



IES ROAD REPORT

PHOTOMETRIC FILENAME : TLWP-LED-11L-30.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] 3835

[TESTLAB] TUV SUD America

[TESTDATE] 2/3/2020 3:10:30 PM

[ISSUEDATE] 2/24/2020

[MANUFAC] LSI INDUSTRIES, INC

[LUMCAT] TLWP-LED-11L-30

[OTHER] TEST PROCEDURE: IESNA

[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED

[OTHER] SCALED FROM ORIGINAL TEST DATA

[SEARCH_SOURCETYPE] LED

[SEARCH_APPLICATION] Outdoor

CHARACTERISTICS

IES Classification	Type IV
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	10130
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	129
Total Luminaire Watts	78.34
Ballast Factor	1.00
Upward Waste Light Ratio	0.23
Maximum Candela	3283
Maximum Candela Angle	360H 57.5V
Maximum Candela (<90 Degrees Vertical)	3283
Maximum Candela Angle (<90 Degrees Vertical)	360H 57.5V
Maximum Candela At 90 Degrees Vertical	2547 (25.1% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	2909 (28.7% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	873.4	N.A.	8.6
FM - Front-Medium (30-60)	2575.1	N.A.	25.4
FH - Front-High (60-80)	2086.9	N.A.	20.6
FVH - Front-Very High (80-90)	917.7	N.A.	9.1
BL - Back-Low (0-30)	489.0	N.A.	4.8
BM - Back-Medium (30-60)	625.1	N.A.	6.2
BH - Back-High (60-80)	154.4	N.A.	1.5
BVH - Back-Very High (80-90)	29.5	N.A.	0.3
UL - Uplight-Low (90-100)	774.4	N.A.	7.6
UH - Uplight-High (100-180)	1604.3	N.A.	15.8
Total	10129.8	N.A.	100.0
BUG Rating	B1-U5-G5		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	202.5
0.0	1732	1732	1732	1732	1732	1732	1732	1732	1732	1732
2.5	1860	1818	1795	1762	1724	1684	1651	1628	1653	1628
5.0	1955	1906	1861	1796	1717	1637	1569	1524	1540	1524
7.5	2042	1989	1922	1825	1708	1587	1487	1418	1424	1418
10.0	2120	2062	1978	1849	1694	1534	1399	1317	1316	1317
12.5	2193	2127	2028	1871	1676	1478	1317	1229	1223	1229
15.0	2271	2189	2069	1885	1655	1420	1244	1141	1130	1141
17.5	2344	2254	2103	1894	1629	1356	1170	1053	1034	1053
20.0	2416	2314	2135	1898	1599	1291	1095	963	933	963
22.5	2488	2375	2169	1897	1567	1234	1021	874	840	874
25.0	2562	2436	2197	1891	1533	1177	946	791	755	791
27.5	2629	2494	2220	1879	1496	1120	870	714	682	714
30.0	2689	2545	2241	1865	1456	1062	803	650	619	650
32.5	2749	2591	2259	1846	1415	1005	738	593	561	593
35.0	2817	2634	2275	1829	1370	944	675	536	504	536
37.5	2880	2685	2287	1810	1324	884	617	481	445	481
40.0	2943	2737	2296	1784	1275	827	564	427	395	427
42.5	3010	2786	2303	1754	1224	771	513	378	347	378
45.0	3081	2834	2313	1721	1171	717	461	333	301	333
47.5	3146	2885	2324	1687	1116	662	413	289	260	289
50.0	3206	2934	2337	1651	1059	608	367	246	220	246
52.5	3247	2977	2347	1616	1000	554	324	204	180	204
55.0	3275	3003	2353	1579	938	504	281	163	142	163
57.5	3283	3012	2351	1541	872	454	240	125	106	125
60.0	3271	3004	2340	1503	809	404	200	89	74	89
62.5	3241	2979	2317	1465	744	354	162	56	45	56
65.0	3194	2937	2284	1425	679	307	125	26	17	26
67.5	3139	2887	2244	1381	613	263	92	5	1	5
70.0	3088	2834	2197	1330	545	221	61	1	1	1
72.5	3044	2784	2148	1275	478	183	42	1	1	1
75.0	3007	2739	2096	1218	412	149	36	1	1	1
77.5	2964	2690	2039	1157	349	122	33	1	1	1
80.0	2909	2633	1975	1097	289	104	30	1	1	1
82.5	2837	2560	1901	1034	236	93	28	1	1	1
85.0	2749	2476	1821	971	193	86	26	1	2	1
87.5	2653	2386	1739	903	162	81	24	1	2	1
90.0	2547	2287	1654	839	147	77	22	1	2	1
92.5	2438	2186	1570	777	139	73	21	1	2	1
95.0	2322	2082	1486	723	133	69	19	1	2	1
97.5	2204	1973	1399	678	128	65	18	1	2	1
100.0	2078	1862	1319	637	123	61	16	1	2	1
102.5	1957	1749	1244	597	118	58	14	1	2	1
105.0	1845	1651	1173	560	113	54	13	1	2	1
107.5	1732	1553	1102	524	108	51	12	1	2	1
110.0	1619	1454	1032	489	102	48	10	1	2	1
112.5	1501	1356	963	457	96	45	9	1	1	1
115.0	1388	1256	891	425	90	41	8	1	2	1
117.5	1276	1159	825	396	83	38	7	1	2	1
120.0	1177	1069	763	368	77	35	6	2	2	2
122.5	1082	986	706	339	70	32	5	2	3	2
125.0	987	902	653	310	64	29	4	3	3	3
127.5	900	827	603	281	57	26	4	3	4	3
130.0	822	757	556	253	52	23	3	3	4	3

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CANDELA TABULATION - (Cont.)

132.5	752	693	511	227	46	20	3	4	4	4
135.0	688	637	468	206	39	18	3	4	4	4
137.5	629	584	424	186	31	15	3	4	5	4
140.0	572	530	387	163	25	13	4	4	5	4
142.5	514	482	357	142	21	10	4	4	5	4
145.0	474	445	325	120	18	8	4	5	5	5
147.5	441	410	289	95	15	6	5	5	6	5
150.0	399	367	255	62	13	5	5	5	6	5
152.5	352	323	220	30	11	4	5	5	5	5
155.0	306	281	183	14	9	4	5	5	5	5
157.5	260	236	144	10	7	5	5	5	5	5
160.0	208	188	100	7	5	5	5	5	5	5
162.5	155	138	50	5	5	5	5	6	5	6
165.0	97	84	9	4	5	5	5	5	5	5
167.5	27	23	5	5	5	5	5	5	5	5
170.0	4	5	5	5	5	5	5	6	5	6
172.5	5	5	5	5	5	5	5	5	6	5
175.0	5	5	5	5	5	5	5	5	5	5
177.5	5	5	5	5	5	5	5	5	5	5
180.0	5	5	5	5	5	5	5	5	5	5

Vert. Angles **Horizontal Angles**

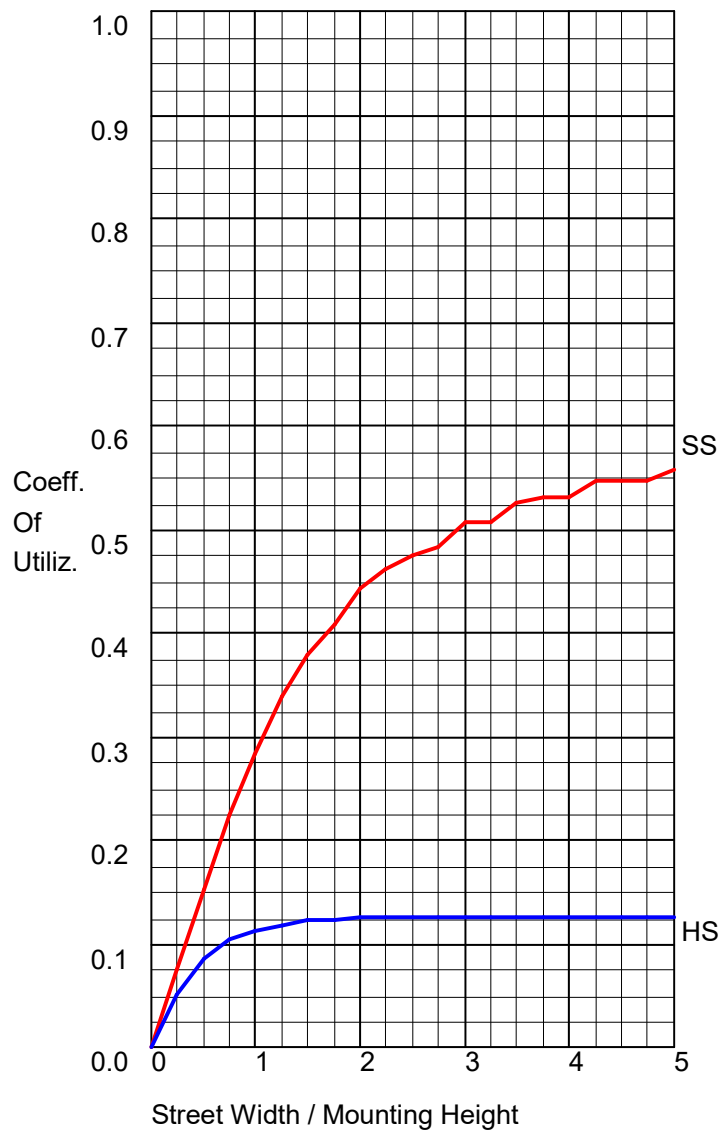
	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	1732	1732	1732	1732	1732	1732	1732
2.5	1651	1684	1724	1762	1795	1818	1860
5.0	1569	1637	1717	1796	1861	1906	1955
7.5	1487	1587	1708	1825	1922	1989	2042
10.0	1399	1534	1694	1849	1978	2062	2120
12.5	1317	1478	1676	1871	2028	2127	2193
15.0	1244	1420	1655	1885	2069	2189	2271
17.5	1170	1356	1629	1894	2103	2254	2344
20.0	1095	1291	1599	1898	2135	2314	2416
22.5	1021	1234	1567	1897	2169	2375	2488
25.0	946	1177	1533	1891	2197	2436	2562
27.5	870	1120	1496	1879	2220	2494	2629
30.0	803	1062	1456	1865	2241	2545	2689
32.5	738	1005	1415	1846	2259	2591	2749
35.0	675	944	1370	1829	2275	2634	2817
37.5	617	884	1324	1810	2287	2685	2880
40.0	564	827	1275	1784	2296	2737	2943
42.5	513	771	1224	1754	2303	2786	3010
45.0	461	717	1171	1721	2313	2834	3081
47.5	413	662	1116	1687	2324	2885	3146
50.0	367	608	1059	1651	2337	2934	3206
52.5	324	554	1000	1616	2347	2977	3247
55.0	281	504	938	1579	2353	3003	3275
57.5	240	454	872	1541	2351	3012	3283
60.0	200	404	809	1503	2340	3004	3271
62.5	162	354	744	1465	2317	2979	3241
65.0	125	307	679	1425	2284	2937	3194
67.5	92	263	613	1381	2244	2887	3139
70.0	61	221	545	1330	2197	2834	3088
72.5	42	183	478	1275	2148	2784	3044
75.0	36	149	412	1218	2096	2739	3007
77.5	33	122	349	1157	2039	2690	2964

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CANDELA TABULATION - (Cont.)

80.0	30	104	289	1097	1975	2633	2909
82.5	28	93	236	1034	1901	2560	2837
85.0	26	86	193	971	1821	2476	2749
87.5	24	81	162	903	1739	2386	2653
90.0	22	77	147	839	1654	2287	2547
92.5	21	73	139	777	1570	2186	2438
95.0	19	69	133	723	1486	2082	2322
97.5	18	65	128	678	1399	1973	2204
100.0	16	61	123	637	1319	1862	2078
102.5	14	58	118	597	1244	1749	1957
105.0	13	54	113	560	1173	1651	1845
107.5	12	51	108	524	1102	1553	1732
110.0	10	48	102	489	1032	1454	1619
112.5	9	45	96	457	963	1356	1501
115.0	8	41	90	425	891	1256	1388
117.5	7	38	83	396	825	1159	1276
120.0	6	35	77	368	763	1069	1177
122.5	5	32	70	339	706	986	1082
125.0	4	29	64	310	653	902	987
127.5	4	26	57	281	603	827	900
130.0	3	23	52	253	556	757	822
132.5	3	20	46	227	511	693	752
135.0	3	18	39	206	468	637	688
137.5	3	15	31	186	424	584	629
140.0	4	13	25	163	387	530	572
142.5	4	10	21	142	357	482	514
145.0	4	8	18	120	325	445	474
147.5	5	6	15	95	289	410	441
150.0	5	5	13	62	255	367	399
152.5	5	4	11	30	220	323	352
155.0	5	4	9	14	183	281	306
157.5	5	5	7	10	144	236	260
160.0	5	5	5	7	100	188	208
162.5	5	5	5	5	50	138	155
165.0	5	5	5	4	9	84	97
167.5	5	5	5	5	5	23	27
170.0	5	5	5	5	5	5	4
172.5	5	5	5	5	5	5	5
175.0	5	5	5	5	5	5	5
177.5	5	5	5	5	5	5	5
180.0	5	5	5	5	5	5	5

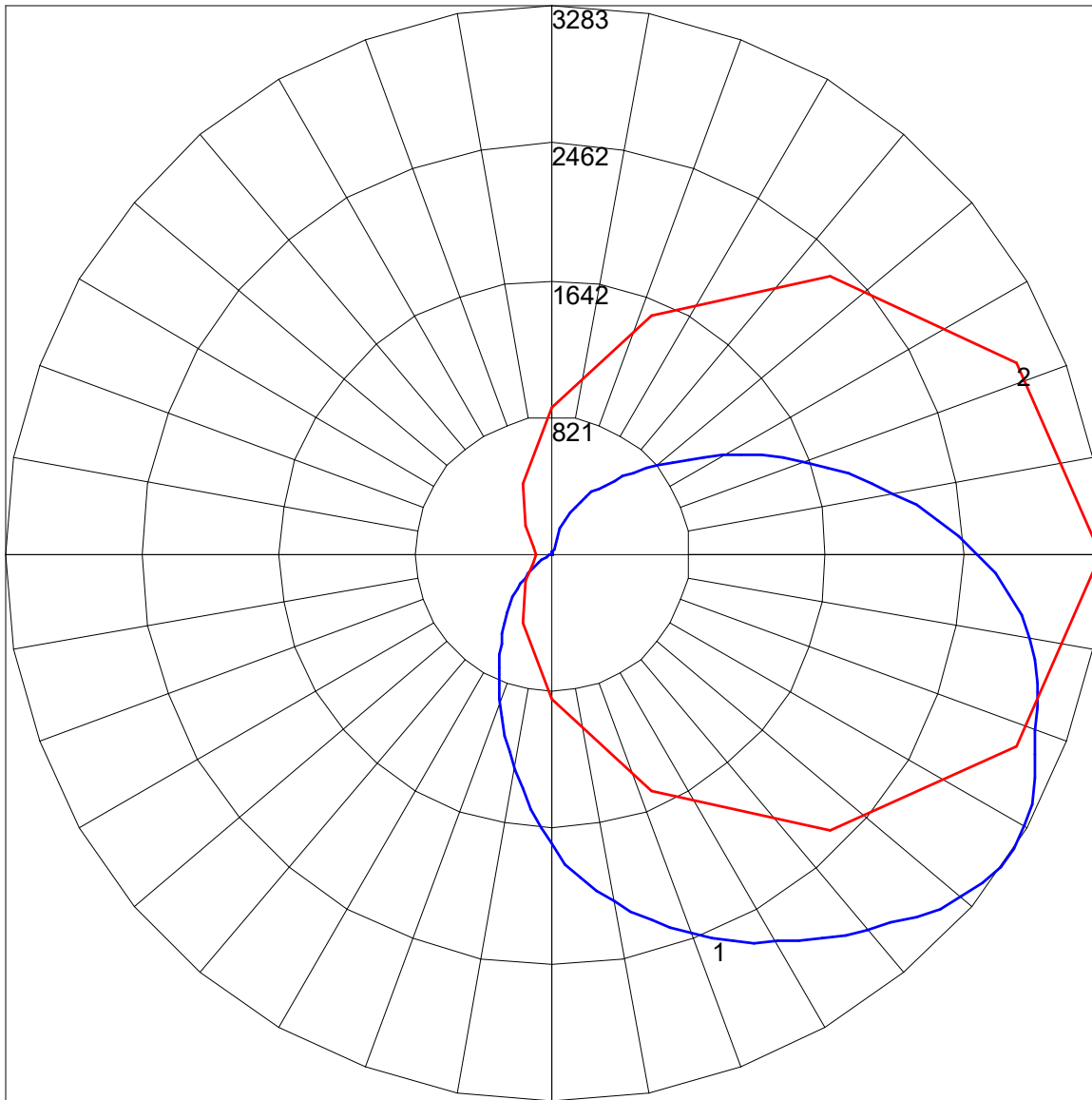
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

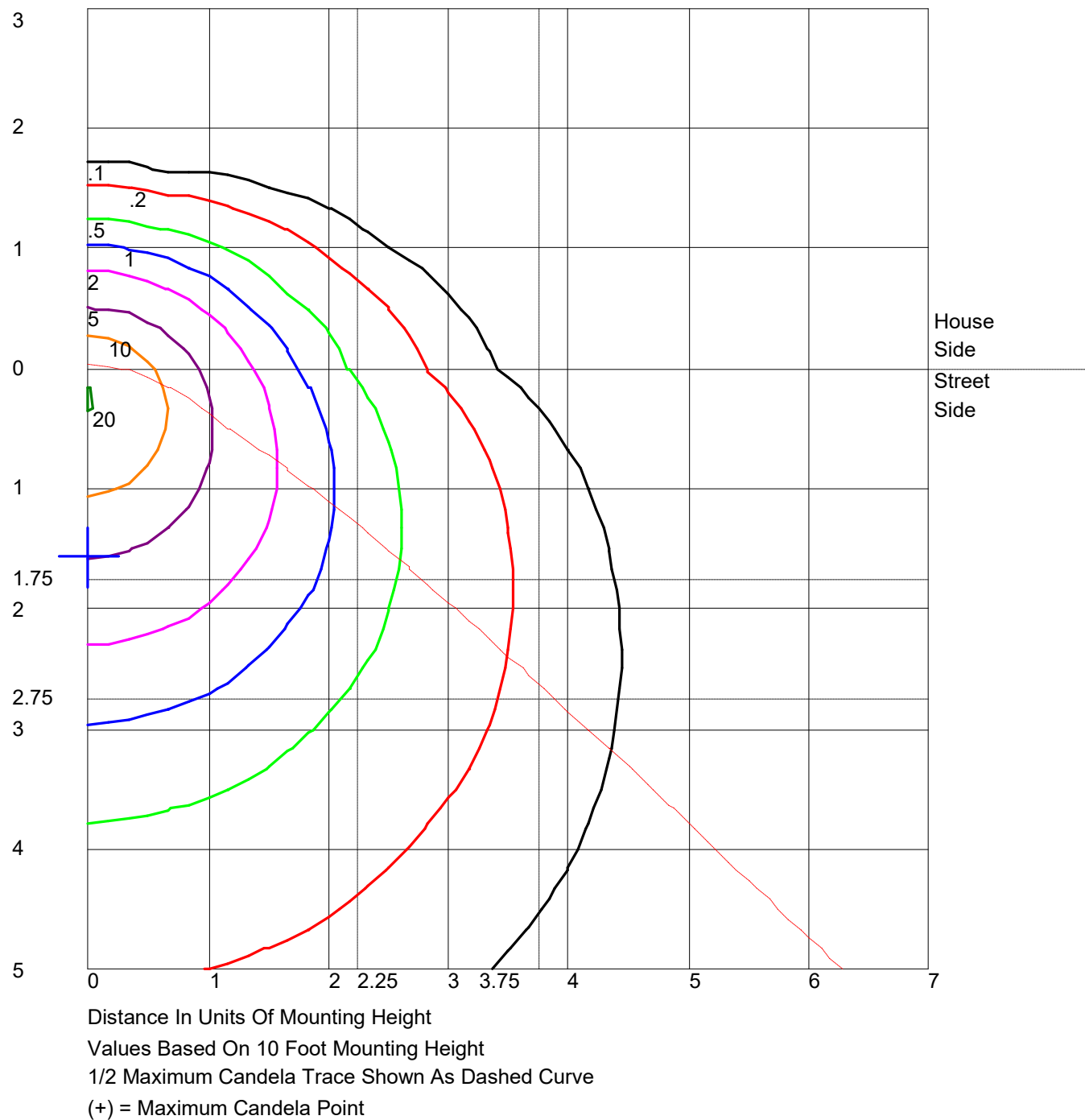
	Lumens	Percent Of Luminaire
Downward Street Side	6453.2	63.7
Downward House Side	1298.0	12.8
Downward Total	7751.2	76.5
Upward Street Side	2311.8	22.8
Upward House Side	66.9	0.7
Upward Total	2378.7	23.5
Total Flux	10129.9	100.0

POLAR GRAPH

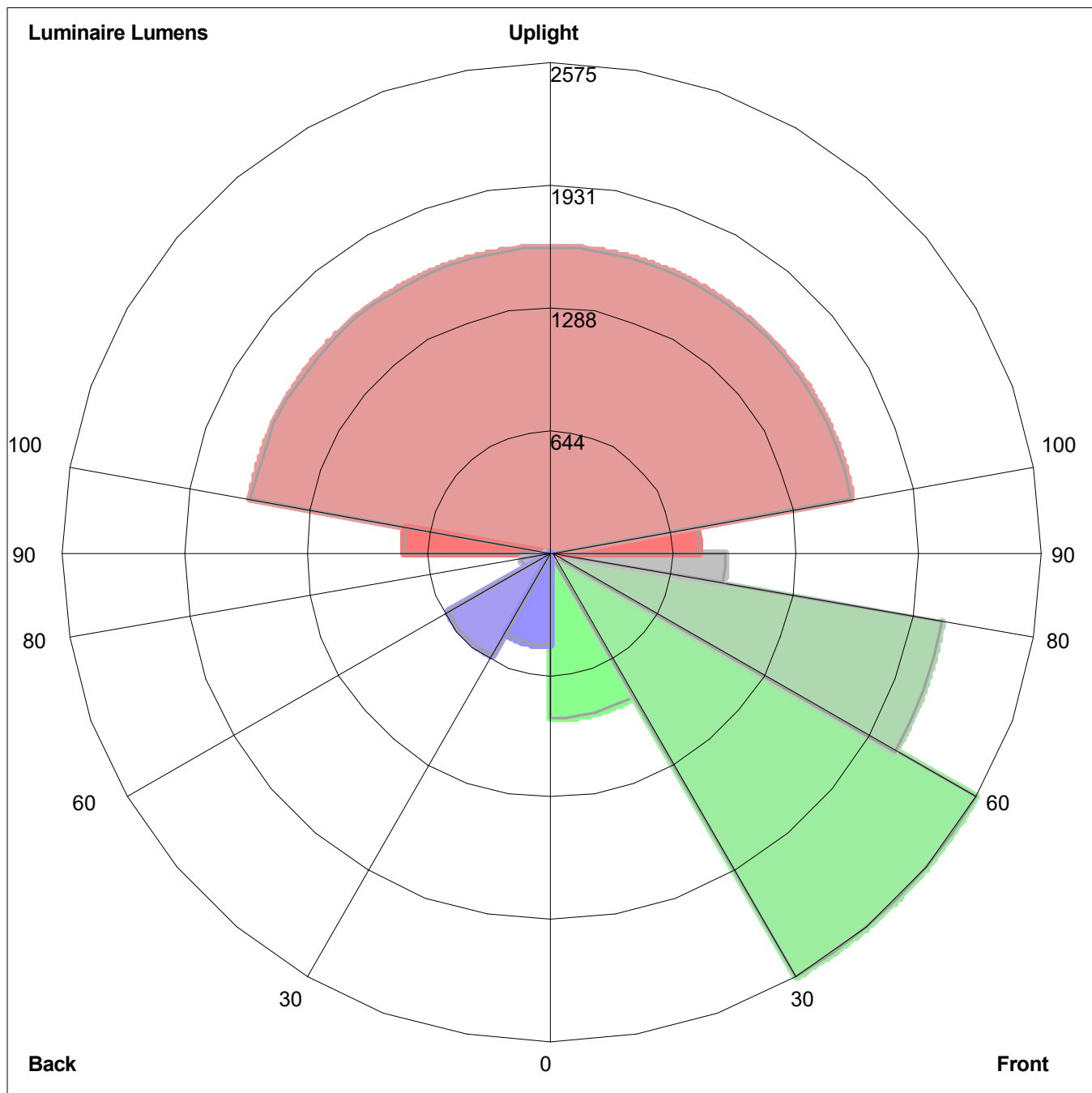


Maximum Candela = 3283 Located At Horizontal Angle = 360, Vertical Angle = 57.5
1 - Vertical Plane Through Horizontal Angles (360 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (57.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=873.4, Medium=2575.1, High=2086.9, Very High=917.7
Back: Low=489.0, Medium=625.1, High=154.4, Very High=29.5
Uplight: Low=774.4, High=1604.3

BUG Rating : B1-U5-G5