



## IES ROAD REPORT

PHOTOMETRIC FILENAME : XCN4-PT-3-LED-18L-40.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] LED-13255  
[TESTLAB] LSI INDUSTRIES, INC.  
[ISSUE DATE] 06/07/22  
[TEST DATE] 02/14/22  
[MANUFACTURER] LSI INDUSTRIES, INC.  
[LUMEN CATEGORY] XCN4-PT-3-LED-18L-40  
[OTHER] TEST PROCEDURE: IESNA LM-79-19  
[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED  
[OTHER] SCALED FROM ORIGINAL TEST DATA  
[SEARCH\_SOURCE TYPE] LED  
[SEARCH\_APPLICATION] Outdoor  
[SEARCH\_COLOR TEMP] 4000

### CHARACTERISTICS

IES Classification	Type III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	20130
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	135
Total Luminaire Watts	149.1
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	18776
Maximum Candela Angle	52.5H 67.5V
Maximum Candela (<90 Degrees Vertical)	18776
Maximum Candela Angle (<90 Degrees Vertical)	52.5H 67.5V
Maximum Candela At 90 Degrees Vertical	116 (0.6% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1317 (6.5% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)



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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	651.2	N.A.	3.2
FM - Front-Medium (30-60)	8095.0	N.A.	40.2
FH - Front-High (60-80)	6338.8	N.A.	31.5
FVH - Front-Very High (80-90)	167.4	N.A.	0.8
BL - Back-Low (0-30)	638.8	N.A.	3.2
BM - Back-Medium (30-60)	2813.8	N.A.	14.0
BH - Back-High (60-80)	1260.9	N.A.	6.3
BVH - Back-Very High (80-90)	120.9	N.A.	0.6
UL - Uplight-Low (90-100)	15.6	N.A.	0.1
UH - Uplight-High (100-180)	28.1	N.A.	0.1
Total	20130.5	N.A.	100.0
BUG Rating	B3-U2-G3		

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**CANDELA TABULATION**

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<u><b>0.0</b></u>	<u><b>5.0</b></u>	<u><b>15.0</b></u>	<u><b>25.0</b></u>	<u><b>35.0</b></u>	<u><b>45.0</b></u>	<u><b>52.5</b></u>	<u><b>55.0</b></u>	<u><b>65.0</b></u>	<u><b>75.0</b></u>
<b>0.0</b>	952	952	952	952	952	952	952	952	952	952
<b>2.5</b>	967	968	963	963	958	951	948	948	941	939
<b>5.0</b>	932	928	926	933	948	966	977	972	955	934
<b>7.5</b>	897	907	902	897	896	900	902	918	973	943
<b>10.0</b>	928	928	946	925	923	928	924	938	959	1020
<b>12.5</b>	973	972	976	966	978	1002	986	994	1008	1062
<b>15.0</b>	1064	1050	1058	1043	1045	1064	1081	1097	1068	1122
<b>17.5</b>	1201	1162	1179	1170	1175	1166	1174	1191	1173	1187
<b>20.0</b>	1397	1373	1328	1298	1323	1333	1336	1330	1318	1288
<b>22.5</b>	1610	1589	1581	1568	1512	1534	1542	1534	1503	1449
<b>25.0</b>	1905	1890	1858	1832	1872	1856	1853	1849	1807	1723
<b>27.5</b>	2276	2247	2273	2297	2328	2372	2291	2284	2278	2155
<b>30.0</b>	2773	2801	2780	2848	2978	2978	2890	2882	2883	2607
<b>32.5</b>	3330	3359	3433	3601	3682	3738	3652	3553	3405	3045
<b>35.0</b>	3864	3901	4051	4293	4452	4539	4395	4304	3902	3427
<b>37.5</b>	4382	4425	4642	4954	5208	5338	5122	4951	4412	3772
<b>40.0</b>	4838	4914	5176	5629	5953	6032	5774	5568	4808	4087
<b>42.5</b>	5351	5445	5755	6310	6729	6716	6422	6184	5228	4395
<b>45.0</b>	6140	6165	6517	7135	7479	7357	7024	6746	5596	4684
<b>47.5</b>	7180	7200	7577	8159	8333	7993	7543	7245	5966	5007
<b>50.0</b>	8585	8589	8949	9444	9363	8680	8054	7707	6318	5491
<b>52.5</b>	10366	10355	10646	10928	10662	9545	8692	8246	6853	6277
<b>55.0</b>	12025	12136	12441	12664	12083	10555	9438	8998	7712	7391
<b>57.5</b>	12708	12817	13324	13993	13751	11953	10859	10360	9239	8579
<b>60.0</b>	11731	11863	13055	14282	15116	14016	13301	12972	10918	9655
<b>62.5</b>	7350	7724	9577	12844	15517	16180	16286	15778	12424	10323
<b>65.0</b>	3374	3574	4790	8158	13307	16823	18612	18142	13165	10453
<b>67.5</b>	1853	1944	2353	3630	8470	14886	18776	18774	13423	9233
<b>70.0</b>	1117	1167	1431	2123	3975	10482	16021	16982	11842	6091
<b>72.5</b>	725	761	982	1444	2507	5548	10949	12208	7188	2612
<b>75.0</b>	522	549	734	1124	1803	2825	5629	6460	2986	936
<b>77.5</b>	377	390	554	932	1497	1771	2371	2809	1328	508
<b>80.0</b>	256	265	418	729	1259	1198	1163	1317	712	313
<b>82.5</b>	178	190	300	504	921	763	611	602	438	235
<b>85.0</b>	146	155	219	372	470	387	290	286	262	160
<b>87.5</b>	146	174	151	238	237	108	117	127	112	92
<b>90.0</b>	36	57	40	37	30	28	32	33	35	31
<b>92.5</b>	5	5	6	7	10	19	27	29	33	29
<b>95.0</b>	3	3	4	5	8	16	24	26	30	28
<b>97.5</b>	3	2	3	5	7	14	19	21	26	25
<b>100.0</b>	3	2	3	5	6	9	13	14	19	20
<b>102.5</b>	2	2	3	5	5	6	7	8	13	15
<b>105.0</b>	2	2	3	4	5	5	6	6	7	9
<b>107.5</b>	2	2	3	4	4	5	5	5	6	7
<b>110.0</b>	2	2	3	4	4	4	5	5	5	6
<b>112.5</b>	2	2	3	4	4	4	5	4	5	6
<b>115.0</b>	2	2	3	4	4	4	4	4	5	6
<b>117.5</b>	2	2	3	4	4	4	4	4	5	5
<b>120.0</b>	2	2	3	4	4	4	4	5	5	6
<b>122.5</b>	3	2	3	4	4	4	5	5	5	6
<b>125.0</b>	3	3	3	4	4	4	5	5	5	5
<b>127.5</b>	3	3	3	4	4	5	5	5	5	6
<b>130.0</b>	4	3	3	4	4	5	5	5	5	6

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**CANDELA TABULATION - (Cont.)**

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

Vert. Angles	Horizontal Angles									
	<u>85.0</u>	<u>90.0</u>	<u>95.0</u>	<u>105.0</u>	<u>115.0</u>	<u>125.0</u>	<u>135.0</u>	<u>145.0</u>	<u>155.0</u>	<u>165.0</u>
0.0	952	952	952	952	952	952	952	952	952	952
2.5	945	949	946	940	954	968	977	988	990	988
5.0	921	931	931	944	976	1027	1034	992	977	980
7.5	930	929	939	978	1033	979	964	983	993	1011
10.0	965	948	972	1062	1033	1021	1042	1077	1101	1094
12.5	1029	1013	1038	1113	1075	1114	1144	1164	1159	1196
15.0	1082	1066	1109	1161	1150	1219	1229	1240	1280	1336
17.5	1159	1125	1159	1214	1246	1290	1318	1380	1436	1465
20.0	1253	1202	1216	1270	1342	1378	1437	1508	1584	1655
22.5	1377	1296	1305	1331	1427	1490	1551	1666	1804	1891
25.0	1589	1466	1423	1413	1506	1588	1672	1876	2024	2121
27.5	1919	1665	1576	1466	1602	1672	1834	2056	2337	2392
30.0	2210	1888	1726	1532	1636	1768	1969	2300	2612	2737
32.5	2462	2040	1826	1544	1677	1834	2083	2480	3029	3191
35.0	2691	2178	1905	1537	1668	1894	2154	2683	3432	3673
37.5	2900	2304	1977	1525	1644	1906	2162	2754	3845	4146
40.0	3099	2422	2044	1511	1627	1918	2147	2784	4327	4479
42.5	3291	2530	2102	1507	1593	1898	2102	2760	4786	4548
45.0	3511	2650	2161	1498	1554	1865	2069	2696	5148	4317
47.5	3819	2797	2227	1503	1515	1825	2029	2579	5105	4079
50.0	4278	3005	2307	1510	1467	1779	1988	2473	4787	3850
52.5	4867	3238	2376	1503	1416	1723	1927	2344	4290	3614
55.0	5451	3497	2457	1478	1355	1642	1870	2192	3733	3385
57.5	6029	3822	2526	1412	1284	1534	1770	2040	3174	3152
60.0	6663	4085	2411	1315	1202	1414	1648	1892	2644	2904
62.5	7217	4027	2024	1191	1141	1291	1517	1729	2180	2692
65.0	7003	3515	1542	1065	1068	1174	1367	1583	1843	2476
67.5	5321	2468	1139	936	994	1076	1232	1475	1596	2208
70.0	2913	1306	762	780	876	953	1107	1355	1405	1906
72.5	941	559	484	617	746	819	969	1204	1232	1571
75.0	496	350	369	499	623	705	831	981	969	1203
77.5	271	227	286	403	514	605	698	541	539	766

**IES ROAD REPORT**  
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**CANDELA TABULATION - (Cont.)**

80.0	199	174	231	330	416	439	495	369	317	453
82.5	150	125	182	267	320	251	266	258	212	312
85.0	100	80	133	200	178	161	156	144	114	215
87.5	55	37	86	105	92	80	67	78	61	120
90.0	21	7	25	23	21	19	16	33	14	34
92.5	20	7	15	14	14	12	10	6	4	1
95.0	20	8	15	15	15	13	11	7	4	2
97.5	19	8	15	15	15	14	11	7	4	2
100.0	16	8	13	14	15	14	12	7	5	2
102.5	13	7	11	13	14	13	12	8	5	3
105.0	9	7	10	11	13	13	11	8	5	3
107.5	8	7	9	10	12	12	11	8	5	3
110.0	7	7	8	9	11	11	10	8	5	3
112.5	7	7	8	9	10	10	10	8	6	3
115.0	7	7	8	9	10	10	9	8	6	3
117.5	7	7	8	9	10	10	9	7	5	3
120.0	7	7	8	9	10	10	9	7	6	3
122.5	7	7	8	9	10	11	10	8	6	4
125.0	7	7	8	9	11	11	10	8	6	4
127.5	7	7	8	9	11	11	11	8	6	4
130.0	7	7	8	9	11	11	10	8	6	4
132.5	7	7	8	9	10	11	10	8	6	4
135.0	7	7	8	9	10	10	9	7	6	4
137.5	6	7	7	8	9	9	9	7	5	3
140.0	6	7	7	8	9	9	8	6	5	3
142.5	6	6	7	7	8	8	7	6	4	2
145.0	5	6	6	6	7	7	6	4	3	1
147.5	5	5	5	6	6	6	5	3	1	0
150.0	4	5	5	5	6	5	4	3	1	0
152.5	4	5	5	5	5	5	4	2	1	0
155.0	4	5	5	5	5	5	4	2	0	0
157.5	4	4	4	5	5	4	3	2	0	0
160.0	4	4	4	4	4	4	3	1	0	0
162.5	3	4	4	4	4	3	3	1	0	0
165.0	3	4	4	4	4	3	3	1	0	0
167.5	3	4	4	4	4	4	3	1	0	0
170.0	4	4	4	4	4	4	3	1	0	0
172.5	4	4	4	4	4	4	3	1	0	0
175.0	3	4	4	4	4	4	3	1	0	0
177.5	3	4	4	4	4	3	3	1	0	0
180.0	2	2	2	2	2	2	2	2	2	2

**Vert. Horizontal Angles**  
**Angles**

	<u>175.0</u>	<u>180.0</u>
0.0	952	952
2.5	984	979
5.0	977	983
7.5	1020	1018
10.0	1112	1095
12.5	1193	1201
15.0	1332	1331
17.5	1493	1509
20.0	1713	1730
22.5	1927	1904
25.0	2149	2167

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : XCN4-PT-3-LED-18L-40.IES**

**CANDELA TABULATION - (Cont.)**

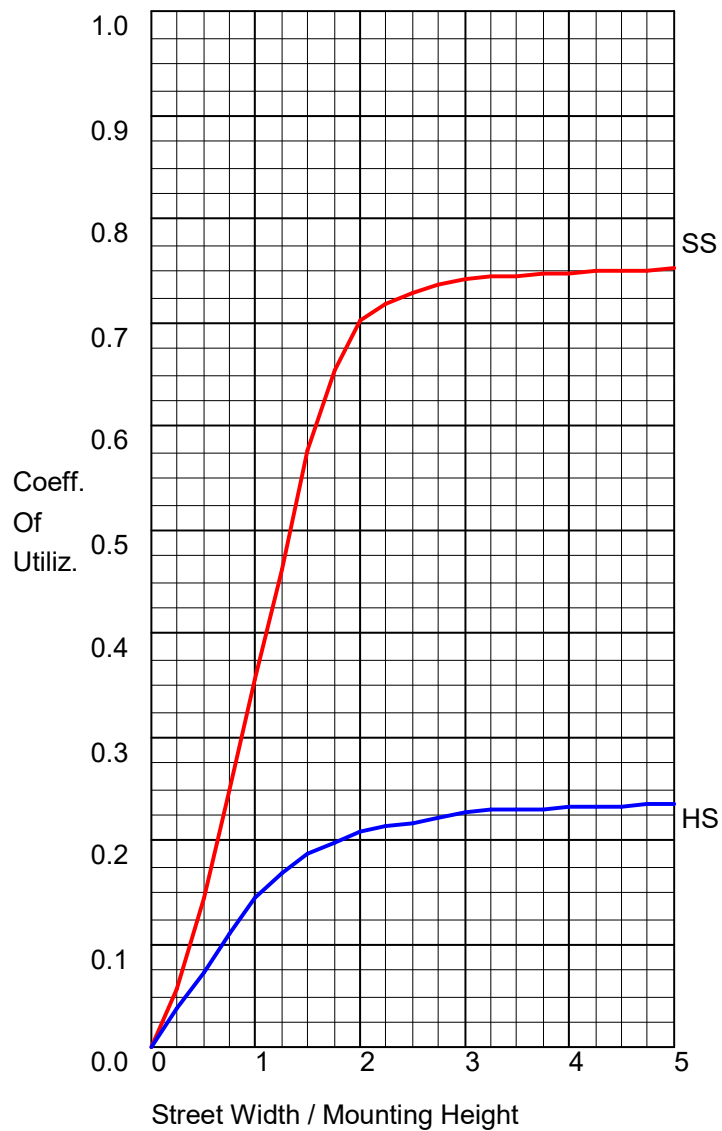
27.5	2368	2351
30.0	2677	2651
32.5	3004	2941
35.0	3305	3216
37.5	3426	3299
40.0	3313	3125
42.5	2943	2761
45.0	2686	2516
47.5	2506	2349
50.0	2382	2223
52.5	2295	2113
55.0	2238	2024
57.5	2197	1953
60.0	2189	1912
62.5	2244	1960
65.0	2304	2042
67.5	2329	2147
70.0	2263	2220
72.5	1961	2007
75.0	1384	1547
77.5	1099	1277
80.0	840	974
82.5	621	665
85.0	484	517
87.5	727	853
90.0	97	116
92.5	0	0
95.0	0	0
97.5	0	0
100.0	0	0
102.5	0	0
105.0	0	0
107.5	1	0
110.0	1	0
112.5	1	0
115.0	1	0
117.5	1	1
120.0	1	1
122.5	2	1
125.0	2	2
127.5	3	2
130.0	3	2
132.5	3	3
135.0	3	2
137.5	2	2
140.0	2	2
142.5	1	1
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

**IES ROAD REPORT**  
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**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

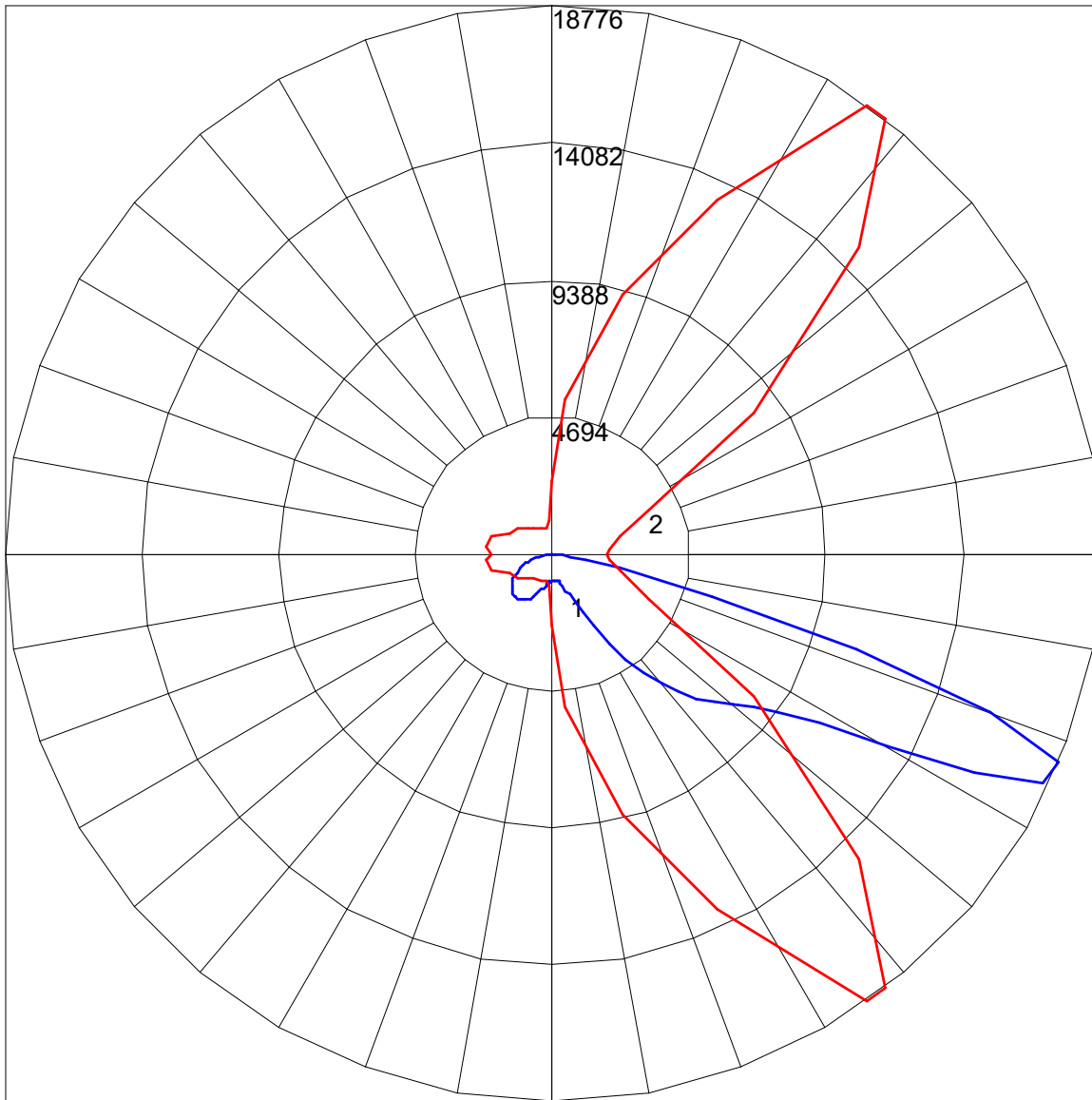


### FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	15252.3	75.8
Downward House Side	4834.5	24.0
Downward Total	20086.9	99.8
Upward Street Side	20.8	0.1
Upward House Side	22.8	0.1
Upward Total	43.6	0.2
Total Flux	20130.5	100.0

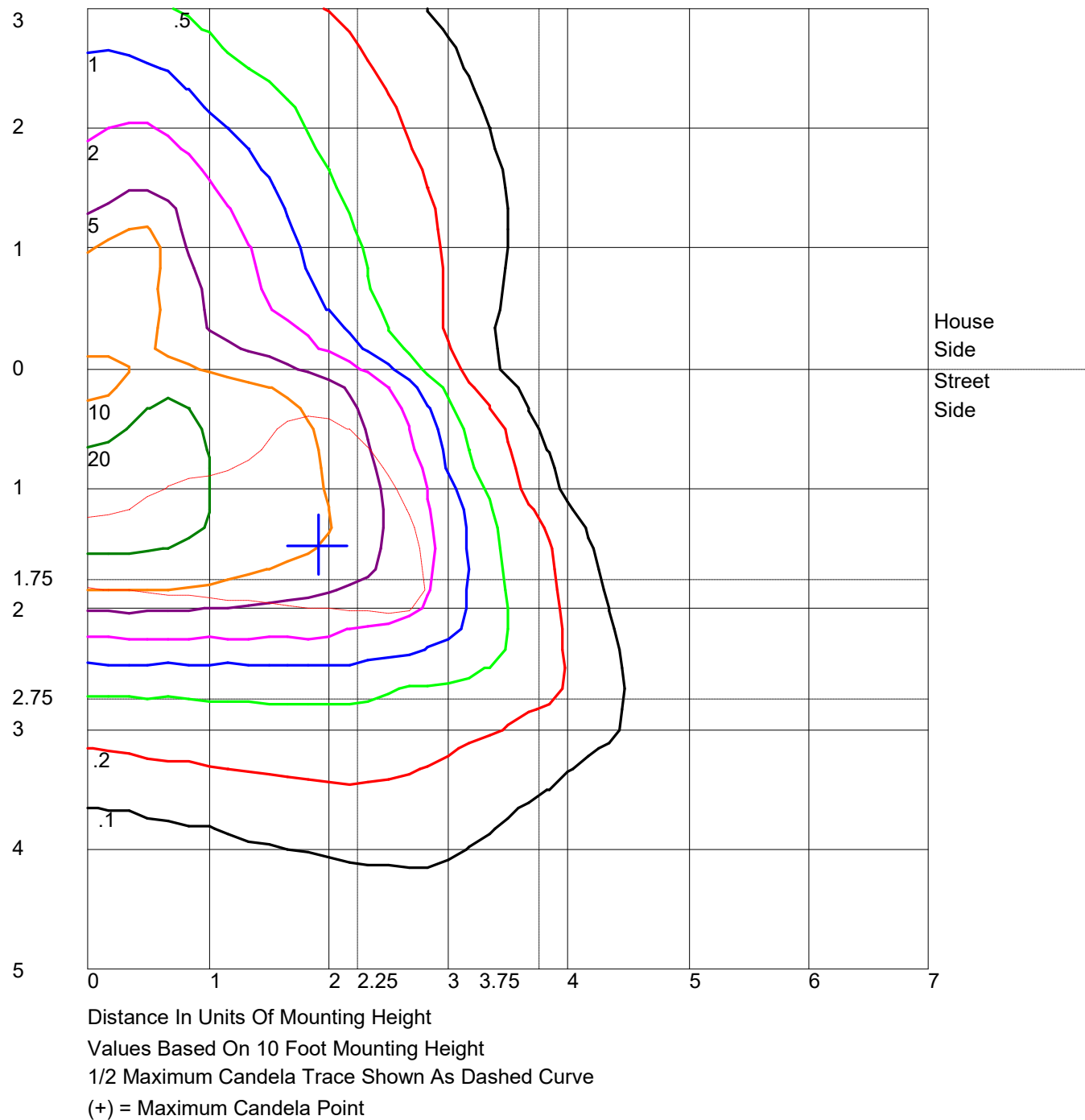


POLAR GRAPH

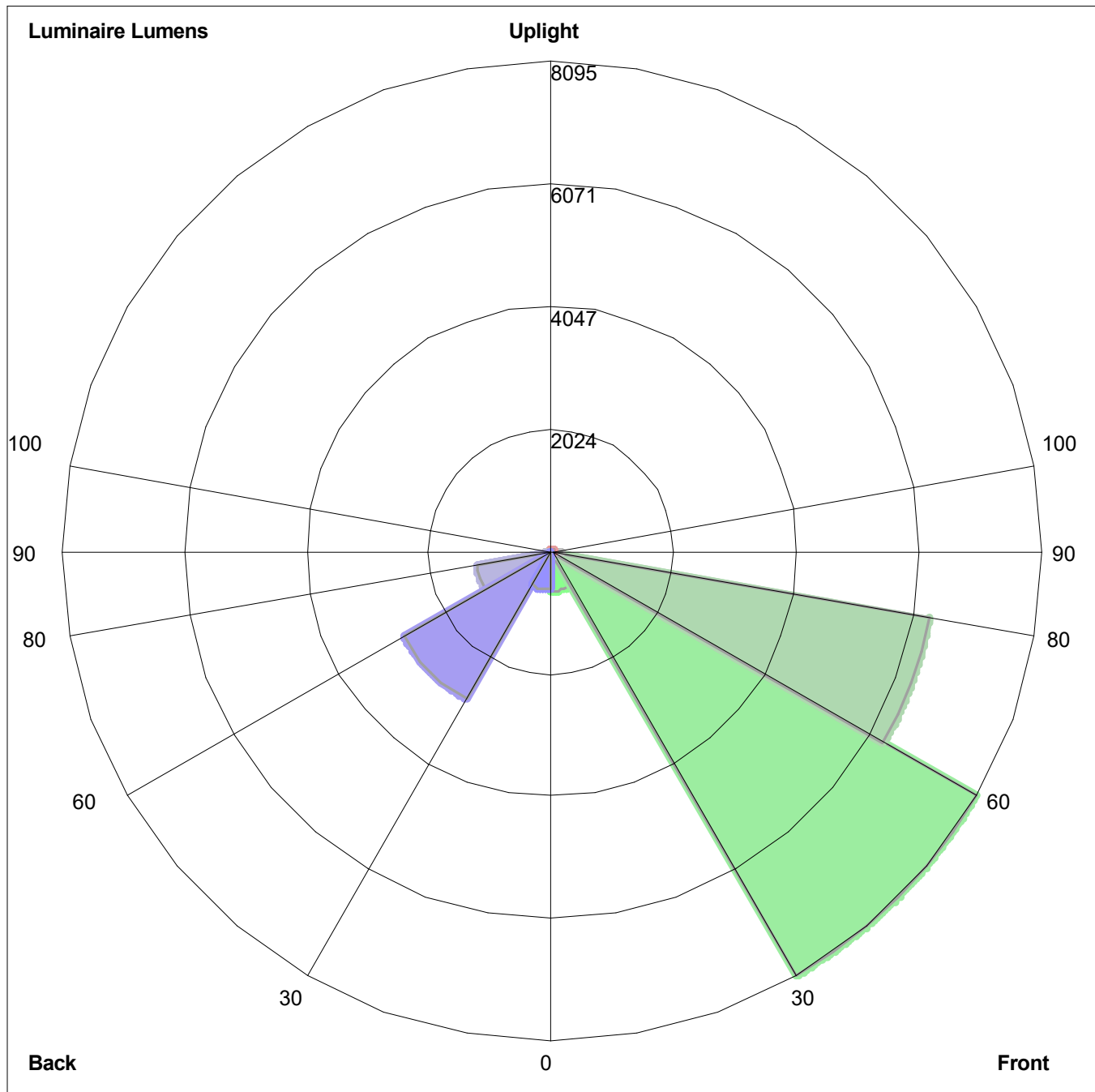


Maximum Candela = 18776 Located At Horizontal Angle = 52.5, Vertical Angle = 67.5  
# 1 - Vertical Plane Through Horizontal Angles (52.5 - 232.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=651.2, Medium= 8095.0, High=6338.8, Very High=167.4  
Back: Low=638.8, Medium=2813.8, High=1260.9, Very High=120.9  
Uplight: Low=15.6, High=28.1

BUG Rating : B3-U2-G3