

Report of Test

LLIA002716-001

Indoor Distribution Photometry Test Report

Catalog Number: TV MINI-M-44-970-S-35K-60-W-W-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, white plastic louver.

112 white LEDs, 7 clusters of 4 LEDs on each of 4 LED boards

One Advance XI050C150V054BST5 LED driver measured at 1504mA



Prepared For:

Mercury Lighting Products Company, Inc.

20 Audrey Place

Fairfield, NJ 07004, USA

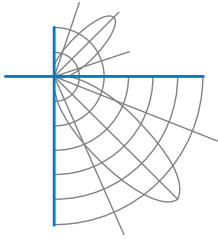
Performance Summary			
Input Voltage	120.0 Vac	Luminous Flux	3843.6 Lumens
Input Current	0.2954 A	Total Efficacy	111.0 Lm/W
Input Power	34.63 W	Downward Flux	3843.6 Lumens
Frequency	60.00 Hz	Downward Flux	100.0 % of Total
Power Factor	0.977		
Current THD	12.2 %		

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

Test date: 07/17/2025

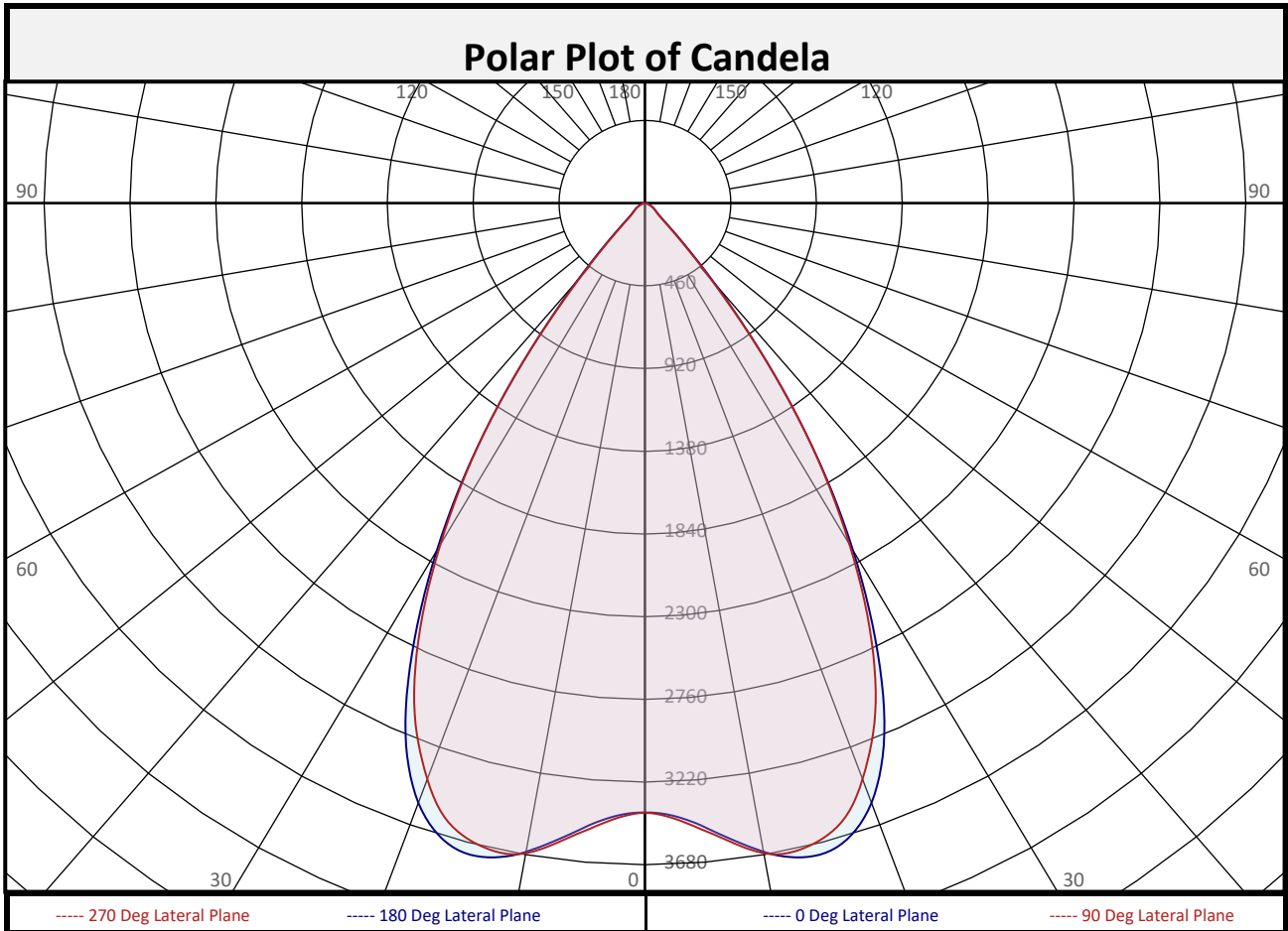
Report date: 07/17/2025

Signed: _____



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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	338.6	8.8%	90-100	0.0	0.0%	0-20	1374	35.7%
10-20	1035	26.9%	100-110	0.0	0.0%	0-30	2716	70.7%
20-30	1343	34.9%	110-120	0.0	0.0%	0-40	3559	92.6%
30-40	842.2	21.9%	120-130	0.0	0.0%	0-60	3795	98.7%
40-50	175.8	4.6%	130-140	0.0	0.0%	0-80	3842	100.0%
50-60	60.5	1.6%	140-150	0.0	0.0%	10-90	3505	91.2%
60-70	34.4	0.9%	150-160	0.0	0.0%	20-50	2361	61.4%
70-80	12.5	0.3%	160-170	0.0	0.0%	40-90	285.0	7.4%
80-90	1.9	0.0%	170-180	0.0	0.0%	60-90	48.8	1.3%
0-90	3844	100.0%	90-180	0.0	0.0%	0-180	3844	100.0%

North America (issuing laboratory)

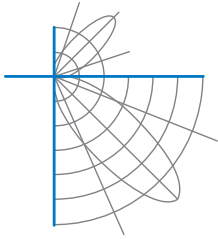
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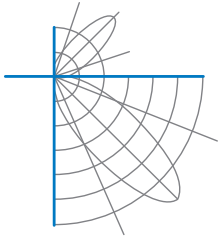
Luminous Intensity (Candela) Table

		Lateral (C-Plane) Angles								
		0	22.5	45	67.5	90	112.5	135	157.5	180
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	0	3390	3390	3390	3390	3390	3390	3390	3390	3390
	2.5	3410	3410	3414	3420	3424	3420	3414	3410	3410
	5	3475	3474	3479	3490	3497	3490	3479	3474	3475
	7.5	3570	3564	3565	3577	3587	3577	3565	3564	3570
	10	3663	3651	3650	3664	3671	3664	3650	3651	3663
	12.5	3727	3714	3708	3703	3694	3703	3708	3714	3727
	15	3741	3727	3709	3678	3662	3678	3709	3727	3741
	17.5	3684	3671	3634	3598	3578	3598	3634	3671	3684
	20	3550	3535	3491	3438	3409	3438	3491	3535	3550
	22.5	3330	3318	3287	3213	3194	3213	3287	3318	3330
	25	3021	3026	3001	2940	2921	2940	3001	3026	3021
	27.5	2641	2661	2646	2610	2580	2610	2646	2661	2641
	30	2230	2241	2242	2231	2191	2231	2242	2241	2230
	32.5	1802	1798	1808	1816	1788	1816	1808	1798	1802
	35	1359	1356	1373	1379	1363	1379	1373	1356	1359
	37.5	929	941	952	942	919	942	952	941	929
	40	568	588	591	562	539	562	591	588	568
	42.5	319	338	340	310	290	310	340	338	319
	45	178	193	196	173	158	173	196	193	178
	47.5	115	125	127	114	104	114	127	125	115
50	89	95	98	90	84	90	98	95	89	
52.5	76	79	81	77	72	77	81	79	76	
55	67	68	67	66	64	66	67	68	67	
57.5	58	58	57	57	56	57	57	58	58	
60	50	50	48	49	48	49	48	50	50	
62.5	42	42	41	41	41	41	41	42	42	
65	35	35	34	34	34	34	34	35	35	
67.5	28	28	28	28	28	28	28	28	28	
70	23	22	22	22	22	22	22	22	23	
72.5	17	16	16	16	16	16	16	16	17	
75	11	11	11	11	11	11	11	11	11	
77.5	7	7	8	7	7	7	8	7	7	
80	4	4	5	4	4	4	5	4	4	
82.5	3	3	3	3	3	3	3	3	3	
85	2	2	2	2	2	2	2	2	2	
87.5	1	1	1	1	1	1	1	1	1	
90	0	0	0	0	0	0	0	0	0	

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

North America (issuing laboratory)

Australasia & S.E. Asia



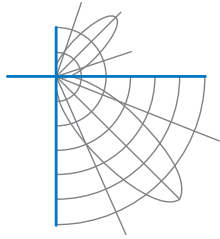
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Luminous Intensity (Candela) Table

		Lateral (C-Plane) Angles								
		0	22.5	45	67.5	90	112.5	135	157.5	180
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	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	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	113	111	108	106	111	108	106	104	104	102	101	101	99	98	97	96	95	93			
2	108	103	98	95	105	101	97	94	98	95	92	95	92	90	92	90	88	86			
3	102	95	90	86	100	94	89	86	91	87	84	89	86	83	87	84	82	80			
4	97	89	83	79	95	88	83	79	86	81	78	84	80	77	82	79	76	74			
5	92	83	77	73	90	82	77	73	80	76	72	79	75	71	77	74	71	69			
6	87	78	72	67	86	77	71	67	76	71	67	74	70	66	73	69	66	64			
7	83	73	67	63	81	72	67	63	71	66	62	70	65	62	69	65	62	60			
8	78	69	63	58	77	68	62	58	67	62	58	66	61	58	65	61	58	56			
9	75	65	59	55	73	64	59	55	63	58	54	62	58	54	62	57	54	53			
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50			

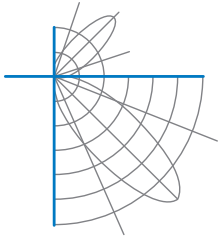
For absolute test reports, RUs are expressed as a percentage of total lumen output. For relative test reports, CUs are expressed as a percentage of total lamp output. Calculations were based on published IES procedures, and are based on the zonal cavity method. Basic assumptions: 1) Room surfaces are 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	94.2	6.49	6.43
8.0	53.0	8.66	8.58
10.0	33.9	10.82	10.72
12.0	23.5	12.99	12.87
14.0	17.3	15.15	15.01
16.0	13.2	17.32	17.15

Spacing Criterion	
0 deg:	1.1
90 deg:	1.1
180 deg:	1.1
270 deg:	1.1

Average Luminance (cd/m ²)			
	0 deg Plane	45 deg Plane	90 deg Plane
0	79613	79613	79613
45	5907	6509	5237
55	2724	2761	2622
65	1934	1908	1908
75	1017	1040	1018
85	427	411	407

Beam and Field Angle	
0-180 Degree Plane	
Beam Angle:	64.2°
Field Angle:	83.7°
90-270 Degree Plane	
Beam Angle:	64.0°
Field Angle:	83.0°



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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

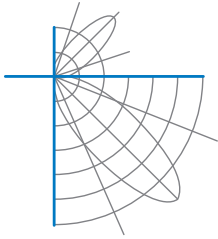
Room Size

UGR Viewed Crosswise

UGR Viewed Endwise

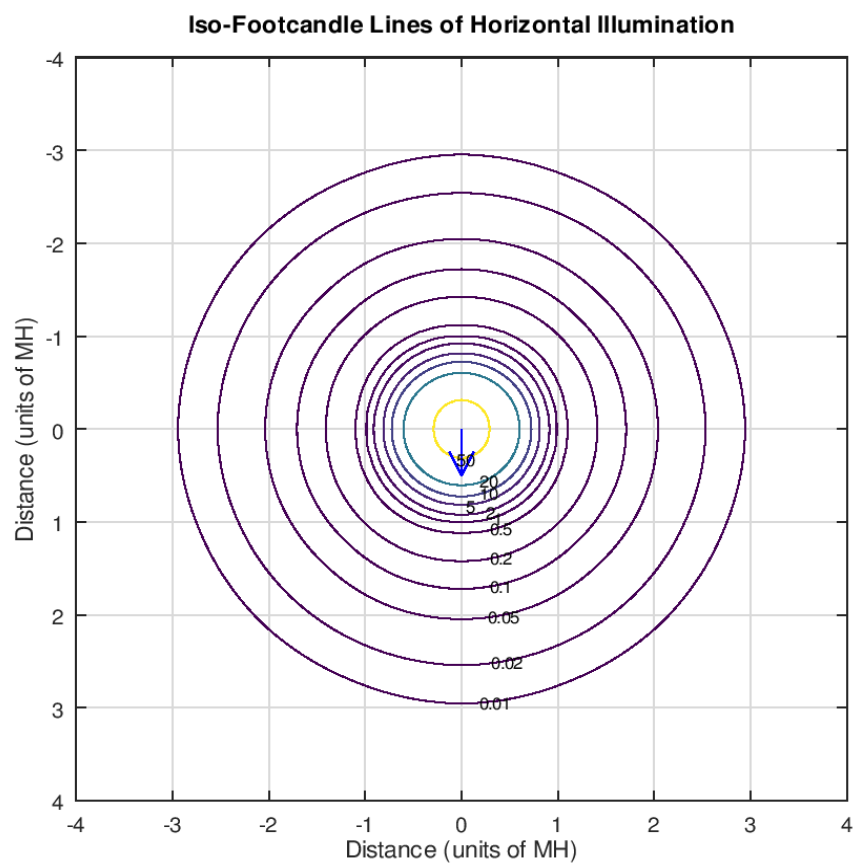
X=2H	Y=2H	7.9	8.9	8.2	9.2	9.5	7.7	8.7	8.1	9.0	9.4
	3H	8.9	9.7	9.2	10.0	10.4	8.7	9.6	9.1	9.9	10.3
	4H	9.0	9.8	9.4	10.2	10.6	8.9	9.7	9.3	10.0	10.4
	6H	9.0	9.7	9.4	10.1	10.5	8.9	9.6	9.3	10.0	10.4
	8H	9.0	9.7	9.4	10.1	10.5	8.9	9.5	9.3	9.9	10.3
	12H	8.9	9.6	9.4	10.0	10.4	8.8	9.5	9.2	9.8	10.3
4H	2H	8.2	8.9	8.6	9.3	9.7	8.1	8.8	8.5	9.2	9.6
	3H	9.2	9.9	9.7	10.3	10.7	9.1	9.8	9.5	10.2	10.6
	4H	9.4	10.0	9.9	10.4	10.9	9.3	9.9	9.8	10.3	10.8
	6H	9.5	9.9	9.9	10.4	10.9	9.4	9.9	9.8	10.3	10.8
	8H	9.4	9.9	9.9	10.3	10.8	9.3	9.8	9.8	10.2	10.7
	12H	9.4	9.8	9.9	10.3	10.8	9.3	9.7	9.8	10.2	10.7
8H	4H	9.4	9.9	9.9	10.3	10.8	9.3	9.8	9.8	10.2	10.7
	6H	9.5	9.8	10.0	10.3	10.8	9.4	9.7	9.9	10.2	10.7
	8H	9.4	9.8	10.0	10.3	10.8	9.4	9.7	9.9	10.2	10.7
	12H	9.4	9.7	10.0	10.2	10.8	9.3	9.6	9.9	10.1	10.7
12H	4H	9.4	9.7	9.8	10.2	10.7	9.3	9.6	9.7	10.1	10.6
	6H	9.4	9.7	9.9	10.2	10.8	9.3	9.6	9.9	10.1	10.7
	8H	9.4	9.7	9.9	10.2	10.8	9.3	9.6	9.9	10.1	10.7

Maximum UGR = 10.9

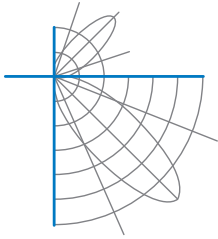


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Iso-Illuminance Plot



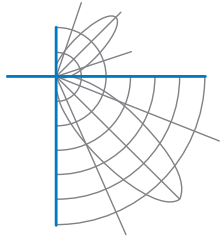
The isofootcandle values shown in the plot above are based on a mounting height of $h = 8.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution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



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Additional Pictures of Test Subject





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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.

North America (issuing laboratory)

Australasia & S.E. Asia