



IES ROAD REPORT
PHOTOMETRIC FILENAME : ENM4-PT-FT-LED-18L-30.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] LED-11681
[TESTLAB] LSI INDUSTRIES, INC.
[ISSUE DATE] 06/10/2020
[TEST DATE] 04/03/20
[MANUFACT] LSI INDUSTRIES, INC.
[LUMCAT] ENM4-PT-FT-LED-18L-30
[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.
[OTHER] TEST PROCEDURE: IESNA LM-79-08
[SEARCH_SOURCETYPE] LED
[SEARCH_APPLICATION] Outdoor

CHARACTERISTICS

IES Classification	Type IV
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	16710
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	11477
Maximum Candela Angle	40H 70V
Maximum Candela (<90 Degrees Vertical)	11477
Maximum Candela Angle (<90 Degrees Vertical)	40H 70V
Maximum Candela At 90 Degrees Vertical	149 (0.9% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	2669 (16.0% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	780.2	N.A.	4.7
FM - Front-Medium (30-60)	5406.5	N.A.	32.4
FH - Front-High (60-80)	6030.1	N.A.	36.1
FVH - Front-Very High (80-90)	304.2	N.A.	1.8
BL - Back-Low (0-30)	701.0	N.A.	4.2
BM - Back-Medium (30-60)	2393.4	N.A.	14.3
BH - Back-High (60-80)	974.9	N.A.	5.8
BVH - Back-Very High (80-90)	79.7	N.A.	0.5
UL - Uplight-Low (90-100)	12.4	N.A.	0.1
UH - Uplight-High (100-180)	27.5	N.A.	0.2
Total	16709.9	N.A.	100.0
BUG Rating	B2-U2-G3		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	0	5	15	25	35	40	45	55	65	75
0.0	1323	1323	1323	1323	1323	1323	1323	1323	1323	1323
2.5	1331	1309	1299	1303	1304	1307	1308	1329	1337	1322
5.0	1203	1240	1251	1280	1301	1286	1255	1241	1225	1226
7.5	1183	1206	1255	1190	1207	1181	1194	1206	1311	1292
10.0	1169	1182	1210	1149	1196	1228	1270	1300	1312	1321
12.5	1199	1270	1234	1193	1269	1260	1304	1349	1384	1421
15.0	1260	1340	1322	1352	1410	1355	1373	1465	1500	1556
17.5	1382	1446	1392	1449	1497	1534	1562	1555	1645	1727
20.0	1639	1664	1638	1601	1661	1654	1702	1784	1798	1875
22.5	1839	1835	1870	1888	1893	1832	1910	2014	1979	2080
25.0	2095	2046	2098	2086	2115	2188	2167	2249	2240	2211
27.5	2364	2481	2462	2364	2339	2456	2481	2470	2435	2445
30.0	2696	2648	2626	2648	2633	2635	2712	2685	2679	2642
32.5	3133	3159	2953	2840	2933	2984	2883	2958	2913	2828
35.0	3503	3437	3346	3198	3124	3192	3195	3207	3081	3004
37.5	3895	3872	3669	3458	3499	3446	3466	3429	3279	3131
40.0	4186	4171	4030	3920	3748	3760	3788	3690	3508	3306
42.5	4449	4436	4302	4285	4122	4049	4062	4015	3725	3442
45.0	4764	4747	4640	4535	4463	4449	4413	4332	4008	3659
47.5	5122	5129	4998	4883	4795	4788	4773	4716	4400	3978
50.0	5512	5528	5427	5308	5219	5259	5228	5260	4954	4376
52.5	5910	5930	5886	5808	5721	5750	5806	5991	5570	4807
55.0	6302	6325	6357	6346	6323	6386	6542	6790	6236	5311
57.5	6711	6757	6884	6899	7044	7235	7435	7650	6993	5822
60.0	7188	7285	7455	7576	7946	8182	8477	8585	7696	6103
62.5	7783	7824	8102	8403	9070	9253	9552	9467	8134	6073
65.0	8177	8241	8669	9202	10255	10366	10575	9963	8054	5610
67.5	7849	7920	8742	9755	11250	11302	11168	9864	7283	4470
70.0	6561	6646	7696	9445	11360	11477	11013	8917	5761	2837
72.5	4617	4698	5820	7738	10149	10377	9783	7109	3675	1655
75.0	2269	2351	3348	5078	7637	7994	7507	4624	2158	1093
77.5	1084	1152	1695	2709	4479	4959	4849	2784	1418	736
80.0	612	643	1161	1721	2273	2669	2667	1739	916	479
82.5	432	466	830	1188	1347	1470	1473	928	546	293
85.0	332	356	640	845	974	876	643	420	287	171
87.5	230	248	463	470	549	380	159	161	100	73
90.0	61	83	149	76	66	41	25	13	9	9
92.5	20	16	24	12	7	8	7	6	5	5
95.0	5	5	6	7	6	7	7	6	5	5
97.5	5	5	5	6	6	7	7	5	5	5
100.0	5	5	5	5	5	6	6	5	5	5
102.5	4	4	4	5	5	5	5	5	5	5
105.0	4	4	4	5	5	5	5	5	5	5
107.5	4	4	4	5	5	5	5	5	5	5
110.0	4	4	4	5	5	5	5	5	5	5
112.5	5	4	5	5	5	5	5	5	5	5
115.0	5	5	5	5	5	5	5	5	5	6
117.5	5	5	5	5	5	5	5	5	5	6
120.0	6	6	5	5	5	6	5	5	5	6
122.5	6	6	6	6	6	6	6	5	6	7
125.0	6	6	6	6	6	6	6	5	6	7
127.5	7	7	7	7	6	6	6	6	6	7
130.0	7	7	7	7	7	7	7	6	7	8

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CANDELA TABULATION - (Cont.)

132.5	7	8	7	7	7	7	7	6	7	8
135.0	7	7	6	6	6	6	6	6	6	7
137.5	4	4	4	5	5	5	5	5	5	6
140.0	1	1	2	3	4	4	4	4	4	5
142.5	1	1	2	3	4	4	4	4	4	5
145.0	1	1	2	3	3	4	3	4	4	4
147.5	1	1	2	3	3	3	3	3	4	4
150.0	1	1	2	3	3	3	3	3	3	4
152.5	1	1	2	3	3	3	3	3	3	4
155.0	1	1	2	3	3	3	3	3	3	4
157.5	1	1	2	3	3	3	3	3	3	3
160.0	1	1	2	3	3	3	3	3	3	3
162.5	1	1	2	3	3	3	3	2	3	3
165.0	1	1	2	3	3	3	3	3	3	3
167.5	1	1	2	3	3	3	3	3	3	3
170.0	1	1	2	3	3	3	3	3	3	3
172.5	1	1	2	3	3	3	3	3	3	3
175.0	1	1	2	3	3	3	3	3	3	3
177.5	0	1	2	3	3	3	3	3	3	3
180.0	2	2	2	2	2	2	2	2	2	2

Vert. Angles **Horizontal Angles**

	<u>85</u>	<u>90</u>	<u>95</u>	<u>105</u>	<u>115</u>	<u>125</u>	<u>135</u>	<u>145</u>	<u>155</u>	<u>165</u>
0.0	1323	1323	1323	1323	1323	1323	1323	1323	1323	1323
2.5	1322	1325	1332	1327	1325	1331	1347	1346	1328	1299
5.0	1231	1221	1214	1241	1248	1267	1284	1283	1279	1246
7.5	1284	1284	1290	1334	1271	1208	1163	1190	1196	1213
10.0	1292	1307	1291	1320	1219	1236	1220	1224	1191	1234
12.5	1411	1396	1414	1360	1291	1260	1254	1349	1336	1402
15.0	1519	1534	1485	1403	1308	1367	1394	1464	1495	1461
17.5	1684	1639	1625	1522	1407	1490	1560	1554	1554	1552
20.0	1838	1840	1800	1582	1507	1616	1599	1650	1645	1645
22.5	2119	2012	1983	1759	1677	1729	1722	1716	1691	1743
25.0	2277	2266	2198	1848	1927	1854	1777	1736	1783	1812
27.5	2506	2389	2380	1999	2060	1925	1840	1848	1864	1907
30.0	2656	2550	2510	2129	2160	2051	1913	1904	1883	1936
32.5	2740	2684	2591	2264	2283	2153	2014	1962	1980	2040
35.0	2899	2780	2703	2412	2330	2220	2150	1998	2077	2108
37.5	3030	2922	2793	2489	2368	2269	2159	2094	2070	2199
40.0	3099	2960	2804	2522	2378	2268	2157	2087	2121	2223
42.5	3167	3005	2813	2468	2293	2242	2123	2098	2098	2125
45.0	3328	3095	2858	2424	2198	2162	2069	2040	2077	1978
47.5	3567	3244	2948	2384	2090	2059	1975	1975	1987	1827
50.0	3813	3398	3072	2369	1970	1951	1871	1924	1852	1703
52.5	4141	3619	3223	2354	1843	1843	1772	1845	1690	1583
55.0	4479	3884	3390	2357	1714	1730	1673	1729	1549	1459
57.5	4679	4058	3471	2333	1583	1621	1567	1594	1395	1298
60.0	4692	4050	3320	2243	1453	1498	1471	1456	1239	1175
62.5	4432	3756	2859	2080	1321	1364	1354	1334	1119	1081
65.0	3782	3062	2117	1791	1167	1222	1227	1237	1018	1008
67.5	2738	2098	1372	1400	1002	1077	1112	1130	925	938
70.0	1640	1250	869	997	844	916	991	1002	835	866
72.5	889	704	606	727	690	769	862	869	735	753
75.0	614	459	420	533	541	623	725	714	562	542
77.5	406	296	299	395	425	507	559	478	348	350

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CANDELA TABULATION - (Cont.)

80.0	232	181	220	295	338	382	346	315	258	272
82.5	157	122	157	220	257	224	230	238	177	201
85.0	95	66	95	144	134	136	150	136	91	131
87.5	38	21	41	62	66	66	58	56	38	50
90.0	5	5	14	20	22	19	15	10	3	2
92.5	4	6	14	19	21	19	14	9	3	2
95.0	4	7	13	18	20	17	14	10	4	4
97.5	5	8	11	15	17	16	13	10	5	5
100.0	5	7	9	12	15	13	12	9	6	5
102.5	5	6	8	9	11	11	10	9	5	5
105.0	5	6	7	8	9	9	9	8	6	5
107.5	5	6	7	8	8	8	8	7	6	5
110.0	6	7	7	8	8	8	7	7	5	5
112.5	6	7	7	8	8	8	8	7	6	5
115.0	6	7	8	8	8	9	8	8	7	6
117.5	7	8	8	8	8	9	9	8	7	6
120.0	7	8	8	8	9	9	9	9	7	6
122.5	8	8	8	9	9	9	10	9	8	7
125.0	8	8	9	9	9	9	9	9	8	7
127.5	8	9	9	9	9	9	9	9	8	7
130.0	8	9	9	9	9	9	9	8	8	7
132.5	8	9	9	9	8	8	8	7	7	6
135.0	8	8	8	8	8	7	6	5	5	5
137.5	6	6	7	6	6	5	5	4	3	2
140.0	5	5	5	5	5	4	3	2	1	0
142.5	5	5	5	5	4	3	2	2	1	0
145.0	5	5	5	4	4	3	2	1	0	0
147.5	4	5	5	4	4	3	2	1	0	0
150.0	4	4	5	4	4	3	2	1	0	0
152.5	4	4	4	4	3	2	1	1	0	0
155.0	4	4	4	4	3	2	1	0	0	0
157.5	4	4	4	4	3	2	1	0	0	0
160.0	4	4	4	4	3	2	1	0	0	0
162.5	3	4	3	3	3	1	1	0	0	0
165.0	3	4	4	3	2	1	0	0	0	0
167.5	3	4	3	3	3	2	1	0	0	0
170.0	4	4	4	3	2	2	1	0	0	0
172.5	4	4	4	3	3	1	1	0	0	0
175.0	4	4	4	3	3	2	1	0	0	0
177.5	4	4	4	3	2	1	1	0	0	0
180.0	2	2	2	2	2	2	2	2	2	2

Vert. Horizontal Angles
Angles

	175	180
0.0	1323	1323
2.5	1304	1303
5.0	1228	1254
7.5	1221	1257
10.0	1271	1294
12.5	1424	1477
15.0	1545	1605
17.5	1624	1678
20.0	1716	1764
22.5	1736	1863
25.0	1846	1923

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CANDELA TABULATION - (Cont.)

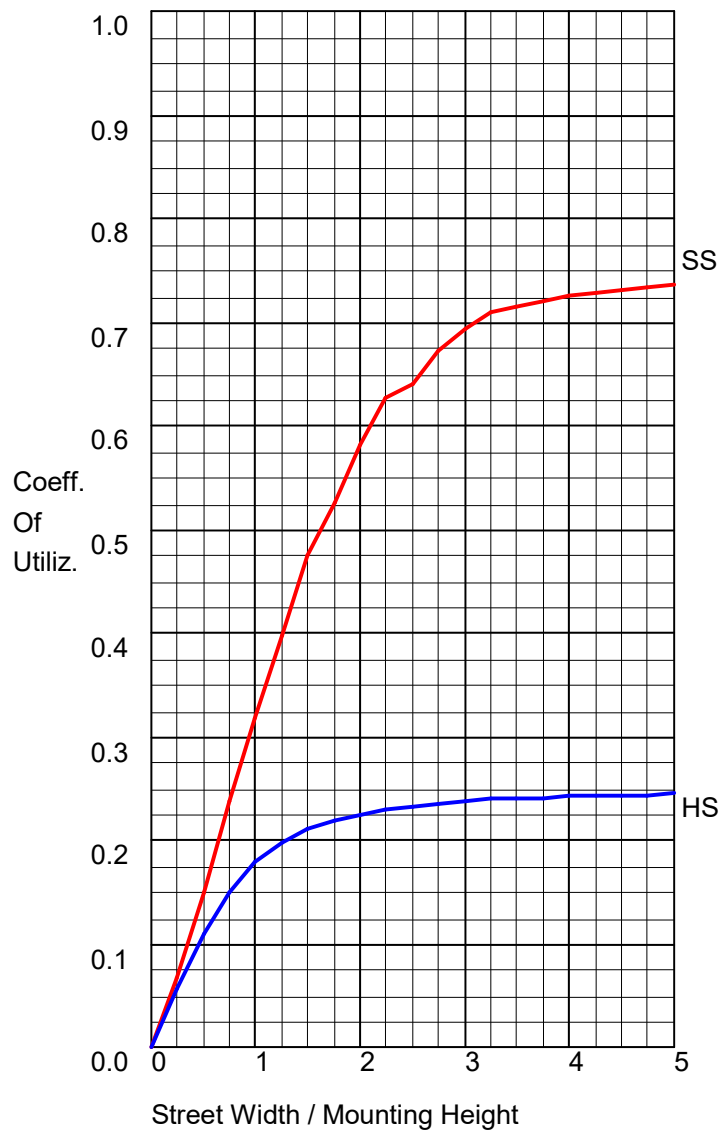
27.5	1900	2055
30.0	1957	2107
32.5	2085	2213
35.0	2116	2272
37.5	2213	2382
40.0	2175	2329
42.5	2020	2135
45.0	1876	1992
47.5	1764	1867
50.0	1653	1744
52.5	1538	1619
55.0	1409	1480
57.5	1264	1320
60.0	1166	1208
62.5	1088	1129
65.0	1036	1066
67.5	993	1022
70.0	949	979
72.5	861	888
75.0	653	671
77.5	511	545
80.0	422	468
82.5	318	363
85.0	211	241
87.5	104	126
90.0	0	0
92.5	0	0
95.0	2	2
97.5	3	3
100.0	4	4
102.5	5	5
105.0	5	5
107.5	5	5
110.0	5	5
112.5	5	5
115.0	5	5
117.5	5	5
120.0	5	5
122.5	5	5
125.0	5	5
127.5	5	5
130.0	5	5
132.5	5	5
135.0	4	4
137.5	1	1
140.0	0	0
142.5	0	0
145.0	0	0
147.5	0	0
150.0	0	0
152.5	0	0
155.0	0	0
157.5	0	0
160.0	0	0
162.5	0	0
165.0	0	0

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CANDELA TABULATION - (Cont.)

167.5	0	0
170.0	0	0
172.5	0	0
175.0	0	0
177.5	0	0
180.0	2	2

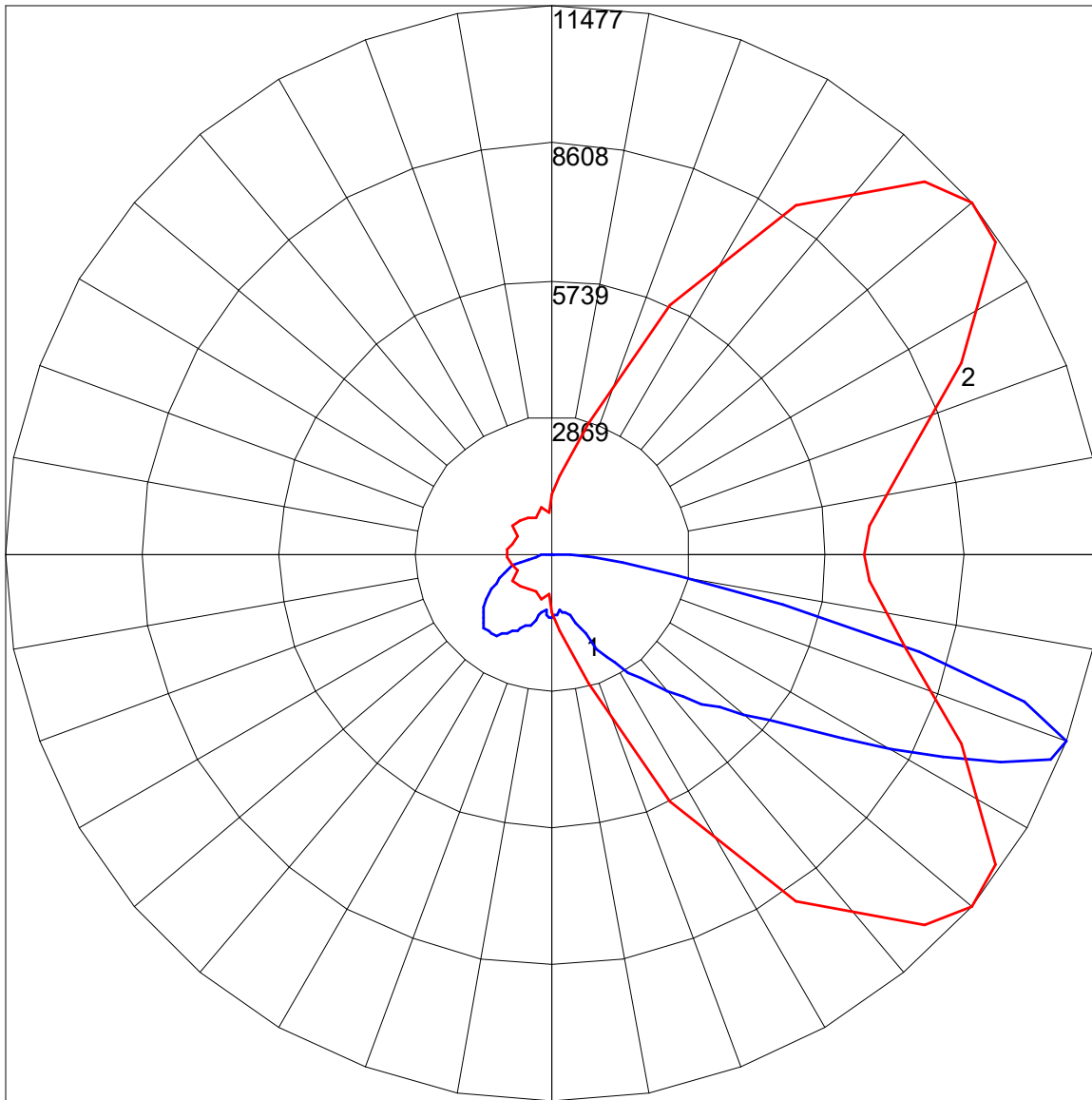
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

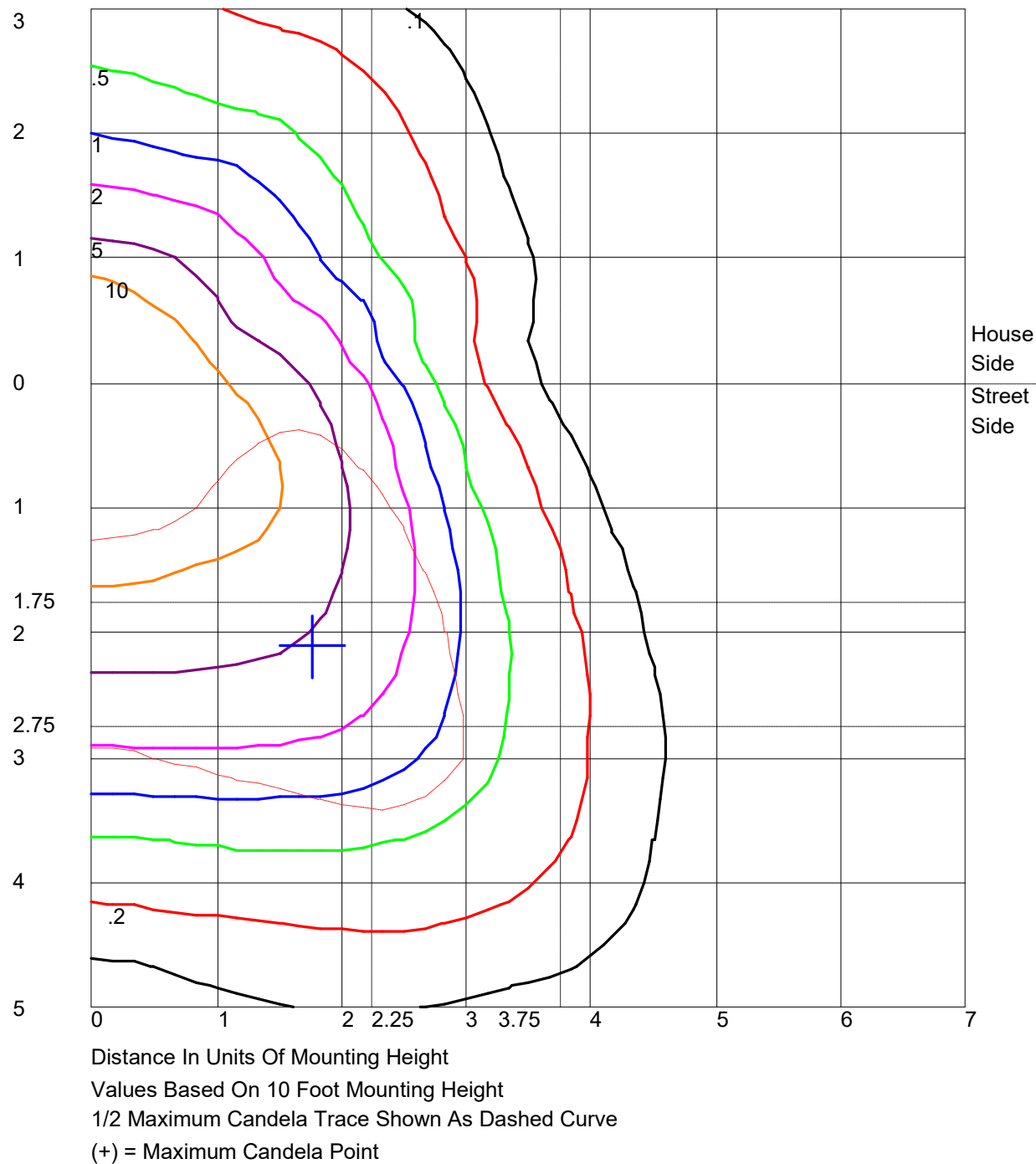
	Lumens	Percent Of Luminaire
Downward Street Side	12521.0	74.9
Downward House Side	4149.0	24.8
Downward Total	16670.0	99.8
Upward Street Side	19.1	0.1
Upward House Side	20.8	0.1
Upward Total	39.9	0.2
Total Flux	16709.9	100.0

POLAR GRAPH

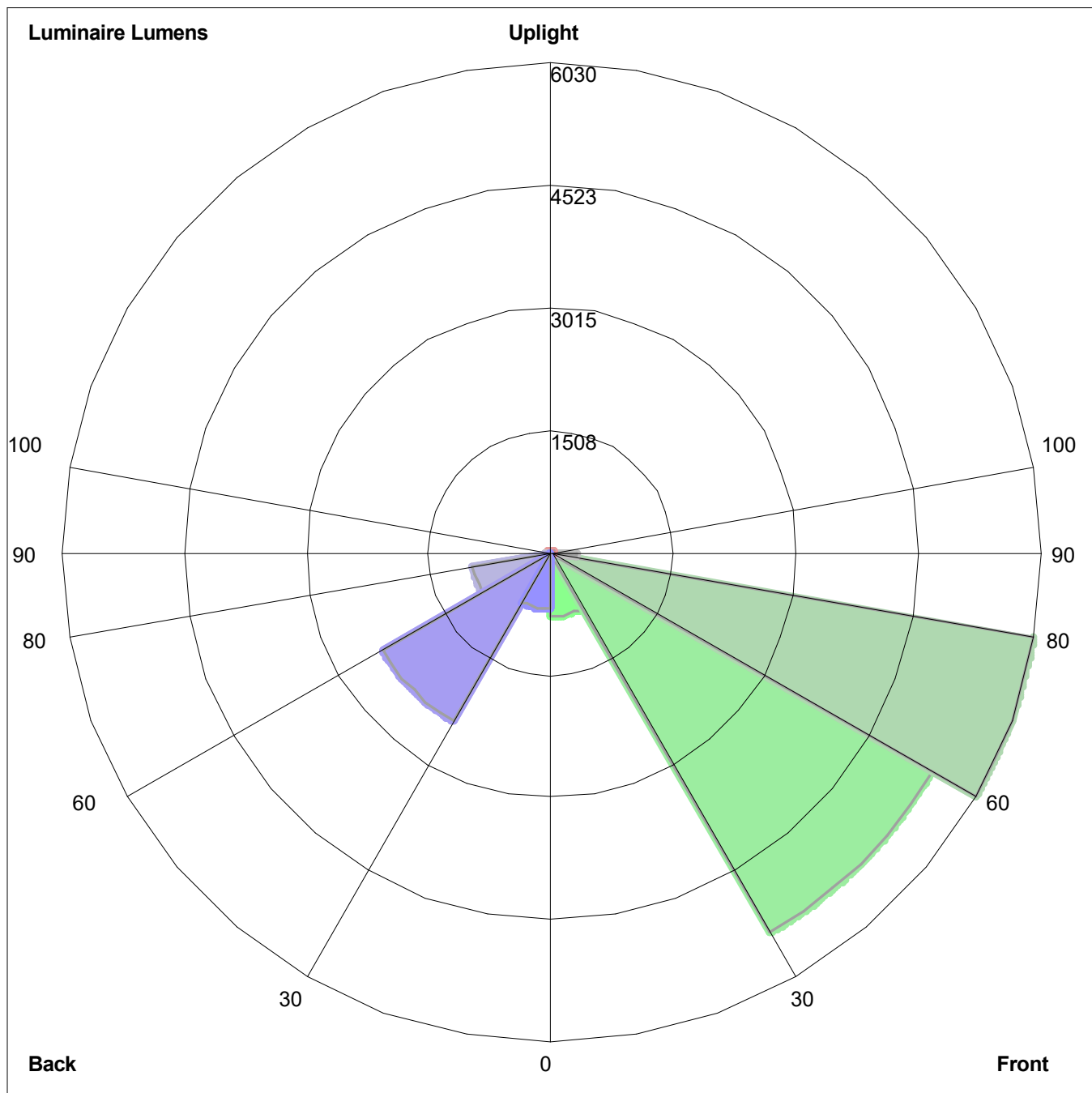


Maximum Candela = 11477 Located At Horizontal Angle = 40, Vertical Angle = 70
1 - Vertical Plane Through Horizontal Angles (40 - 220) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=780.2, Medium=5406.5, High=6030.1, Very High=304.2
Back: Low=701.0, Medium=2393.4, High=974.9, Very High=79.7
Uplight: Low=12.4, High=27.5

BUG Rating : B2-U2-G3