

Report of Test

LLIA002729-004

Indoor Distribution Photometry Test Report

Catalog Number: TV MINI-M-44-1030-S-35K-80-W-C-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, clear 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

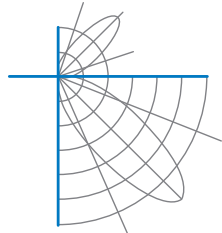
Input Voltage	120.0 Vac	Luminous Flux	4155.9 Lumens
Input Current	0.2958 A	Total Efficacy	119.9 lm/W
Input Power	34.67 W	Downward Flux	4155.9 Lumens
Frequency	60.00 Hz	Downward Flux	100.0 % of Total
Power Factor	0.977		
Current THD	12.0 %		

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

Test date: 08/06/2025

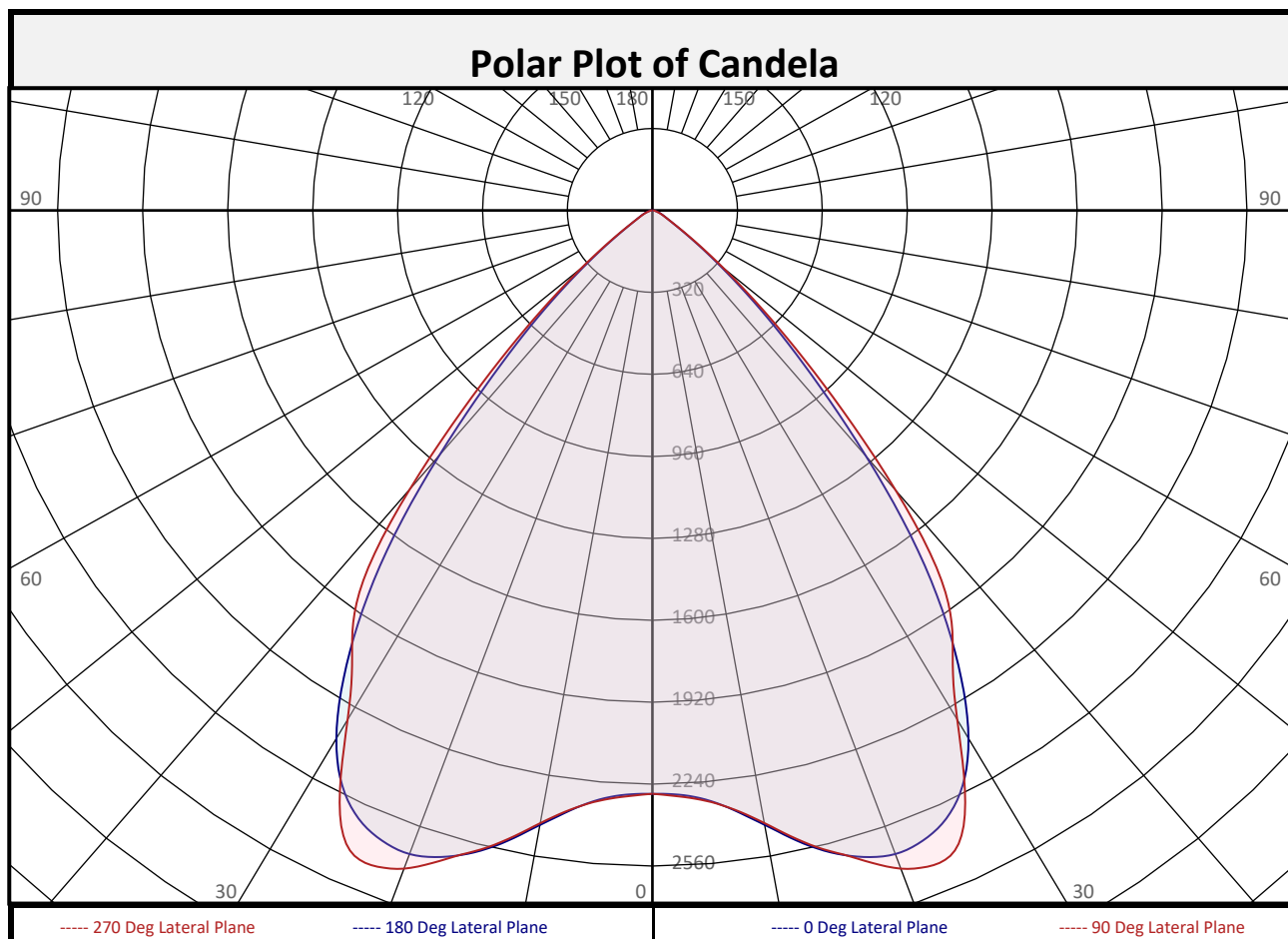
Report date: 08/07/2025

Signed: _____

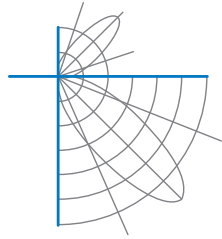


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Zonal Flux Summary										
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	224.4	5.4%		90-100	0.0	0.0%		0-20	962.8	23.2%
10-20	738.3	17.8%		100-110	0.0	0.0%		0-30	2176	52.4%
20-30	1213	29.2%		110-120	0.0	0.0%		0-40	3370	81.1%
30-40	1194	28.7%		120-130	0.0	0.0%		0-60	4089	98.4%
40-50	589.5	14.2%		130-140	0.0	0.0%		0-80	4150	99.9%
50-60	128.8	3.1%		140-150	0.0	0.0%		10-90	3931	94.6%
60-70	42.6	1.0%		150-160	0.0	0.0%		20-90	2997	72.1%
70-80	19.0	0.5%		160-170	0.0	0.0%		40-90	785.5	18.9%
80-90	5.6	0.1%		170-180	0.0	0.0%		60-90	67.2	1.6%
0-90	4156	100.0%		90-180	0.0	0.0%		0-180	4156	100.0%



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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	2278	2278	2278	2278	2278	2278	2278	2278	2278
	2.5	2283	2283	2285	2289	2291	2289	2285	2283	2283
	5	2309	2307	2307	2312	2314	2312	2307	2307	2309
	7.5	2362	2358	2354	2359	2360	2359	2354	2358	2362
	10	2436	2431	2426	2430	2429	2430	2426	2431	2436
	12.5	2521	2516	2512	2517	2514	2517	2512	2516	2521
	15	2595	2598	2604	2604	2591	2604	2604	2598	2595
	17.5	2647	2658	2677	2674	2664	2674	2677	2658	2647
	20	2674	2685	2715	2730	2735	2730	2715	2685	2674
	22.5	2663	2676	2711	2758	2767	2758	2711	2676	2663
	25	2620	2632	2662	2729	2729	2729	2662	2632	2620
	27.5	2531	2544	2574	2605	2549	2605	2574	2544	2531
	30	2382	2401	2437	2381	2296	2381	2437	2401	2382
	32.5	2165	2200	2233	2131	2105	2131	2233	2200	2165
	35	1904	1948	1972	1917	1965	1917	1972	1948	1904
	37.5	1597	1649	1679	1722	1758	1722	1679	1649	1597
	40	1251	1314	1368	1461	1422	1461	1368	1314	1251
	42.5	937	976	1063	1116	1063	1116	1063	976	937
	45	687	689	778	774	762	774	778	689	687
	47.5	481	470	520	502	525	502	520	470	481
	50	317	307	314	313	344	313	314	307	317
	52.5	200	193	185	192	217	192	185	193	200
	55	127	123	117	123	136	123	117	123	127
	57.5	87	86	83	86	89	86	83	86	87
	60	65	66	63	66	65	66	63	66	65
	62.5	52	53	51	52	51	52	51	53	52
	65	42	44	41	42	41	42	41	44	42
	67.5	35	36	33	33	32	33	33	36	35
	70	28	30	26	26	25	26	26	30	28
	72.5	22	25	21	20	19	20	21	25	22
	75	18	21	16	15	15	15	16	21	18
	77.5	14	18	13	12	12	12	13	18	14
	80	10	14	11	10	9	10	11	14	10
	82.5	7	9	8	7	7	7	8	9	7
	85	4	5	5	4	4	4	5	5	4
	87.5	2	3	3	2	2	2	3	3	2
	90	0	0	0	0	0	0	0	0	0

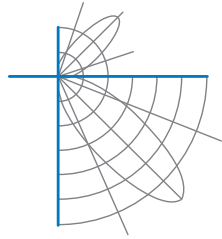
16 lateral half-planes of data were acquired, 22.5 degree increments shown.

North America (issuing laboratory)

LightLab International Allentown, LLC
905 Harrison Street, Suite 135
Allentown, PA 18103 USA
Ph: +1 484-273-0705
Fx: +1 484-209-5779
www.lightlaballentown.com

Australasia & S.E. Asia

LightLab International
50 Redcliffe Gardens Drive
Clontarf - Queensland, 4019, Australia
Ph: +61 7 3283 7862
Fx: +61 7 3283 8751
www.lightlabint.com



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Lateral (C-Plane) Angles										
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.		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.

North America (issuing laboratory)

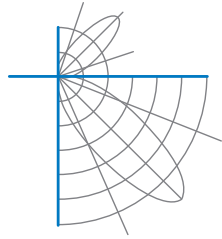
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Coefficients of Utilization/Room Utilization - Zonal Cavity Method

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	113	109	107	104		110	107	105	102		103	101	99		99	98	96		96	95	93	92			
2	106	100	96	92		104	99	94	91		95	92	89		92	89	87		89	87	85	83			
3	99	92	86	82		97	91	85	81		88	83	80		85	82	78		83	80	77	75			
4	93	85	78	73		91	83	77	73		81	76	72		79	75	71		77	73	70	69			
5	88	78	71	66		86	77	71	66		75	69	65		73	68	65		72	67	64	62			
6	82	72	65	60		81	71	65	60		69	64	59		68	63	59		67	62	59	57			
7	77	67	60	55		76	66	59	55		64	59	54		63	58	54		62	57	54	52			
8	73	62	55	50		71	61	55	50		60	54	50		59	53	50		58	53	49	48			
9	68	57	51	46		67	57	50	46		56	50	46		55	49	46		54	49	45	44			
10	65	54	47	42		63	53	47	42		52	46	42		51	46	42		51	46	42	41			

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	63.3	8.12	8.15
8.0	35.6	10.82	10.87
10.0	22.8	13.53	13.58
12.0	15.8	16.24	16.30
14.0	11.6	18.94	19.02
16.0	8.9	21.65	21.73

Spacing Criterion

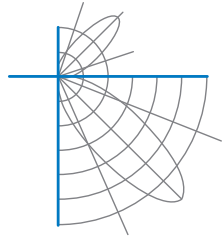
0 deg:	1.4
90 deg:	1.4
180 deg:	1.4
270 deg:	1.4

Average Luminance (cd/m²)

	0 deg Plane	45 deg Plane	90 deg Plane
0	53503	53503	53503
45	22807	25839	25324
55	5188	4793	5575
65	2354	2265	2260
75	1599	1483	1334
85	1135	1381	1165

Beam and Field Angle

0-180 Degree Plane	
Beam Angle:	78.1°
Field Angle:	101.5°
90-270 Degree Plane	
Beam Angle:	80.5°
Field Angle:	102.4°



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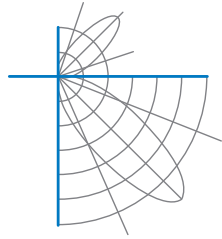
UGR Table - Corrected

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

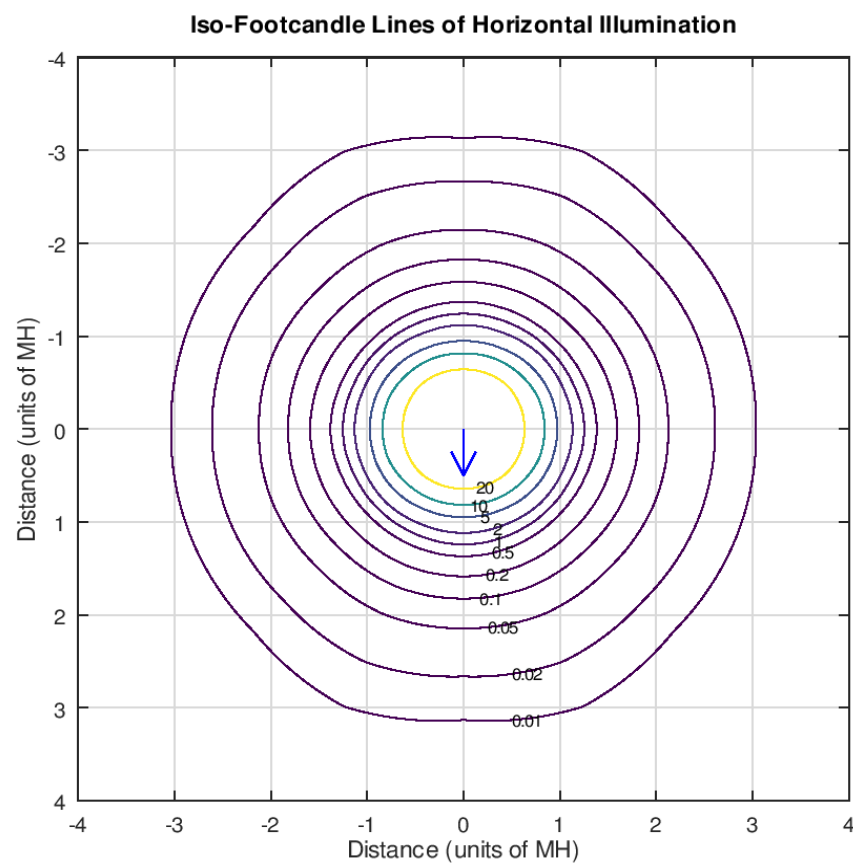
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	10.1	11.3	10.5	11.6	11.9	10.2	11.3	10.5	11.6	11.9
	3H	10.8	11.8	11.2	12.2	12.5	10.7	11.7	11.1	12.0	12.4
	4H	11.1	12.0	11.5	12.4	12.7	10.8	11.8	11.2	12.1	12.5
	6H	11.3	12.1	11.7	12.5	12.9	10.9	11.8	11.3	12.2	12.5
	8H	11.3	12.1	11.7	12.5	12.9	11.0	11.8	11.4	12.2	12.6
	12H	11.3	12.1	11.7	12.4	12.9	11.0	11.7	11.4	12.1	12.5
4H	2H	10.2	11.2	10.6	11.5	11.9	10.3	11.2	10.7	11.5	11.9
	3H	11.1	11.9	11.6	12.3	12.7	11.0	11.7	11.4	12.1	12.5
	4H	11.5	12.2	12.0	12.6	13.1	11.2	11.8	11.6	12.3	12.7
	6H	11.9	12.4	12.3	12.9	13.4	11.3	11.9	11.8	12.4	12.8
	8H	11.9	12.5	12.4	12.9	13.4	11.4	12.0	11.9	12.4	12.9
	12H	12.0	12.4	12.5	12.9	13.4	11.5	11.9	11.9	12.4	12.9
8H	4H	11.6	12.1	12.0	12.5	13.0	11.2	11.8	11.7	12.2	12.7
	6H	12.0	12.4	12.5	12.9	13.4	11.5	11.9	12.0	12.4	12.9
	8H	12.1	12.5	12.7	13.1	13.6	11.6	12.0	12.1	12.5	13.0
	12H	12.2	12.6	12.8	13.1	13.7	11.7	12.0	12.2	12.5	13.1
12H	4H	11.5	12.0	12.0	12.5	13.0	11.2	11.7	11.7	12.2	12.6
	6H	12.0	12.4	12.5	12.9	13.4	11.5	11.9	12.0	12.4	12.9
	8H	12.2	12.5	12.7	13.0	13.6	11.6	12.0	12.2	12.5	13.1

Maximum UGR = 13.7

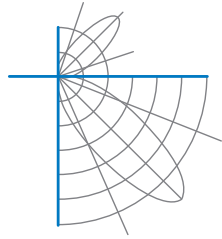


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Iso-Illuminance Plot



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 25.1 °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.