

Report of Test

LLIA001630-005

Roadway/Area Light Distribution Photometry Test Report

Catalog Number: WPA-40W-PCTS-BZ-PC - 35W and 5000K Setting

Surface mounted wall pack, cast aluminum housings, clear plastic enclosure with perimeter prisms, linear lens above each row of LEDs with vertical linear micro prisms. Aimed straight down.

112 LEDs, 48 cool white and 64 warm white LEDs on white circuit board

One BQ BQE55-0400-102-PVF-PS LED driver



Prepared For:

Topaz Lighting Corp

925 Waverly Avenue

Holtsville, NY 11742, USA

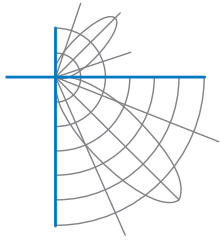
Performance Summary			
Input Voltage	120.0 Vac	Luminous Flux	4509.6 Lumens
Input Current	0.2915 A	Total Efficacy	129.9 Lm/W
Input Power	34.71 W		
Frequency	60.00 Hz		
Power Factor	0.992	Roadway Type	Area Light
Current THD	9.0 %	IES BUG Rating	B2 - U0 - G1

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

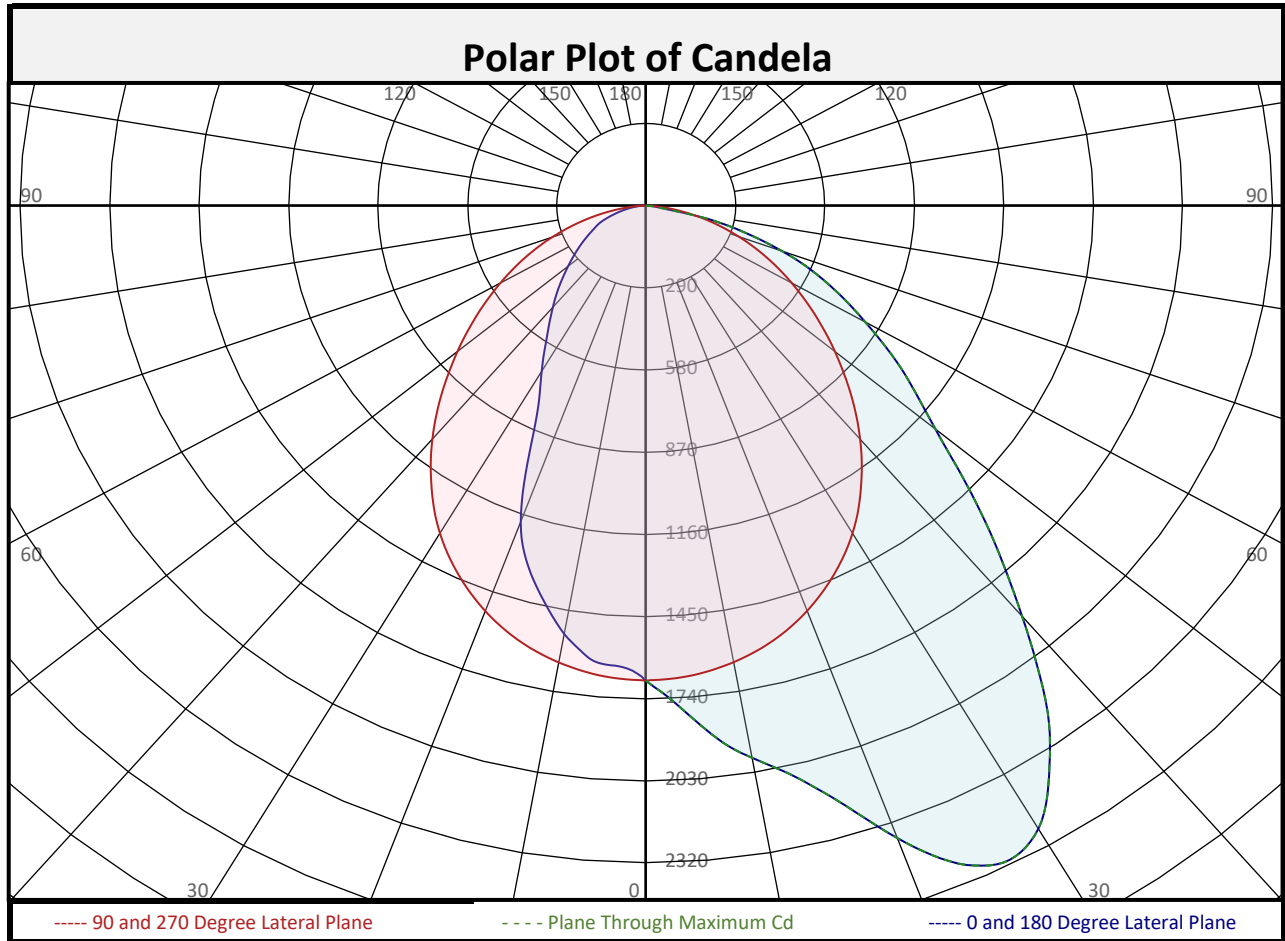
Test date: 01/13/2022

Report date: 01/14/2022

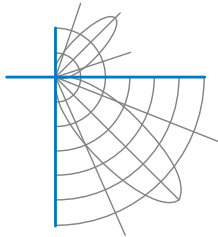
Signed: _____



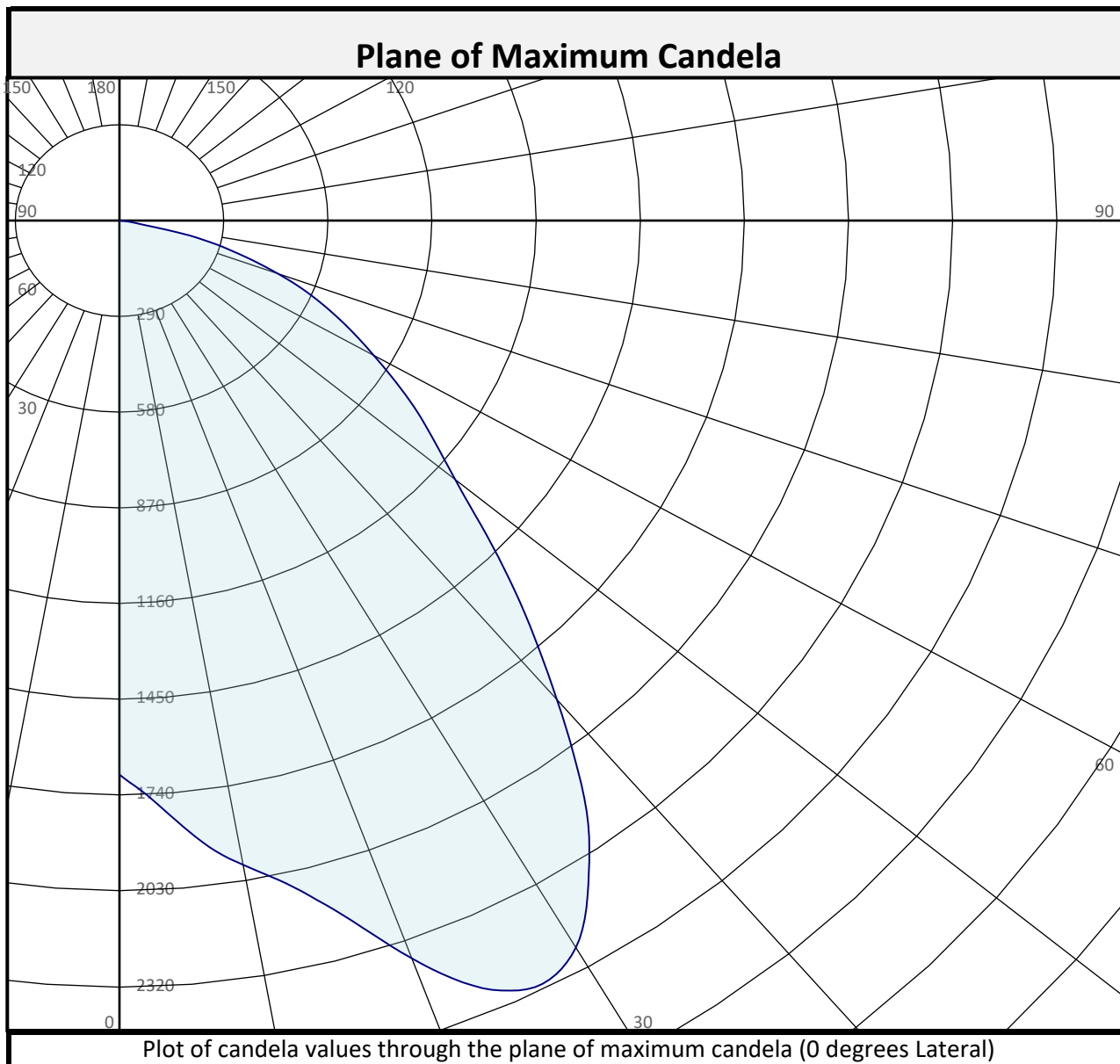
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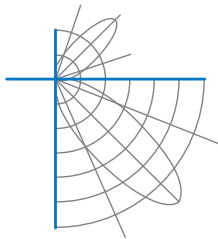
Zonal Flux Summary										
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	162.8	3.6%		90-100	0.0	0.0%		0-20	641.7	14.2%
10-20	479.0	10.6%		100-110	0.0	0.0%		0-30	1380	30.6%
20-30	738.5	16.4%		110-120	0.0	0.0%		0-40	2245	49.8%
30-40	865.1	19.2%		120-130	0.0	0.0%		0-60	3743	83.0%
40-50	823.0	18.3%		130-140	0.0	0.0%		0-80	4470	99.1%
50-60	674.5	15.0%		140-150	0.0	0.0%		10-90	4347	96.4%
60-70	478.7	10.6%		150-160	0.0	0.0%		20-50	2427	53.8%
70-80	247.9	5.5%		160-170	0.0	0.0%		40-90	2264	50.2%
80-90	40.0	0.9%		170-180	0.0	0.0%		60-90	766.6	17.0%
0-90	4510	100.0%		90-180	0.0	0.0%		0-180	4510	100.0%



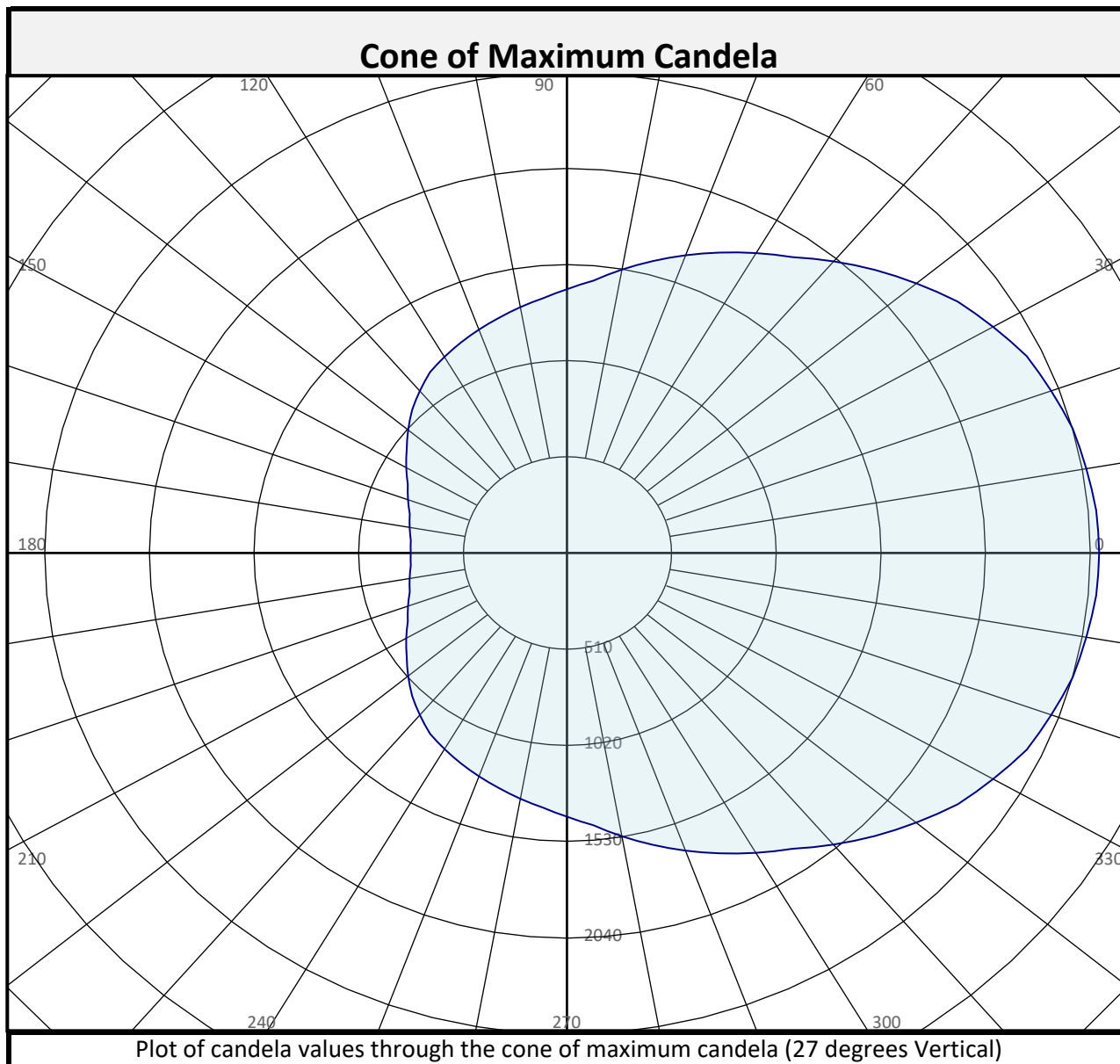
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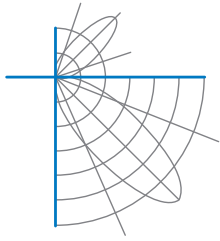
Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	3086.0	68.4%	0.0	0.0%	3086.0	68.4%
House Side	1423.6	31.6%	0.0	0.0%	1423.6	31.6%
Total	4509.6	100.0%	0.0	0.0%	4509.6	100.0%



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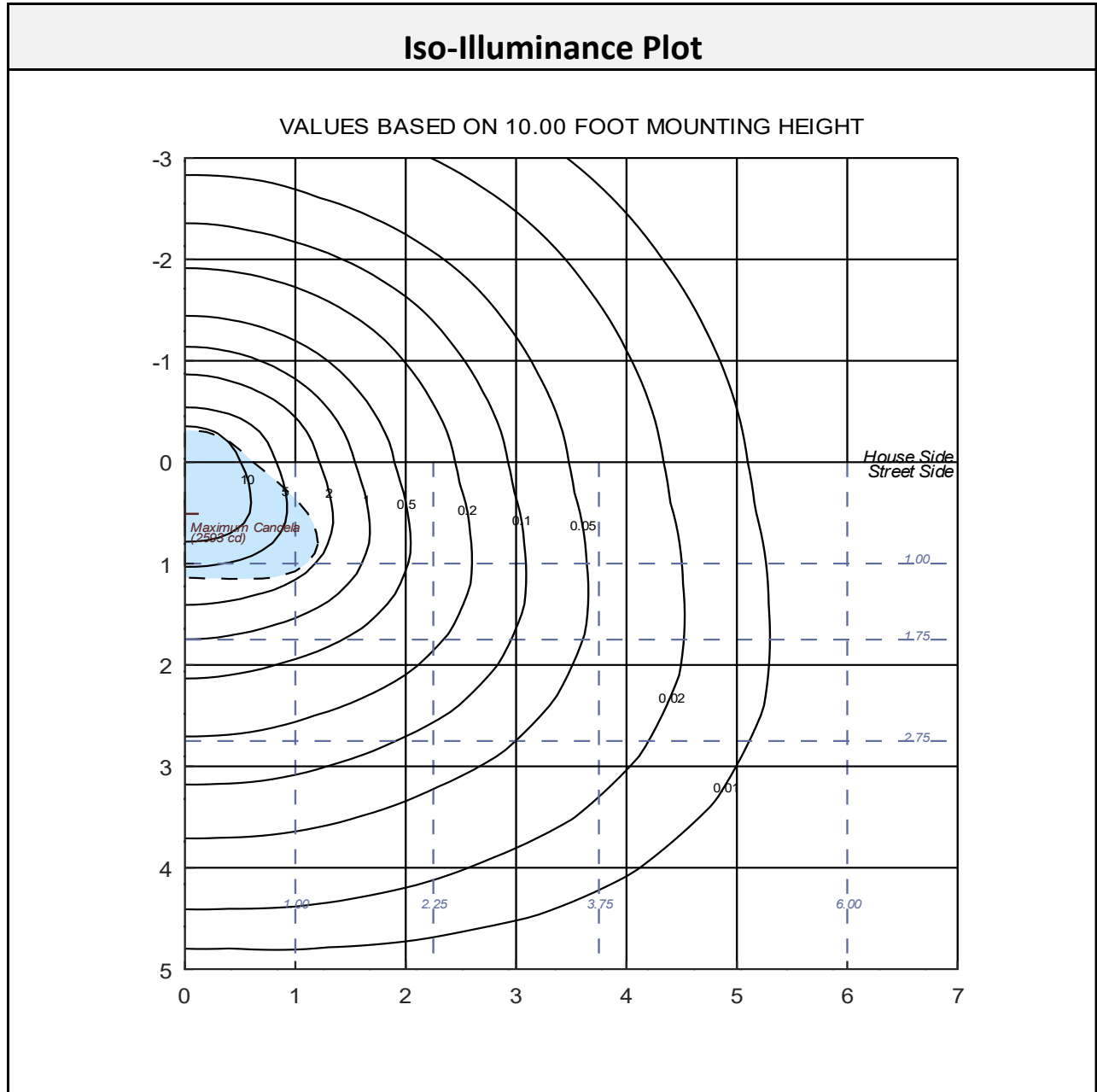


Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	3086.0	68.4%	0.0	0.0%	3086.0	68.4%
House Side	1423.6	31.6%	0.0	0.0%	1423.6	31.6%
Total	4509.6	100.0%	0.0	0.0%	4509.6	100.0%

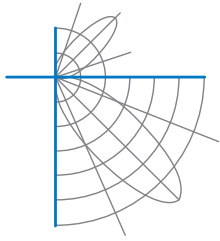


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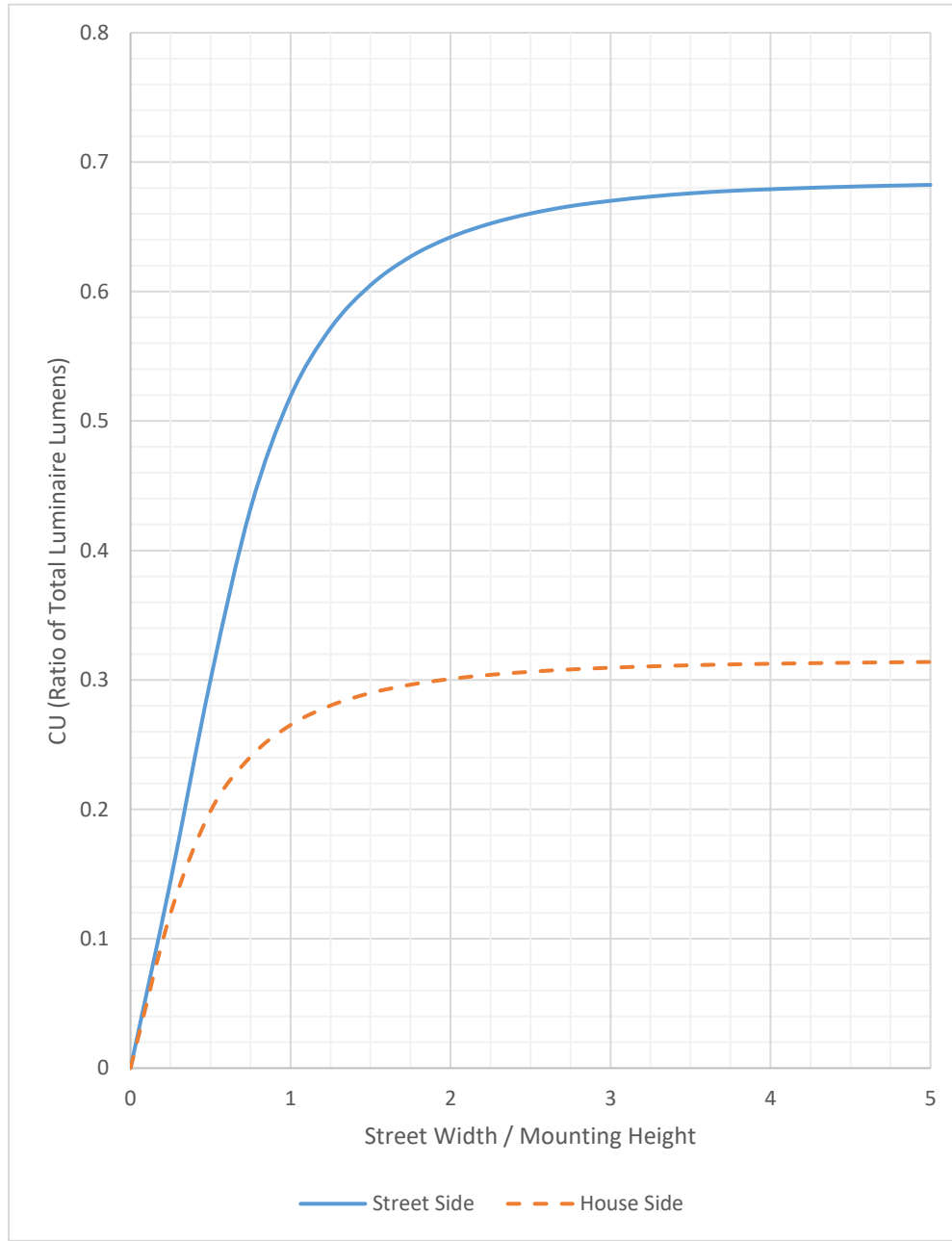


The isofootcandle values shown in the plot above are based on a mounting height of $h = 10.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the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



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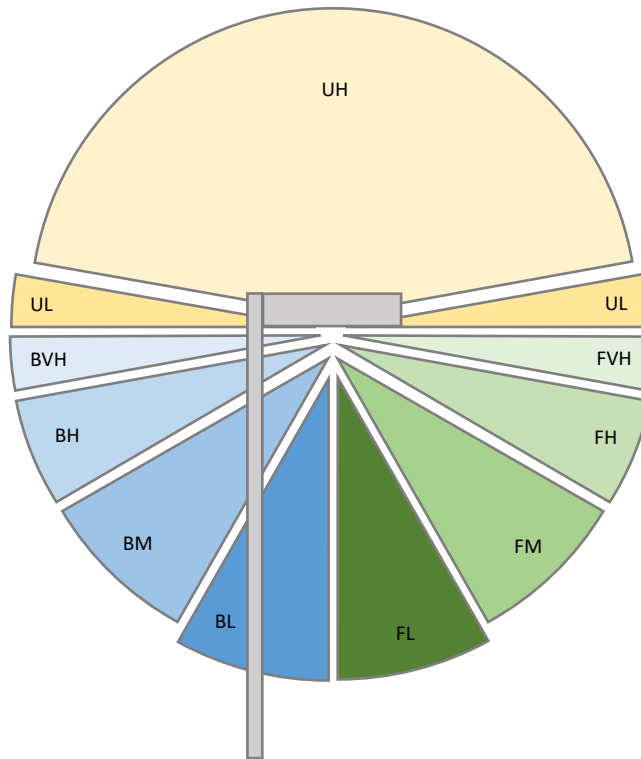
Coefficients of Utilization Plot





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LCS Tables and Bug Classification



Back Light

BL - Back Low (0°-30°)	544.4 Lm
BM - Back Mid (30°-60°)	659.4 Lm
BH - Back High (60°-80°)	202.2 Lm
BVH - Back Very High (80°-90°)	17.5 Lm

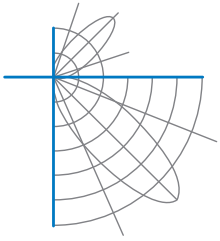
Forward Light

FL - Forward Low (0°-30°)	835.8 Lm
FM - Forward Mid (30°-60°)	1703.2 Lm
FH - Forward High (60°-80°)	524.4 Lm
FVH - Forward Very High (80°-90°)	22.5 Lm

Uplight

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

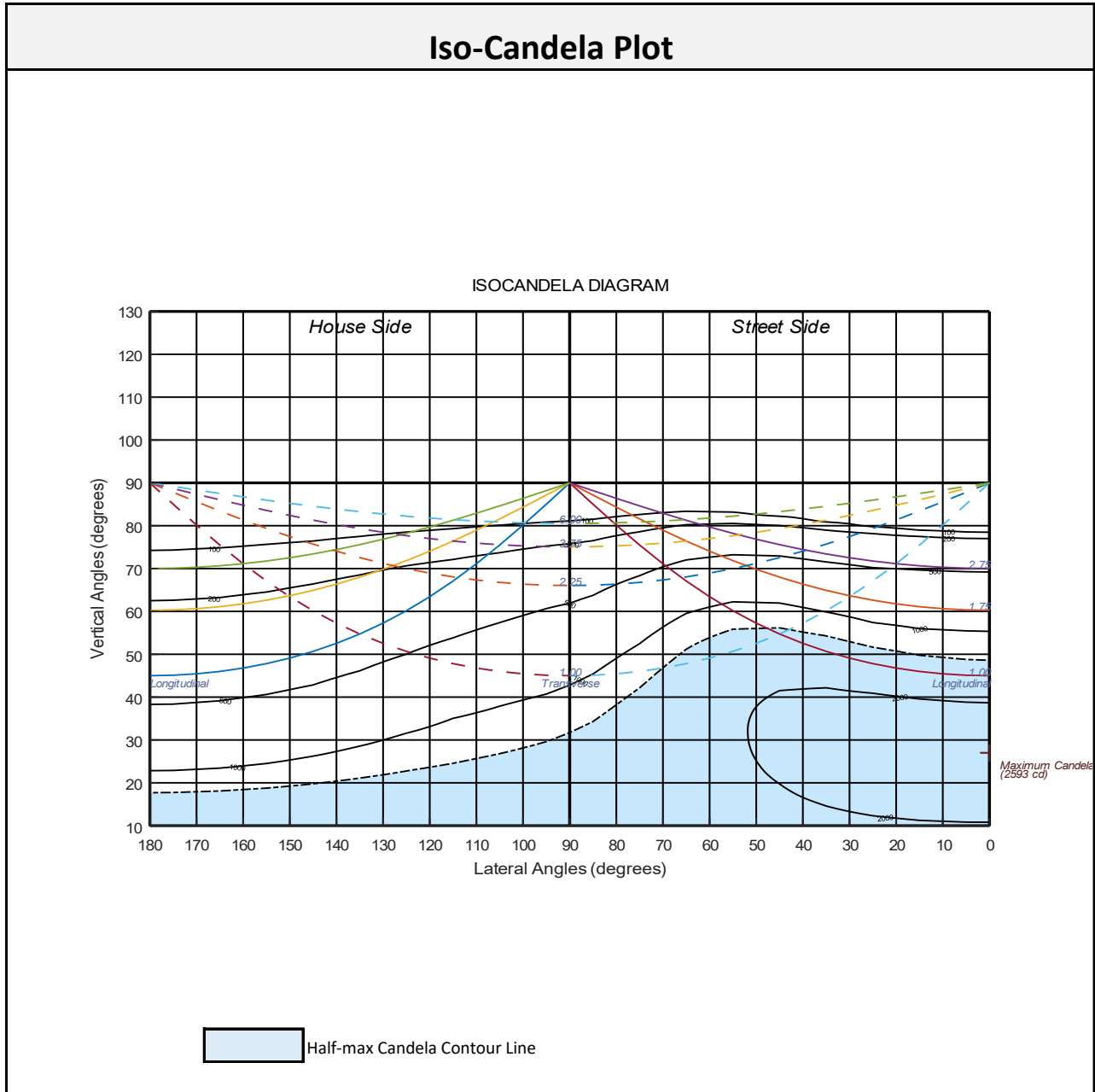
BUG Ratings: B2 - U0 - G1

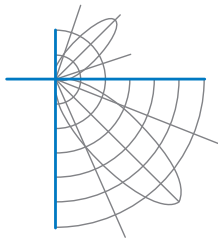


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Iso-Candela Plot



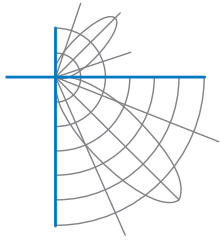


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Luminous Intensity (Candela) Table

	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	1677	1677	1677	1677	1677	1677	1677	1677	1677	1677	1677
	2.5	1740	1741	1739	1735	1727	1720	1709	1700	1689	1678	1672
	5	1824	1824	1819	1807	1789	1770	1744	1720	1697	1676	1665
	7.5	1912	1912	1904	1886	1859	1826	1785	1742	1702	1669	1653
	10	1980	1980	1971	1951	1919	1877	1823	1764	1705	1657	1636
	12.5	2044	2043	2030	2004	1966	1916	1854	1780	1703	1641	1615
	15	2130	2127	2104	2060	2006	1949	1877	1791	1699	1619	1590
	17.5	2242	2238	2204	2138	2055	1973	1893	1797	1689	1592	1559
	20	2375	2370	2326	2236	2121	2003	1899	1797	1674	1560	1523
	22.5	2495	2488	2439	2338	2198	2043	1904	1787	1654	1524	1483
	25	2571	2565	2521	2426	2274	2087	1909	1772	1627	1485	1438
	27.5	2590	2586	2552	2477	2333	2130	1916	1754	1595	1441	1390
	30	2541	2539	2525	2476	2363	2159	1922	1728	1558	1393	1336
	32.5	2424	2427	2441	2431	2352	2174	1919	1696	1515	1339	1278
	35	2279	2284	2310	2337	2301	2162	1909	1662	1466	1279	1213
	37.5	2095	2104	2153	2211	2214	2119	1890	1625	1411	1217	1147
	40	1895	1907	1967	2060	2106	2051	1853	1580	1351	1151	1078
	42.5	1709	1721	1781	1890	1983	1963	1800	1529	1288	1083	1008
	45	1534	1547	1605	1724	1840	1859	1731	1470	1222	1011	937
	47.5	1366	1378	1438	1560	1692	1746	1646	1405	1151	939	865
	50	1220	1229	1283	1398	1545	1619	1550	1333	1076	869	797
	52.5	1110	1114	1148	1248	1397	1485	1447	1254	999	798	730
	55	1014	1018	1039	1113	1257	1356	1335	1169	922	729	666
	57.5	914	919	941	996	1121	1228	1223	1077	843	662	604
	60	818	822	842	891	994	1099	1107	982	764	596	544
	62.5	732	734	747	789	875	973	987	883	684	531	486
	65	648	650	659	690	767	851	870	784	605	468	430
	67.5	563	565	574	597	662	735	754	682	526	406	374
	70	468	471	488	508	561	624	642	581	448	346	320
	72.5	371	374	397	418	462	518	532	481	372	288	267
75	281	283	303	327	363	414	424	385	299	232	216	
77.5	166	170	200	227	263	310	322	294	229	179	167	
80	53	54	62	83	157	202	222	208	163	129	120	
82.5	28	29	32	39	52	81	125	127	103	82	76	
85	1	1	1	1	8	27	32	53	49	40	38	
87.5	0	0	0	0	0	0	1	4	7	11	10	
90	0	0	0	0	0	0	0	0	0	0	0	



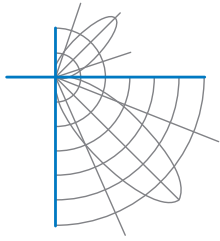
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Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles											
	0	5	15	25	35	45	55	65	75	85	90	
90	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
95	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
100	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
105	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
110	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
115	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
120	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
125	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
130	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
135	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
140	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
145	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
150	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
155	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
160	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
165	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
170	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
175	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
180	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.



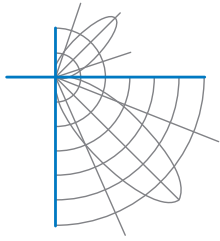
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Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles											
	90	95	105	115	125	135	145	155	165	175	180	
0	1677	1677	1677	1677	1677	1677	1677	1677	1677	1677	1677	
2.5	1672	1669	1661	1653	1648	1643	1642	1641	1639	1638	1632	
5	1665	1658	1641	1632	1630	1629	1631	1631	1631	1630	1623	
7.5	1653	1642	1622	1616	1617	1614	1611	1606	1599	1595	1589	
10	1636	1621	1603	1597	1590	1578	1565	1553	1544	1540	1534	
12.5	1615	1596	1578	1564	1548	1527	1508	1489	1474	1466	1462	
15	1590	1567	1545	1522	1496	1467	1439	1416	1399	1390	1386	
17.5	1559	1534	1502	1471	1435	1399	1367	1339	1318	1306	1304	
20	1523	1495	1455	1413	1370	1329	1289	1250	1217	1195	1192	
22.5	1483	1451	1402	1350	1303	1253	1193	1125	1065	1028	1025	
25	1438	1401	1342	1285	1233	1162	1068	970	898	858	854	
27.5	1390	1346	1279	1218	1155	1050	934	838	778	752	749	
30	1336	1287	1212	1149	1062	936	822	741	699	681	679	
32.5	1278	1224	1146	1078	964	838	735	667	636	619	617	
35	1213	1157	1079	1001	872	756	662	609	578	562	561	
37.5	1147	1089	1011	920	792	686	602	556	530	515	514	
40	1078	1020	943	839	723	622	551	510	485	473	472	
42.5	1008	950	875	765	662	567	506	469	447	435	434	
45	937	881	806	698	604	520	465	432	410	398	397	
47.5	865	814	738	638	550	477	428	396	375	363	361	
50	797	749	672	581	501	437	394	362	342	331	329	
52.5	730	686	609	527	457	402	361	330	311	301	299	
55	666	625	551	477	418	368	329	300	283	273	272	
57.5	604	568	498	429	379	335	298	272	256	248	246	
60	544	514	445	385	342	302	269	246	230	223	222	
62.5	486	461	395	344	307	270	241	220	206	201	200	
65	430	408	349	305	273	240	215	195	184	181	181	
67.5	374	355	304	267	241	211	189	171	164	164	163	
70	320	303	262	231	208	183	164	149	146	142	141	
72.5	267	253	220	195	175	155	138	127	123	117	116	
75	216	205	179	159	143	127	114	106	98	94	93	
77.5	167	159	140	124	112	100	90	84	76	73	73	
80	120	114	102	91	83	74	67	61	56	54	54	
82.5	76	73	66	60	55	50	45	41	38	37	36	
85	38	37	35	33	31	29	26	24	22	22	21	
87.5	10	11	11	12	12	11	11	10	10	9	9	
90	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.

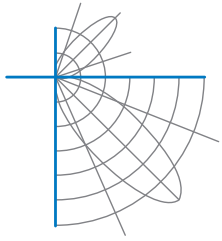


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Luminous Intensity (Candela) Table

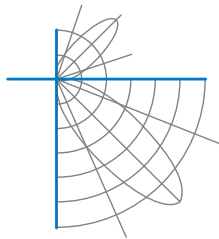
	Lateral (C-Plane) Angles											
	90	95	105	115	125	135	145	155	165	175	180	
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	0	0	0	0	0	0	0	0	0	0	0
	92.5	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0
	137.5	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0
	142.5	0	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	



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Additional Pictures of Test Subject





Report of Test

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Test Distance 9.5 m
Ambient Temperature 24.8 °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.