

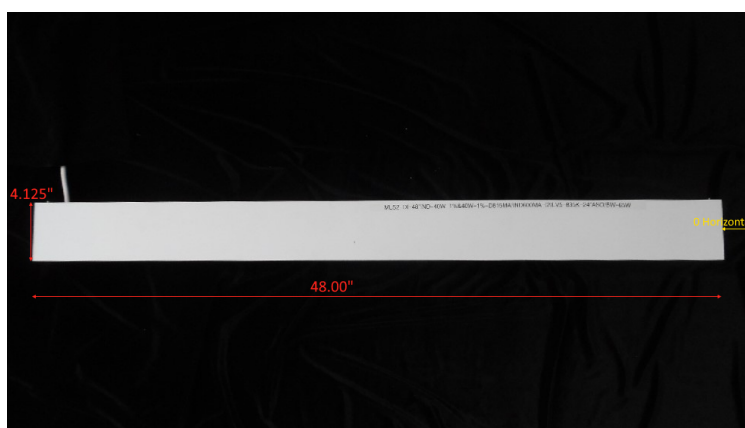
Report of Test

LLIA001503-010

Indoor Distribution Photometry Test Report

Catalog Number: MLS2-DI-48-500-845-35K-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 815mA(direct) and 600mA(indirect)



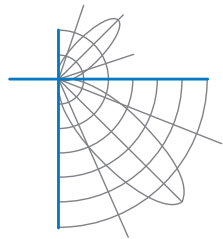
Prepared For:
Mercury Lighting Products Company, Inc.
20 Audrey Place
Fairfield, NJ 07004, USA

Performance Summary			
Input Voltage	120.0 V	Luminous Flux	5386.6 Lumens
Input Current	0.5441 A	Total Efficacy	83.1 Lm/W
Input Power	64.85 W	Downward Flux	2003.4 Lumens
Frequency	60.00 Hz	Downward Flux	37.2 % of Total
Power Factor	0.993		
Current THD	5.4 %		

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

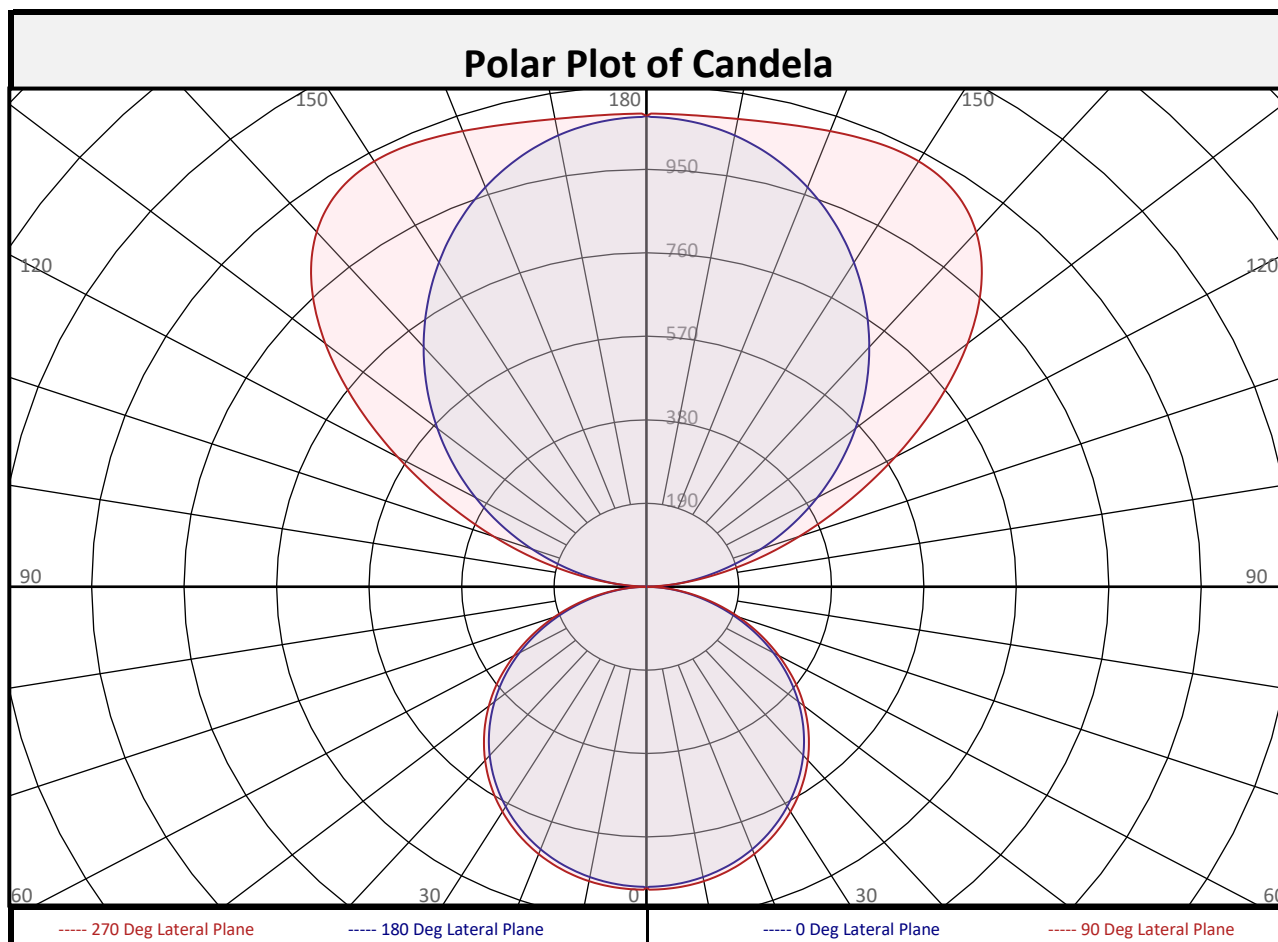
Test date: 08/06/2021
Report date: 08/16/2021

Signed: _____

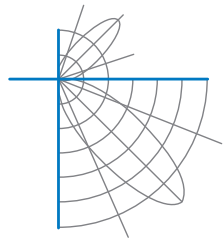


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Zonal Flux Summary											
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total	
0-10	65.0	1.2%		90-100	63.2	1.2%		0-20	251.3	4.7%	
10-20	186.3	3.5%		100-110	233.4	4.3%		0-30	534.4	9.9%	
20-30	283.1	5.3%		110-120	417.3	7.7%		0-40	876.8	16.3%	
30-40	342.4	6.4%		120-130	570.5	10.6%		0-60	1558	28.9%	
40-50	356.6	6.6%		130-140	636.9	11.8%		0-80	1958	36.3%	
50-60	324.1	6.0%		140-150	594.2	11.0%		10-90	1938	36.0%	
60-70	250.0	4.6%		150-160	468.7	8.7%		20-50	982.2	18.2%	
70-80	150.1	2.8%		160-170	297.2	5.5%		40-90	1127	20.9%	
80-90	45.7	0.8%		170-180	101.9	1.9%		60-90	445.8	8.3%	
0-90	2003	37.2%		90-180	3383	62.8%		0-180	5387	100.0%	

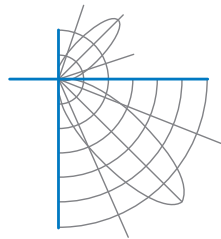


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Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles									
Vertical (Gamma) Angles		0	22.5	45	67.5	90	112.5	135	157.5	180
	0	686	686	686	686	686	686	686	686	686
	2.5	682	682	684	687	689	687	684	682	682
	5	680	680	682	685	688	685	682	680	680
	7.5	676	676	679	682	685	682	679	676	676
	10	671	671	674	677	680	677	674	671	671
	12.5	664	665	668	671	674	671	668	665	664
	15	656	657	660	663	667	663	660	657	656
	17.5	647	647	650	654	658	654	650	647	647
	20	636	636	640	643	648	643	640	636	636
	22.5	623	624	627	631	636	631	627	624	623
	25	610	610	614	617	622	617	614	610	610
	27.5	595	595	599	603	608	603	599	595	595
	30	578	579	583	586	591	586	583	579	578
	32.5	561	561	566	569	574	569	566	561	561
	35	542	543	547	551	556	551	547	543	542
	37.5	522	523	528	531	536	531	528	523	522
	40	501	502	507	510	516	510	507	502	501
	42.5	479	481	485	489	494	489	485	481	479
	45	456	458	462	466	471	466	462	458	456
	47.5	432	434	439	442	448	442	439	434	432
	50	408	410	414	418	423	418	414	410	408
	52.5	382	385	389	393	397	393	389	385	382
	55	356	359	363	367	370	367	363	359	356
	57.5	329	332	337	339	342	339	337	332	329
	60	302	305	310	311	314	311	310	305	302
	62.5	274	278	282	283	286	283	282	278	274
	65	246	250	254	255	258	255	254	250	246
	67.5	218	222	225	227	230	227	225	222	218
	70	190	195	197	199	201	199	197	195	190
	72.5	162	168	170	172	173	172	170	168	162
	75	135	140	142	144	146	144	142	140	135
	77.5	109	114	116	118	119	118	116	114	109
	80	85	88	90	92	92	92	90	88	85
	82.5	62	64	65	67	67	67	65	64	62
	85	39	41	42	42	42	42	42	41	39
	87.5	18	19	18	18	18	18	18	19	18
90	1	1	1	1	1	1	1	1	1	

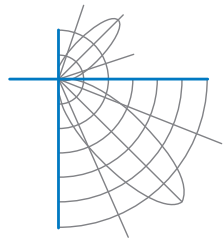


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Luminous Intensity (Candela) Table

	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	28	18	12	11	12	18	28	23
	95	50	61	65	51	45	51	65	61	50
	97.5	78	93	105	94	86	94	105	93	78
	100	108	128	149	137	128	137	149	128	108
	102.5	141	165	193	184	174	184	193	165	141
	105	176	205	240	234	225	234	240	205	176
	107.5	212	246	290	287	278	287	290	246	212
	110	249	288	343	343	333	343	343	288	249
	112.5	288	332	398	402	392	402	398	332	288
	115	327	375	454	464	455	464	454	375	327
	117.5	366	419	510	529	521	529	510	419	366
	120	405	463	567	596	589	596	567	463	405
	122.5	444	506	622	663	659	663	622	506	444
	125	483	548	675	729	729	729	675	548	483
	127.5	522	589	724	792	796	792	724	589	522
	130	561	629	771	851	861	851	771	629	561
	132.5	599	667	813	905	920	905	813	667	599
	135	638	703	850	951	973	951	850	703	638
	137.5	675	739	883	991	1018	991	883	739	675
	140	712	772	912	1024	1054	1024	912	772	712
	142.5	749	804	936	1048	1082	1048	936	804	749
	145	785	835	957	1066	1101	1066	957	835	785
	147.5	819	864	975	1078	1113	1078	975	864	819
	150	853	892	990	1085	1118	1085	990	892	853
	152.5	885	918	1003	1088	1119	1088	1003	918	885
	155	914	942	1015	1089	1116	1089	1015	942	914
	157.5	942	965	1025	1088	1110	1088	1025	965	942
	160	968	986	1034	1085	1104	1085	1034	986	968
	162.5	991	1004	1042	1083	1097	1083	1042	1004	991
	165	1011	1021	1049	1080	1091	1080	1049	1021	1011
	167.5	1029	1035	1056	1078	1086	1078	1056	1035	1029
	170	1044	1047	1061	1077	1081	1077	1061	1047	1044
	172.5	1055	1056	1065	1076	1079	1076	1065	1056	1055
	175	1063	1063	1068	1075	1078	1075	1068	1063	1063
	177.5	1068	1067	1070	1075	1077	1075	1070	1067	1068
180	1072	1072	1072	1072	1072	1072	1072	1072	1072	



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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	104	104	104	104		94	94	94	94		76	76	76		60	60	60		44	44	44	37
1	95	90	86	83		86	82	79	76		66	64	62		52	51	49		39	38	37	31
2	86	79	73	67		78	71	66	62		58	54	51		45	43	41		34	32	31	26
3	78	69	62	56		71	63	56	51		51	46	43		40	37	34		30	28	26	21
4	72	61	53	47		65	55	49	43		45	40	36		36	32	29		27	24	22	18
5	66	54	46	40		59	49	42	37		40	35	31		32	28	25		24	21	19	16
6	60	48	40	35		54	44	37	32		36	31	27		29	25	22		22	19	17	14
7	56	43	36	30		50	40	33	28		33	27	24		26	22	19		20	17	15	12
8	52	39	32	26		47	36	29	25		30	24	21		24	20	17		18	15	13	11
9	48	36	28	23		43	33	26	22		27	22	18		22	18	15		17	14	12	10
10	45	33	26	21		40	30	24	19		25	20	17		20	16	14		15	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.

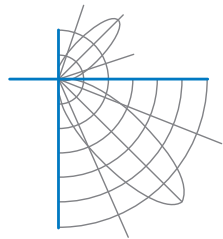
Circle of Light Plot

Height(ft)	Illuminance at Nadir (fc)	Ground-level distance to half-of-nadir illuminance (ft)	
		0-180 deg	90-270 deg
6.0	19.0	7.52	7.68
8.0	10.7	10.03	10.24
10.0	6.9	12.54	12.80
12.0	4.8	15.05	15.36
14.0	3.5	17.55	17.92
16.0	2.7	20.06	20.48

Average Luminance (cd/m ²)			
	0 deg Plane	45 deg Plane	90 deg Plane
0	12651	12651	12651
45	11906	12065	12295
55	11446	11682	11908
65	10724	11069	11258
75	9643	10144	10396
85	8326	8793	8963

Spacing Criterion

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



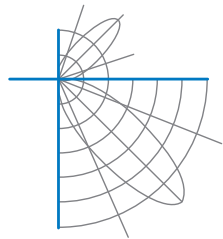
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UGR TABLE - CORRECTED

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	15.5	16.3	16.6	17.4	18.8	15.7	16.5	16.8	17.5	19.0
	3H	17.3	18.0	18.4	19.1	20.6	17.6	18.2	18.6	19.3	20.8
	4H	18.0	18.7	19.1	19.7	21.2	18.3	18.9	19.3	20.0	21.5
	6H	18.5	19.1	19.6	20.2	21.7	18.8	19.4	19.9	20.5	22.0
	8H	18.7	19.3	19.8	20.3	21.8	19.0	19.6	20.1	20.7	22.1
	12H	18.8	19.3	19.9	20.4	21.9	19.1	19.6	20.2	20.7	22.2
4H	2H	16.1	16.8	17.2	17.9	19.3	16.3	16.9	17.4	18.0	19.5
	3H	18.1	18.7	19.2	19.8	21.3	18.3	18.9	19.4	20.0	21.4
	4H	19.0	19.5	20.1	20.5	22.0	19.2	19.7	20.3	20.8	22.3
	6H	19.6	20.0	20.7	21.1	22.6	19.8	20.3	20.9	21.4	22.9
	8H	19.8	20.2	20.9	21.3	22.8	20.1	20.5	21.2	21.6	23.1
	12H	20.0	20.3	21.1	21.4	23.0	20.2	20.6	21.4	21.7	23.2
8H	4H	19.2	19.6	20.3	20.8	22.3	19.4	19.8	20.5	20.9	22.4
	6H	20.0	20.4	21.2	21.5	23.0	20.3	20.6	21.4	21.7	23.2
	8H	20.4	20.6	21.5	21.8	23.3	20.6	20.9	21.7	22.0	23.5
	12H	20.6	20.8	21.7	22.0	23.5	20.8	21.1	22.0	22.2	23.8
12H	4H	19.3	19.6	20.4	20.7	22.3	19.4	19.8	20.5	20.9	22.4
	6H	20.1	20.4	21.2	21.5	23.1	20.3	20.6	21.4	21.7	23.3
	8H	20.5	20.7	21.6	21.8	23.4	20.7	20.9	21.8	22.1	23.6

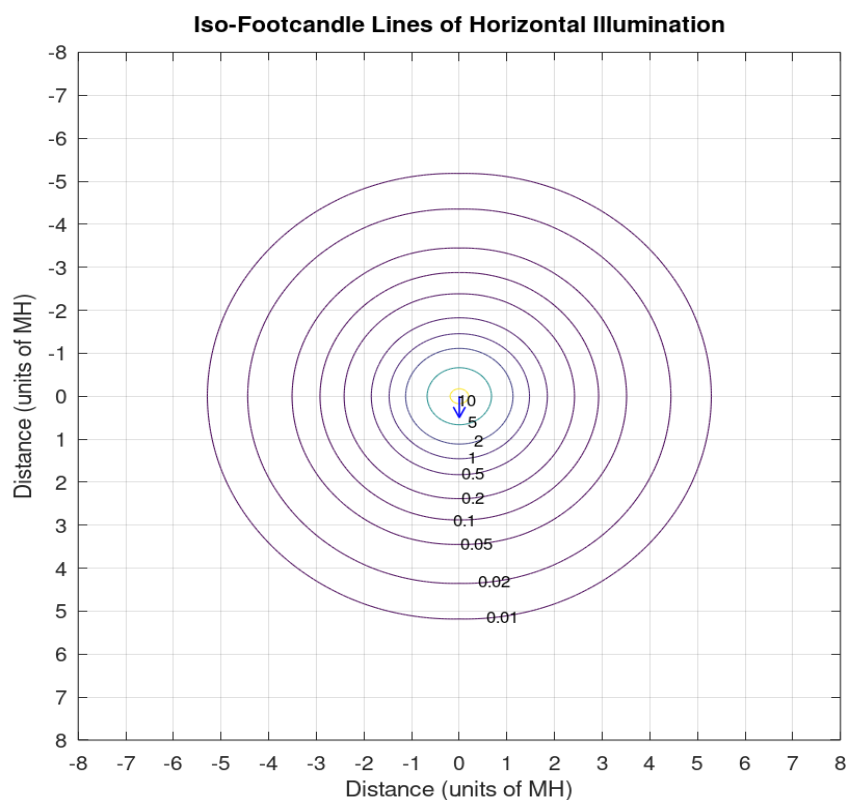
Maximum UGR = 23.8



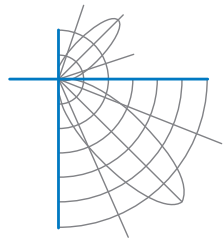
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Iso-Illuminance Plot



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 LLIA001503-010

Additional Pictures of Test Subject



Report of Test

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Test Distance 9.5 m
Ambient Temperature 25.4 °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.