

Report of Test

LLIA002255-001

Indoor Distribution Photometry Test Report

Catalog Number: Equinox-XD-4'-DX-30-90-OW-ZT-XX

Pendant mounted, extruded aluminum housing with cast aluminum end caps white painted aluminum outer reflector, white painted steel LED tray, translucent white plastic enclosure.

96 white LEDs, four IntelliCon Labs, Inc LED boards with 24 LEDs each.

One Advance XI054C150V054BST1 LED driver labeled as 890mA



Prepared For:

Picasso Lighting Industries, LLC
320 Commercial Avenue
Moonachie, NJ 07074, USA

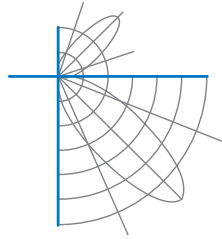
Performance Summary			
Input Voltage	120.0 Vac	Luminous Flux	4029.5 Lumens
Input Current	0.3154 A	Total Efficacy	108.0 lm/W
Input Power	37.30 W	Downward Flux	2782.7 Lumens
Frequency	60.00 Hz	Downward Flux	69.1 % of Total
Power Factor	0.985		
Current THD	8.4 %		

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

Test date: 11/02/2023

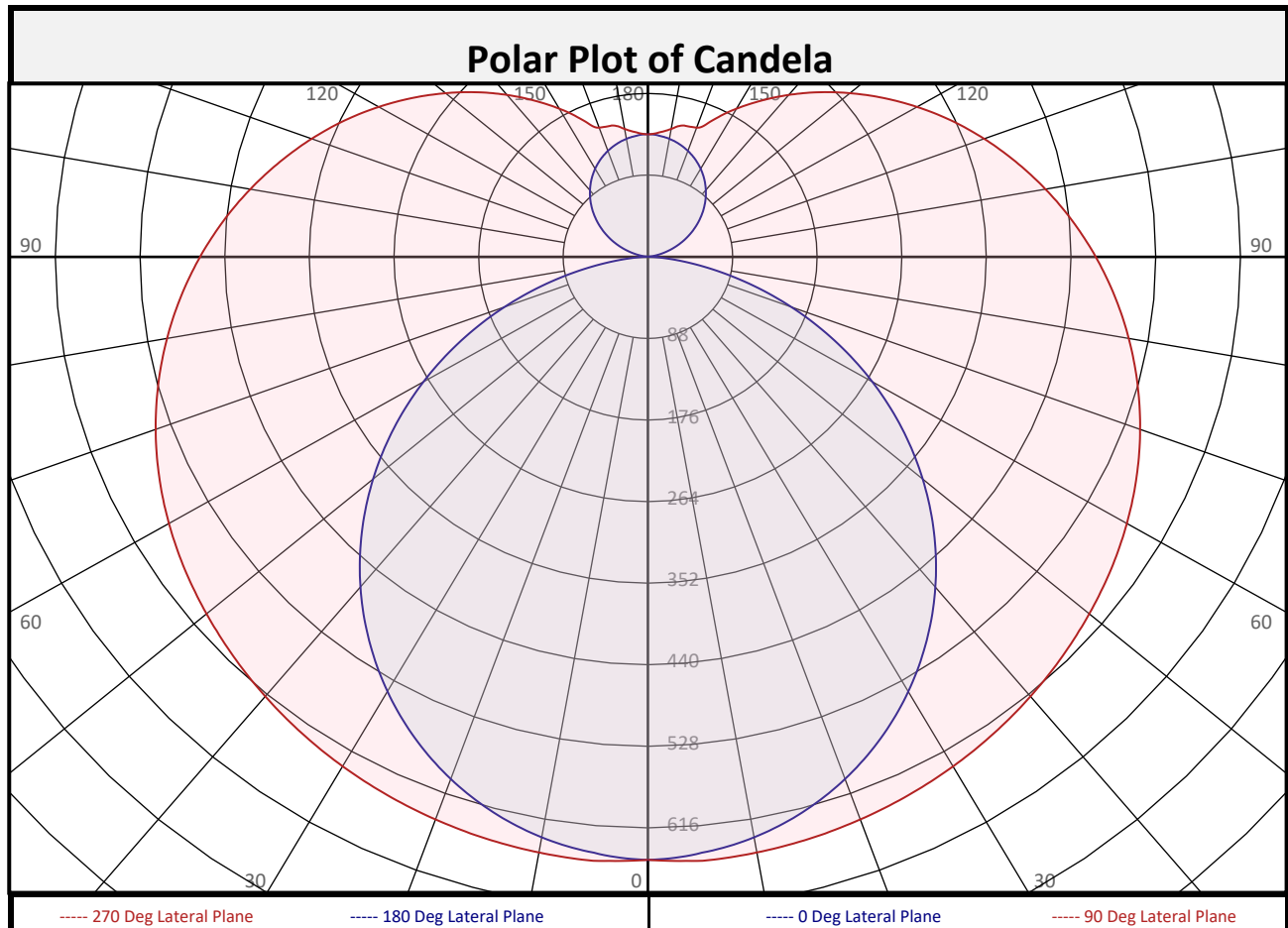
Report date: 11/03/2023

Signed: _____

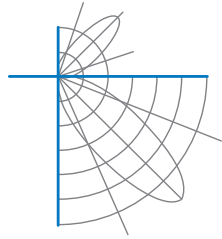


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Zonal Flux Summary										
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	61.8	1.5%		90-100	282.9	7.0%		0-20	241.1	6.0%
10-20	179.3	4.4%		100-110	245.0	6.1%		0-30	521.1	12.9%
20-30	280.0	6.9%		110-120	207.3	5.1%		0-40	876.4	21.7%
30-40	355.3	8.8%		120-130	168.7	4.2%		0-60	1692	42.0%
40-50	400.5	9.9%		130-140	130.8	3.2%		0-80	2460	61.0%
50-60	414.8	10.3%		140-150	96.2	2.4%		10-90	2721	67.5%
60-70	401.4	10.0%		150-160	64.6	1.6%		20-90	1036	25.7%
70-80	366.8	9.1%		160-170	38.6	1.0%		40-90	1906	47.3%
80-90	322.9	8.0%		170-180	12.7	0.3%		60-90	1091	27.1%
0-90	2783	69.1%		90-180	1247	30.9%		0-180	4030	100.0%



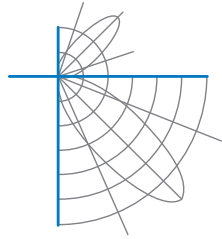
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Luminous Intensity (Candela) Table

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	651	651	651	651	651	651	651	651	651
	2.5	649	649	650	651	652	651	650	649	649
	5	645	646	648	651	654	651	648	646	645
	7.5	641	642	646	650	653	650	646	642	641
	10	636	638	643	649	652	649	643	638	636
	12.5	629	631	639	647	651	647	639	631	629
	15	620	624	634	644	650	644	634	624	620
	17.5	610	615	628	641	648	641	628	615	610
	20	599	606	622	638	646	638	622	606	599
	22.5	587	595	614	634	643	634	614	595	587
	25	573	583	606	630	641	630	606	583	573
	27.5	558	569	598	626	638	626	598	569	558
	30	541	555	588	621	635	621	588	555	541
	32.5	524	540	578	615	631	615	578	540	524
	35	505	524	568	610	627	610	568	524	505
	37.5	486	507	557	604	623	604	557	507	486
	40	465	489	545	597	619	597	545	489	465
	42.5	443	471	533	591	614	591	533	471	443
	45	420	452	521	584	609	584	521	452	420
	47.5	397	433	509	577	604	577	509	433	397
	50	373	413	496	570	599	570	496	413	373
	52.5	348	392	483	563	593	563	483	392	348
	55	322	371	471	555	588	555	471	371	322
	57.5	296	351	458	548	582	548	458	351	296
	60	269	330	445	540	575	540	445	330	269
	62.5	242	309	433	531	568	531	433	309	242
	65	214	288	420	523	561	523	420	288	214
	67.5	186	268	408	514	553	514	408	268	186
	70	159	249	396	505	544	505	396	249	159
	72.5	131	231	384	496	536	496	384	231	131
	75	104	213	372	486	527	486	372	213	104
	77.5	78	197	360	476	517	476	360	197	78
	80	55	182	349	466	508	466	349	182	55
	82.5	33	168	338	456	498	456	338	168	33
	85	16	156	327	446	487	446	327	156	16
	87.5	4	146	317	436	476	436	317	146	4
	90	0	137	306	426	465	426	306	137	0

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



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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 shown.	90	0	137	306	426	465	426	306	137	0
	92.5	1	130	296	414	454	414	296	130	1
	95	3	123	287	403	443	403	287	123	3
	97.5	6	118	277	392	431	392	277	118	6
	100	10	114	268	380	420	380	268	114	10
	102.5	14	111	260	369	408	369	260	111	14
	105	19	109	252	357	396	357	252	109	19
	107.5	24	107	244	346	384	346	244	107	24
	110	30	106	236	335	372	335	236	106	30
	112.5	35	106	229	324	360	324	229	106	35
	115	41	105	222	313	348	313	222	105	41
	117.5	47	105	215	302	335	302	215	105	47
	120	52	105	208	291	323	291	208	105	52
	122.5	58	105	202	280	311	280	202	105	58
	125	63	105	195	270	298	270	195	105	63
	127.5	69	105	189	259	286	259	189	105	69
	130	74	105	184	248	274	248	184	105	74
	132.5	79	105	178	238	262	238	178	105	79
	135	84	105	172	228	251	228	172	105	84
	137.5	89	108	167	218	239	218	167	108	89
	140	94	111	162	208	228	208	162	111	94
	142.5	98	115	156	199	216	199	156	115	98
	145	102	118	151	189	205	189	151	118	102
	147.5	106	121	145	180	195	180	145	121	106
	150	110	123	139	171	184	171	139	123	110
	152.5	113	124	137	162	174	162	137	124	113
	155	116	125	138	153	163	153	138	125	116
	157.5	119	126	139	146	153	146	139	126	119
	160	121	127	139	145	148	145	139	127	121
	162.5	124	128	139	144	147	144	139	128	124
	165	126	129	137	144	146	144	137	129	126
	167.5	128	130	135	141	144	141	135	130	128
	170	129	130	134	138	140	138	134	130	129
	172.5	130	131	133	135	137	135	133	131	130
	175	131	131	132	134	135	134	132	131	131
	177.5	132	132	132	132	133	132	132	132	132
	180	132	132	132	132	132	132	132	132	132

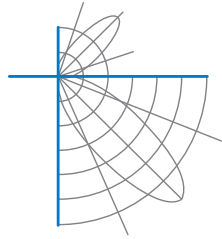
16 lateral half-planes of data were acquired, 22.5 degree increments shown.

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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	112	112	112	112		105	105	105	105		94	94	94			83	83	83			74	74	74			69
1	98	92	87	82		92	87	82	78		77	73	70			68	65	62			59	57	55			50
2	88	79	71	64		82	74	67	61		65	60	55			57	53	49			50	47	43			40
3	80	68	59	52		74	64	56	49		57	50	45			50	44	40			43	39	36			32
4	72	60	50	43		68	56	48	41		50	43	37			44	38	33			38	34	30			26
5	66	53	43	36		62	50	41	35		44	37	32			39	33	28			34	29	25			22
6	61	47	38	31		57	45	36	30		40	33	27			35	29	25			31	26	22			19
7	56	42	33	27		53	40	32	26		36	29	24			32	26	22			28	23	19			17
8	52	38	30	24		49	36	28	23		33	26	21			29	23	19			26	21	17			15
9	49	35	27	21		46	33	26	20		30	23	19			27	21	17			24	19	15			13
10	45	32	24	19		43	31	23	18		27	21	17			25	19	15			22	17	14			12

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

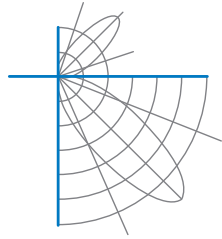
Height(ft)	Illuminance at Nadir (fc)	Ground-level distance to half-of-nadir illuminance (ft)	
		0-180 deg	90-270 deg
6.0	18.1	7.43	8.86
8.0	10.2	9.91	11.82
10.0	6.5	12.38	14.77
12.0	4.5	14.86	17.73
14.0	3.3	17.34	20.68
16.0	2.5	19.81	23.64

Spacing Criterion

0 deg:	1.2
90 deg:	1.5
180 deg:	1.2
270 deg:	1.5

Average Luminance (cd/m²)

	0 deg Plane	45 deg Plane	90 deg Plane
0	4201	4201	4201
45	3550	3712	3936
55	3247	3523	3796
65	2783	3311	3621
75	1992	3056	3402
85	604	2753	3146



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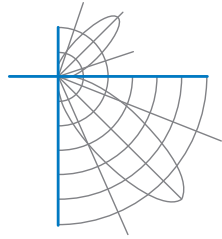
UGR Table - Corrected

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

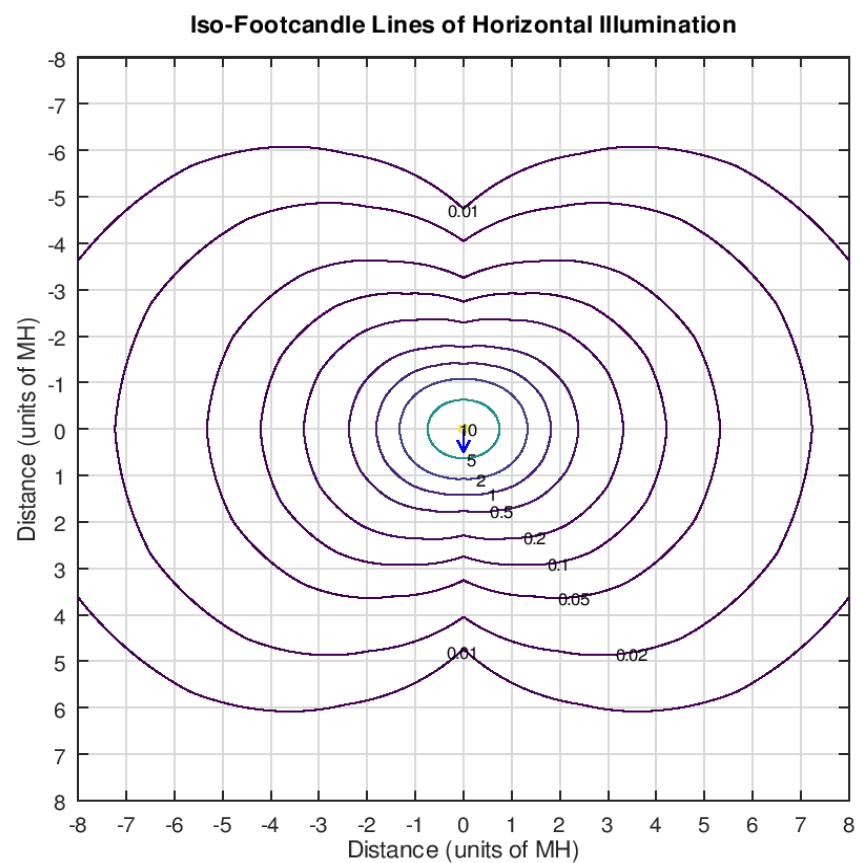
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	10.4	11.6	11.1	12.4	13.3	15.3	16.5	16.0	17.3	18.2
	3H	11.8	12.9	12.6	13.7	14.7	18.5	19.6	19.3	20.4	21.4
	4H	12.2	13.2	13.0	14.1	15.1	20.2	21.2	21.0	22.0	23.0
	6H	12.4	13.4	13.2	14.2	15.2	21.9	22.9	22.7	23.7	24.7
	8H	12.5	13.4	13.3	14.2	15.3	22.8	23.8	23.6	24.6	25.6
	12H	12.5	13.4	13.3	14.2	15.2	23.8	24.7	24.6	25.5	26.6
4H	2H	12.0	13.0	12.8	13.8	14.8	15.6	16.6	16.4	17.4	18.4
	3H	13.7	14.6	14.5	15.4	16.4	19.0	19.9	19.8	20.8	21.8
	4H	14.2	15.1	15.0	15.9	17.0	20.9	21.7	21.7	22.5	23.6
	6H	14.6	15.4	15.4	16.2	17.3	22.8	23.6	23.6	24.4	25.5
	8H	14.7	15.4	15.5	16.3	17.3	23.8	24.5	24.7	25.4	26.5
	12H	14.8	15.4	15.6	16.3	17.3	24.9	25.6	25.8	26.5	27.5
8H	4H	15.7	16.4	16.5	17.3	18.3	21.0	21.7	21.8	22.6	23.6
	6H	16.4	17.0	17.2	17.9	19.0	23.1	23.7	24.0	24.6	25.7
	8H	16.6	17.2	17.5	18.1	19.1	24.3	24.9	25.2	25.8	26.8
	12H	16.8	17.3	17.7	18.1	19.3	25.6	26.1	26.5	27.0	28.1
12H	4H	16.2	16.8	17.0	17.7	18.8	21.0	21.6	21.9	22.5	23.6
	6H	17.1	17.6	17.9	18.5	19.6	23.2	23.7	24.0	24.6	25.7
	8H	17.5	17.9	18.3	18.8	20.0	24.4	24.9	25.3	25.8	26.9

Maximum UGR = 28.1

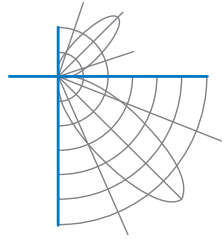


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Iso-Illuminance Plot



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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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-79-19. 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.

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