



IES ROAD REPORT

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

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] LED-11762

[TESTLAB] LSI INDUSTRIES, INC.

[ISSUE DATE] 06/10/2020

[TEST DATE] 04/27/20

[MANUFAC] LSI INDUSTRIES, INC.

[LUMCAT] ENM4-PT-FT-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 III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	13867
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	93
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	9810
Maximum Candela Angle	40H 65V
Maximum Candela (<90 Degrees Vertical)	9810
Maximum Candela Angle (<90 Degrees Vertical)	40H 65V
Maximum Candela At 90 Degrees Vertical	40 (0.3% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1224 (8.8% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	775.8	N.A.	5.6
FM - Front-Medium (30-60)	6308.6	N.A.	45.5
FH - Front-High (60-80)	4573.8	N.A.	33.0
FVH - Front-Very High (80-90)	166.8	N.A.	1.2
BL - Back-Low (0-30)	527.3	N.A.	3.8
BM - Back-Medium (30-60)	1242.8	N.A.	9.0
BH - Back-High (60-80)	217.7	N.A.	1.6
BVH - Back-Very High (80-90)	11.2	N.A.	0.1
UL - Uplight-Low (90-100)	10.3	N.A.	0.1
UH - Uplight-High (100-180)	32.5	N.A.	0.2
Total	13866.8	N.A.	100.0
BUG Rating	B2-U2-G2		

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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>
0.0	1372	1372	1372	1372	1372	1372	1372	1372	1372	1372
2.5	1340	1357	1357	1360	1359	1365	1372	1381	1377	1366
5.0	1262	1258	1288	1314	1312	1300	1310	1280	1265	1263
7.5	1196	1218	1235	1217	1181	1198	1188	1260	1321	1323
10.0	1192	1200	1195	1174	1184	1209	1241	1275	1292	1323
12.5	1296	1264	1258	1211	1225	1248	1256	1288	1360	1396
15.0	1364	1334	1349	1354	1360	1341	1332	1370	1435	1481
17.5	1452	1433	1417	1450	1493	1480	1504	1483	1521	1602
20.0	1601	1605	1621	1621	1618	1648	1664	1660	1647	1748
22.5	1771	1801	1846	1908	1870	1863	1870	1883	1825	1930
25.0	2041	2050	2071	2129	2253	2220	2177	2191	2102	2101
27.5	2518	2454	2492	2467	2542	2602	2572	2525	2421	2328
30.0	2855	2891	2897	2928	2917	2970	2982	2968	2740	2572
32.5	3612	3461	3385	3365	3421	3418	3426	3413	3096	2873
35.0	3978	4012	3899	3929	3883	3931	3868	3852	3549	3144
37.5	4579	4581	4396	4431	4467	4468	4352	4349	3959	3519
40.0	4966	4973	4995	4981	4986	4978	4914	4773	4437	3846
42.5	5267	5276	5347	5400	5510	5419	5394	5311	4903	4122
45.0	5579	5620	5658	5762	6006	5912	5933	5723	5317	4450
47.5	5946	5986	6021	6147	6421	6414	6436	6222	5768	4798
50.0	6293	6329	6404	6605	6893	6977	7031	6733	6258	5111
52.5	6585	6634	6753	7035	7433	7603	7594	7326	6700	5347
55.0	6834	6886	7043	7414	7996	8154	8122	7901	6996	5510
57.5	7059	7124	7371	7805	8530	8671	8712	8316	7149	5494
60.0	7245	7314	7635	8236	8979	9182	9170	8549	7155	5295
62.5	7286	7356	7835	8646	9387	9606	9489	8543	6910	4901
65.0	6723	6792	7491	8601	9571	9810	9605	8228	6368	4260
67.5	5672	5687	6560	7866	9109	9416	9174	7628	5527	3470
70.0	3355	3356	4506	6378	7870	8266	7999	6551	4441	2450
72.5	1348	1463	2071	3558	5635	6249	6360	5032	3063	1554
75.0	1015	1080	1388	1941	2827	3238	3760	3207	1895	1020
77.5	819	870	1144	1515	1744	1799	1818	1789	1209	729
80.0	658	709	958	1202	1224	1166	1078	876	764	487
82.5	492	533	698	784	673	595	493	371	377	320
85.0	272	292	355	354	258	242	201	166	177	180
87.5	100	102	120	116	82	75	59	54	53	68
90.0	31	34	40	34	24	20	15	11	7	9
92.5	14	15	11	8	7	8	8	8	7	7
95.0	3	2	3	4	7	7	7	7	7	7
97.5	3	3	4	4	6	6	7	7	7	7
100.0	2	2	3	4	5	6	6	7	6	7
102.5	3	3	4	4	5	6	6	6	6	7
105.0	3	3	3	4	5	5	6	6	6	6
107.5	3	3	4	4	5	6	6	6	6	6
110.0	4	4	4	4	5	6	6	6	6	7
112.5	4	4	4	5	6	6	7	6	6	7
115.0	4	4	4	5	6	7	7	7	7	7
117.5	5	5	5	5	7	7	7	7	7	7
120.0	6	6	6	6	7	7	7	7	7	7
122.5	7	7	7	7	7	7	7	7	7	8
125.0	7	7	7	7	7	7	8	7	7	8
127.5	7	7	7	7	7	7	8	8	7	9
130.0	8	8	8	8	8	8	8	8	8	9

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CANDELA TABULATION - (Cont.)

132.5	8	8	8	8	8	8	8	8	8	9
135.0	7	7	7	7	7	7	8	7	7	8
137.5	4	4	4	5	6	6	7	7	7	7
140.0	1	1	2	3	4	4	4	5	5	5
142.5	1	1	2	3	4	4	4	4	4	5
145.0	1	1	2	3	4	4	4	4	4	5
147.5	1	1	2	3	4	4	4	4	4	4
150.0	1	1	2	3	4	4	4	4	4	4
152.5	1	1	2	3	4	4	4	4	4	4
155.0	1	1	2	3	4	4	4	4	4	4
157.5	1	1	2	3	4	4	4	4	4	4
160.0	1	1	2	3	4	4	4	4	4	4
162.5	1	1	2	3	4	4	4	4	4	4
165.0	1	1	2	3	4	4	4	4	4	4
167.5	1	1	2	3	4	4	4	4	4	4
170.0	1	1	2	3	4	4	4	4	4	4
172.5	1	1	2	3	4	4	4	4	4	4
175.0	1	1	2	3	4	4	4	4	4	4
177.5	1	1	2	3	3	4	4	4	4	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	1372	1372	1372	1372	1372	1372	1372	1372	1372	1372
2.5	1375	1383	1370	1367	1372	1374	1381	1387	1364	1337
5.0	1273	1284	1269	1301	1308	1321	1334	1343	1332	1301
7.5	1311	1336	1342	1375	1332	1263	1209	1241	1229	1274
10.0	1342	1306	1327	1344	1293	1281	1244	1240	1193	1243
12.5	1383	1412	1441	1424	1344	1259	1260	1302	1263	1261
15.0	1528	1508	1515	1445	1345	1365	1355	1268	1177	1063
17.5	1595	1603	1582	1560	1427	1414	1344	1136	949	839
20.0	1785	1750	1741	1570	1482	1441	1177	943	802	756
22.5	1944	1919	1901	1736	1574	1367	1016	835	771	752
25.0	2148	2117	2076	1856	1659	1258	908	807	777	780
27.5	2327	2293	2219	2025	1705	1132	889	821	835	869
30.0	2485	2489	2364	2097	1640	1113	909	859	916	959
32.5	2712	2607	2449	2133	1569	1114	938	905	991	1119
35.0	2897	2834	2581	2156	1471	1131	965	939	1081	1241
37.5	3159	3006	2764	2106	1412	1134	966	968	1143	1299
40.0	3332	3100	2821	2052	1371	1127	952	959	1143	1179
42.5	3492	3178	2838	1982	1310	1105	909	894	1007	892
45.0	3672	3285	2910	1895	1245	1050	837	750	744	625
47.5	3839	3360	2946	1803	1173	955	714	582	511	442
50.0	3970	3378	2905	1733	1077	822	580	441	357	323
52.5	4044	3385	2864	1672	934	654	430	320	258	244
55.0	4066	3359	2796	1585	755	462	295	223	187	182
57.5	3981	3250	2675	1446	564	302	208	156	135	133
60.0	3741	3046	2451	1225	392	225	158	115	96	95
62.5	3336	2680	2117	986	284	183	126	88	67	68
65.0	2809	2186	1657	723	227	149	100	67	49	48
67.5	2118	1617	1085	445	182	122	78	54	37	34
70.0	1391	1065	641	261	138	93	61	44	30	26
72.5	819	607	392	170	93	66	48	36	23	17
75.0	583	414	268	122	69	49	40	26	13	8
77.5	411	285	184	91	53	41	31	16	7	4

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CANDELA TABULATION - (Cont.)

80.0	251	186	130	66	42	34	24	12	4	3
82.5	168	126	91	47	34	29	21	10	3	3
85.0	112	78	52	31	27	25	18	10	3	2
87.5	51	31	23	19	20	18	14	8	2	2
90.0	10	7	12	18	20	18	13	8	3	2
92.5	8	7	13	18	21	19	15	10	4	3
95.0	8	7	12	18	20	18	15	10	4	4
97.5	7	6	10	15	17	15	13	10	6	4
100.0	7	6	8	12	13	13	11	9	6	4
102.5	7	6	7	9	11	11	10	9	7	5
105.0	7	6	7	8	10	10	10	8	7	5
107.5	7	7	7	8	9	10	9	8	7	6
110.0	7	7	7	8	9	9	9	8	7	6
112.5	7	7	7	8	9	9	9	8	7	6
115.0	7	7	8	9	10	10	10	9	8	7
117.5	7	8	8	9	10	10	10	10	8	7
120.0	7	8	9	9	10	10	10	10	9	7
122.5	8	9	9	10	10	11	11	10	10	8
125.0	9	9	10	10	10	11	11	11	10	9
127.5	9	10	10	10	10	10	11	11	10	9
130.0	10	10	10	10	10	11	11	10	10	9
132.5	10	10	10	10	10	10	10	10	10	9
135.0	9	9	10	10	10	10	10	9	8	7
137.5	7	7	7	8	8	8	7	7	5	4
140.0	6	6	6	7	7	6	6	5	4	3
142.5	5	5	6	6	6	5	5	4	3	2
145.0	5	5	5	6	6	5	4	4	3	1
147.5	5	5	5	5	5	5	4	4	2	1
150.0	5	5	5	5	5	5	4	4	2	1
152.5	5	5	5	5	5	4	4	3	2	1
155.0	4	5	5	5	5	4	4	3	2	1
157.5	4	4	5	5	4	4	4	3	1	1
160.0	4	4	4	4	4	4	3	2	1	1
162.5	4	4	4	4	4	4	3	2	1	0
165.0	4	4	4	4	4	4	3	1	1	0
167.5	4	4	4	4	4	3	2	1	1	0
170.0	4	4	4	4	4	3	2	1	1	0
172.5	4	4	4	4	4	3	2	1	1	0
175.0	4	4	4	4	3	3	2	1	1	0
177.5	4	4	4	3	3	3	2	1	1	0
180.0	2	2	2	2	2	2	2	2	2	2

Vert. Horizontal Angles
Angles

	175	180
0.0	1372	1372
2.5	1349	1348
5.0	1286	1291
7.5	1275	1261
10.0	1283	1260
12.5	1269	1252
15.0	1081	1078
17.5	822	821
20.0	766	773
22.5	767	782
25.0	827	852

IES ROAD REPORT
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CANDELA TABULATION - (Cont.)

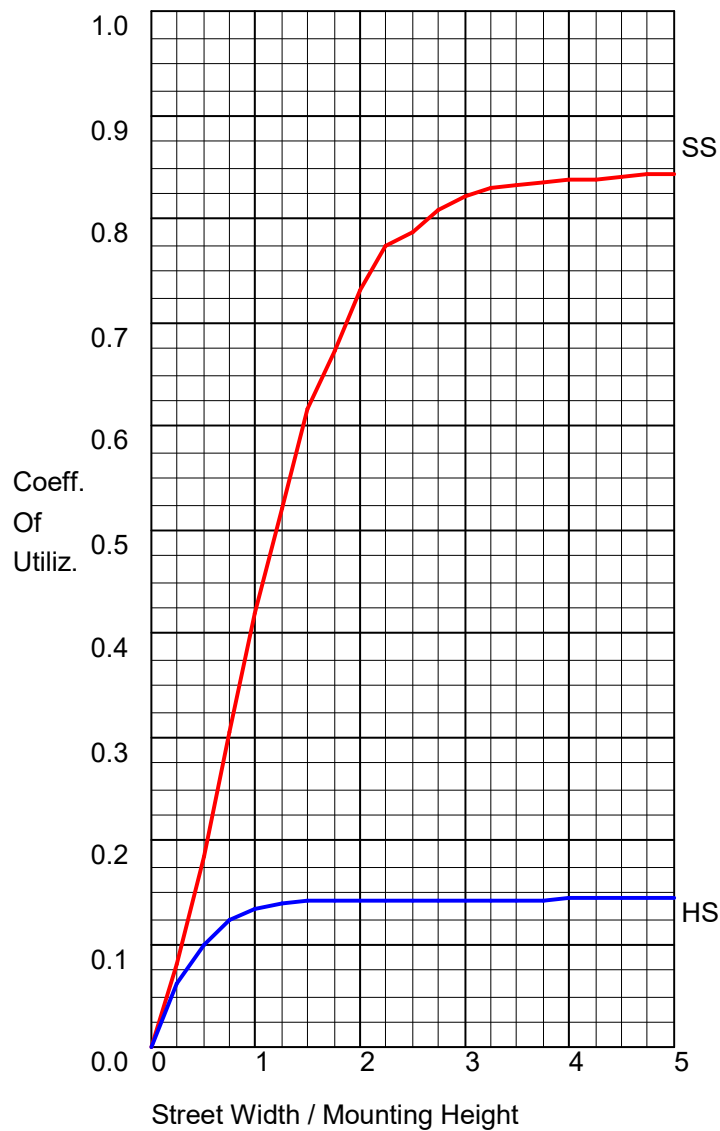
27.5	925	957
30.0	1040	1045
32.5	1215	1222
35.0	1293	1303
37.5	1276	1252
40.0	1053	1024
42.5	782	764
45.0	586	579
47.5	443	445
50.0	342	344
52.5	262	261
55.0	200	201
57.5	154	155
60.0	116	119
62.5	89	91
65.0	67	69
67.5	48	50
70.0	34	37
72.5	20	21
75.0	8	9
77.5	2	3
80.0	1	1
82.5	0	0
85.0	0	0
87.5	0	0
90.0	0	0
92.5	1	0
95.0	2	1
97.5	3	3
100.0	3	3
102.5	4	4
105.0	4	4
107.5	4	4
110.0	4	5
112.5	5	5
115.0	6	6
117.5	6	6
120.0	7	7
122.5	7	7
125.0	8	7
127.5	8	7
130.0	8	7
132.5	7	7
135.0	6	6
137.5	4	4
140.0	1	1
142.5	1	1
145.0	1	0
147.5	1	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.)

167.5	0	0
170.0	0	0
172.5	0	0
175.0	0	0
177.5	0	0
180.0	2	2

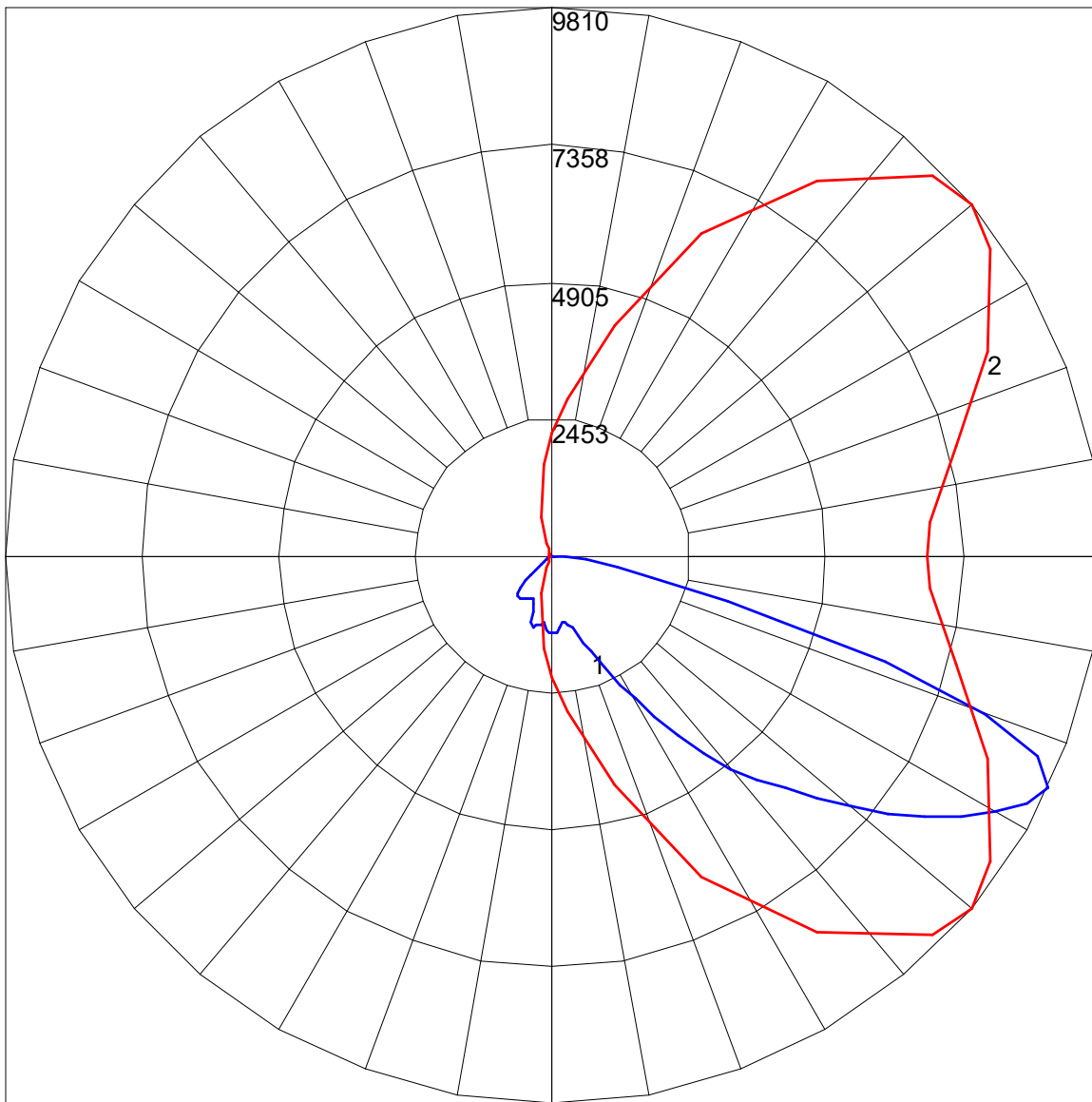
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

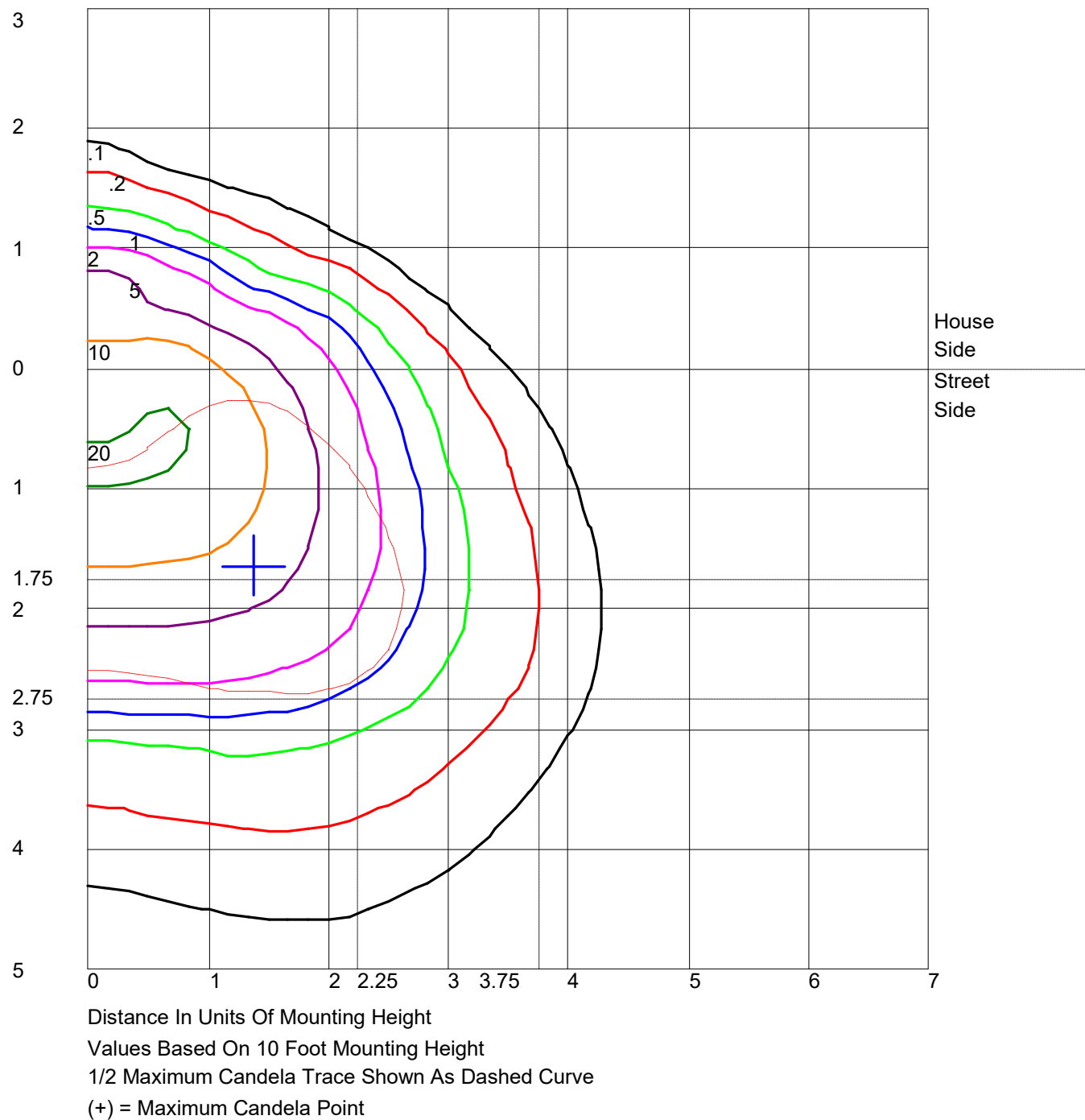
	Lumens	Percent Of Luminaire
Downward Street Side	11825.0	85.3
Downward House Side	1999.0	14.4
Downward Total	13824.0	99.7
Upward Street Side	18.9	0.1
Upward House Side	23.9	0.2
Upward Total	42.8	0.3
Total Flux	13866.8	100.0

POLAR GRAPH

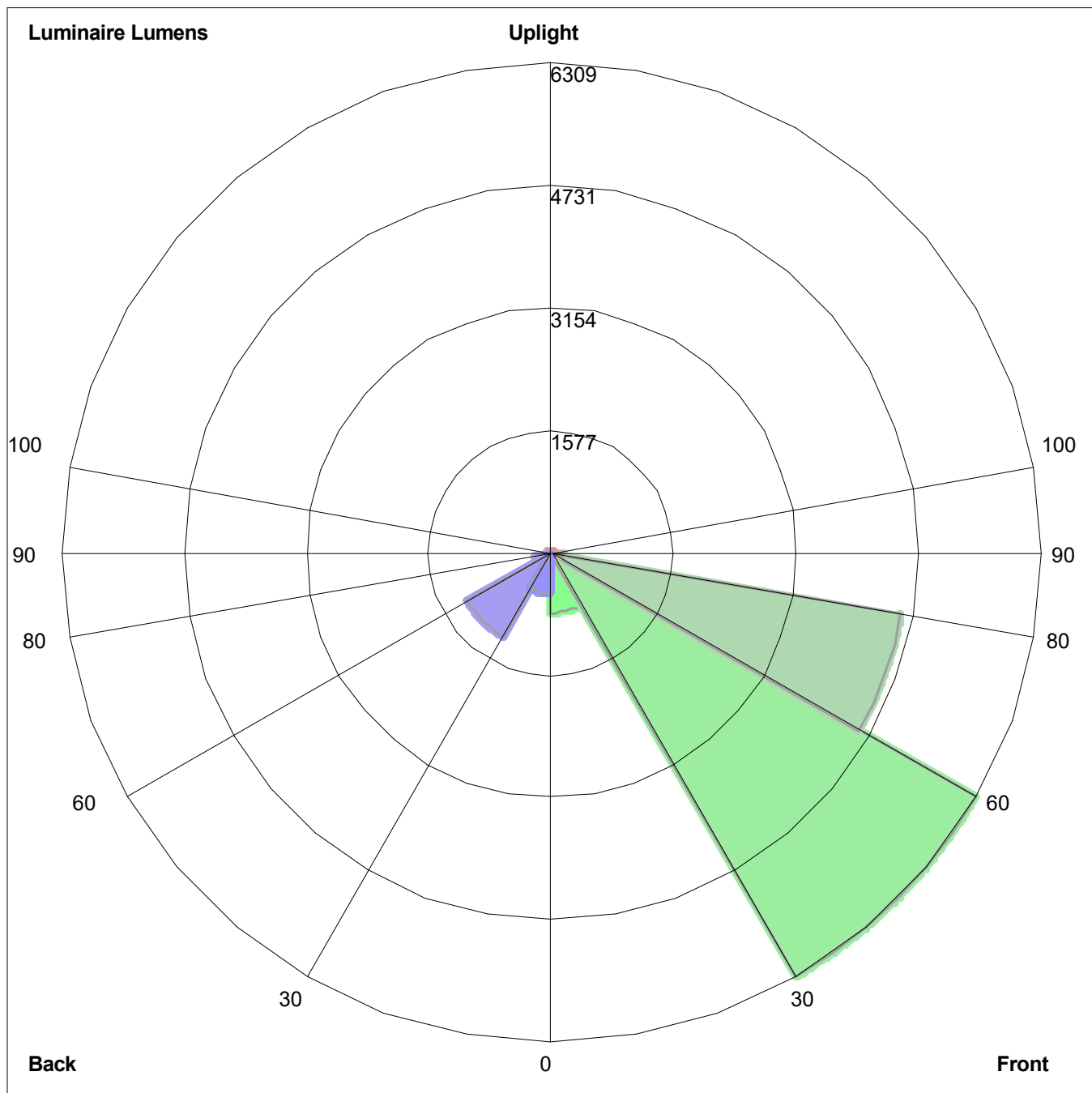


Maximum Candela = 9810 Located At Horizontal Angle = 40, Vertical Angle = 65
1 - Vertical Plane Through Horizontal Angles (40 - 220) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=775.8, Medium=6308.6, High=4573.8, Very High=166.8
Back: Low=527.3, Medium=1242.8, High=217.7, Very High=11.2
Uplight: Low=10.3, High=32.5

BUG Rating : B2-U2-G2