

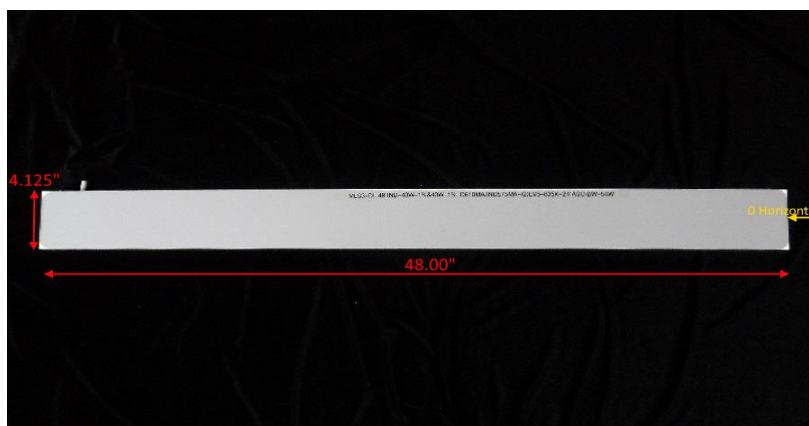
Report of Test

LLIA001503-011

Indoor Distribution Photometry Test Report

Catalog Number: MLS3-DI-48-550-850-35K-ASO-BW-1%-2C-U

Pendant mounted, extruded aluminum housing, frosted plastic upper enclosure, translucent white plastic lower enclosure. 224 white LEDs, two Advance FO Strip PR 22in 2200lm 835 LV5 LED boards with 56 LEDs each in indirect section, two Advance FO Strip PR 23.72in 2200lm 835 LV5 LED boards with 56 LEDs each in direct section. Two Advance XI040C110V054BST2 LED drivers labeled as 610mA(direct) and 575mA(indirect)



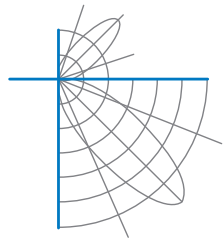
Prepared For:
Mercury Lighting Products Company, Inc.
20 Audrey Place
Fairfield, NJ 07004, USA

Performance Summary			
Input Voltage	120.0 V	Luminous Flux	5613.3 Lumens
Input Current	0.4536 A	Total Efficacy	104.1 Lm/W
Input Power	53.94 W	Downward Flux	2209.4 Lumens
Frequency	60.00 Hz	Downward Flux	39.4 % of Total
Power Factor	0.991		
Current THD	8.1 %		

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

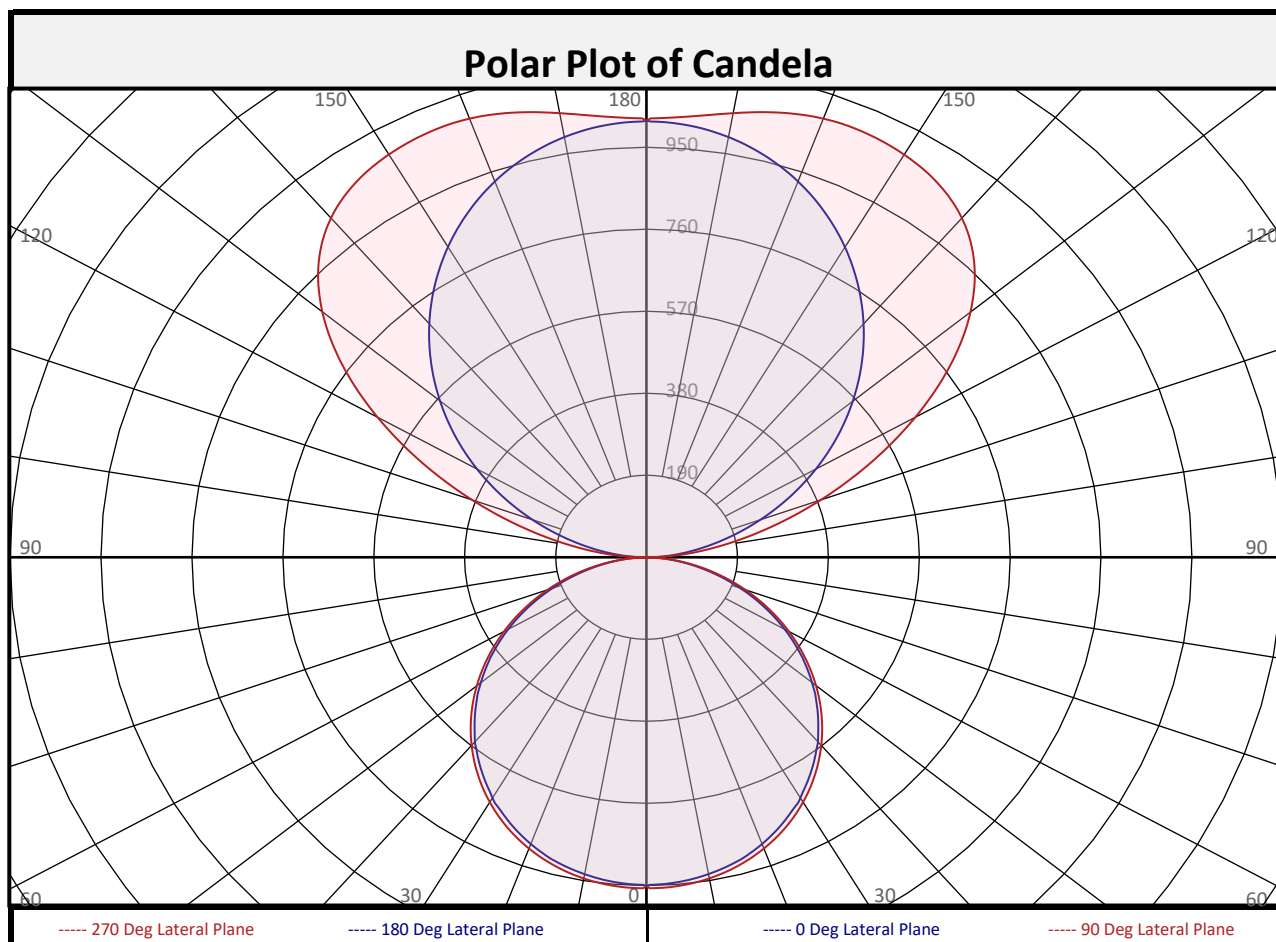
Test date: 08/09/2021
Report date: 08/16/2021

Signed: _____

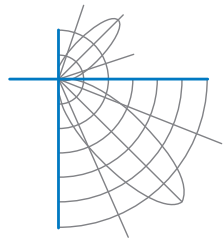


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Zonal Flux Summary											
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total	
0-10	72.1	1.3%		90-100	76.5	1.4%		0-20	278.9	5.0%	
10-20	206.8	3.7%		100-110	252.2	4.5%		0-30	593.0	10.6%	
20-30	314.0	5.6%		110-120	439.6	7.8%		0-40	972.3	17.3%	
30-40	379.3	6.8%		120-130	582.0	10.4%		0-60	1723	30.7%	
40-50	393.9	7.0%		130-140	631.2	11.2%		0-80	2160	38.5%	
50-60	356.5	6.4%		140-150	580.8	10.3%		10-90	2137	38.1%	
60-70	274.2	4.9%		150-160	457.3	8.1%		20-50	1087	19.4%	
70-80	163.7	2.9%		160-170	287.4	5.1%		40-90	1237	22.0%	
80-90	48.9	0.9%		170-180	96.9	1.7%		60-90	486.7	8.7%	
0-90	2209	39.4%		90-180	3404	60.6%		0-180	5613	100.0%	

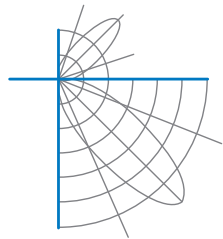


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Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles									
Vertical (Gamma) Angles		0	22.5	45	67.5	90	112.5	135	157.5	180
	0	761	761	761	761	761	761	761	761	761
	2.5	757	758	760	763	766	763	760	758	757
	5	755	755	757	761	764	761	757	755	755
	7.5	751	751	754	757	760	757	754	751	751
	10	745	746	748	751	755	751	748	746	745
	12.5	738	738	741	744	748	744	741	738	738
	15	729	729	732	735	740	735	732	729	729
	17.5	719	719	721	725	729	725	721	719	719
	20	706	707	710	713	718	713	710	707	706
	22.5	693	693	696	699	704	699	696	693	693
	25	677	677	681	684	689	684	681	677	677
	27.5	661	661	664	668	673	668	664	661	661
	30	643	643	646	649	654	649	646	643	643
	32.5	623	624	627	630	635	630	627	624	623
	35	602	602	606	609	614	609	606	602	602
	37.5	580	580	585	587	592	587	585	580	580
	40	558	557	561	563	568	563	561	557	558
	42.5	532	534	536	539	544	539	536	534	532
	45	506	507	511	513	518	513	511	507	506
	47.5	480	481	484	486	491	486	484	481	480
	50	452	454	456	459	463	459	456	454	452
	52.5	424	426	428	430	434	430	428	426	424
	55	395	397	399	401	404	401	399	397	395
	57.5	365	367	369	371	375	371	369	367	365
	60	334	337	339	341	344	341	339	337	334
	62.5	303	306	308	310	313	310	308	306	303
	65	272	274	277	280	282	280	277	274	272
	67.5	241	243	246	249	251	249	246	243	241
	70	209	212	215	218	220	218	215	212	209
	72.5	179	182	185	188	190	188	185	182	179
	75	149	151	155	158	159	158	155	151	149
	77.5	120	123	126	128	130	128	126	123	120
	80	93	95	98	100	101	100	98	95	93
	82.5	67	68	71	72	72	72	71	68	67
	85	43	43	44	44	45	44	44	43	43
	87.5	19	19	19	18	18	18	19	19	19
90	1	1	1	1	1	1	1	1	1	

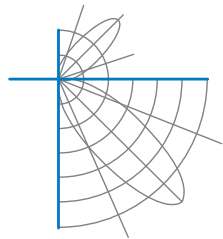


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Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles									
Vertical (Gamma) Angles		0	22.5	45	67.5	90	112.5	135	157.5	180
	90	1	1	1	1	1	1	1	1	1
	92.5	23	31	40	37	34	37	40	31	23
	95	51	61	77	77	74	77	77	61	51
	97.5	80	93	116	120	116	120	116	93	80
	100	110	128	159	165	162	165	159	128	110
	102.5	143	165	205	215	212	215	205	165	143
	105	178	205	254	269	267	269	254	205	178
	107.5	215	246	305	326	325	326	305	246	215
	110	252	289	358	386	386	386	358	289	252
	112.5	291	332	412	448	450	448	412	332	291
	115	330	376	467	511	516	511	467	376	330
	117.5	369	420	521	575	582	575	521	420	369
	120	409	464	574	638	648	638	574	464	409
	122.5	448	508	624	698	713	698	624	508	448
	125	487	550	673	756	775	756	673	550	487
	127.5	526	591	719	809	832	809	719	591	526
	130	564	630	761	858	884	858	761	630	564
	132.5	601	668	800	900	929	900	800	668	601
	135	637	704	835	937	968	937	835	704	637
	137.5	672	738	866	968	1000	968	866	738	672
	140	706	770	894	993	1025	993	894	770	706
	142.5	739	800	918	1014	1045	1014	918	800	739
	145	771	828	939	1030	1059	1030	939	828	771
	147.5	801	854	958	1042	1070	1042	958	854	801
	150	830	878	974	1052	1077	1052	974	878	830
	152.5	857	900	987	1059	1082	1059	987	900	857
	155	882	920	998	1063	1084	1063	998	920	882
	157.5	905	937	1006	1065	1084	1065	1006	937	905
	160	926	953	1012	1064	1081	1064	1012	953	926
	162.5	945	966	1015	1060	1075	1060	1015	966	945
	165	962	978	1017	1054	1067	1054	1017	978	962
	167.5	976	987	1017	1046	1056	1046	1017	987	976
	170	988	995	1015	1037	1045	1037	1015	995	988
	172.5	997	1001	1014	1028	1034	1028	1014	1001	997
	175	1004	1005	1012	1021	1025	1021	1012	1005	1004
	177.5	1008	1008	1011	1016	1019	1016	1011	1008	1008
180	1012	1012	1012	1012	1012	1012	1012	1012	1012	



Report of Test

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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	105	105	105	105		95	95	95	95		77	77	77		61	61	61		46	46	46	39
1	95	91	87	83		86	83	79	76		68	65	63		54	52	51		41	40	39	33
2	87	79	73	68		78	72	67	62		59	55	52		47	44	42		36	34	32	27
3	79	69	62	56		71	63	57	52		52	47	43		41	38	35		31	29	27	23
4	72	61	53	47		65	56	49	44		46	41	37		37	33	30		28	25	23	19
5	66	54	46	40		60	50	43	37		41	36	32		33	29	26		25	22	20	17
6	61	49	41	35		55	45	37	32		37	31	27		29	26	23		23	20	18	15
7	56	44	36	30		51	40	33	28		33	28	24		27	23	20		21	18	16	13
8	52	40	32	27		47	36	30	25		30	25	21		24	20	18		19	16	14	12
9	48	36	29	24		44	33	27	22		28	22	19		22	18	16		17	15	13	10
10	45	33	26	21		41	30	24	20		25	20	17		21	17	14		16	13	11	9

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.

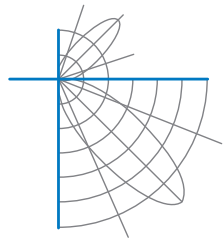
Circle of Light Plot

Height(ft)	Illuminance at Nadir (fc)	Ground-level distance to half-of-nadir illuminance (ft)	
		0-180 deg	90-270 deg
6.0	21.1	7.53	7.65
8.0	11.9	10.03	10.20
10.0	7.6	12.54	12.75
12.0	5.3	15.05	15.30
14.0	3.9	17.56	17.85
16.0	3.0	20.07	20.40

Average Luminance (cd/m ²)			
	0 deg Plane	45 deg Plane	90 deg Plane
0	8938	8938	8938
45	8409	8481	8596
55	8086	8164	8281
65	7555	7698	7847
75	6742	7036	7229
85	5728	5960	6000

Spacing Criterion

0 degree plane:	1.3
90 degree plane:	1.3
180 degree plane:	1.3
270 degree plane:	1.3



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UGR TABLE - CORRECTED

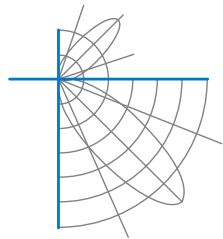
Reflectances

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	14.5	15.3	15.6	16.4	17.8	14.6	15.4	15.7	16.5	17.9
	3H	16.3	17.0	17.4	18.1	19.5	16.5	17.2	17.6	18.3	19.7
	4H	17.0	17.6	18.1	18.7	20.2	17.2	17.9	18.3	18.9	20.4
	6H	17.5	18.1	18.6	19.2	20.6	17.7	18.3	18.8	19.4	20.9
	8H	17.6	18.2	18.7	19.3	20.8	17.9	18.5	19.0	19.6	21.0
	12H	17.7	18.3	18.8	19.4	20.8	18.0	18.6	19.1	19.6	21.1
4H	2H	15.1	15.8	16.2	16.8	18.3	15.2	15.8	16.3	16.9	18.4
	3H	17.1	17.7	18.2	18.8	20.2	17.3	17.8	18.3	18.9	20.3
	4H	17.9	18.4	19.0	19.5	21.0	18.1	18.6	19.2	19.7	21.2
	6H	18.5	19.0	19.6	20.1	21.5	18.8	19.2	19.9	20.3	21.8
	8H	18.7	19.2	19.8	20.2	21.7	19.0	19.4	20.1	20.5	22.0
	12H	18.9	19.3	20.0	20.4	21.9	19.2	19.5	20.3	20.6	22.1
8H	4H	18.2	18.6	19.3	19.7	21.2	18.4	18.8	19.4	19.9	21.3
	6H	19.0	19.3	20.1	20.4	21.9	19.2	19.5	20.3	20.7	22.1
	8H	19.3	19.6	20.4	20.7	22.2	19.5	19.8	20.6	20.9	22.4
	12H	19.5	19.8	20.6	20.9	22.4	19.7	20.0	20.9	21.1	22.7
12H	4H	18.2	18.6	19.3	19.7	21.2	18.4	18.7	19.5	19.8	21.3
	6H	19.0	19.3	20.1	20.4	22.0	19.2	19.5	20.4	20.6	22.2
	8H	19.4	19.6	20.5	20.7	22.3	19.6	19.9	20.7	21.0	22.5

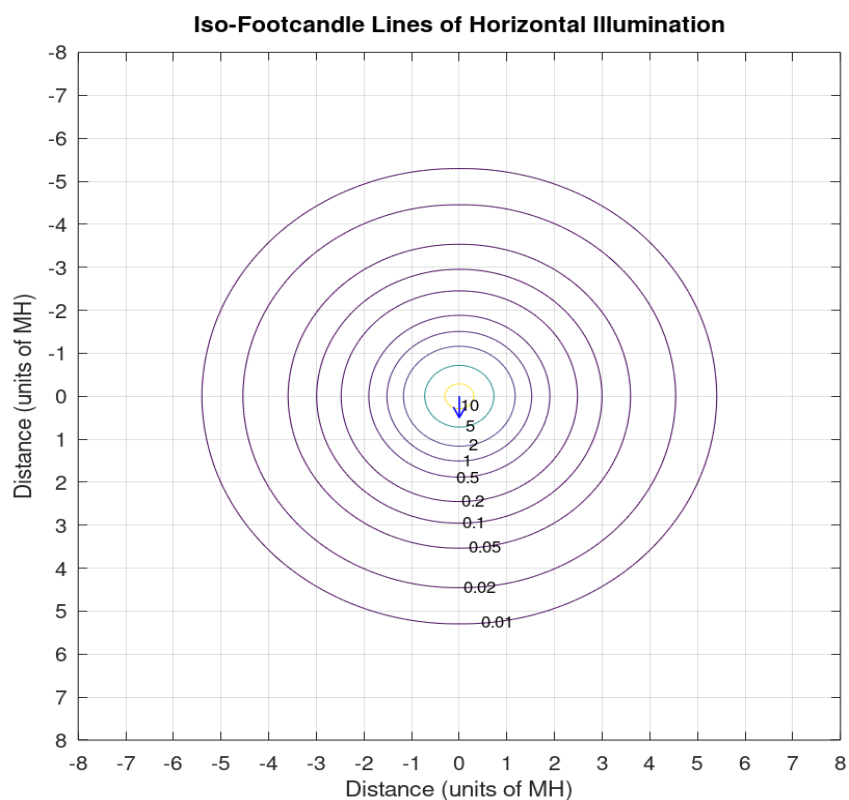
Maximum UGR = 22.7



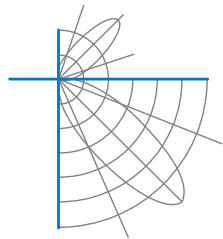
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Iso-Illuminance Plot



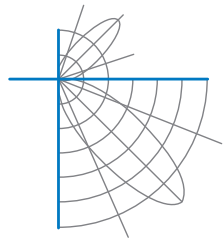
The isofootcandle values shown in the plot above are based on a mounting height of $h = 8.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution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



Report of Test LLIA001503-011

Additional Pictures of Test Subject





Report of Test

LLIA001503-011

Test Distance 9.5 m
Ambient Temperature 25.3 °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-79-19. Format of reports and angular increments based on IES LM-41-14 and LM-46-04.

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.