



## IES ROAD REPORT

PHOTOMETRIC FILENAME : ENM4-PT-3-LED-18L-50.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] LED-11675  
[TESTLAB] LSI INDUSTRIES, INC.  
[ISSUE DATE] 06/10/2020  
[TEST DATE] 04/02/20  
[MANUFACT] LSI INDUSTRIES, INC.  
[LUMCAT] ENM4-PT-3-LED-18L-50  
[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 III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	19668
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	148.6
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	18805
Maximum Candela Angle	57.5H 65V
Maximum Candela (<90 Degrees Vertical)	18805
Maximum Candela Angle (<90 Degrees Vertical)	57.5H 65V
Maximum Candela At 90 Degrees Vertical	85 (0.4% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1241 (6.3% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

**IES ROAD REPORT****PHOTOMETRIC FILENAME : ENM4-PT-3-LED-18L-50.IES****LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	589.8	N.A.	3.0
FM - Front-Medium (30-60)	8451.0	N.A.	43.0
FH - Front-High (60-80)	6381.2	N.A.	32.4
FVH - Front-Very High (80-90)	154.0	N.A.	0.8
BL - Back-Low (0-30)	565.5	N.A.	2.9
BM - Back-Medium (30-60)	2296.1	N.A.	11.7
BH - Back-High (60-80)	1075.0	N.A.	5.5
BVH - Back-Very High (80-90)	103.1	N.A.	0.5
UL - Uplight-Low (90-100)	16.8	N.A.	0.1
UH - Uplight-High (100-180)	35.3	N.A.	0.2
Total	19667.8	N.A.	100.0
BUG Rating	B3-U2-G3		

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**CANDELA TABULATION**

Vert. Angles	Horizontal Angles									
	<u>0.0</u>	<u>5.0</u>	<u>15.0</u>	<u>25.0</u>	<u>35.0</u>	<u>45.0</u>	<u>55.0</u>	<u>57.5</u>	<u>65.0</u>	<u>75.0</u>
0.0	970	970	970	970	970	970	970	970	970	970
2.5	939	944	940	934	941	944	960	958	961	959
5.0	850	852	871	887	906	879	877	876	878	889
7.5	812	826	848	836	832	823	852	867	908	900
10.0	820	813	817	805	822	871	887	892	899	914
12.5	856	858	854	827	863	887	911	912	933	954
15.0	910	908	908	921	945	936	968	978	992	1008
17.5	981	981	964	990	1008	1043	1028	1040	1057	1088
20.0	1138	1131	1107	1108	1126	1152	1169	1166	1161	1177
22.5	1269	1298	1310	1348	1335	1353	1384	1384	1323	1331
25.0	1600	1552	1601	1647	1665	1669	1726	1693	1643	1558
27.5	2108	2152	2153	2076	2094	2182	2153	2137	2093	1936
30.0	2774	2722	2671	2708	2655	2769	2733	2698	2625	2339
32.5	3535	3503	3317	3287	3351	3429	3410	3397	3228	2872
35.0	4134	4115	4025	4002	4022	4190	4130	4106	3831	3341
37.5	4988	4915	4762	4713	4751	4921	4804	4779	4362	3755
40.0	5707	5686	5610	5553	5544	5616	5393	5353	4831	4129
42.5	6515	6504	6435	6371	6332	6272	6019	5886	5272	4400
45.0	7557	7545	7505	7429	7229	7049	6550	6425	5660	4661
47.5	8891	8872	8896	8904	8368	7874	7127	6969	6066	4965
50.0	10517	10500	10599	10536	9849	8829	7843	7600	6566	5365
52.5	12164	12317	12451	12353	11613	10014	8716	8437	7366	5958
55.0	13031	13048	13504	13896	13522	11542	9915	9666	8420	6794
57.5	12781	12828	13506	14391	15000	13408	11522	11377	9875	8185
60.0	10440	10599	12096	13742	15425	15333	13840	13640	11935	9795
62.5	6384	6513	7901	10901	14656	16390	16660	16460	14192	11197
65.0	3174	3271	4173	6381	11655	16097	18774	18805	15466	11610
67.5	1590	1630	1971	3234	6952	13693	18512	18716	16020	10583
70.0	958	985	1200	1772	3608	8846	15582	16077	13973	7790
72.5	562	559	761	1209	2185	4649	10303	11143	8846	4306
75.0	387	403	518	896	1521	2497	5183	5731	4680	1759
77.5	290	302	407	760	1198	1516	2425	2655	2014	747
80.0	208	220	317	641	964	981	1135	1241	1035	394
82.5	142	154	245	452	724	619	533	579	517	247
85.0	108	115	183	344	407	343	256	274	272	155
87.5	99	104	135	245	244	130	105	102	106	82
90.0	57	50	72	85	77	32	29	28	25	20
92.5	16	16	19	19	10	10	13	13	12	10
95.0	7	7	6	6	6	8	10	10	10	9
97.5	6	6	6	6	6	7	8	8	8	8
100.0	5	5	5	5	6	6	7	7	7	7
102.5	5	5	5	5	6	6	6	6	6	6
105.0	4	4	4	5	6	6	6	6	6	6
107.5	4	4	4	6	6	6	6	6	6	6
110.0	5	4	5	6	6	6	6	6	6	6
112.5	5	5	5	6	6	6	6	6	6	7
115.0	5	5	6	6	6	7	6	6	6	7
117.5	6	6	6	6	7	7	6	6	6	7
120.0	7	6	6	7	7	7	6	6	7	8
122.5	7	7	7	7	7	7	7	7	7	8
125.0	7	7	7	7	7	7	7	7	7	8
127.5	7	7	7	7	7	8	7	7	7	8
130.0	8	8	7	8	7	8	7	7	7	8

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**CANDELA TABULATION - (Cont.)**

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

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	970	970	970	970	970	970	970	970	970	970
2.5	968	975	977	975	983	988	1004	1004	996	980
5.0	897	897	900	936	962	973	1002	1013	1010	991
7.5	922	924	944	996	977	962	946	977	977	1001
10.0	922	923	942	987	963	1003	999	1007	1008	1040
12.5	968	984	1022	1018	1015	1022	1050	1133	1135	1187
15.0	1024	1040	1040	1040	1029	1107	1163	1242	1269	1255
17.5	1087	1078	1093	1102	1089	1219	1312	1338	1339	1343
20.0	1177	1167	1178	1118	1157	1299	1351	1419	1442	1442
22.5	1318	1279	1291	1232	1285	1401	1469	1479	1474	1503
25.0	1528	1471	1445	1308	1469	1519	1500	1523	1544	1572
27.5	1791	1672	1626	1464	1602	1610	1569	1597	1633	1665
30.0	2110	1949	1824	1591	1678	1747	1664	1672	1698	1737
32.5	2396	2200	2003	1717	1769	1866	1812	1770	1829	1950
35.0	2754	2457	2186	1824	1805	1945	1915	1893	2011	2149
37.5	3040	2675	2314	1875	1825	1988	1964	2036	2193	2390
40.0	3239	2794	2351	1892	1825	2005	1985	2075	2434	2510
42.5	3402	2885	2364	1839	1762	1983	1969	2095	2630	2478
45.0	3576	2982	2386	1780	1688	1906	1929	2041	2845	2347
47.5	3794	3128	2445	1735	1614	1827	1869	1984	2908	2230
50.0	4113	3366	2567	1714	1537	1749	1805	1932	2867	2179
52.5	4589	3698	2760	1724	1475	1679	1736	1859	2691	2146
55.0	5181	4144	3042	1746	1414	1595	1655	1764	2417	2100
57.5	6087	4751	3328	1747	1343	1483	1564	1642	2063	2007
60.0	7212	5322	3322	1658	1255	1345	1443	1478	1692	1958
62.5	7997	5560	2928	1451	1149	1203	1297	1320	1372	1895
65.0	7810	5147	2250	1205	1042	1075	1142	1199	1140	1806
67.5	6416	4258	1594	980	922	945	1015	1089	994	1639
70.0	3937	2636	1011	797	791	803	881	992	907	1389
72.5	1788	1148	602	621	644	679	750	888	789	1045
75.0	683	511	393	485	540	578	639	696	564	711
77.5	340	273	299	410	460	495	475	432	347	457

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**CANDELA TABULATION - (Cont.)**

80.0	206	183	245	354	389	353	291	326	253	333
82.5	144	131	203	305	289	229	211	237	158	241
85.0	89	87	162	236	185	161	152	127	74	148
87.5	43	45	112	146	108	87	60	54	32	70
90.0	15	10	39	58	45	40	27	17	7	9
92.5	9	9	19	31	39	35	25	13	3	2
95.0	8	8	17	28	36	32	23	13	3	2
97.5	7	8	15	24	30	27	20	12	4	2
100.0	6	8	12	20	25	23	18	10	4	2
102.5	7	8	10	17	21	20	16	10	5	3
105.0	7	8	10	15	18	17	14	9	5	3
107.5	7	8	10	13	15	15	14	9	5	3
110.0	7	9	10	12	14	14	13	9	6	4
112.5	8	9	10	12	14	14	13	10	6	4
115.0	8	9	10	12	14	14	13	10	7	5
117.5	8	9	10	12	14	14	13	10	7	5
120.0	8	10	10	12	14	14	13	10	7	5
122.5	9	10	10	13	15	15	14	12	8	6
125.0	9	10	12	13	14	15	14	12	8	6
127.5	9	10	10	12	14	15	14	12	8	7
130.0	9	10	10	12	14	14	14	12	8	7
132.5	9	10	10	12	13	14	13	10	8	6
135.0	9	9	10	12	12	12	10	9	7	5
137.5	7	8	8	9	10	10	9	7	5	3
140.0	6	7	7	8	8	8	7	6	3	2
142.5	6	6	7	7	8	7	6	5	3	1
145.0	5	6	6	7	7	7	6	4	2	1
147.5	5	6	6	6	7	7	5	4	2	0
150.0	5	6	6	6	7	6	5	4	2	0
152.5	5	6	6	6	6	6	5	3	1	0
155.0	5	5	6	6	6	6	5	3	1	0
157.5	4	5	5	6	6	5	4	2	1	0
160.0	4	5	5	5	5	5	4	2	0	0
162.5	4	4	5	5	5	5	3	2	0	0
165.0	4	4	5	5	5	4	3	2	0	0
167.5	4	4	4	5	5	4	3	2	0	0
170.0	4	4	5	5	5	4	3	2	0	0
172.5	4	4	4	5	5	4	3	2	0	0
175.0	4	4	4	4	4	4	3	2	1	0
177.5	4	4	4	4	4	4	3	2	1	0
180.0	3	3	3	3	3	3	3	3	3	3

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

	<u>175.0</u>	<u>180.0</u>
0.0	970	970
2.5	980	984
5.0	988	1004
7.5	1003	1020
10.0	1074	1081
12.5	1199	1208
15.0	1302	1334
17.5	1386	1404
20.0	1475	1481
22.5	1497	1546
25.0	1591	1614

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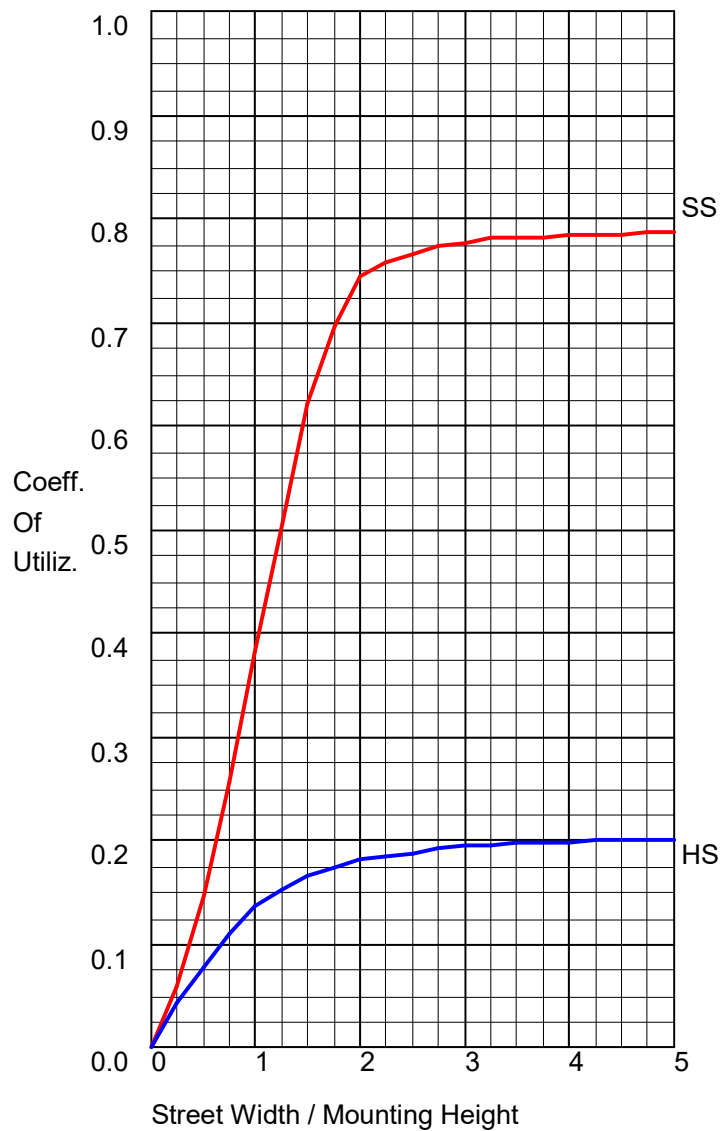
**CANDELA TABULATION - (Cont.)**

27.5	1666	1699
30.0	1770	1822
32.5	1987	2015
35.0	2227	2247
37.5	2409	2404
40.0	2267	2225
42.5	2002	1955
45.0	1820	1768
47.5	1714	1653
50.0	1629	1564
52.5	1548	1466
55.0	1439	1337
57.5	1353	1221
60.0	1344	1160
62.5	1396	1161
65.0	1500	1234
67.5	1643	1390
70.0	1742	1593
72.5	1585	1628
75.0	1283	1522
77.5	1068	1287
80.0	799	931
82.5	555	626
85.0	386	422
87.5	278	416
90.0	14	1
92.5	0	0
95.0	0	0
97.5	0	0
100.0	0	0
102.5	1	0
105.0	1	0
107.5	1	1
110.0	2	1
112.5	2	2
115.0	3	2
117.5	3	3
120.0	4	3
122.5	4	4
125.0	4	4
127.5	5	4
130.0	5	5
132.5	5	4
135.0	3	3
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

**IES ROAD REPORT****PHOTOMETRIC FILENAME : ENM4-PT-3-LED-18L-50.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>	3	3

COEFFICIENTS OF UTILIZATION

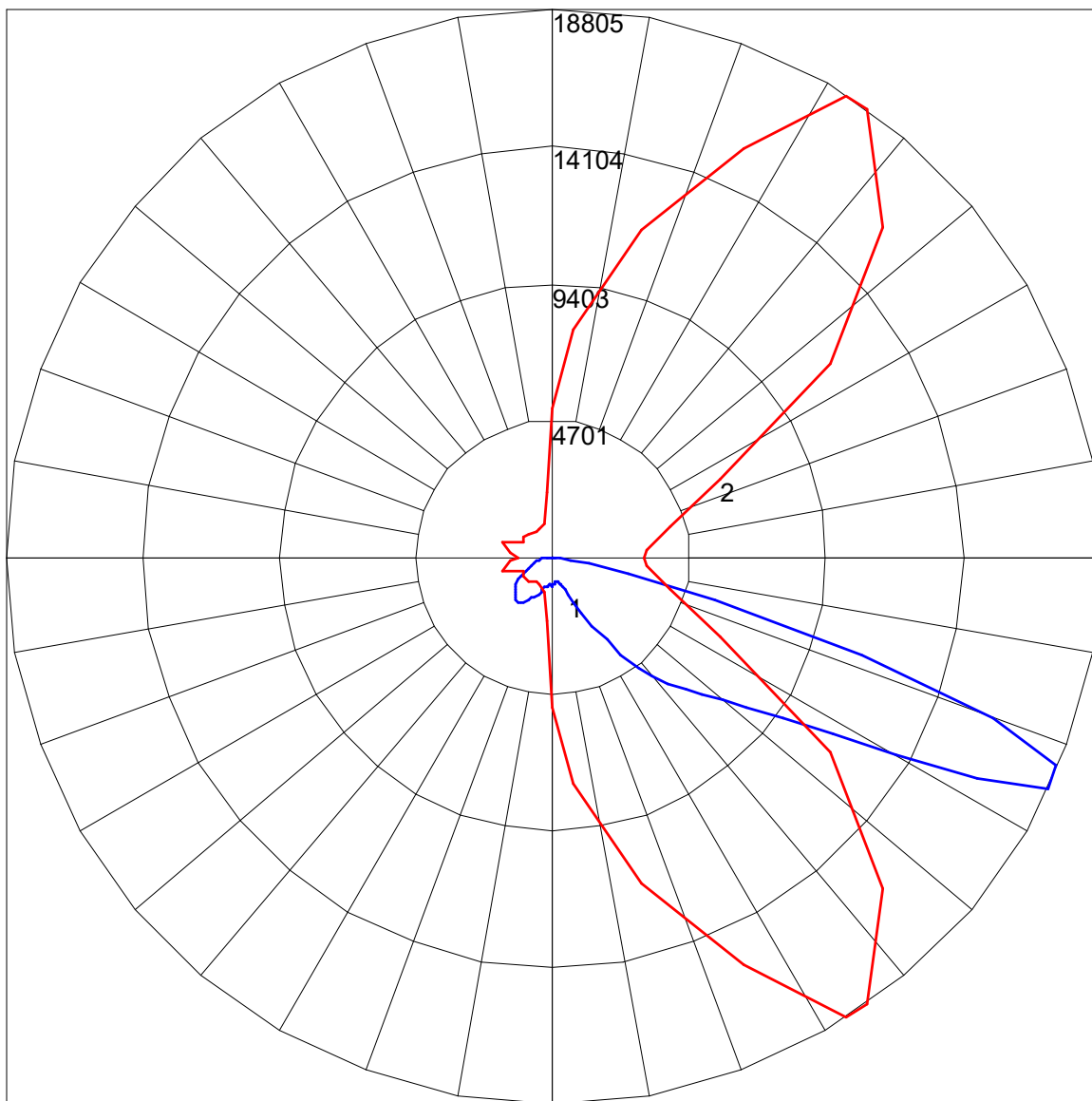


FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	15576.0	79.2
Downward House Side	4039.6	20.5
Downward Total	19615.6	99.7
Upward Street Side	21.5	0.1
Upward House Side	30.7	0.2
Upward Total	52.2	0.3
Total Flux	19667.8	100.0

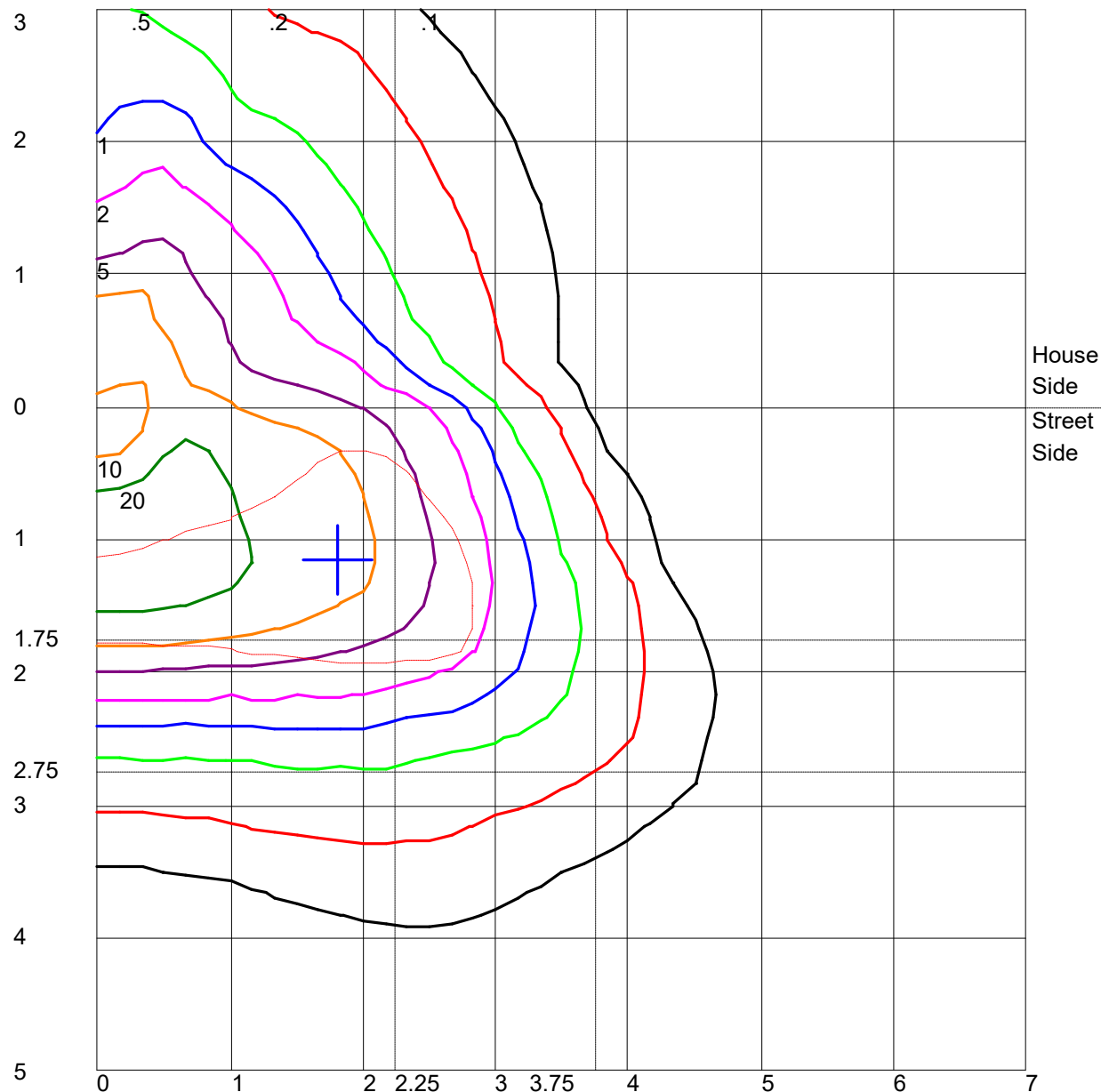


POLAR GRAPH

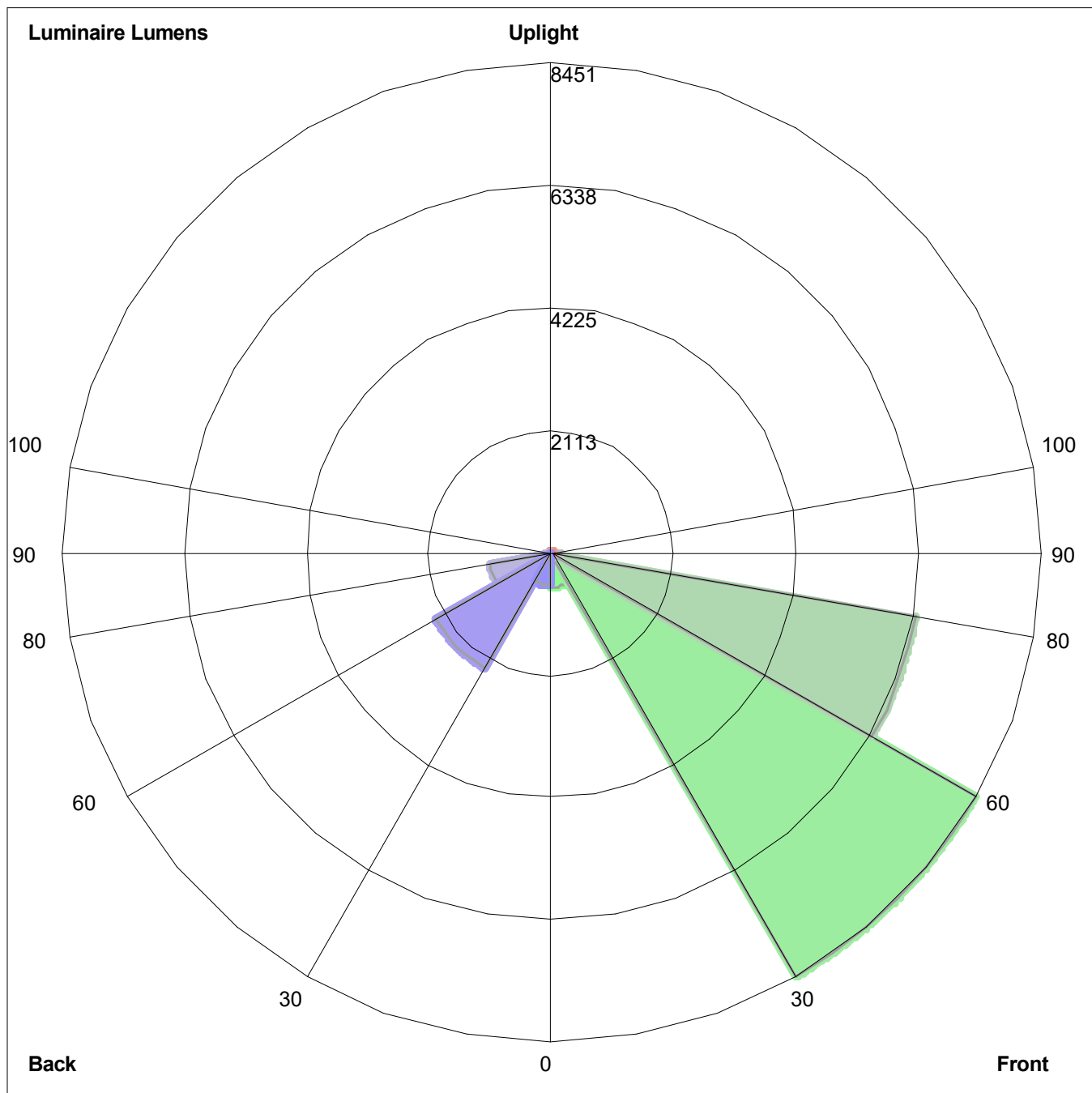


Maximum Candela = 18805 Located At Horizontal Angle = 57.5, Vertical Angle = 65  
# 1 - Vertical Plane Through Horizontal Angles (57.5 - 237.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=589.8, Medium= 8451.0, High=6381.2, Very High=154.0  
Back: Low=565.5, Medium=2296.1, High= 1075.0, Very High=103.1  
Uplight: Low=16.8, High=35.3

BUG Rating : B3-U2-G3