

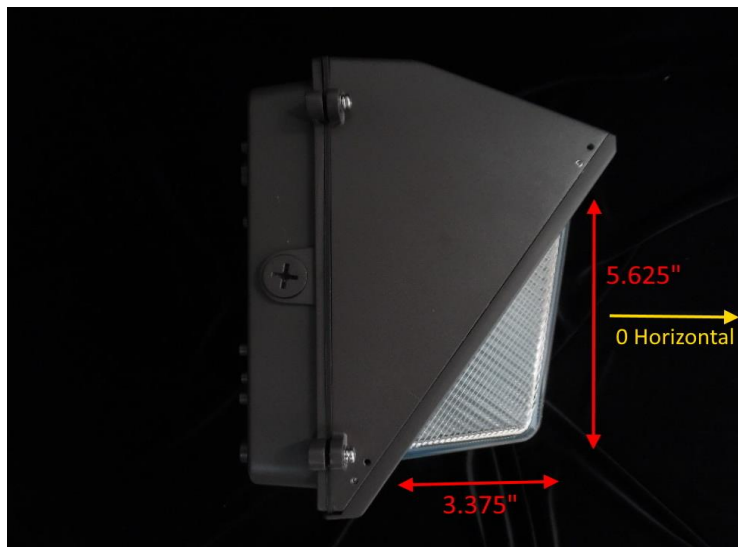


## Report of Test

LLIA001528-003

Roadway/Area Light Distribution Photometry Test Report

Catalog Number: WP/80W/PCTS/BZ/PC - 40W and 4000K Setting  
Surface mounted wall pack, cast aluminum housing, formed white enamel metal reflector, clear prismatic glass lens.  
528 LEDs, 264 cool white and 264 warm white LEDs  
One Fahold FT-75E-054B LED driver



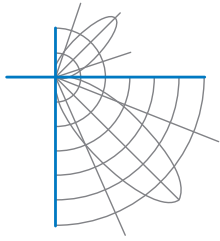
Prepared For:  
Topaz Lighting Corp  
925 Waverly Avenue  
Holtsville, NY 11742, USA

Performance Summary			
Input Voltage	120.0 V	Luminous Flux	5313.3 Lumens
Input Current	0.3091 A	Total Efficacy	144.7 Lm/W
Input Power	36.71 W		
Frequency	60.00 Hz		
Power Factor	0.990	Roadway Type	Area Light
Current THD	7.6 %	IES BUG Rating	B2 - U3 - G3

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

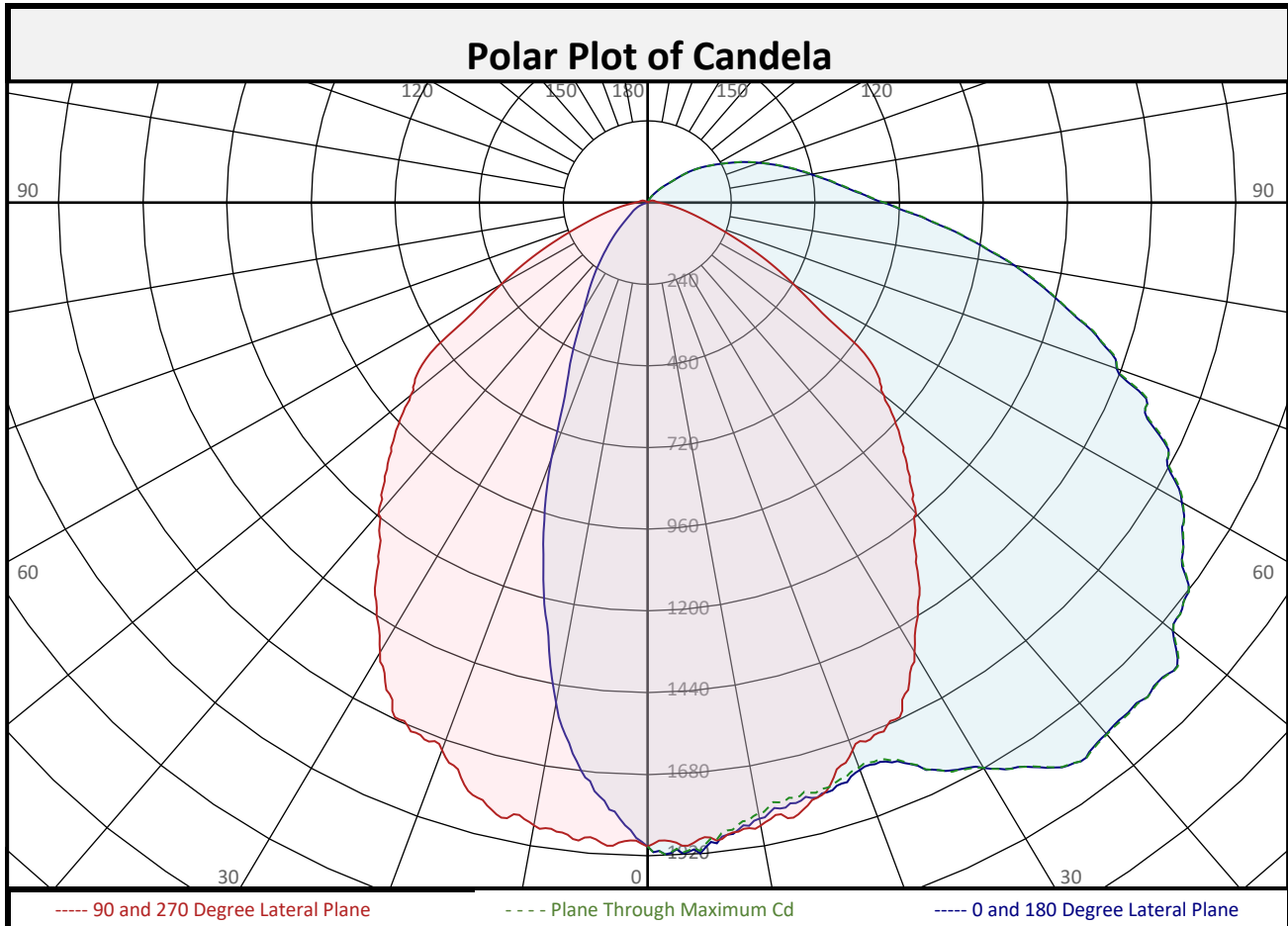
Test date: 09/01/2021  
Report date: 09/01/2021

Signed: \_\_\_\_\_



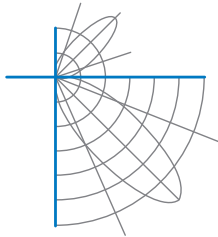
## Report of Test

### LLIA001528-003

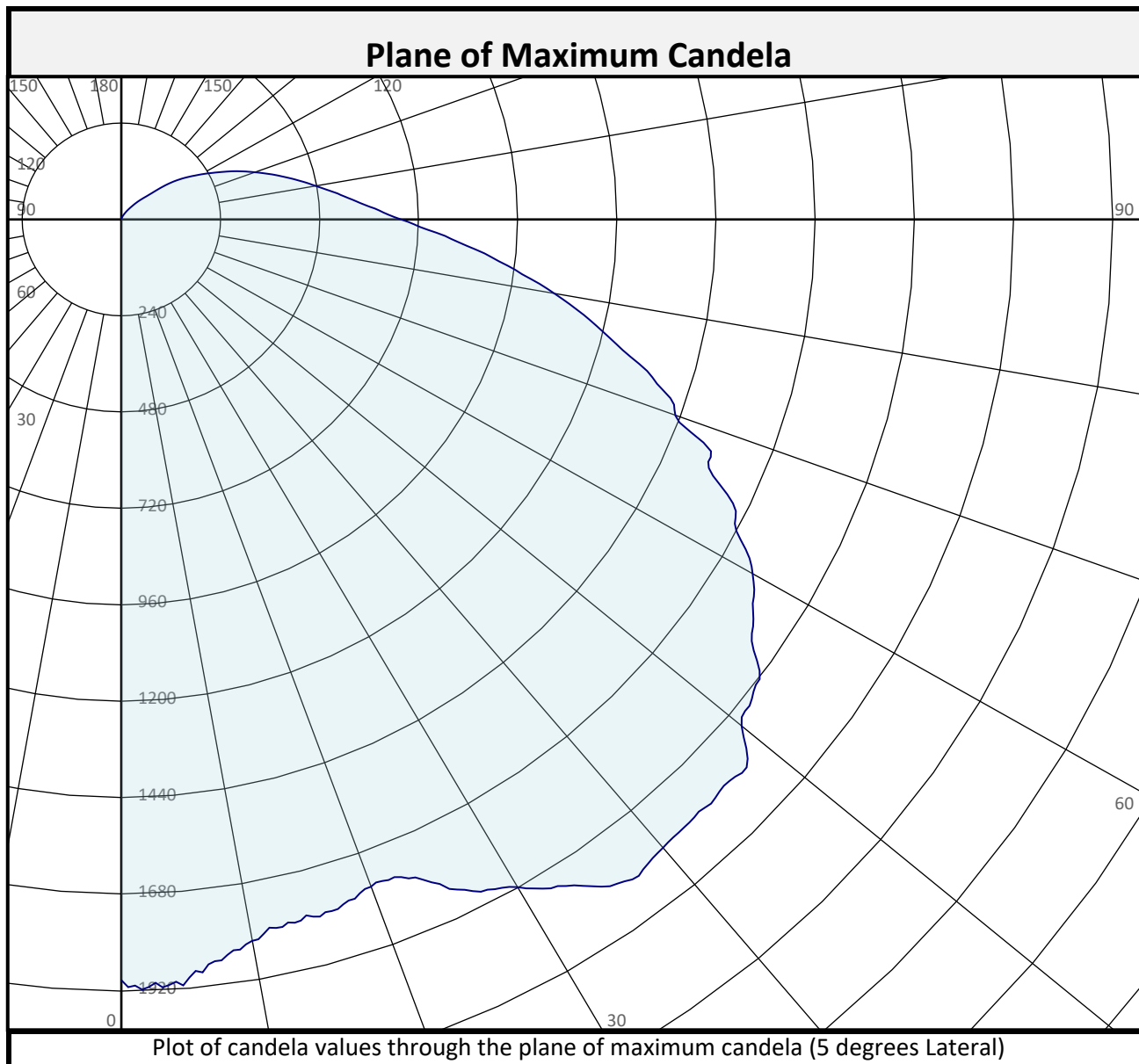


### Zonal Flux Summary

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	173.2	3.3%	90-100	189.0	3.6%	0-20	629.6	11.8%
10-20	456.4	8.6%	100-110	123.3	2.3%	0-30	1252	23.6%
20-30	622.9	11.7%	110-120	75.4	1.4%	0-40	1975	37.2%
30-40	722.6	13.6%	120-130	39.2	0.7%	0-60	3467	65.3%
40-50	761.3	14.3%	130-140	15.6	0.3%	0-80	4561	85.8%
50-60	731.1	13.8%	140-150	5.2	0.1%	10-90	4691	88.3%
60-70	624.6	11.8%	150-160	1.3	0.0%	20-50	2107	39.7%
70-80	468.5	8.8%	160-170	0.1	0.0%	40-90	2889	54.4%
80-90	303.6	5.7%	170-180	0.0	0.0%	60-90	1397	26.3%
0-90	4864	91.5%	90-180	449.0	8.5%	0-180	5313	100.0%



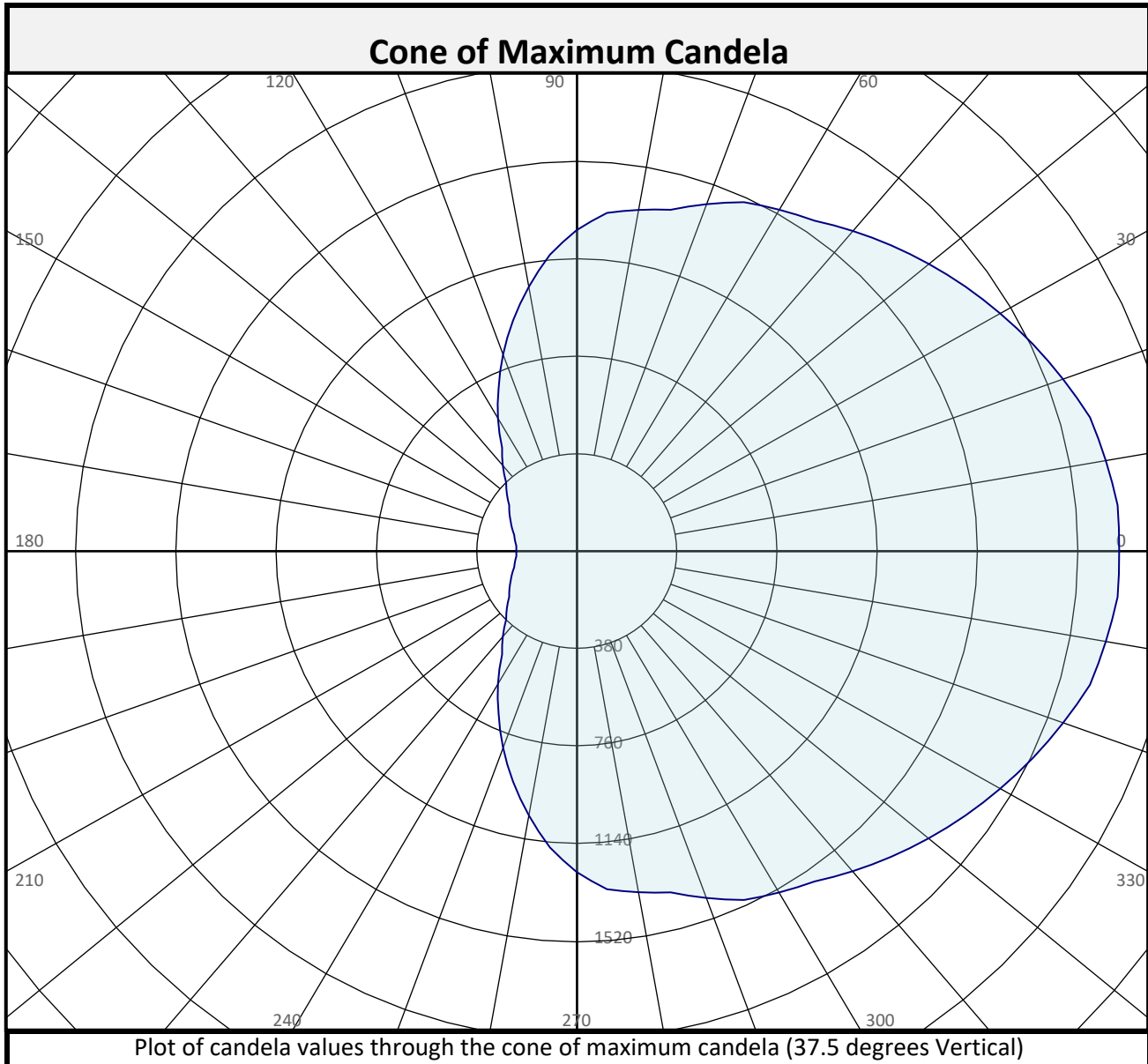
Report of Test  
LLIA001528-003



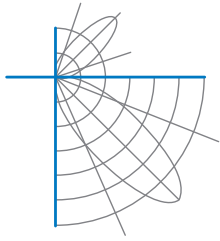
Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	3868.5	72.8%	441.1	8.3%	4309.5	81.1%
House Side	995.7	18.7%	8.0	0.2%	1003.7	18.9%
<b>Total</b>	<b>4864.2</b>	<b>91.5%</b>	<b>449.0</b>	<b>8.5%</b>	<b>5313.3</b>	<b>100.0%</b>



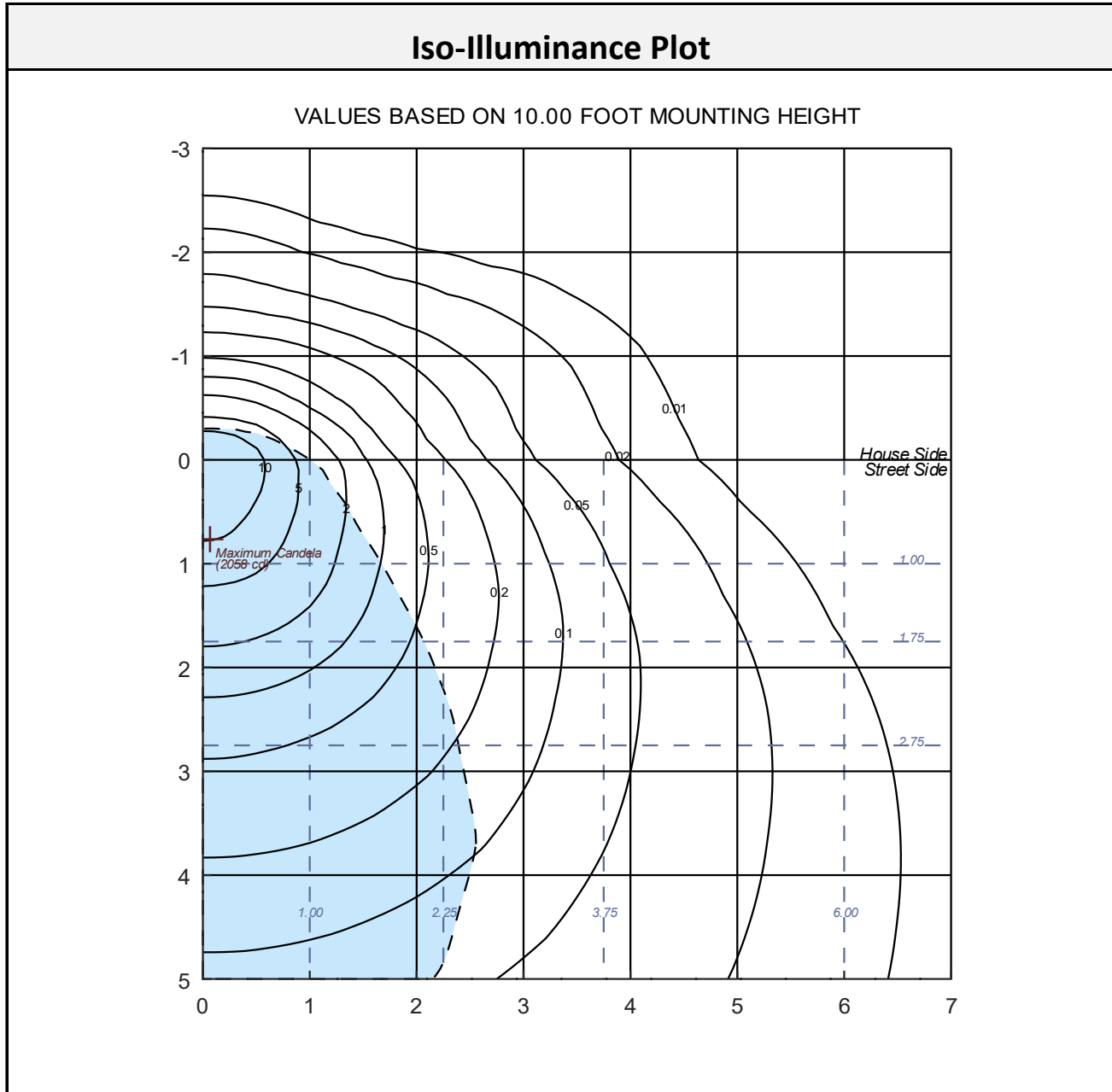
Report of Test  
LLIA001528-003



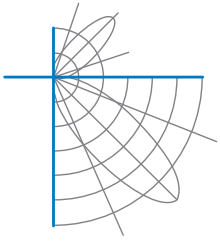
Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	3868.5	72.8%	441.1	8.3%	4309.5	81.1%
House Side	995.7	18.7%	8.0	0.2%	1003.7	18.9%
<b>Total</b>	<b>4864.2</b>	<b>91.5%</b>	<b>449.0</b>	<b>8.5%</b>	<b>5313.3</b>	<b>100.0%</b>



Report of Test  
LLIA001528-003

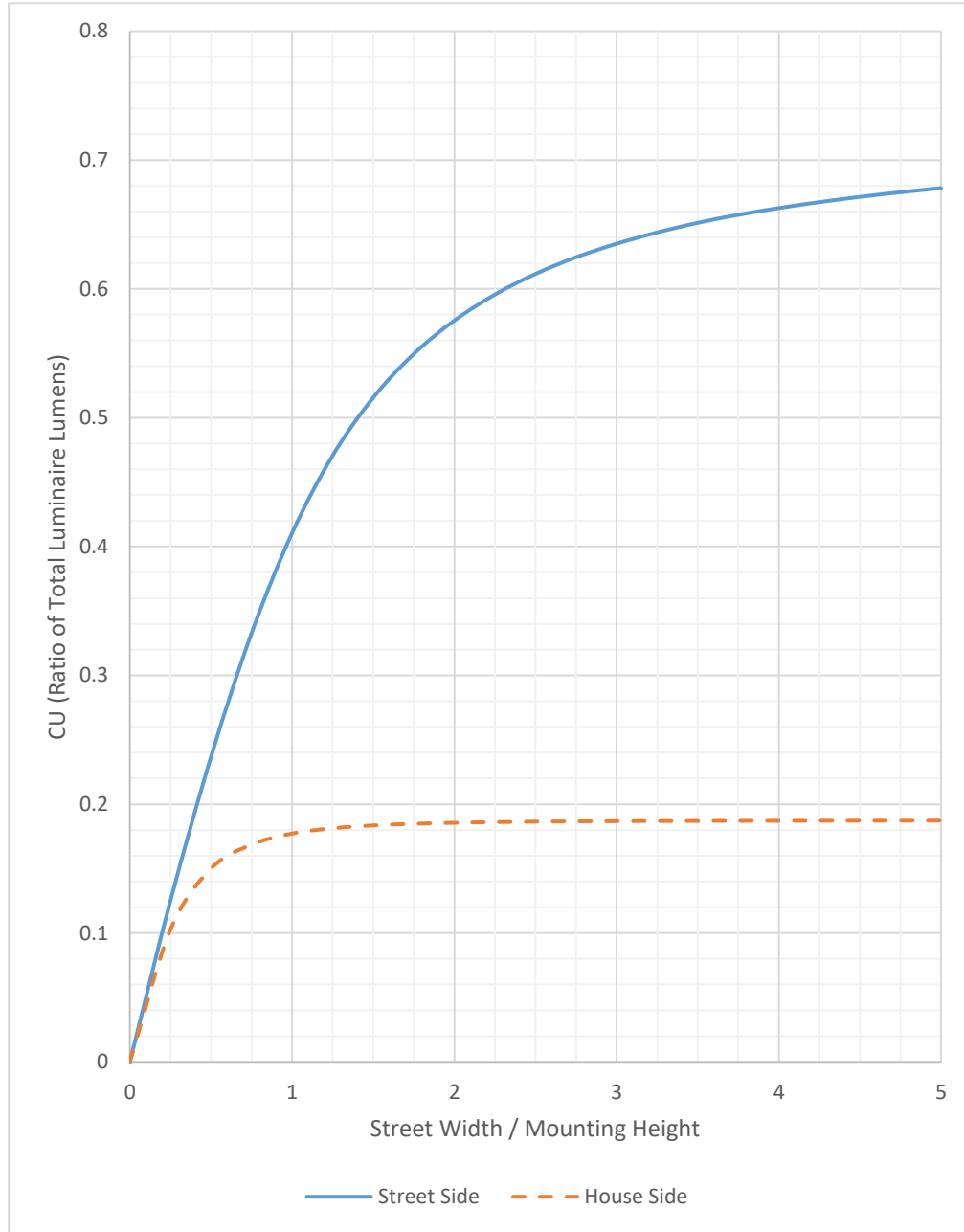


The isofootcandle values shown in the plot above are based on a mounting height of  $h = 10.0$  feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the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



## Report of Test LLIA001528-003

### Coefficients of Utilization Plot

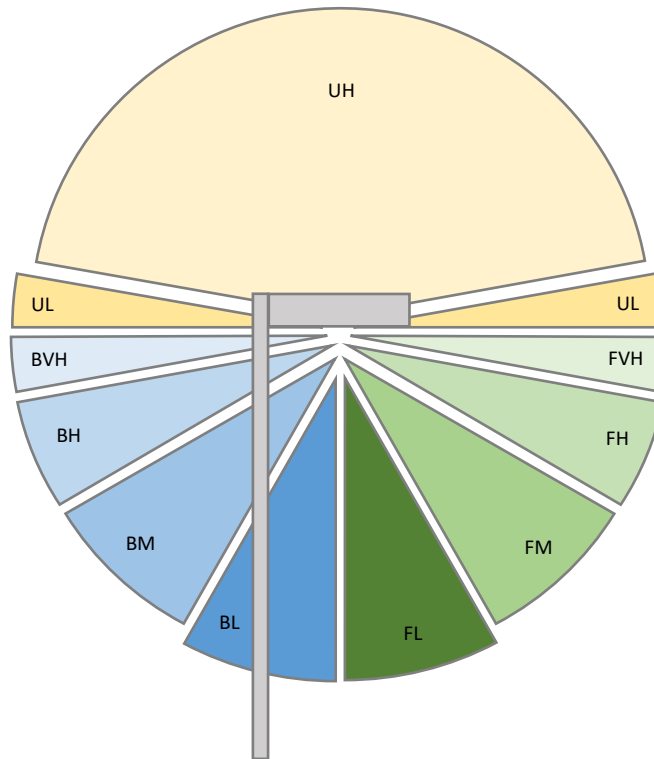




## Report of Test

### LLIA001528-003

#### LCS Tables and Bug Classification



#### Back Light

BL - Back Low (0°-30°)	503.9 Lm
BM - Back Mid (30°-60°)	415.8 Lm
BH - Back High (60°-80°)	68.0 Lm
BVH - Back Very High (80°-90°)	7.9 Lm

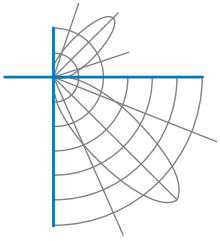
#### Forward Light

FL - Forward Low (0°-30°)	748.5 Lm
FM - Forward Mid (30°-60°)	1799.2 Lm
FH - Forward High (60°-80°)	1025.1 Lm
FVH - Forward Very High (80°-90°)	295.7 Lm

#### Uplight

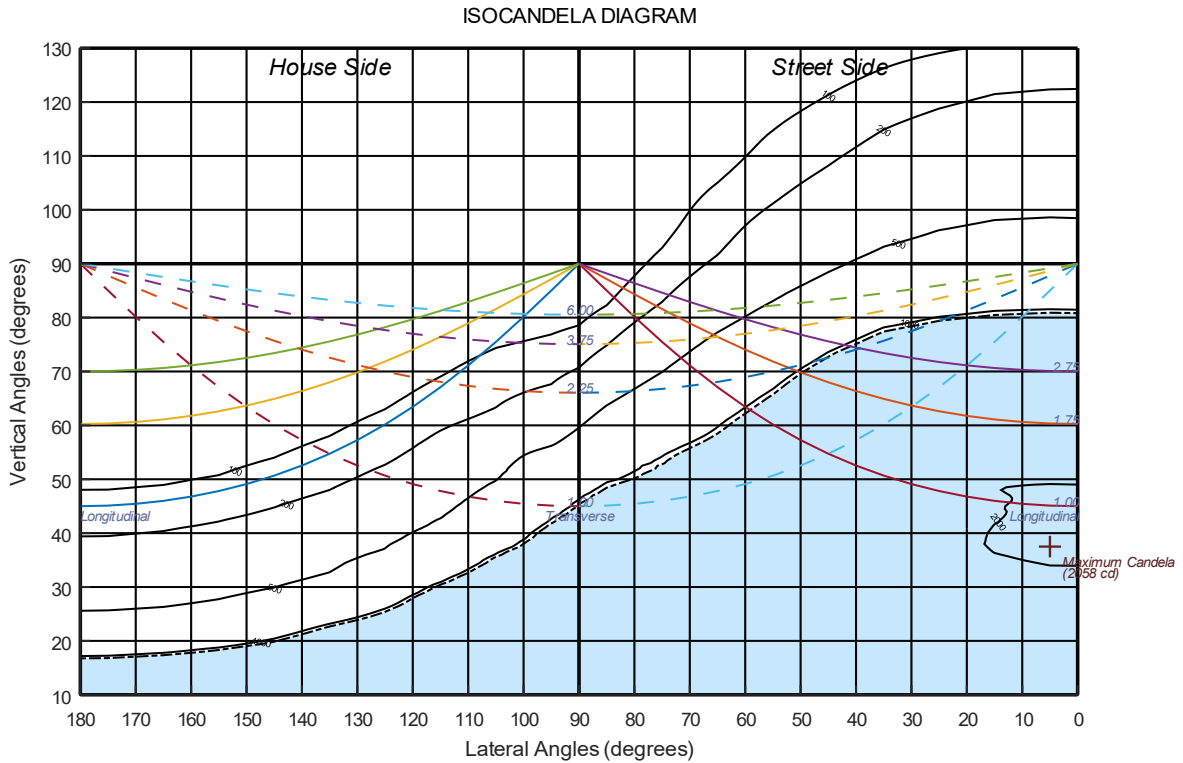
UL - Upward Low (90°-100°)	189.0 Lm
UH - Upward High (100°-180°)	260.0 Lm

BUG Ratings: B2 - U3 - G3



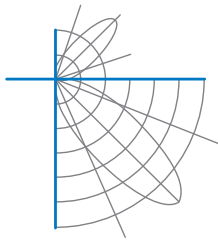
Report of Test  
LLIA001528-003

**Iso-Candela Plot**



Half-max Candela Contour Line



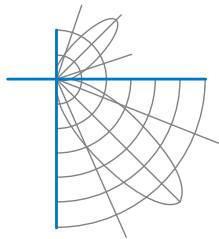


## Report of Test

LLIA001528-003

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	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893
	2.5	1903	1901	1889	1882	1889	1897	1894	1888	1895	1892	1883
	5	1902	1893	1888	1901	1907	1912	1901	1892	1889	1885	1872
	7.5	1871	1859	1858	1874	1881	1868	1912	1904	1896	1884	1867
	10	1839	1823	1836	1847	1843	1857	1866	1887	1882	1879	1859
	12.5	1821	1803	1824	1799	1824	1828	1842	1849	1868	1872	1853
	15	1811	1796	1798	1813	1804	1806	1805	1845	1850	1837	1818
	17.5	1797	1787	1797	1787	1782	1785	1786	1796	1817	1796	1771
	20	1774	1767	1768	1778	1764	1762	1744	1734	1763	1744	1713
	22.5	1778	1771	1768	1753	1759	1728	1704	1712	1731	1727	1694
	25	1826	1824	1801	1765	1720	1704	1696	1713	1715	1710	1676
	27.5	1881	1886	1851	1796	1716	1673	1707	1676	1659	1655	1615
	30	1918	1918	1883	1831	1745	1708	1672	1649	1597	1572	1527
	32.5	1967	1967	1930	1843	1768	1702	1635	1600	1517	1487	1440
	35	2027	2026	1973	1875	1788	1706	1596	1548	1452	1414	1351
	37.5	2057	2058	2015	1909	1799	1686	1573	1501	1378	1324	1251
	40	2038	2041	2011	1926	1815	1668	1535	1432	1337	1267	1195
	42.5	2032	2036	1996	1925	1819	1660	1496	1400	1258	1190	1110
	45	2033	2035	1992	1919	1808	1639	1457	1347	1205	1124	1034
	47.5	2037	2039	1991	1911	1788	1606	1410	1305	1147	1055	963
50	1958	1961	1955	1911	1780	1575	1364	1252	1092	977	884	
52.5	1929	1930	1904	1858	1756	1550	1320	1186	1038	933	830	
55	1864	1869	1863	1820	1717	1516	1273	1118	983	853	734	
57.5	1811	1814	1793	1750	1667	1473	1223	1054	899	710	576	
60	1762	1765	1743	1696	1603	1412	1171	994	811	621	487	
62.5	1674	1679	1669	1629	1542	1349	1112	930	736	538	411	
65	1611	1619	1603	1550	1470	1279	1050	864	658	457	338	
67.5	1545	1545	1505	1475	1389	1205	980	794	575	378	270	
70	1425	1428	1423	1387	1306	1126	906	721	497	307	214	
72.5	1357	1360	1342	1297	1215	1037	828	645	424	246	170	
75	1255	1257	1250	1203	1118	949	748	568	357	197	137	
77.5	1161	1164	1145	1102	1025	860	667	493	297	157	110	
80	1064	1066	1048	1006	922	768	588	423	247	125	88	
82.5	960	962	945	908	826	680	516	361	206	98	70	
85	859	861	849	808	733	596	451	306	172	76	55	
87.5	759	764	752	714	645	524	391	259	144	60	43	
90	674	677	668	633	573	463	341	221	121	48	35	

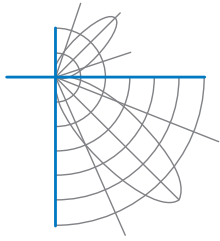


## Report of Test

LLIA001528-003

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	674	677	668	633	573	463	341	221	121	48	35
	92.5	611	615	605	574	514	412	299	191	103	40	30
	95	559	562	554	522	463	367	267	171	87	35	27
	97.5	516	519	510	477	418	328	239	153	73	31	25
	100	476	478	470	437	379	294	212	136	62	28	23
	102.5	441	443	434	400	342	263	187	118	54	26	21
	105	406	408	399	365	307	233	164	100	47	24	20
	107.5	374	375	365	332	275	207	144	84	41	22	19
	110	342	343	333	301	247	184	127	70	36	20	17
	112.5	312	312	303	271	221	165	112	61	32	19	16
	115	281	281	272	241	199	148	98	54	29	17	15
	117.5	251	251	242	214	175	129	83	47	25	15	13
	120	224	224	215	188	151	109	68	40	22	14	12
	122.5	199	199	190	163	129	92	57	34	19	12	10
	125	176	174	164	139	109	78	48	29	16	10	8
	127.5	150	148	137	115	92	66	42	25	13	8	7
	130	118	116	108	92	76	56	35	21	11	7	5
	132.5	90	89	85	75	62	45	29	17	9	5	4
	135	74	74	70	63	51	37	24	14	7	4	3
	137.5	61	61	58	52	42	31	20	12	5	3	3
	140	49	49	47	41	33	25	17	10	4	2	2
	142.5	39	39	37	32	27	20	14	7	3	2	1
	145	31	31	29	26	21	16	11	5	2	1	0
	147.5	24	24	23	21	17	13	8	3	1	0	0
	150	19	19	18	16	13	9	6	2	0	0	0
	152.5	14	14	14	12	10	7	4	0	0	0	0
	155	11	11	10	9	7	5	2	0	0	0	0
	157.5	8	8	8	7	5	3	0	0	0	0	0
160	6	6	6	5	3	1	0	0	0	0	0	
162.5	4	4	3	3	1	0	0	0	0	0	0	
165	2	2	1	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	

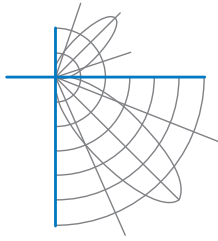


## Report of Test

LLIA001528-003

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	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893
	2.5	1883	1875	1868	1860	1840	1828	1822	1819	1817	1813	1812
	5	1872	1864	1844	1822	1796	1796	1761	1749	1739	1741	1736
	7.5	1867	1858	1816	1782	1751	1712	1688	1668	1641	1637	1633
	10	1859	1846	1788	1729	1681	1634	1585	1553	1523	1498	1497
	12.5	1853	1830	1748	1674	1611	1535	1464	1394	1345	1306	1305
	15	1818	1788	1716	1647	1537	1420	1299	1233	1181	1148	1147
	17.5	1771	1734	1655	1564	1439	1285	1165	1075	1020	982	977
	20	1713	1669	1570	1456	1318	1166	1021	920	851	808	801
	22.5	1694	1640	1496	1349	1173	1039	891	741	656	619	615
	25	1676	1612	1445	1250	1048	885	716	595	543	524	522
	27.5	1615	1543	1375	1169	924	732	589	508	458	434	432
	30	1527	1457	1273	1051	829	597	498	429	382	364	363
	32.5	1440	1368	1154	918	706	507	419	366	330	315	314
	35	1351	1269	1056	811	581	446	358	318	285	271	270
	37.5	1251	1160	931	699	492	378	312	276	245	229	228
	40	1195	1096	835	592	420	321	272	233	205	192	192
	42.5	1110	1005	748	509	356	279	233	195	170	160	159
	45	1034	920	660	434	304	242	197	160	139	131	131
	47.5	963	840	575	371	264	207	166	131	113	106	105
50	884	752	493	317	232	177	138	107	92	85	84	
52.5	830	691	431	272	202	150	113	87	74	70	69	
55	734	583	361	241	175	126	92	71	62	59	59	
57.5	576	440	289	216	150	104	75	58	52	52	52	
60	487	360	243	189	127	85	60	48	44	45	45	
62.5	411	298	209	160	104	67	47	38	37	38	38	
65	338	245	184	135	84	53	37	30	30	31	31	
67.5	270	202	161	113	67	40	28	23	23	24	24	
70	214	167	138	92	53	31	20	15	15	15	15	
72.5	170	138	116	75	41	22	13	8	7	5	5	
75	137	115	95	61	32	16	7	1	0	0	0	
77.5	110	95	77	48	24	10	3	0	0	0	0	
80	88	78	61	37	17	7	2	0	0	0	0	
82.5	70	62	47	29	13	5	1	0	0	0	0	
85	55	48	37	23	10	4	0	0	0	0	0	
87.5	43	38	30	18	8	4	0	0	0	0	0	
90	35	31	25	15	7	3	0	0	0	0	0	

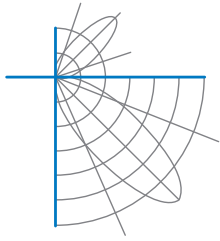


## Report of Test

LLIA001528-003

Luminous Intensity (Candela) Table

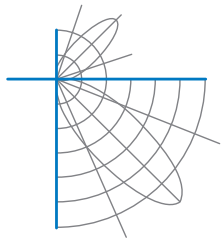
	Lateral (C-Plane) Angles											
	90	95	105	115	125	135	145	155	165	175	180	
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	35	31	25	15	7	3	0	0	0	0	0
	92.5	30	27	21	13	6	3	0	0	0	0	0
	95	27	24	18	11	5	2	0	0	0	0	0
	97.5	25	21	16	9	5	2	0	0	0	0	0
	100	23	20	14	8	4	1	0	0	0	0	0
	102.5	21	18	13	7	3	1	0	0	0	0	0
	105	20	17	11	6	3	1	0	0	0	0	0
	107.5	19	16	10	5	2	0	0	0	0	0	0
	110	17	14	9	4	2	0	0	0	0	0	0
	112.5	16	13	7	4	1	0	0	0	0	0	0
	115	15	12	6	3	1	0	0	0	0	0	0
	117.5	13	10	5	3	1	0	0	0	0	0	0
	120	12	9	5	2	0	0	0	0	0	0	0
	122.5	10	8	4	2	0	0	0	0	0	0	0
	125	8	6	3	1	0	0	0	0	0	0	0
	127.5	7	5	3	1	0	0	0	0	0	0	0
	130	5	4	2	0	0	0	0	0	0	0	0
	132.5	4	3	1	0	0	0	0	0	0	0	0
	135	3	2	1	0	0	0	0	0	0	0	0
	137.5	3	1	0	0	0	0	0	0	0	0	0
	140	2	1	0	0	0	0	0	0	0	0	0
	142.5	1	0	0	0	0	0	0	0	0	0	0
	145	0	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  
LLIA001528-003

**Additional Pictures of Test Subject**





## Report of Test

### LLIA001528-003

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.