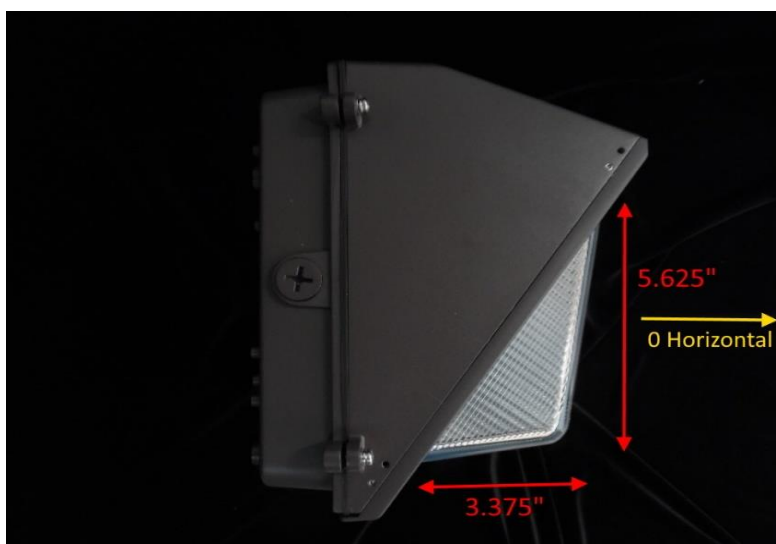


Report of Test

LLIA001528-007

Roadway/Area Light Distribution Photometry Test Report

Catalog Number: WP/120W/PCTS/BZ/PC - 100W 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



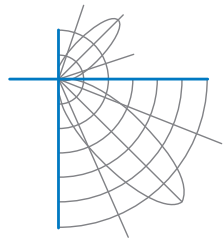
Prepared For:
Topaz Lighting Corp
925 Waverly Avenue
Holtsville, NY 11742, USA

Performance Summary			
Input Voltage	120.0 V	Luminous Flux	13936.4 Lumens
Input Current	0.8099 A	Total Efficacy	143.8 Lm/W
Input Power	96.90 W		
Frequency	60.00 Hz		
Power Factor	0.997	Roadway Type	Area Light
Current THD	5.1 %	IES BUG Rating	B3 - U4 - G5

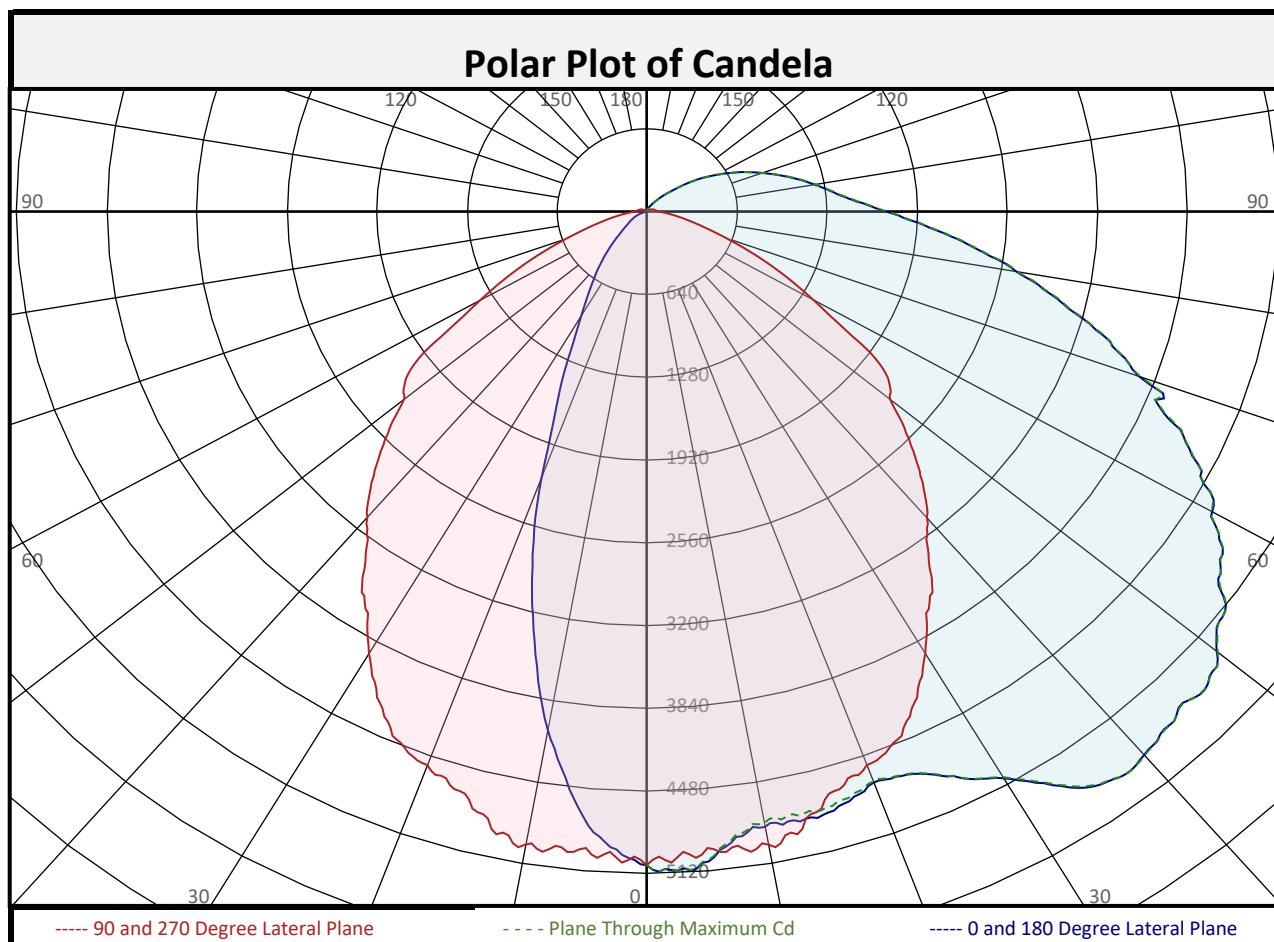
This test report was issued by LightLab International Allentown, LLC without alterations or erasures.

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

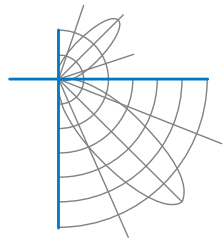
Signed: _____



Report of Test LLIA001528-007

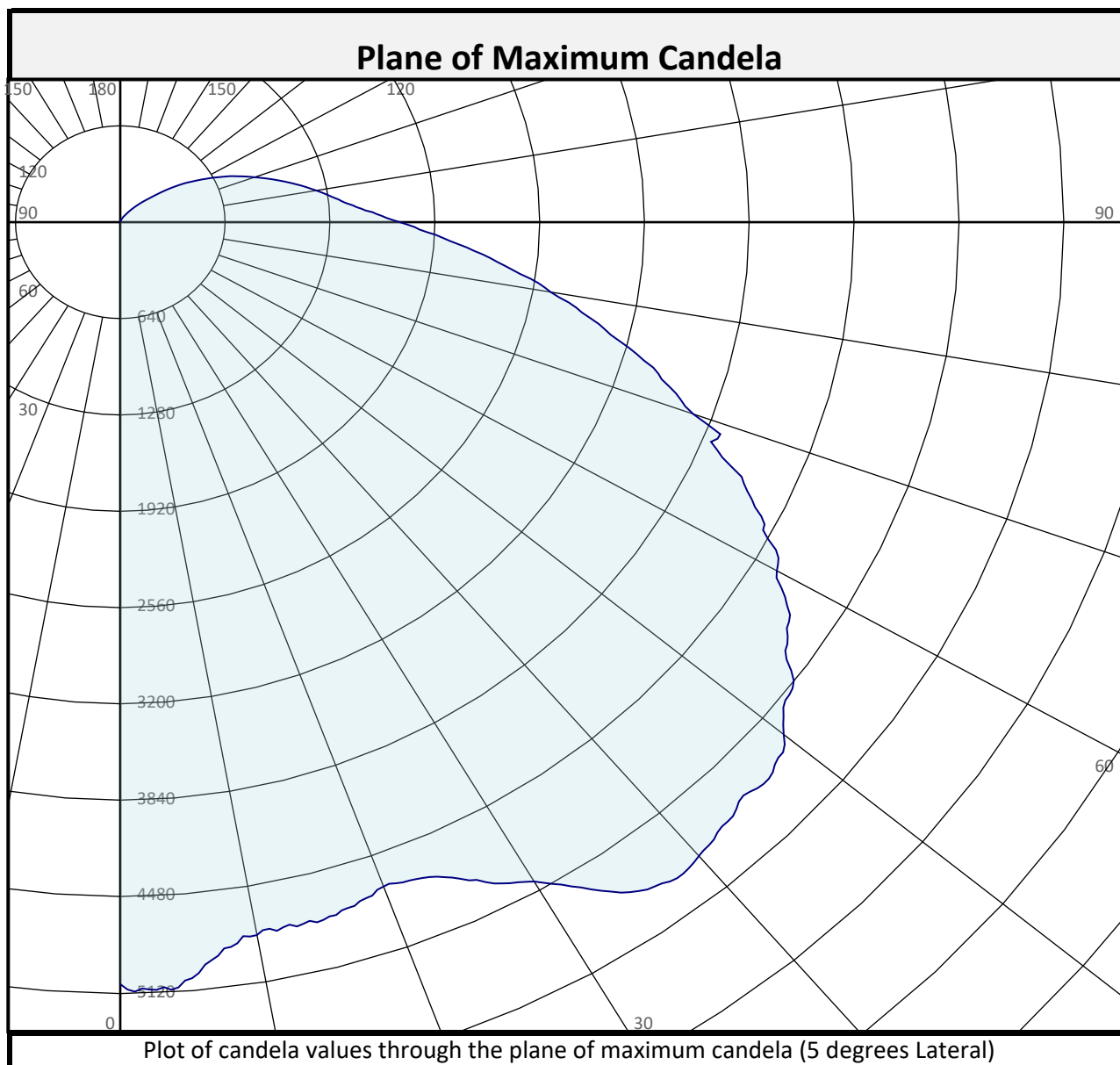


Zonal Flux Summary										
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	461.4	3.3%		90-100	480.4	3.4%		0-20	1674	12.0%
10-20	1212	8.7%		100-110	317.2	2.3%		0-30	3322	23.8%
20-30	1648	11.8%		110-120	192.4	1.4%		0-40	5223	37.5%
30-40	1901	13.6%		120-130	97.7	0.7%		0-60	9160	65.7%
40-50	2007	14.4%		130-140	39.8	0.3%		0-80	12015	86.2%
50-60	1930	13.8%		140-150	13.6	0.1%		10-90	12330	88.5%
60-70	1644	11.8%		150-160	3.7	0.0%		20-50	5556	39.9%
70-80	1212	8.7%		160-170	0.4	0.0%		40-90	7568	54.3%
80-90	776.3	5.6%		170-180	0.0	0.0%		60-90	3632	26.1%
0-90	12791	91.8%		90-180	1145	8.2%		0-180	13936	100.0%

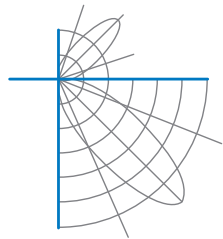


Report of Test

LLIA001528-007

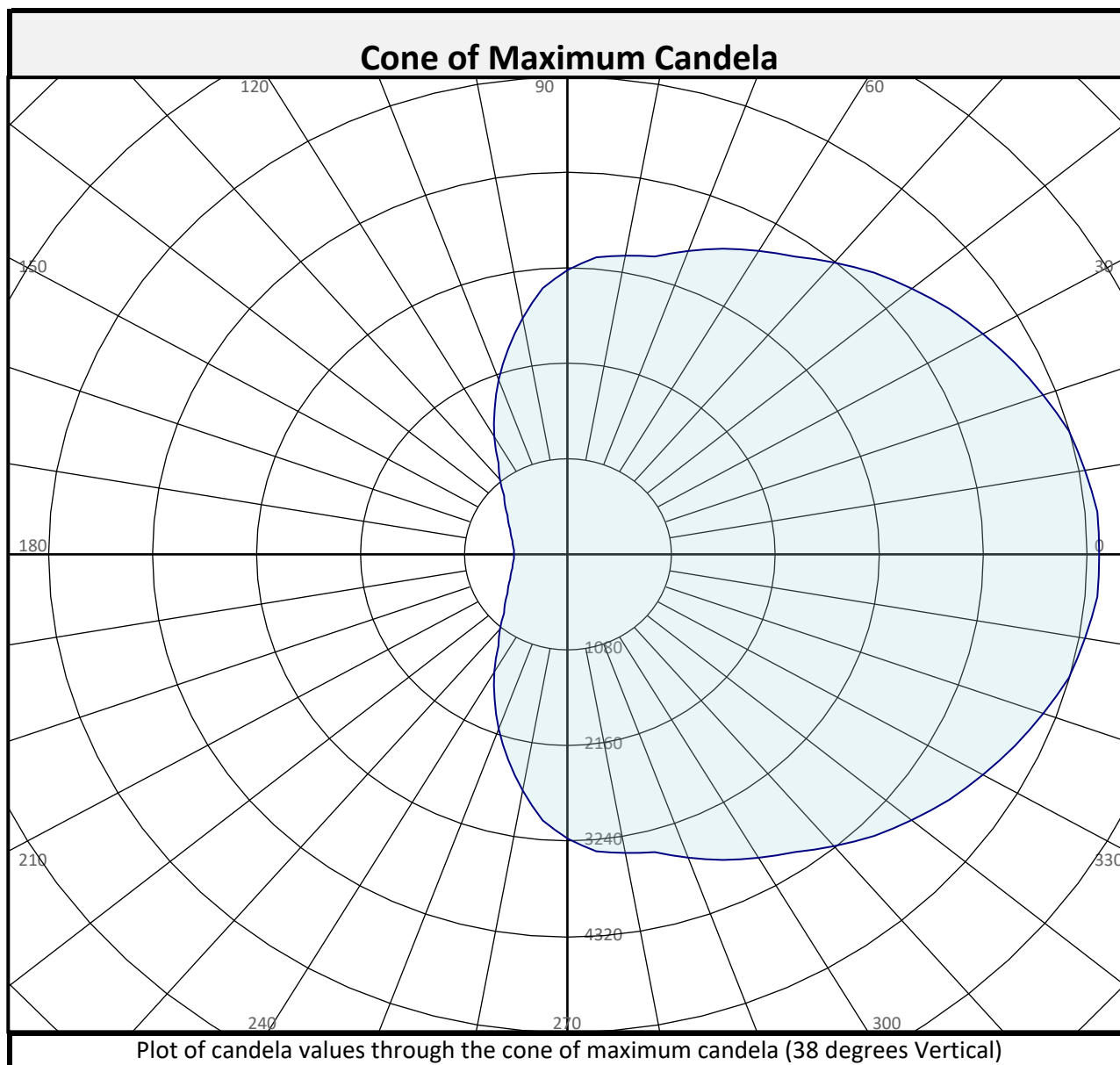


Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	10138.4	72.7%	1122.8	8.1%	11261.2	80.8%
House Side	2652.8	19.0%	22.4	0.2%	2675.2	19.2%
Total	12791.2	91.8%	1145.2	8.2%	13936.4	100.0%

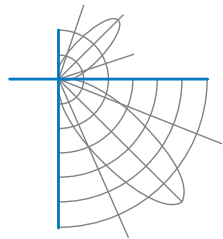


Report of Test

LLIA001528-007



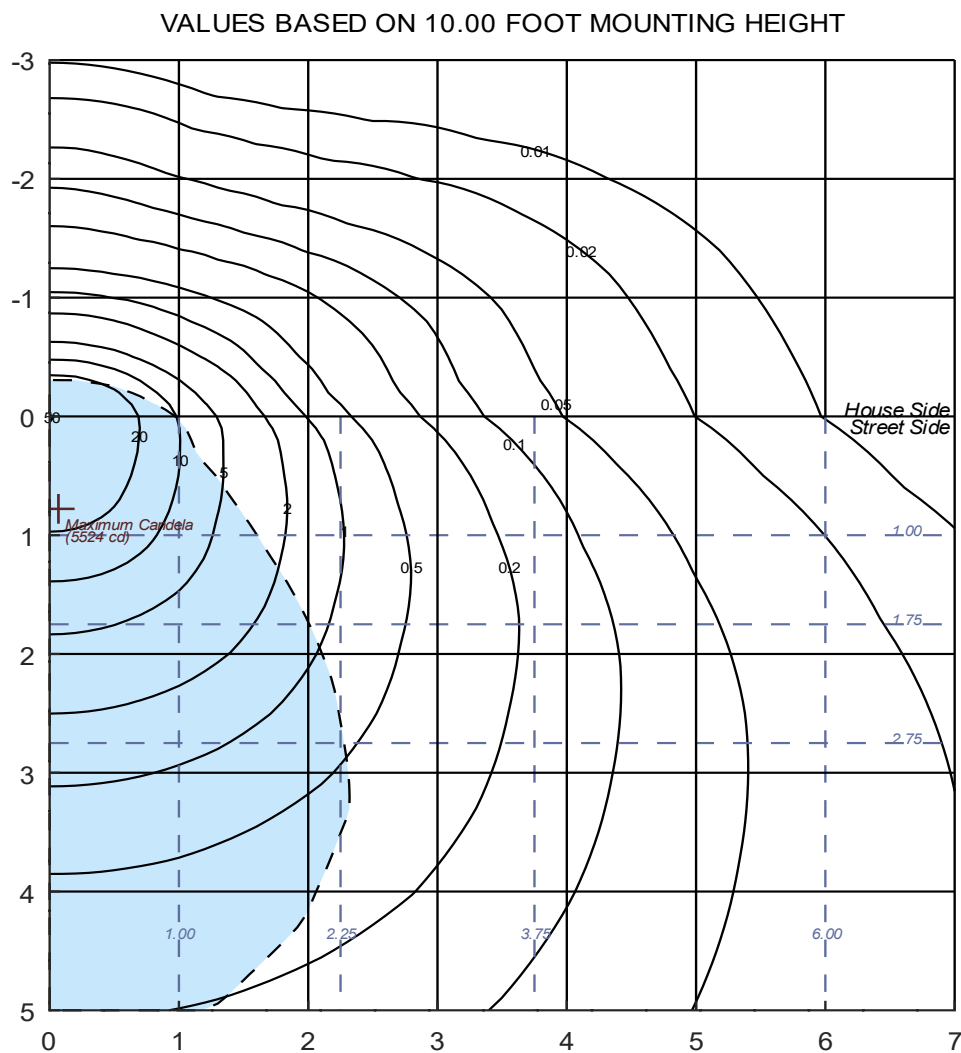
Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	10138.4	72.7%	1122.8	8.1%	11261.2	80.8%
House Side	2652.8	19.0%	22.4	0.2%	2675.2	19.2%
Total	12791.2	91.8%	1145.2	8.2%	13936.4	100.0%



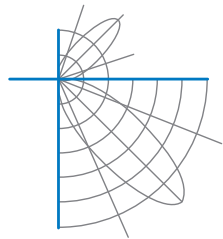
Report of Test

LLIA001528-007

Iso-Illuminance Plot



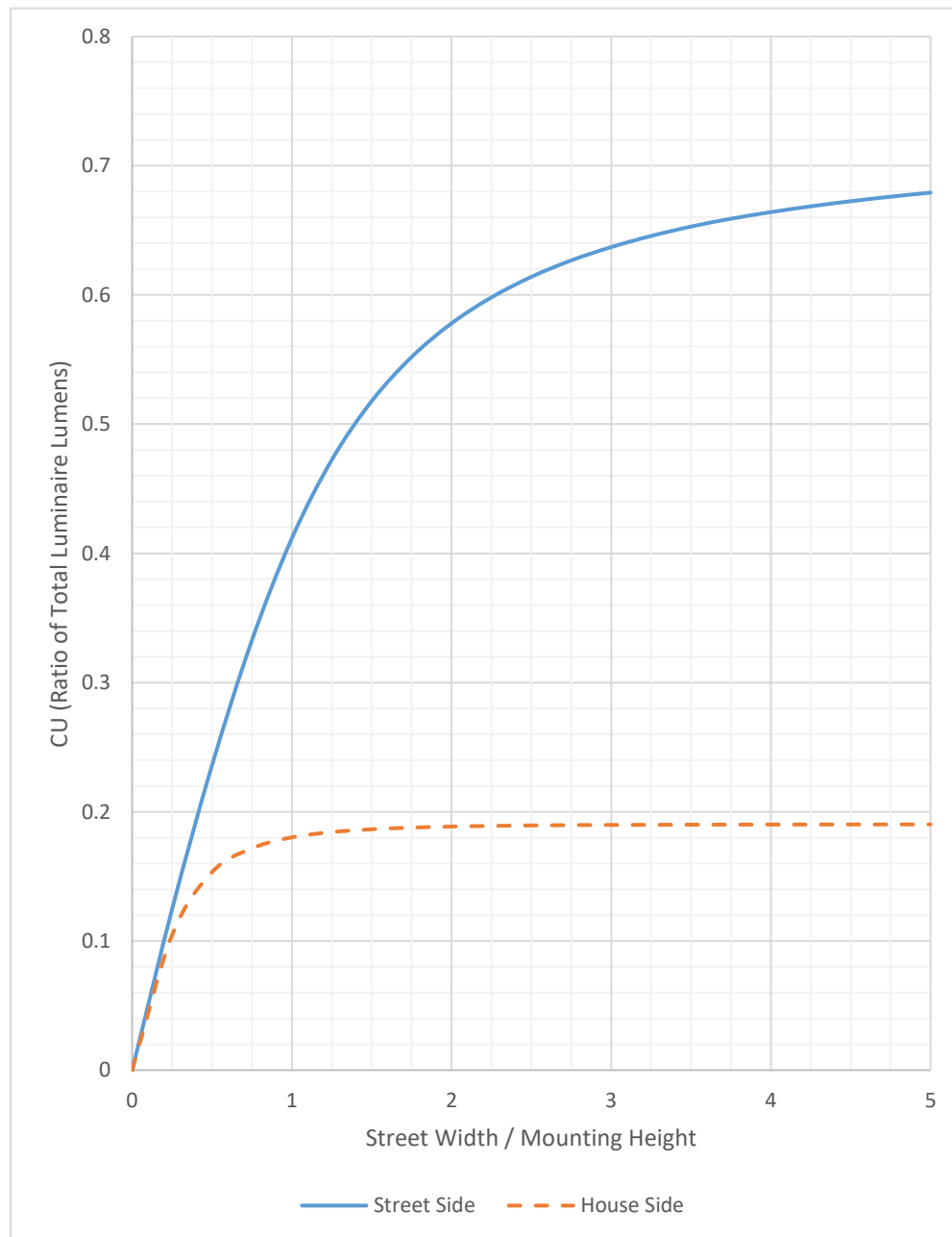
The isofootcandle values shown in the plot above are based on a mounting height of $h = 10.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the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

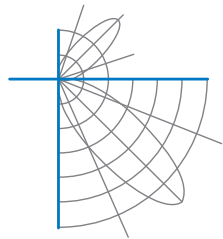


Report of Test

LLIA001528-007

Coefficients of Utilization Plot

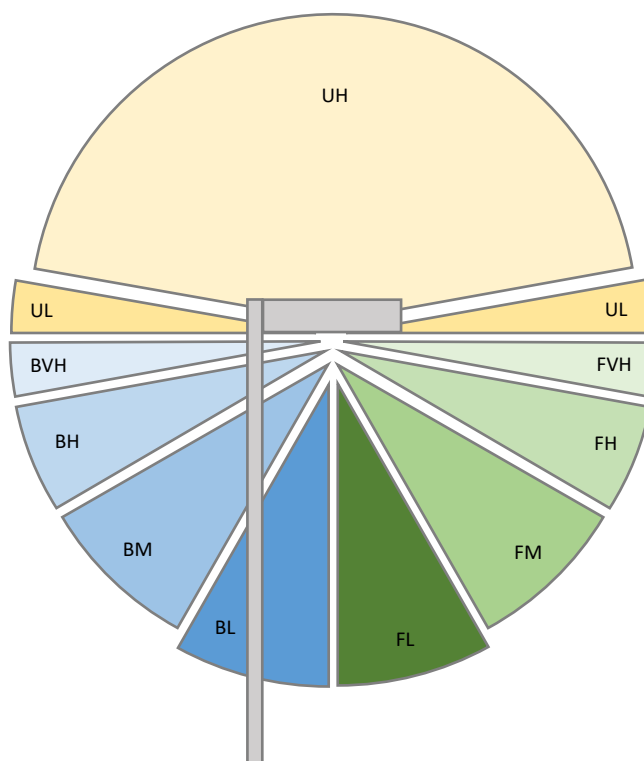




Report of Test

LLIA001528-007

LCS Tables and Bug Classification



Back Light

BL - Back Low (0°-30°)	1353.8 Lm
BM - Back Mid (30°-60°)	1094.5 Lm
BH - Back High (60°-80°)	184.1 Lm
BVH - Back Very High (80°-90°)	20.3 Lm

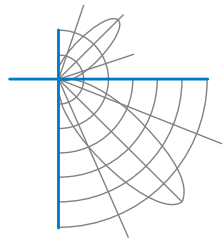
Uplight

UL - Upward Low (90°-100°)	480.4 Lm
UH - Upward High (100°-180°)	664.8 Lm

Forward Light

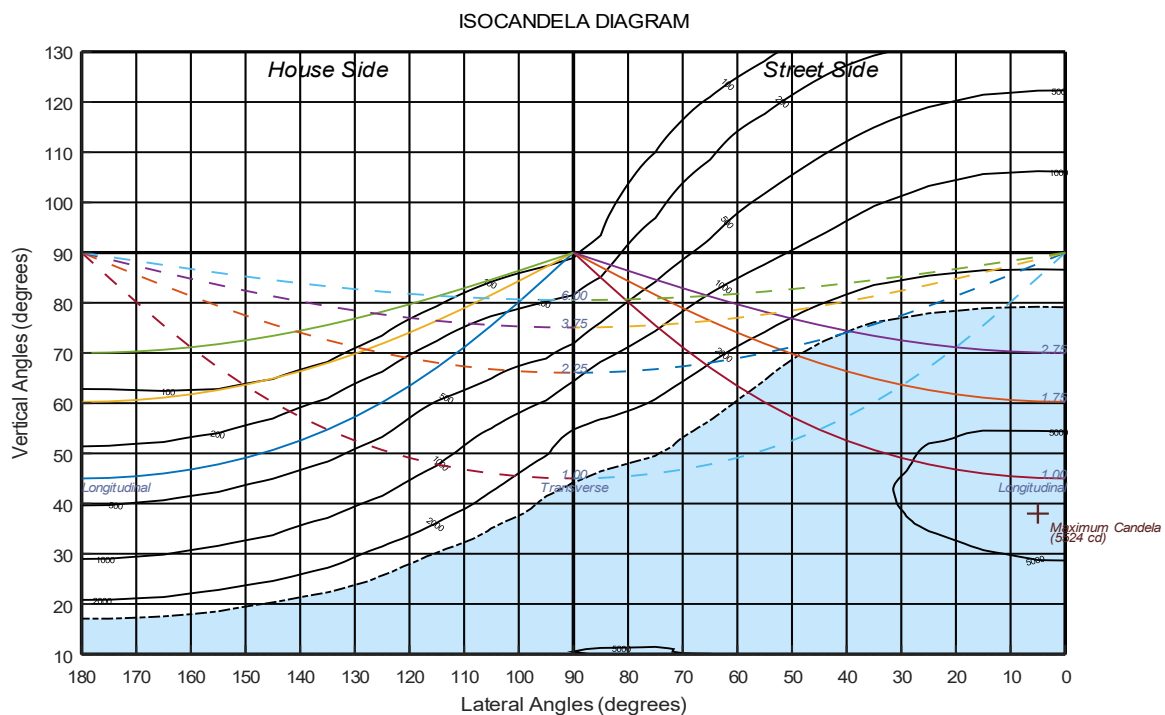
FL - Forward Low (0°-30°)	1968.4 Lm
FM - Forward Mid (30°-60°)	4742.9 Lm
FH - Forward High (60°-80°)	2671.1 Lm
FVH - Forward Very High (80°-90°)	755.9 Lm

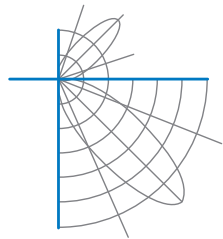
BUG Ratings: B3 - U4 - G5



Report of Test LLIA001528-007

Iso-Candela Plot



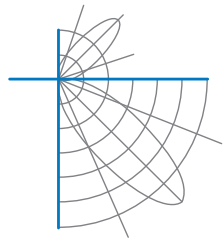


Report of Test

LLIA001528-007

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	5057	5057	5057	5057	5057	5057	5057	5057	5057	5057	5057
	2.5	5101	5100	5075	5052	5054	5066	5073	5073	5051	5013	5000
	5	5048	5037	5003	5046	5018	5030	5049	5044	5005	4970	4943
	7.5	4880	4861	4889	4860	4923	4932	4999	5024	5000	4985	4949
	10	4834	4804	4817	4793	4812	4848	4920	5007	5007	5017	4974
	12.5	4824	4775	4753	4758	4783	4805	4828	4907	4935	4973	4934
	15	4833	4794	4785	4763	4763	4749	4736	4729	4817	4825	4782
	17.5	4784	4758	4752	4749	4733	4677	4645	4588	4681	4706	4651
	20	4703	4693	4662	4687	4665	4606	4573	4571	4634	4614	4557
	22.5	4727	4719	4661	4608	4588	4537	4577	4542	4556	4553	4491
	25	4805	4799	4731	4626	4508	4537	4532	4477	4441	4417	4352
	27.5	4949	4948	4852	4716	4539	4503	4479	4397	4282	4253	4160
	30	5063	5052	4968	4812	4667	4491	4374	4285	4115	4051	3946
	32.5	5243	5235	5099	4887	4752	4479	4271	4136	3923	3812	3683
	35	5440	5428	5262	5018	4801	4509	4201	3990	3730	3648	3524
	37.5	5516	5515	5370	5113	4837	4493	4119	3843	3531	3412	3268
	40	5490	5494	5401	5181	4868	4444	4045	3667	3389	3259	3087
	42.5	5433	5439	5368	5188	4896	4402	3905	3601	3259	3073	2903
	45	5377	5381	5308	5145	4878	4359	3803	3473	3098	2874	2691
	47.5	5402	5404	5320	5108	4796	4290	3725	3325	2918	2679	2475
	50	5278	5288	5247	5072	4722	4193	3608	3174	2734	2471	2248
	52.5	5150	5150	5087	4966	4665	4078	3492	3022	2578	2377	2163
	55	4951	4957	4947	4854	4557	3984	3351	2859	2448	2212	1972
	57.5	4847	4849	4789	4662	4430	3872	3194	2703	2274	1910	1613
	60	4634	4629	4593	4493	4258	3737	3046	2546	2053	1683	1359
	62.5	4428	4425	4423	4293	4068	3561	2891	2389	1878	1478	1148
	65	4219	4225	4202	4082	3866	3372	2732	2206	1699	1271	950
	67.5	3934	3943	3950	3859	3646	3164	2551	2032	1506	1060	763
	70	3710	3724	3766	3587	3406	2948	2349	1857	1310	864	601
	72.5	3464	3466	3448	3357	3152	2714	2142	1673	1126	692	470
	75	3206	3214	3196	3071	2897	2465	1929	1481	959	552	371
	77.5	2929	2940	2915	2803	2608	2208	1718	1292	808	439	293
	80	2661	2669	2653	2532	2350	1965	1523	1117	679	343	232
	82.5	2407	2415	2397	2284	2100	1746	1342	962	567	265	181
	85	2159	2167	2149	2041	1861	1530	1166	818	470	202	141
	87.5	1922	1930	1901	1807	1638	1340	1008	690	389	156	112
	90	1701	1709	1698	1599	1448	1176	875	584	325	125	94

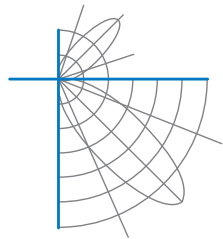


Report of Test

LLIA001528-007

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	1701	1709	1698	1599	1448	1176	875	584	325	125	94
	92.5	1531	1541	1520	1436	1293	1041	768	506	272	105	80
	95	1390	1399	1390	1308	1168	932	686	450	228	93	72
	97.5	1294	1302	1289	1210	1067	844	619	397	192	83	67
	100	1208	1215	1200	1120	974	759	548	345	163	75	63
	102.5	1124	1129	1111	1027	881	678	481	294	141	70	59
	105	1038	1042	1023	938	792	602	422	249	124	66	56
	107.5	954	957	937	851	709	535	370	212	111	62	53
	110	873	874	854	770	633	475	326	183	100	58	49
	112.5	796	797	774	693	564	419	282	160	88	53	45
	115	721	722	700	620	498	364	239	140	77	48	41
	117.5	642	642	620	545	436	314	202	122	68	43	37
	120	566	565	543	471	373	269	170	106	59	38	33
	122.5	495	494	471	404	318	229	144	90	51	33	28
	125	425	422	398	341	274	196	123	76	42	27	24
	127.5	353	350	329	282	230	164	104	63	35	23	19
	130	283	281	266	231	188	135	88	53	29	19	16
	132.5	229	228	217	191	156	113	75	44	24	15	13
	135	190	189	179	159	130	96	64	38	19	12	10
	137.5	154	153	146	129	109	81	54	32	14	9	7
	140	123	123	118	105	89	66	45	26	11	7	5
	142.5	97	97	95	84	70	53	37	20	8	5	4
	145	76	76	74	66	55	44	30	15	6	4	2
	147.5	60	60	58	52	43	35	23	10	4	1	0
	150	48	48	46	42	35	28	17	6	1	0	0
	152.5	40	40	39	35	29	21	12	3	0	0	0
	155	32	32	31	28	22	15	7	0	0	0	0
	157.5	25	25	24	21	16	10	3	0	0	0	0
	160	18	18	17	14	10	5	0	0	0	0	0
	162.5	12	12	11	9	5	0	0	0	0	0	0
	165	7	7	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

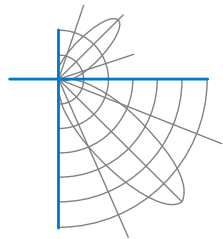


Report of Test

LLIA001528-007

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	5057	5057	5057	5057	5057	5057	5057	5057	5057	5057	5057
	2.5	5000	4991	4982	4972	4973	4964	4924	4886	4889	4930	4939
	5	4943	4926	4883	4883	4871	4809	4742	4790	4729	4744	4769
	7.5	4949	4919	4846	4799	4744	4614	4560	4450	4442	4392	4419
	10	4974	4933	4810	4733	4588	4382	4244	4156	4087	4043	4064
	12.5	4934	4884	4730	4594	4403	4175	3943	3762	3649	3597	3605
	15	4782	4724	4585	4332	4144	3929	3624	3364	3192	3147	3150
	17.5	4651	4574	4390	4070	3824	3535	3218	2932	2767	2672	2674
	20	4557	4460	4212	3817	3485	3123	2814	2536	2294	2190	2183
	22.5	4491	4397	4064	3610	3144	2731	2408	2057	1799	1716	1712
	25	4352	4246	3882	3391	2835	2344	1929	1668	1485	1414	1407
	27.5	4160	4060	3630	3112	2537	1952	1574	1376	1202	1123	1118
	30	3946	3820	3328	2791	2197	1643	1312	1118	987	933	930
	32.5	3683	3539	3017	2445	1864	1377	1085	939	837	790	788
	35	3524	3353	2772	2128	1553	1168	920	797	720	676	674
	37.5	3268	3075	2472	1858	1299	974	792	686	618	582	580
	40	3087	2873	2206	1568	1104	823	684	584	523	490	488
	42.5	2903	2671	1991	1351	934	706	587	493	441	407	406
	45	2691	2438	1757	1167	790	609	498	409	362	334	332
	47.5	2475	2203	1531	1003	684	528	422	336	294	269	267
	50	2248	1969	1308	858	598	453	351	274	237	222	221
	52.5	2163	1853	1162	739	522	383	285	225	196	187	186
	55	1972	1636	999	655	452	321	233	186	165	160	159
	57.5	1613	1284	811	586	392	266	192	154	141	139	139
	60	1359	1045	673	514	334	218	155	127	119	120	119
	62.5	1148	852	573	433	275	174	124	103	99	102	102
	65	950	692	498	363	223	139	98	81	81	85	85
	67.5	763	560	432	302	178	108	75	60	63	64	64
	70	601	456	371	246	140	82	55	42	42	43	43
	72.5	470	373	307	198	110	60	36	23	20	18	18
	75	371	306	249	158	85	43	18	0	0	0	0
	77.5	293	252	197	122	61	26	7	0	0	0	0
	80	232	204	155	93	42	18	5	0	0	0	0
	82.5	181	163	119	71	33	14	4	0	0	0	0
	85	141	125	93	56	26	12	3	0	0	0	0
	87.5	112	98	75	46	22	10	1	0	0	0	0
	90	94	83	63	39	19	9	0	0	0	0	0

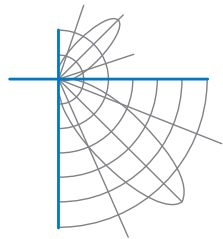


Report of Test

LLIA001528-007

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	94	83	63	39	19	9	0	0	0	0	0
	92.5	80	73	53	33	16	8	0	0	0	0	0
	95	72	64	47	29	14	7	0	0	0	0	0
	97.5	67	59	42	25	13	6	0	0	0	0	0
	100	63	54	37	22	11	5	0	0	0	0	0
	102.5	59	51	34	19	9	4	0	0	0	0	0
	105	56	48	30	16	8	3	0	0	0	0	0
	107.5	53	44	27	14	7	1	0	0	0	0	0
	110	49	40	24	11	6	0	0	0	0	0	0
	112.5	45	37	20	10	5	0	0	0	0	0	0
	115	41	33	18	9	4	0	0	0	0	0	0
	117.5	37	29	15	8	4	0	0	0	0	0	0
	120	33	26	13	7	3	0	0	0	0	0	0
	122.5	28	22	11	6	2	0	0	0	0	0	0
	125	24	19	9	5	1	0	0	0	0	0	0
	127.5	19	16	8	4	0	0	0	0	0	0	0
	130	16	13	6	2	0	0	0	0	0	0	0
	132.5	13	10	5	1	0	0	0	0	0	0	0
	135	10	8	4	0	0	0	0	0	0	0	0
	137.5	7	6	1	0	0	0	0	0	0	0	0
	140	5	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 LLIA001528-007

Additional Pictures of Test Subject



Report of Test

LLIA001528-007

Test Distance 9.5 m
Ambient Temperature 25.5 °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.