

Report of Test

LLIA002704-001-R02*

Indoor Distribution Photometry Test Report

Catalog Number: MLS3-CTR-DM-48-575-35K-ASO-1%-U

Surface/pendant mounted, extruded aluminum housing, white painted aluminum reflector tray, translucent white plastic enclosure.

112 white LEDs, two Advance Fortimo Strip LED boards with 56 LEDs each.

One Advance XI050C150V054BST5 LED driver measured at 500mA



Prepared For:

Mercury Lighting Products Company, Inc.

20 Audrey Place

Fairfield, NJ 07004, USA

Performance Summary

Input Voltage	120.0 Vac	Luminous Flux	2307.8 Lumens
Input Current	0.1843 A	Total Efficacy	108.3 lm/W
Input Power	21.31 W	Downward Flux	2307.8 Lumens
Frequency	60.00 Hz	Downward Flux	100.0 % of Total
Power Factor	0.964		
Current THD	9.8 %		

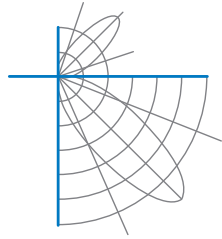
*This test report supersedes previous versions - see the end of this report for a list of revisions

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

Test date: 07/07/2025

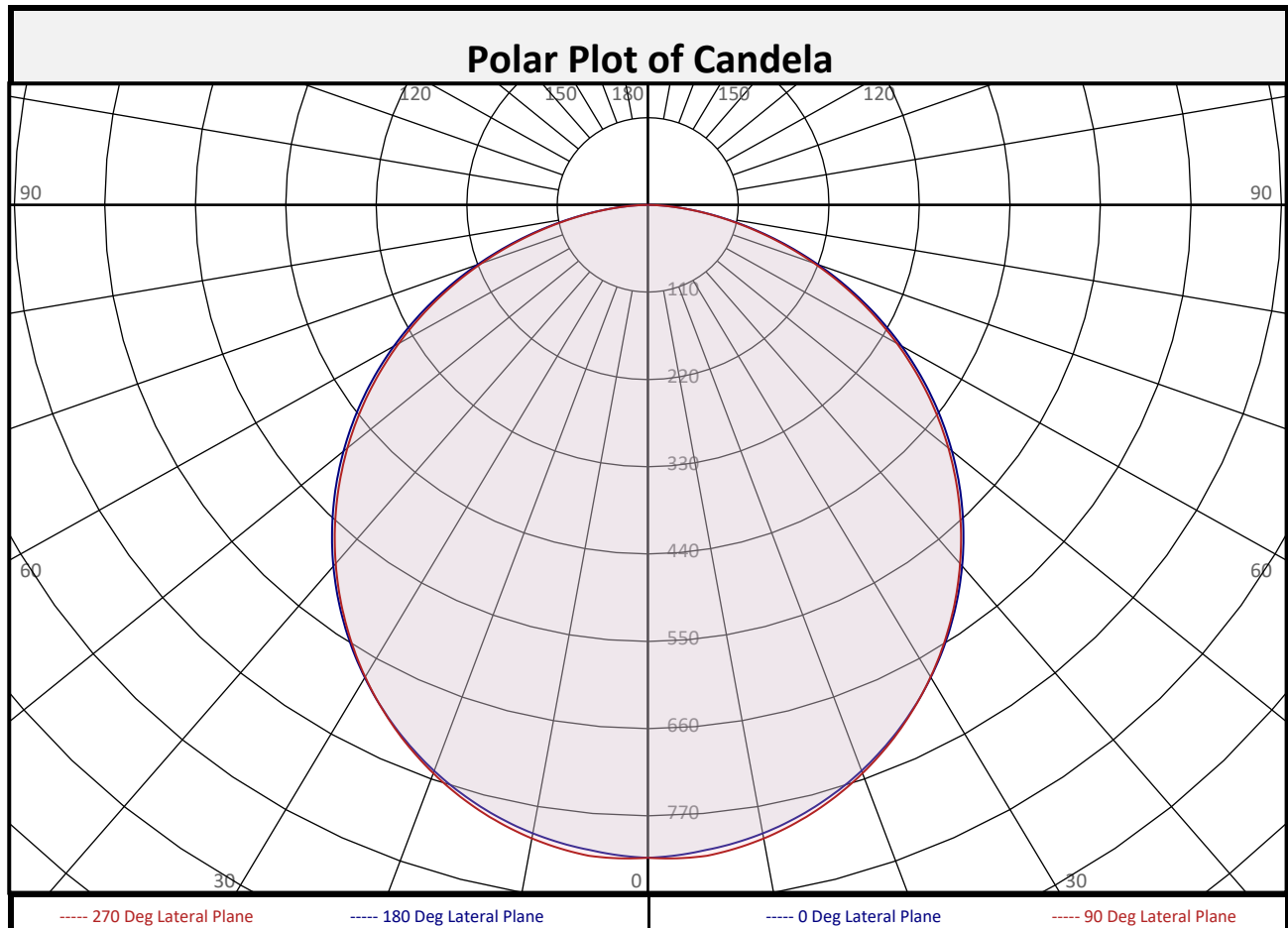
Report date: 08/22/2025

Signed: _____

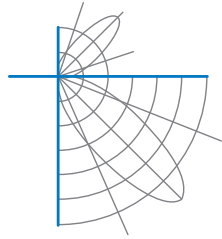


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Zonal Flux Summary										
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	77.8	3.4%		90-100	0.0	0.0%		0-20	299.8	13.0%
10-20	222.0	9.6%		100-110	0.0	0.0%		0-30	634.6	27.5%
20-30	334.7	14.5%		110-120	0.0	0.0%		0-40	1036	44.9%
30-40	401.4	17.4%		120-130	0.0	0.0%		0-60	1824	79.0%
40-50	414.6	18.0%		130-140	0.0	0.0%		0-80	2267	98.2%
50-60	373.3	16.2%		140-150	0.0	0.0%		10-90	2230	96.6%
60-70	282.8	12.3%		150-160	0.0	0.0%		20-50	1151	49.9%
70-80	159.9	6.9%		160-170	0.0	0.0%		40-90	1272	55.1%
80-90	41.2	1.8%		170-180	0.0	0.0%		60-90	483.9	21.0%
0-90	2308	100.0%		90-180	0.0	0.0%		0-180	2308	100.0%



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Luminous Intensity (Candela) Table

Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	Lateral (C-Plane) Angles									
		0	22.5	45	67.5	90	112.5	135	157.5	180
	0	823	823	823	823	823	823	823	823	823
	2.5	821	820	822	823	824	823	822	820	821
	5	816	816	818	821	824	821	818	816	816
	7.5	811	811	813	816	818	816	813	811	811
	10	804	804	806	809	811	809	806	804	804
	12.5	796	795	797	800	802	800	797	795	796
	15	785	785	786	789	790	789	786	785	785
	17.5	773	773	774	776	777	776	774	773	773
	20	759	759	760	761	762	761	760	759	759
	22.5	743	743	744	745	746	745	744	743	743
	25	726	726	726	727	728	727	726	726	726
	27.5	708	707	707	708	708	708	707	707	708
	30	688	687	686	687	687	687	686	687	688
	32.5	666	665	664	665	665	665	664	665	666
	35	644	642	641	641	641	641	641	642	644
	37.5	620	618	617	617	616	617	617	618	620
	40	594	593	591	591	590	591	591	593	594
	42.5	568	566	565	564	563	564	565	566	568
	45	540	539	537	537	535	537	537	539	540
	47.5	512	511	509	508	506	508	509	511	512
	50	483	481	479	478	477	478	479	481	483
	52.5	452	451	449	448	446	448	449	451	452
	55	421	420	418	416	415	416	418	420	421
	57.5	389	388	386	384	382	384	386	388	389
	60	356	355	353	351	350	351	353	355	356
	62.5	323	322	320	318	316	318	320	322	323
	65	289	288	286	284	283	284	286	288	289
	67.5	255	254	252	250	249	250	252	254	255
	70	220	219	218	216	215	216	218	219	220
	72.5	186	186	184	183	182	183	184	186	186
	75	152	152	151	150	149	150	151	152	152
	77.5	120	120	119	118	117	118	119	120	120
	80	90	89	89	88	87	88	89	89	90
	82.5	61	61	61	60	60	60	61	61	61
	85	36	36	35	35	35	35	35	36	36
87.5	14	14	13	13	12	13	13	14	14	
90	0	0	0	0	0	0	0	0	0	
16 lateral half-planes of data were acquired, 22.5 degree increments shown.										

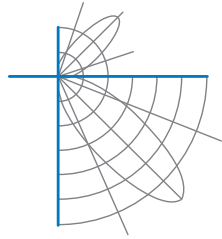
16 lateral half-planes of data were acquired, 22.5 degree increments shown.

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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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.

North America (issuing laboratory)

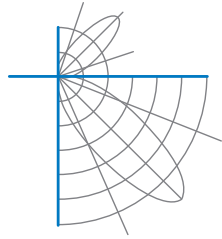
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Coefficients of Utilization/Room Utilization - Zonal Cavity Method															
Effective Floor Cavity Reflectance 0.20															
RC	80					70					50				
RW	70	50	30	10		70	50	30	10		50	30	10		
RCR															
0	119	119	119	119		116	116	116	116		111	111	111		100
1	109	104	100	96		106	102	98	94		97	94	91		84
2	99	91	84	78		96	89	82	77		85	80	75		70
3	90	79	71	65		88	78	70	64		75	68	63		59
4	82	70	62	55		80	69	61	54		67	59	54		50
5	76	63	54	47		74	62	53	47		60	52	46		43
6	70	57	48	41		68	56	47	41		54	46	41		38
7	65	51	43	36		63	51	42	36		49	41	36		33
8	60	47	38	32		59	46	38	32		45	37	32		30
9	56	43	35	29		55	42	34	29		41	34	29		27
10	53	40	32	26		52	39	32	26		38	31	26		24

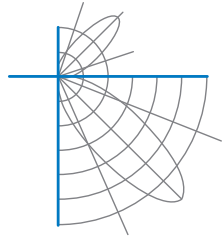
For absolute test reports, RUs are expressed as a percentage of total lumen output. For relative test reports, CUs are expressed as a percentage of total lamp output. Calculations were based on published IES procedures, and are based on the zonal cavity method. Basic assumptions: 1) Room surfaces are 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	22.9	7.46	7.45
8.0	12.9	9.95	9.93
10.0	8.2	12.44	12.42
12.0	5.7	14.92	14.90
14.0	4.2	17.41	17.38
16.0	3.2	19.90	19.87

Spacing Criterion	
0 deg:	1.2
90 deg:	1.2
180 deg:	1.2
270 deg:	1.2

Average Luminance (cd/m ²)			
	0 deg Plane	45 deg Plane	90 deg Plane
0	9664	9664	9664
45	8974	8919	8890
55	8617	8550	8489
65	8022	7948	7859
75	6912	6852	6748
85	4829	4756	4662

Beam and Field Angle	
0-180 Degree Plane	
Beam Angle:	111.4°
Field Angle:	161.2°
90-270 Degree Plane	
Beam Angle:	110.4°
Field Angle:	160.8°



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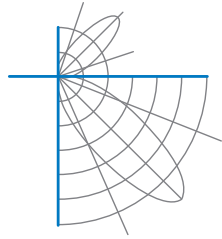
UGR Table - Corrected

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	19.7	21.3	20.0	21.6	21.9	19.6	21.2	19.9	21.5	21.8
	3H	21.4	22.9	21.8	23.3	23.6	21.4	22.8	21.7	23.2	23.5
	4H	22.1	23.5	22.5	23.9	24.2	22.0	23.4	22.4	23.7	24.1
	6H	22.6	23.9	23.0	24.2	24.6	22.5	23.8	22.9	24.1	24.5
	8H	22.7	24.0	23.1	24.3	24.7	22.6	23.8	23.0	24.2	24.6
	12H	22.8	24.0	23.2	24.4	24.8	22.7	23.9	23.1	24.3	24.7
4H	2H	20.3	21.7	20.7	22.0	22.4	20.2	21.6	20.6	22.0	22.3
	3H	22.3	23.5	22.7	23.9	24.3	22.2	23.4	22.6	23.8	24.2
	4H	23.1	24.1	23.5	24.6	25.0	23.0	24.0	23.4	24.5	24.9
	6H	23.7	24.6	24.1	25.0	25.5	23.6	24.5	24.0	24.9	25.4
	8H	23.9	24.7	24.3	25.2	25.6	23.7	24.6	24.2	25.1	25.5
	12H	24.0	24.8	24.5	25.2	25.7	23.9	24.7	24.3	25.1	25.6
8H	4H	23.4	24.2	23.8	24.7	25.2	23.3	24.2	23.7	24.6	25.1
	6H	24.1	24.8	24.6	25.3	25.8	24.0	24.7	24.5	25.2	25.7
	8H	24.3	25.0	24.9	25.5	26.0	24.3	24.9	24.8	25.4	25.9
	12H	24.5	25.1	25.0	25.6	26.2	24.4	25.0	24.9	25.5	26.1
12H	4H	23.4	24.2	23.9	24.7	25.1	23.3	24.1	23.8	24.6	25.1
	6H	24.2	24.8	24.7	25.3	25.8	24.1	24.7	24.6	25.2	25.7
	8H	24.4	25.0	24.9	25.5	26.1	24.3	24.9	24.8	25.4	26.0

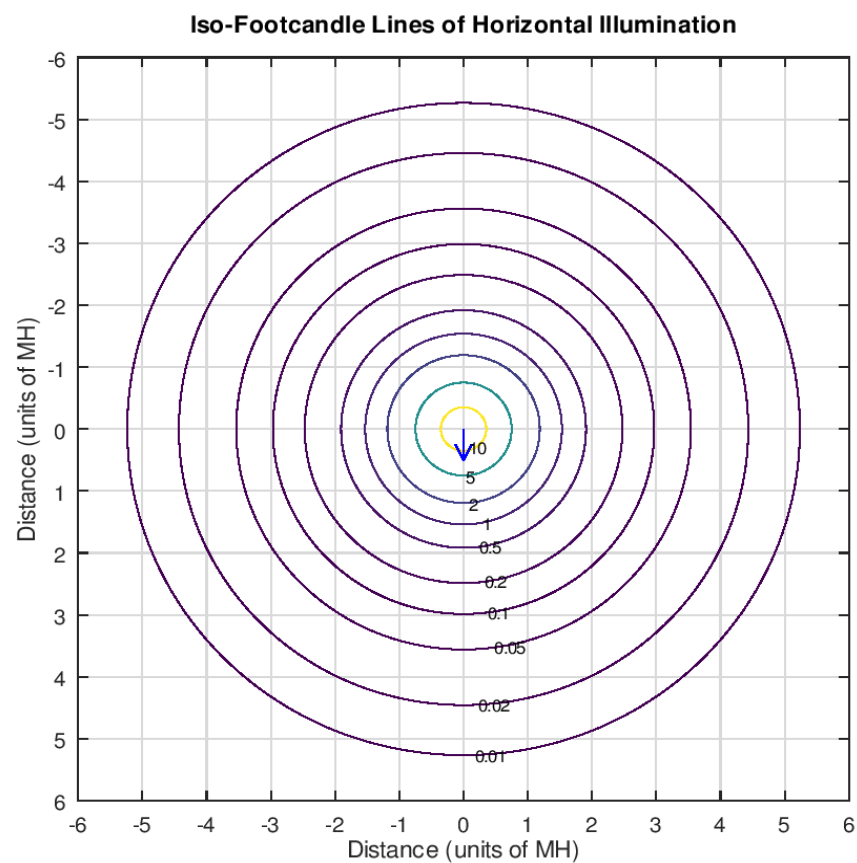
Maximum UGR = 26.2



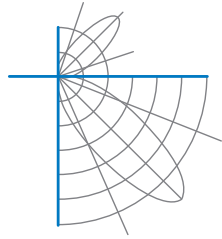
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Iso-Illuminance Plot



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 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.

Revision History: R01 - 08/22/2025 - Revised catalog number
 R02 - 08/22/2025 - Revised catalog number