



IES ROAD REPORT

PHOTOMETRIC FILENAME : ENM4-PT-2-LED-18L-40-IL.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] LED-11747

[TESTLAB] LSI INDUSTRIES, INC.

[ISSUE DATE] 06/10/2020

[TEST DATE] 04/23/20

[MANUFAC] LSI INDUSTRIES, INC.

[LUMCAT] ENM4-PT-2-LED-18L-40-IL

[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.

[OTHER] TEST PROCEDURE: IESNA LM-79-08

[SEARCH_SOURCETYPE] LED

[SEARCH_APPLICATION] Outdoor

[FACTORED] SCALED FROM ORIGINAL TEST DATA

CHARACTERISTICS

IES Classification	Type II
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	13627
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	91
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	14015
Maximum Candela Angle	80H 57.5V
Maximum Candela (<90 Degrees Vertical)	14015
Maximum Candela Angle (<90 Degrees Vertical)	80H 57.5V
Maximum Candela At 90 Degrees Vertical	15 (0.1% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	544 (4.0% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

IES ROAD REPORT
PHOTOMETRIC FILENAME : ENM4-PT-2-LED-18L-40-IL.IES

LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1061.9	N.A.	7.8
FM - Front-Medium (30-60)	7721.1	N.A.	56.7
FH - Front-High (60-80)	2472.1	N.A.	18.1
FVH - Front-Very High (80-90)	53.7	N.A.	0.4
BL - Back-Low (0-30)	573.0	N.A.	4.2
BM - Back-Medium (30-60)	1428.1	N.A.	10.5
BH - Back-High (60-80)	289.1	N.A.	2.1
BVH - Back-Very High (80-90)	9.8	N.A.	0.1
UL - Uplight-Low (90-100)	4.1	N.A.	0.0
UH - Uplight-High (100-180)	14.2	N.A.	0.1
Total	13627.1	N.A.	100.0
BUG Rating	B2-U2-G2		

IES ROAD REPORT
PHOTOMETRIC FILENAME : ENM4-PT-2-LED-18L-40-IL.IES

CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	0	5	15	25	35	45	55	65	75	80
0.0	1396	1396	1396	1396	1396	1396	1396	1396	1396	1396
2.5	1421	1425	1425	1436	1437	1440	1444	1418	1411	1390
5.0	1427	1434	1469	1460	1499	1404	1401	1369	1330	1316
7.5	1459	1482	1520	1444	1468	1408	1432	1483	1444	1398
10.0	1544	1546	1599	1485	1528	1549	1565	1542	1501	1454
12.5	1676	1761	1681	1646	1688	1662	1679	1652	1642	1644
15.0	1808	1889	1849	1893	1944	1856	1872	1834	1853	1798
17.5	1927	2004	1971	2013	2068	2159	2064	2103	2136	2034
20.0	2195	2248	2250	2212	2279	2308	2398	2355	2405	2378
22.5	2382	2399	2456	2515	2537	2544	2748	2753	2856	2830
25.0	2745	2662	2729	2785	2851	2823	3115	3334	3363	3346
27.5	3125	3214	3242	3128	3176	3254	3506	4028	4216	4068
30.0	3627	3564	3514	3546	3599	3754	4051	4884	5101	5008
32.5	4273	4327	4077	3917	4067	4226	4829	5958	6254	6152
35.0	4956	4853	4684	4567	4503	4904	5560	6807	7399	7203
37.5	5653	5579	5312	5072	5217	5394	6216	7441	7888	7969
40.0	5933	5933	5817	5749	5822	6017	6726	7676	8240	8184
42.5	6012	6014	5992	6041	6304	6553	7357	7858	8378	8477
45.0	5827	5851	5880	6085	6548	7121	8014	8368	8765	9027
47.5	5378	5405	5502	5796	6416	7315	8668	9197	9406	9769
50.0	4745	4721	4877	5198	5947	7159	9283	10135	10161	10591
52.5	3899	3930	4100	4465	5236	6656	9731	11125	11182	11893
55.0	2994	3026	3199	3625	4350	5781	9764	11954	12346	13192
57.5	2135	2172	2329	2698	3414	4763	9146	12152	13145	14015
60.0	1488	1519	1649	1911	2461	3515	7961	11576	13282	13898
62.5	1077	1084	1195	1344	1651	2387	6464	10097	12502	12755
65.0	762	772	851	1016	1196	1537	4861	8393	10604	10606
67.5	518	529	566	715	918	1052	3289	6358	8435	8191
70.0	317	324	339	474	669	779	2004	4361	5760	5293
72.5	239	239	241	297	459	571	1108	2659	3343	2579
75.0	162	167	165	194	310	408	597	1622	1630	994
77.5	110	110	112	120	197	287	358	932	862	550
80.0	71	75	80	75	108	184	225	510	544	384
82.5	67	67	64	60	65	93	132	260	355	298
85.0	50	50	47	48	51	65	78	125	182	179
87.5	31	30	28	28	30	39	48	63	65	65
90.0	9	9	8	7	7	7	7	9	9	7
92.5	4	4	4	4	2	0	0	0	1	1
95.0	3	2	3	3	1	0	0	0	0	0
97.5	3	2	3	3	1	0	0	0	0	0
100.0	3	2	3	3	1	0	0	0	0	0
102.5	3	2	3	3	1	0	0	0	0	0
105.0	3	2	3	3	1	0	0	0	0	0
107.5	3	3	3	3	1	0	0	0	0	0
110.0	4	4	4	4	2	1	0	0	0	0
112.5	4	4	4	4	2	1	0	0	0	0
115.0	5	4	4	4	2	1	0	0	1	1
117.5	6	5	4	4	3	1	0	0	1	1
120.0	7	6	5	4	3	1	0	1	1	1
122.5	7	7	6	5	4	2	0	1	2	2
125.0	8	8	7	5	4	2	1	1	3	3
127.5	9	9	7	6	4	3	1	2	3	4
130.0	9	9	7	7	4	3	1	2	4	4

IES ROAD REPORT
PHOTOMETRIC FILENAME : ENM4-PT-2-LED-18L-40-IL.IES

CANDELA TABULATION - (Cont.)

132.5	9	9	8	7	4	4	1	2	4	4
135.0	9	8	7	6	4	3	1	2	4	4
137.5	4	4	4	3	2	1	0	0	1	1
140.0	1	1	1	1	0	0	0	0	0	0
142.5	0	1	1	1	0	0	0	0	0	0
145.0	0	1	1	1	0	0	0	0	0	0
147.5	0	1	1	1	0	0	0	0	0	0
150.0	1	1	1	1	0	0	0	0	0	0
152.5	1	1	1	1	0	0	0	0	0	0
155.0	1	1	1	1	0	0	0	0	0	0
157.5	1	1	1	1	0	0	0	0	0	0
160.0	0	1	1	0	0	0	0	0	0	0
162.5	1	1	1	0	0	0	0	0	0	0
165.0	1	1	1	0	0	0	0	0	0	0
167.5	1	1	1	1	0	0	0	0	0	0
170.0	1	1	1	1	0	0	0	0	0	0
172.5	0	1	1	1	0	0	0	0	0	0
175.0	1	1	1	1	0	0	0	0	0	0
177.5	1	1	1	1	0	0	0	0	0	0
180.0	1	1	1	1	1	1	1	1	1	1

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	1396	1396	1396	1396	1396	1396	1396	1396	1396	1396
2.5	1395	1387	1395	1391	1380	1381	1389	1390	1371	1367
5.0	1335	1324	1301	1293	1300	1295	1274	1281	1259	1232
7.5	1393	1385	1356	1357	1290	1227	1132	1148	1128	1164
10.0	1442	1404	1363	1381	1232	1191	1140	1108	1052	1102
12.5	1559	1533	1509	1420	1271	1191	1132	1166	1181	1236
15.0	1725	1682	1588	1433	1256	1232	1239	1294	1338	1310
17.5	1953	1835	1736	1525	1301	1294	1390	1426	1414	1406
20.0	2221	2121	1954	1623	1379	1449	1457	1488	1404	1276
22.5	2659	2410	2272	1840	1523	1557	1521	1356	1108	920
25.0	3154	2939	2663	2003	1767	1665	1384	1021	746	551
27.5	3860	3461	3140	2250	1945	1631	1080	662	451	373
30.0	4745	4184	3680	2521	2102	1452	768	439	360	326
32.5	5603	5014	4258	2782	2182	1195	518	372	321	301
35.0	6615	5848	4901	3075	2114	897	432	334	300	282
37.5	7426	6684	5437	3289	1910	619	389	312	272	253
40.0	7732	7083	5685	3461	1625	482	353	288	242	221
42.5	8154	7433	5904	3480	1171	426	321	258	208	181
45.0	8730	7920	6192	3371	707	382	287	222	170	144
47.5	9448	8502	6475	3052	519	339	247	181	138	115
50.0	10285	9073	6678	2529	445	300	203	144	110	88
52.5	11289	9493	6738	1855	403	262	162	112	87	66
55.0	12325	9582	6535	1249	371	220	127	83	65	48
57.5	12613	9132	5934	894	342	179	95	60	46	30
60.0	12041	8180	5063	741	330	146	70	40	27	13
62.5	10454	6857	4043	613	317	116	49	21	15	7
65.0	8434	5228	2933	469	276	91	33	10	10	5
67.5	6010	3622	1848	334	209	67	21	8	9	5
70.0	3580	2180	1037	233	142	44	17	9	9	6
72.5	1556	1084	568	171	90	28	17	12	8	4
75.0	665	572	353	123	51	22	19	13	7	4
77.5	420	392	228	81	33	22	20	15	7	4

IES ROAD REPORT
PHOTOMETRIC FILENAME : ENM4-PT-2-LED-18L-40-IL.IES

CANDELA TABULATION - (Cont.)

80.0	331	279	149	46	25	22	20	15	7	4
82.5	239	170	88	22	20	20	20	15	7	5
85.0	136	86	41	12	15	19	19	14	7	5
87.5	50	22	7	6	11	17	16	12	7	4
90.0	2	2	3	5	10	15	15	10	6	4
92.5	0	1	3	5	9	14	13	8	5	4
95.0	0	1	2	4	7	10	9	6	4	4
97.5	0	1	2	4	6	7	6	5	4	4
100.0	0	1	2	4	4	5	5	4	3	4
102.5	0	1	2	3	4	4	4	4	3	4
105.0	0	1	2	3	4	4	4	4	3	4
107.5	0	1	2	3	4	4	4	4	3	4
110.0	1	1	2	4	4	4	4	4	4	4
112.5	1	2	2	4	4	4	4	4	4	4
115.0	1	2	3	4	4	4	4	4	4	4
117.5	2	3	3	4	4	4	4	4	4	4
120.0	3	3	4	4	4	4	4	4	4	4
122.5	4	4	4	4	5	5	5	5	5	5
125.0	4	4	4	5	5	5	5	5	5	5
127.5	4	4	5	5	5	5	5	6	6	6
130.0	4	4	5	5	5	5	5	6	6	6
132.5	4	5	5	5	5	5	6	6	6	6
135.0	4	4	4	5	5	5	5	6	6	6
137.5	1	2	3	3	4	4	4	5	5	5
140.0	0	1	1	1	2	3	4	4	4	4
142.5	0	0	0	1	2	2	3	4	4	4
145.0	0	0	0	1	1	2	3	4	4	4
147.5	0	0	0	1	1	3	4	4	4	4
150.0	0	0	0	1	2	3	4	4	4	4
152.5	0	0	0	1	2	3	4	4	4	4
155.0	0	0	0	1	2	3	4	4	4	4
157.5	0	0	0	1	2	3	4	4	4	4
160.0	0	0	0	1	1	2	3	4	4	3
162.5	0	0	0	1	1	2	3	4	4	3
165.0	0	0	0	0	1	1	2	3	3	3
167.5	0	0	0	0	1	1	2	3	3	2
170.0	0	0	0	0	1	1	1	2	2	2
172.5	0	0	0	0	0	1	1	2	2	2
175.0	0	0	0	0	0	1	1	2	2	2
177.5	0	0	0	0	0	1	1	1	2	1
180.0	1	1	1	1	1	1	1	1	1	1

Vert. Horizontal Angles
Angles

	175	180
0.0	1396	1396
2.5	1353	1327
5.0	1213	1199
7.5	1153	1131
10.0	1128	1074
12.5	1262	1228
15.0	1409	1385
17.5	1470	1428
20.0	1257	1198
22.5	843	831
25.0	485	473

IES ROAD REPORT
PHOTOMETRIC FILENAME : ENM4-PT-2-LED-18L-40-IL.IES

CANDELA TABULATION - (Cont.)

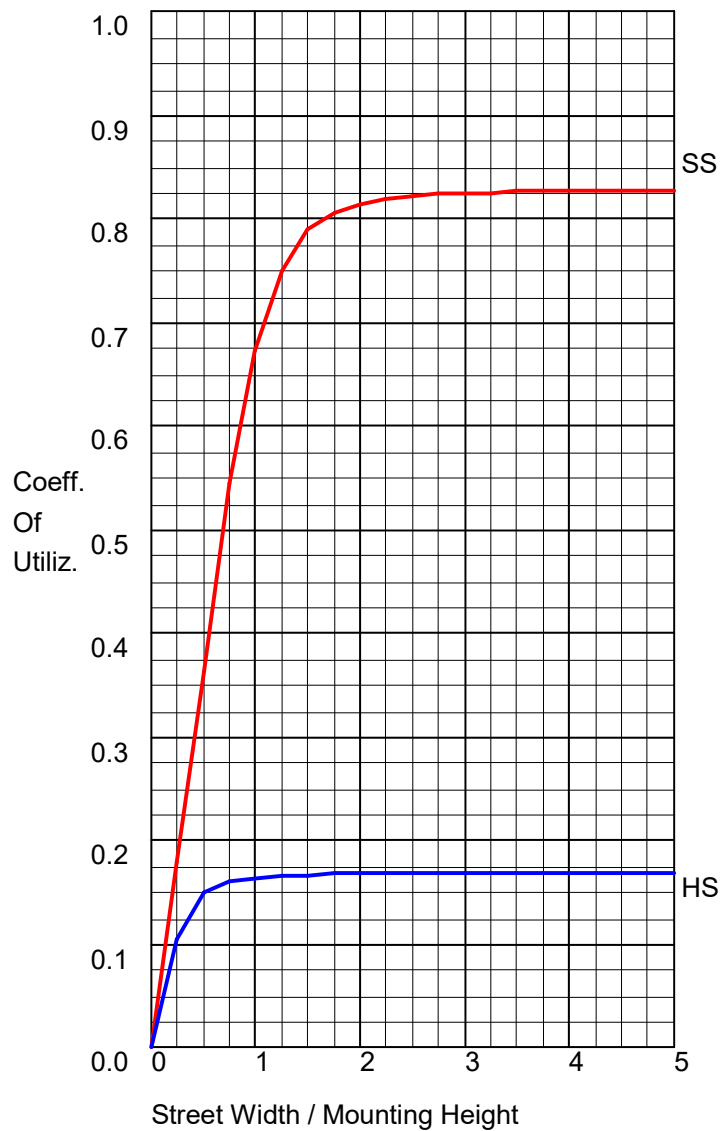
27.5	359	357
30.0	321	321
32.5	305	304
35.0	281	281
37.5	252	254
40.0	215	213
42.5	172	169
45.0	136	136
47.5	106	105
50.0	81	80
52.5	59	59
55.0	40	39
57.5	22	21
60.0	9	9
62.5	4	4
65.0	2	3
67.5	3	3
70.0	3	3
72.5	2	1
75.0	1	1
77.5	2	1
80.0	2	2
82.5	2	2
85.0	2	3
87.5	2	2
90.0	2	2
92.5	2	2
95.0	2	1
97.5	2	1
100.0	2	1
102.5	2	2
105.0	1	1
107.5	1	2
110.0	2	2
112.5	2	1
115.0	2	2
117.5	3	3
120.0	4	4
122.5	4	5
125.0	5	5
127.5	6	6
130.0	6	6
132.5	7	7
135.0	6	6
137.5	4	4
140.0	3	3
142.5	3	3
145.0	2	2
147.5	2	2
150.0	3	2
152.5	3	3
155.0	2	3
157.5	2	2
160.0	1	1
162.5	1	1
165.0	1	0

IES ROAD REPORT
PHOTOMETRIC FILENAME : ENM4-PT-2-LED-18L-40-IL.IES

CANDELA TABULATION - (Cont.)

167.5	1	0
170.0	1	0
172.5	1	0
175.0	1	0
177.5	1	0
180.0	1	1

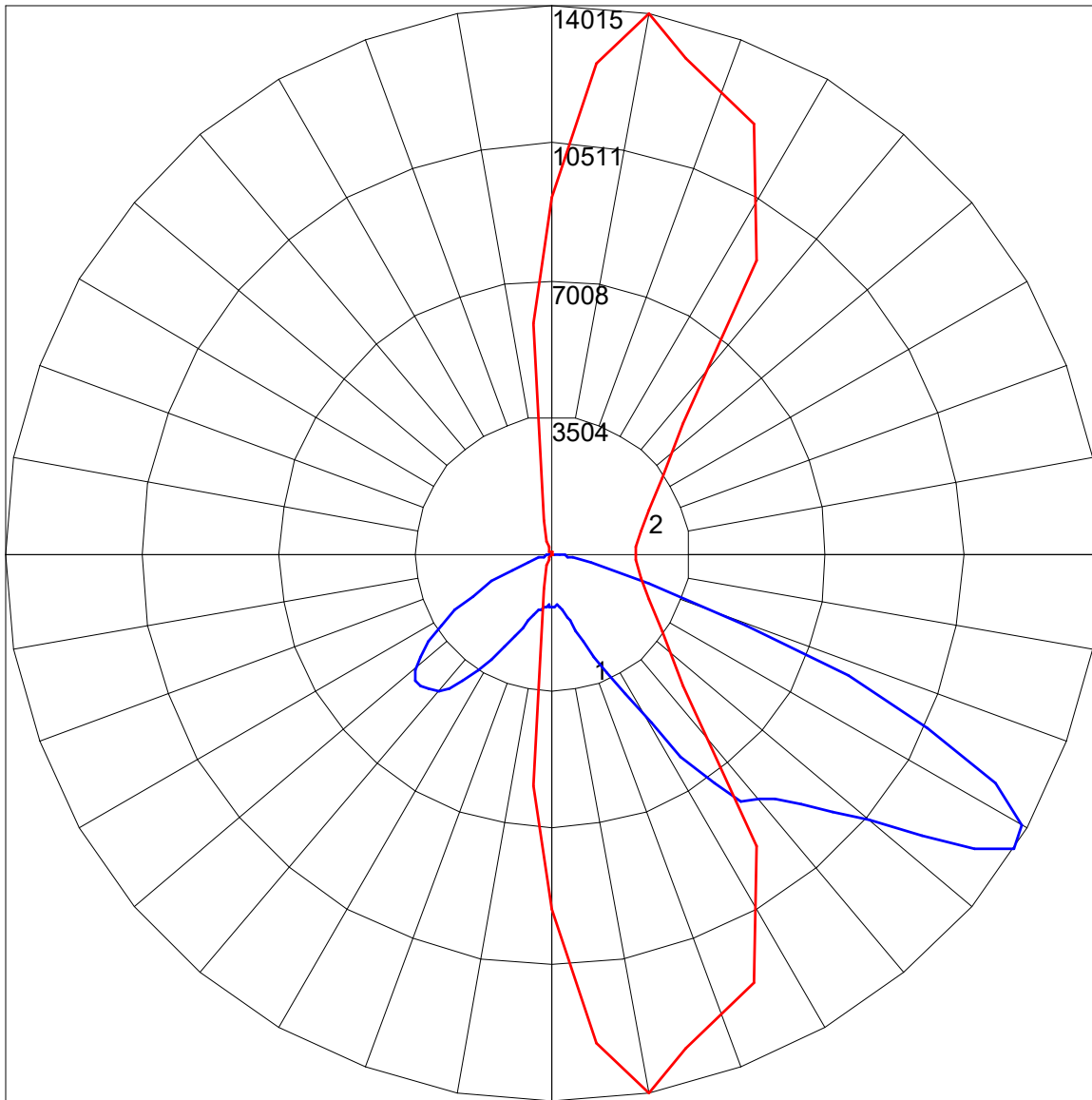
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

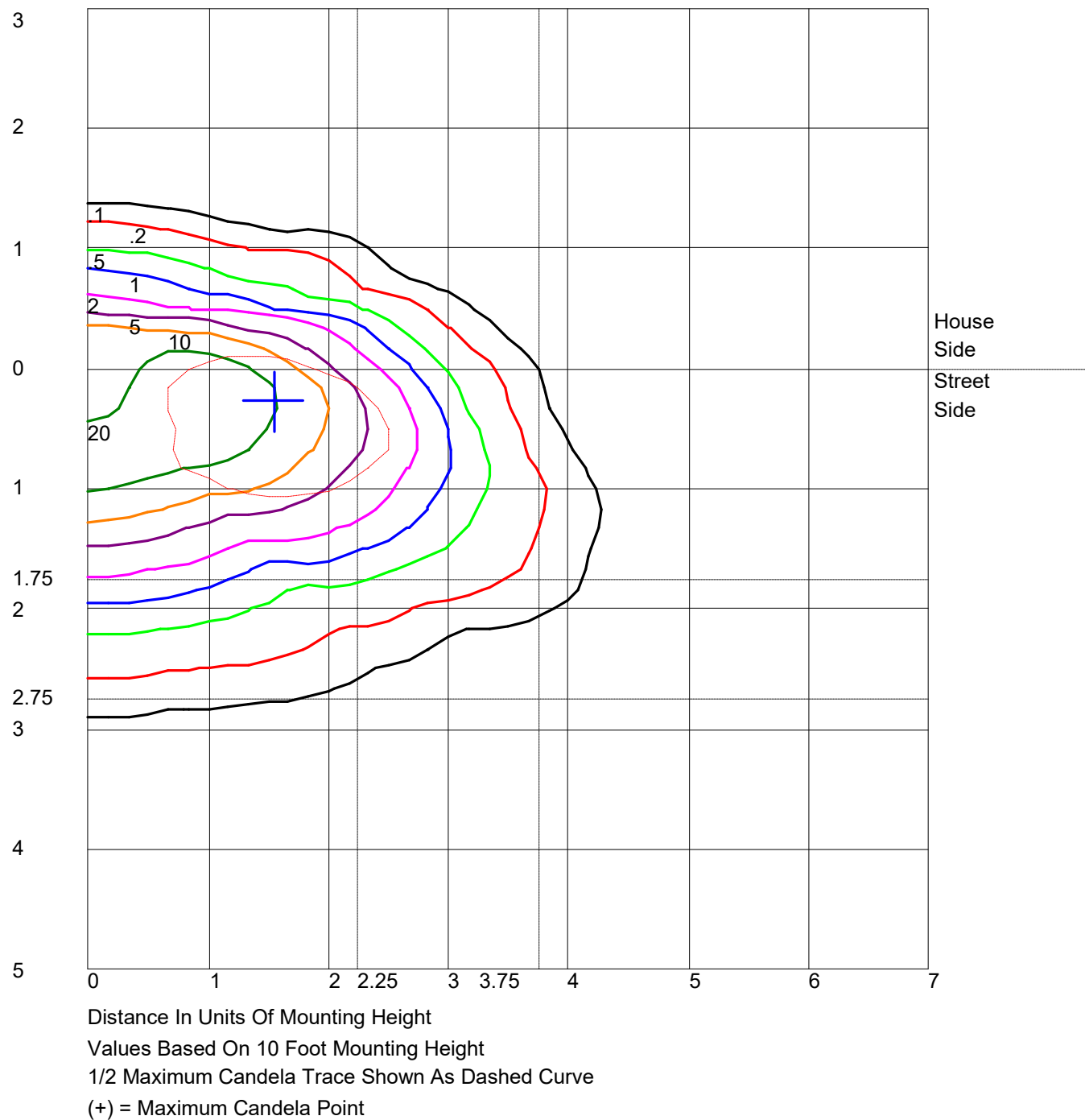
	Lumens	Percent Of Luminaire
Downward Street Side	11308.8	83.0
Downward House Side	2300.1	16.9
Downward Total	13608.9	99.9
Upward Street Side	6.0	0.0
Upward House Side	12.4	0.1
Upward Total	18.4	0.1
Total Flux	13627.3	100.0

POLAR GRAPH

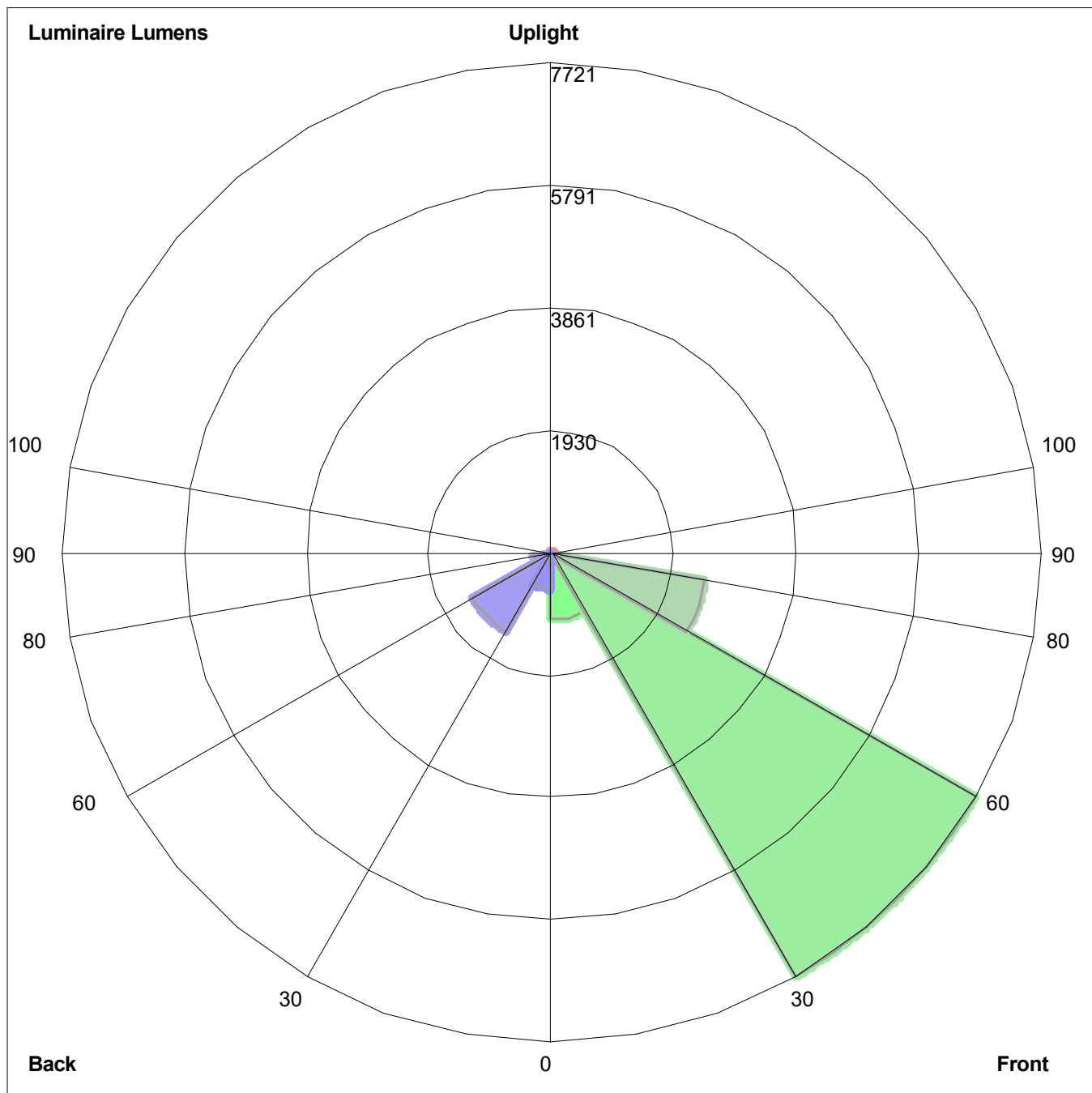


Maximum Candela = 14015 Located At Horizontal Angle = 80, Vertical Angle = 57.5
1 - Vertical Plane Through Horizontal Angles (80 - 260) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (57.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=1061.9, Medium=7721.1, High=2472.1, Very High=53.7
Back: Low=573.0, Medium=1428.1, High=289.1, Very High=9.8
Uplight: Low=4.1, High=14.2

BUG Rating : B2-U2-G2