	71	68	66
3	88	77	68	62	85	75	67	61	72	65	60	69	63	58	66	61	57	55
4	81	68	59	52	78	67	58	51	64	56	51	61	55	50	59	53	49	46
5	74	61	51	45	72	59	51	44	57	49	44	55	48	43	53	47	42	40
6	68	55	45	39	66	54	45	39	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	61	49	40	34	47	39	34	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	35	30	40	34	29	27
9	55	41	33	27	53	41	33	27	39	32	27	38	32	27	37	31	26	25
10	52	38	30	25	50	38	30	25	36	29	24	35	29	24	34	28	24	22

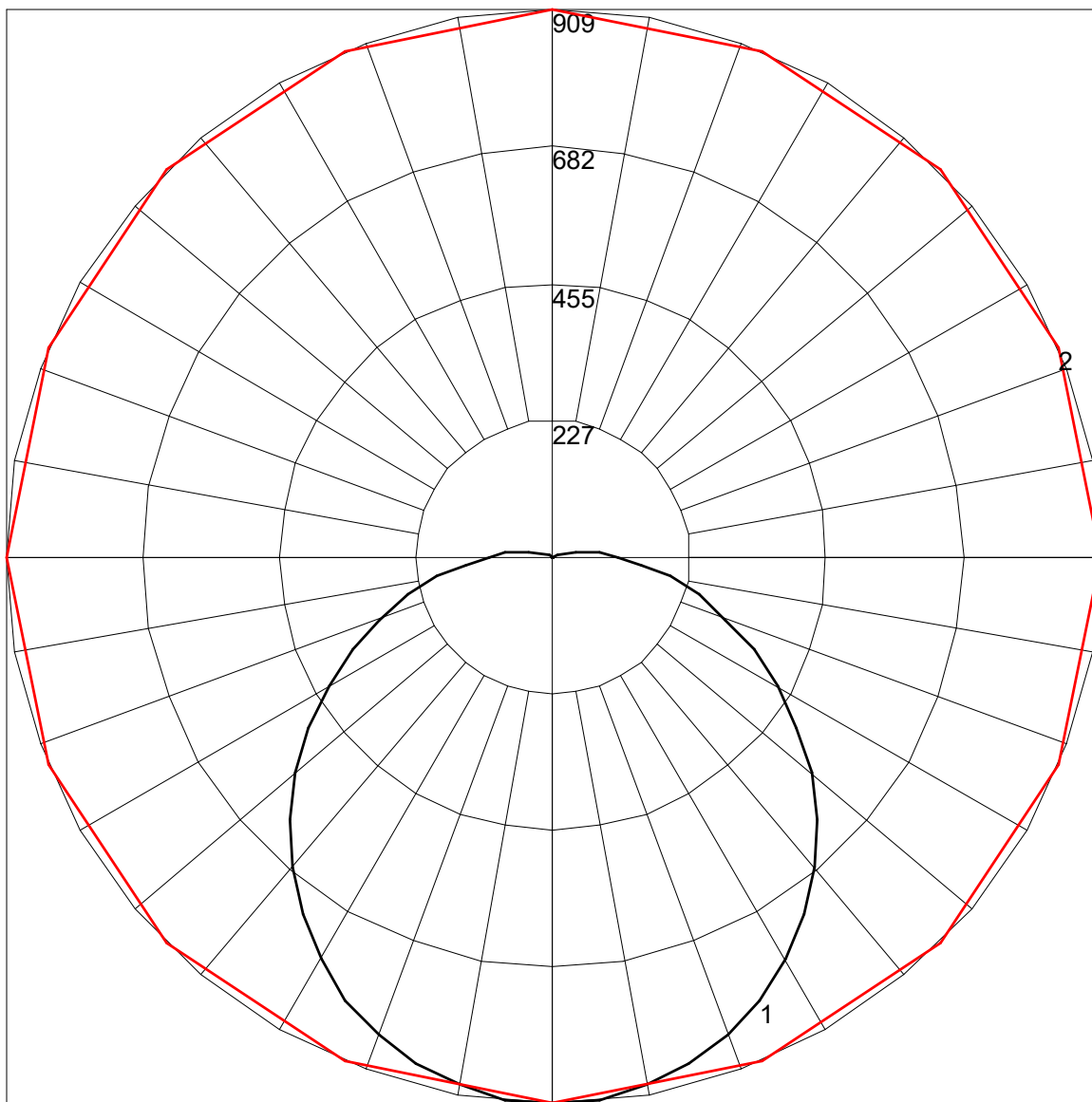
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UGR TABLE - CORRECTED

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	20.1	21.7	20.5	22.1	22.4	20.9	22.5	21.3	22.9	23.2
	3H	21.7	23.2	22.1	23.6	24.0	23.0	24.5	23.4	24.9	25.3
	4H	22.3	23.7	22.8	24.1	24.6	24.0	25.4	24.4	25.8	26.2
	6H	22.8	24.1	23.2	24.5	24.9	25.0	26.3	25.4	26.7	27.1
	8H	22.9	24.1	23.3	24.6	25.0	25.5	26.7	25.9	27.2	27.6
	12H	22.9	24.1	23.4	24.6	25.0	26.0	27.2	26.5	27.6	28.1
4H	2H	20.7	22.1	21.1	22.5	22.9	21.4	22.8	21.8	23.2	23.6
	3H	22.6	23.8	23.0	24.2	24.7	23.7	24.9	24.2	25.4	25.8
	4H	23.4	24.5	23.8	24.9	25.4	24.9	26.0	25.3	26.4	26.9
	6H	23.9	24.9	24.4	25.4	25.9	26.1	27.0	26.5	27.5	28.0
	8H	24.1	25.0	24.6	25.5	26.0	26.6	27.5	27.1	28.0	28.5
	12H	24.2	25.0	24.7	25.5	26.0	27.2	28.1	27.7	28.6	29.1
8H	4H	23.8	24.7	24.3	25.2	25.7	25.2	26.0	25.6	26.5	27.0
	6H	24.5	25.3	25.0	25.8	26.3	26.5	27.2	27.0	27.7	28.3
	8H	24.8	25.5	25.3	26.0	26.5	27.1	27.8	27.7	28.4	28.9
	12H	25.0	25.6	25.5	26.1	26.7	27.9	28.5	28.5	29.1	29.7
12H	4H	23.9	24.7	24.4	25.2	25.8	25.2	26.0	25.7	26.5	27.0
	6H	24.7	25.4	25.2	25.9	26.4	26.5	27.2	27.1	27.7	28.3
	8H	25.0	25.6	25.5	26.1	26.7	27.3	27.9	27.8	28.4	29.0

Maximum UGR = 29.7

POLAR GRAPH



Maximum Candela = 909 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)