

Report of Test

LLIA002729-001

Indoor Distribution Photometry Test Report

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

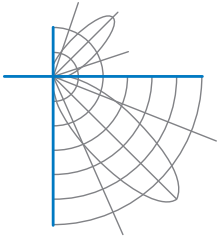
Performance Summary			
Input Voltage	120.0 Vac	Luminous Flux	3971.2 Lumens
Input Current	0.2951 A	Total Efficacy	114.4 Lm/W
Input Power	34.70 W	Downward Flux	3971.2 Lumens
Frequency	60.00 Hz	Downward Flux	100.0 % of Total
Power Factor	0.980		
Current THD	12.1 %		

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

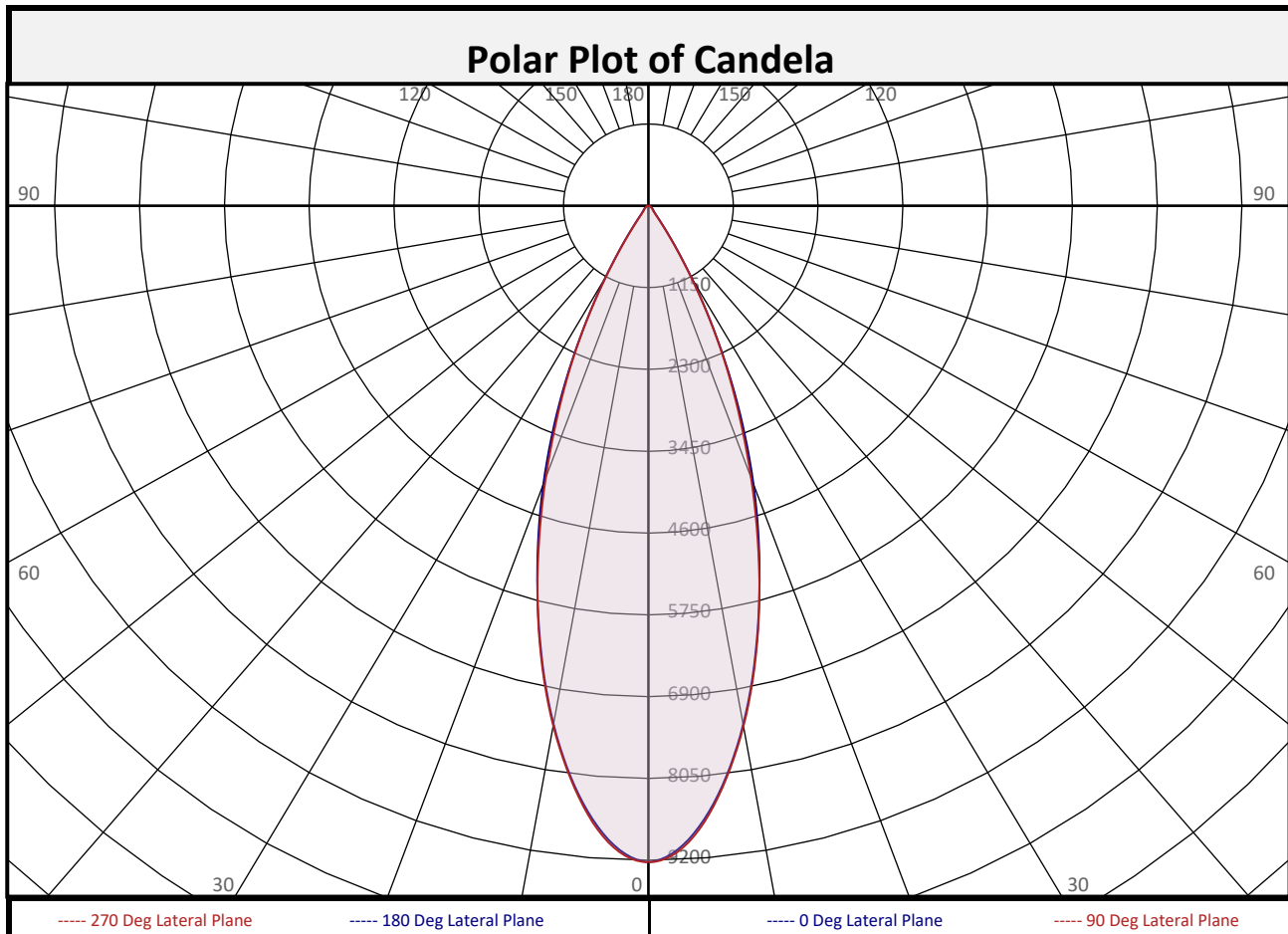
Test date: 08/05/2025

Report date: 08/07/2025

Signed: _____

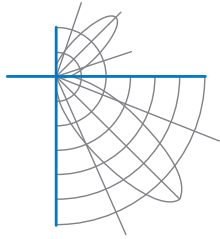


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Zonal Flux Summary

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	787.1	19.8%	90-100	0.0	0.0%	0-20	2382	60.0%
10-20	1595	40.2%	100-110	0.0	0.0%	0-30	3522	88.7%
20-30	1140	28.7%	110-120	0.0	0.0%	0-40	3808	95.9%
30-40	286.1	7.2%	120-130	0.0	0.0%	0-60	3928	98.9%
40-50	72.3	1.8%	130-140	0.0	0.0%	0-80	3968	99.9%
50-60	47.1	1.2%	140-150	0.0	0.0%	10-90	3184	80.2%
60-70	29.0	0.7%	150-160	0.0	0.0%	20-50	1498	37.7%
70-80	11.7	0.3%	160-170	0.0	0.0%	40-90	163.0	4.1%
80-90	2.9	0.1%	170-180	0.0	0.0%	60-90	43.6	1.1%
0-90	3971	100.0%	90-180	0.0	0.0%	0-180	3971	100.0%



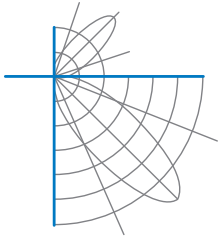
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Luminous Intensity (Candela) Table

		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	9228	9228	9228	9228	9228	9228	9228	9228	9228
	2.5	9061	9058	9068	9084	9092	9084	9068	9058	9061
	5	8661	8656	8668	8693	8699	8693	8668	8656	8661
	7.5	8091	8084	8087	8112	8114	8112	8087	8084	8091
	10	7403	7399	7405	7432	7429	7432	7405	7399	7403
	12.5	6626	6635	6658	6675	6652	6675	6658	6635	6626
	15	5801	5814	5852	5855	5811	5855	5852	5814	5801
	17.5	4982	4960	4989	4992	4932	4992	4989	4960	4982
	20	4168	4122	4120	4125	4072	4125	4120	4122	4168
	22.5	3349	3303	3280	3277	3252	3277	3280	3303	3349
	25	2552	2528	2504	2485	2509	2485	2504	2528	2552
	27.5	1808	1819	1797	1770	1799	1770	1797	1819	1808
	30	1170	1205	1172	1151	1146	1151	1172	1205	1170
	32.5	680	723	699	674	649	674	699	723	680
	35	372	403	405	361	339	361	405	403	372
	37.5	213	231	243	198	183	198	243	231	213
	40	144	153	153	128	118	128	153	153	144
	42.5	115	115	110	99	94	99	110	115	115
	45	98	95	89	84	84	84	89	95	98
	47.5	87	82	76	74	76	74	76	82	87
50	78	70	65	65	69	65	65	70	78	
52.5	68	61	56	57	61	57	56	61	68	
55	59	53	49	50	54	50	49	53	59	
57.5	52	46	43	44	47	44	43	46	52	
60	45	40	38	38	41	38	38	40	45	
62.5	39	35	33	33	36	33	33	35	39	
65	33	30	29	27	30	27	29	30	33	
67.5	27	25	24	22	24	22	24	25	27	
70	21	20	19	17	18	17	19	20	21	
72.5	15	16	14	13	13	13	14	16	15	
75	11	12	10	9	9	9	10	12	11	
77.5	8	10	7	7	7	7	7	10	8	
80	6	8	5	5	5	5	5	8	6	
82.5	4	5	4	4	4	4	4	5	4	
85	2	3	3	2	2	2	3	3	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.



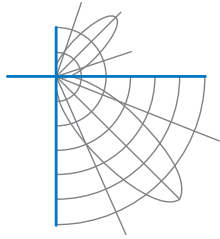
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Luminous Intensity (Candela) Table

		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	102	100		
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	98	98	97	95	95		
2	109	105	102	99	107	104	100	98	100	98	96	97	95	93	95	93	92	90	90		
3	105	99	95	92	103	98	94	91	96	92	90	93	91	88	91	89	87	85	85		
4	101	94	90	86	99	93	89	86	91	87	85	89	86	84	87	85	83	81	81		
5	97	90	85	81	95	89	84	81	87	83	80	86	82	79	84	81	79	77	77		
6	93	86	81	77	92	85	80	77	83	79	76	82	78	76	81	78	75	74	74		
7	90	82	77	73	88	81	76	73	80	76	73	79	75	72	78	74	72	71	71		
8	86	78	73	70	85	78	73	70	77	72	69	76	72	69	75	71	69	68	68		
9	83	75	70	67	82	75	70	67	74	69	66	73	69	66	72	69	66	65	65		
10	80	72	67	64	79	72	67	64	71	67	64	70	66	64	70	66	63	62	62		

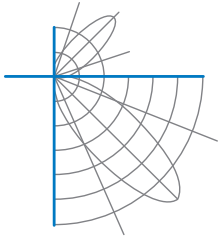
For absolute test reports, RUs are expressed as a percentage of total lumen output. For relative test reports, CUs are expressed as a percentage of total lamp output. Calculations were based on published IES procedures, and are based on the zonal cavity method. Basic assumptions: 1) Room surfaces are 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	256.3	3.60	3.58
8.0	144.2	4.79	4.78
10.0	92.3	5.99	5.97
12.0	64.1	7.19	7.16
14.0	47.1	8.39	8.36
16.0	36.0	9.59	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	216710	216710	216710
45	3270	2950	2780
55	2436	2016	2209
65	1836	1590	1664
75	970	947	836
85	586	707	660

Beam and Field Angle	
0-180 Degree Plane	
Beam Angle:	37.3°
Field Angle:	62.3°
90-270 Degree Plane	
Beam Angle:	36.9°
Field Angle:	62.0°



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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

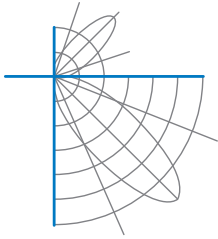
Room Size

UGR Viewed Crosswise

UGR Viewed Endwise

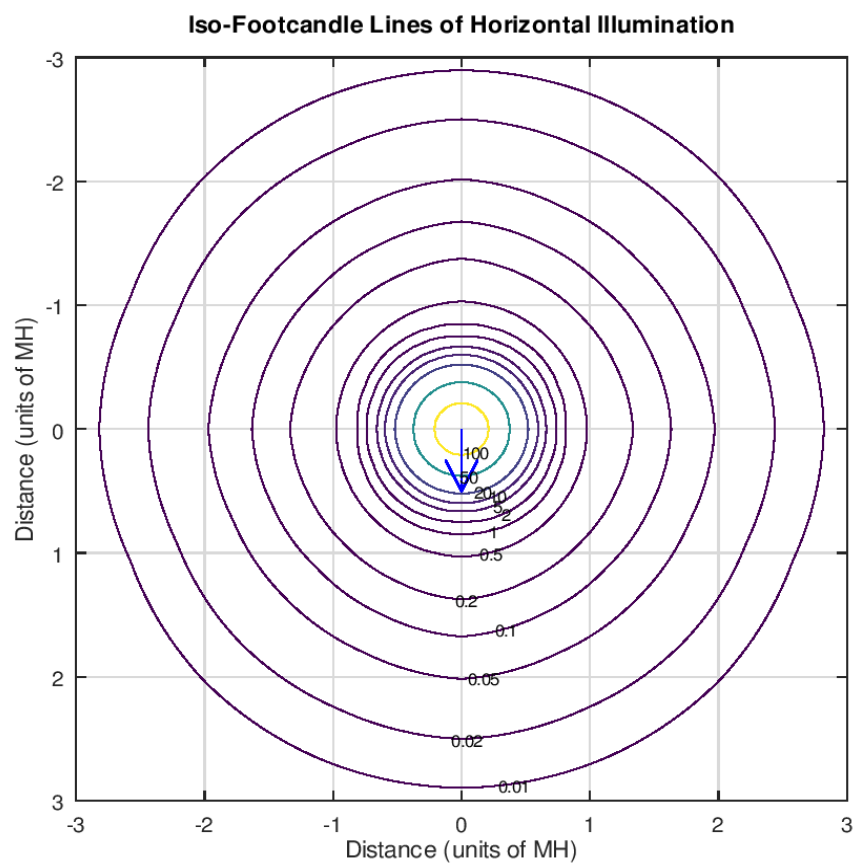
X=2H	Y=2H	6.5	7.4	6.8	7.7	8.0	6.1	7.0	6.5	7.3	7.6
	3H	7.6	8.4	8.0	8.8	9.1	7.1	7.9	7.5	8.3	8.6
	4H	7.9	8.6	8.3	9.0	9.4	7.3	8.1	7.7	8.4	8.8
	6H	8.0	8.7	8.4	9.1	9.5	7.4	8.1	7.8	8.4	8.8
	8H	8.0	8.7	8.4	9.0	9.5	7.4	8.0	7.8	8.4	8.8
	12H	8.0	8.6	8.4	9.0	9.4	7.4	8.0	7.8	8.4	8.8
4H	2H	6.7	7.5	7.1	7.8	8.2	6.4	7.2	6.8	7.5	7.9
	3H	8.0	8.7	8.5	9.1	9.5	7.6	8.2	8.0	8.6	9.0
	4H	8.4	8.9	8.8	9.4	9.8	7.8	8.3	8.2	8.8	9.2
	6H	8.6	9.1	9.1	9.5	10.0	7.9	8.4	8.4	8.8	9.3
	8H	8.7	9.1	9.1	9.5	10.0	8.0	8.4	8.4	8.8	9.3
	12H	8.7	9.0	9.2	9.5	10.0	8.0	8.3	8.5	8.8	9.3
8H	4H	8.4	8.8	8.9	9.3	9.7	7.8	8.3	8.3	8.7	9.2
	6H	8.7	9.1	9.2	9.6	10.0	8.0	8.4	8.6	8.9	9.4
	8H	8.8	9.1	9.4	9.7	10.2	8.1	8.4	8.6	8.9	9.4
	12H	8.9	9.1	9.4	9.6	10.2	8.2	8.4	8.7	8.9	9.5
12H	4H	8.3	8.7	8.8	9.2	9.7	7.8	8.2	8.3	8.7	9.1
	6H	8.7	9.0	9.2	9.5	10.0	8.0	8.3	8.6	8.8	9.3
	8H	8.8	9.1	9.4	9.6	10.2	8.1	8.4	8.7	8.9	9.5

Maximum UGR = 10.2

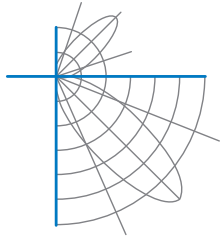


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Iso-Illuminance Plot



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.