

Report of Test

LLIA002729-002

Indoor Distribution Photometry Test Report

Catalog Number: TV MINI-M-44-990-S-35K-40-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 1505mA



Prepared For:

Mercury Lighting Products Company, Inc.

20 Audrey Place

Fairfield, NJ 07004, USA

Performance Summary

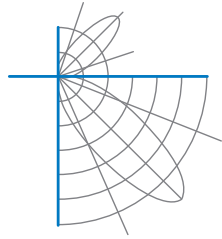
Input Voltage	120.0 Vac	Luminous Flux	3976.7 Lumens
Input Current	0.2951 A	Total Efficacy	114.6 lm/W
Input Power	34.69 W	Downward Flux	3976.7 Lumens
Frequency	60.00 Hz	Downward Flux	100.0 % of Total
Power Factor	0.979		
Current THD	11.9 %		

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

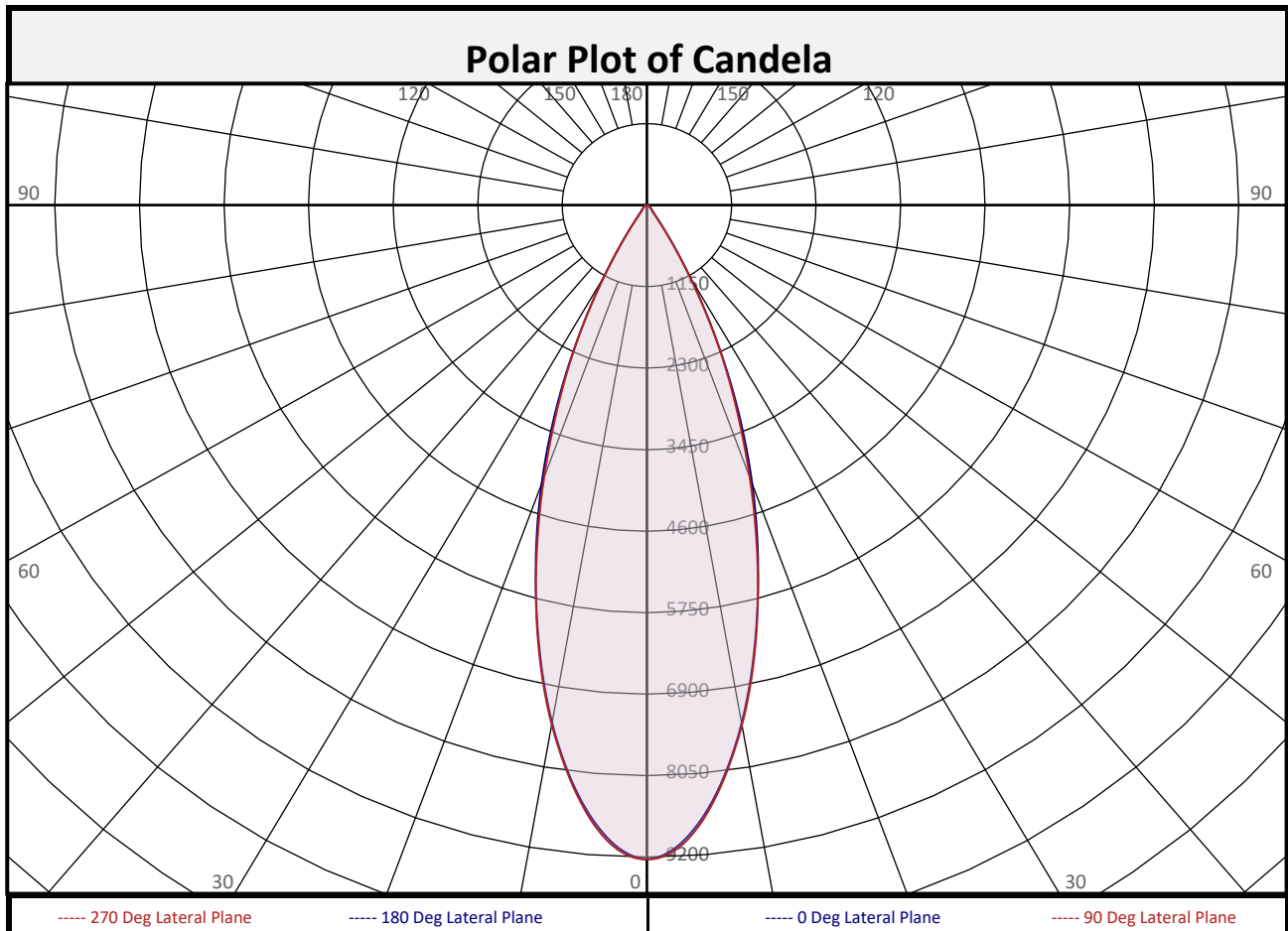
Test date: 08/05/2025

Report date: 08/07/2025

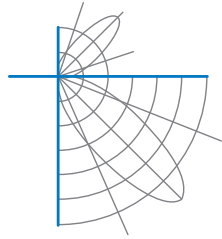
Signed: _____



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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	788.5	19.8%		90-100	0.0	0.0%		0-20	2389	60.1%
10-20	1601	40.2%		100-110	0.0	0.0%		0-30	3537	88.9%
20-30	1148	28.9%		110-120	0.0	0.0%		0-40	3825	96.2%
30-40	287.9	7.2%		120-130	0.0	0.0%		0-60	3940	99.1%
40-50	70.5	1.8%		130-140	0.0	0.0%		0-80	3975	100.0%
50-60	45.0	1.1%		140-150	0.0	0.0%		10-90	3188	80.2%
60-70	26.6	0.7%		150-160	0.0	0.0%		20-50	1506	37.9%
70-80	8.6	0.2%		160-170	0.0	0.0%		40-90	151.9	3.8%
80-90	1.3	0.0%		170-180	0.0	0.0%		60-90	36.4	0.9%
0-90	3977	100.0%		90-180	0.0	0.0%		0-180	3977	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	9232	9232	9232	9232	9232	9232	9232	9232	9232
	2.5	9072	9070	9080	9095	9104	9095	9080	9070	9072
	5	8675	8670	8683	8708	8716	8708	8683	8670	8675
	7.5	8108	8099	8100	8127	8134	8127	8100	8099	8108
	10	7421	7413	7417	7447	7451	7447	7417	7413	7421
	12.5	6645	6652	6672	6692	6675	6692	6672	6652	6645
	15	5821	5833	5869	5872	5832	5872	5869	5833	5821
	17.5	5004	4982	5007	5009	4954	5009	5007	4982	5004
	20	4192	4144	4139	4142	4092	4142	4139	4144	4192
	22.5	3371	3325	3300	3291	3270	3291	3300	3325	3371
	25	2572	2549	2523	2499	2527	2499	2523	2549	2572
	27.5	1826	1837	1813	1785	1815	1785	1813	1837	1826
	30	1183	1219	1185	1161	1157	1161	1185	1219	1183
	32.5	689	732	705	681	653	681	705	732	689
	35	375	407	407	362	338	362	407	407	375
	37.5	213	231	243	197	180	197	243	231	213
	40	143	151	152	126	115	126	152	151	143
	42.5	113	113	107	97	92	97	107	113	113
	45	96	93	87	82	81	82	87	93	96
	47.5	85	79	74	71	74	71	74	79	85
	50	75	68	63	62	66	62	63	68	75
	52.5	66	58	54	54	59	54	54	58	66
	55	57	50	47	47	51	47	47	50	57
	57.5	49	44	41	42	45	42	41	44	49
	60	42	38	36	36	39	36	36	38	42
	62.5	36	32	31	31	33	31	31	32	36
	65	30	27	27	26	28	26	27	27	30
	67.5	24	21	22	20	22	20	22	21	24
	70	17	16	17	15	16	15	17	16	17
	72.5	12	11	12	11	11	11	12	11	12
	75	7	7	8	7	7	7	8	7	7
	77.5	5	5	5	5	4	5	5	5	5
	80	3	3	3	3	3	3	3	3	3
	82.5	2	2	2	2	2	2	2	2	2
	85	1	1	1	1	1	1	1	1	1
	87.5	0	0	0	0	0	0	0	0	0
	90	0	0	0	0	0	0	0	0	0

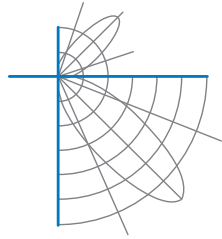
16 lateral half-planes of data were acquired, 22.5 degree increments shown.

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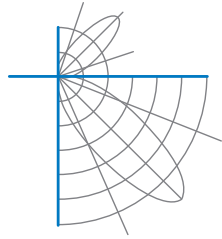


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Luminous Intensity (Candela) Table

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



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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	105	102	99		107	104	100	98		100	98	96		98	95	94		95	93	92	90			
3	105	100	95	92		103	98	94	91		96	92	90		93	91	88		91	89	87	86			
4	101	94	90	86		99	93	89	86		91	88	85		89	86	84		88	85	83	81			
5	97	90	85	81		95	89	84	81		87	83	80		86	82	80		84	81	79	78			
6	93	86	81	77		92	85	80	77		84	79	76		82	79	76		81	78	75	74			
7	90	82	77	73		88	81	76	73		80	76	73		79	75	72		78	75	72	71			
8	86	78	73	70		85	78	73	70		77	73	69		76	72	69		75	72	69	68			
9	83	75	70	67		82	75	70	67		74	70	67		73	69	66		72	69	66	65			
10	80	72	67	64		79	72	67	64		71	67	64		70	66	64		70	66	64	62			

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	256.5	3.61	3.59
8.0	144.3	4.81	4.79
10.0	92.3	6.01	5.98
12.0	64.1	7.21	7.18
14.0	47.1	8.41	8.38
16.0	36.1	9.62	9.58

Spacing Criterion

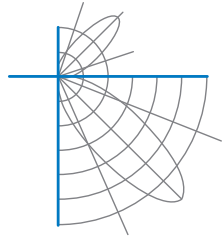
0 deg:	0.6
90 deg:	0.6
180 deg:	0.6
270 deg:	0.6

Average Luminance (cd/m²)

	0 deg Plane	45 deg Plane	90 deg Plane
0	216821	216821	216821
45	3199	2877	2702
55	2327	1928	2106
65	1659	1493	1546
75	660	744	629
85	320	298	277

Beam and Field Angle

0-180 Degree Plane	
Beam Angle:	37.4°
Field Angle:	62.4°
90-270 Degree Plane	
Beam Angle:	37.0°
Field Angle:	62.1°



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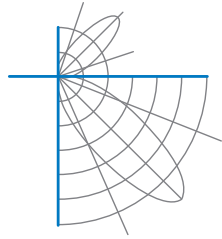
UGR Table - Corrected

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

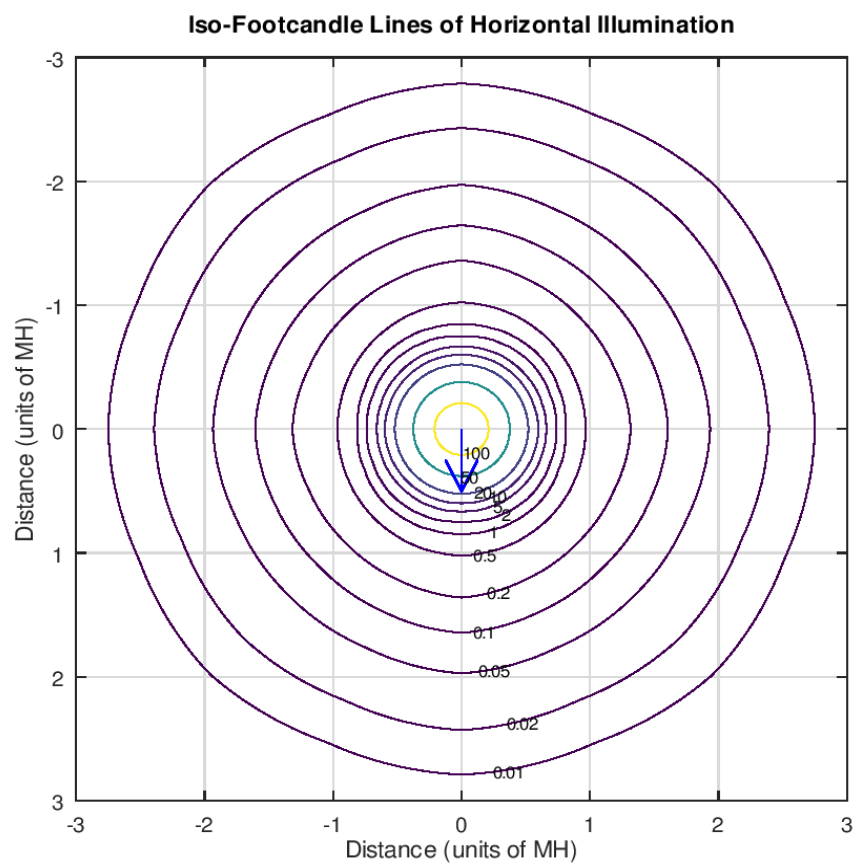
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	6.1	7.0	6.4	7.3	7.6	5.7	6.6	6.1	6.9	7.2
	3H	7.0	7.8	7.4	8.2	8.5	6.6	7.5	7.0	7.8	8.2
	4H	7.1	7.9	7.5	8.2	8.6	6.7	7.5	7.1	7.8	8.2
	6H	7.1	7.8	7.5	8.2	8.6	6.7	7.4	7.1	7.8	8.2
	8H	7.0	7.7	7.5	8.1	8.5	6.7	7.3	7.1	7.7	8.1
	12H	7.0	7.6	7.4	8.0	8.4	6.6	7.2	7.0	7.6	8.0
4H	2H	6.3	7.1	6.7	7.4	7.8	6.0	6.8	6.4	7.1	7.5
	3H	7.4	8.0	7.8	8.4	8.8	7.0	7.7	7.5	8.1	8.5
	4H	7.5	8.0	7.9	8.5	8.9	7.2	7.7	7.6	8.1	8.6
	6H	7.5	8.0	8.0	8.4	8.9	7.2	7.6	7.6	8.1	8.5
	8H	7.5	7.9	7.9	8.3	8.8	7.1	7.5	7.6	8.0	8.5
	12H	7.4	7.8	7.9	8.3	8.8	7.1	7.4	7.6	7.9	8.4
8H	4H	7.4	7.9	7.9	8.3	8.8	7.1	7.6	7.6	8.0	8.5
	6H	7.5	7.8	8.0	8.3	8.8	7.1	7.5	7.7	8.0	8.5
	8H	7.5	7.7	8.0	8.3	8.8	7.1	7.4	7.7	7.9	8.4
	12H	7.4	7.7	8.0	8.2	8.8	7.1	7.3	7.6	7.8	8.4
12H	4H	7.4	7.8	7.9	8.2	8.7	7.1	7.4	7.6	7.9	8.4
	6H	7.4	7.7	8.0	8.2	8.7	7.1	7.4	7.6	7.9	8.4
	8H	7.4	7.7	7.9	8.2	8.8	7.1	7.3	7.6	7.8	8.4

Maximum UGR = 8.9

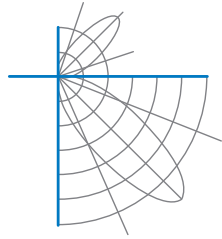


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Iso-Illuminance Plot



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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Test Distance 9.5 m
Ambient Temperature 24.8 °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.