



IES ROAD REPORT

PHOTOMETRIC FILENAME : ENM4-PT-3-LED-18L-30-IL.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] LED-11760

[TESTLAB] LSI INDUSTRIES, INC.

[ISSUE DATE] 06/10/2020

[TEST DATE] 04/26/20

[MANUFAC] LSI INDUSTRIES, INC.

[LUMCAT] ENM4-PT-3-LED-18L-30-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	14065
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	94
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	15412
Maximum Candela Angle	57.5H 60V
Maximum Candela (<90 Degrees Vertical)	15412
Maximum Candela Angle (<90 Degrees Vertical)	57.5H 60V
Maximum Candela At 90 Degrees Vertical	32 (0.2% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	663 (4.7% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	522.2	N.A.	3.7
FM - Front-Medium (30-60)	8339.1	N.A.	59.3
FH - Front-High (60-80)	3657.9	N.A.	26.0
FVH - Front-Very High (80-90)	87.3	N.A.	0.6
BL - Back-Low (0-30)	253.4	N.A.	1.8
BM - Back-Medium (30-60)	956.9	N.A.	6.8
BH - Back-High (60-80)	188.2	N.A.	1.3
BVH - Back-Very High (80-90)	20.8	N.A.	0.1
UL - Uplight-Low (90-100)	9.7	N.A.	0.1
UH - Uplight-High (100-180)	29.6	N.A.	0.2
Total	14065.1	N.A.	100.0
BUG Rating	B1-U2-G2		

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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	681	681	681	681	681	681	681	681	681	681
2.5	670	666	672	668	670	671	674	671	673	670
5.0	676	672	670	670	664	656	648	646	640	638
7.5	653	653	663	661	646	642	651	649	654	653
10.0	651	652	670	637	665	665	695	692	692	686
12.5	707	715	699	692	708	704	727	728	736	723
15.0	753	752	755	766	796	786	793	785	789	801
17.5	802	820	810	841	877	907	875	861	864	874
20.0	936	963	955	951	979	1017	1038	1025	991	979
22.5	1085	1078	1115	1141	1184	1211	1277	1268	1240	1165
25.0	1367	1330	1365	1434	1504	1525	1623	1619	1626	1463
27.5	1882	1884	1905	1896	1965	2036	2145	2151	2179	1936
30.0	2477	2475	2422	2524	2572	2705	2811	2853	2823	2521
32.5	3225	3234	3098	3058	3237	3371	3581	3588	3590	3100
35.0	3885	3884	3822	3863	3868	4257	4361	4419	4254	3692
37.5	4920	4893	4704	4561	4656	4888	5061	5066	4870	4075
40.0	5763	5851	5715	5429	5424	5627	5698	5690	5340	4488
42.5	6876	6896	6714	6386	6247	6281	6199	6196	5726	4874
45.0	8025	8057	7866	7468	7192	7073	6776	6676	6149	5320
47.5	9133	9112	9043	8731	8462	8026	7496	7383	6796	6016
50.0	9868	9889	10082	10151	9637	9115	8493	8339	7771	6943
52.5	9857	10052	10645	11249	11267	10533	10128	9916	9158	8036
55.0	9188	9333	10102	11292	12128	12252	12515	12489	11094	8825
57.5	7428	7552	8798	10499	12215	13409	14641	14704	12544	9074
60.0	4804	4937	6234	8587	11396	13545	15348	15412	12834	8723
62.5	2569	2581	3595	5985	9408	12528	14759	14878	12305	7806
65.0	1314	1390	1832	3452	6572	10324	13180	13439	10775	6130
67.5	767	811	1044	1789	3996	6999	10321	10665	8116	3926
70.0	527	554	701	1160	2167	3959	6784	7235	5184	2282
72.5	389	410	508	878	1439	1986	3724	4099	2767	986
75.0	266	282	368	685	1096	1138	1618	1770	1242	480
77.5	189	196	269	570	866	751	725	785	650	304
80.0	147	150	209	449	663	472	391	398	398	226
82.5	114	117	167	358	441	288	233	238	263	176
85.0	80	86	127	254	261	148	143	147	151	120
87.5	49	54	89	144	96	56	53	54	51	56
90.0	12	13	21	32	18	13	11	11	8	8
92.5	4	5	6	8	6	7	7	8	6	6
95.0	2	2	4	5	6	6	6	6	6	5
97.5	2	2	4	5	6	6	6	6	5	5
100.0	2	2	4	5	6	6	5	5	5	5
102.5	2	2	4	5	6	6	5	5	5	5
105.0	3	3	4	5	6	6	5	5	5	5
107.5	3	3	4	5	6	6	5	5	5	5
110.0	4	4	4	6	6	6	5	5	5	5
112.5	4	4	5	6	6	6	5	5	5	5
115.0	4	4	5	6	6	6	6	5	5	5
117.5	5	5	5	6	7	7	6	6	5	6
120.0	5	5	5	6	7	7	6	6	6	6
122.5	5	5	6	6	7	7	6	6	6	6
125.0	6	6	6	7	8	7	6	6	6	6
127.5	6	6	6	7	8	8	6	6	6	7
130.0	6	6	6	7	8	8	7	6	6	7

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CANDELA TABULATION - (Cont.)

132.5	6	6	6	7	7	8	7	6	6	7
135.0	5	5	5	6	6	6	6	6	6	6
137.5	2	2	4	5	5	5	5	5	5	5
140.0	1	1	3	4	5	5	4	4	4	5
142.5	1	1	3	4	4	4	4	4	4	4
145.0	1	1	3	4	4	4	4	4	4	4
147.5	0	1	2	4	4	4	4	4	4	4
150.0	0	1	2	4	4	4	4	4	4	4
152.5	0	1	2	4	4	4	4	4	4	4
155.0	1	1	2	4	4	4	4	4	4	4
157.5	0	1	2	4	4	4	4	4	4	4
160.0	0	1	2	3	4	4	3	3	4	4
162.5	0	1	2	3	4	3	3	3	3	3
165.0	0	1	2	4	4	4	3	3	3	3
167.5	0	1	2	4	4	4	3	3	3	3
170.0	1	1	2	4	4	4	4	3	3	3
172.5	0	1	2	4	4	4	3	3	3	3
175.0	0	1	2	4	4	4	3	3	3	3
177.5	1	1	2	4	4	4	4	3	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	681	681	681	681	681	681	681	681	681	681
2.5	673	677	677	677	682	692	684	685	680	684
5.0	646	651	653	636	660	673	670	659	661	659
7.5	642	649	649	660	655	646	630	612	601	612
10.0	672	664	659	699	662	642	590	570	524	518
12.5	708	700	699	698	661	623	552	483	455	437
15.0	743	724	724	725	670	582	494	450	415	396
17.5	804	775	793	736	651	522	471	437	411	390
20.0	881	845	823	763	607	500	453	437	420	390
22.5	1056	989	950	815	599	500	458	445	433	400
25.0	1288	1187	1104	867	622	534	459	451	479	467
27.5	1651	1454	1342	919	682	580	467	472	572	601
30.0	2063	1803	1565	960	717	605	493	513	709	754
32.5	2429	2101	1746	993	727	622	510	566	832	957
35.0	2798	2330	1900	1007	711	623	527	578	991	1190
37.5	3104	2569	2013	1021	680	613	522	585	1192	1484
40.0	3419	2781	2155	1036	652	587	513	567	1387	1481
42.5	3775	3026	2291	1050	620	556	484	530	1491	1172
45.0	4271	3400	2500	1088	587	515	443	487	1210	886
47.5	4989	3879	2741	1125	545	456	391	440	796	663
50.0	5723	4417	3015	1139	491	366	315	379	451	505
52.5	6377	4814	3219	1116	410	270	230	287	295	400
55.0	6685	4922	3158	1022	320	203	171	193	204	323
57.5	6586	4642	2789	872	261	170	141	137	139	260
60.0	6049	4037	2192	674	222	151	120	104	104	212
62.5	5045	3154	1498	489	190	132	100	80	79	173
65.0	3409	2116	920	332	158	110	81	63	59	144
67.5	1954	1235	556	228	127	86	61	50	44	116
70.0	891	630	317	163	102	69	46	38	32	89
72.5	380	324	220	135	82	56	38	32	22	66
75.0	238	221	183	121	68	48	34	23	15	49
77.5	177	173	154	112	60	44	30	19	9	36

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CANDELA TABULATION - (Cont.)

80.0	159	145	127	99	54	39	27	15	8	29
82.5	117	107	104	82	48	37	26	15	7	25
85.0	73	70	76	58	41	35	25	15	7	21
87.5	36	33	41	38	34	30	23	13	6	17
90.0	8	7	13	23	27	25	20	12	5	10
92.5	6	5	10	18	23	23	16	11	4	4
95.0	6	4	9	16	21	20	15	10	4	4
97.5	5	5	7	13	17	16	13	9	5	4
100.0	5	5	7	11	14	13	11	8	5	4
102.5	5	5	6	8	11	11	10	8	5	4
105.0	5	5	6	8	10	11	9	8	5	4
107.5	5	5	6	8	9	10	9	8	6	4
110.0	5	6	7	8	9	9	9	8	6	4
112.5	5	6	7	8	9	9	9	8	6	5
115.0	6	6	7	8	9	9	9	8	6	5
117.5	6	6	8	8	9	9	9	8	6	5
120.0	6	7	8	8	9	9	9	8	7	5
122.5	6	8	8	8	9	10	9	8	7	5
125.0	7	8	8	9	9	10	10	9	7	6
127.5	7	8	8	9	9	10	10	9	8	6
130.0	8	8	8	9	9	10	10	9	8	6
132.5	7	8	8	9	9	10	10	9	8	6
135.0	7	7	8	8	9	9	9	8	7	6
137.5	6	6	6	7	8	8	8	7	6	5
140.0	5	5	6	6	7	7	7	6	5	4
142.5	5	5	5	6	6	7	6	6	5	4
145.0	5	5	5	6	6	6	6	6	5	3
147.5	5	5	5	6	6	6	6	5	4	3
150.0	5	5	5	5	6	6	6	5	4	2
152.5	5	5	5	5	6	6	6	5	4	2
155.0	5	5	5	5	6	6	5	5	4	2
157.5	4	5	5	5	5	5	5	4	3	1
160.0	4	4	5	5	5	5	5	4	2	1
162.5	4	4	4	5	5	5	4	4	2	1
165.0	4	4	4	4	5	4	4	3	1	0
167.5	4	4	4	4	4	4	4	3	1	0
170.0	3	4	4	4	4	4	4	3	1	0
172.5	3	4	4	4	4	4	4	3	1	0
175.0	3	4	4	4	4	4	4	3	1	0
177.5	3	3	4	4	4	3	3	3	1	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	681	681
2.5	686	687
5.0	652	653
7.5	599	595
10.0	499	503
12.5	434	432
15.0	400	391
17.5	382	380
20.0	379	372
22.5	372	363
25.0	404	389

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CANDELA TABULATION - (Cont.)

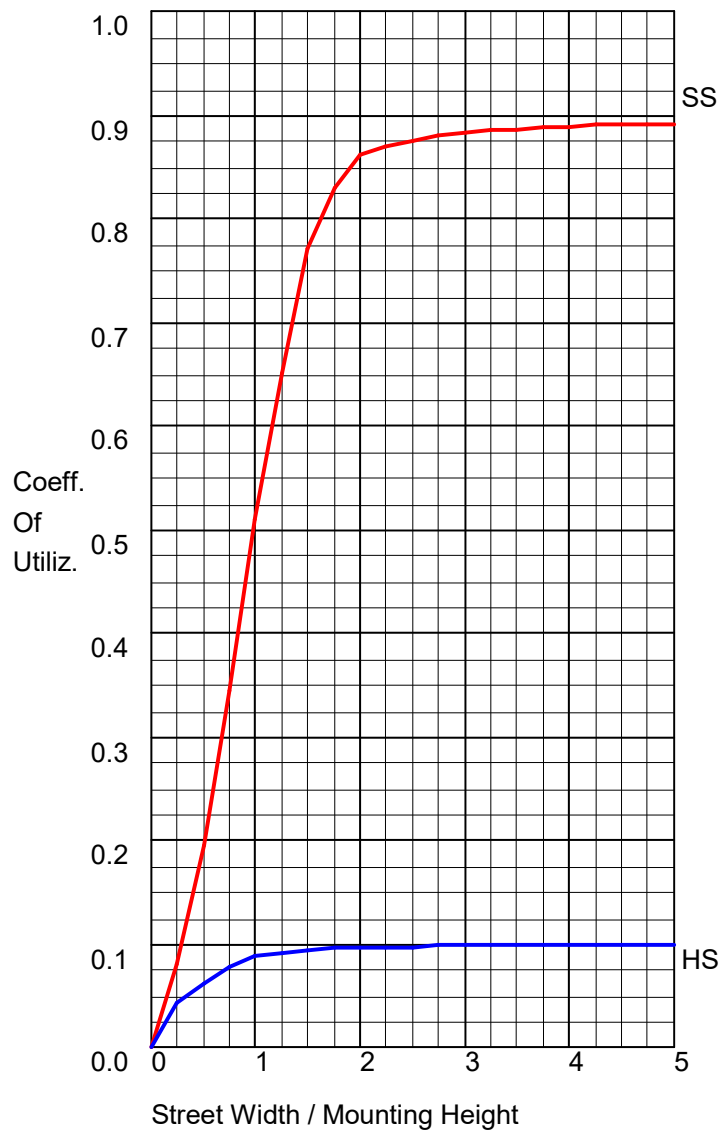
27.5	480	457
30.0	592	570
32.5	748	715
35.0	927	887
37.5	946	879
40.0	760	679
42.5	567	487
45.0	419	376
47.5	341	299
50.0	292	238
52.5	269	206
55.0	263	194
57.5	271	198
60.0	284	220
62.5	294	248
65.0	299	270
67.5	284	270
70.0	252	258
72.5	221	226
75.0	172	182
77.5	136	148
80.0	109	123
82.5	89	99
85.0	68	77
87.5	51	56
90.0	24	25
92.5	0	0
95.0	0	0
97.5	1	0
100.0	1	0
102.5	1	0
105.0	1	0
107.5	1	0
110.0	1	1
112.5	2	1
115.0	3	2
117.5	3	3
120.0	4	4
122.5	4	4
125.0	5	5
127.5	5	5
130.0	5	5
132.5	5	5
135.0	5	4
137.5	3	3
140.0	1	1
142.5	1	1
145.0	1	0
147.5	1	0
150.0	1	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

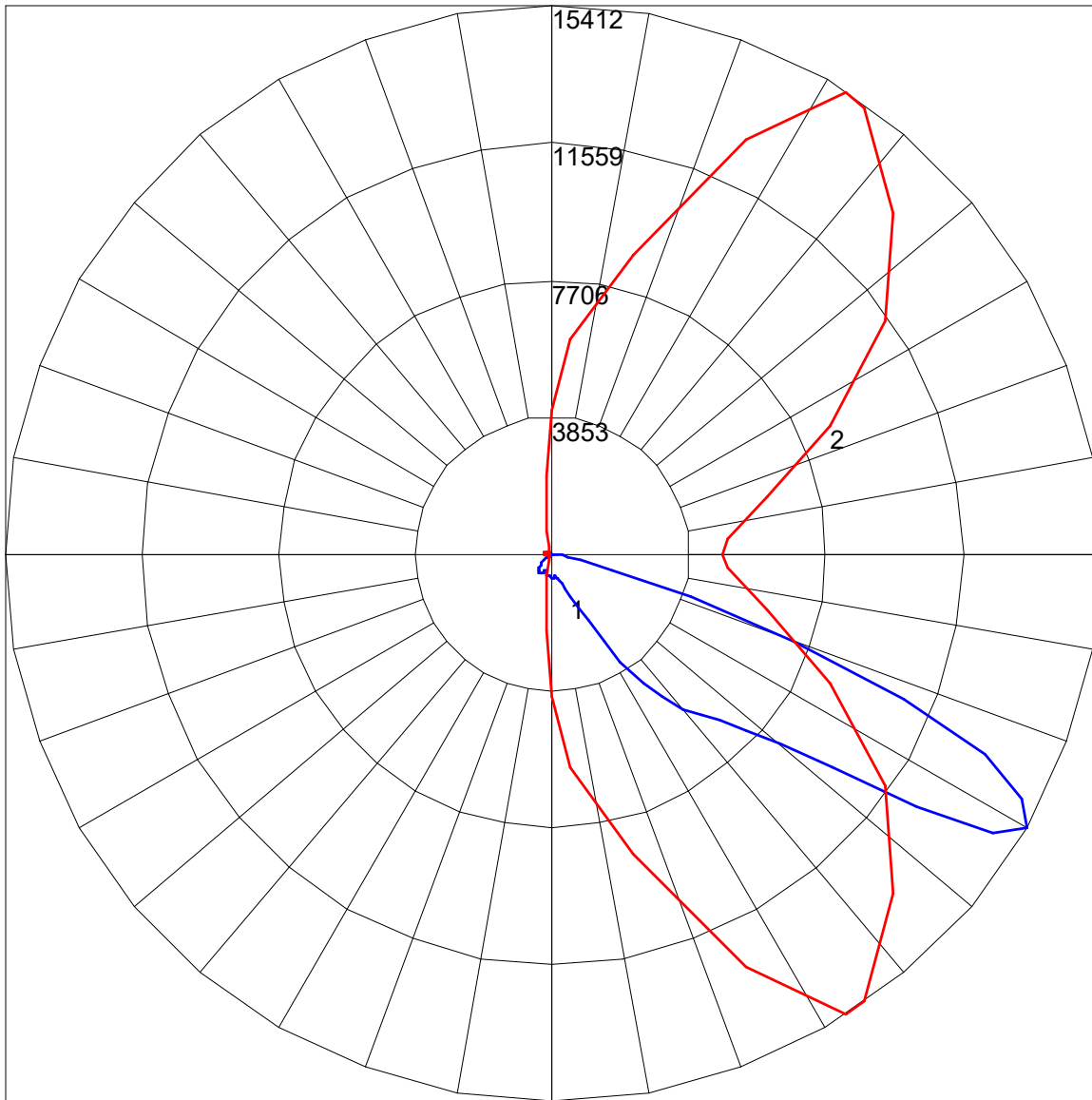
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

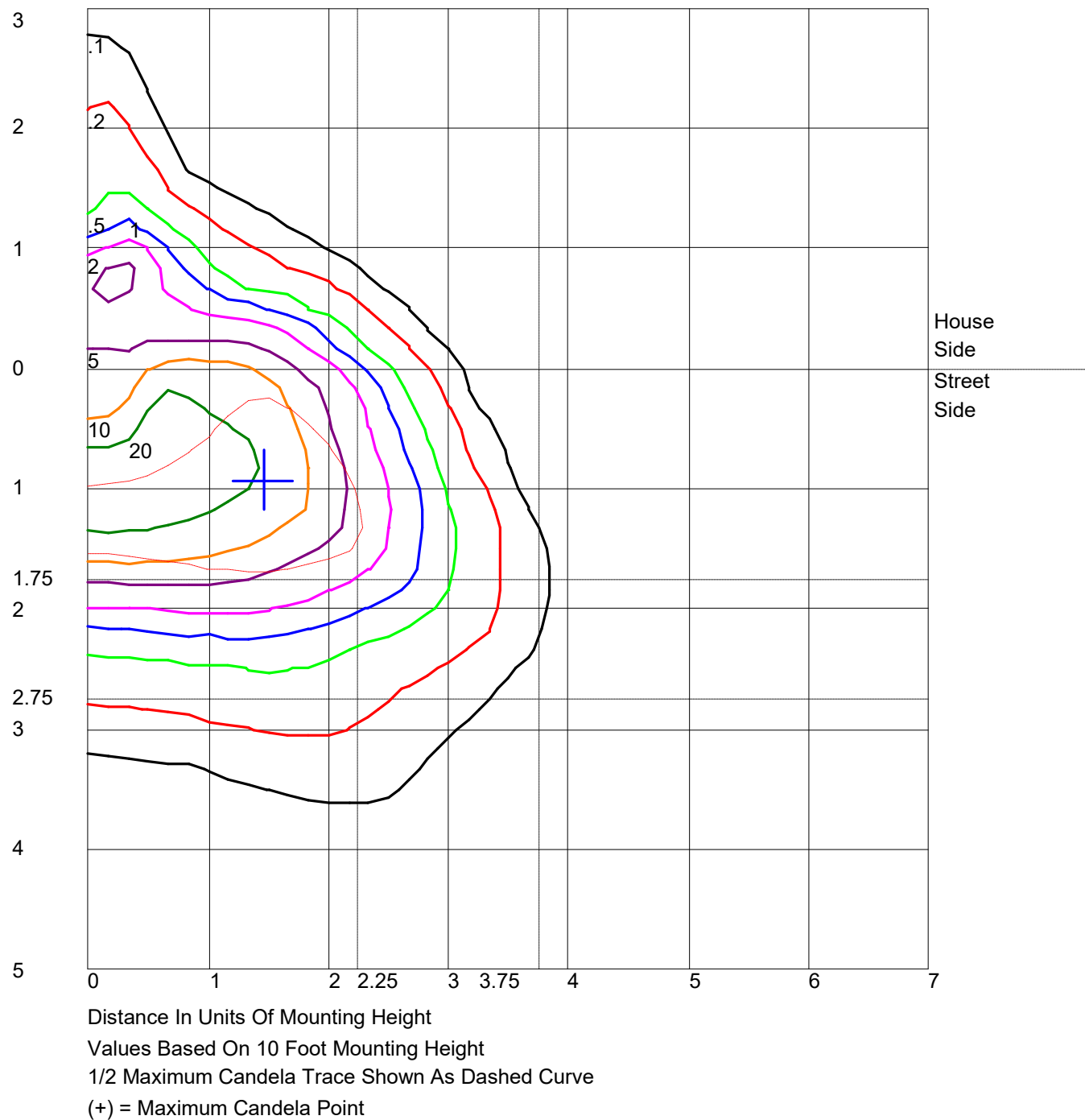
	Lumens	Percent Of Luminaire
Downward Street Side	12606.5	89.6
Downward House Side	1419.2	10.1
Downward Total	14025.7	99.7
Upward Street Side	16.5	0.1
Upward House Side	22.8	0.2
Upward Total	39.3	0.3
Total Flux	14065.0	100.0

POLAR GRAPH

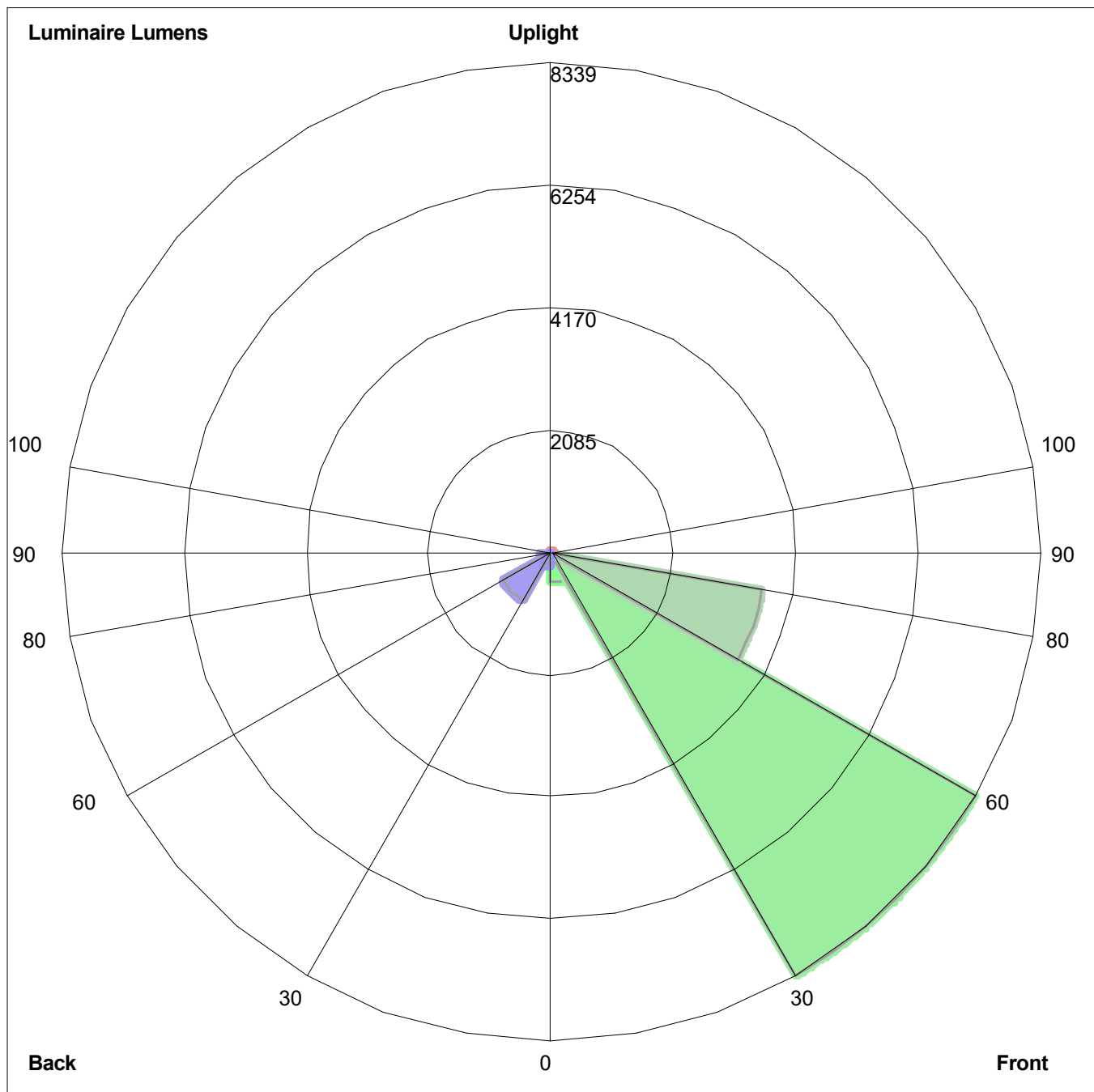


Maximum Candela = 15412 Located At Horizontal Angle = 57.5, Vertical Angle = 60
1 - Vertical Plane Through Horizontal Angles (57.5 - 237.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (60) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=522.2, Medium=8339.1, High=3657.9, Very High=87.3
Back: Low=253.4, Medium=956.9, High=188.2, Very High=20.8
Uplight: Low=9.7, High=29.6

BUG Rating : B1-U2-G2