

Report of Test

LLIA002717-002

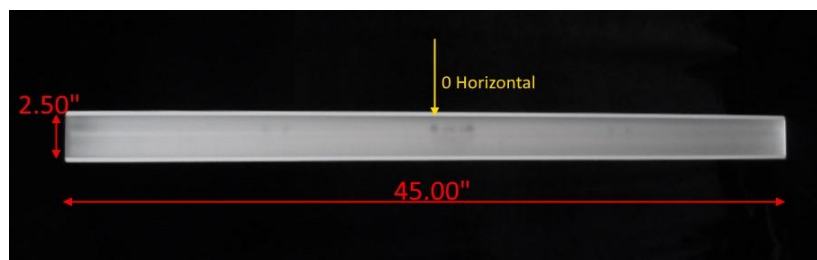
Indoor Distribution Photometry Test Report

Catalog Number: LW3-4-750-35K-AS-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

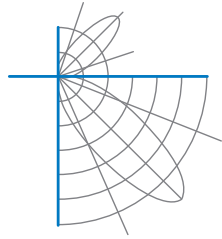
Input Voltage	120.0 Vac	Luminous Flux	2953.8 Lumens
Input Current	0.1853 A	Total Efficacy	133.6 lm/W
Input Power	22.11 W	Downward Flux	2953.8 Lumens
Frequency	60.00 Hz	Downward Flux	100.0 % of Total
Power Factor	0.995		
Current THD	6.0 %		

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

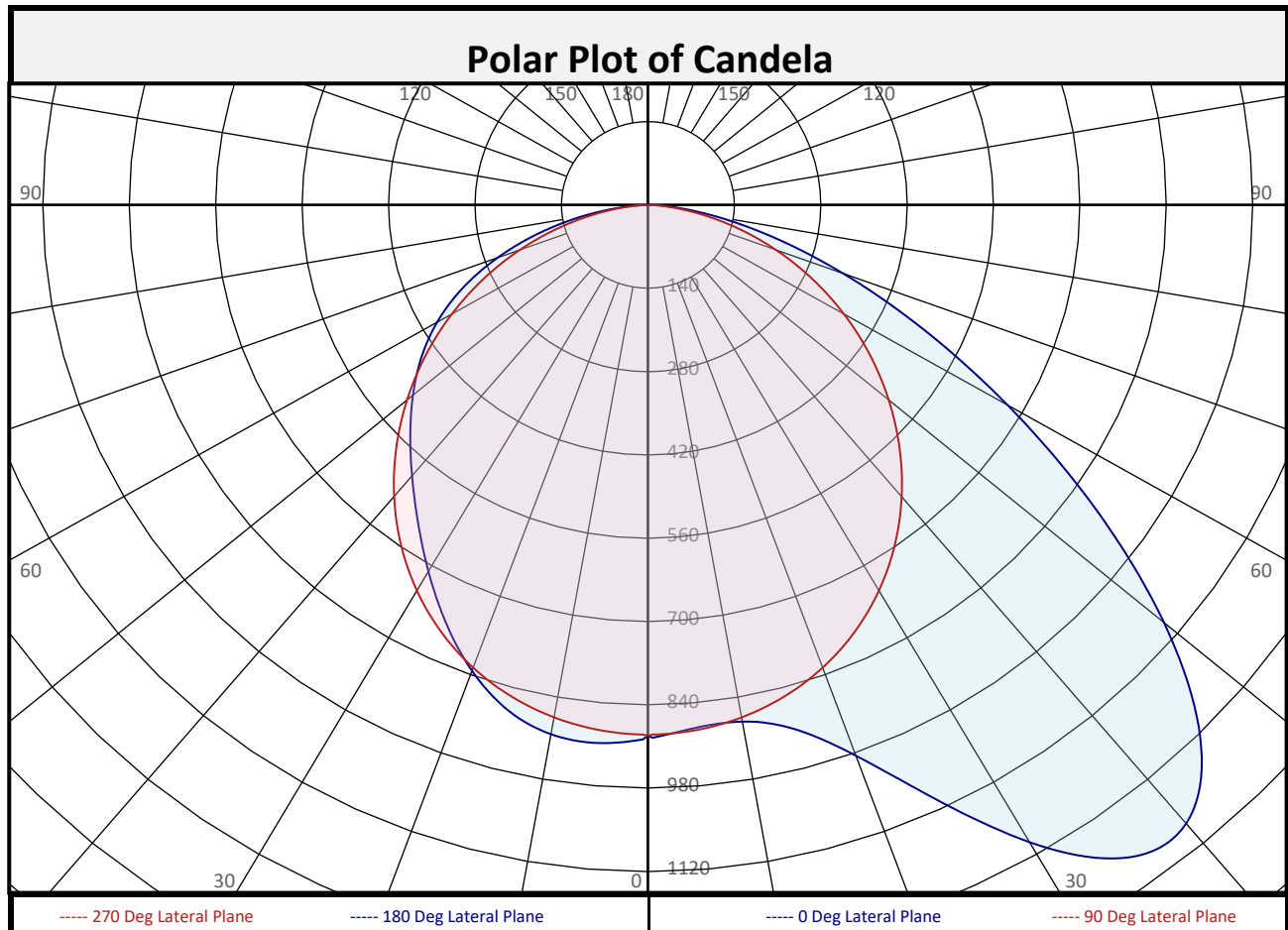
Test date: 07/21/2025

Report date: 07/22/2025

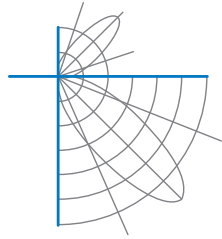
Signed: _____



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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	84.7	2.9%		90-100	0.0	0.0%		0-20	331.5	11.2%
10-20	246.9	8.4%		100-110	0.0	0.0%		0-30	726.4	24.6%
20-30	394.9	13.4%		110-120	0.0	0.0%		0-40	1246	42.2%
30-40	519.6	17.6%		120-130	0.0	0.0%		0-60	2337	79.1%
40-50	574.2	19.4%		130-140	0.0	0.0%		0-80	2909	98.5%
50-60	517.0	17.5%		140-150	0.0	0.0%		10-90	2869	97.1%
60-70	374.0	12.7%		150-160	0.0	0.0%		20-50	1489	50.4%
70-80	197.7	6.7%		160-170	0.0	0.0%		40-90	1708	57.8%
80-90	44.9	1.5%		170-180	0.0	0.0%		60-90	616.6	20.9%
0-90	2954	100.0%		90-180	0.0	0.0%		0-180	2954	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	892	892	892	892	892	892	892	892	892
	2.5	889	886	885	885	889	891	896	901	904
	5	882	880	878	880	886	891	899	905	908
	7.5	879	876	872	873	881	889	898	905	908
	10	882	876	867	865	874	885	895	901	903
	12.5	892	881	863	856	866	878	888	893	894
	15	911	894	862	845	855	869	877	879	879
	17.5	942	915	863	834	842	856	863	861	858
	20	985	946	867	823	828	842	845	838	833
	22.5	1039	985	875	810	811	824	823	811	805
	25	1101	1032	887	797	792	804	798	782	774
	27.5	1169	1085	901	783	771	781	770	751	743
	30	1237	1140	918	768	748	756	740	719	711
	32.5	1296	1192	935	753	724	729	708	687	680
	35	1340	1235	951	737	697	699	676	655	650
	37.5	1362	1265	965	720	669	668	642	624	621
	40	1357	1276	973	701	640	634	608	593	594
	42.5	1324	1265	974	681	609	600	574	565	569
	45	1266	1230	965	658	576	565	539	537	544
	47.5	1186	1175	946	633	543	530	506	509	520
	50	1092	1102	915	604	509	493	472	482	497
	52.5	987	1015	873	572	474	457	439	454	473
	55	881	920	822	537	439	421	406	427	448
	57.5	775	822	762	499	403	385	373	399	422
	60	673	724	696	459	367	348	340	370	394
	62.5	578	628	625	416	330	313	306	339	364
	65	490	538	552	371	293	277	273	307	331
	67.5	409	453	478	325	257	242	240	274	296
	70	336	374	405	279	220	207	207	239	259
	72.5	270	302	334	234	184	173	175	203	220
	75	211	236	267	189	149	140	142	167	181
	77.5	158	177	203	146	115	108	111	132	142
	80	112	126	145	106	83	79	82	97	104
	82.5	72	81	94	70	54	52	55	64	68
	85	40	44	52	39	28	29	31	34	34
	87.5	12	13	18	15	10	11	9	8	8
	90	0	0	0	0	0	0	0	0	0

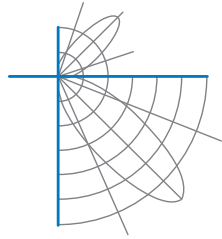
16 lateral half-planes of data were acquired, 22.5 degree increments shown.

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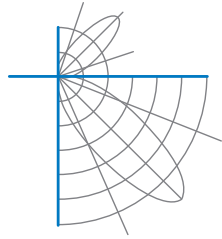
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Lateral (C-Plane) Angles										
	0	22.5	45	67.5	90	112.5	135	157.5	180	
Vertical (Gamma) Angles - Data was acquired in 0.5° increments shown.	90	0	0	0	0	0	0	0	0	0
	92.5	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	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	0			
RCR																									
0	119	119	119	119		116	116	116	116		111	111	111		106	106	106		102	102	102	100			
1	109	104	100	96		106	102	98	94		97	94	91		93	91	88		90	88	86	84			
2	99	90	83	78		96	88	82	77		85	79	75		82	77	73		78	75	71	69			
3	90	79	71	64		87	77	70	63		74	68	62		72	66	61		69	64	60	58			
4	82	70	61	54		80	68	60	53		66	58	53		63	57	52		61	56	51	49			
5	75	62	53	46		73	61	52	46		59	51	45		57	50	45		55	49	44	42			
6	69	56	46	40		67	55	46	40		53	45	39		51	44	39		49	43	39	36			
7	64	50	41	35		62	49	41	35		48	40	34		46	39	34		45	39	34	32			
8	59	46	37	31		58	45	37	31		44	36	31		42	35	30		41	35	30	28			
9	55	42	33	28		54	41	33	28		40	33	27		39	32	27		38	32	27	25			
10	52	38	30	25		50	38	30	25		37	30	25		36	29	25		35	29	24	23			

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	24.8	9.57	7.48
8.0	13.9	12.77	9.97
10.0	8.9	15.96	12.46
12.0	6.2	19.15	14.96
14.0	4.6	22.34	17.45
16.0	3.5	25.53	19.94

Spacing Criterion

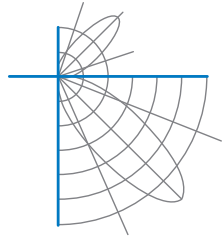
0 deg:	2.0
90 deg:	1.2
180 deg:	1.2
270 deg:	1.2

Average Luminance (cd/m²)

	0 deg Plane	45 deg Plane	90 deg Plane
0	12290	12290	12290
45	24664	18804	11232
55	21157	19735	10543
65	15968	17984	9565
75	11226	14205	7932
85	6246	8188	4492

Beam and Field Angle

0-180 Degree Plane	
Beam Angle:	92.1°
Field Angle:	156.5°
90-270 Degree Plane	
Beam Angle:	72.9°
Field Angle:	151.9°



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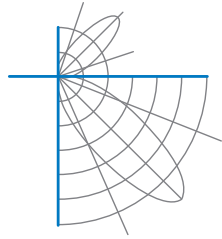
UGR Table - Corrected

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

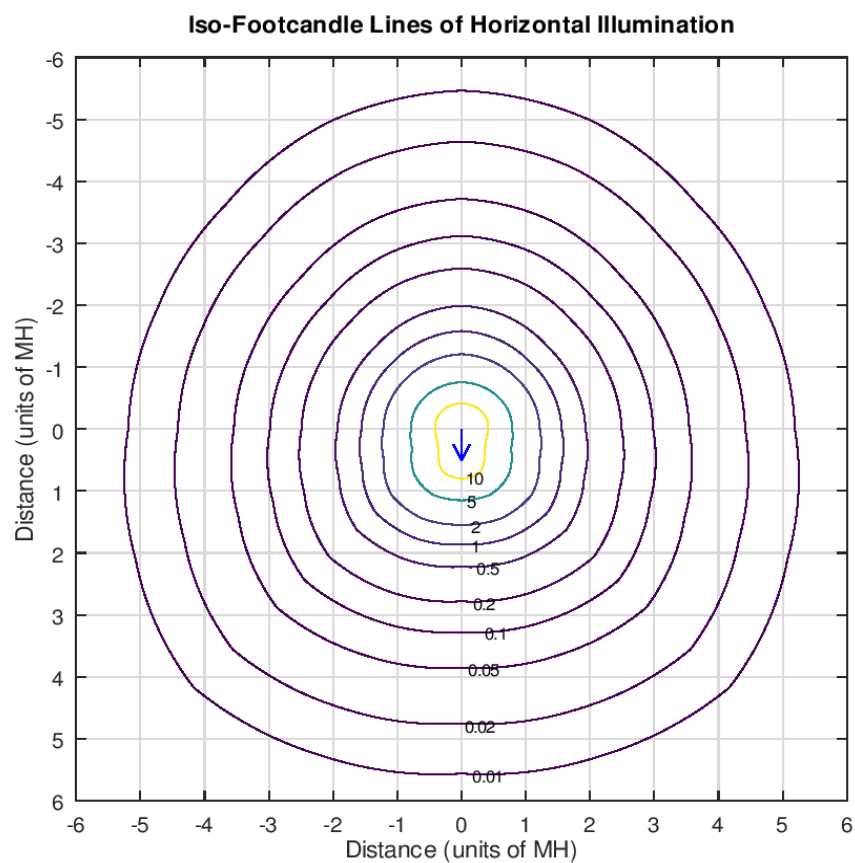
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	24.5	26.1	24.8	26.5	26.8	20.2	21.8	20.5	22.2	22.5
	3H	25.7	27.2	26.1	27.5	27.9	21.8	23.3	22.2	23.7	24.0
	4H	26.1	27.5	26.5	27.8	28.2	22.4	23.8	22.8	24.2	24.5
	6H	26.3	27.6	26.7	28.0	28.4	22.8	24.1	23.2	24.5	24.8
	8H	26.4	27.6	26.8	28.0	28.4	22.9	24.1	23.3	24.5	24.9
	12H	26.4	27.6	26.8	28.0	28.4	22.9	24.1	23.3	24.5	24.9
4H	2H	25.0	26.4	25.4	26.8	27.1	21.4	22.8	21.8	23.1	23.5
	3H	26.5	27.7	26.9	28.1	28.5	23.1	24.3	23.6	24.7	25.1
	4H	27.0	28.0	27.4	28.4	28.9	23.8	24.9	24.2	25.3	25.7
	6H	27.3	28.2	27.7	28.7	29.1	24.2	25.2	24.7	25.6	26.1
	8H	27.4	28.2	27.8	28.7	29.2	24.4	25.2	24.8	25.7	26.1
	12H	27.4	28.2	27.9	28.7	29.1	24.4	25.2	24.9	25.7	26.2
8H	4H	27.2	28.1	27.7	28.5	29.0	24.2	25.1	24.7	25.5	26.0
	6H	27.6	28.3	28.1	28.8	29.3	24.8	25.5	25.3	26.0	26.5
	8H	27.7	28.4	28.2	28.9	29.4	24.9	25.6	25.5	26.1	26.6
	12H	27.8	28.4	28.3	28.9	29.5	25.1	25.6	25.6	26.1	26.7
12H	4H	27.2	28.0	27.7	28.5	28.9	24.3	25.1	24.8	25.5	26.0
	6H	27.6	28.3	28.2	28.8	29.3	24.9	25.5	25.4	26.0	26.5
	8H	27.8	28.4	28.3	28.9	29.4	25.1	25.7	25.6	26.1	26.7

Maximum UGR = 29.5

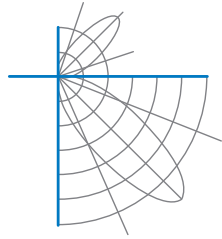


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Iso-Illuminance Plot

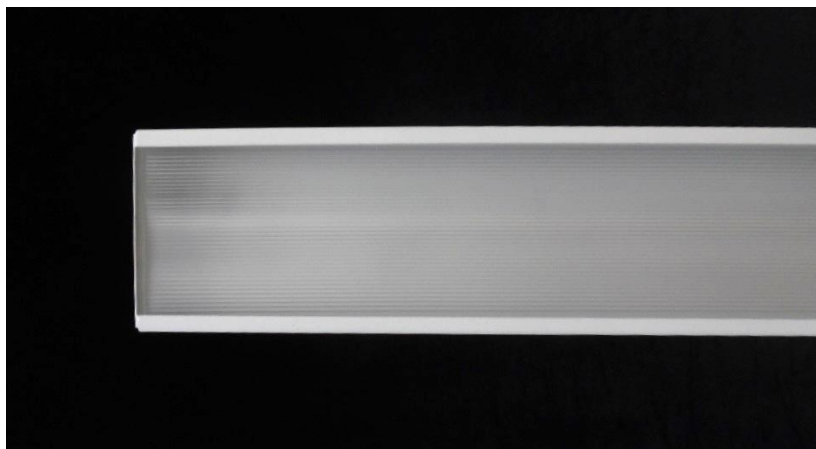


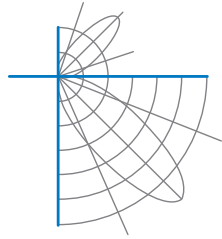
The isofootcandle values shown in the plot above are based on a mounting height of $h = 8.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution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



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Additional Pictures of Test Subject





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Test Distance 9.5 m
Ambient Temperature 24.9 °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.