



IES ROAD REPORT

PHOTOMETRIC FILENAME : TLWP-LED-11L-50.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-50

[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	10520
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	134
Total Luminaire Watts	78.34
Ballast Factor	1.00
Upward Waste Light Ratio	0.23
Maximum Candela	3409
Maximum Candela Angle	360H 57.5V
Maximum Candela (<90 Degrees Vertical)	3409
Maximum Candela Angle (<90 Degrees Vertical)	360H 57.5V
Maximum Candela At 90 Degrees Vertical	2645 (25.1% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	3021 (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)	907.0	N.A.	8.6
FM - Front-Medium (30-60)	2674.2	N.A.	25.4
FH - Front-High (60-80)	2167.3	N.A.	20.6
FVH - Front-Very High (80-90)	953.1	N.A.	9.1
BL - Back-Low (0-30)	507.8	N.A.	4.8
BM - Back-Medium (30-60)	649.1	N.A.	6.2
BH - Back-High (60-80)	160.4	N.A.	1.5
BVH - Back-Very High (80-90)	30.6	N.A.	0.3
UL - Uplight-Low (90-100)	804.2	N.A.	7.6
UH - Uplight-High (100-180)	1666.1	N.A.	15.8
Total	10519.8	N.A.	100.0
BUG Rating	B2-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	1798	1798	1798	1798	1798	1798	1798	1798	1798	1798
2.5	1931	1888	1864	1830	1790	1749	1715	1691	1716	1691
5.0	2030	1979	1932	1865	1783	1700	1630	1583	1599	1583
7.5	2120	2066	1996	1895	1773	1648	1544	1472	1479	1472
10.0	2202	2142	2055	1921	1760	1593	1453	1368	1366	1368
12.5	2277	2209	2106	1943	1741	1535	1368	1276	1270	1276
15.0	2358	2273	2149	1958	1719	1474	1292	1185	1174	1185
17.5	2435	2341	2184	1967	1691	1408	1215	1093	1074	1093
20.0	2509	2403	2218	1971	1660	1341	1138	1001	969	1001
22.5	2584	2466	2253	1970	1628	1281	1060	907	872	907
25.0	2660	2530	2281	1963	1592	1223	982	821	784	821
27.5	2731	2590	2305	1952	1554	1163	904	741	708	741
30.0	2793	2643	2327	1936	1512	1103	834	675	642	675
32.5	2855	2690	2346	1917	1469	1043	766	615	583	615
35.0	2925	2736	2363	1899	1423	980	701	557	523	557
37.5	2991	2788	2375	1880	1375	918	641	500	462	500
40.0	3057	2842	2384	1853	1324	859	586	443	410	443
42.5	3126	2893	2391	1822	1271	801	532	393	361	393
45.0	3199	2943	2402	1787	1216	744	479	345	312	345
47.5	3267	2996	2414	1752	1159	688	429	300	270	300
50.0	3329	3047	2426	1715	1100	631	381	255	229	255
52.5	3372	3092	2437	1678	1039	576	336	212	187	212
55.0	3401	3119	2443	1639	974	524	292	169	147	169
57.5	3409	3128	2441	1601	905	471	249	130	110	130
60.0	3397	3120	2430	1561	840	419	208	93	76	93
62.5	3366	3094	2407	1522	773	368	168	58	46	58
65.0	3317	3050	2372	1480	705	319	130	27	17	27
67.5	3260	2998	2330	1434	637	273	95	5	1	5
70.0	3207	2943	2282	1381	566	230	64	1	1	1
72.5	3161	2891	2231	1324	497	190	44	1	1	1
75.0	3123	2844	2176	1265	427	155	37	1	1	1
77.5	3078	2794	2117	1202	362	127	34	1	1	1
80.0	3021	2735	2051	1140	300	108	31	1	1	1
82.5	2946	2658	1974	1074	245	96	29	1	1	1
85.0	2855	2572	1891	1009	200	89	27	1	2	1
87.5	2755	2477	1806	938	169	85	25	1	2	1
90.0	2645	2375	1718	871	152	80	23	1	2	1
92.5	2532	2270	1630	807	145	75	21	1	2	1
95.0	2411	2162	1543	751	139	71	20	1	2	1
97.5	2289	2049	1453	704	133	67	18	1	2	1
100.0	2158	1934	1369	662	128	64	17	1	2	1
102.5	2032	1817	1291	620	123	60	15	1	2	1
105.0	1916	1715	1218	582	118	57	13	1	2	1
107.5	1799	1612	1145	544	112	53	12	1	2	1
110.0	1681	1510	1072	508	106	49	11	1	2	1
112.5	1559	1408	1000	474	100	46	9	1	1	1
115.0	1441	1304	925	441	93	43	8	1	2	1
117.5	1326	1204	857	412	87	40	7	1	2	1
120.0	1222	1110	792	382	79	37	6	2	3	2
122.5	1123	1024	734	352	73	33	5	2	3	2
125.0	1025	936	678	322	66	30	5	3	3	3
127.5	934	859	627	291	60	27	4	3	4	3
130.0	853	787	577	263	54	24	4	3	4	3

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CANDELA TABULATION - (Cont.)

132.5	781	719	531	236	47	21	3	4	4	4
135.0	714	661	486	214	40	18	3	4	5	4
137.5	653	606	440	193	33	16	4	4	5	4
140.0	594	550	402	170	25	13	4	4	5	4
142.5	534	500	371	148	22	10	4	5	5	5
145.0	492	462	338	125	19	8	4	5	6	5
147.5	458	426	301	98	16	6	5	5	6	5
150.0	414	381	265	65	14	5	5	6	6	6
152.5	365	335	228	32	11	5	5	6	6	6
155.0	317	292	191	15	9	5	5	5	5	5
157.5	270	245	149	10	7	5	5	5	6	5
160.0	216	195	104	7	5	5	5	5	6	5
162.5	161	143	52	5	5	5	5	6	6	6
165.0	101	87	10	5	5	5	5	6	6	6
167.5	28	23	5	5	5	5	5	6	5	6
170.0	5	5	5	5	5	5	6	6	6	6
172.5	5	5	5	5	5	6	5	6	6	6
175.0	5	5	5	6	5	6	6	6	6	6
177.5	5	5	5	5	6	5	6	5	5	5
180.0	5	5	5	5	5	5	5	5	5	5

Vert. Angles **Horizontal Angles**

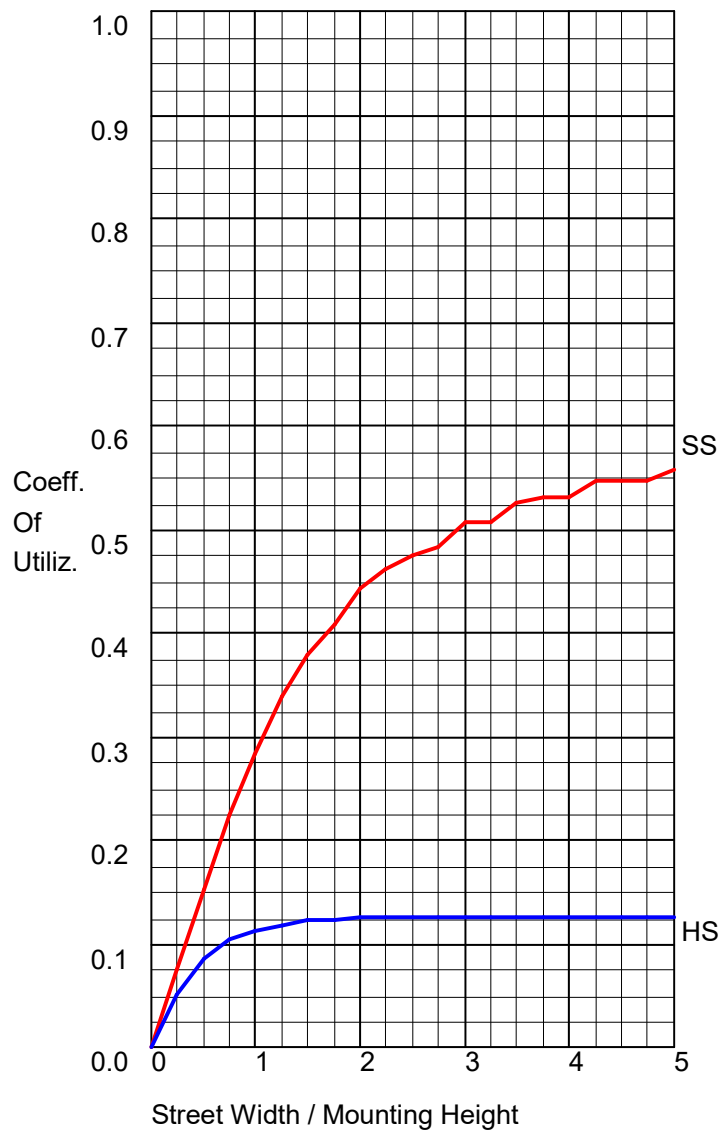
	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	1798	1798	1798	1798	1798	1798	1798
2.5	1715	1749	1790	1830	1864	1888	1931
5.0	1630	1700	1783	1865	1932	1979	2030
7.5	1544	1648	1773	1895	1996	2066	2120
10.0	1453	1593	1760	1921	2055	2142	2202
12.5	1368	1535	1741	1943	2106	2209	2277
15.0	1292	1474	1719	1958	2149	2273	2358
17.5	1215	1408	1691	1967	2184	2341	2435
20.0	1138	1341	1660	1971	2218	2403	2509
22.5	1060	1281	1628	1970	2253	2466	2584
25.0	982	1223	1592	1963	2281	2530	2660
27.5	904	1163	1554	1952	2305	2590	2731
30.0	834	1103	1512	1936	2327	2643	2793
32.5	766	1043	1469	1917	2346	2690	2855
35.0	701	980	1423	1899	2363	2736	2925
37.5	641	918	1375	1880	2375	2788	2991
40.0	586	859	1324	1853	2384	2842	3057
42.5	532	801	1271	1822	2391	2893	3126
45.0	479	744	1216	1787	2402	2943	3199
47.5	429	688	1159	1752	2414	2996	3267
50.0	381	631	1100	1715	2426	3047	3329
52.5	336	576	1039	1678	2437	3092	3372
55.0	292	524	974	1639	2443	3119	3401
57.5	249	471	905	1601	2441	3128	3409
60.0	208	419	840	1561	2430	3120	3397
62.5	168	368	773	1522	2407	3094	3366
65.0	130	319	705	1480	2372	3050	3317
67.5	95	273	637	1434	2330	2998	3260
70.0	64	230	566	1381	2282	2943	3207
72.5	44	190	497	1324	2231	2891	3161
75.0	37	155	427	1265	2176	2844	3123
77.5	34	127	362	1202	2117	2794	3078

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CANDELA TABULATION - (Cont.)

80.0	31	108	300	1140	2051	2735	3021
82.5	29	96	245	1074	1974	2658	2946
85.0	27	89	200	1009	1891	2572	2855
87.5	25	85	169	938	1806	2477	2755
90.0	23	80	152	871	1718	2375	2645
92.5	21	75	145	807	1630	2270	2532
95.0	20	71	139	751	1543	2162	2411
97.5	18	67	133	704	1453	2049	2289
100.0	17	64	128	662	1369	1934	2158
102.5	15	60	123	620	1291	1817	2032
105.0	13	57	118	582	1218	1715	1916
107.5	12	53	112	544	1145	1612	1799
110.0	11	49	106	508	1072	1510	1681
112.5	9	46	100	474	1000	1408	1559
115.0	8	43	93	441	925	1304	1441
117.5	7	40	87	412	857	1204	1326
120.0	6	37	79	382	792	1110	1222
122.5	5	33	73	352	734	1024	1123
125.0	5	30	66	322	678	936	1025
127.5	4	27	60	291	627	859	934
130.0	4	24	54	263	577	787	853
132.5	3	21	47	236	531	719	781
135.0	3	18	40	214	486	661	714
137.5	4	16	33	193	440	606	653
140.0	4	13	25	170	402	550	594
142.5	4	10	22	148	371	500	534
145.0	4	8	19	125	338	462	492
147.5	5	6	16	98	301	426	458
150.0	5	5	14	65	265	381	414
152.5	5	5	11	32	228	335	365
155.0	5	5	9	15	191	292	317
157.5	5	5	7	10	149	245	270
160.0	5	5	5	7	104	195	216
162.5	5	5	5	5	52	143	161
165.0	5	5	5	5	10	87	101
167.5	5	5	5	5	5	23	28
170.0	6	5	5	5	5	5	5
172.5	5	6	5	5	5	5	5
175.0	6	6	5	6	5	5	5
177.5	6	5	6	5	5	5	5
180.0	5	5	5	5	5	5	5

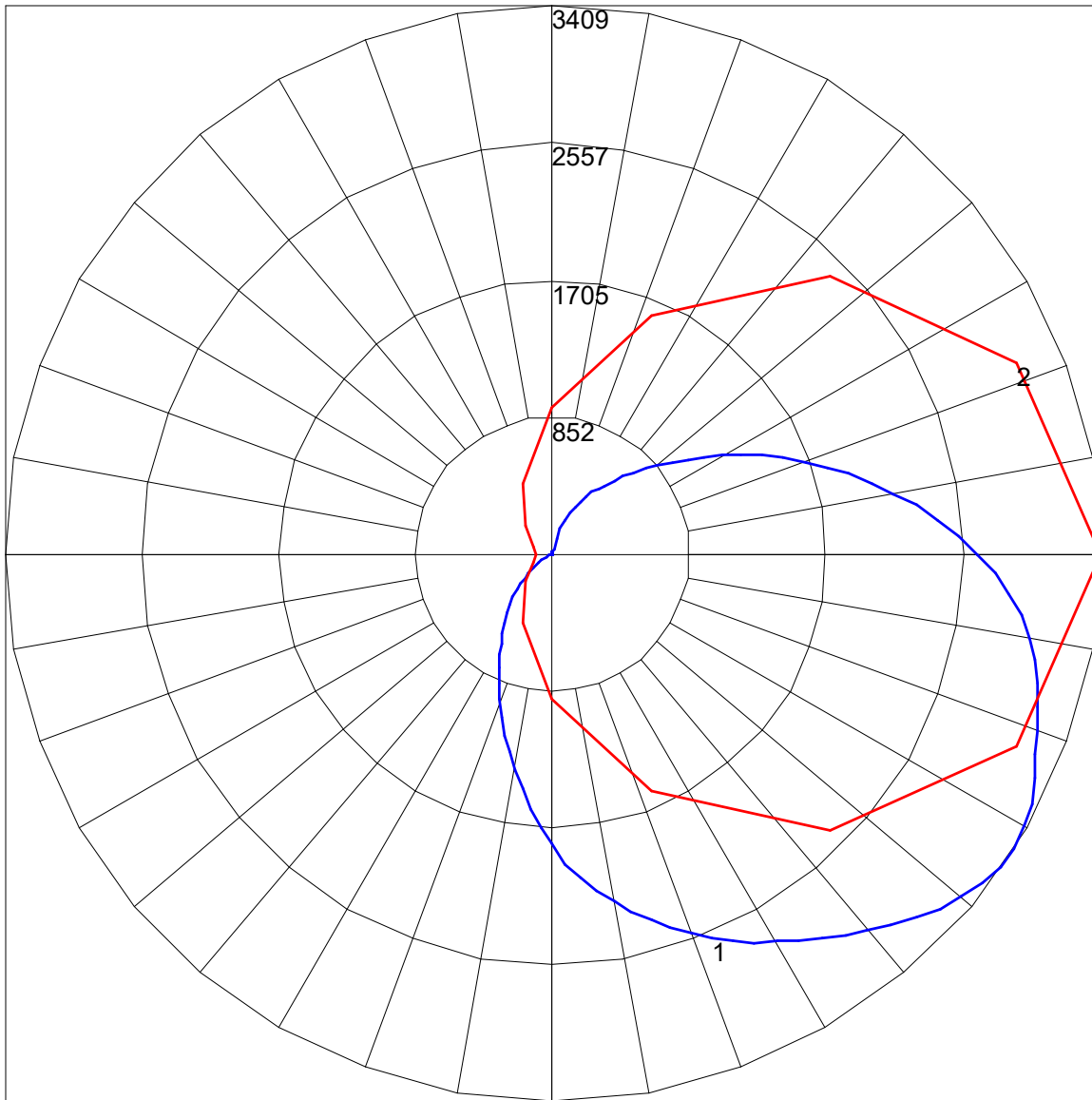
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

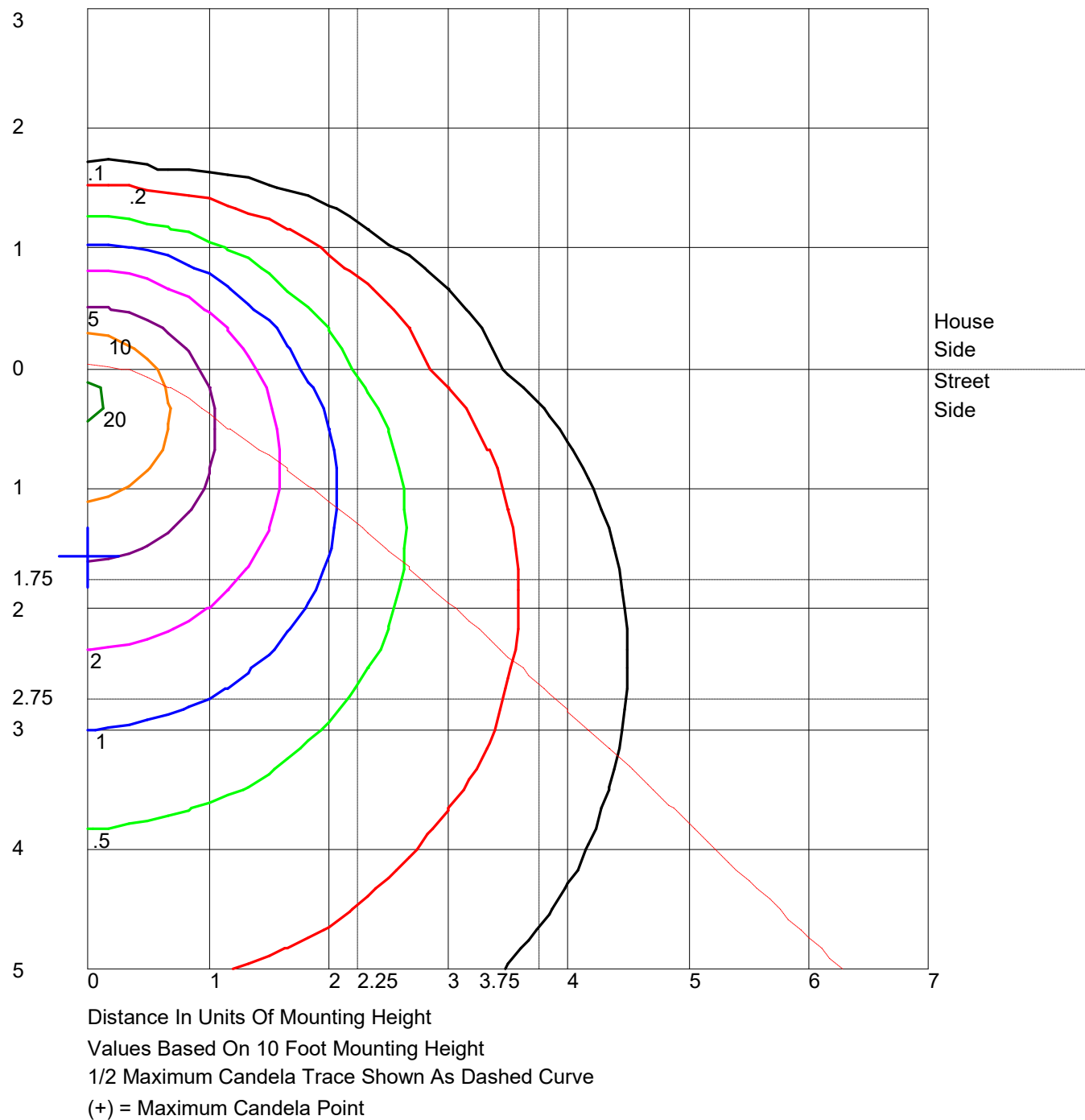
	Lumens	Percent Of Luminaire
Downward Street Side	6701.6	63.7
Downward House Side	1347.9	12.8
Downward Total	8049.5	76.5
Upward Street Side	2400.8	22.8
Upward House Side	69.5	0.7
Upward Total	2470.3	23.5
Total Flux	10519.8	100.0

POLAR GRAPH

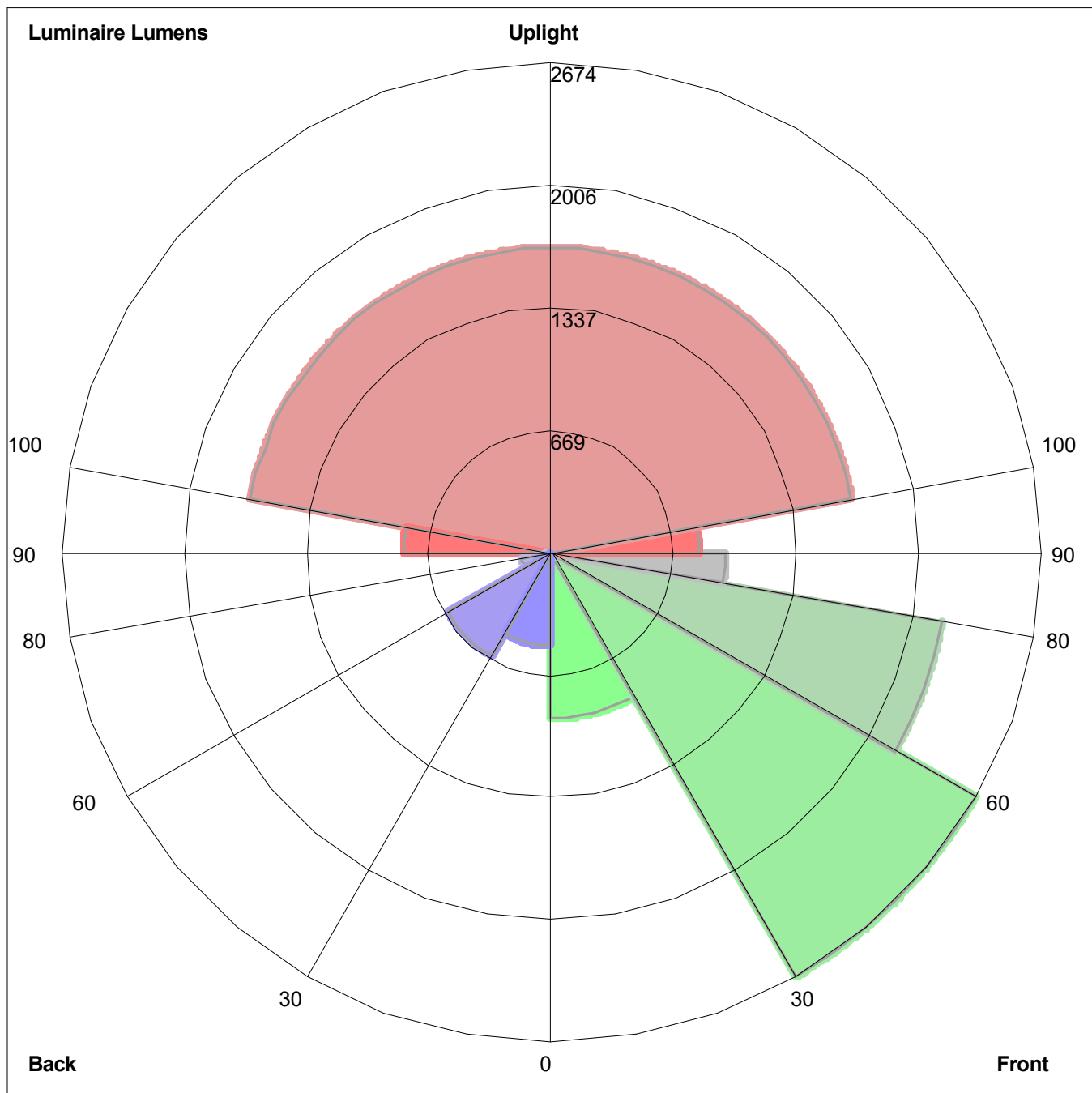


Maximum Candela = 3409 Located At Horizontal Angle = 360, Vertical Angle = 57.5
1 - Vertical Plane Through Horizontal Angles (360 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (57.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=907.0, Medium=2674.2, High=2167.3, Very High=953.1
Back: Low=507.8, Medium=649.1, High=160.4, Very High=30.6
Uplight: Low=804.2, High=1666.1

BUG Rating : B2-U5-G5