LightLab INTERNATIONAL ALLENTOWN LLC

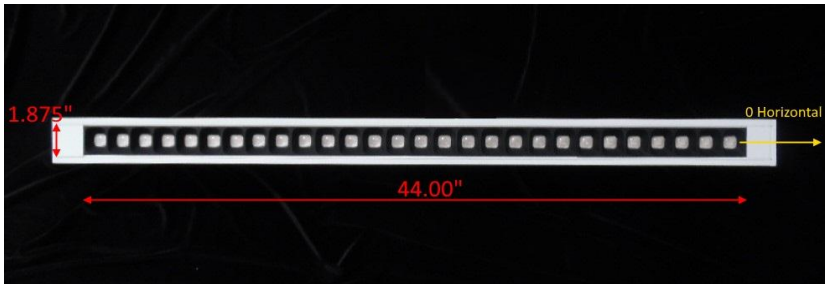
NVLAP TESTING Lab Code: 201079-0

Report of Test

LLIA002729-003

Indoor Distribution Photometry Test Report

Catalog Number: TV MINI-M-44-975-S-35K-40-W-B-1%-UNIV
Pendant/surface mounted, white painted extruded aluminum housing, white painted aluminum reflector, specular plastic optics with prismatic lens below each cluster of LEDs, black plastic louver.
112 white LEDs, 7 clusters of 4 LEDs on each of 4 LED boards
One Advance XI050C150V054BST5 LED driver measured at 1505mA



Prepared For:
Mercury Lighting Products Company, Inc.
20 Audrey Place
Fairfield, NJ 07004, USA

Performance Summary					
Input Voltage	120.0	Vac	Luminous Flux	3911.9	Lumens
Input Current	0.2951	A	Total Efficacy	112.8	Lm/W
Input Power	34.69	W	Downward Flux	3911.9	Lumens
Frequency	60.00	Hz	Downward Flux	100.0	% of Total
Power Factor	0.980				
Current THD	12.0	%			

This test report was issued by LightLab International Allentown, LLC without alterations or erasures.

Test date: 08/05/2025
Report date: 08/07/2025

Signed: Michael L. Grather — Digitally signed by Michael L. Grather Date: 2025.08.18 12:42:00 -04'00'

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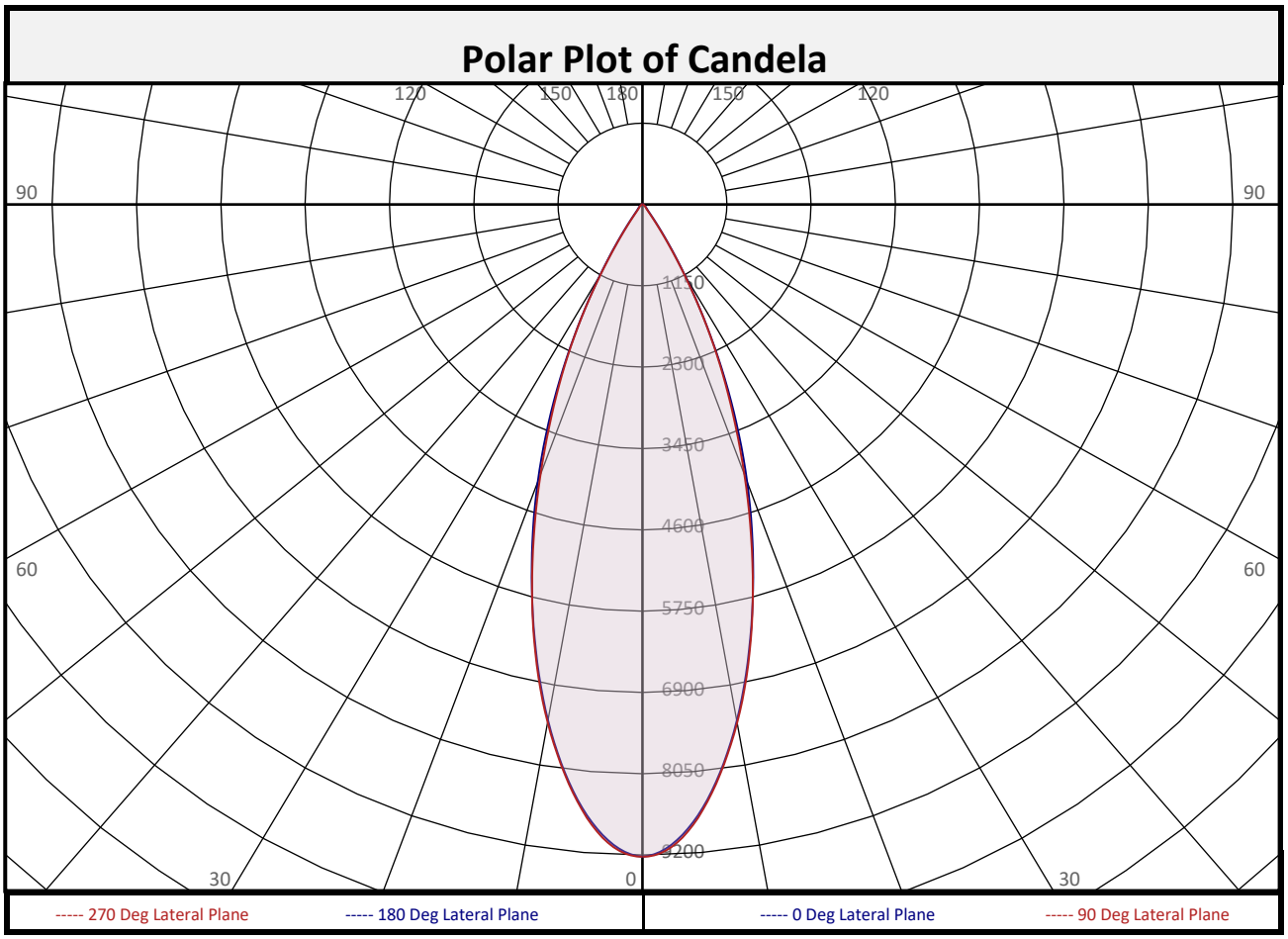

Zonal Flux Summary

Zone (Deg Vert)	Flux (Lumens)	Percent of Total	Zone (Deg Vert)	Flux (Lumens)	Percent of Total	Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	787.9	20.1%	90-100	0.0	0.0%	0-20	2385	61.0%
10-20	1597	40.8%	100-110	0.0	0.0%	0-30	3523	90.1%
20-30	1139	29.1%	110-120	0.0	0.0%	0-40	3799	97.1%
30-40	275.4	7.0%	120-130	0.0	0.0%	0-60	3892	99.5%
40-50	59.0	1.5%	130-140	0.0	0.0%	0-80	3912	100.0%
50-60	33.8	0.9%	140-150	0.0	0.0%	10-90	3124	79.9%
60-70	17.0	0.4%	150-160	0.0	0.0%	20-50	1473	37.7%
70-80	3.0	0.1%	160-170	0.0	0.0%	40-90	112.9	2.9%
80-90	0.1	0.0%	170-180	0.0	0.0%	60-90	20.1	0.5%
0-90	3912	100.0%	90-180	0.0	0.0%	0-180	3912	100.0%

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Luminous Intensity (Candela) Table

Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	Lateral (C-Plane) Angles									
	0	22.5	45	67.5	90	112.5	135	157.5	180
0	9224	9224	9224	9224	9224	9224	9224	9224	9224
2.5	9064	9062	9073	9088	9096	9088	9073	9062	9064
5	8675	8665	8676	8700	8708	8700	8676	8665	8675
7.5	8106	8093	8095	8119	8126	8119	8095	8093	8106
10	7414	7406	7408	7439	7442	7439	7408	7406	7414
12.5	6636	6639	6660	6682	6668	6682	6660	6639	6636
15	5814	5820	5858	5857	5817	5857	5858	5820	5814
17.5	4993	4968	4992	4988	4933	4988	4992	4968	4993
20	4178	4129	4121	4122	4070	4122	4121	4129	4178
22.5	3355	3309	3283	3270	3248	3270	3283	3309	3355
25	2556	2531	2506	2476	2507	2476	2506	2531	2556
27.5	1807	1821	1794	1761	1795	1761	1794	1821	1807
30	1166	1200	1161	1138	1133	1138	1161	1200	1166
32.5	673	714	682	657	629	657	682	714	673
35	359	388	387	339	314	339	387	388	359
37.5	197	214	224	177	160	177	224	214	197
40	127	135	134	109	98	109	134	135	127
42.5	98	98	91	81	77	81	91	98	98
45	82	78	72	67	67	67	72	78	82
47.5	71	65	60	57	60	57	60	65	71
50	62	54	50	49	53	49	50	54	62
52.5	53	45	41	41	46	41	41	45	53
55	44	38	35	35	39	35	35	38	44
57.5	37	32	29	30	33	30	29	32	37
60	31	26	25	25	28	25	25	26	31
62.5	25	21	21	20	23	20	21	21	25
65	20	17	17	16	18	16	17	17	20
67.5	14	12	13	12	13	12	13	12	14
70	9	8	9	8	8	8	9	8	9
72.5	5	4	6	4	4	4	6	4	5
75	2	2	3	2	2	2	3	2	2
77.5	0	0	1	1	1	1	1	0	0
80	0	0	0	0	0	0	0	0	0
82.5	0	0	0	0	0	0	0	0	0
85	0	0	0	0	0	0	0	0	0
87.5	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0

16 lateral half-planes of data were acquired, 22.5 degree increments shown.

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Luminous Intensity (Candela) Table

Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	Lateral (C-Plane) Angles								
	0	22.5	45	67.5	90	112.5	135	157.5	180
90	0	0	0	0	0	0	0	0	0
92.5	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0
97.5	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0
102.5	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0
107.5	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0
112.5	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0
117.5	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0	0
122.5	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0
127.5	0	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0	0
132.5	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0
137.5	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0
142.5	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0
147.5	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0
152.5	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0

16 lateral half-planes of data were acquired, 22.5 degree increments shown.

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Coefficients of Utilization/Room 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
RCR																						
0	119	119	119	119		116	116	116	116		111	111	111		106	106	106		102	102	102	100
1	114	112	110	108		112	110	108	106		106	104	103		102	101	100		99	98	97	95
2	110	106	102	99		108	104	101	98		101	98	96		98	96	94		95	94	92	91
3	105	100	96	92		104	99	95	92		96	93	90		94	91	89		92	89	88	86
4	101	95	90	87		100	94	90	86		92	88	85		90	87	84		88	86	83	82
5	97	90	86	82		96	89	85	82		88	84	81		86	83	80		85	82	80	78
6	94	86	81	78		92	86	81	77		84	80	77		83	79	76		82	78	76	75
7	90	82	77	74		89	82	77	74		81	76	73		80	76	73		79	75	73	72
8	87	79	74	71		86	78	74	70		77	73	70		77	73	70		76	72	70	69
9	84	76	71	68		83	75	71	67		74	70	67		74	70	67		73	69	67	66
10	81	73	68	65		80	72	68	65		72	67	65		71	67	64		70	67	64	63

For absolute test reports, RUs are expressed as a percentage of total lumen output. For relative test reports, CUs are expressed as a percentage of total lamp output. Calculations were based on published IES procedures, and are based on the zonal cavity method. Basic assumptions: 1) Room surfaces are lambertian reflectors. 2) Incident flux on each surface is uniformly distributed. 3) The room is spectrally neutral. When luminaires are not evenly distributed throughout the room, or do not exhibit lateral symmetry, CU values may differ from actual performance.

Circle of Light Plot

Height(ft)	Illuminance at Nadir (fc)	Ground-level distance to half-of-nadir illuminance (ft) 0-180 deg	90-270 deg
6.0	256.2	3.60	3.58
8.0	144.1	4.80	4.78
10.0	92.2	6.01	5.97
12.0	64.1	7.21	7.17
14.0	47.1	8.41	8.36
16.0	36.0	9.61	9.55

Spacing Criterion

0 deg:	0.6
90 deg:	0.6
180 deg:	0.6
270 deg:	0.6

Average Luminance (cd/m^2)

	0 deg Plane	45 deg Plane	90 deg Plane
0	216631	216631	216631
45	2718	2394	2212
55	1805	1424	1594
65	1097	961	1008
75	166	272	173
85	3	15	9

Beam and Field Angle

0-180 Degree Plane

Beam Angle: 37.4°

Field Angle: 62.3°

90-270 Degree Plane

Beam Angle: 36.9°

Field Angle: 61.9°

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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	4.8	4.9	4.8	5.2	5.5	4.8	4.8	4.8	4.8	5.0
	3H	4.8	5.2	4.8	5.6	5.9	4.8	4.8	4.8	5.1	5.5
	4H	4.8	5.1	4.8	5.5	5.9	4.8	4.8	4.8	5.0	5.4
	6H	4.8	4.9	4.8	5.3	5.7	4.8	4.8	4.8	4.8	5.2
	8H	4.8	4.8	4.8	5.2	5.6	4.8	4.8	4.8	4.8	5.2
	12H	4.8	4.8	4.8	5.1	5.6	4.8	4.8	4.8	4.8	5.1
4H	2H	4.8	4.8	4.8	5.2	5.6	4.8	4.8	4.8	4.8	5.1
	3H	4.8	5.2	5.0	5.6	6.0	4.8	4.8	4.8	5.2	5.6
	4H	4.8	5.1	5.0	5.5	5.9	4.8	4.8	4.8	5.1	5.5
	6H	4.8	4.9	4.9	5.3	5.8	4.8	4.8	4.8	4.9	5.4
	8H	4.8	4.8	4.8	5.2	5.7	4.8	4.8	4.8	4.8	5.3
	12H	4.8	4.8	4.8	5.1	5.6	4.8	4.8	4.8	4.8	5.2
8H	4H	4.8	4.8	4.9	5.3	5.7	4.8	4.8	4.8	4.9	5.3
	6H	4.8	4.8	4.8	5.1	5.6	4.8	4.8	4.8	4.8	5.2
	8H	4.8	4.8	4.8	5.0	5.5	4.8	4.8	4.8	4.8	5.1
	12H	4.8	4.8	4.8	4.9	5.4	4.8	4.8	4.8	4.8	5.1
12H	4H	4.8	4.8	4.8	5.2	5.6	4.8	4.8	4.8	4.8	5.2
	6H	4.8	4.8	4.8	4.9	5.5	4.8	4.8	4.8	4.8	5.1
	8H	4.8	4.8	4.8	4.9	5.4	4.8	4.8	4.8	4.8	5.1

Maximum UGR = 6.0

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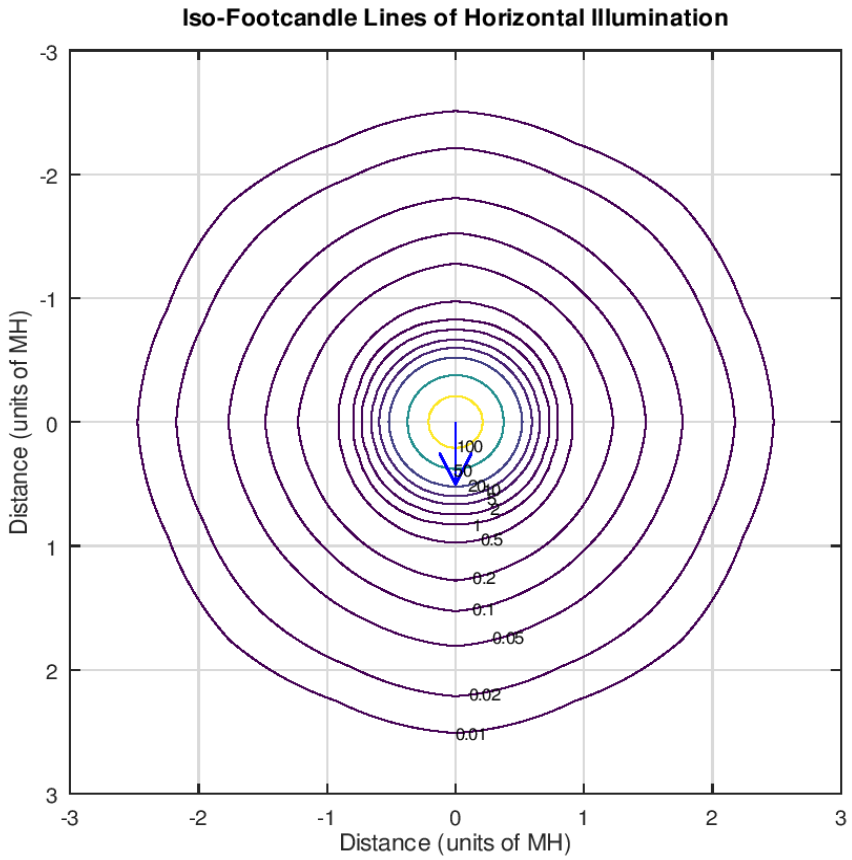
Iso-Illuminance Plot



The isofootcandle values shown in the plot above are based on a mounting height of h = 8.0 feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution of room reflections.

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Test Distance	9.5 m
Ambient Temperature	24.9 °C

Notes

The laboratory has not participated in the selection of samples to be tested. All testing is performed on the understanding that the significance of the report is limited to the extent that the test sample is representative of production units.

Tested in accordance with the applicable sections of IES LM-79-24. Format of reports and angular increments based on IES LM-41-20 and LM-46-20.

The luminous intensity values, and other derived quantities, contained in this report are based on the absolute data, as measured.

Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

This report is free of erasures and corrections.

Photometric intensity values are reported using the CIE C-Gamma coordinate system as defined in CIE publication number 121.

This report may contain data that are not covered by the NVLAP accreditation. Quantities marked with ‡ are not covered.

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.