

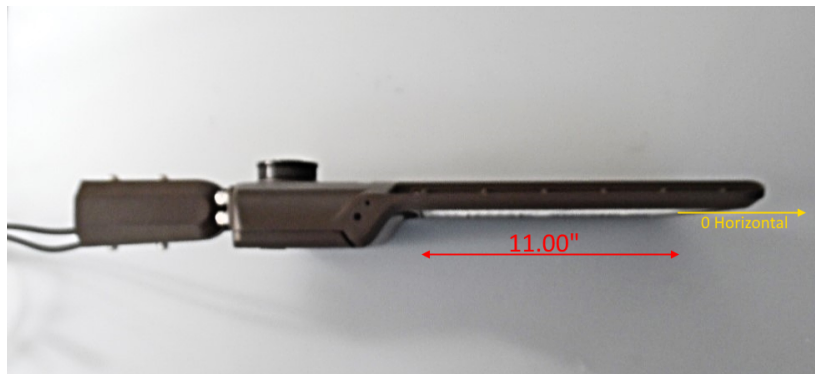


Report of Test

LLIA002251-012

Roadway/Area Light Distribution Photometry Test Report

Catalog Number: ARL-300PCS-T3 - 300W Setting - 4000K Setting
Pole mounted, cast aluminum housing, white LED board with
frosted plastic enclosure with clear optic sections below LEDs.
728 white LEDs, 364 CW LEDs and 364 WW LEDs
One Sosen SS-320NH-E260BH LED driver



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

Performance Summary			
Input Voltage	120.0 Vac	Luminous Flux	44729.2 Lumens
Input Current	2.419 A	Total Efficacy	155.1 Lm/W
Input Power	288.3 W		
Frequency	60.00 Hz	Roadway Throw	Medium
Power Factor	0.994	Roadway Type	Type III
Current THD	9.1 %		

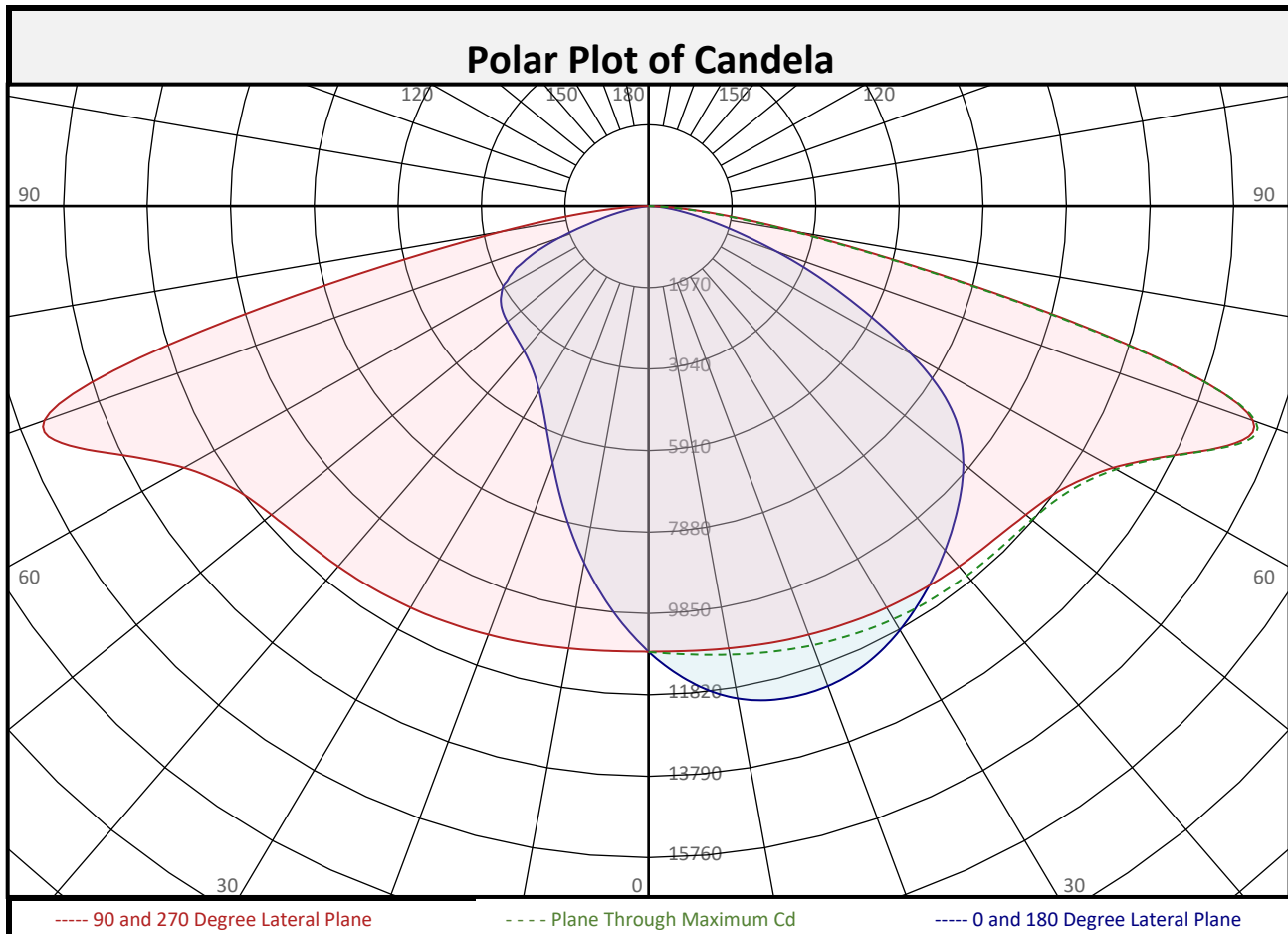
This test report was issued by LightLab International Allentown, LLC without alterations or erasures.

Test date: 11/28/2023
Report date: 12/04/2023

Signed: _____



Report of Test LLIA002251-012

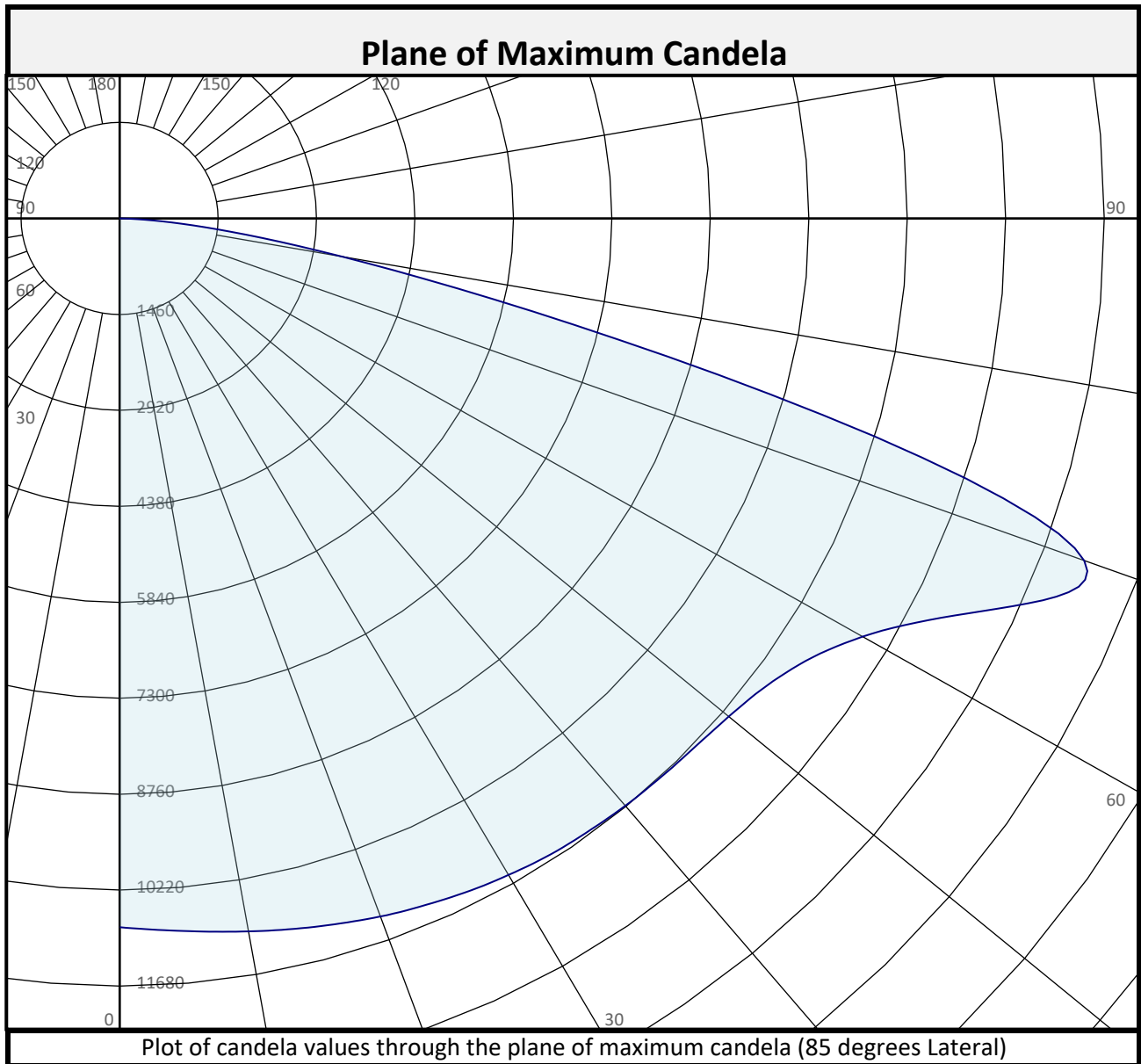


Zonal Flux Summary

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	1024	2.3%	90-100	0.0	0.0%	0-20	3986	8.9%
10-20	2962	6.6%	100-110	0.0	0.0%	0-30	8626	19.3%
20-30	4640	10.4%	110-120	0.0	0.0%	0-40	14664	32.8%
30-40	6039	13.5%	120-130	0.0	0.0%	0-60	29868	66.8%
40-50	7168	16.0%	130-140	0.0	0.0%	0-80	43729	97.8%
50-60	8036	18.0%	140-150	0.0	0.0%	10-90	43706	97.7%
60-70	8319	18.6%	150-160	0.0	0.0%	20-50	17847	39.9%
70-80	5542	12.4%	160-170	0.0	0.0%	40-90	30065	67.2%
80-90	1000.0	2.2%	170-180	0.0	0.0%	60-90	14861	33.2%
0-90	44729	100.0%	90-180	0.0	0.0%	0-180	44729	100.0%



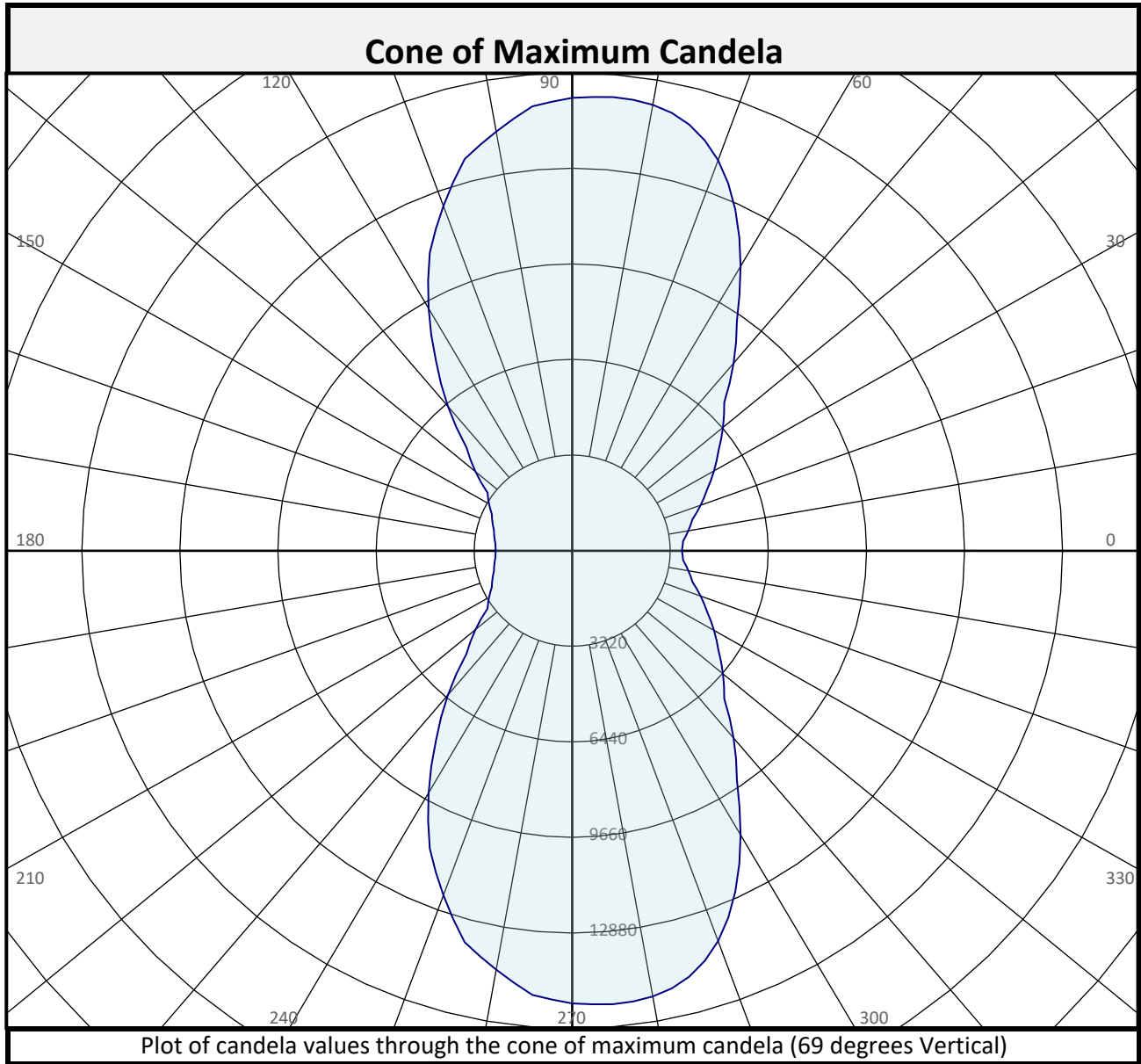
Report of Test
LLIA002251-012



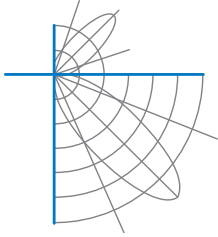
Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	26365.8	58.9%	0.0	0.0%	26365.8	58.9%
House Side	18363.5	41.1%	0.0	0.0%	18363.5	41.1%
Total	44729.2	100.0%	0.0	0.0%	44729.2	100.0%



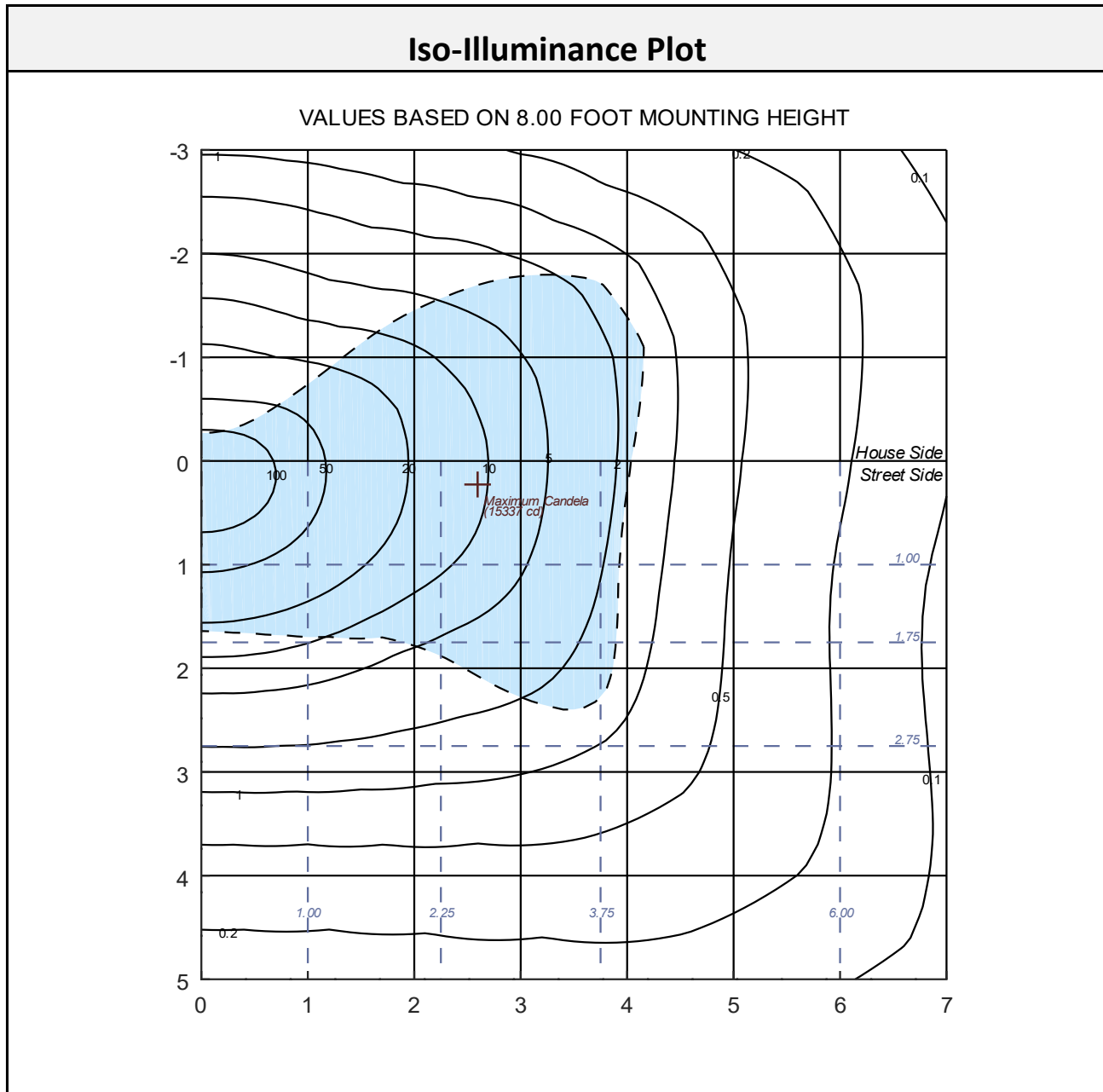
Report of Test
LLIA002251-012



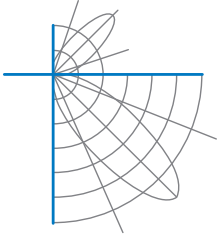
Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	26365.8	58.9%	0.0	0.0%	26365.8	58.9%
House Side	18363.5	41.1%	0.0	0.0%	18363.5	41.1%
Total	44729.2	100.0%	0.0	0.0%	44729.2	100.0%



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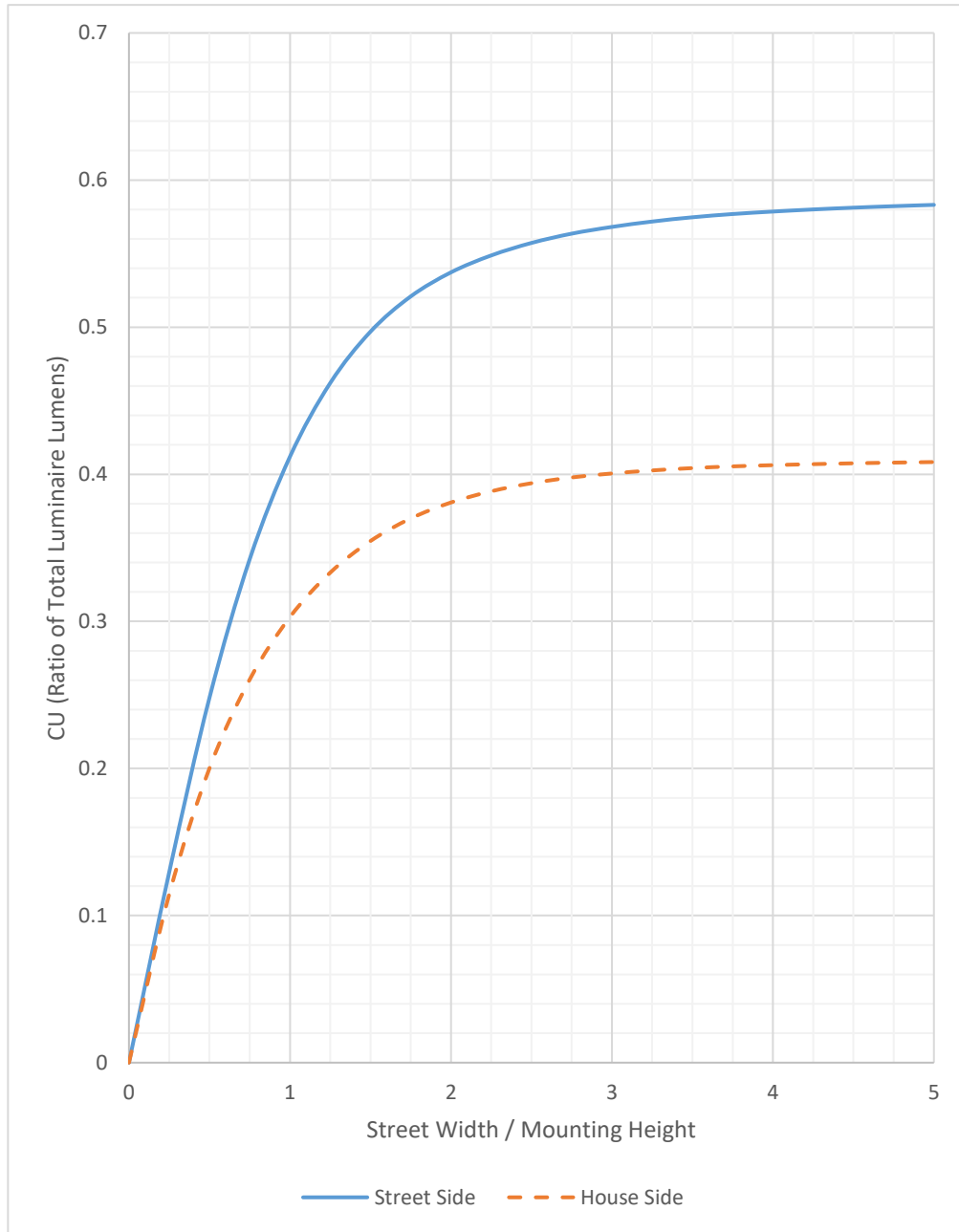


The isofootcandle values shown in the plot above are based on a mounting height of $h = 8.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution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



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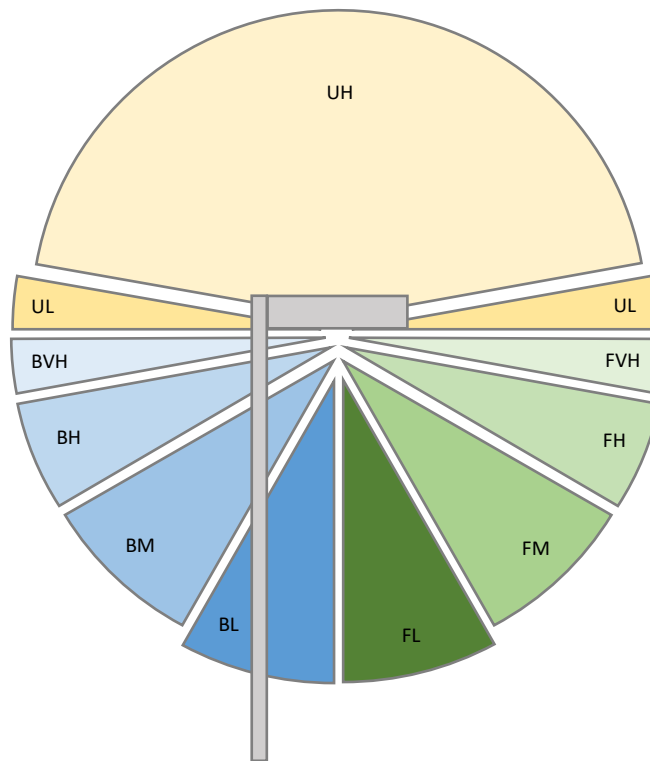
Coefficients of Utilization Plot





Report of Test
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LCS Tables and Bug Classification



Back Light

BL - Back Low (0°-30°)	3566.3 Lm
BM - Back Mid (30°-60°)	8301.4 Lm
BH - Back High (60°-80°)	6119.9 Lm
BVH - Back Very High (80°-90°)	375.9 Lm

Forward Light

FL - Forward Low (0°-30°)	5059.7 Lm
FM - Forward Mid (30°-60°)	12940.9 Lm
FH - Forward High (60°-80°)	7741.1 Lm
FVH - Forward Very High (80°-90°)	624.1 Lm

Uplight

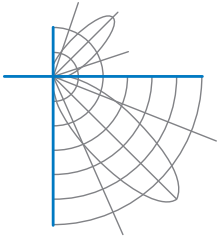
UL - Upward Low (90°-100°)	0.0 Lm
UH - Upward High (100°-180°)	0.0 Lm

BUG Rating: Asymmetrical Luminaire (Type I, II, III, and IV)

B5 - U0 - G5

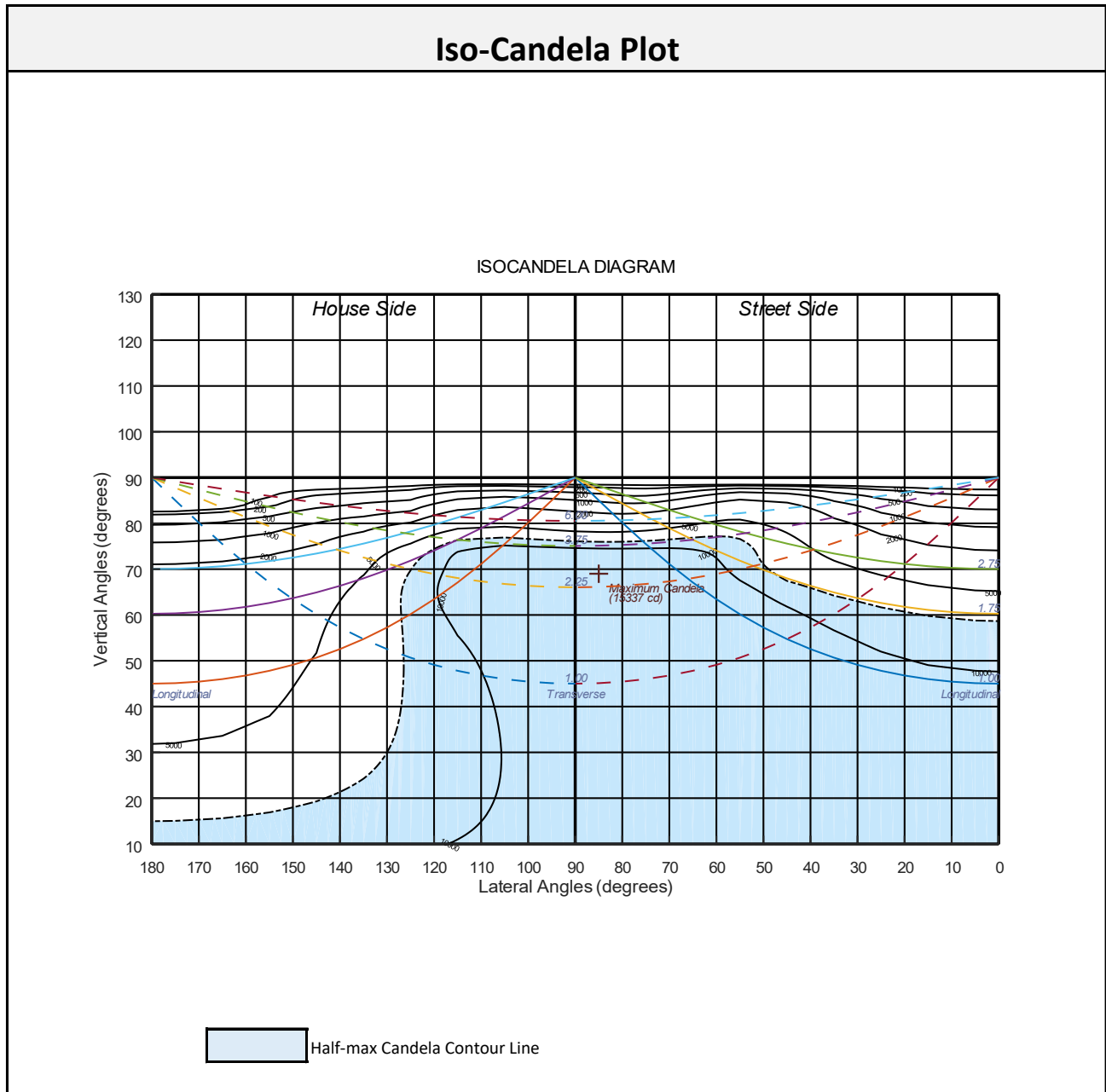
BUG Rating: Quadrilateral Symmetrical Luminaire (Type V, Type VS)

B5 - U0 - G4



Report of Test
LLIA002251-012

Iso-Candela Plot





Report of Test

LLIA002251-012

Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles															
	0	5	15	25	35	45	55	57.5	60	62.5	65	67.5	70	72.5	75	
0	10783	10783	10783	10783	10783	10783	10783	10783	10783	10783	10783	10783	10783	10783	10783	
2.5	11199	11203	11194	11169	11137	11091	11036	11019	11003	10983	10966	10952	10934	10912	10902	
5	11562	11570	11552	11511	11453	11376	11275	11247	11218	11185	11152	11122	11091	11053	11025	
7.5	11866	11876	11854	11807	11738	11638	11506	11465	11426	11382	11340	11296	11250	11198	11156	
10	12092	12101	12082	12039	11968	11863	11712	11668	11621	11568	11516	11463	11406	11343	11284	
12.5	12244	12249	12237	12206	12148	12050	11897	11849	11800	11742	11686	11620	11555	11479	11412	
15	12330	12338	12334	12315	12277	12193	12052	12003	11953	11892	11836	11764	11692	11612	11531	
17.5	12367	12377	12380	12380	12361	12299	12179	12132	12082	12024	11962	11894	11817	11735	11648	
20	12355	12368	12385	12407	12410	12372	12271	12232	12187	12129	12071	12001	11927	11840	11750	
22.5	12296	12310	12343	12388	12426	12417	12341	12306	12262	12210	12157	12087	12013	11929	11835	
25	12194	12207	12255	12335	12410	12436	12385	12354	12318	12271	12220	12154	12083	12001	11907	
27.5	12039	12054	12119	12238	12361	12435	12409	12385	12352	12310	12265	12201	12133	12057	11966	
30	11847	11865	11947	12104	12278	12405	12415	12396	12370	12331	12290	12236	12171	12099	12009	
32.5	11624	11647	11746	11935	12164	12344	12400	12390	12368	12337	12300	12250	12191	12122	12040	
35	11386	11410	11523	11743	12022	12264	12364	12364	12350	12330	12292	12251	12197	12132	12055	
37.5	11140	11158	11285	11533	11854	12156	12314	12323	12317	12299	12273	12236	12187	12127	12057	
40	10872	10893	11028	11300	11664	12027	12242	12264	12270	12261	12237	12210	12165	12115	12049	
42.5	10598	10618	10757	11051	11460	11879	12157	12190	12206	12210	12197	12174	12137	12089	12034	
45	10311	10333	10478	10793	11244	11714	12060	12107	12134	12148	12145	12129	12101	12062	12014	
47.5	10017	10039	10188	10524	11016	11541	11953	12016	12060	12086	12094	12085	12067	12034	11999	
50	9686	9710	9879	10244	10780	11368	11847	11928	11987	12030	12050	12055	12048	12026	11998	
52.5	9288	9318	9517	9930	10529	11189	11752	11850	11931	11990	12027	12050	12060	12055	12039	
55	8781	8818	9065	9547	10241	11007	11671	11800	11906	11992	12057	12100	12127	12145	12148	
57.5	8073	8119	8439	9028	9848	10783	11609	11782	11930	12058	12160	12236	12294	12332	12358	
60	7147	7199	7587	8287	9257	10427	11543	11785	12007	12202	12363	12491	12589	12660	12713	
62.5	6098	6156	6576	7336	8382	9789	11382	11750	12089	12394	12650	12862	13028	13150	13235	
65	5077	5135	5568	6336	7331	8795	10913	11463	11989	12478	12907	13267	13559	13783	13942	
67.5	4147	4204	4638	5411	6358	7641	10022	10755	11511	12238	12905	13491	13987	14375	14668	
70	3239	3291	3718	4537	5563	6765	9085	9885	10736	11584	12399	13157	13813	14313	14695	
72.5	2427	2467	2821	3620	4800	6284	8598	9296	9978	10641	11270	11836	12291	12581	12786	
75	1776	1805	2073	2751	3967	5871	8227	8684	9034	9276	9417	9499	9502	9401	9304	
77.5	1275	1296	1488	2023	3130	5157	7218	7420	7436	7302	7069	6793	6513	6215	5986	
80	873	887	1026	1440	2330	4107	5607	5607	5404	5094	4733	4387	4072	3785	3565	
82.5	560	569	665	969	1630	2909	3810	3688	3450	3157	2825	2519	2264	2049	1900	
85	297	302	362	556	965	1742	2110	1951	1753	1555	1336	1146	996	869	793	
87.5	91	93	111	169	287	510	590	528	467	405	342	295	258	227	215	
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.

North America (issuing laboratory)

Australasia & S.E. Asia



Report of Test

LLIA002251-012

Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles															
	77.5	80	82.5	85	90	95	105	115	125	135	145	155	165	175	180	
0	10783	10783	10783	10783	10783	10783	10783	10783	10783	10783	10783	10783	10783	10783	10783	
2.5	10882	10861	10848	10828	10780	10752	10670	10591	10526	10463	10405	10363	10332	10318	10309	
5	10991	10950	10920	10882	10797	10729	10569	10411	10267	10133	10013	9921	9854	9824	9813	
7.5	11105	11049	10999	10945	10824	10718	10476	10234	10006	9792	9603	9455	9349	9301	9291	
10	11222	11150	11085	11013	10858	10713	10390	10065	9747	9448	9189	8981	8836	8766	8753	
12.5	11336	11252	11171	11087	10896	10717	10313	9901	9489	9107	8771	8502	8315	8222	8208	
15	11444	11350	11257	11159	10942	10724	10244	9746	9244	8773	8357	8027	7795	7678	7661	
17.5	11551	11444	11339	11230	10987	10736	10186	9601	9010	8448	7951	7554	7278	7141	7123	
20	11647	11532	11418	11301	11028	10753	10137	9473	8797	8141	7560	7098	6788	6635	6615	
22.5	11733	11615	11493	11365	11077	10772	10097	9366	8603	7855	7190	6674	6339	6182	6159	
25	11804	11687	11564	11426	11119	10798	10071	9277	8436	7593	6848	6292	5948	5787	5766	
27.5	11863	11749	11623	11484	11168	10828	10061	9213	8295	7361	6544	5956	5608	5453	5435	
30	11909	11798	11672	11532	11213	10860	10063	9173	8181	7155	6273	5663	5322	5178	5162	
32.5	11945	11837	11715	11580	11252	10899	10083	9156	8092	6977	6037	5412	5087	4963	4947	
35	11966	11863	11746	11612	11295	10938	10115	9160	8023	6826	5832	5201	4903	4798	4786	
37.5	11973	11879	11767	11638	11338	10977	10160	9183	7973	6693	5651	5027	4760	4673	4665	
40	11971	11889	11782	11665	11374	11031	10221	9223	7938	6580	5496	4886	4651	4578	4569	
42.5	11965	11887	11793	11683	11412	11086	10298	9280	7916	6482	5364	4775	4571	4505	4497	
45	11954	11882	11799	11705	11454	11154	10392	9355	7903	6394	5250	4689	4508	4445	4438	
47.5	11948	11890	11823	11735	11517	11235	10512	9452	7900	6316	5151	4620	4457	4397	4389	
50	11963	11919	11866	11790	11605	11350	10660	9571	7911	6244	5062	4559	4411	4354	4346	
52.5	12017	11984	11945	11886	11728	11506	10860	9730	7935	6174	4972	4496	4359	4307	4299	
55	12142	12128	12096	12056	11919	11736	11138	9946	7975	6098	4872	4418	4288	4242	4235	
57.5	12363	12365	12352	12319	12222	12060	11544	10257	8033	6008	4750	4312	4182	4137	4131	
60	12736	12748	12745	12723	12648	12546	12131	10675	8108	5892	4589	4159	4024	3987	3982	
62.5	13289	13320	13333	13317	13280	13241	12870	11121	8180	5731	4369	3955	3749	3701	3697	
65	14040	14101	14130	14130	14110	14100	13507	11363	8180	5502	4095	3600	3448	3359	3343	
67.5	14863	14982	15036	15036	14973	14843	13707	11250	8010	5200	3654	3177	2987	2899	2887	
70	14960	15118	15198	15224	15157	14915	13570	10950	7613	4672	3195	2703	2430	2301	2277	
72.5	12933	13017	13094	13164	13224	13244	12772	10568	6858	3984	2669	2142	1801	1650	1633	
75	9241	9169	9152	9197	9339	9654	10219	9054	5397	3116	2091	1534	1237	1143	1131	
77.5	5827	5709	5660	5677	5812	6146	6922	6430	3625	2232	1522	1059	830	756	745	
80	3417	3330	3317	3359	3511	3770	4355	3946	2107	1431	1018	677	525	476	470	
82.5	1816	1789	1819	1891	2044	2226	2616	2232	1054	794	643	359	194	116	111	
85	775	797	850	915	1028	1140	1348	1088	516	411	289	127	31	1	1	
87.5	217	230	248	267	293	323	403	358	175	117	88	47	9	1	1	
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.

North America (issuing laboratory)

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www.lightlabint.com



Report of Test

LLIA002251-012

Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles															
	0	5	15	25	35	45	55	57.5	60	62.5	65	67.5	70	72.5	75	
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	92.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	137.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	142.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	147.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	152.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	157.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	162.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
167.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
172.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
177.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

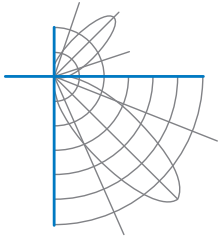


Report of Test

LLIA002251-012

Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles															
	77.5	80	82.5	85	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	92.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	137.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	142.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	147.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	152.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	157.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	162.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
167.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
172.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
177.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



Report of Test
LLIA002251-012

Additional Pictures of Test Subject





Report of Test

LLIA002251-012

Test Distance 9.5 m
Ambient Temperature 25.2 °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-31-20 and LM-10-20.

The luminous intensity values, and other derived quantities, contained in this report are based on absolute data.

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-75-19.

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.

The device under test emits no detectable uplight, as defined by ANSI/IES LM-31-20. For the purpose of this report, certain non-zero uplight readings, attributable to instrument artifacts, have been assigned a zero value.