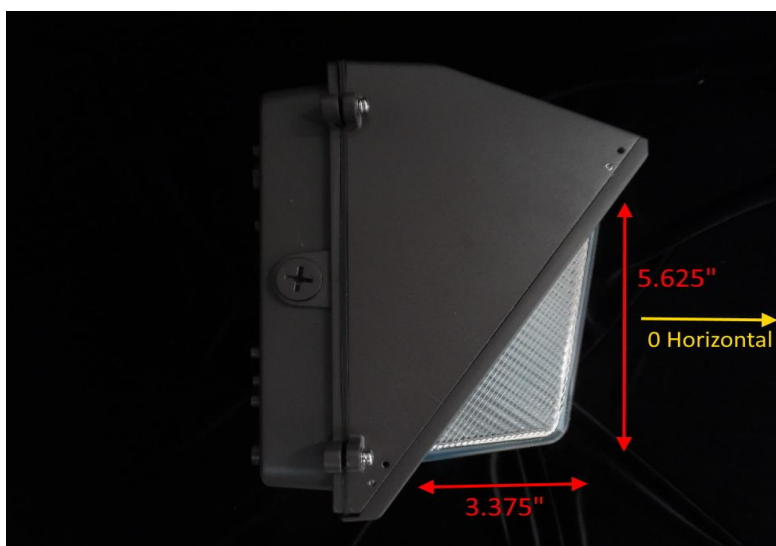


Report of Test

LLIA001528-008

Roadway/Area Light Distribution Photometry Test Report

Catalog Number: WP/120W/PCTS/BZ/PC - 120W and 4000K Setting
Surface mounted wall pack, cast aluminum housing, formed white enamel
metal reflector, clear prismatic glass lens.
792 LEDs, 396 cool white and 396 warm white LEDs
One Fahold FT-150E-054B LED driver



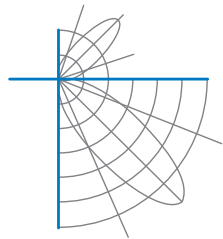
Prepared For:
Topaz Lighting Corp
925 Waverly Avenue
Holtsville, NY 11742, USA

Performance Summary			
Input Voltage	120.0 V	Luminous Flux	15901.2 Lumens
Input Current	0.9361 A	Total Efficacy	141.8 Lm/W
Input Power	112.1 W		
Frequency	60.00 Hz		
Power Factor	0.998	Roadway Type	Area Light
Current THD	4.9 %	IES BUG Rating	B3 - U4 - G5

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

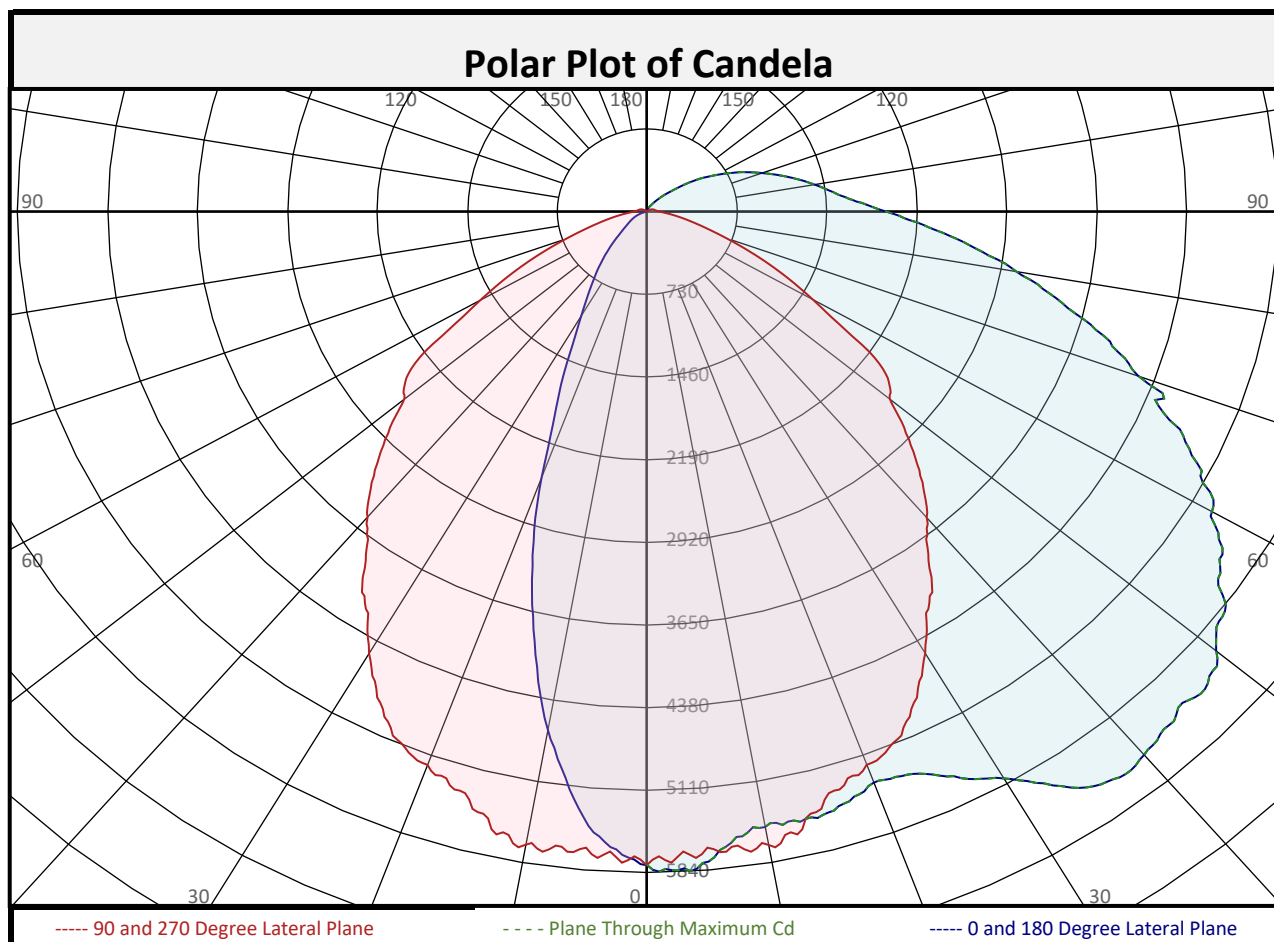
Test date: 09/01/2021
Report date: 09/02/2021

Signed: _____

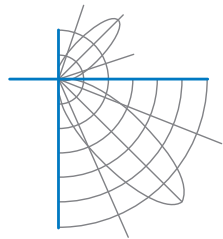


Report of Test

LLIA001528-008

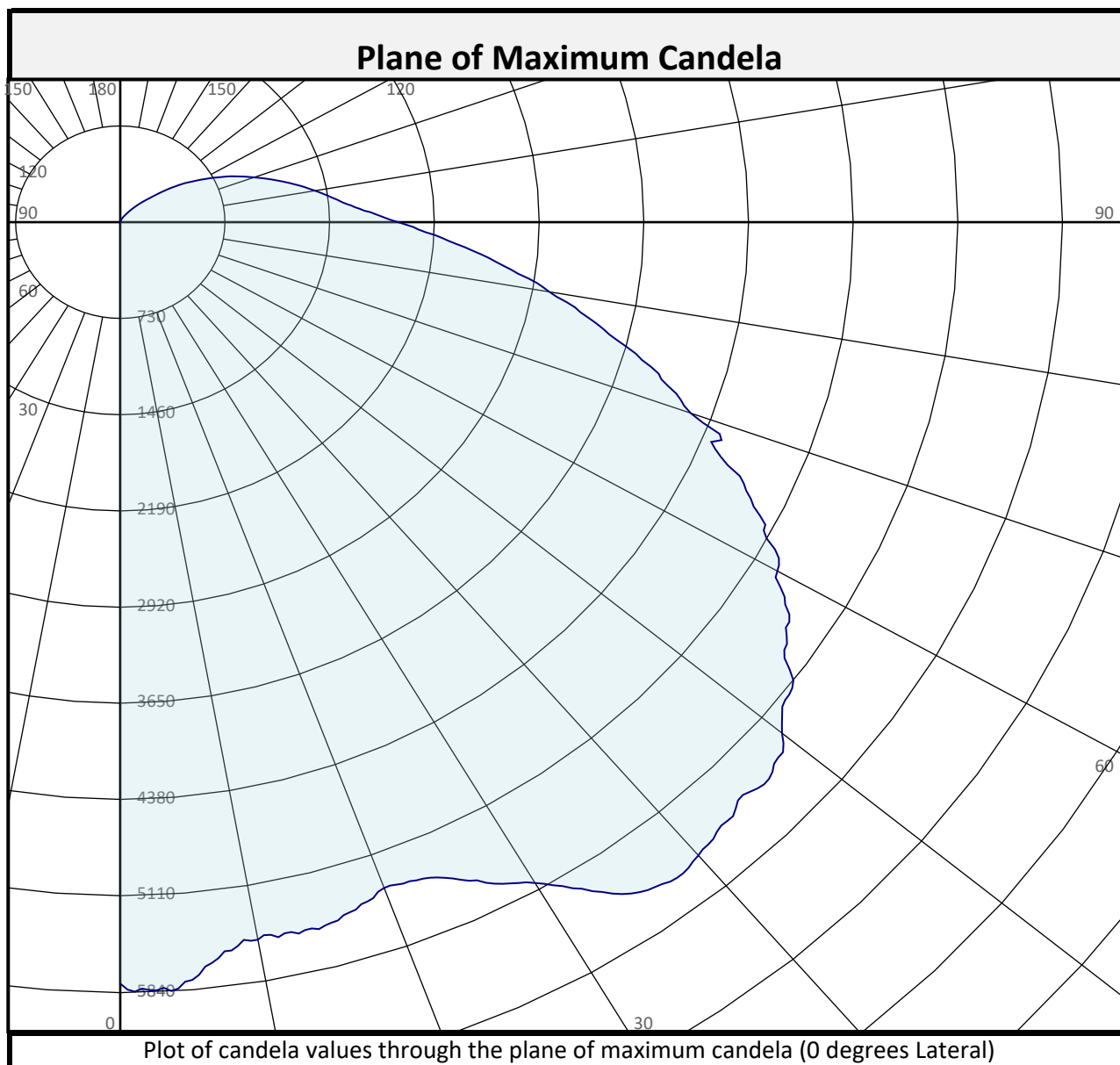


Zonal Flux Summary										
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	526.5	3.3%		90-100	548.0	3.4%		0-20	1910	12.0%
10-20	1384	8.7%		100-110	361.6	2.3%		0-30	3792	23.8%
20-30	1881	11.8%		110-120	219.1	1.4%		0-40	5961	37.5%
30-40	2169	13.6%		120-130	111.2	0.7%		0-60	10453	65.7%
40-50	2290	14.4%		130-140	45.2	0.3%		0-80	13710	86.2%
50-60	2202	13.8%		140-150	15.5	0.1%		10-90	14069	88.5%
60-70	1875	11.8%		150-160	4.2	0.0%		20-50	6340	39.9%
70-80	1382	8.7%		160-170	0.4	0.0%		40-90	8635	54.3%
80-90	885.6	5.6%		170-180	0.0	0.0%		60-90	4143	26.1%
0-90	14596	91.8%		90-180	1305	8.2%		0-180	15901	100.0%

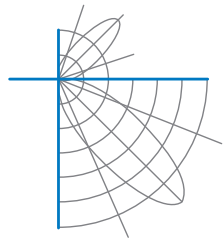


Report of Test

LLIA001528-008

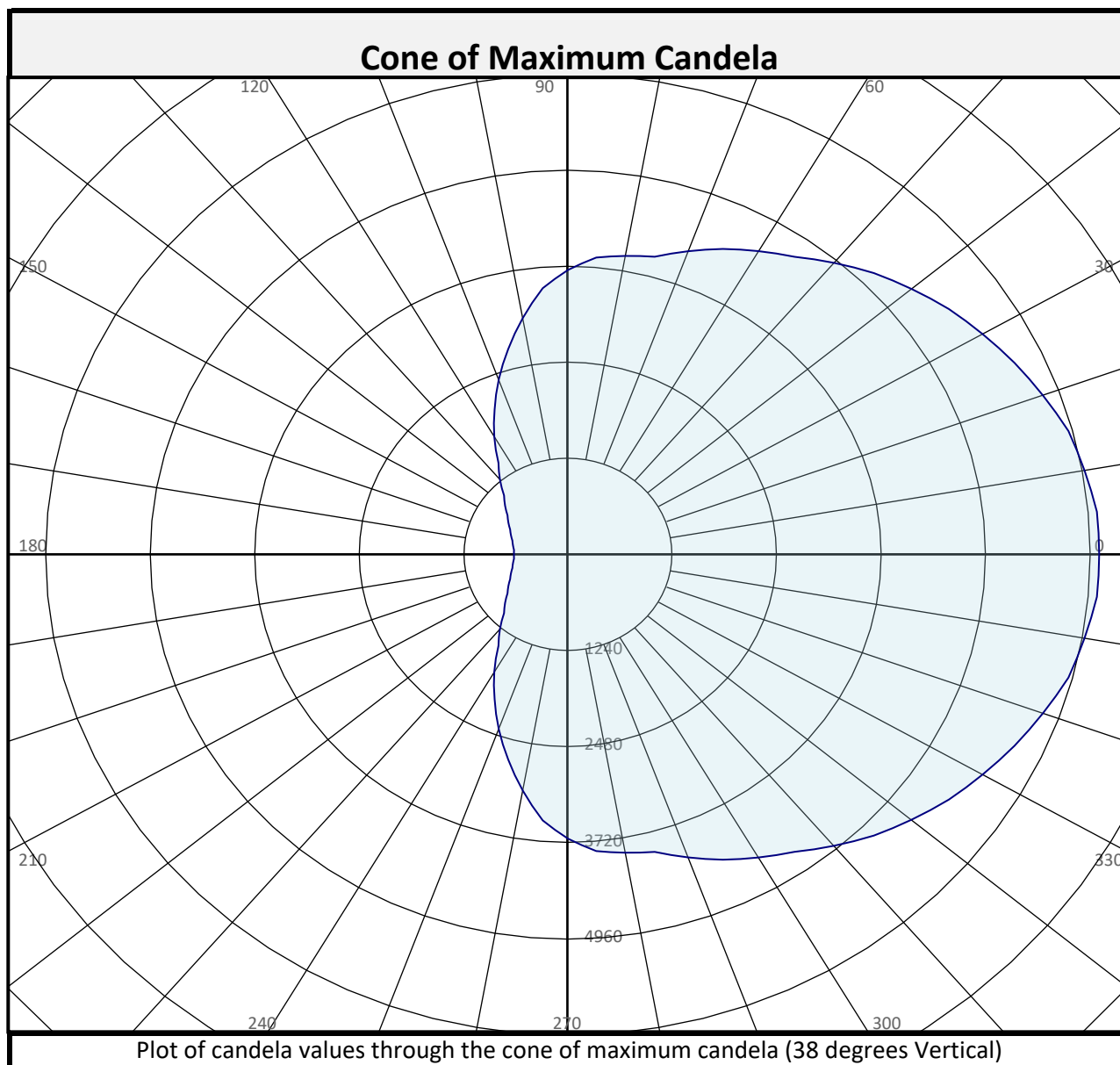


Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	11567.0	72.7%	1279.7	8.0%	12846.7	80.8%
House Side	3028.9	19.0%	25.6	0.2%	3054.5	19.2%
Total	14595.9	91.8%	1305.3	8.2%	15901.2	100.0%

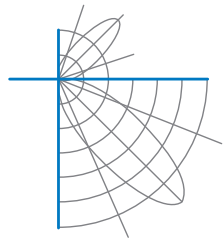


Report of Test

LLIA001528-008



Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	11567.0	72.7%	1279.7	8.0%	12846.7	80.8%
House Side	3028.9	19.0%	25.6	0.2%	3054.5	19.2%
Total	14595.9	91.8%	1305.3	8.2%	15901.2	100.0%

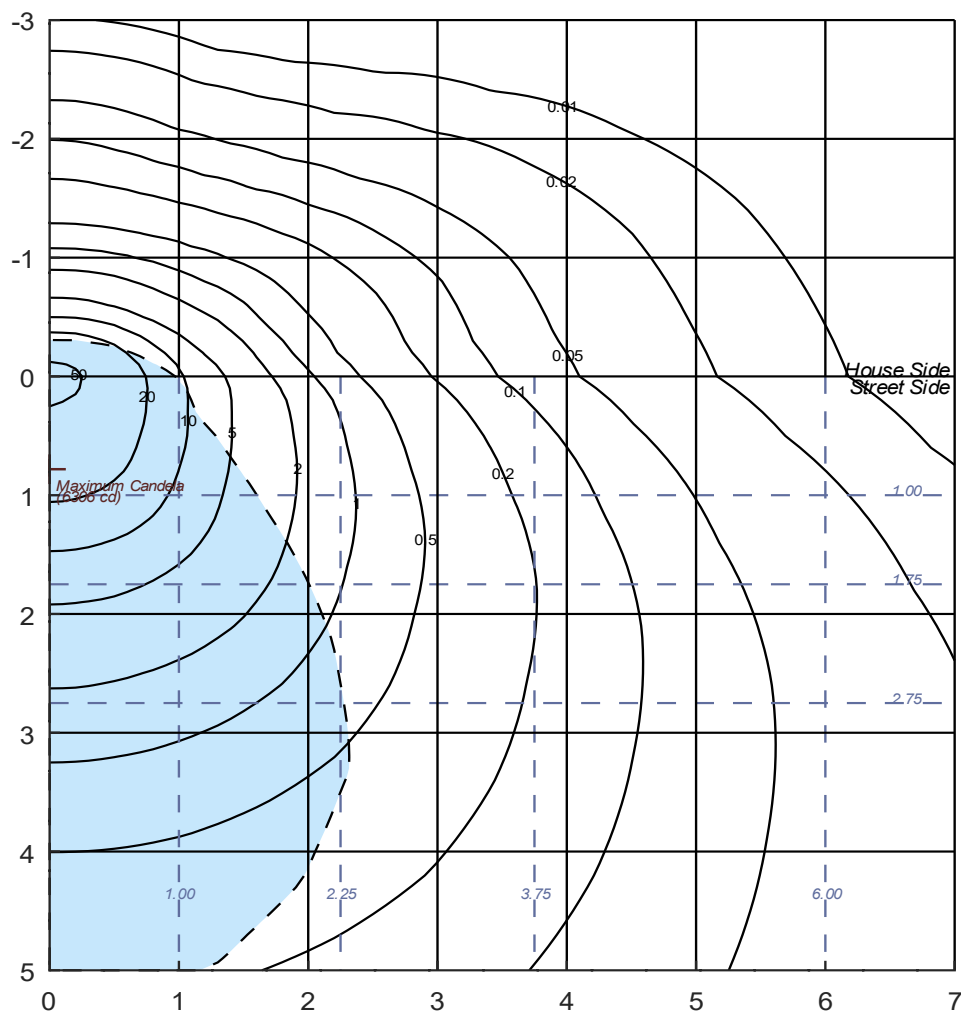


Report of Test

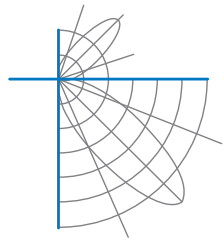
LLIA001528-008

Iso-Illuminance Plot

VALUES BASED ON 10.00 FOOT MOUNTING HEIGHT



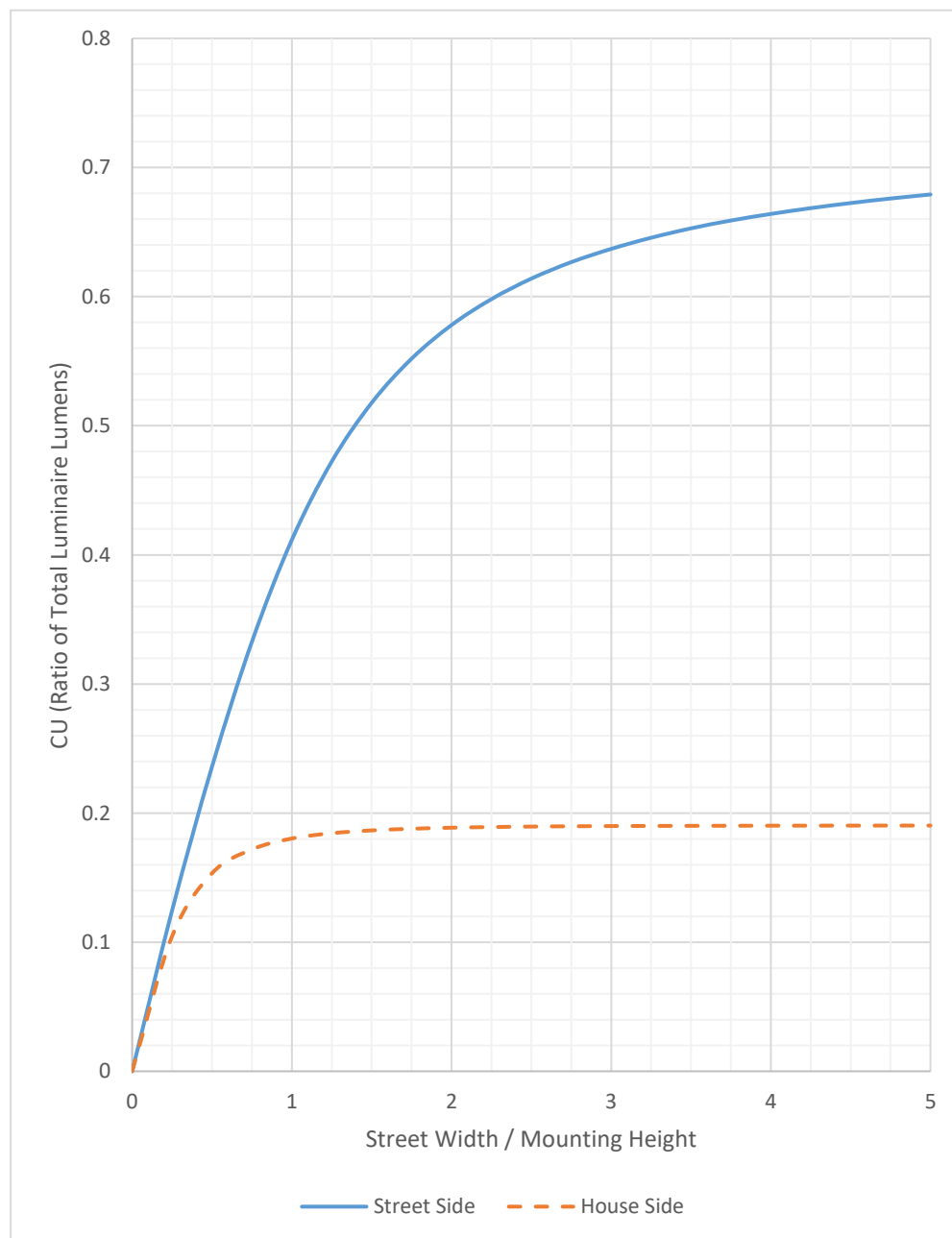
The isofootcandle values shown in the plot above are based on a mounting height of $h = 10.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution of room reflections.

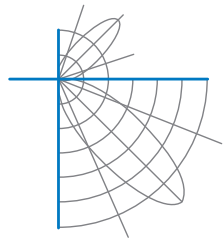


Report of Test

LLIA001528-008

Coefficients of Utilization Plot

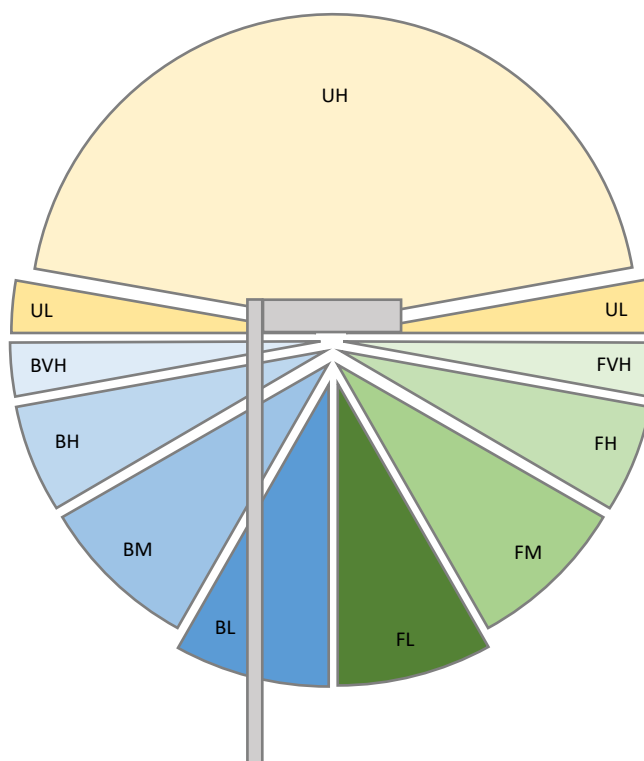




Report of Test

LLIA001528-008

LCS Tables and Bug Classification



Back Light

BL - Back Low (0°-30°)	1545.6 Lm
BM - Back Mid (30°-60°)	1249.8 Lm
BH - Back High (60°-80°)	210.3 Lm
BVH - Back Very High (80°-90°)	23.2 Lm

Uplight

UL - Upward Low (90°-100°)	548.0 Lm
UH - Upward High (100°-180°)	757.2 Lm

Forward Light

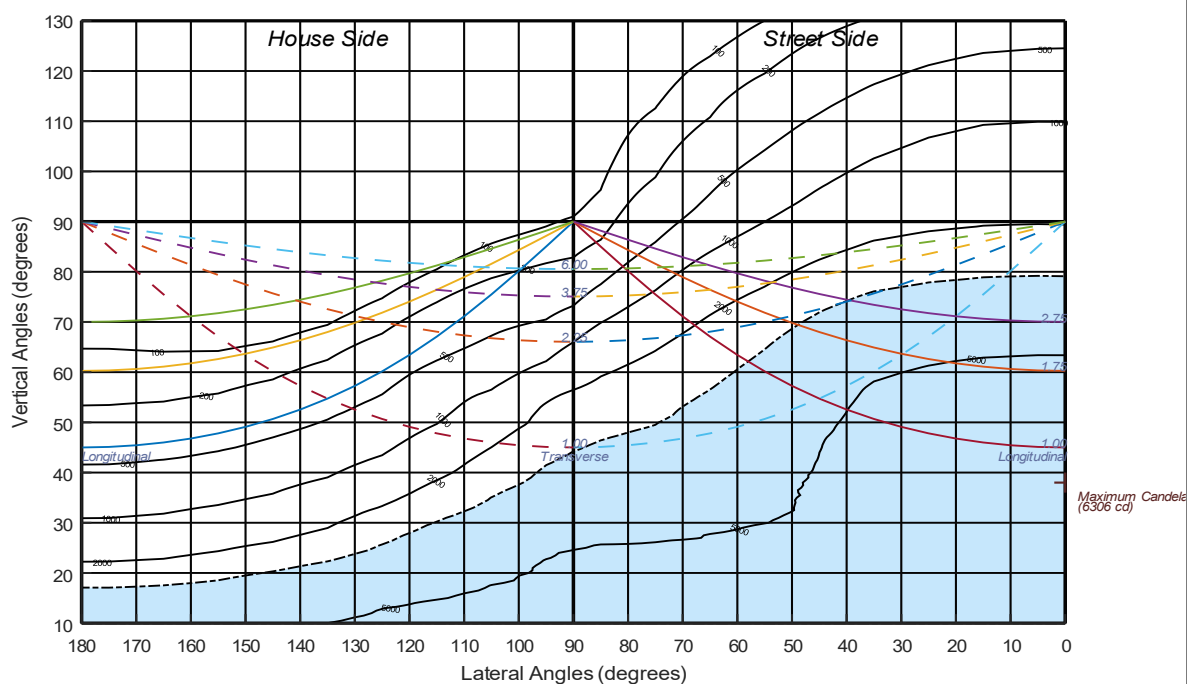
FL - Forward Low (0°-30°)	2246.1 Lm
FM - Forward Mid (30°-60°)	5411.3 Lm
FH - Forward High (60°-80°)	3047.3 Lm
FVH - Forward Very High (80°-90°)	862.3 Lm

BUG Ratings: B3 - U4 - G5

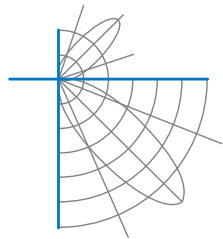


LLIA001528-008

ISOCANDELA DIAGRAM



Half-max Candela Contour Line

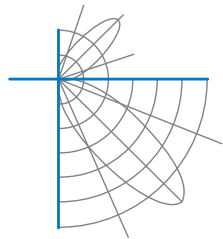


Report of Test

LLIA001528-008

Luminous Intensity (Candela) Table

		Lateral (C-Plane) Angles										
		0	5	15	25	35	45	55	65	75	85	90
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	0	5771	5771	5771	5771	5771	5771	5771	5771	5771	5771	5771
	2.5	5827	5820	5789	5765	5768	5781	5789	5788	5762	5720	5704
	5	5765	5746	5708	5759	5723	5741	5762	5754	5707	5669	5638
	7.5	5574	5546	5577	5545	5617	5627	5704	5729	5704	5689	5646
	10	5522	5481	5496	5470	5493	5528	5615	5710	5711	5727	5678
	12.5	5511	5450	5424	5429	5453	5482	5511	5596	5630	5675	5632
	15	5519	5470	5463	5436	5437	5421	5404	5395	5495	5505	5459
	17.5	5463	5430	5422	5417	5401	5336	5298	5234	5342	5371	5311
	20	5372	5356	5318	5348	5321	5255	5217	5215	5288	5264	5199
	22.5	5399	5386	5319	5258	5235	5177	5221	5182	5198	5194	5123
	25	5488	5477	5399	5279	5144	5179	5169	5108	5065	5039	4968
	27.5	5652	5646	5538	5383	5179	5138	5109	5015	4885	4853	4750
	30	5783	5766	5669	5492	5327	5124	4990	4888	4695	4623	4505
	32.5	5990	5974	5819	5577	5422	5110	4872	4720	4477	4350	4204
	35	6212	6194	6003	5726	5477	5145	4792	4552	4259	4162	4022
	37.5	6300	6292	6127	5834	5519	5126	4701	4386	4028	3893	3729
	40	6268	6268	6162	5911	5555	5071	4614	4184	3867	3719	3523
	42.5	6203	6206	6124	5918	5585	5022	4455	4109	3719	3506	3312
	45	6139	6139	6055	5869	5565	4973	4338	3962	3536	3279	3071
	47.5	6168	6164	6068	5827	5471	4894	4248	3794	3329	3057	2826
	50	6023	6032	5985	5786	5389	4784	4116	3622	3121	2819	2565
	52.5	5880	5874	5803	5664	5322	4653	3983	3448	2941	2712	2468
	55	5652	5655	5642	5537	5200	4545	3823	3262	2794	2523	2251
	57.5	5532	5531	5462	5318	5055	4418	3645	3084	2596	2180	1842
	60	5290	5280	5238	5123	4859	4263	3476	2906	2343	1920	1551
	62.5	5058	5049	5045	4897	4641	4063	3299	2726	2143	1686	1311
	65	4816	4818	4793	4656	4412	3847	3117	2517	1939	1450	1084
	67.5	4490	4498	4506	4401	4160	3608	2910	2318	1719	1210	872
	70	4234	4247	4296	4092	3888	3363	2680	2120	1495	986	686
	72.5	3955	3955	3933	3828	3596	3096	2443	1908	1285	789	537
	75	3660	3667	3645	3503	3305	2812	2200	1690	1094	629	423
	77.5	3344	3354	3325	3196	2976	2519	1959	1475	922	501	335
	80	3038	3046	3026	2887	2682	2243	1738	1274	774	392	265
	82.5	2748	2756	2735	2605	2397	1992	1532	1098	646	302	207
	85	2465	2473	2452	2327	2124	1746	1330	933	536	231	161
	87.5	2194	2202	2168	2061	1869	1528	1150	787	443	178	128
	90	1941	1950	1937	1823	1651	1341	998	666	370	142	107

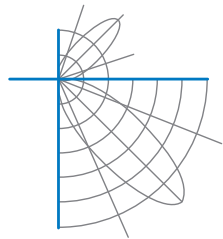


Report of Test

LLIA001528-008

Luminous Intensity (Candela) Table

		Lateral (C-Plane) Angles										
		0	5	15	25	35	45	55	65	75	85	90
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	1941	1950	1937	1823	1651	1341	998	666	370	142	107
	92.5	1747	1758	1734	1638	1475	1187	876	577	310	120	91
	95	1586	1596	1587	1492	1333	1063	783	512	260	106	82
	97.5	1477	1485	1470	1381	1217	962	705	453	219	95	76
	100	1379	1386	1369	1276	1110	866	625	393	186	86	72
	102.5	1282	1288	1267	1171	1004	773	548	335	160	79	67
	105	1184	1188	1167	1069	903	686	480	284	141	75	64
	107.5	1089	1091	1068	970	807	609	422	241	127	71	60
	110	995	996	973	878	721	541	371	209	114	66	56
	112.5	908	908	882	789	643	477	321	182	100	60	52
	115	822	822	797	706	567	414	272	159	88	55	47
	117.5	731	731	706	620	496	358	229	139	77	49	43
	120	644	643	618	536	424	306	193	121	67	43	38
	122.5	564	562	536	460	362	260	164	103	58	38	32
	125	484	480	453	388	312	222	140	86	48	31	27
	127.5	402	398	374	321	261	186	119	72	40	26	22
	130	322	320	303	263	214	153	100	60	33	21	18
	132.5	261	259	247	218	177	128	85	50	27	17	14
	135	216	214	204	181	148	109	73	44	21	14	11
	137.5	176	174	166	147	124	92	61	36	16	11	9
	140	140	140	134	119	101	75	51	29	12	8	6
	142.5	111	110	108	95	80	61	42	23	9	6	4
	145	87	87	85	75	63	50	34	17	7	4	2
	147.5	68	68	66	59	50	40	26	12	4	2	0
	150	55	55	53	47	40	32	20	7	2	0	0
	152.5	46	45	44	39	33	24	14	4	0	0	0
	155	37	37	35	32	25	17	8	0	0	0	0
	157.5	28	28	27	24	18	11	4	0	0	0	0
	160	21	20	19	16	11	6	0	0	0	0	0
	162.5	14	14	12	10	6	0	0	0	0	0	0
	165	8	8	6	4	0	0	0	0	0	0	0
	167.5	0	0	0	0	0	0	0	0	0	0	0
	170	0	0	0	0	0	0	0	0	0	0	0
	172.5	0	0	0	0	0	0	0	0	0	0	0
	175	0	0	0	0	0	0	0	0	0	0	0
	177.5	0	0	0	0	0	0	0	0	0	0	0
	180	0	0	0	0	0	0	0	0	0	0	0

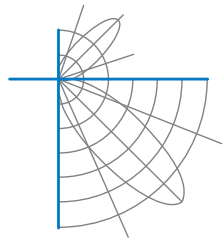


Report of Test

LLIA001528-008

Luminous Intensity (Candela) Table

		Lateral (C-Plane) Angles										
		90	95	105	115	125	135	145	155	165	175	180
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	0	5771	5771	5771	5771	5771	5771	5771	5771	5771	5771	5771
	2.5	5704	5695	5683	5672	5674	5664	5621	5575	5578	5625	5637
	5	5638	5620	5570	5571	5558	5488	5412	5467	5397	5412	5442
	7.5	5646	5613	5530	5473	5414	5267	5206	5079	5071	5012	5045
	10	5678	5628	5489	5399	5238	5000	4845	4744	4665	4614	4637
	12.5	5632	5573	5398	5242	5027	4766	4499	4296	4167	4105	4115
	15	5459	5393	5232	4941	4731	4485	4141	3843	3645	3593	3597
	17.5	5311	5221	5012	4643	4366	4037	3675	3350	3160	3051	3054
	20	5199	5090	4807	4357	3979	3566	3213	2898	2621	2502	2495
	22.5	5123	5019	4637	4123	3591	3118	2753	2353	2055	1961	1957
	25	4968	4847	4428	3870	3239	2676	2205	1907	1697	1615	1608
	27.5	4750	4634	4142	3554	2897	2228	1798	1573	1373	1283	1278
	30	4505	4362	3798	3187	2511	1876	1499	1279	1128	1066	1062
	32.5	4204	4040	3443	2793	2130	1573	1240	1073	956	902	900
	35	4022	3829	3163	2430	1773	1334	1050	911	822	772	770
	37.5	3729	3512	2821	2122	1484	1112	904	784	705	665	662
	40	3523	3281	2519	1791	1262	939	781	668	597	559	557
	42.5	3312	3050	2272	1544	1068	805	670	564	504	465	463
	45	3071	2784	2005	1333	903	695	569	468	413	382	380
	47.5	2826	2517	1747	1146	782	602	482	384	336	308	305
	50	2565	2248	1493	980	683	517	400	314	271	254	252
	52.5	2468	2115	1326	844	596	437	326	258	224	214	212
	55	2251	1869	1140	747	516	367	266	212	189	183	182
	57.5	1842	1468	926	669	448	304	219	175	161	159	159
	60	1551	1194	768	586	381	249	177	145	136	136	136
	62.5	1311	973	654	494	315	199	141	118	114	116	116
	65	1084	790	568	415	255	158	112	92	92	97	97
	67.5	872	640	493	345	203	123	86	69	72	74	73
	70	686	521	423	281	160	94	62	48	48	49	49
	72.5	537	426	351	226	125	69	41	27	23	21	21
	75	423	349	284	181	97	49	21	0	0	0	0
	77.5	335	287	225	140	70	30	8	0	0	0	0
	80	265	233	176	106	48	21	6	0	0	0	0
	82.5	207	186	136	81	38	16	5	0	0	0	0
	85	161	143	106	64	30	13	3	0	0	0	0
	87.5	128	112	86	52	25	11	1	0	0	0	0
	90	107	94	72	44	21	10	0	0	0	0	0

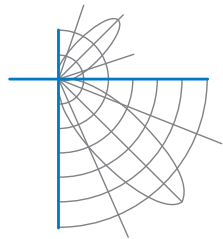


Report of Test

LLIA001528-008

Luminous Intensity (Candela) Table

		Lateral (C-Plane) Angles										
		90	95	105	115	125	135	145	155	165	175	180
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	107	94	72	44	21	10	0	0	0	0	0
	92.5	91	83	61	38	19	9	0	0	0	0	0
	95	82	74	53	33	17	8	0	0	0	0	0
	97.5	76	67	47	29	15	7	0	0	0	0	0
	100	72	62	43	25	13	6	0	0	0	0	0
	102.5	67	58	39	22	11	5	0	0	0	0	0
	105	64	54	35	18	9	4	0	0	0	0	0
	107.5	60	50	31	15	8	2	0	0	0	0	0
	110	56	46	27	13	7	1	0	0	0	0	0
	112.5	52	42	23	11	6	0	0	0	0	0	0
	115	47	38	20	10	5	0	0	0	0	0	0
	117.5	43	34	17	9	4	0	0	0	0	0	0
	120	38	30	15	7	4	0	0	0	0	0	0
	122.5	32	25	13	6	3	0	0	0	0	0	0
	125	27	21	11	5	2	0	0	0	0	0	0
	127.5	22	18	9	4	0	0	0	0	0	0	0
	130	18	14	7	2	0	0	0	0	0	0	0
	132.5	14	11	5	1	0	0	0	0	0	0	0
	135	11	9	4	0	0	0	0	0	0	0	0
	137.5	9	6	2	0	0	0	0	0	0	0	0
	140	6	4	0	0	0	0	0	0	0	0	0
	142.5	4	2	0	0	0	0	0	0	0	0	0
	145	2	0	0	0	0	0	0	0	0	0	0
	147.5	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0
	152.5	0	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0	0
	157.5	0	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0	0
	162.5	0	0	0	0	0	0	0	0	0	0	0
	165	0	0	0	0	0	0	0	0	0	0	0
	167.5	0	0	0	0	0	0	0	0	0	0	0
	170	0	0	0	0	0	0	0	0	0	0	0
	172.5	0	0	0	0	0	0	0	0	0	0	0
	175	0	0	0	0	0	0	0	0	0	0	0
	177.5	0	0	0	0	0	0	0	0	0	0	0
	180	0	0	0	0	0	0	0	0	0	0	0



Report of Test

LLIA001528-008

Additional Pictures of Test Subject



Report of Test

LLIA001528-008

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 publications: IES LM-79-19. Format of reports and angular increments based on IES LM-31-95 and LM-10-96.

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 IES C-Type spherical coordinate system as defined in IES LM-75-01.

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.