



## Report of Test

LLIA001799-002

Indoor Distribution Photometry Test Report

Catalog Number: L1.3X-1-DMX with Intensifier

Yoke mounted, formed aluminum housing, formed semi-specular aluminum reflector/heatsink, frosted plastic enclosure above plastic baffle with specular aluminum interior. Open bottom.

476 white LEDs on two white circuit boards with 238 LEDs each.

Two Advance Xitanium XI075C-200V054BST1 LED drivers, one Feno DMX controller.



Prepared For:

Brightline L.P.

580 Mayer Street

Suite 7

Bridgeville, PA 15017, USA

### Performance Summary

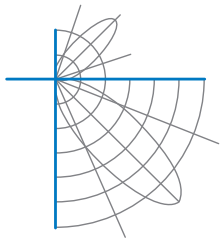
Input Voltage	120.0 Vac	Luminous Flux	12145.2 Lumens
Input Current	1.245 A	Total Efficacy	81.6 Lm/W
Input Power	148.9 W	Downward Flux	12145.2 Lumens
Frequency	60.00 Hz	Downward Flux	100.0 % of Total
Power Factor	0.996		
Current THD	8.3 %		

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

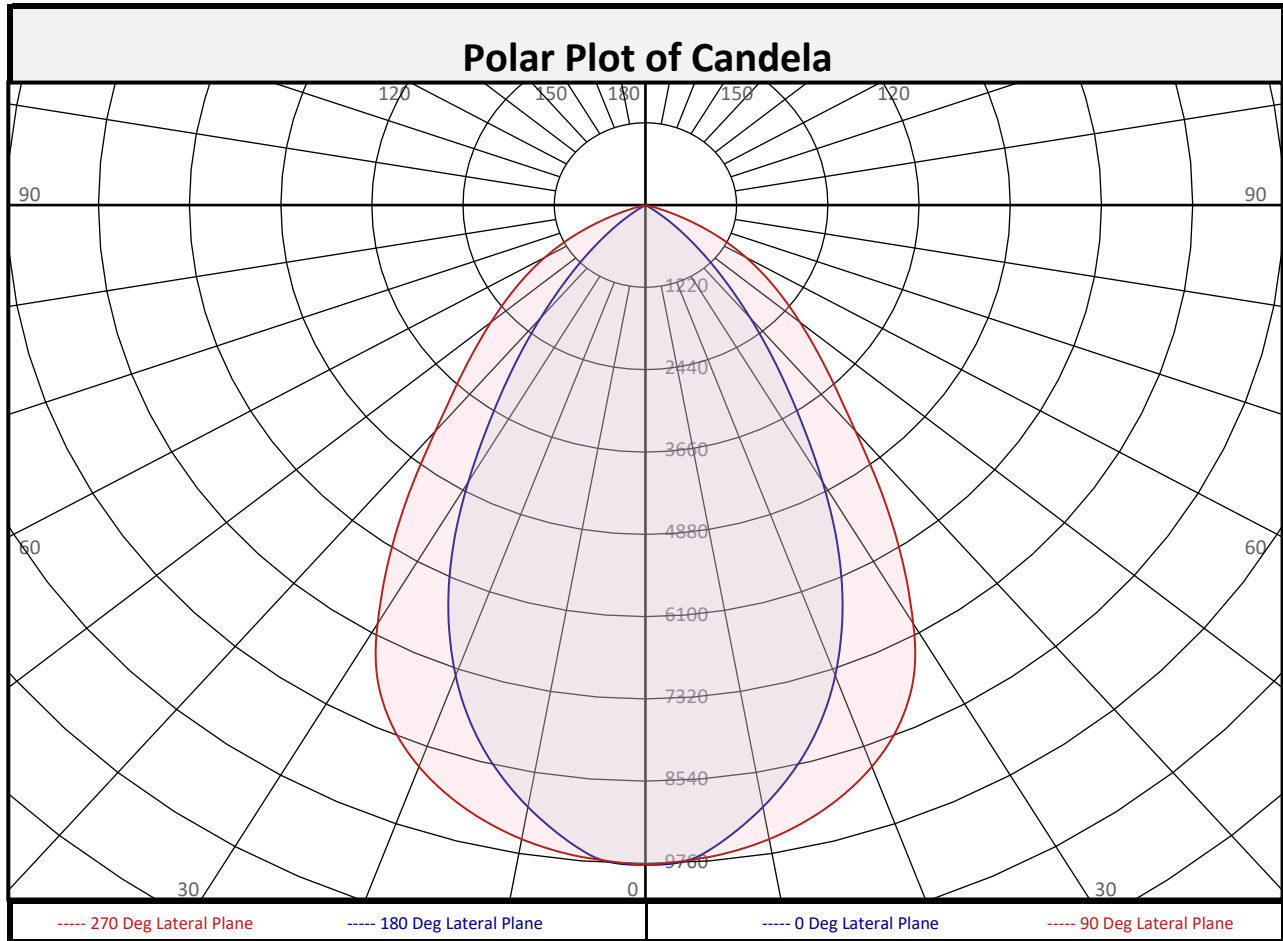
Test date: 07/12/2022

Report date: 07/12/2022

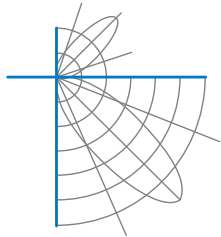
Signed: \_\_\_\_\_



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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	910.4	7.5%		90-100	0.0	0.0%		0-20	3367	27.7%
10-20	2457	20.2%		100-110	0.0	0.0%		0-30	6611	54.4%
20-30	3243	26.7%		110-120	0.0	0.0%		0-40	9354	77.0%
30-40	2743	22.6%		120-130	0.0	0.0%		0-60	11819	97.3%
40-50	1642	13.5%		130-140	0.0	0.0%		0-80	12144	100.0%
50-60	823.3	6.8%		140-150	0.0	0.0%		10-90	11235	92.5%
60-70	289.9	2.4%		150-160	0.0	0.0%		20-50	7629	62.8%
70-80	35.2	0.3%		160-170	0.0	0.0%		40-90	2791	23.0%
80-90	0.9	0.0%		170-180	0.0	0.0%		60-90	325.9	2.7%
0-90	12145	100.0%		90-180	0.0	0.0%		0-180	12145	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	9779	9779	9779	9779	9779	9779	9779	9779	9779
	2.5	9761	9757	9751	9748	9747	9748	9751	9757	9761
	5	9611	9627	9662	9694	9704	9694	9662	9627	9611
	7.5	9352	9390	9491	9605	9637	9605	9491	9390	9352
	10	9059	9117	9268	9475	9544	9475	9268	9117	9059
	12.5	8728	8807	9013	9299	9421	9299	9013	8807	8728
	15	8355	8454	8719	9082	9269	9082	8719	8454	8355
	17.5	7921	8045	8373	8822	9082	8822	8373	8045	7921
	20	7422	7583	7979	8518	8857	8518	7979	7583	7422
	22.5	6852	7076	7546	8165	8583	8165	7546	7076	6852
	25	6220	6495	7070	7730	8238	7730	7070	6495	6220
	27.5	5513	5829	6518	7210	7790	7210	6518	5829	5513
	30	4735	5080	5874	6624	7161	6624	5874	5080	4735
	32.5	3969	4294	5149	5913	6460	5913	5149	4294	3969
	35	3298	3537	4368	5167	5743	5167	4368	3537	3298
	37.5	2703	2893	3600	4443	5028	4443	3600	2893	2703
	40	2173	2331	2900	3757	4366	3757	2900	2331	2173
	42.5	1715	1858	2309	3175	3838	3175	2309	1858	1715
	45	1318	1457	1863	2702	3409	2702	1863	1457	1318
	47.5	977	1118	1511	2296	3031	2296	1511	1118	977
50	684	830	1221	1938	2693	1938	1221	830	684	
52.5	439	583	971	1621	2384	1621	971	583	439	
55	234	371	750	1345	2098	1345	750	371	234	
57.5	64	188	551	1098	1825	1098	551	188	64	
60	6	36	372	886	1556	886	372	36	6	
62.5	4	4	213	710	1284	710	213	4	4	
65	3	3	79	543	1010	543	79	3	3	
67.5	2	2	6	385	735	385	6	2	2	
70	2	2	3	238	477	238	3	2	2	
72.5	1	2	2	114	253	114	2	2	1	
75	1	1	2	29	67	29	2	1	1	
77.5	1	1	1	3	3	3	1	1	1	
80	1	1	1	2	2	2	1	1	1	
82.5	1	1	1	2	2	2	1	1	1	
85	0	1	1	1	1	1	1	1	0	
87.5	0	0	1	1	1	1	1	0	0	
90	0	0	0	0	0	0	0	0	0	



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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, 2.5° 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	



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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	113	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	93	92
2	106	100	95	91	103	98	94	90	95	91	88	92	89	87	89	87	85	83
3	99	92	86	81	97	90	85	81	88	83	79	85	81	78	83	80	77	75
4	93	84	78	73	91	83	77	72	81	76	72	79	74	71	77	73	70	68
5	87	78	71	66	86	77	70	66	75	69	65	73	68	64	71	67	64	62
6	82	72	65	60	81	71	65	60	69	64	59	68	63	59	67	62	59	57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	50	60	54	50	59	54	50	58	53	50	48
9	69	58	51	47	68	58	51	47	56	51	47	56	50	46	55	50	46	45
10	65	54	48	43	64	54	48	43	53	47	43	52	47	43	51	47	43	42

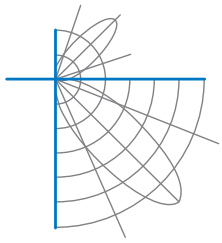
For absolute test reports, RUs are expressed as a percentage of total lumen output. For relative test reports, CUs are expressed as a percentage of total lamp output. Calculations were based on published IES procedures, and are based on the zonal cavity method. Basic assumptions: 1) Room surfaces are 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	271.6	5.39	6.72	
8.0	152.8	7.18	8.97	
10.0	97.8	8.98	11.21	
12.0	67.9	10.77	13.45	
14.0	49.9	12.57	15.69	
16.0	38.2	14.36	17.93	

Spacing Criterion	
0 deg:	0.9
90 deg:	1.1
180 deg:	0.9
270 deg:	1.1

Average Luminance (cd/m <sup>2</sup> )			
	0 deg Plane	45 deg Plane	90 deg Plane
0	48349	48349	48349
45	9217	13030	23837
55	2016	6466	18084
65	31	926	11819
75	22	35	1275
85	23	40	70

Beam and Field Angle	
0-180 Degree Plane	
Beam Angle:	59.0°
Field Angle:	95.0°
90-270 Degree Plane	
Beam Angle:	76.0°
Field Angle:	130.6°



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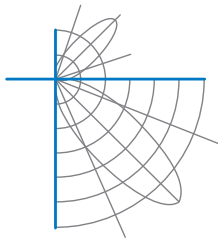
#### UGR Table - Corrected

#### 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

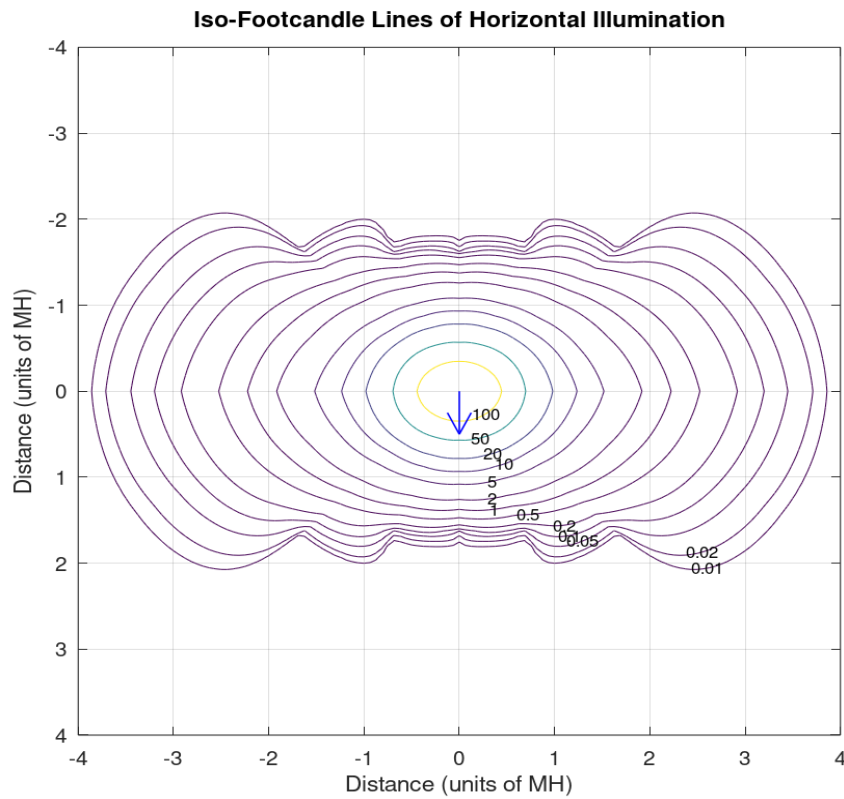
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	8.7	8.7	8.7	8.7	8.7	19.4	20.6	19.8	20.9	21.2
	3H	8.7	8.7	8.7	8.7	8.7	20.2	21.2	20.5	21.5	21.9
	4H	8.7	8.7	8.7	8.7	8.7	20.1	21.1	20.5	21.4	21.8
	6H	8.7	8.7	8.7	8.7	8.7	20.0	20.9	20.5	21.3	21.7
	8H	8.7	8.7	8.7	8.7	8.7	20.0	20.8	20.4	21.2	21.6
	12H	8.7	8.7	8.7	8.7	8.7	19.9	20.7	20.4	21.1	21.5
4H	2H	8.7	8.7	8.7	8.7	8.7	19.2	20.2	19.6	20.5	20.9
	3H	8.7	8.7	8.7	8.7	8.7	19.9	20.7	20.4	21.1	21.5
	4H	8.7	8.7	8.7	8.7	8.7	19.9	20.6	20.3	21.0	21.4
	6H	8.7	8.7	8.7	8.7	8.7	19.8	20.4	20.3	20.8	21.3
	8H	8.7	8.7	8.7	8.7	8.7	19.7	20.3	20.2	20.7	21.2
	12H	8.7	8.7	8.7	8.7	8.7	19.7	20.2	20.2	20.6	21.1
8H	4H	8.7	8.7	8.7	8.7	8.7	19.7	20.3	20.2	20.7	21.2
	6H	8.7	8.7	8.7	8.7	8.7	19.6	20.1	20.1	20.6	21.0
	8H	8.7	8.7	8.7	8.7	8.7	19.6	19.9	20.1	20.5	21.0
	12H	8.7	8.7	8.7	8.7	8.7	19.5	19.8	20.0	20.3	20.9
12H	4H	8.7	8.7	8.7	8.7	8.7	19.7	20.2	20.2	20.6	21.1
	6H	8.7	8.7	8.7	8.7	8.7	19.6	20.0	20.1	20.4	21.0
	8H	8.7	8.7	8.7	8.7	8.7	19.5	19.8	20.0	20.3	20.9

Maximum UGR = 21.9



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**Iso-Illuminance Plot**



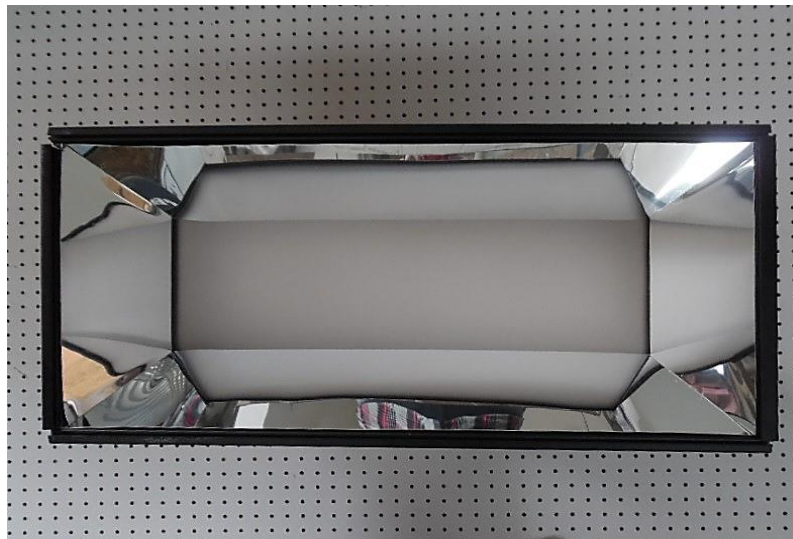
The isofootcandle values shown in the plot above are based on a mounting height of  $h = 8.0$  feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the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





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**Additional Pictures of Test Subject**







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Test Distance                    9.5 m  
Ambient Temperature        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-79-19. 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.