



**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : ENM4-PT-FT-LED-18L-40.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-40  
[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	18361
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	12611
Maximum Candela Angle	40H 70V
Maximum Candela (<90 Degrees Vertical)	12611
Maximum Candela Angle (<90 Degrees Vertical)	40H 70V
Maximum Candela At 90 Degrees Vertical	164 (0.9% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	2933 (16.0% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : ENM4-PT-FT-LED-18L-40.IES**

**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	857.3	N.A.	4.7
FM - Front-Medium (30-60)	5940.6	N.A.	32.4
FH - Front-High (60-80)	6625.7	N.A.	36.1
FVH - Front-Very High (80-90)	334.2	N.A.	1.8
BL - Back-Low (0-30)	770.3	N.A.	4.2
BM - Back-Medium (30-60)	2629.8	N.A.	14.3
BH - Back-High (60-80)	1071.2	N.A.	5.8
BVH - Back-Very High (80-90)	87.5	N.A.	0.5
UL - Uplight-Low (90-100)	13.7	N.A.	0.1
UH - Uplight-High (100-180)	30.4	N.A.	0.2
Total	18360.7	N.A.	100.0
BUG Rating	B3-U2-G3		

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : ENM4-PT-FT-LED-18L-40.IES**

**CANDELA TABULATION**

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<b>0</b>	<b>5</b>	<b>15</b>	<b>25</b>	<b>35</b>	<b>40</b>	<b>45</b>	<b>55</b>	<b>65</b>	<b>75</b>
<b>0.0</b>	1454	1454	1454	1454	1454	1454	1454	1454	1454	1454
<b>2.5</b>	1462	1438	1427	1432	1433	1436	1437	1460	1469	1453
<b>5.0</b>	1322	1363	1375	1406	1430	1413	1379	1364	1346	1347
<b>7.5</b>	1300	1325	1379	1307	1326	1298	1312	1325	1440	1420
<b>10.0</b>	1285	1299	1329	1262	1314	1349	1396	1428	1442	1452
<b>12.5</b>	1317	1395	1356	1311	1394	1385	1433	1482	1521	1561
<b>15.0</b>	1384	1472	1453	1486	1549	1489	1509	1610	1648	1710
<b>17.5</b>	1518	1589	1529	1592	1645	1686	1716	1709	1808	1898
<b>20.0</b>	1801	1828	1800	1759	1825	1817	1870	1960	1976	2060
<b>22.5</b>	2021	2016	2055	2074	2080	2013	2099	2213	2175	2285
<b>25.0</b>	2302	2248	2305	2292	2324	2404	2381	2471	2461	2429
<b>27.5</b>	2598	2726	2705	2597	2570	2699	2726	2714	2675	2686
<b>30.0</b>	2962	2910	2885	2910	2893	2895	2980	2950	2944	2903
<b>32.5</b>	3443	3471	3245	3120	3223	3279	3168	3250	3201	3107
<b>35.0</b>	3849	3777	3677	3514	3433	3507	3511	3524	3385	3301
<b>37.5</b>	4280	4254	4031	3800	3845	3786	3808	3768	3603	3440
<b>40.0</b>	4599	4583	4428	4307	4118	4131	4162	4055	3855	3633
<b>42.5</b>	4889	4874	4727	4708	4529	4449	4463	4412	4093	3782
<b>45.0</b>	5235	5216	5098	4983	4904	4889	4849	4760	4404	4020
<b>47.5</b>	5628	5636	5492	5365	5269	5261	5244	5182	4835	4371
<b>50.0</b>	6057	6074	5963	5832	5735	5778	5744	5780	5443	4808
<b>52.5</b>	6494	6516	6467	6382	6286	6318	6379	6583	6120	5282
<b>55.0</b>	6925	6950	6985	6973	6948	7017	7188	7461	6852	5836
<b>57.5</b>	7374	7424	7564	7581	7740	7950	8169	8406	7684	6397
<b>60.0</b>	7898	8005	8191	8324	8731	8990	9314	9433	8456	6706
<b>62.5</b>	8552	8597	8902	9233	9966	10167	10496	10402	8938	6673
<b>65.0</b>	8985	9055	9525	10111	11268	11390	11620	10947	8850	6164
<b>67.5</b>	8624	8702	9605	10719	12361	12418	12271	10838	8002	4912
<b>70.0</b>	7209	7302	8456	10378	12482	12611	12101	9798	6330	3117
<b>72.5</b>	5073	5162	6395	8502	11151	11402	10749	7811	4038	1819
<b>75.0</b>	2493	2583	3679	5580	8391	8784	8248	5081	2371	1201
<b>77.5</b>	1191	1266	1862	2977	4921	5449	5328	3059	1558	809
<b>80.0</b>	672	706	1276	1891	2498	2933	2930	1911	1007	526
<b>82.5</b>	475	512	912	1305	1480	1615	1618	1020	600	322
<b>85.0</b>	365	391	703	928	1070	963	706	462	315	188
<b>87.5</b>	253	273	509	516	603	418	175	177	110	80
<b>90.0</b>	67	91	164	83	73	45	27	14	10	10
<b>92.5</b>	22	18	26	13	8	9	8	7	6	6
<b>95.0</b>	6	6	7	8	7	8	8	7	6	6
<b>97.5</b>	6	6	6	7	7	8	8	6	6	6
<b>100.0</b>	5	5	5	6	6	7	7	6	6	6
<b>102.5</b>	4	4	4	5	6	6	6	6	5	6
<b>105.0</b>	4	4	4	5	5	6	6	5	5	6
<b>107.5</b>	4	4	4	5	5	6	6	5	5	6
<b>110.0</b>	4	4	4	5	5	6	6	5	5	6
<b>112.5</b>	5	4	5	5	5	6	6	5	5	6
<b>115.0</b>	5	5	5	6	6	6	6	6	6	7
<b>117.5</b>	6	6	6	6	6	6	6	6	6	7
<b>120.0</b>	7	7	6	6	6	7	6	6	6	7
<b>122.5</b>	7	7	7	7	7	7	7	6	7	8
<b>125.0</b>	7	7	7	7	7	7	7	6	7	8
<b>127.5</b>	8	8	8	8	7	7	7	7	7	8
<b>130.0</b>	8	8	8	8	8	8	8	7	8	9

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : ENM4-PT-FT-LED-18L-40.IES**

**CANDELA TABULATION - (Cont.)**

132.5	8	9	8	8	8	8	8	7	8	9
135.0	8	8	7	7	7	7	7	7	7	8
137.5	4	4	4	5	6	6	6	5	5	7
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	1454	1454	1454	1454	1454	1454	1454	1454	1454	1454
2.5	1453	1456	1464	1458	1456	1462	1480	1479	1459	1427
5.0	1353	1342	1334	1364	1371	1392	1411	1410	1405	1369
7.5	1411	1411	1417	1466	1397	1327	1278	1308	1314	1333
10.0	1420	1436	1418	1450	1339	1358	1340	1345	1309	1356
12.5	1550	1534	1554	1494	1418	1385	1378	1482	1468	1541
15.0	1669	1686	1632	1542	1437	1502	1532	1609	1643	1605
17.5	1850	1801	1786	1672	1546	1637	1714	1707	1707	1705
20.0	2020	2022	1978	1738	1656	1776	1757	1813	1808	1808
22.5	2328	2211	2179	1933	1843	1900	1892	1886	1858	1915
25.0	2502	2490	2415	2031	2117	2037	1952	1908	1959	1991
27.5	2754	2625	2615	2196	2264	2115	2022	2030	2048	2095
30.0	2918	2802	2758	2339	2373	2254	2102	2092	2069	2127
32.5	3011	2949	2847	2488	2509	2366	2213	2156	2176	2241
35.0	3185	3055	2970	2650	2560	2439	2362	2195	2282	2316
37.5	3329	3211	3069	2735	2602	2493	2372	2301	2274	2416
40.0	3405	3252	3081	2771	2613	2492	2370	2293	2331	2443
42.5	3480	3302	3091	2712	2520	2464	2333	2305	2305	2335
45.0	3657	3401	3140	2663	2415	2376	2273	2242	2282	2173
47.5	3919	3564	3239	2620	2297	2262	2170	2170	2183	2007
50.0	4190	3734	3376	2603	2165	2144	2056	2114	2035	1871
52.5	4550	3977	3541	2587	2025	2025	1947	2027	1857	1739
55.0	4921	4268	3725	2590	1883	1901	1838	1900	1702	1603
57.5	5141	4459	3814	2563	1739	1781	1722	1752	1533	1426
60.0	5155	4450	3648	2465	1597	1646	1616	1600	1361	1291
62.5	4870	4127	3141	2285	1451	1499	1488	1466	1230	1188
65.0	4156	3365	2326	1968	1282	1343	1348	1359	1119	1108
67.5	3008	2305	1508	1538	1101	1183	1222	1242	1016	1031
70.0	1802	1373	955	1096	927	1007	1089	1101	918	951
72.5	977	774	666	799	758	845	947	955	808	827
75.0	675	504	461	586	594	685	797	785	618	595
77.5	446	325	329	434	467	557	614	525	382	385

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : ENM4-PT-FT-LED-18L-40.IES**

**CANDELA TABULATION - (Cont.)**

80.0	255	199	242	324	371	420	380	346	283	299
82.5	172	134	172	242	282	246	253	261	194	221
85.0	104	73	104	158	147	149	165	149	100	144
87.5	42	23	45	68	72	72	64	62	42	55
90.0	6	6	15	22	24	21	16	11	3	2
92.5	4	7	15	21	23	21	15	10	3	2
95.0	4	8	14	20	22	19	15	11	4	4
97.5	5	9	12	17	19	18	14	11	5	5
100.0	5	8	10	13	16	14	13	10	7	6
102.5	6	7	9	10	12	12	11	10	6	6
105.0	6	7	8	9	10	10	10	9	7	6
107.5	6	7	8	9	9	9	9	8	7	6
110.0	7	8	8	9	9	9	8	8	6	6
112.5	7	8	8	9	9	9	9	8	7	6
115.0	7	8	9	9	9	10	9	9	8	7
117.5	8	9	9	9	9	10	10	9	8	7
120.0	8	9	9	9	10	10	10	10	8	7
122.5	9	9	9	10	10	10	11	10	9	8
125.0	9	9	10	10	10	10	10	10	9	8
127.5	9	10	10	10	10	10	10	10	9	8
130.0	9	10	10	10	10	10	10	9	9	8
132.5	9	10	10	10	9	9	9	8	8	7
135.0	9	9	9	9	9	8	7	6	6	5
137.5	7	7	8	7	7	6	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**

	<b>175</b>	<b>180</b>
0.0	1454	1454
2.5	1433	1432
5.0	1349	1378
7.5	1342	1381
10.0	1397	1422
12.5	1565	1623
15.0	1698	1764
17.5	1784	1844
20.0	1885	1938
22.5	1907	2047
25.0	2028	2113

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : ENM4-PT-FT-LED-18L-40.IES**

**CANDELA TABULATION - (Cont.)**

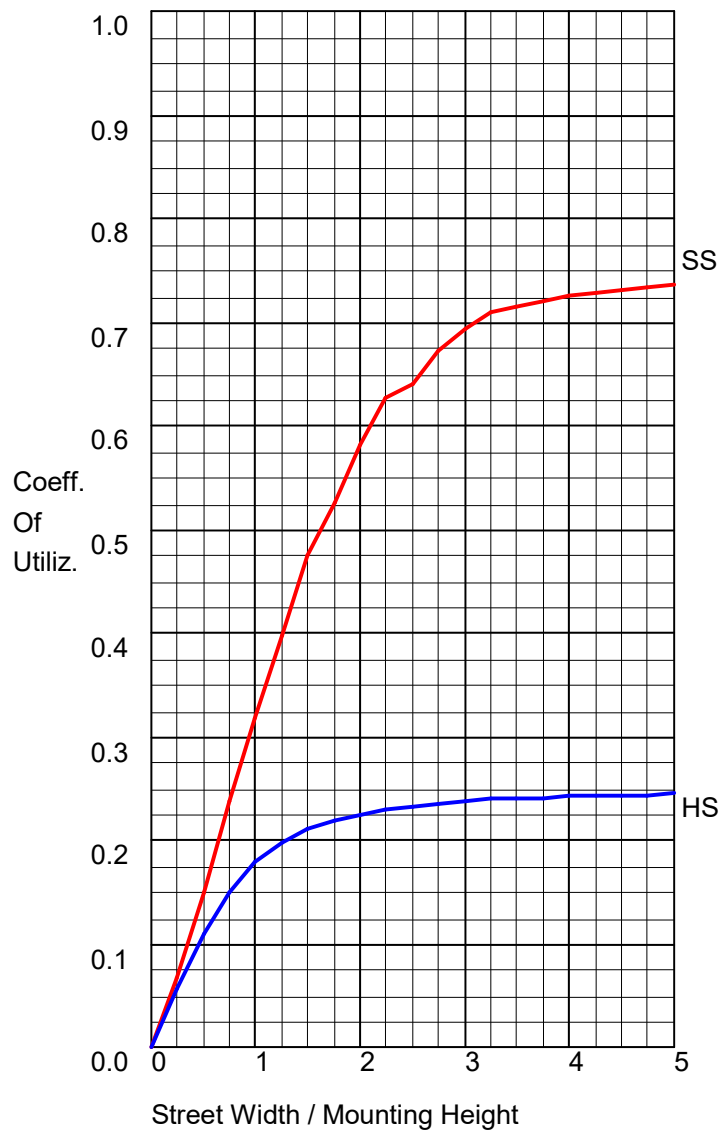
<b>27.5</b>	2088	2258
<b>30.0</b>	2150	2315
<b>32.5</b>	2291	2432
<b>35.0</b>	2325	2496
<b>37.5</b>	2432	2617
<b>40.0</b>	2390	2559
<b>42.5</b>	2219	2346
<b>45.0</b>	2061	2189
<b>47.5</b>	1938	2051
<b>50.0</b>	1816	1916
<b>52.5</b>	1690	1779
<b>55.0</b>	1548	1626
<b>57.5</b>	1389	1450
<b>60.0</b>	1281	1327
<b>62.5</b>	1195	1240
<b>65.0</b>	1138	1171
<b>67.5</b>	1091	1123
<b>70.0</b>	1043	1076
<b>72.5</b>	946	976
<b>75.0</b>	718	737
<b>77.5</b>	562	599
<b>80.0</b>	464	514
<b>82.5</b>	349	399
<b>85.0</b>	232	265
<b>87.5</b>	114	138
<b>90.0</b>	0	0
<b>92.5</b>	0	0
<b>95.0</b>	2	2
<b>97.5</b>	3	3
<b>100.0</b>	4	4
<b>102.5</b>	5	5
<b>105.0</b>	5	5
<b>107.5</b>	5	5
<b>110.0</b>	5	5
<b>112.5</b>	5	5
<b>115.0</b>	5	5
<b>117.5</b>	6	5
<b>120.0</b>	6	6
<b>122.5</b>	6	6
<b>125.0</b>	6	6
<b>127.5</b>	6	6
<b>130.0</b>	6	6
<b>132.5</b>	6	6
<b>135.0</b>	4	4
<b>137.5</b>	1	1
<b>140.0</b>	0	0
<b>142.5</b>	0	0
<b>145.0</b>	0	0
<b>147.5</b>	0	0
<b>150.0</b>	0	0
<b>152.5</b>	0	0
<b>155.0</b>	0	0
<b>157.5</b>	0	0
<b>160.0</b>	0	0
<b>162.5</b>	0	0
<b>165.0</b>	0	0

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : ENM4-PT-FT-LED-18L-40.IES**

**CANDELA TABULATION - (Cont.)**

<b>167.5</b>	0	0
<b>170.0</b>	0	0
<b>172.5</b>	0	0
<b>175.0</b>	0	0
<b>177.5</b>	0	0
<b>180.0</b>	2	2

COEFFICIENTS OF UTILIZATION

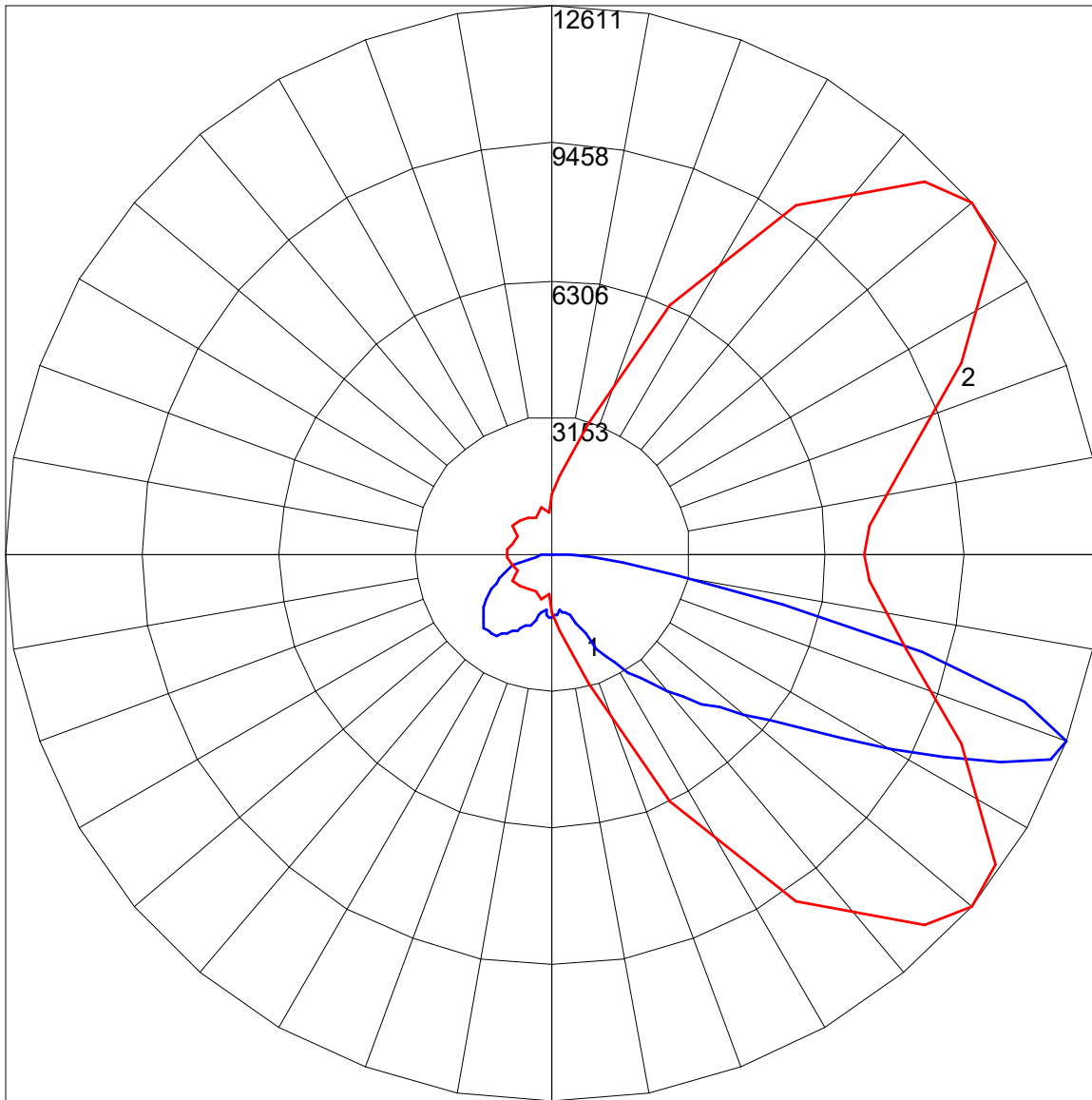


FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	13757.8	74.9
Downward House Side	4558.8	24.8
Downward Total	18316.6	99.8
Upward Street Side	21.2	0.1
Upward House Side	23.0	0.1
Upward Total	44.2	0.2
Total Flux	18360.8	100.0

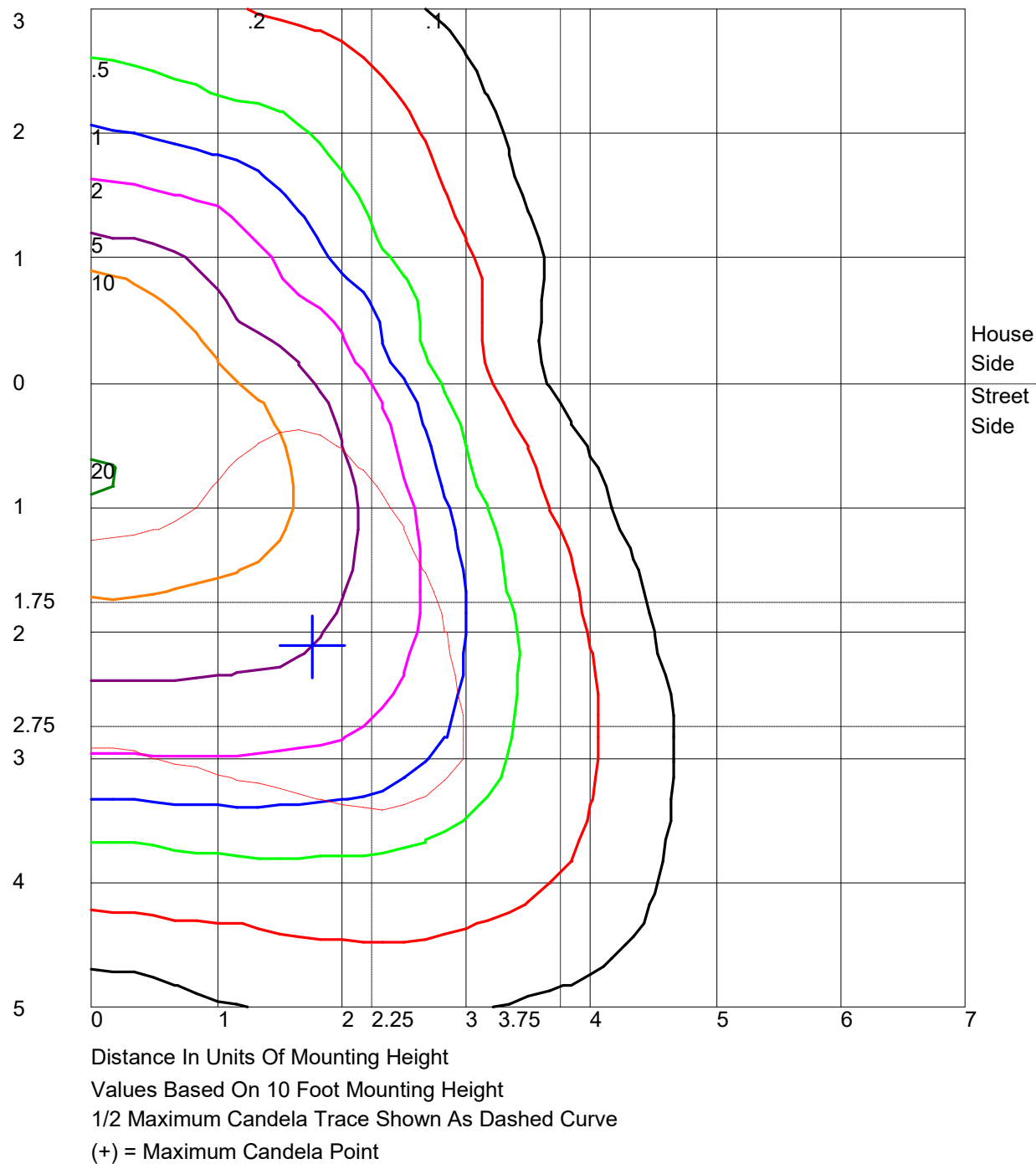


POLAR GRAPH

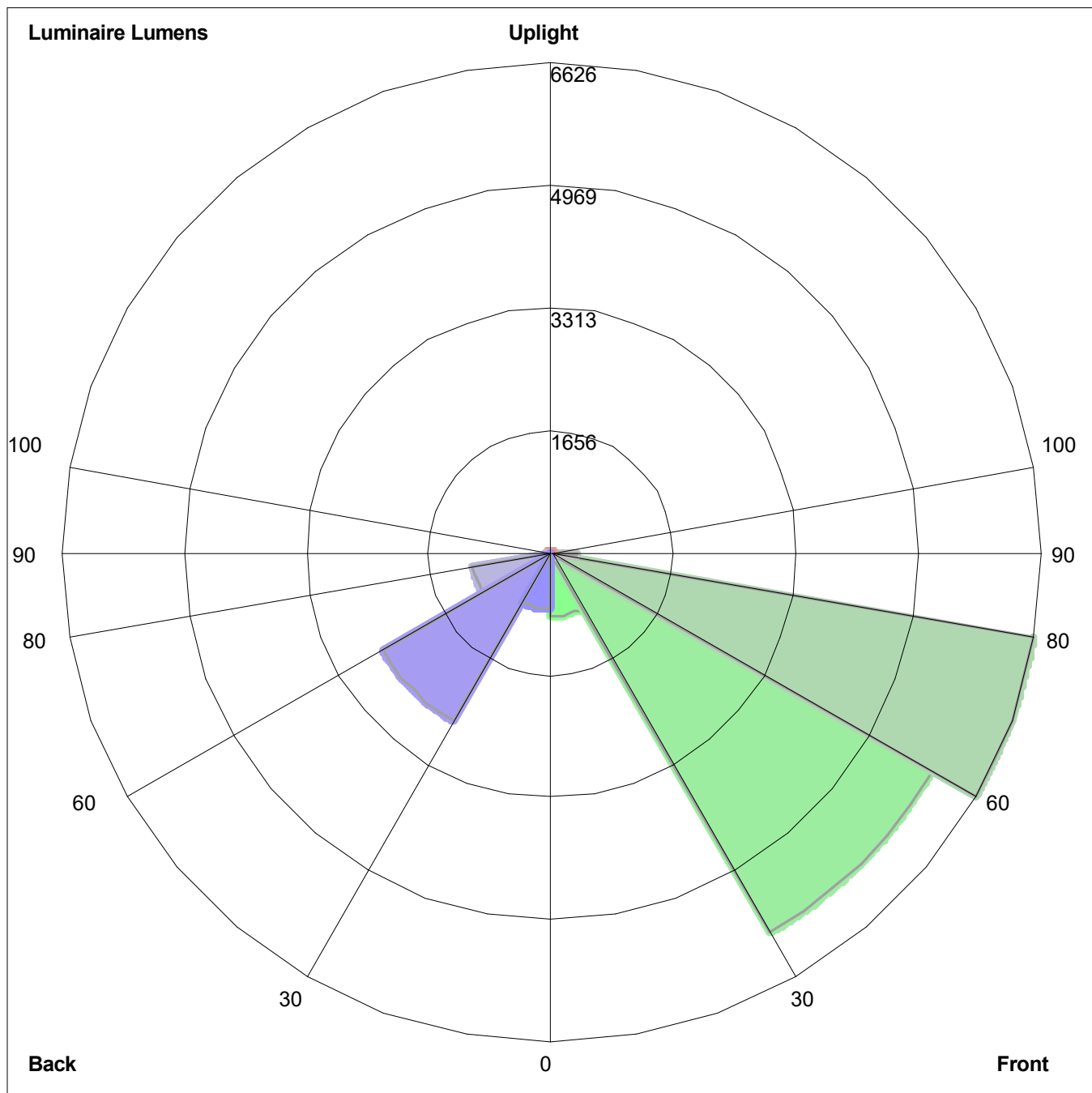


Maximum Candela = 12611 Located At Horizontal Angle = 40, Vertical Angle = 70  
# 1 - Vertical Plane Through Horizontal Angles (40 - 220) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=857.3, Medium=5940.6, High=6625.7, Very High=334.2  
Back: Low=770.3, Medium=2629.8, High=1071.2, Very High=87.5  
Uplight: Low=13.7, High=30.4

BUG Rating : B3-U2-G3