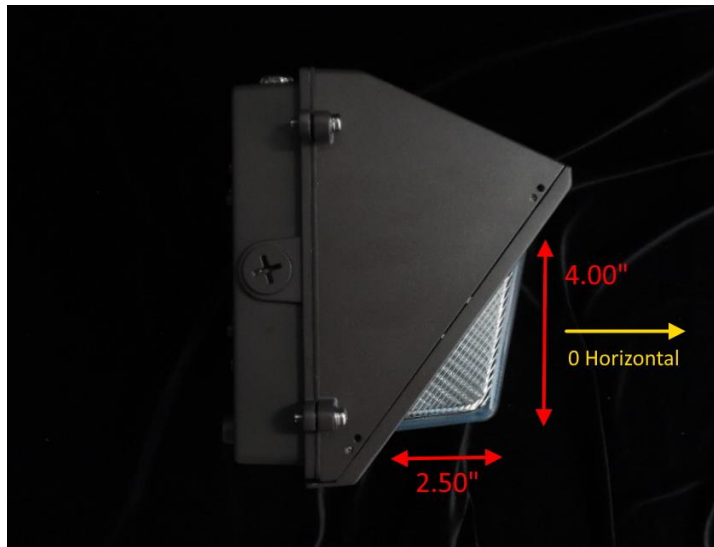


Report of Test

LLIA001528-002

Roadway/Area Light Distribution Photometry Test Report

Catalog Number: WP/40W/PCTS/BZ/PC - 40W and 4000K Setting
Surface mounted wall pack, cast aluminum housing, formed white enamel metal reflector, clear prismatic glass lens.
288 LEDs, 144 cool white and 144 warm white LEDs
One Fahold FT-42E-054B LED driver



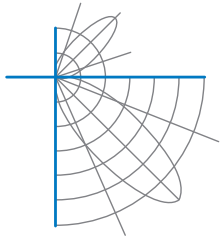
Prepared For:
Topaz Lighting Corp
925 Waverly Avenue
Holtsville, NY 11742, USA

Performance Summary			
Input Voltage	120.0 V	Luminous Flux	5348.1 Lumens
Input Current	0.3289 A	Total Efficacy	136.2 Lm/W
Input Power	39.28 W		
Frequency	60.00 Hz		
Power Factor	0.996	Roadway Type	Area Light
Current THD	4.3 %	IES BUG Rating	B2 - U3 - G3

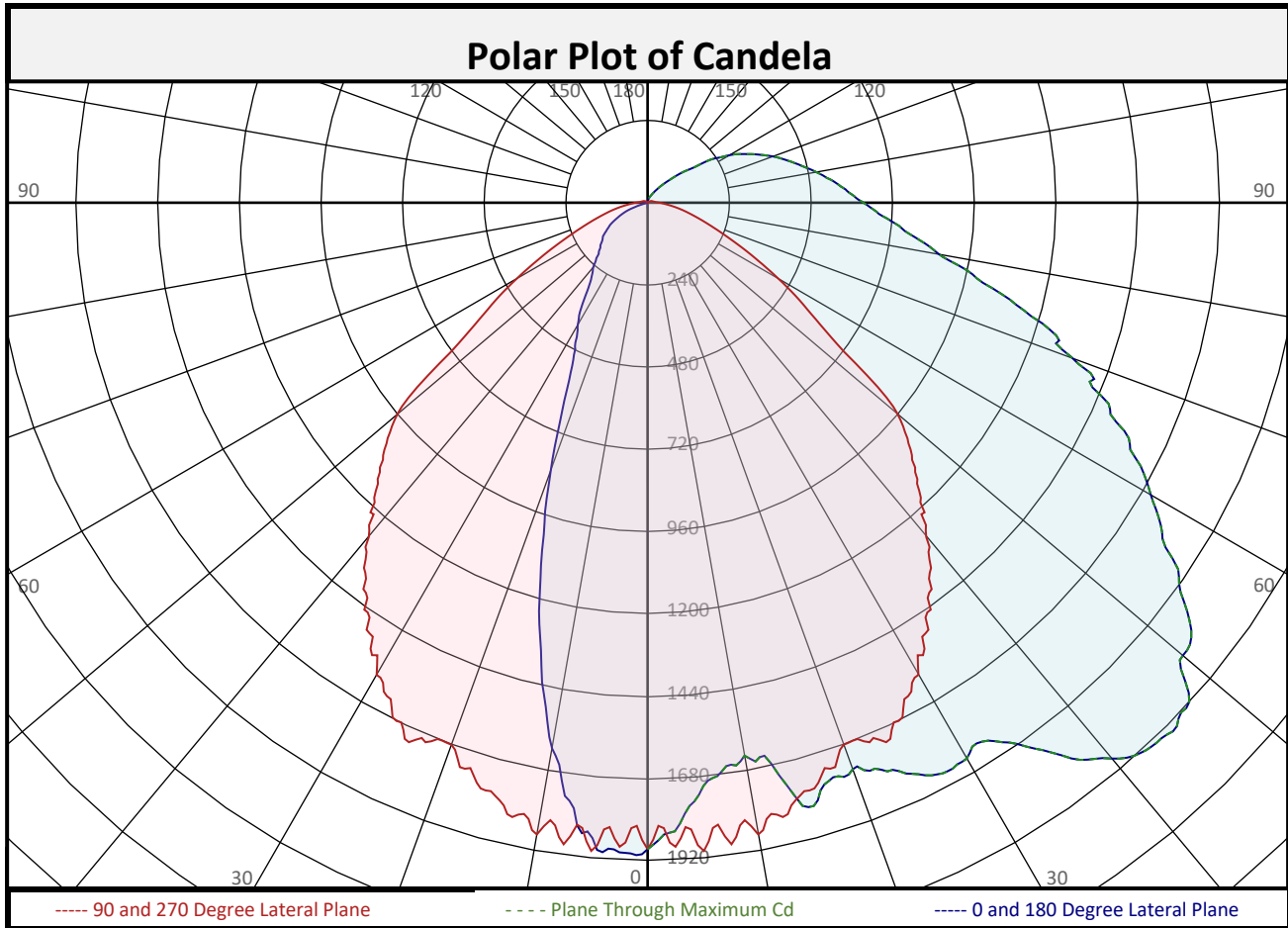
This test report was issued by LightLab International Allentown, LLC without alterations or erasures.

Test date: 08/27/2021
Report date: 08/31/2021

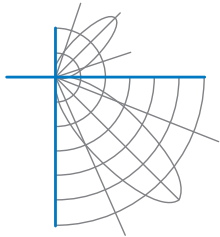
Signed: _____



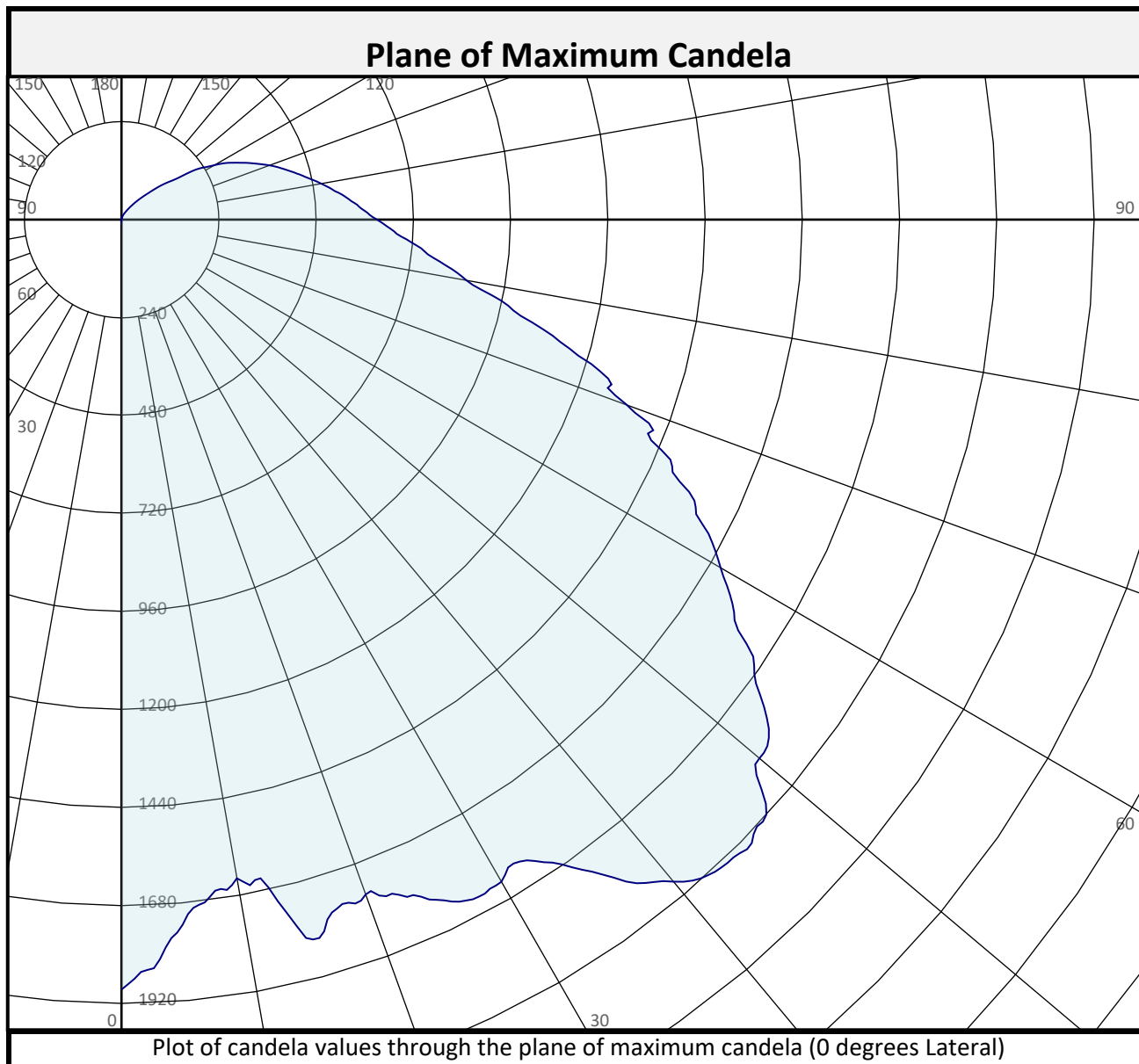
Report of Test
LLIA001528-002



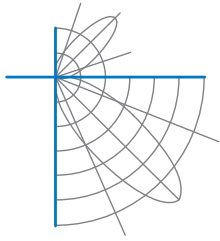
Zonal Flux Summary										
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	170.2	3.2%		90-100	189.5	3.5%		0-20	621.5	11.6%
10-20	451.3	8.4%		100-110	131.6	2.5%		0-30	1253	23.4%
20-30	631.8	11.8%		110-120	83.3	1.6%		0-40	1995	37.3%
30-40	741.8	13.9%		120-130	42.7	0.8%		0-60	3555	66.5%
40-50	804.7	15.0%		130-140	17.4	0.3%		0-80	4603	86.1%
50-60	755.3	14.1%		140-150	5.8	0.1%		10-90	4706	88.0%
60-70	617.0	11.5%		150-160	1.6	0.0%		20-50	2178	40.7%
70-80	430.5	8.0%		160-170	0.1	0.0%		40-90	2881	53.9%
80-90	273.5	5.1%		170-180	0.0	0.0%		60-90	1321	24.7%
0-90	4876	91.2%		90-180	471.9	8.8%		0-180	5348	100.0%



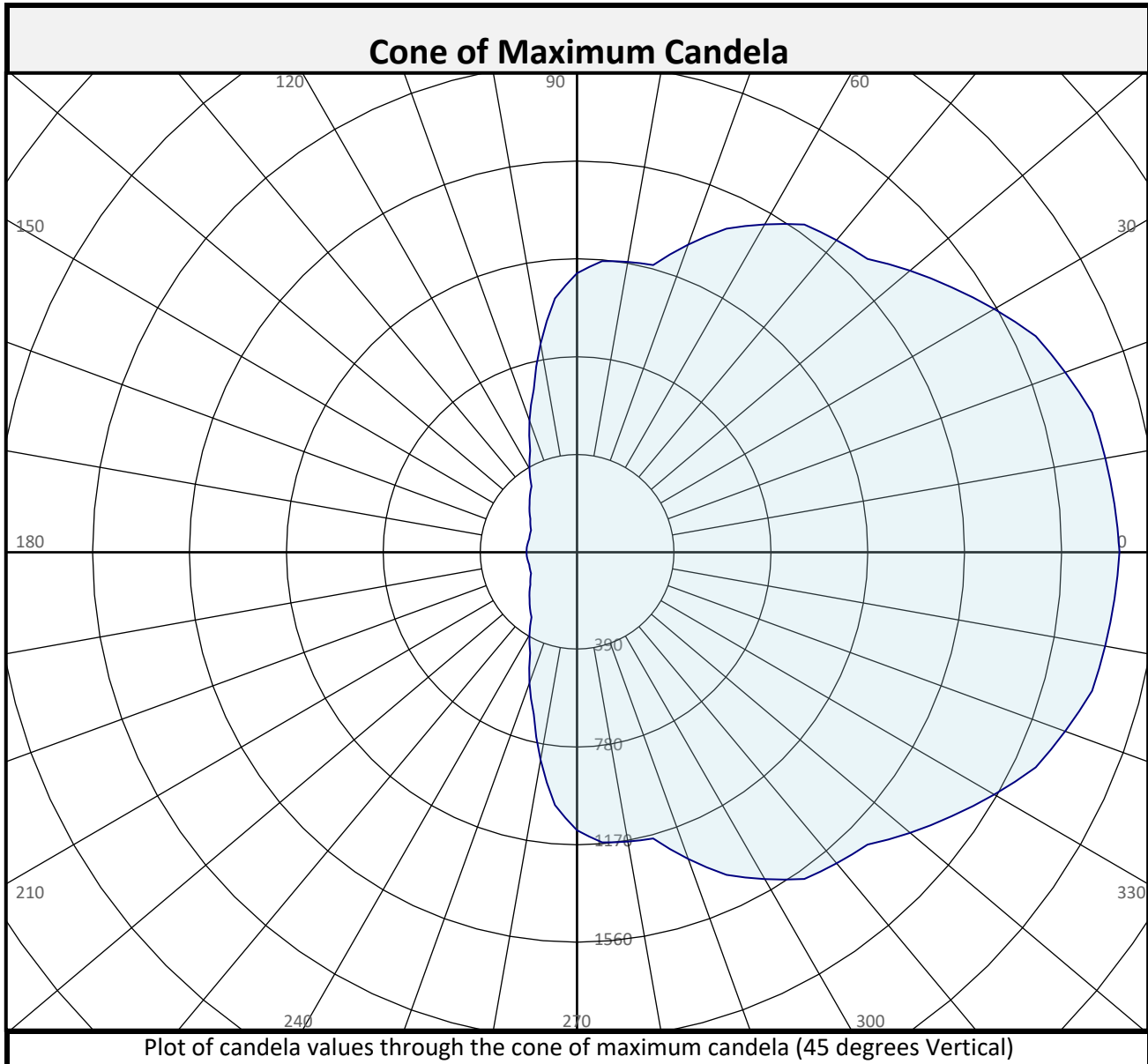
Report of Test
LLIA001528-002



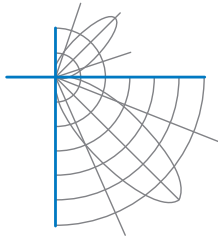
Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	3812.3	71.3%	465.7	8.7%	4278.0	80.0%
House Side	1063.8	19.9%	6.2	0.1%	1070.1	20.0%
Total	4876.2	91.2%	471.9	8.8%	5348.1	100.0%



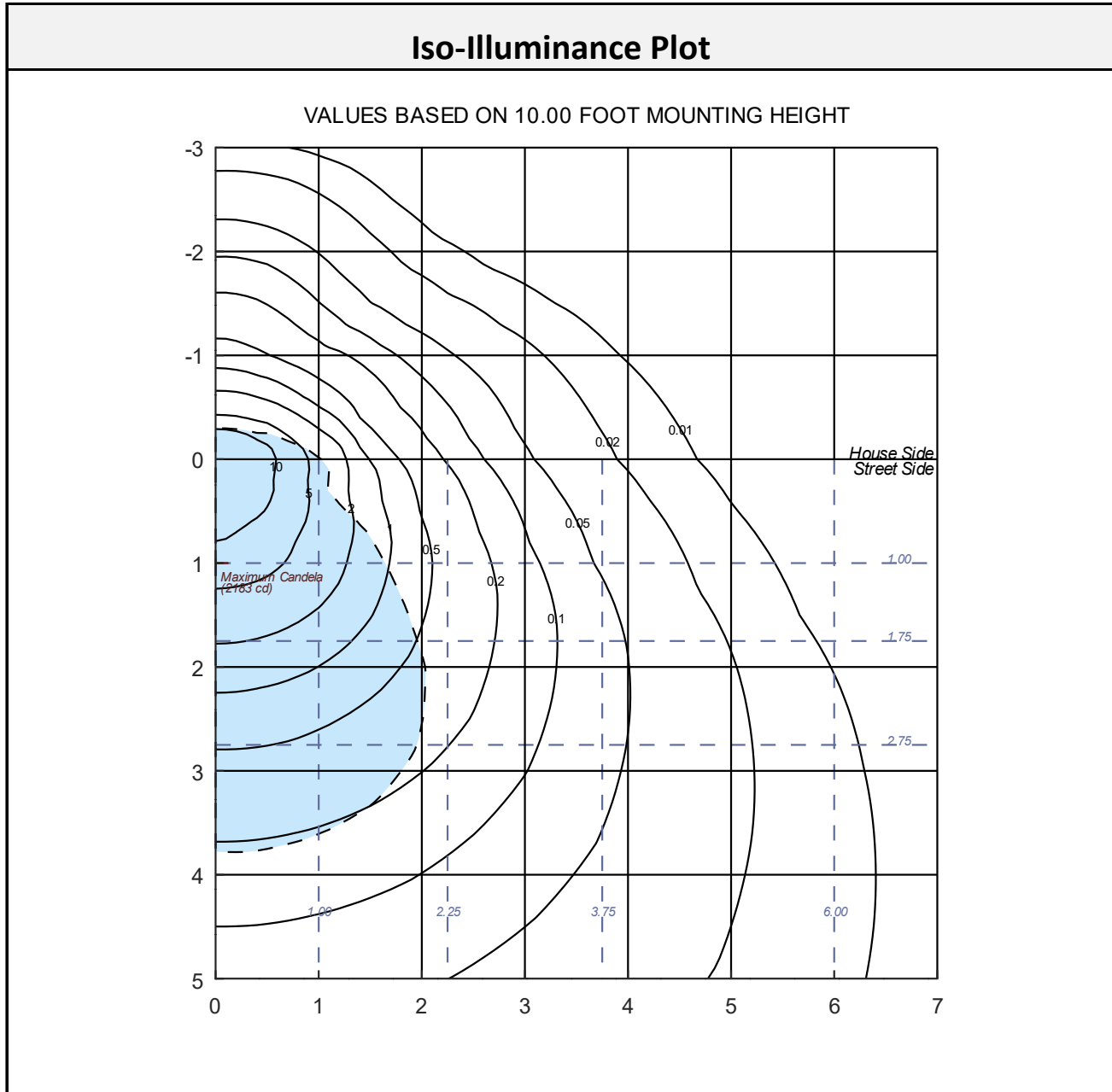
Report of Test
LLIA001528-002



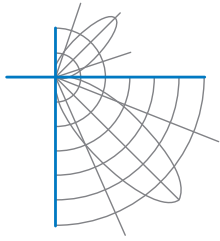
Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	3812.3	71.3%	465.7	8.7%	4278.0	80.0%
House Side	1063.8	19.9%	6.2	0.1%	1070.1	20.0%
Total	4876.2	91.2%	471.9	8.8%	5348.1	100.0%



Report of Test
LLIA001528-002

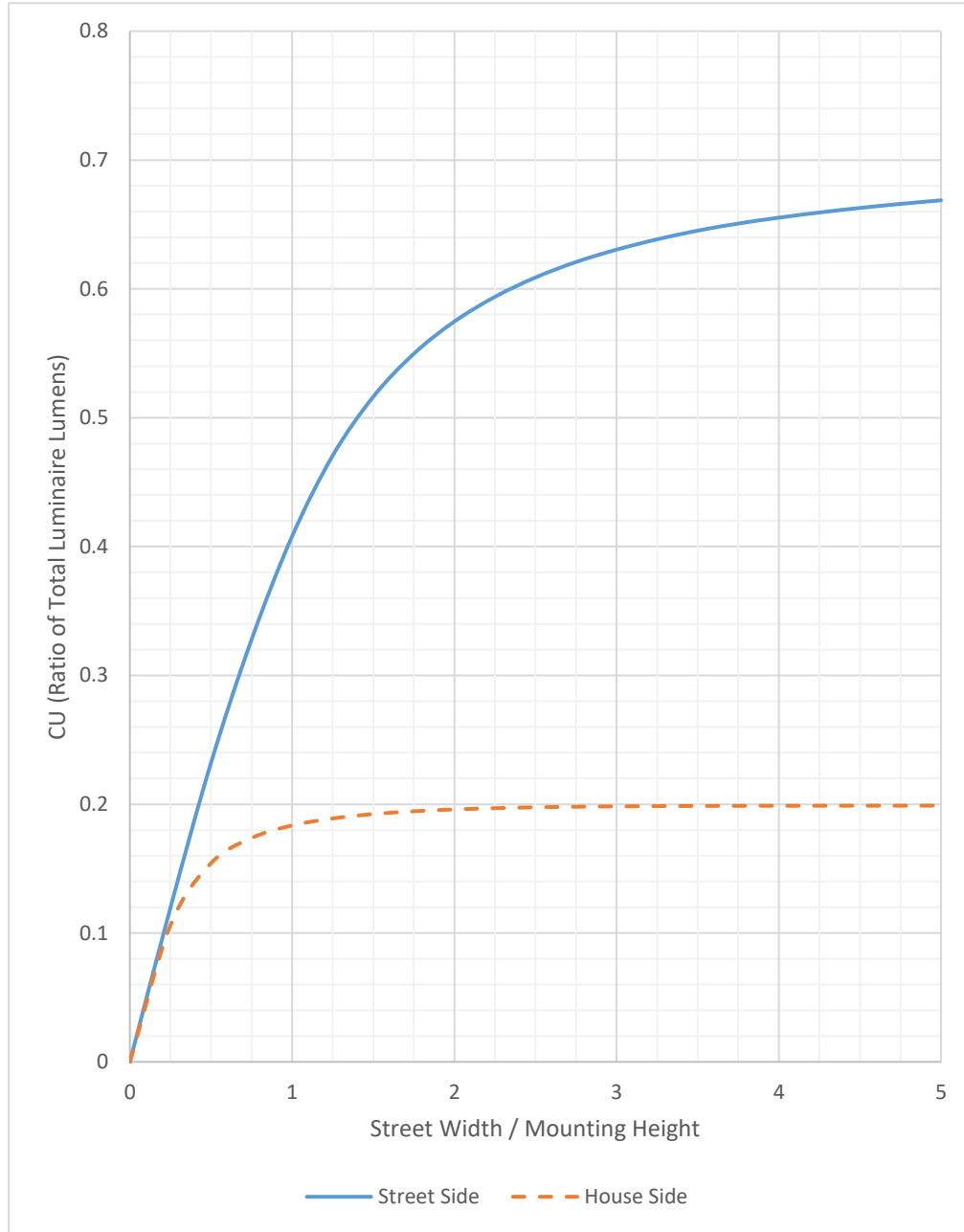


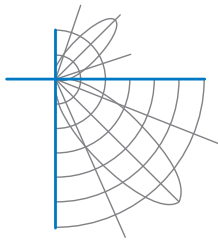
The isofootcandle values shown in the plot above are based on a mounting height of $h = 10.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the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



Report of Test LLIA001528-002

Coefficients of Utilization Plot

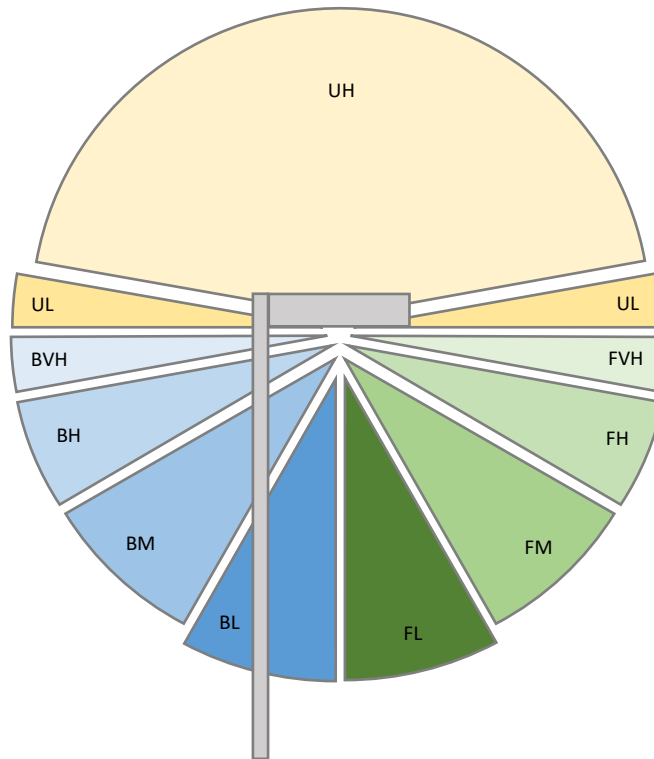




Report of Test

LLIA001528-002

LCS Tables and Bug Classification



Back Light

BL - Back Low (0°-30°)	523.1 Lm
BM - Back Mid (30°-60°)	457.1 Lm
BH - Back High (60°-80°)	77.0 Lm
BVH - Back Very High (80°-90°)	6.7 Lm

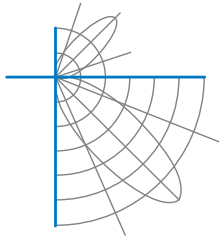
Forward Light

FL - Forward Low (0°-30°)	730.3 Lm
FM - Forward Mid (30°-60°)	1844.7 Lm
FH - Forward High (60°-80°)	970.5 Lm
FVH - Forward Very High (80°-90°)	266.8 Lm

Uplight

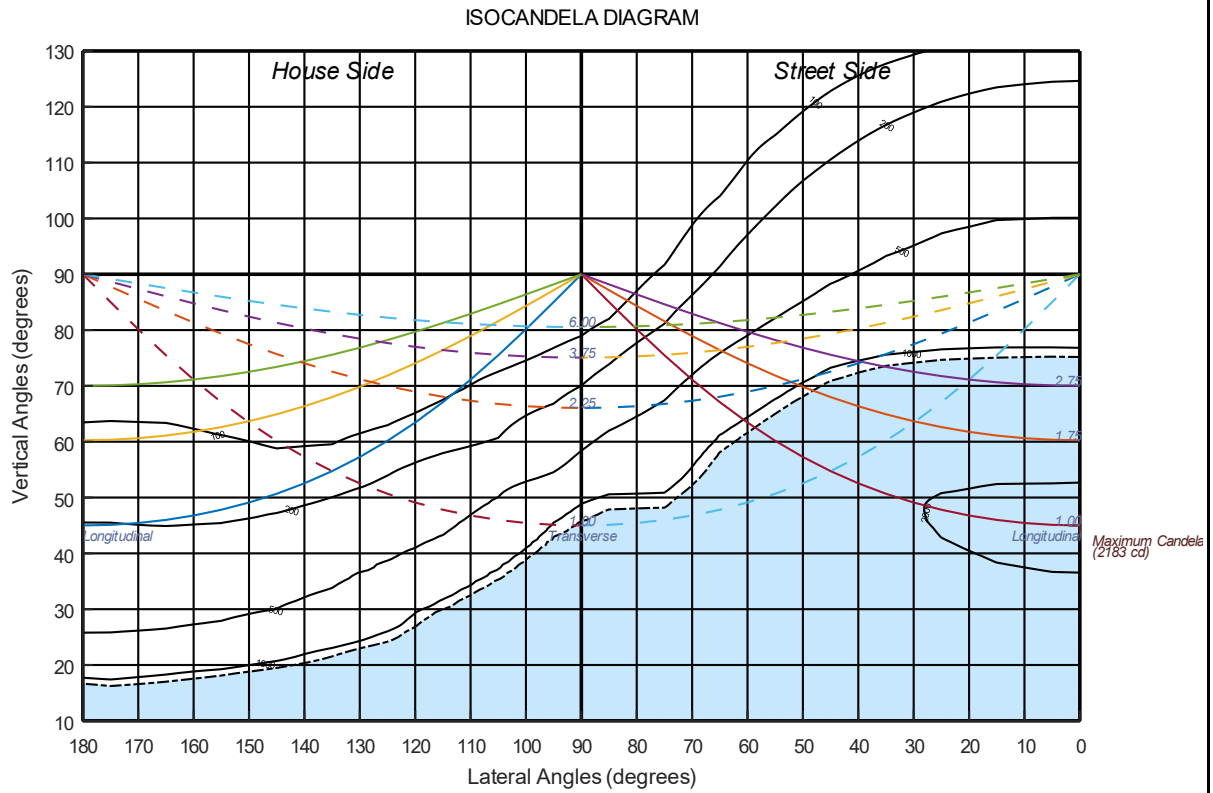
UL - Upward Low (90°-100°)	189.5 Lm
UH - Upward High (100°-180°)	282.5 Lm

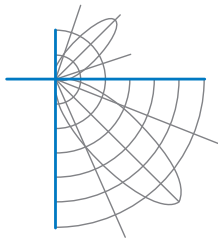
BUG Ratings: B2 - U3 - G3



Report of Test
LLIA001528-002

Iso-Candela Plot



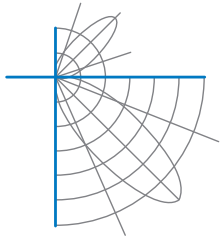


Report of Test

LLIA001528-002

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	1888	1888	1888	1888	1888	1888	1888	1888	1888	1888	1888
	2.5	1837	1837	1818	1791	1790	1813	1840	1863	1873	1880	1883
	5	1735	1734	1705	1749	1755	1749	1793	1839	1872	1892	1900
	7.5	1674	1666	1674	1675	1684	1731	1730	1787	1840	1879	1890
	10	1640	1627	1645	1650	1653	1687	1701	1730	1809	1858	1873
	12.5	1678	1664	1651	1667	1648	1651	1690	1704	1769	1821	1837
	15	1827	1824	1813	1751	1670	1653	1645	1660	1717	1764	1779
	17.5	1771	1771	1781	1829	1800	1672	1622	1635	1678	1716	1731
	20	1761	1770	1776	1768	1792	1759	1643	1608	1628	1671	1684
	22.5	1792	1806	1789	1749	1749	1802	1704	1611	1641	1698	1705
	25	1840	1859	1829	1790	1752	1769	1772	1650	1649	1680	1698
	27.5	1879	1897	1872	1822	1786	1775	1794	1644	1583	1628	1634
	30	1875	1893	1889	1849	1827	1776	1762	1655	1533	1584	1592
	32.5	1863	1867	1842	1838	1827	1789	1729	1641	1490	1512	1502
	35	1939	1933	1872	1792	1808	1778	1707	1613	1428	1461	1451
	37.5	2046	2039	1962	1828	1750	1773	1668	1581	1379	1383	1362
	40	2119	2113	2053	1917	1761	1736	1653	1523	1313	1315	1274
	42.5	2169	2161	2114	1992	1796	1679	1635	1474	1248	1242	1187
	45	2183	2171	2146	2037	1841	1654	1595	1424	1185	1165	1112
	47.5	2159	2146	2132	2054	1879	1650	1532	1369	1113	1105	1040
	50	2055	2046	2048	2020	1890	1648	1465	1295	1031	1024	959
	52.5	2008	2001	1998	1960	1858	1642	1424	1225	942	870	772
	55	1906	1901	1896	1887	1805	1612	1374	1163	861	742	619
	57.5	1793	1789	1797	1795	1730	1562	1311	1105	789	659	529
	60	1707	1709	1702	1682	1635	1489	1247	1035	717	570	445
	62.5	1616	1620	1604	1593	1540	1408	1172	958	641	482	367
	65	1520	1528	1527	1501	1438	1319	1092	867	568	402	300
	67.5	1415	1421	1419	1404	1341	1224	1006	779	498	331	244
	70	1326	1334	1332	1293	1246	1129	918	696	427	271	200
	72.5	1239	1243	1214	1202	1143	1031	824	611	360	222	165
75	1102	1105	1095	1076	1028	924	730	529	304	183	136	
77.5	978	980	969	957	900	812	638	454	256	150	112	
80	866	868	874	856	813	725	561	386	216	121	91	
82.5	792	796	798	778	736	651	490	325	182	96	73	
85	730	732	730	713	670	580	428	276	155	76	57	
87.5	673	674	672	655	607	519	375	240	132	61	46	
90	630	631	631	604	557	466	335	213	112	49	37	

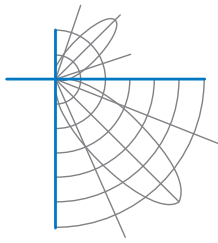


Report of Test

LLIA001528-002

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	630	631	631	604	557	466	335	213	112	49	37
	92.5	593	594	592	565	512	422	303	190	94	41	29
	95	564	564	560	529	474	383	273	168	80	36	24
	97.5	531	532	529	498	440	349	245	147	68	31	22
	100	501	501	496	463	407	318	220	128	59	26	20
	102.5	470	469	463	429	372	289	197	110	52	23	18
	105	442	441	432	396	337	258	175	93	46	21	16
	107.5	415	413	404	367	304	230	155	79	40	19	15
	110	387	385	375	336	275	205	137	67	35	18	14
	112.5	357	355	344	306	247	182	118	59	29	16	13
	115	328	326	314	276	219	159	100	52	26	15	12
	117.5	300	298	284	244	192	138	84	46	22	14	11
	120	266	264	249	211	165	118	71	39	19	12	10
	122.5	235	233	215	181	141	102	60	32	17	11	9
	125	192	189	175	151	122	86	50	27	14	9	8
	127.5	154	153	146	128	102	71	42	22	12	8	6
	130	132	130	121	106	84	59	35	19	10	6	5
	132.5	107	106	98	87	70	49	30	16	8	5	4
	135	86	86	81	72	58	41	25	13	6	4	3
	137.5	70	70	67	59	46	33	21	11	5	3	3
	140	57	57	54	47	36	27	17	9	4	3	2
	142.5	45	45	42	37	29	22	14	6	3	2	1
	145	36	36	34	29	23	18	11	5	1	0	0
	147.5	29	28	27	24	19	15	9	2	0	0	0
	150	23	23	21	19	16	11	6	0	0	0	0
	152.5	18	18	18	16	12	8	4	0	0	0	0
	155	15	15	14	12	9	6	0	0	0	0	0
	157.5	12	12	11	9	6	3	0	0	0	0	0
	160	8	8	7	6	4	0	0	0	0	0	0
	162.5	5	5	4	3	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	

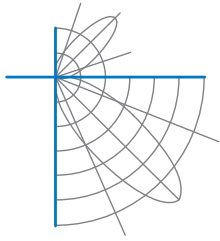


Report of Test

LLIA001528-002

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	1888	1888	1888	1888	1888	1888	1888	1888	1888	1888	1888
	2.5	1883	1886	1895	1893	1876	1845	1815	1815	1851	1893	1899
	5	1900	1908	1908	1887	1835	1811	1879	1870	1781	1837	1862
	7.5	1890	1902	1887	1837	1822	1840	1807	1753	1726	1716	1761
	10	1873	1882	1865	1821	1798	1745	1687	1610	1625	1562	1618
	12.5	1837	1837	1816	1768	1735	1593	1565	1509	1428	1381	1435
	15	1779	1776	1773	1729	1597	1524	1385	1282	1229	1192	1234
	17.5	1731	1731	1708	1620	1470	1353	1236	1133	1058	992	1016
	20	1684	1684	1634	1501	1351	1180	1052	945	885	823	833
	22.5	1705	1695	1568	1371	1212	1036	907	781	695	654	655
	25	1698	1701	1558	1273	1048	881	743	632	551	526	525
	27.5	1634	1636	1465	1219	913	753	611	512	474	462	460
	30	1592	1567	1349	1089	850	638	501	451	420	411	411
	32.5	1502	1483	1229	955	740	539	443	403	380	363	363
	35	1451	1407	1112	836	631	467	389	356	326	304	304
	37.5	1362	1312	986	714	533	398	353	310	280	269	270
	40	1274	1206	871	620	458	348	307	266	252	249	250
	42.5	1187	1099	767	526	380	307	266	236	226	224	224
	45	1112	1016	672	445	319	270	229	204	199	203	203
	47.5	1040	935	586	378	276	234	196	176	183	189	189
50	959	851	503	318	241	201	163	159	171	175	175	
52.5	772	650	401	274	214	168	142	145	158	167	166	
55	619	481	294	240	190	138	125	132	150	154	153	
57.5	529	394	240	206	162	115	108	121	133	139	138	
60	445	325	207	174	132	96	93	108	120	126	125	
62.5	367	271	184	145	104	79	79	92	106	108	107	
65	300	228	164	120	83	64	67	78	88	91	90	
67.5	244	191	144	100	65	51	54	63	71	74	73	
70	200	161	123	80	51	40	41	48	54	54	53	
72.5	165	135	101	63	39	30	29	31	31	30	29	
75	136	114	79	49	30	20	16	9	0	0	0	
77.5	112	95	61	37	22	13	1	0	0	0	0	
80	91	77	47	27	15	7	0	0	0	0	0	
82.5	73	61	36	21	11	5	0	0	0	0	0	
85	57	46	27	16	9	4	0	0	0	0	0	
87.5	46	34	22	13	7	3	0	0	0	0	0	
90	37	27	18	11	5	3	0	0	0	0	0	

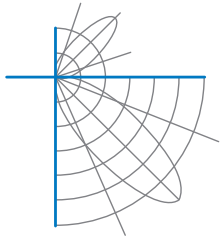


Report of Test

LLIA001528-002

Luminous Intensity (Candela) Table

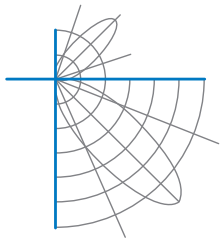
	Lateral (C-Plane) Angles											
	90	95	105	115	125	135	145	155	165	175	180	
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	37	27	18	11	5	3	0	0	0	0	0
	92.5	29	23	14	9	5	1	0	0	0	0	0
	95	24	20	12	7	4	0	0	0	0	0	0
	97.5	22	17	11	6	3	0	0	0	0	0	0
	100	20	16	9	6	3	0	0	0	0	0	0
	102.5	18	14	8	5	2	0	0	0	0	0	0
	105	16	13	8	4	2	0	0	0	0	0	0
	107.5	15	12	7	4	1	0	0	0	0	0	0
	110	14	11	6	4	1	0	0	0	0	0	0
	112.5	13	10	6	3	0	0	0	0	0	0	0
	115	12	9	5	3	0	0	0	0	0	0	0
	117.5	11	8	5	3	0	0	0	0	0	0	0
	120	10	7	4	2	0	0	0	0	0	0	0
	122.5	9	7	4	2	0	0	0	0	0	0	0
	125	8	6	3	1	0	0	0	0	0	0	0
	127.5	6	5	3	1	0	0	0	0	0	0	0
	130	5	4	3	1	0	0	0	0	0	0	0
	132.5	4	3	2	1	0	0	0	0	0	0	0
	135	3	3	1	0	0	0	0	0	0	0	0
	137.5	3	2	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
LLIA001528-002

Additional Pictures of Test Subject





Report of Test

LLIA001528-002

Test Distance 9.5 m
Ambient Temperature 25.3 °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.