

Report of Test

LLIA002716-003

Indoor Distribution Photometry Test Report

Catalog Number: TV MINI-M-44-970-S-35K-60-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 prismatic 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

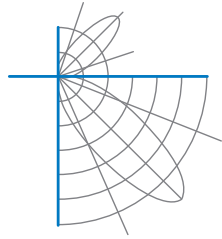
Input Voltage	120.0 Vac	Luminous Flux	3885.3 Lumens
Input Current	0.2953 A	Total Efficacy	112.3 Lm/W
Input Power	34.61 W	Downward Flux	3885.3 Lumens
Frequency	59.99 Hz	Downward Flux	100.0 % of Total
Power Factor	0.977		
Current THD	12.1 %		

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

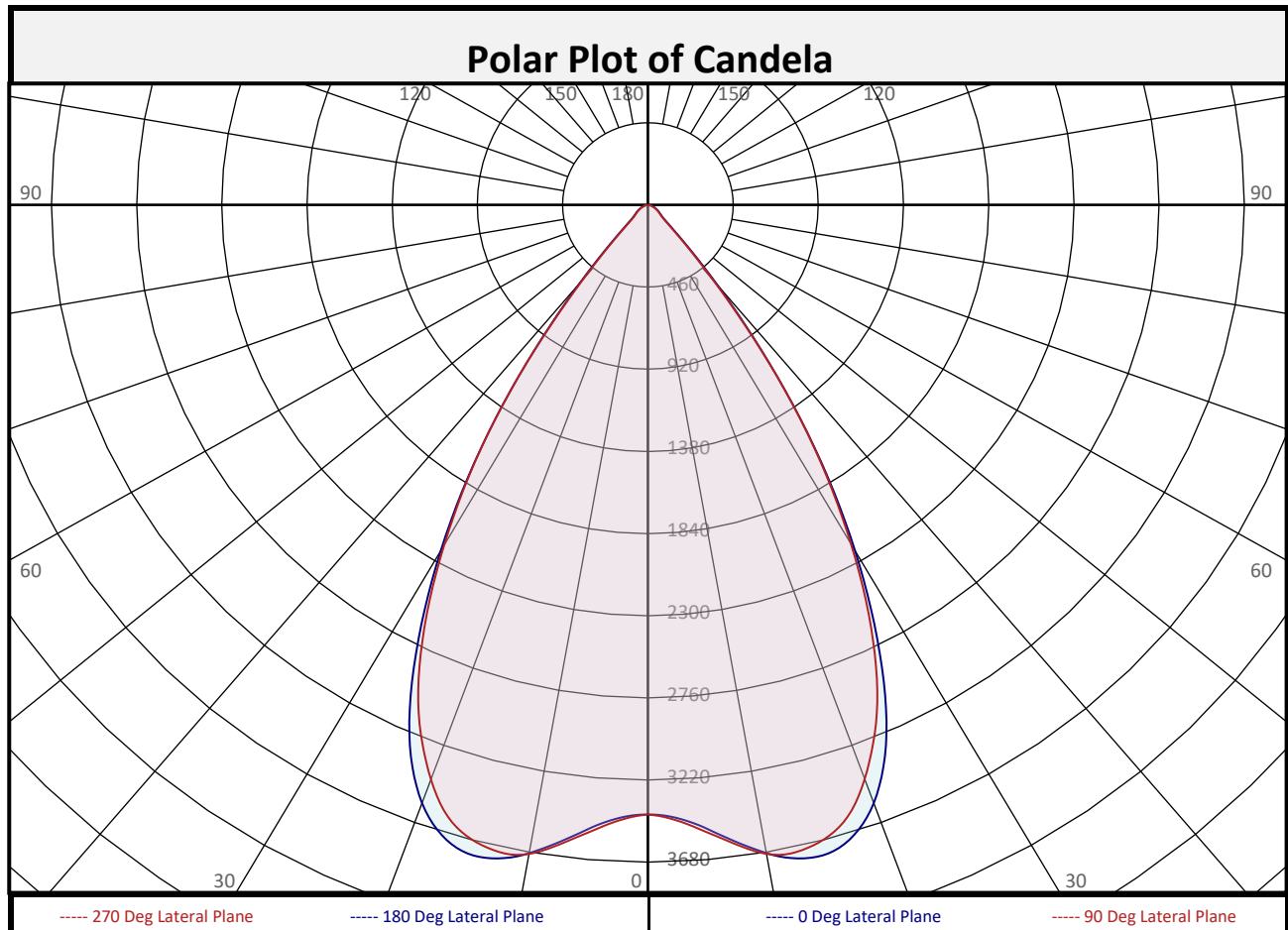
Test date: 07/17/2025

Report date: 07/17/2025

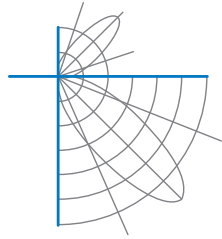
Signed: _____



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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	340.8	8.8%		90-100	0.0	0.0%		0-20	1380	35.5%
10-20	1040	26.8%		100-110	0.0	0.0%		0-30	2727	70.2%
20-30	1346	34.6%		110-120	0.0	0.0%		0-40	3571	91.9%
30-40	844.3	21.7%		120-130	0.0	0.0%		0-60	3819	98.3%
40-50	181.0	4.7%		130-140	0.0	0.0%		0-80	3880	99.9%
50-60	67.1	1.7%		140-150	0.0	0.0%		10-90	3545	91.2%
60-70	41.5	1.1%		150-160	0.0	0.0%		20-50	2371	61.0%
70-80	19.8	0.5%		160-170	0.0	0.0%		40-90	314.5	8.1%
80-90	5.0	0.1%		170-180	0.0	0.0%		60-90	66.3	1.7%
0-90	3885	100.0%		90-180	0.0	0.0%		0-180	3885	100.0%



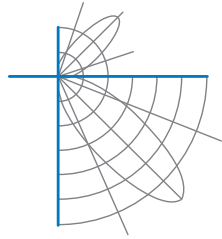
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Luminous Intensity (Candela) Table

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	3413	3413	3413	3413	3413	3413	3413	3413	3413
	2.5	3434	3434	3439	3445	3448	3445	3439	3434	3434
	5	3500	3497	3502	3514	3521	3514	3502	3497	3500
	7.5	3594	3587	3588	3599	3609	3599	3588	3587	3594
	10	3686	3674	3673	3683	3690	3683	3673	3674	3686
	12.5	3748	3736	3727	3719	3711	3719	3727	3736	3748
	15	3760	3746	3725	3694	3677	3694	3725	3746	3760
	17.5	3699	3688	3648	3611	3590	3611	3648	3688	3699
	20	3564	3549	3504	3449	3423	3449	3504	3549	3564
	22.5	3343	3329	3295	3222	3203	3222	3295	3329	3343
	25	3030	3034	3007	2946	2928	2946	3007	3034	3030
	27.5	2648	2668	2650	2613	2584	2613	2650	2668	2648
	30	2236	2245	2244	2234	2197	2234	2244	2245	2236
	32.5	1805	1801	1810	1820	1791	1820	1810	1801	1805
	35	1361	1359	1375	1381	1364	1381	1375	1359	1361
	37.5	931	944	957	945	922	945	957	944	931
	40	571	591	598	567	545	567	598	591	571
	42.5	324	342	347	317	298	317	347	342	324
	45	185	200	202	181	166	181	202	200	185
	47.5	123	132	133	122	113	122	133	132	123
	50	98	103	104	98	92	98	104	103	98
	52.5	85	87	87	84	80	84	87	87	85
	55	76	76	74	73	71	73	74	76	76
	57.5	67	66	63	64	63	64	63	66	67
	60	59	58	54	55	55	55	54	58	59
	62.5	51	51	47	47	47	47	47	51	51
	65	44	44	41	40	40	40	41	44	44
	67.5	37	38	34	33	33	33	34	38	37
	70	31	32	28	27	27	27	28	32	31
	72.5	25	27	23	21	21	21	23	27	25
	75	19	22	18	16	16	16	18	22	19
	77.5	14	17	13	12	12	12	13	17	14
	80	10	13	10	9	9	9	10	13	10
	82.5	6	9	7	6	6	6	7	9	6
	85	4	5	4	4	4	4	4	5	4
	87.5	2	2	2	2	2	2	2	2	2
	90	0	0	0	1	0	1	0	0	0

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



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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	1	0	1	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)

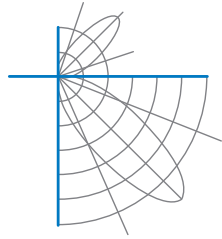
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Coefficients of Utilization/Room Utilization - Zonal Cavity Method

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	110	108	105		111	108	106	104		104	102	101		100	99	98		97	96	95	93			
2	107	102	98	95		105	101	97	94		97	94	92		94	92	90		92	90	88	86			
3	102	95	90	86		100	94	89	85		91	87	84		89	85	83		86	84	81	80			
4	97	89	83	79		95	88	82	78		85	81	77		83	80	76		82	78	75	74			
5	91	83	77	72		90	82	76	72		80	75	71		78	74	71		77	73	70	69			
6	87	78	71	67		85	77	71	67		75	70	66		74	69	66		73	69	65	64			
7	82	73	67	62		81	72	66	62		71	66	62		70	65	62		69	64	61	60			
8	78	68	62	58		77	68	62	58		67	62	58		66	61	58		65	60	57	56			
9	74	65	58	54		73	64	58	54		63	58	54		62	57	54		61	57	54	52			
10	71	61	55	51		70	60	55	51		60	54	51		59	54	51		58	54	51	49			

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	94.8	6.48	6.42
8.0	53.3	8.64	8.56
10.0	34.1	10.80	10.70
12.0	23.7	12.96	12.84
14.0	17.4	15.12	14.98
16.0	13.3	17.28	17.11

Spacing Criterion

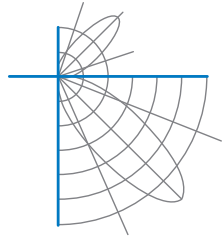
0 deg:	1.1
90 deg:	1.1
180 deg:	1.1
270 deg:	1.1

Average Luminance (cd/m²)

	0 deg Plane	45 deg Plane	90 deg Plane
0	80159	80159	80159
45	6131	6695	5509
55	3108	3020	2922
65	2448	2253	2207
75	1694	1601	1466
85	1048	1199	1032

Beam and Field Angle

0-180 Degree Plane	
Beam Angle:	64.2°
Field Angle:	83.7°
90-270 Degree Plane	
Beam Angle:	63.9°
Field Angle:	83.1°



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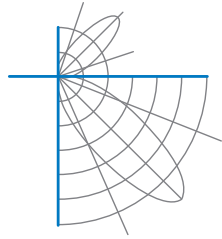
UGR Table - Corrected

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

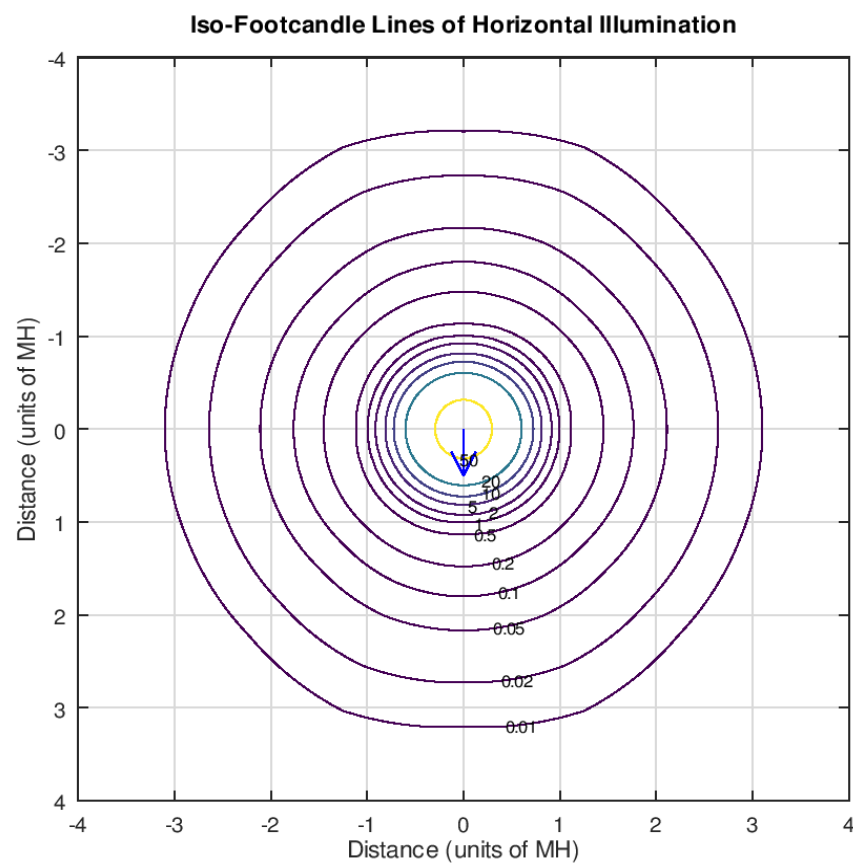
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	8.7	9.7	9.1	10.0	10.4	8.5	9.5	8.8	9.8	10.1
	3H	10.1	11.0	10.5	11.3	11.7	9.6	10.5	10.0	10.8	11.2
	4H	10.5	11.3	10.9	11.7	12.0	9.9	10.7	10.3	11.1	11.4
	6H	10.7	11.5	11.1	11.8	12.2	10.0	10.8	10.5	11.2	11.6
	8H	10.8	11.4	11.2	11.8	12.3	10.1	10.8	10.5	11.2	11.6
	12H	10.8	11.4	11.2	11.8	12.2	10.1	10.8	10.5	11.1	11.6
4H	2H	9.0	9.8	9.4	10.2	10.6	8.8	9.6	9.2	10.0	10.4
	3H	10.6	11.2	11.0	11.7	12.1	10.1	10.8	10.5	11.2	11.6
	4H	11.1	11.7	11.6	12.2	12.6	10.5	11.1	10.9	11.5	11.9
	6H	11.5	12.0	12.0	12.5	12.9	10.7	11.2	11.2	11.7	12.1
	8H	11.6	12.0	12.1	12.5	13.0	10.8	11.2	11.3	11.7	12.2
	12H	11.6	12.0	12.1	12.5	13.0	10.8	11.2	11.3	11.7	12.2
8H	4H	11.2	11.7	11.7	12.1	12.6	10.6	11.1	11.1	11.5	12.0
	6H	11.7	12.1	12.2	12.6	13.0	10.9	11.3	11.4	11.8	12.3
	8H	11.9	12.2	12.4	12.7	13.2	11.0	11.4	11.6	11.9	12.4
	12H	11.9	12.2	12.5	12.7	13.3	11.1	11.4	11.6	11.9	12.5
12H	4H	11.2	11.6	11.7	12.1	12.5	10.6	11.0	11.1	11.5	12.0
	6H	11.7	12.0	12.2	12.5	13.0	10.9	11.3	11.5	11.7	12.3
	8H	11.9	12.1	12.4	12.6	13.2	11.1	11.4	11.6	11.9	12.4

Maximum UGR = 13.3

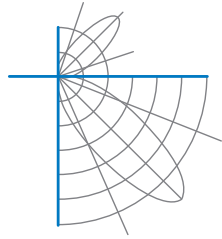


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Iso-Illuminance Plot



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



North America (issuing laboratory)

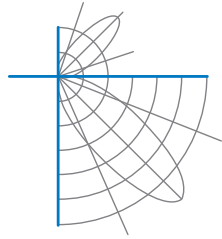
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Test Distance 9.5 m
Ambient Temperature 24.8 °C

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.

North America (issuing laboratory)

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