

Report of Test

LLIA002717-001

Indoor Distribution Photometry Test Report

Catalog Number: LW3-4-700-35K-BW-1%-U

Surface mounted, white painted formed steel housing, white painted aluminum reflector, frosted linear prismatic plastic lens.

112 white LEDs, 2 Fortimo Strip PR 22in 2200lm 835 LV6 boards with 56 LEDs each.

One Advance XI020C056V054BST3 LED driver measured at 509mA



Prepared For:

Mercury Lighting Products Company, Inc.

20 Audrey Place

Fairfield, NJ 07004, USA

Performance Summary

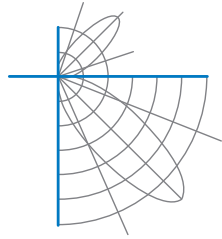
Input Voltage	120.0 Vac	Luminous Flux	2791.6 Lumens
Input Current	0.1857 A	Total Efficacy	125.9 lm/W
Input Power	22.17 W	Downward Flux	2791.6 Lumens
Frequency	60.00 Hz	Downward Flux	100.0 % of Total
Power Factor	0.995		
Current THD	6.3 %		

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

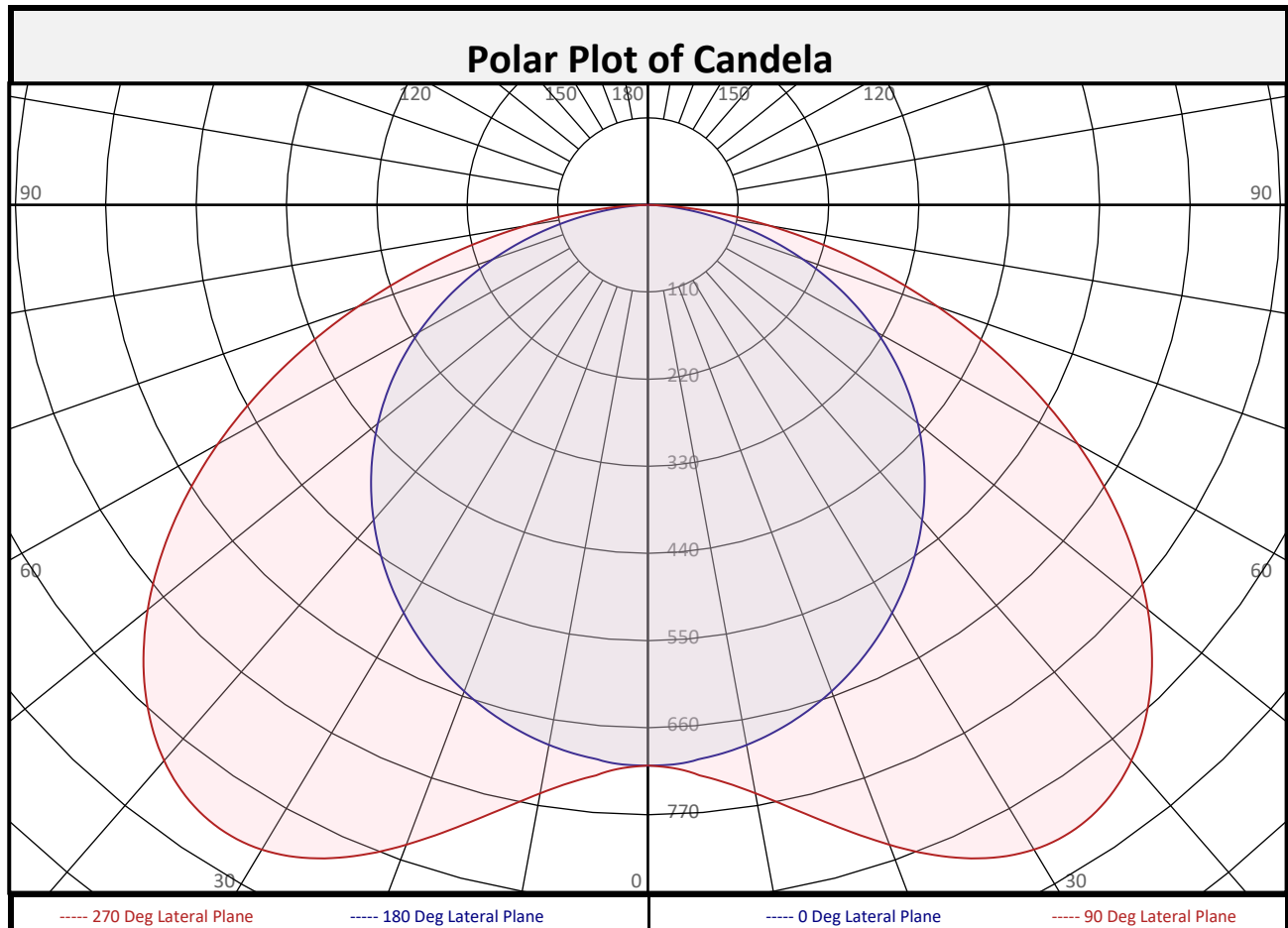
Test date: 07/21/2025

Report date: 07/22/2025

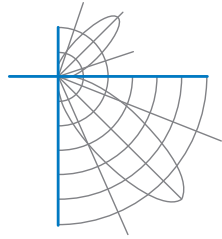
Signed: _____



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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	68.3	2.4%		90-100	0.0	0.0%		0-20	278.0	10.0%
10-20	209.7	7.5%		100-110	0.0	0.0%		0-30	632.2	22.6%
20-30	354.3	12.7%		110-120	0.0	0.0%		0-40	1105	39.6%
30-40	472.9	16.9%		120-130	0.0	0.0%		0-60	2131	76.3%
40-50	527.4	18.9%		130-140	0.0	0.0%		0-80	2738	98.1%
50-60	498.4	17.9%		140-150	0.0	0.0%		10-90	2723	97.6%
60-70	387.3	13.9%		150-160	0.0	0.0%		20-90	1355	48.5%
70-80	219.6	7.9%		160-170	0.0	0.0%		40-90	1687	60.4%
80-90	53.7	1.9%		170-180	0.0	0.0%		60-90	660.7	23.7%
0-90	2792	100.0%		90-180	0.0	0.0%		0-180	2792	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	708	708	708	708	708	708	708	708	708
	2.5	707	707	709	711	712	711	709	707	707
	5	703	704	711	719	723	719	711	704	703
	7.5	698	702	715	730	736	730	715	702	698
	10	692	700	721	744	754	744	721	700	692
	12.5	685	697	728	762	777	762	728	697	685
	15	676	692	736	783	803	783	736	692	676
	17.5	665	687	744	805	831	805	744	687	665
	20	654	680	752	828	860	828	752	680	654
	22.5	640	673	759	850	887	850	759	673	640
	25	626	664	765	870	910	870	765	664	626
	27.5	611	653	769	885	928	885	769	653	611
	30	595	641	770	896	940	896	770	641	595
	32.5	577	627	769	901	944	901	769	627	577
	35	559	612	763	900	942	900	763	612	559
	37.5	540	594	754	892	932	892	754	594	540
	40	519	575	741	878	916	878	741	575	519
	42.5	498	554	724	859	893	859	724	554	498
	45	476	531	703	834	865	834	703	531	476
	47.5	453	506	678	804	832	804	678	506	453
	50	429	480	650	770	795	770	650	480	429
	52.5	404	452	618	731	752	731	618	452	404
	55	378	423	582	688	706	688	582	423	378
	57.5	351	392	544	641	657	641	544	392	351
	60	323	361	503	591	605	591	503	361	323
	62.5	293	328	459	538	549	538	459	328	293
	65	263	294	413	484	493	484	413	294	263
	67.5	232	259	366	427	434	427	366	259	232
	70	201	225	318	370	375	370	318	225	201
	72.5	169	190	270	312	316	312	270	190	169
	75	138	155	221	256	258	256	221	155	138
	77.5	107	121	174	201	202	201	174	121	107
	80	77	89	129	149	149	149	129	89	77
	82.5	50	59	88	100	100	100	88	59	50
	85	27	34	50	56	55	56	50	34	27
87.5	10	13	18	16	15	16	18	13	10	
90	0	0	0	0	0	0	0	0	0	
16 lateral half-planes of data were acquired, 22.5 degree increments shown.										

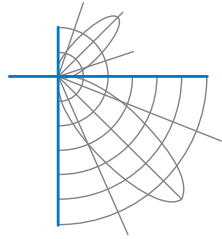
16 lateral half-planes of data were acquired, 22.5 degree increments shown.

North America (issuing laboratory)

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Luminous Intensity (Candela) Table

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)

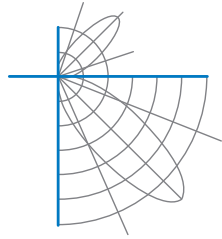
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Coefficients of Utilization/Room Utilization - Zonal Cavity Method

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	108	103	99	95		105	101	97	93		97	93	90			93	90	87			89	87	85			83
2	98	89	82	76		95	87	81	75		84	78	73			80	76	71			77	73	70			68
3	89	78	69	62		86	76	68	62		73	66	60			70	64	59			67	63	58			56
4	81	68	59	52		78	67	58	51		64	57	51			62	55	50			60	54	49			47
5	74	60	51	44		72	59	50	44		57	49	43			55	48	43			53	47	42			40
6	68	54	45	38		66	53	44	38		51	43	37			49	42	37			48	42	37			35
7	63	49	40	33		61	48	39	33		46	38	33			45	38	32			43	37	32			30
8	58	44	35	29		57	43	35	29		42	34	29			41	34	29			40	33	29			27
9	54	40	32	26		53	40	32	26		39	31	26			37	31	26			36	30	25			24
10	51	37	29	23		49	36	29	23		35	28	23			34	28	23			34	27	23			21

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	19.7	7.50	11.07
8.0	11.1	10.01	14.76
10.0	7.1	12.51	18.45
12.0	4.9	15.01	22.14
14.0	3.6	17.51	25.83
16.0	2.8	20.01	29.52

Spacing Criterion

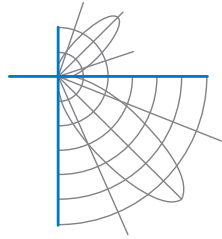
0 deg:	1.3
90 deg:	1.8
180 deg:	1.3
270 deg:	1.8

Average Luminance (cd/m²)

	0 deg Plane	45 deg Plane	90 deg Plane
0	9753	9753	9753
45	9278	13702	16862
55	9079	13985	16969
65	8584	13477	16057
75	7335	11783	13745
85	4244	7943	8658

Beam and Field Angle

0-180 Degree Plane	
Beam Angle:	90.9°
Field Angle:	157.0°
90-270 Degree Plane	
Beam Angle:	131.8°
Field Angle:	165.6°



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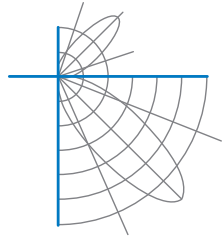
UGR Table - Corrected

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

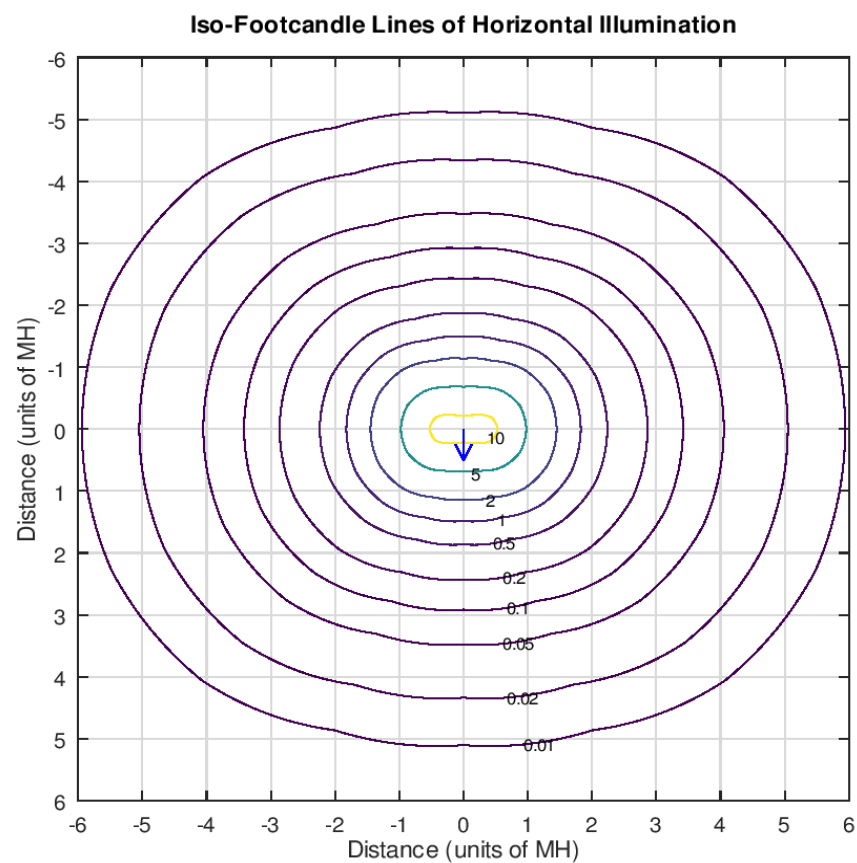
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	19.4	21.1	19.8	21.5	21.8	23.0	24.7	23.4	25.0	25.4
	3H	21.2	22.7	21.6	23.1	23.4	24.9	26.4	25.3	26.8	27.1
	4H	21.8	23.3	22.2	23.6	24.0	25.6	27.0	26.0	27.4	27.7
	6H	22.2	23.6	22.6	23.9	24.3	26.1	27.4	26.5	27.8	28.2
	8H	22.3	23.6	22.7	24.0	24.4	26.2	27.5	26.6	27.9	28.3
	12H	22.4	23.6	22.8	24.0	24.4	26.3	27.5	26.7	27.9	28.3
4H	2H	20.8	22.3	21.2	22.6	23.0	23.5	24.9	23.9	25.3	25.7
	3H	22.7	23.9	23.1	24.3	24.7	25.6	26.8	26.0	27.2	27.6
	4H	23.3	24.4	23.7	24.8	25.3	26.4	27.5	26.9	28.0	28.4
	6H	23.8	24.8	24.3	25.2	25.7	27.1	28.0	27.5	28.5	28.9
	8H	23.9	24.8	24.4	25.3	25.7	27.2	28.2	27.7	28.6	29.1
	12H	24.0	24.8	24.5	25.3	25.8	27.3	28.2	27.8	28.7	29.1
8H	4H	24.0	24.9	24.4	25.3	25.8	26.6	27.6	27.1	28.0	28.5
	6H	24.5	25.3	25.0	25.8	26.3	27.4	28.1	27.9	28.6	29.1
	8H	24.7	25.4	25.2	25.9	26.4	27.6	28.3	28.1	28.8	29.3
	12H	24.8	25.4	25.3	25.9	26.5	27.8	28.4	28.3	28.9	29.5
12H	4H	24.0	24.9	24.5	25.3	25.8	26.6	27.5	27.1	27.9	28.4
	6H	24.7	25.4	25.2	25.8	26.4	27.4	28.1	27.9	28.6	29.1
	8H	24.9	25.5	25.4	26.0	26.6	27.7	28.3	28.2	28.8	29.4

Maximum UGR = 29.5

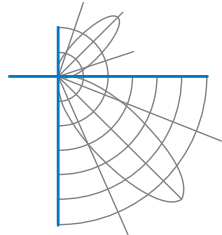


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Iso-Illuminance Plot



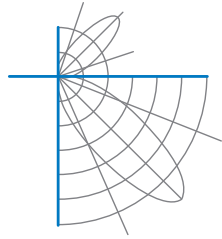
The isofootcandle values shown in the plot above are based on a mounting height of $h = 8.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution of room reflections.



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Additional Pictures of Test Subject





Report of Test

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Test Distance 9.5 m
Ambient Temperature 25.0 °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.