

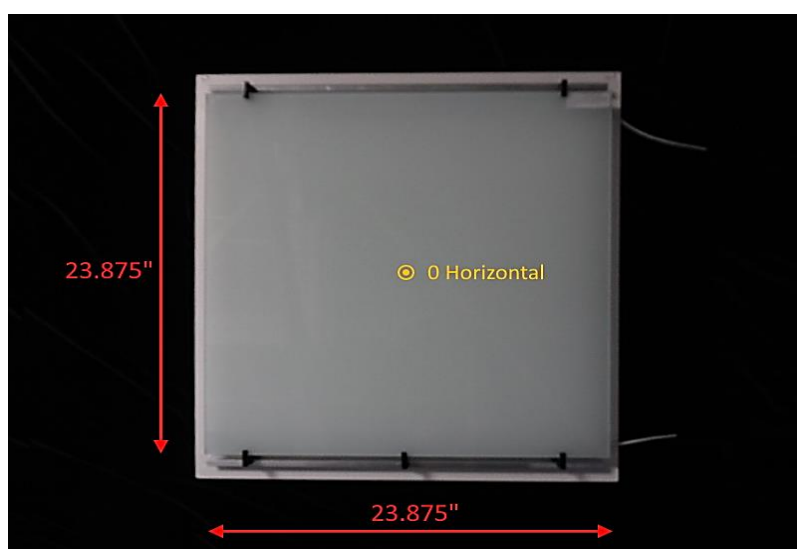


Report of Test

LLIA001721-002-R02*

Indoor Distribution Photometry Test Report

Catalog Number: Fusion Light Panel #FLP-24-SCW with Bendheim LED174400 glass
Wall mounted, edge-lit optical panel from top and bottom edges with "1/4" Low Iron Acid Etched glass (Etching # 1 surface) + Diffusing Interlayer + 1/4" Low Iron Clear Float Glass (1 side smooth -1 side etched)". Unknown quantity of white LEDs mounted along top and bottom edges of panel. One Magnitude Lighting CVN96L24DC LED driver.



Prepared For:
Evo-Lite, LLC
6240 W 54th Ave.
Arvada, CO 80002, USA

Performance Summary			
Input Voltage	120.0 Vac	Luminous Flux	1699.3 Lumens
Input Current	0.2518 A	Total Efficacy	57.1 Lm/W
Input Power	29.74 W	Downward Flux	847.2 Lumens
Frequency	60.00 Hz	Downward Flux	49.9 % of Total
Power Factor	0.985		
Current THD	5.7 %		

*This test report supersedes previous versions - see the end of this report for a list of revisions

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

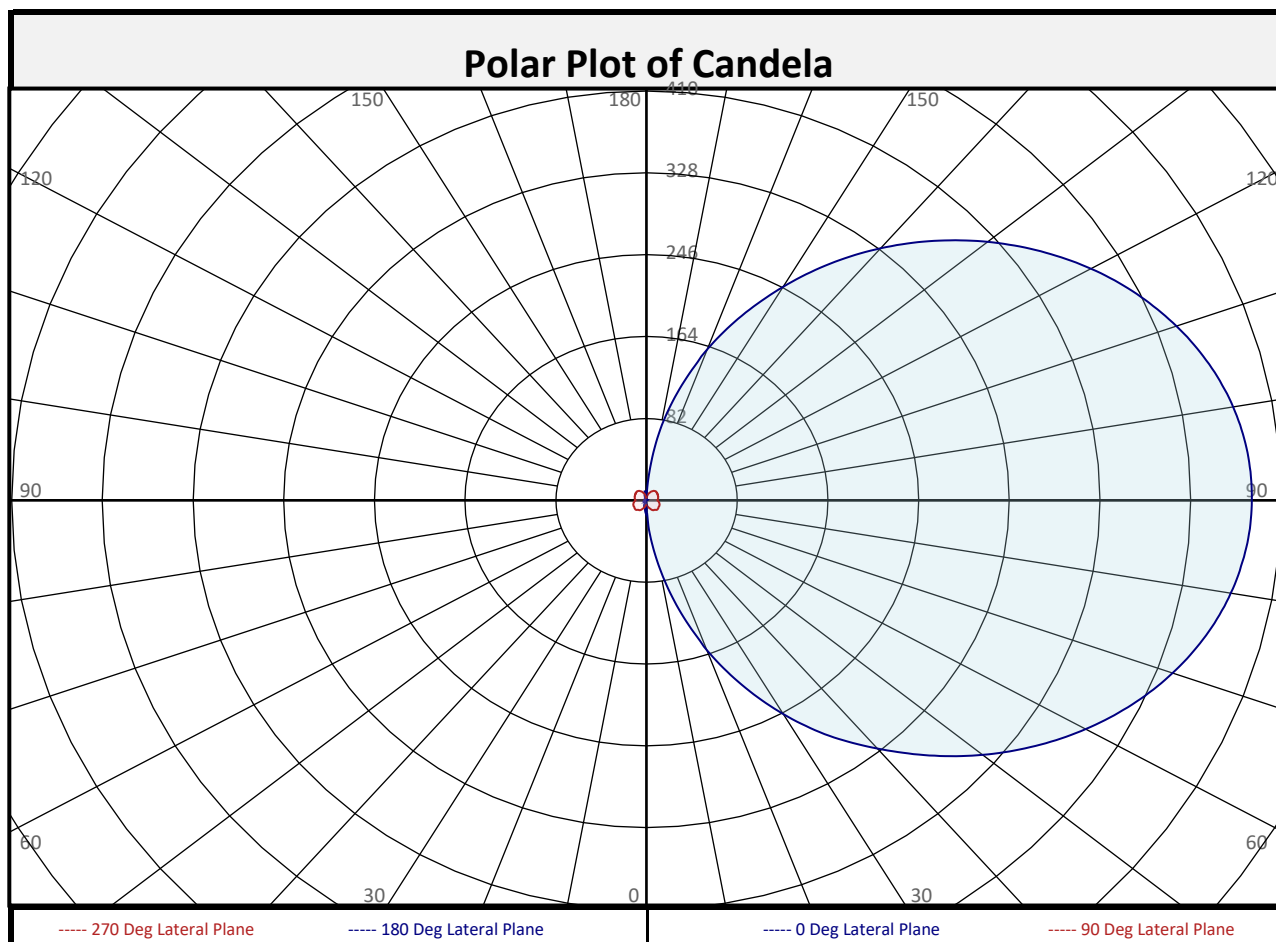
Test date: 05/09/2022
Report date: 05/16/2022

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	1.9	0.1%		90-100	191.5	11.3%		0-20	13.6	0.8%	
10-20	11.7	0.7%		100-110	179.4	10.6%		0-30	45.5	2.7%	
20-30	31.9	1.9%		110-120	156.9	9.2%		0-40	105.5	6.2%	
30-40	60.0	3.5%		120-130	126.5	7.4%		0-60	322.4	19.0%	
40-50	91.9	5.4%		130-140	92.8	5.5%		0-80	656.2	38.6%	
50-60	125.0	7.4%		140-150	60.1	3.5%		10-90	845.4	49.8%	
60-70	155.4	9.1%		150-160	31.9	1.9%		20-50	183.8	10.8%	
70-80	178.4	10.5%		160-170	11.4	0.7%		40-90	741.7	43.6%	
80-90	191.1	11.2%		170-180	1.4	0.1%		60-90	524.9	30.9%	
0-90	847.2	49.9%		90-180	852.0	50.1%		0-180	1699	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	4	4	4	4	4	4	4	4	4
	2.5	13	13	15	9	5	13	14	13	13
	5	33	30	21	15	5	14	13	12	12
	7.5	50	46	35	16	6	14	12	11	10
	10	69	64	48	25	6	14	11	9	9
	12.5	91	83	62	33	7	14	9	8	7
	15	113	104	77	41	7	13	8	7	6
	17.5	136	125	93	48	8	14	8	6	5
	20	160	146	109	56	9	14	7	5	7
	22.5	182	169	125	64	9	14	6	6	6
	25	204	190	141	72	10	14	6	6	5
	27.5	226	211	158	80	11	14	7	5	5
	30	247	231	175	88	11	14	8	4	4
	32.5	268	251	190	96	12	14	7	4	4
	35	288	270	205	104	12	14	7	3	3
	37.5	307	288	220	112	12	14	6	3	2
	40	325	305	234	120	12	14	6	2	1
	42.5	343	322	248	127	13	14	6	1	1
	45	362	338	261	134	14	14	6	1	1
	47.5	380	355	272	141	14	14	5	1	1
	50	397	371	283	147	14	14	4	1	1
	52.5	414	387	295	153	13	14	4	1	1
	55	429	401	306	159	13	15	4	1	0
	57.5	444	415	317	165	13	16	4	0	0
	60	459	428	326	171	13	16	4	0	0
	62.5	472	440	336	176	13	17	5	0	0
	65	484	452	344	180	13	17	5	0	0
	67.5	496	462	352	184	13	17	5	0	0
	70	506	472	359	188	13	17	5	0	0
	72.5	516	480	365	191	12	18	5	0	0
	75	524	488	371	194	12	18	5	0	0
	77.5	531	494	376	197	12	18	5	0	0
	80	536	500	380	199	12	18	5	0	0
	82.5	541	504	383	201	11	18	5	0	0
	85	544	509	385	202	11	18	5	0	0
	87.5	547	512	387	203	10	18	5	0	0
	90	547	514	387	204	10	19	5	0	0

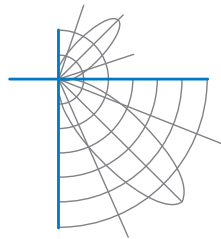


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Luminous Intensity (Candela) Table

	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.	90	547	514	387	204	10	19	5	0	0
	92.5	547	513	387	204	10	18	5	0	0
	95	546	510	386	203	10	18	5	0	0
	97.5	543	506	384	202	11	18	5	0	0
	100	539	502	381	201	11	18	5	0	0
	102.5	533	497	378	199	11	18	5	0	0
	105	527	491	373	196	11	18	5	0	0
	107.5	519	483	368	194	11	18	5	0	0
	110	510	475	362	191	11	18	5	0	0
	112.5	500	466	355	187	11	17	5	0	0
	115	489	456	348	183	12	17	5	0	0
	117.5	477	445	340	179	12	17	5	1	1
	120	464	434	331	174	12	16	5	1	1
	122.5	450	421	321	167	12	15	5	1	1
	125	435	407	311	161	12	14	4	1	1
	127.5	419	392	300	155	12	14	4	1	1
	130	403	377	288	149	12	14	4	1	1
	132.5	385	360	275	142	12	14	4	1	1
	135	368	344	262	136	12	14	5	1	1
	137.5	349	326	249	129	12	14	5	1	1
	140	330	308	235	122	12	14	6	1	1
	142.5	310	290	220	114	12	13	6	2	1
	145	289	270	206	107	11	13	6	2	2
	147.5	268	250	191	99	11	13	6	3	3
	150	247	230	176	91	10	13	7	3	3
	152.5	225	211	161	83	10	13	4	4	3
	155	204	191	143	75	9	13	5	4	4
	157.5	183	170	128	65	8	12	5	5	5
	160	161	148	111	55	8	12	6	4	5
	162.5	137	127	94	46	7	12	6	4	4
	165	115	107	77	37	6	11	7	6	5
	167.5	93	86	59	28	5	9	7	6	6
	170	72	63	42	20	4	9	8	8	7
	172.5	49	40	26	12	4	9	8	8	9
	175	25	20	13	8	3	8	7	7	8
	177.5	7	7	6	8	2	4	7	7	8
	180	2	2	2	2	2	2	2	2	2



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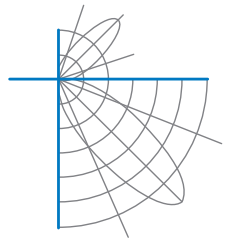
Coefficients of Utilization/Room Utilization - Zonal Cavity Method

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	107	107	107	107		99	99	99	99		83	83	83		69	69	69		56	56	56	50
1	92	85	79	74		84	78	73	68		64	60	56		52	49	46		40	38	36	30
2	81	71	63	56		74	65	57	51		53	47	42		42	38	34		32	29	26	21
3	73	61	51	44		66	55	47	40		45	38	33		36	30	26		27	23	20	15
4	66	53	43	35		60	48	39	32		39	32	27		31	25	21		23	19	15	11
5	60	46	36	29		54	42	33	27		34	27	22		27	21	17		20	16	12	9
6	55	41	31	24		50	37	29	22		30	23	18		24	18	14		18	14	10	7
7	50	36	27	21		46	33	25	19		27	20	16		21	16	12		16	12	9	6
8	47	33	24	18		42	30	22	16		24	18	13		19	14	10		14	10	7	5
9	43	30	21	16		39	27	19	14		22	16	12		18	13	9		13	9	6	4
10	40	27	19	14		37	25	17	12		20	14	10		16	11	8		12	8	6	3

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.

Average Luminance (cd/m ²)			
	0 deg Plane	45 deg Plane	90 deg Plane
0	536	536	536
45	1363	1349	1240
55	1405	1379	1240
65	1440	1411	1270
75	1466	1435	1296
85	1483	1452	1287



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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	16.7	17.7	17.6	18.7	19.9	3.0	4.0	3.9	5.0	6.3
	3H	20.8	21.7	21.7	22.7	24.0	4.5	5.4	5.4	6.4	7.7
	4H	22.9	23.8	23.8	24.8	26.1	5.0	5.9	6.0	6.9	8.2
	6H	25.1	26.0	26.1	27.0	28.3	5.4	6.2	6.3	7.2	8.5
	8H	26.3	27.1	27.2	28.1	29.4	5.5	6.3	6.4	7.3	8.6
	12H	27.5	28.3	28.5	29.3	30.7	5.5	6.3	6.5	7.3	8.7
4H	2H	16.7	17.7	17.7	18.6	19.9	7.4	8.3	8.3	9.3	10.6
	3H	21.0	21.8	21.9	22.8	24.1	9.2	10.0	10.2	11.0	12.3
	4H	23.2	24.0	24.2	25.0	26.3	9.9	10.7	10.9	11.7	13.0
	6H	25.6	26.3	26.6	27.3	28.6	10.5	11.1	11.4	12.1	13.5
	8H	26.8	27.5	27.8	28.5	29.8	10.6	11.2	11.6	12.3	13.6
	12H	28.2	28.8	29.2	29.8	31.2	10.7	11.3	11.7	12.3	13.7
8H	4H	23.3	23.9	24.2	24.9	26.3	12.7	13.3	13.6	14.3	15.6
	6H	25.8	26.3	26.8	27.4	28.7	13.5	14.1	14.5	15.2	16.5
	8H	27.1	27.6	28.1	28.6	30.0	13.9	14.4	14.9	15.4	16.8
	12H	28.6	29.0	29.6	30.0	31.4	14.1	14.6	15.1	15.6	17.0
12H	4H	23.2	23.8	24.2	24.9	26.2	13.5	14.1	14.5	15.1	16.4
	6H	25.8	26.2	26.8	27.3	28.7	14.6	15.1	15.6	16.1	17.5
	8H	27.1	27.6	28.1	28.6	30.0	15.1	15.6	16.1	16.6	18.0

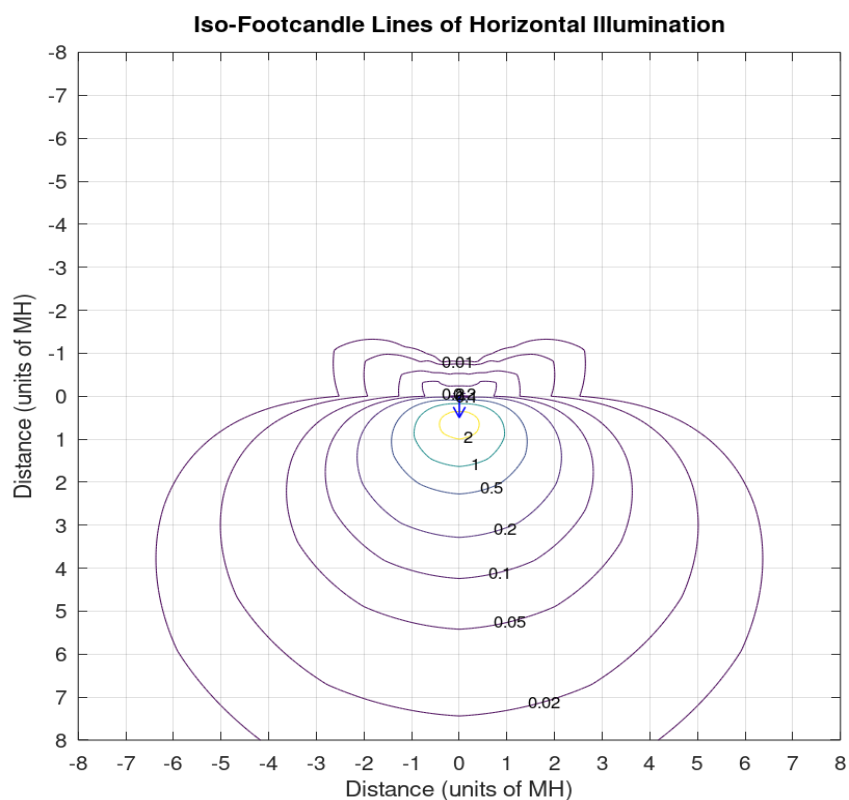
Maximum UGR = 31.4



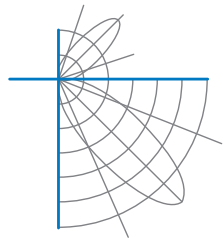
Report of Test

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Iso-Illuminance Plot



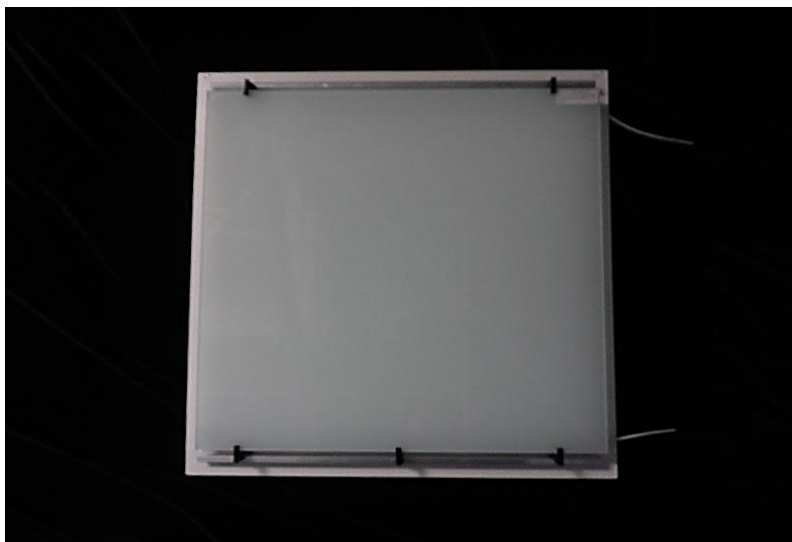
The isofootcandle values shown in the plot above are based on a mounting height of $h = 8.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution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



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Additional Pictures of Test Subject



Report of Test

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Test Distance 9.5 m
Ambient Temperature 24.8 °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.

Revision History: R01 - 05/12/2022 - Revised catalog number
 R02 - 05/16/2022 - Revised description