



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

**DESCRIPTIVE INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] LED-13248  
[TESTLAB] LSI INDUSTRIES, INC.  
[ISSUE DATE] 06/07/22  
[TEST DATE] 02/09/22  
[MANUFACT] LSI INDUSTRIES, INC.  
[LUMCAT] XCN4-PT-FT-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\_SOURCETYPE] LED  
[SEARCH\_APPLICATION] Outdoor  
[SEARCH\_COLORTEMP] 4000

**CHARACTERISTICS**

IES Classification	Type IV
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	20380
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	136
Total Luminaire Watts	149.7
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	14155
Maximum Candela Angle	40H 70V
Maximum Candela (<90 Degrees Vertical)	14155
Maximum Candela Angle (<90 Degrees Vertical)	40H 70V
Maximum Candela At 90 Degrees Vertical	91 (0.4% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	3262 (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)	967.3	N.A.	4.7
FM - Front-Medium (30-60)	6503.3	N.A.	31.9
FH - Front-High (60-80)	7378.1	N.A.	36.2
FVH - Front-Very High (80-90)	337.1	N.A.	1.7
BL - Back-Low (0-30)	904.2	N.A.	4.4
BM - Back-Medium (30-60)	2876.4	N.A.	14.1
BH - Back-High (60-80)	1271.6	N.A.	6.2
BVH - Back-Very High (80-90)	104.2	N.A.	0.5
UL - Uplight-Low (90-100)	11.3	N.A.	0.1
UH - Uplight-High (100-180)	26.9	N.A.	0.1
Total	20380.4	N.A.	100.0
BUG Rating	B3-U2-G3		

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**CANDELA TABULATION**

Vert. Angles	Horizontal Angles									
	<u>0</u>	<u>5</u>	<u>15</u>	<u>25</u>	<u>35</u>	<u>40</u>	<u>45</u>	<u>55</u>	<u>65</u>	<u>75</u>
<b>0.0</b>	1648	1648	1648	1648	1648	1648	1648	1648	1648	1648
<b>2.5</b>	1631	1632	1639	1633	1627	1614	1605	1615	1612	1608
<b>5.0</b>	1507	1488	1489	1494	1543	1560	1610	1625	1626	1605
<b>7.5</b>	1398	1362	1372	1387	1415	1426	1436	1496	1651	1625
<b>10.0</b>	1409	1385	1410	1422	1433	1423	1447	1481	1567	1767
<b>12.5</b>	1451	1448	1458	1451	1476	1505	1551	1538	1610	1796
<b>15.0</b>	1590	1573	1601	1578	1559	1586	1608	1709	1715	1927
<b>17.5</b>	1828	1766	1785	1734	1767	1753	1766	1848	1948	2066
<b>20.0</b>	2247	2212	2077	1954	2006	2016	2021	2043	2147	2258
<b>22.5</b>	2592	2555	2492	2415	2274	2281	2296	2303	2362	2439
<b>25.0</b>	3062	3083	2921	2801	2697	2700	2581	2589	2604	2667
<b>27.5</b>	3404	3401	3391	3298	3068	3037	3006	2851	2830	2879
<b>30.0</b>	3839	3860	3771	3635	3552	3460	3358	3153	3029	3023
<b>32.5</b>	4084	4109	4148	4109	3905	3839	3760	3434	3233	3143
<b>35.0</b>	4321	4352	4406	4400	4286	4199	4116	3800	3398	3193
<b>37.5</b>	4575	4621	4668	4671	4589	4540	4415	4056	3592	3295
<b>40.0</b>	4898	4918	4962	4967	4923	4840	4735	4383	3810	3422
<b>42.5</b>	5238	5260	5303	5333	5285	5200	5068	4781	4063	3597
<b>45.0</b>	5637	5683	5709	5767	5711	5637	5488	5203	4416	3866
<b>47.5</b>	6089	6147	6212	6292	6256	6148	5994	5704	4857	4206
<b>50.0</b>	6566	6634	6731	6918	6871	6774	6590	6360	5472	4631
<b>52.5</b>	7032	7122	7241	7570	7575	7486	7317	7173	6102	5170
<b>55.0</b>	7380	7491	7714	8204	8320	8301	8215	8180	6959	5802
<b>57.5</b>	7705	7868	8129	8764	9177	9311	9330	9334	7858	6478
<b>60.0</b>	8169	8380	8724	9436	10130	10485	10586	10564	8713	6957
<b>62.5</b>	8646	8906	9331	10268	11306	11831	11912	11650	9350	7215
<b>65.0</b>	8981	9178	9816	11107	12520	13190	13152	12305	9480	6885
<b>67.5</b>	8688	8837	9753	11634	13434	14067	13962	12155	8771	5815
<b>70.0</b>	7646	7794	8890	11389	13769	14155	13844	11050	7065	4111
<b>72.5</b>	5487	5619	6907	9606	13097	13388	12780	8783	4595	2269
<b>75.0</b>	2658	2817	4091	6574	10108	10729	9930	5728	2587	1411
<b>77.5</b>	1245	1339	2062	3474	5957	6708	6243	3293	1653	929
<b>80.0</b>	663	728	1335	2101	2764	3262	3237	2019	1006	565
<b>82.5</b>	446	493	906	1346	1588	1758	1786	1021	613	311
<b>85.0</b>	326	367	661	905	1077	937	705	423	297	181
<b>87.5</b>	211	235	431	420	524	345	131	142	97	79
<b>90.0</b>	51	72	91	52	33	24	20	18	18	17
<b>92.5</b>	3	3	4	7	11	13	15	17	19	17
<b>95.0</b>	3	2	4	7	12	14	16	18	19	18
<b>97.5</b>	3	2	4	7	11	13	15	16	19	18
<b>100.0</b>	2	2	4	6	8	9	10	12	15	15
<b>102.5</b>	2	2	3	5	6	7	7	9	11	12
<b>105.0</b>	2	2	3	5	5	6	6	7	8	9
<b>107.5</b>	2	2	3	4	5	5	5	6	6	7
<b>110.0</b>	2	2	3	4	5	5	5	5	6	6
<b>112.5</b>	2	2	3	4	5	5	5	5	5	6
<b>115.0</b>	2	2	3	4	5	5	5	5	5	6
<b>117.5</b>	2	2	3	4	5	5	5	5	5	6
<b>120.0</b>	2	2	3	5	5	5	5	5	6	6
<b>122.5</b>	3	3	4	5	5	5	5	6	6	6
<b>125.0</b>	3	3	4	5	5	5	6	6	6	6
<b>127.5</b>	4	4	4	5	6	6	6	6	6	7
<b>130.0</b>	4	4	4	5	6	6	6	6	7	7

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**CANDELA TABULATION - (Cont.)**

132.5	5	5	5	6	6	6	6	7	7	7
135.0	6	6	5	6	6	7	7	7	7	7
137.5	7	6	6	6	7	7	7	7	7	7
140.0	7	7	7	7	7	7	7	7	7	7
142.5	7	6	6	6	7	6	7	6	7	7
145.0	3	3	4	5	5	5	5	5	5	5
147.5	1	1	2	3	4	4	4	3	3	4
150.0	1	1	2	3	4	4	3	3	3	4
152.5	1	1	2	3	4	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	4
160.0	1	1	2	3	3	3	3	3	3	3
162.5	1	1	2	3	3	3	3	3	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	4
170.0	1	1	2	3	3	3	3	3	3	4
172.5	1	1	2	3	3	3	3	3	3	4
175.0	1	1	2	3	3	3	3	3	3	4
177.5	1	1	2	3	3	3	3	3	3	4
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	1648	1648	1648	1648	1648	1648	1648	1648	1648	1648
2.5	1619	1622	1610	1617	1638	1639	1641	1660	1675	1696
5.0	1586	1572	1590	1618	1656	1688	1728	1671	1620	1625
7.5	1604	1599	1611	1635	1723	1613	1551	1542	1538	1535
10.0	1663	1627	1663	1786	1688	1609	1575	1610	1608	1613
12.5	1809	1758	1804	1885	1735	1673	1692	1689	1687	1733
15.0	1928	1898	1934	1992	1803	1821	1776	1777	1805	1841
17.5	2114	2061	2081	2117	1956	1926	1882	1922	1947	1968
20.0	2351	2288	2302	2241	2104	2040	2029	2033	2034	2104
22.5	2549	2515	2545	2374	2224	2148	2148	2139	2224	2291
25.0	2777	2704	2752	2511	2322	2270	2226	2303	2352	2450
27.5	2985	2866	2895	2587	2418	2338	2343	2408	2540	2631
30.0	3083	2982	3014	2680	2452	2423	2456	2567	2642	2762
32.5	3109	2977	3017	2651	2491	2454	2560	2622	2790	2911
35.0	3123	2968	2998	2616	2465	2511	2609	2707	2838	2956
37.5	3154	2969	2981	2556	2412	2507	2595	2685	2848	2992
40.0	3218	2993	2979	2515	2346	2470	2554	2651	2850	3047
42.5	3321	3045	2994	2441	2264	2421	2498	2607	2879	3099
45.0	3478	3144	3040	2395	2189	2350	2405	2547	2958	2936
47.5	3728	3313	3156	2371	2085	2253	2311	2479	2998	2679
50.0	4066	3544	3301	2365	1979	2162	2199	2438	2834	2462
52.5	4497	3845	3475	2375	1863	2054	2092	2413	2609	2278
55.0	4966	4136	3654	2392	1767	1946	1992	2324	2393	2112
57.5	5365	4382	3791	2383	1656	1835	1878	2180	2177	1915
60.0	5577	4499	3752	2347	1551	1725	1752	2024	1910	1741
62.5	5492	4349	3382	2247	1418	1589	1636	1825	1704	1621
65.0	4920	3736	2634	1993	1288	1452	1501	1682	1533	1525
67.5	3825	2788	1780	1615	1142	1298	1371	1569	1383	1440
70.0	2398	1709	1117	1183	971	1122	1248	1432	1245	1358
72.5	1219	909	757	857	805	952	1110	1255	1110	1252
75.0	813	575	517	623	622	767	944	1055	938	1050
77.5	515	350	332	427	468	598	761	774	611	645

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**CANDELA TABULATION - (Cont.)**

80.0	281	202	231	307	363	465	506	417	364	433
82.5	179	133	161	224	273	266	274	308	247	308
85.0	109	70	95	147	141	147	173	178	125	195
87.5	47	20	40	54	58	65	69	68	51	82
90.0	12	5	7	8	7	7	6	5	6	7
92.5	12	5	8	8	8	7	6	4	2	0
95.0	13	6	9	9	9	8	7	5	3	1
97.5	13	7	11	11	10	10	9	7	4	2
100.0	12	7	10	10	11	10	9	8	5	3
102.5	11	7	9	10	10	10	9	8	6	4
105.0	9	7	8	9	9	9	9	7	6	4
107.5	8	6	8	8	9	8	8	6	5	4
110.0	7	6	7	8	8	8	7	6	5	3
112.5	6	6	7	8	8	8	7	6	5	3
115.0	6	6	7	8	8	8	7	6	5	4
117.5	6	7	7	8	8	8	7	7	6	4
120.0	6	7	7	8	8	8	8	7	6	4
122.5	6	7	7	8	8	8	8	7	6	4
125.0	7	7	7	8	8	8	7	7	6	4
127.5	7	7	7	8	8	8	7	7	5	4
130.0	7	7	7	8	8	8	7	6	5	4
132.5	7	7	7	8	8	8	7	6	5	4
135.0	7	7	7	8	8	7	6	5	4	3
137.5	7	7	7	8	8	7	6	5	4	3
140.0	7	7	7	8	8	7	6	4	4	2
142.5	6	7	7	7	7	6	5	4	3	2
145.0	5	5	6	6	5	4	3	2	1	0
147.5	4	4	5	5	4	3	2	0	0	0
150.0	4	4	4	4	4	3	1	0	0	0
152.5	4	4	4	4	4	3	1	0	0	0
155.0	4	4	4	4	4	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	4	4	4	4	3	2	1	0	0	0
165.0	4	4	4	4	3	2	0	0	0	0
167.5	4	4	4	4	3	2	1	0	0	0
170.0	4	4	4	4	3	2	1	0	0	0
172.5	4	4	4	4	3	2	1	0	0	0
175.0	4	4	4	4	3	2	1	0	0	0
177.5	4	4	4	4	3	1	0	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	1648	1648
2.5	1692	1687
5.0	1621	1635
7.5	1559	1541
10.0	1592	1619
12.5	1729	1731
15.0	1846	1853
17.5	2001	2038
20.0	2203	2223
22.5	2373	2391
25.0	2541	2576

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**CANDELA TABULATION - (Cont.)**

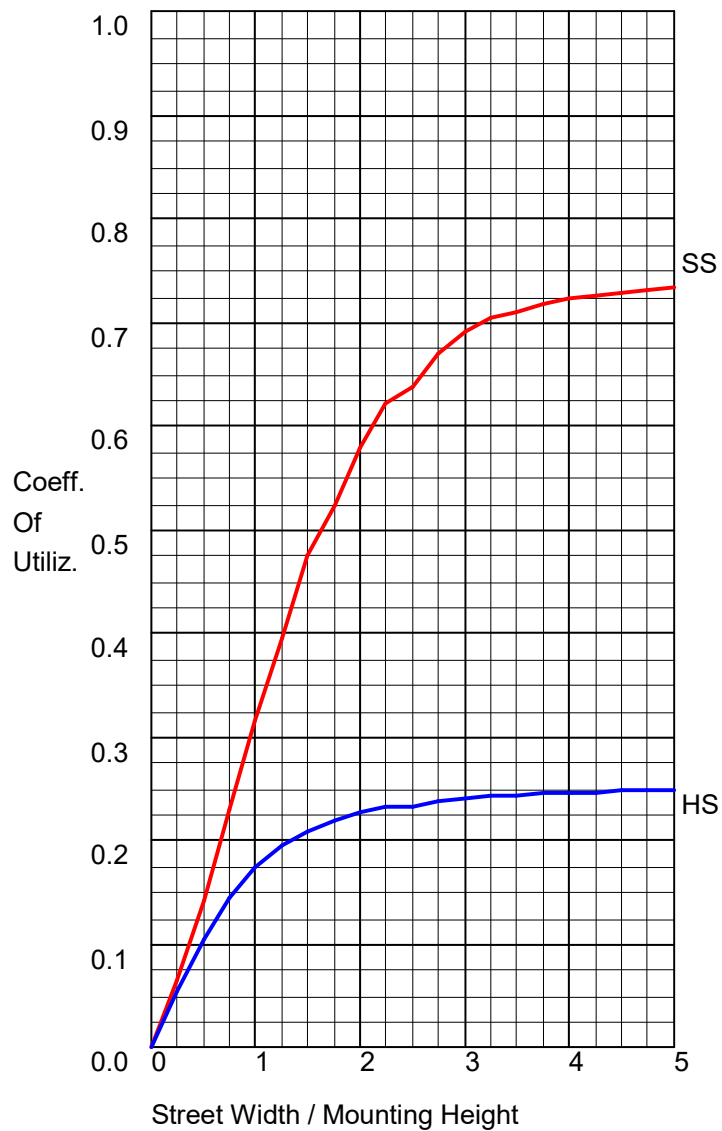
27.5	2696	2699
30.0	2864	2870
32.5	2933	2925
35.0	2957	2946
37.5	2989	2971
40.0	3011	2983
42.5	2844	2780
45.0	2574	2522
47.5	2387	2348
50.0	2236	2201
52.5	2089	2055
55.0	1941	1905
57.5	1745	1708
60.0	1599	1553
62.5	1494	1441
65.0	1428	1374
67.5	1392	1332
70.0	1364	1303
72.5	1319	1270
75.0	1157	1110
77.5	808	809
80.0	693	739
82.5	562	613
85.0	402	456
87.5	229	288
90.0	21	28
92.5	0	0
95.0	0	0
97.5	0	0
100.0	1	1
102.5	2	2
105.0	3	2
107.5	2	2
110.0	2	2
112.5	2	2
115.0	3	3
117.5	3	3
120.0	3	3
122.5	3	3
125.0	3	3
127.5	3	3
130.0	3	3
132.5	3	3
135.0	3	3
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

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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

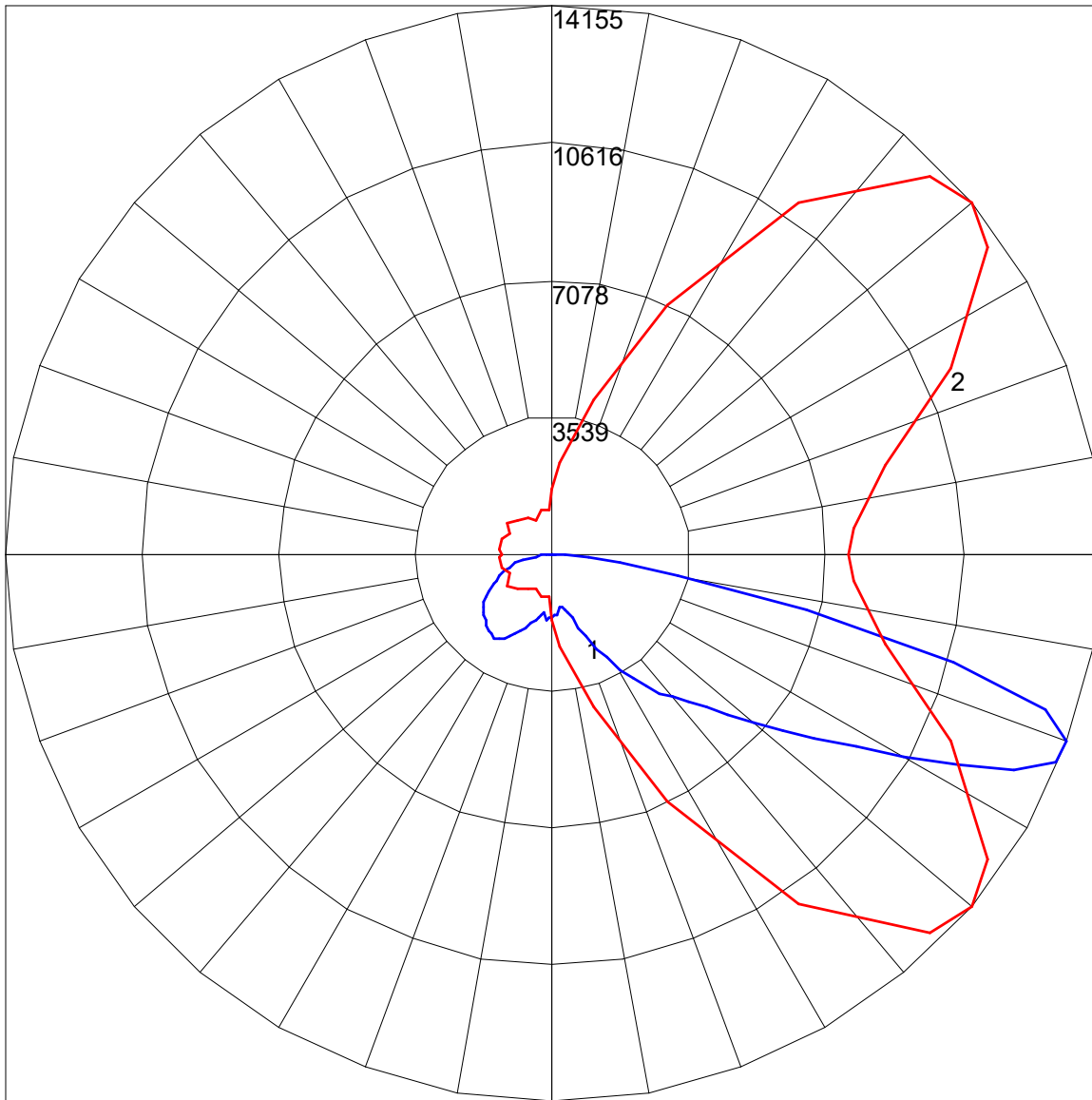


### FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	15185.9	74.5
Downward House Side	5156.4	25.3
Downward Total	20342.3	99.8
Upward Street Side	21.1	0.1
Upward House Side	17.1	0.1
Upward Total	38.2	0.2
Total Flux	20380.5	100.0

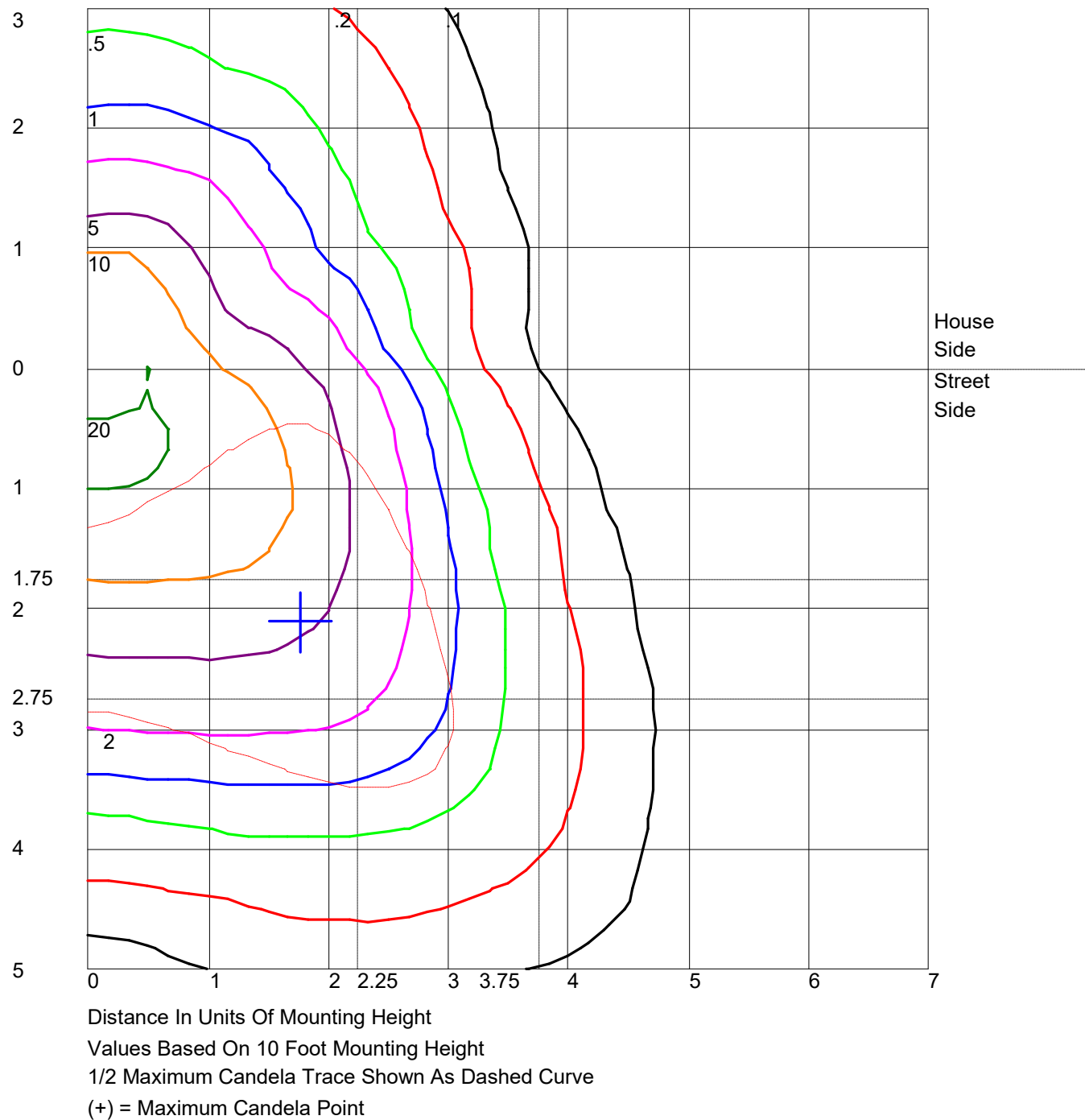


POLAR GRAPH

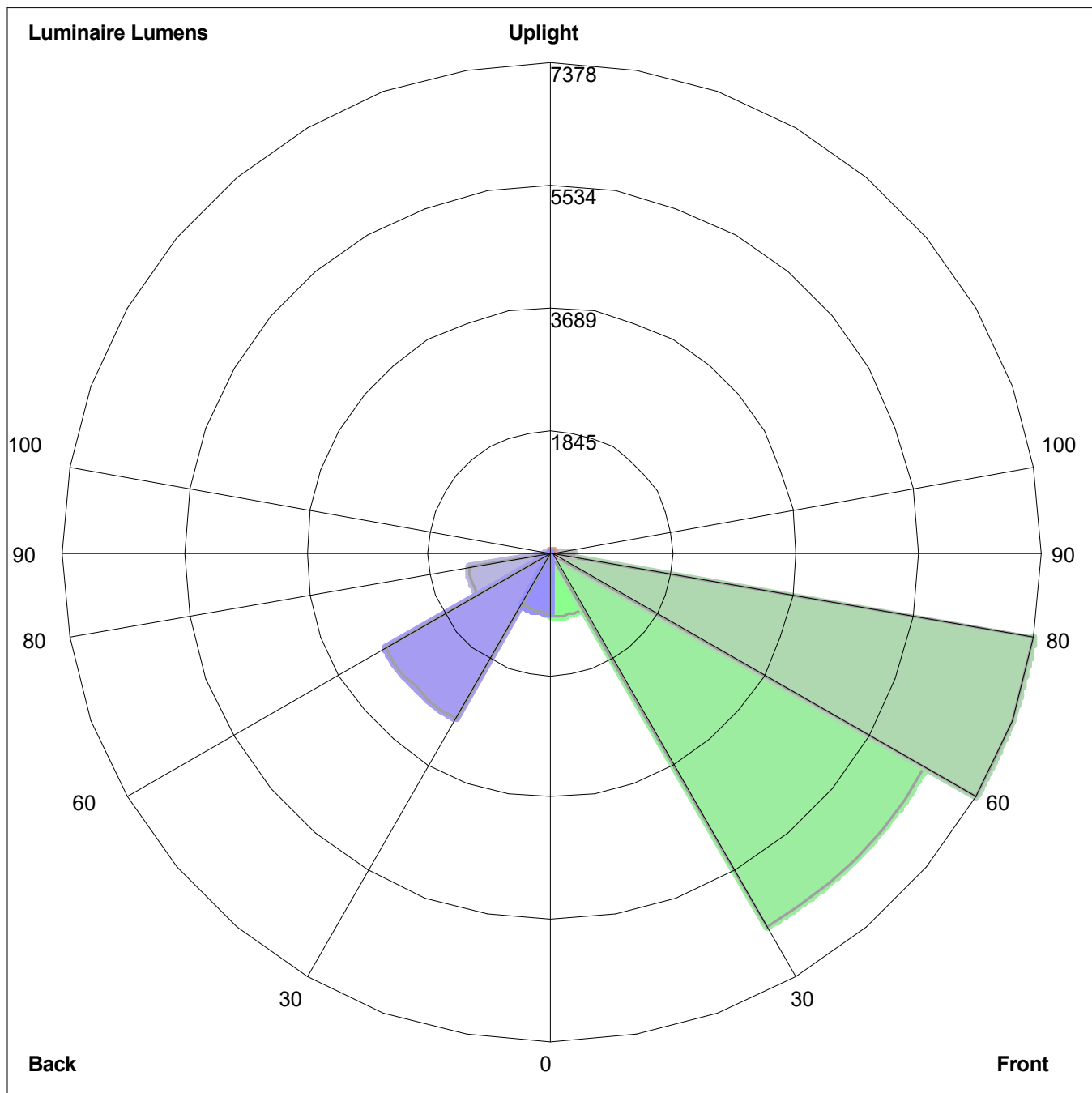


Maximum Candela = 14155 Located At Horizontal Angle = 40, Vertical Angle = 70  
# 1 - Vertical Plane Through Horizontal Angles (40 - 220) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=967.3, Medium=6503.3, High=7378.1, Very High=337.1  
Back: Low=904.2, Medium=2876.4, High=1271.6, Very High=104.2  
Uplight: Low=11.3, High=26.9

BUG Rating : B3-U2-G3