



IES ROAD REPORT

PHOTOMETRIC FILENAME : ENM4-PT-2-LED-05L-50-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-05L-50-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	3967
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	39
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	4081
Maximum Candela Angle	80H 57.5V
Maximum Candela (<90 Degrees Vertical)	4081
Maximum Candela Angle (<90 Degrees Vertical)	80H 57.5V
Maximum Candela At 90 Degrees Vertical	4 (0.1% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	158 (4.0% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	309.2	N.A.	7.8
FM - Front-Medium (30-60)	2248.1	N.A.	56.7
FH - Front-High (60-80)	719.8	N.A.	18.1
FVH - Front-Very High (80-90)	15.7	N.A.	0.4
BL - Back-Low (0-30)	166.8	N.A.	4.2
BM - Back-Medium (30-60)	415.8	N.A.	10.5
BH - Back-High (60-80)	84.1	N.A.	2.1
BVH - Back-Very High (80-90)	2.8	N.A.	0.1
UL - Uplight-Low (90-100)	1.2	N.A.	0.0
UH - Uplight-High (100-180)	3.7	N.A.	0.1
Total	3967.2	N.A.	100.0
BUG Rating	B1-U1-G1		

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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>45</u>	<u>55</u>	<u>65</u>	<u>75</u>	<u>80</u>
0.0	406	406	406	406	406	406	406	406	406	406
2.5	414	415	415	418	419	419	421	412	410	405
5.0	416	418	428	425	437	409	408	399	387	383
7.5	425	431	443	421	427	410	417	432	421	407
10.0	449	450	466	432	445	451	455	449	437	423
12.5	488	513	490	479	491	484	489	481	478	478
15.0	527	550	538	552	566	540	545	534	539	523
17.5	561	583	574	586	602	629	601	612	622	593
20.0	639	654	655	644	664	672	698	686	700	692
22.5	693	698	715	733	739	741	800	802	831	824
25.0	799	775	795	810	830	822	907	970	979	975
27.5	910	936	944	911	924	947	1021	1173	1228	1185
30.0	1056	1037	1023	1032	1048	1093	1180	1422	1486	1458
32.5	1244	1259	1187	1140	1184	1230	1406	1735	1821	1791
35.0	1443	1413	1364	1330	1311	1428	1619	1982	2155	2097
37.5	1646	1625	1546	1477	1519	1570	1810	2166	2297	2320
40.0	1727	1727	1694	1674	1695	1753	1959	2235	2399	2383
42.5	1750	1751	1745	1759	1835	1908	2142	2287	2439	2469
45.0	1697	1703	1712	1771	1906	2073	2334	2436	2552	2629
47.5	1566	1573	1602	1688	1868	2129	2524	2678	2739	2844
50.0	1382	1375	1420	1514	1732	2084	2703	2951	2959	3084
52.5	1135	1144	1193	1300	1524	1938	2833	3239	3256	3463
55.0	872	881	932	1055	1267	1683	2843	3481	3595	3841
57.5	622	632	678	785	995	1387	2663	3539	3827	4081
60.0	433	442	481	557	716	1024	2318	3370	3867	4046
62.5	314	316	348	392	481	695	1882	2940	3640	3714
65.0	222	225	248	296	349	447	1415	2443	3087	3088
67.5	151	154	165	208	267	307	958	1851	2456	2385
70.0	92	94	98	138	195	227	583	1270	1677	1541
72.5	70	69	70	87	134	166	322	775	974	751
75.0	47	48	48	57	90	118	174	472	474	290
77.5	31	32	32	35	58	84	104	271	251	160
80.0	21	22	23	22	31	53	66	149	158	112
82.5	20	20	19	18	19	27	39	75	104	87
85.0	15	15	14	14	15	19	23	37	53	52
87.5	9	8	8	8	8	12	14	19	19	19
90.0	3	3	2	2	2	2	2	2	2	2
92.5	1	1	1	1	1	0	0	0	0	0
95.0	1	1	1	1	0	0	0	0	0	0
97.5	1	1	1	1	0	0	0	0	0	0
100.0	1	1	1	1	0	0	0	0	0	0
102.5	1	1	1	1	0	0	0	0	0	0
105.0	1	1	1	1	0	0	0	0	0	0
107.5	1	1	1	1	0	0	0	0	0	0
110.0	1	1	1	1	1	0	0	0	0	0
112.5	1	1	1	1	1	0	0	0	0	0
115.0	1	1	1	1	1	0	0	0	0	0
117.5	2	1	1	1	1	0	0	0	0	0
120.0	2	2	1	1	1	0	0	0	0	0
122.5	2	2	2	1	1	1	0	0	1	1
125.0	2	2	2	1	1	1	0	0	1	1
127.5	2	2	2	2	1	1	0	1	1	1
130.0	2	2	2	2	1	1	0	1	1	1

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CANDELA TABULATION - (Cont.)

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

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	406	406	406	406	406	406	406	406	406	406
2.5	406	404	406	405	402	402	404	405	399	398
5.0	388	385	379	376	379	377	371	373	366	359
7.5	405	403	395	395	376	357	330	334	329	339
10.0	420	408	397	402	359	347	332	322	307	320
12.5	454	446	440	414	370	347	330	339	343	360
15.0	503	490	463	417	365	359	361	377	389	381
17.5	568	534	506	444	379	377	405	416	411	409
20.0	647	618	568	472	401	422	424	433	409	372
22.5	775	701	662	536	444	453	443	395	322	268
25.0	918	855	776	583	514	485	403	297	217	160
27.5	1124	1007	914	655	566	475	314	193	131	109
30.0	1382	1219	1071	734	612	423	224	128	105	95
32.5	1631	1460	1240	810	635	348	151	108	93	88
35.0	1926	1703	1427	895	616	261	126	97	88	82
37.5	2162	1946	1583	958	556	180	113	91	80	73
40.0	2251	2062	1655	1008	473	140	103	84	70	64
42.5	2374	2164	1719	1013	341	124	93	75	61	52
45.0	2542	2306	1803	982	206	111	84	65	49	42
47.5	2751	2476	1885	889	151	98	72	52	40	34
50.0	2995	2642	1944	736	130	88	59	42	32	26
52.5	3287	2764	1962	540	117	76	47	32	25	19
55.0	3589	2790	1902	363	108	64	37	24	19	14
57.5	3673	2659	1727	261	99	52	27	18	14	8
60.0	3506	2382	1474	216	96	43	20	12	7	4
62.5	3044	1996	1177	178	92	34	15	6	4	2
65.0	2456	1522	854	136	81	26	9	3	3	1
67.5	1750	1054	538	97	61	20	6	2	2	1
70.0	1043	634	302	68	42	13	5	3	2	2
72.5	453	316	165	50	26	8	5	3	2	1
75.0	194	166	103	36	15	6	5	4	2	1
77.5	122	114	67	23	9	6	5	4	2	1

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CANDELA TABULATION - (Cont.)

80.0	96	81	43	14	7	6	6	4	2	1
82.5	69	49	26	6	6	6	5	4	2	1
85.0	40	25	12	3	4	5	5	4	2	1
87.5	15	6	2	2	3	5	4	3	2	1
90.0	1	1	1	1	3	4	4	3	2	1
92.5	0	0	1	1	3	4	4	2	1	1
95.0	0	0	1	1	2	3	3	2	1	1
97.5	0	0	1	1	2	2	2	1	1	1
100.0	0	0	1	1	1	1	1	1	1	1
102.5	0	0	1	1	1	1	1	1	1	1
105.0	0	0	1	1	1	1	1	1	1	1
107.5	0	0	1	1	1	1	1	1	1	1
110.0	0	0	1	1	1	1	1	1	1	1
112.5	0	1	1	1	1	1	1	1	1	1
115.0	0	1	1	1	1	1	1	1	1	1
117.5	1	1	1	1	1	1	1	1	1	1
120.0	1	1	1	1	1	1	1	1	1	1
122.5	1	1	1	1	1	1	1	1	1	1
125.0	1	1	1	1	1	1	1	1	1	1
127.5	1	1	1	1	1	1	1	2	2	2
130.0	1	1	1	1	1	1	1	2	2	2
132.5	1	1	1	1	1	1	2	2	2	2
135.0	1	1	1	1	1	1	1	2	2	2
137.5	0	1	1	1	1	1	1	1	1	1
140.0	0	0	0	0	1	1	1	1	1	1
142.5	0	0	0	0	1	1	1	1	1	1
145.0	0	0	0	0	0	1	1	1	1	1
147.5	0	0	0	0	0	1	1	1	1	1
150.0	0	0	0	0	1	1	1	1	1	1
152.5	0	0	0	0	1	1	1	1	1	1
155.0	0	0	0	0	1	1	1	1	1	1
157.5	0	0	0	0	1	1	1	1	1	1
160.0	0	0	0	0	0	1	1	1	1	1
162.5	0	0	0	0	0	1	1	1	1	1
165.0	0	0	0	0	0	0	1	1	1	1
167.5	0	0	0	0	0	0	1	1	1	1
170.0	0	0	0	0	0	0	0	1	1	1
172.5	0	0	0	0	0	0	0	1	1	1
175.0	0	0	0	0	0	0	0	1	1	1
177.5	0	0	0	0	0	0	0	0	1	0
180.0	0	0	0	0	0	0	0	0	0	0

Vert. Horizontal Angles
Angles

	<u>175</u>	<u>180</u>
0.0	406	406
2.5	394	386
5.0	354	349
7.5	336	330
10.0	329	313
12.5	367	358
15.0	410	403
17.5	428	416
20.0	366	349
22.5	245	242
25.0	141	138

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CANDELA TABULATION - (Cont.)

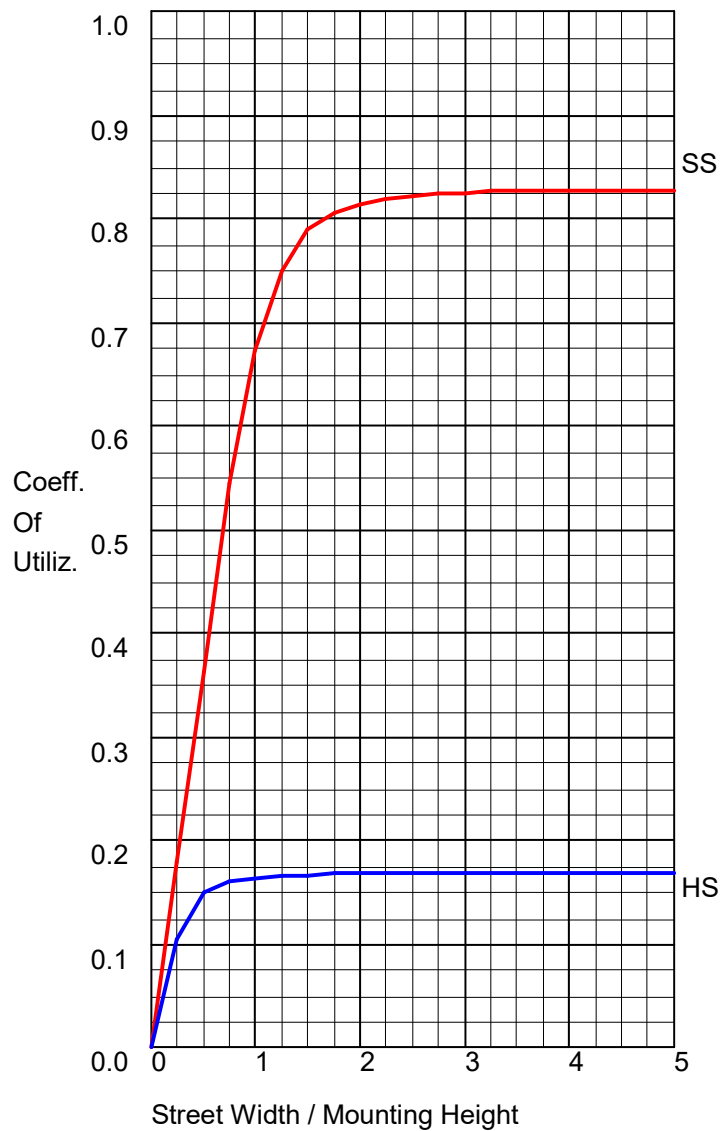
27.5	105	104
30.0	93	93
32.5	89	89
35.0	82	82
37.5	73	74
40.0	63	62
42.5	50	49
45.0	40	40
47.5	30	30
50.0	23	23
52.5	17	17
55.0	12	12
57.5	6	6
60.0	3	3
62.5	1	1
65.0	1	1
67.5	1	1
70.0	1	1
72.5	1	0
75.0	0	0
77.5	1	0
80.0	1	1
82.5	1	1
85.0	1	1
87.5	1	1
90.0	1	1
92.5	1	1
95.0	1	0
97.5	1	0
100.0	1	0
102.5	1	1
105.0	0	0
107.5	0	1
110.0	1	1
112.5	1	0
115.0	1	1
117.5	1	1
120.0	1	1
122.5	1	1
125.0	1	1
127.5	2	2
130.0	2	2
132.5	2	2
135.0	2	2
137.5	1	1
140.0	1	1
142.5	1	1
145.0	1	1
147.5	1	1
150.0	1	1
152.5	1	1
155.0	1	1
157.5	1	1
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	0	0

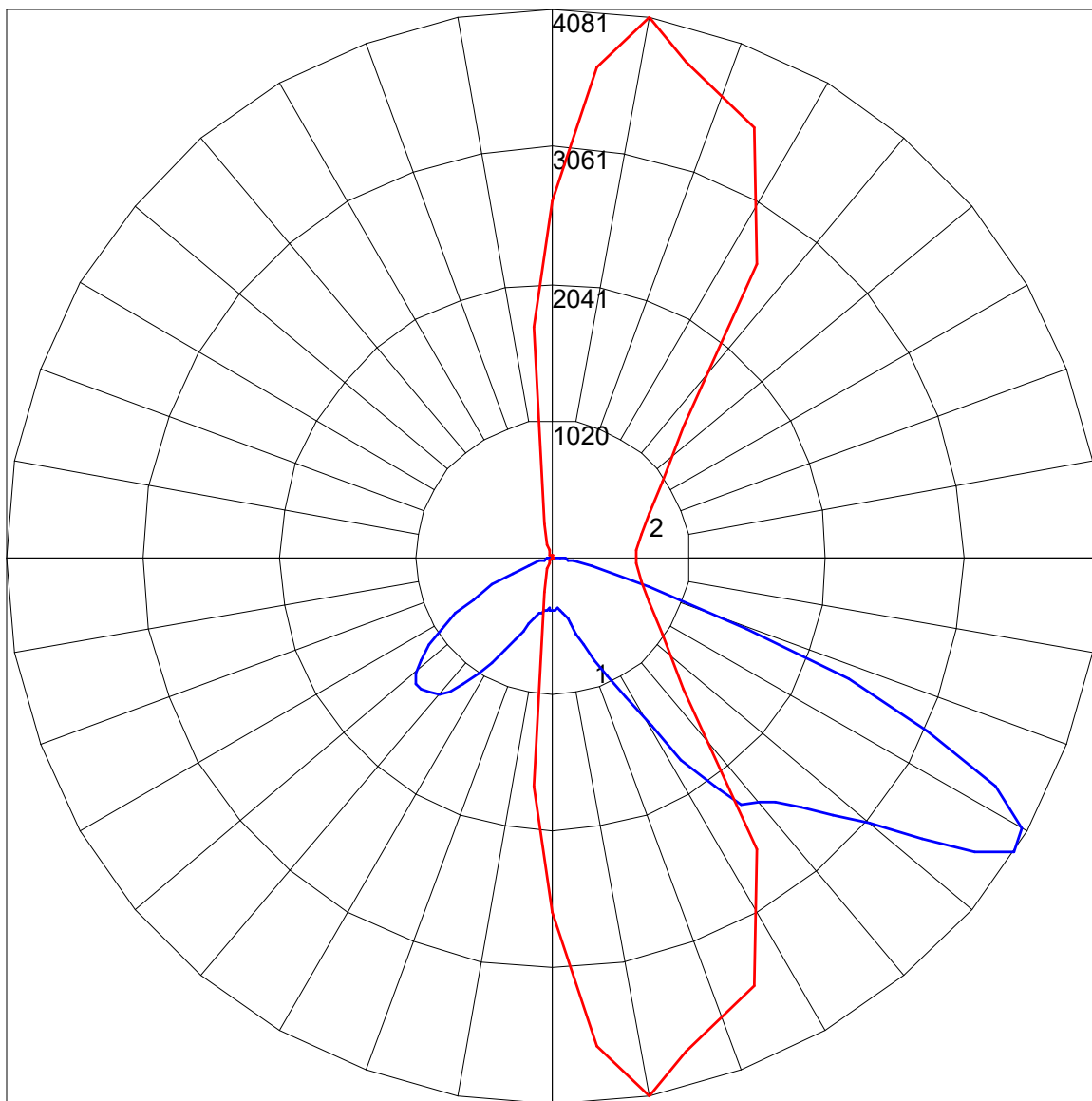
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

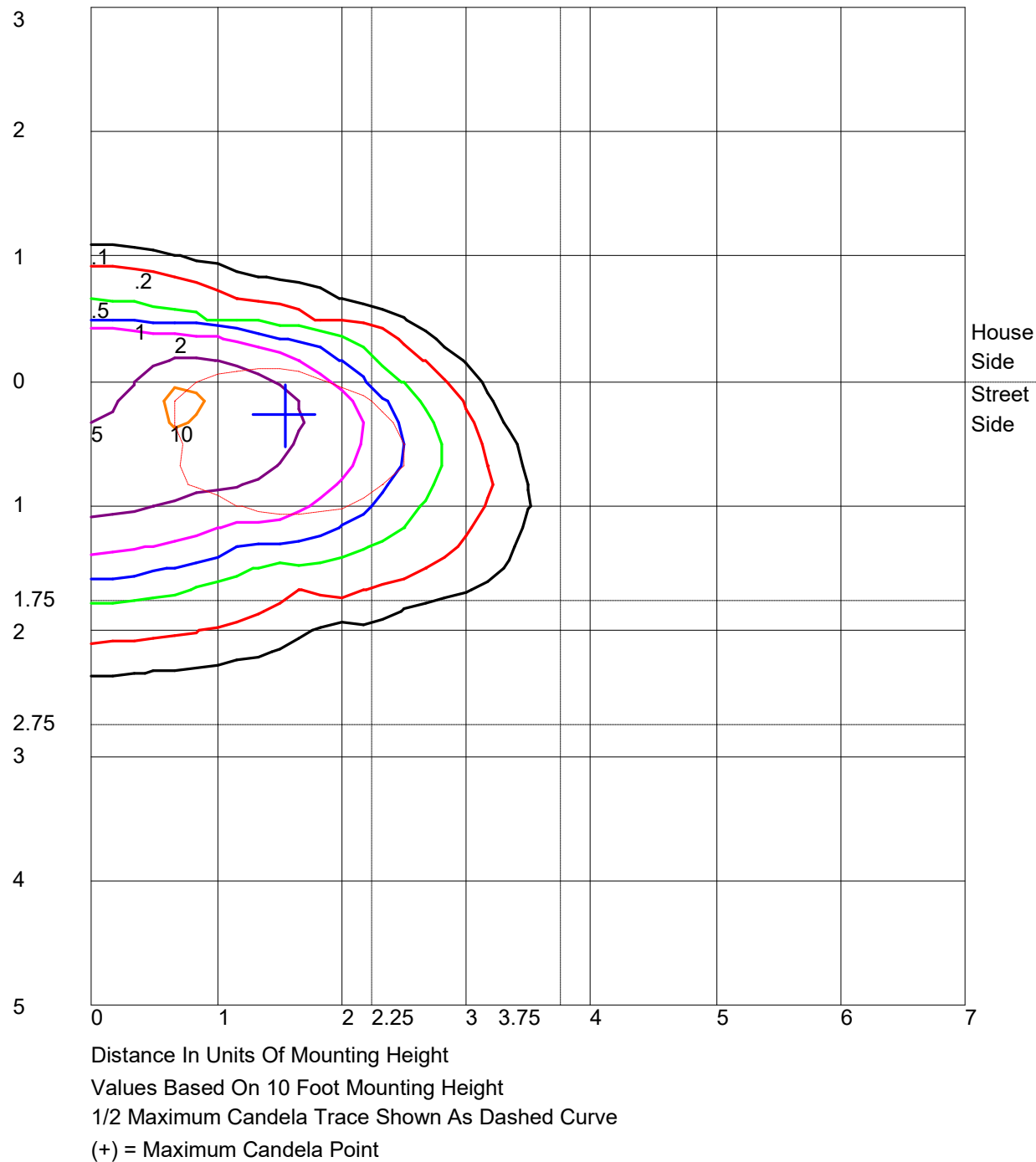
	Lumens	Percent Of Luminaire
Downward Street Side	3292.7	83.0
Downward House Side	669.5	16.9
Downward Total	3962.2	99.9
Upward Street Side	1.6	0.0
Upward House Side	3.4	0.1
Upward Total	5.0	0.1
Total Flux	3967.2	100.0

POLAR GRAPH

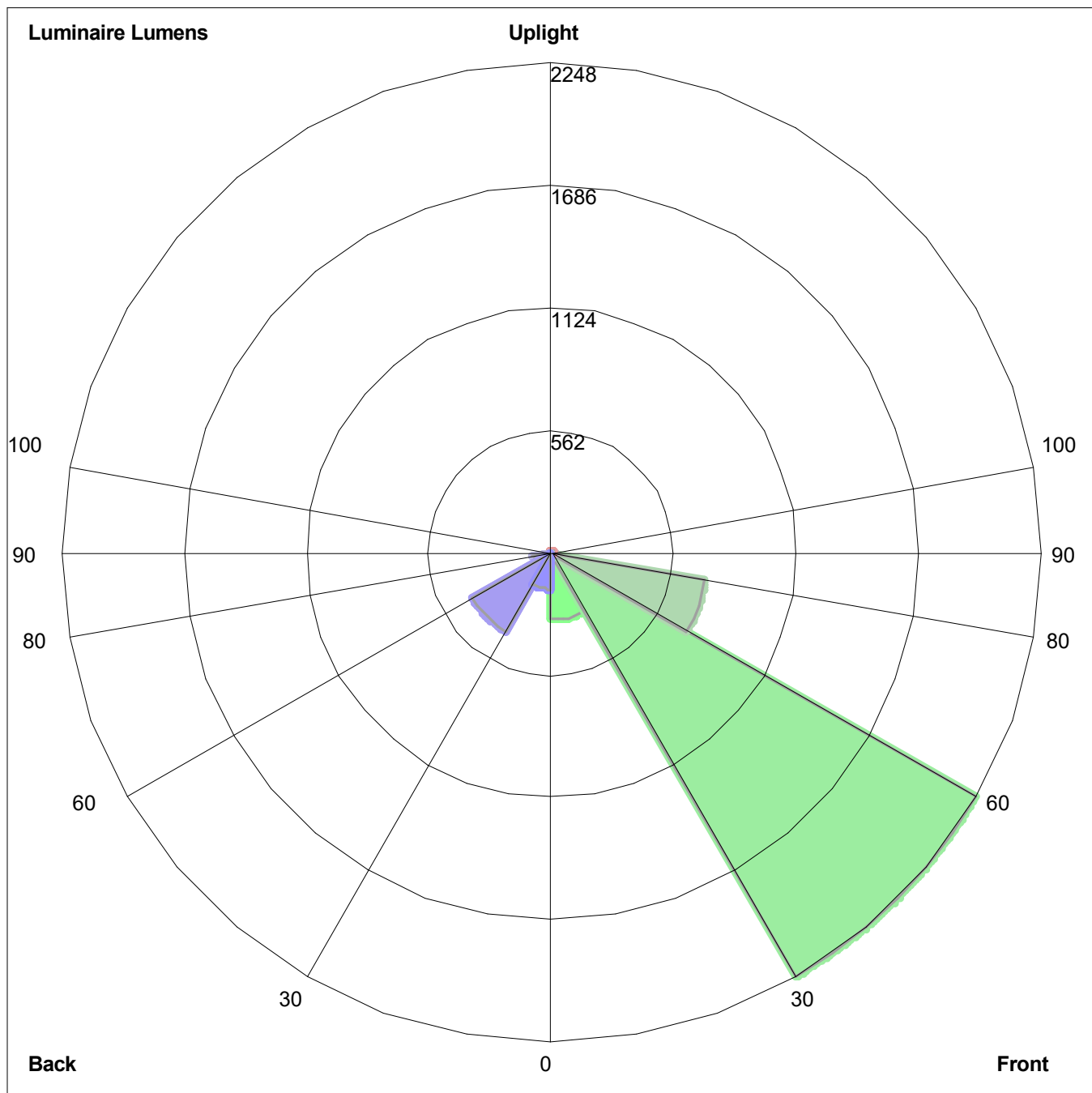


Maximum Candela = 4081 Located At Horizontal Angle = 80, Vertical Angle = 57.5
1 - Vertical Plane Through Horizontal Angles (80 - 260) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (57.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=309.2, Medium=2248.1, High=719.8, Very High=15.7
Back: Low=166.8, Medium=415.8, High=84.1, Very High=2.8
Uplight: Low=1.2, High=3.7

BUG Rating : B1-U1-G1