



IES ROAD REPORT

PHOTOMETRIC FILENAME : ENM4-PT-2-LED-10L-30-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-10L-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	6833
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	89
Total Luminaire Watts	77
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	7027
Maximum Candela Angle	80H 57.5V
Maximum Candela (<90 Degrees Vertical)	7027
Maximum Candela Angle (<90 Degrees Vertical)	80H 57.5V
Maximum Candela At 90 Degrees Vertical	7 (0.1% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	272 (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)	532.4	N.A.	7.8
FM - Front-Medium (30-60)	3871.1	N.A.	56.7
FH - Front-High (60-80)	1239.4	N.A.	18.1
FVH - Front-Very High (80-90)	26.9	N.A.	0.4
BL - Back-Low (0-30)	287.3	N.A.	4.2
BM - Back-Medium (30-60)	716.0	N.A.	10.5
BH - Back-High (60-80)	144.9	N.A.	2.1
BVH - Back-Very High (80-90)	4.9	N.A.	0.1
UL - Uplight-Low (90-100)	2.2	N.A.	0.0
UH - Uplight-High (100-180)	7.7	N.A.	0.1
Total	6832.8	N.A.	100.0
BUG Rating	B1-U1-G1		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	0	5	15	25	35	45	55	65	75	80
0.0	699	699	699	699	699	699	699	699	699	699
2.5	712	715	715	720	720	722	724	711	708	697
5.0	715	719	737	732	752	704	702	687	667	660
7.5	732	743	762	724	736	706	718	744	724	700
10.0	775	775	802	745	766	776	785	773	752	728
12.5	841	883	843	825	846	833	842	828	823	824
15.0	907	947	927	949	975	930	938	919	929	901
17.5	966	1004	988	1009	1037	1082	1035	1054	1071	1020
20.0	1100	1127	1128	1109	1143	1157	1203	1181	1206	1193
22.5	1194	1203	1232	1261	1272	1276	1378	1381	1432	1419
25.0	1376	1335	1368	1396	1430	1415	1562	1671	1686	1678
27.5	1566	1612	1625	1568	1593	1632	1757	2020	2114	2040
30.0	1819	1787	1762	1778	1804	1882	2031	2449	2557	2511
32.5	2142	2169	2044	1964	2039	2118	2421	2987	3135	3084
35.0	2485	2433	2348	2290	2258	2459	2787	3413	3710	3611
37.5	2834	2797	2663	2543	2615	2704	3116	3730	3954	3995
40.0	2974	2974	2916	2882	2919	3017	3373	3849	4131	4103
42.5	3014	3015	3004	3029	3161	3286	3688	3939	4201	4250
45.0	2921	2934	2948	3050	3283	3570	4018	4195	4394	4525
47.5	2697	2709	2759	2906	3217	3668	4345	4611	4715	4897
50.0	2379	2367	2445	2606	2982	3589	4654	5081	5095	5310
52.5	1955	1970	2056	2239	2625	3337	4879	5578	5606	5963
55.0	1501	1518	1603	1818	2181	2898	4896	5993	6190	6614
57.5	1070	1089	1167	1353	1712	2388	4585	6093	6590	7027
60.0	747	762	827	958	1234	1762	3992	5804	6659	6968
62.5	540	544	599	674	828	1197	3240	5062	6268	6395
65.0	382	387	426	509	600	771	2437	4208	5316	5317
67.5	260	265	284	358	460	528	1649	3187	4229	4106
70.0	159	162	170	237	336	391	1004	2186	2888	2653
72.5	120	119	120	149	230	286	556	1333	1676	1293
75.0	81	83	83	98	156	205	300	814	817	499
77.5	55	55	56	61	99	144	179	467	432	276
80.0	35	37	40	38	54	92	113	256	272	193
82.5	33	33	32	30	33	46	66	130	178	149
85.0	25	25	24	24	26	33	39	63	91	90
87.5	15	14	14	14	14	20	24	32	33	33
90.0	5	5	4	4	4	4	4	4	5	4
92.5	2	2	2	2	1	0	0	0	0	0
95.0	2	1	2	2	1	0	0	0	0	0
97.5	2	1	2	2	1	0	0	0	0	0
100.0	2	1	2	2	1	0	0	0	0	0
102.5	2	1	2	2	1	0	0	0	0	0
105.0	2	1	2	2	1	0	0	0	0	0
107.5	2	2	2	2	1	0	0	0	0	0
110.0	2	2	2	2	1	0	0	0	0	0
112.5	2	2	2	2	1	0	0	0	0	0
115.0	3	2	2	2	1	0	0	0	0	0
117.5	3	3	2	2	2	1	0	0	0	1
120.0	4	3	3	2	2	1	0	0	1	1
122.5	4	4	3	3	2	1	0	1	1	1
125.0	4	4	4	3	2	1	0	1	2	2
127.5	5	5	4	3	2	2	1	1	2	2
130.0	5	5	4	4	2	2	1	1	2	2

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CANDELA TABULATION - (Cont.)

132.5	5	5	4	4	2	2	1	1	2	2
135.0	5	4	4	3	2	2	1	1	2	2
137.5	2	2	2	2	1	0	0	0	0	1
140.0	0	0	1	1	0	0	0	0	0	0
142.5	0	0	1	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	1	0	0	0	0	0	0	0
177.5	0	0	1	1	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	699	699	699	699	699	699	699	699	699	699
2.5	699	695	699	698	692	692	697	697	688	685
5.0	670	664	652	648	652	650	639	642	632	617
7.5	699	694	680	680	647	615	567	576	566	584
10.0	723	704	683	692	617	597	572	556	528	552
12.5	782	769	756	712	637	597	567	585	592	620
15.0	865	843	796	718	630	618	621	649	671	657
17.5	979	920	871	765	652	649	697	715	709	705
20.0	1114	1063	980	814	691	727	730	746	704	640
22.5	1333	1208	1139	923	764	781	763	680	556	461
25.0	1581	1473	1335	1004	886	834	694	512	374	276
27.5	1936	1735	1575	1128	975	817	541	332	226	187
30.0	2379	2098	1845	1264	1054	728	385	220	180	164
32.5	2809	2514	2135	1395	1094	599	260	186	161	151
35.0	3316	2932	2457	1542	1060	450	216	167	150	141
37.5	3723	3351	2726	1649	957	310	195	157	137	127
40.0	3877	3551	2850	1736	815	242	176	145	121	110
42.5	4088	3726	2960	1745	587	214	161	129	104	90
45.0	4377	3971	3104	1690	355	192	144	111	85	72
47.5	4737	4263	3247	1530	261	170	124	90	69	57
50.0	5157	4549	3348	1268	223	150	102	72	55	44
52.5	5660	4760	3378	930	202	131	81	56	43	33
55.0	6180	4804	3276	626	186	110	63	42	33	24
57.5	6323	4579	2975	449	171	90	48	30	24	14
60.0	6037	4101	2538	371	166	73	35	20	14	6
62.5	5241	3438	2027	308	159	58	24	11	7	4
65.0	4229	2621	1470	235	138	45	16	5	5	3
67.5	3013	1816	927	167	105	33	11	4	5	3
70.0	1795	1093	519	117	71	23	8	5	5	3
72.5	780	544	285	86	45	14	8	6	4	2
75.0	334	287	176	62	25	11	9	6	4	2
77.5	211	196	115	41	16	11	10	7	4	2

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CANDELA TABULATION - (Cont.)

80.0	166	139	74	23	13	11	10	7	4	2
82.5	119	85	44	11	10	10	10	7	4	3
85.0	69	43	21	5	7	9	9	7	4	3
87.5	25	11	4	3	5	8	8	5	4	2
90.0	1	1	2	3	5	7	7	5	3	2
92.5	0	1	2	3	5	7	6	4	3	2
95.0	0	1	1	2	4	5	5	3	2	2
97.5	0	1	1	2	3	4	3	3	2	2
100.0	0	1	1	2	2	3	3	2	2	2
102.5	0	1	1	2	2	2	2	2	2	2
105.0	0	1	1	2	2	2	2	2	2	2
107.5	0	1	1	2	2	2	2	2	2	2
110.0	0	1	1	2	2	2	2	2	2	2
112.5	0	1	1	2	2	2	2	2	2	2
115.0	1	1	2	2	2	2	2	2	2	2
117.5	1	2	2	2	2	2	2	2	2	2
120.0	2	2	2	2	2	2	2	2	2	2
122.5	2	2	2	2	3	3	3	3	3	3
125.0	2	2	2	3	3	3	3	3	3	3
127.5	2	2	3	3	3	3	3	3	3	3
130.0	2	2	3	3	3	3	3	3	3	3
132.5	2	3	3	3	3	3	3	3	3	3
135.0	2	2	2	3	3	3	3	3	3	3
137.5	1	1	2	2	2	2	2	3	3	3
140.0	0	0	0	1	1	2	2	2	2	2
142.5	0	0	0	1	1	1	2	2	2	2
145.0	0	0	0	0	1	1	2	2	2	2
147.5	0	0	0	0	1	2	2	2	2	2
150.0	0	0	0	0	1	2	2	2	2	2
152.5	0	0	0	1	1	2	2	2	2	2
155.0	0	0	0	1	1	2	2	2	2	2
157.5	0	0	0	0	1	2	2	2	2	2
160.0	0	0	0	0	1	1	2	2	2	2
162.5	0	0	0	0	1	1	2	2	2	2
165.0	0	0	0	0	0	1	1	2	2	2
167.5	0	0	0	0	0	1	1	2	2	1
170.0	0	0	0	0	0	0	1	1	1	1
172.5	0	0	0	0	0	0	1	1	1	1
175.0	0	0	0	0	0	0	1	1	1	1
177.5	0	0	0	0	0	0	0	1	1	1
180.0	0	0	0	0	0	0	0	0	0	0

Vert. Horizontal Angles
Angles

	<u>175</u>	<u>180</u>
0.0	699	699
2.5	679	665
5.0	608	601
7.5	578	567
10.0	566	538
12.5	633	615
15.0	707	694
17.5	737	716
20.0	630	601
22.5	423	416
25.0	243	237

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CANDELA TABULATION - (Cont.)

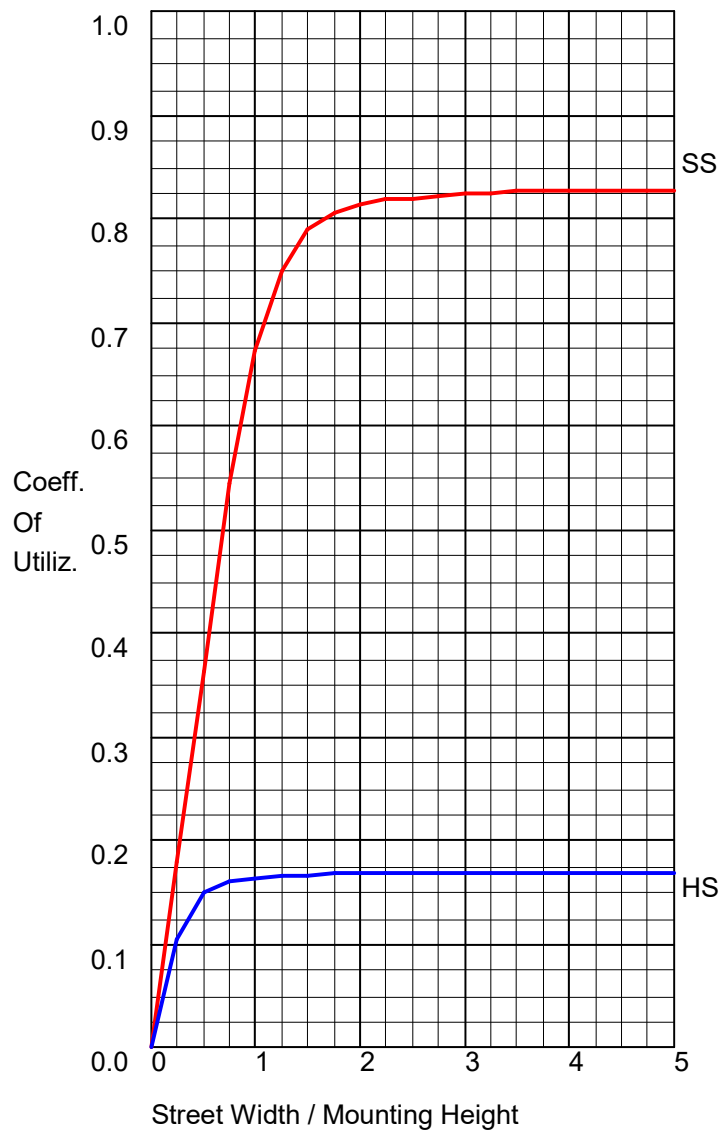
27.5	180	179
30.0	161	161
32.5	153	152
35.0	141	141
37.5	126	128
40.0	108	107
42.5	86	85
45.0	69	68
47.5	53	52
50.0	41	40
52.5	30	30
55.0	20	20
57.5	11	11
60.0	5	5
62.5	2	2
65.0	1	2
67.5	2	2
70.0	2	2
72.5	1	1
75.0	1	1
77.5	1	1
80.0	1	1
82.5	1	1
85.0	1	2
87.5	1	1
90.0	1	1
92.5	1	1
95.0	1	1
97.5	1	1
100.0	1	1
102.5	1	1
105.0	1	1
107.5	1	1
110.0	1	1
112.5	1	1
115.0	1	1
117.5	2	2
120.0	2	2
122.5	2	3
125.0	3	3
127.5	3	3
130.0	3	3
132.5	4	4
135.0	3	3
137.5	2	2
140.0	2	2
142.5	2	2
145.0	1	1
147.5	1	1
150.0	2	1
152.5	2	2
155.0	1	2
157.5	1	1
160.0	1	1
162.5	1	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

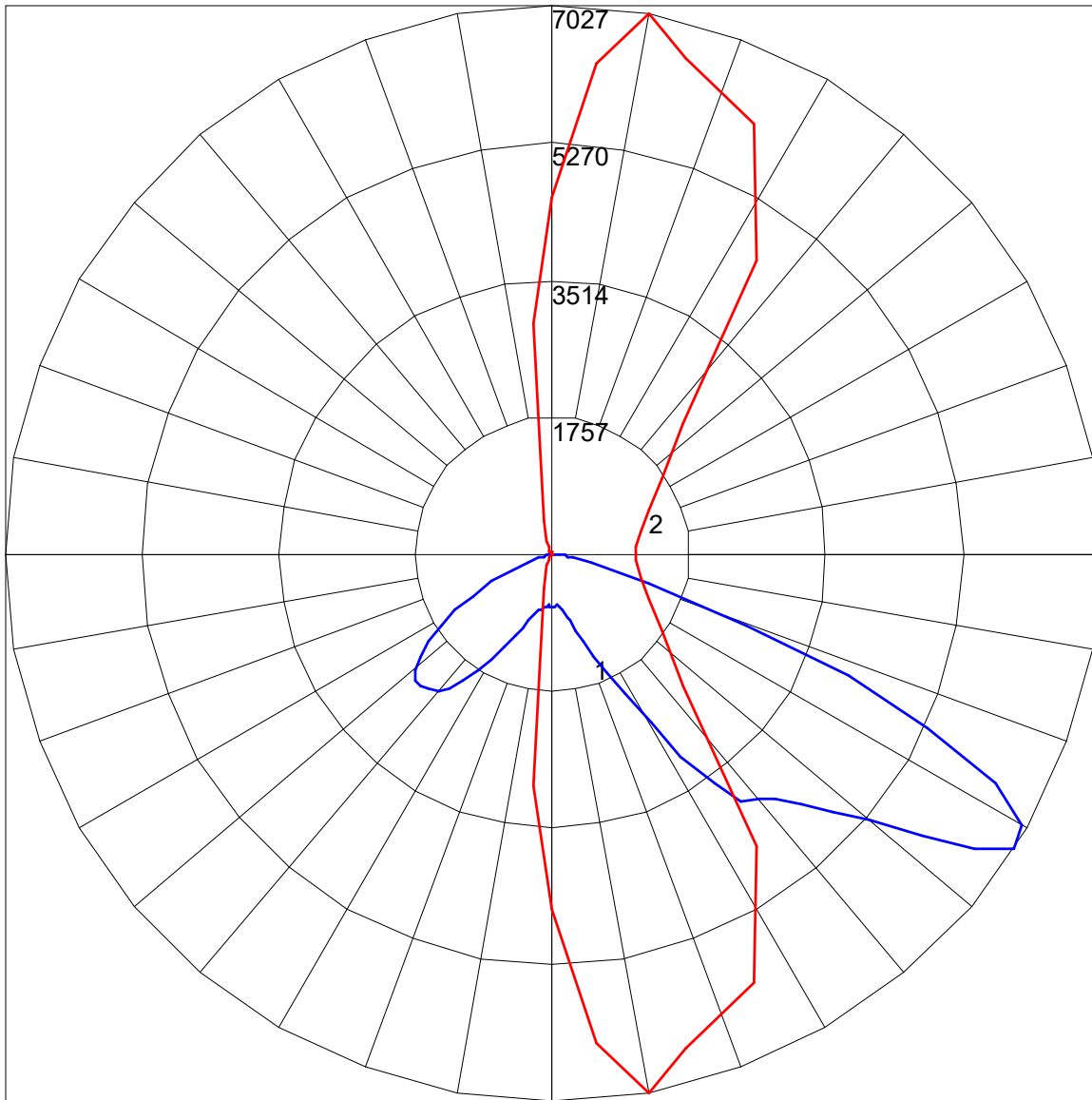
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

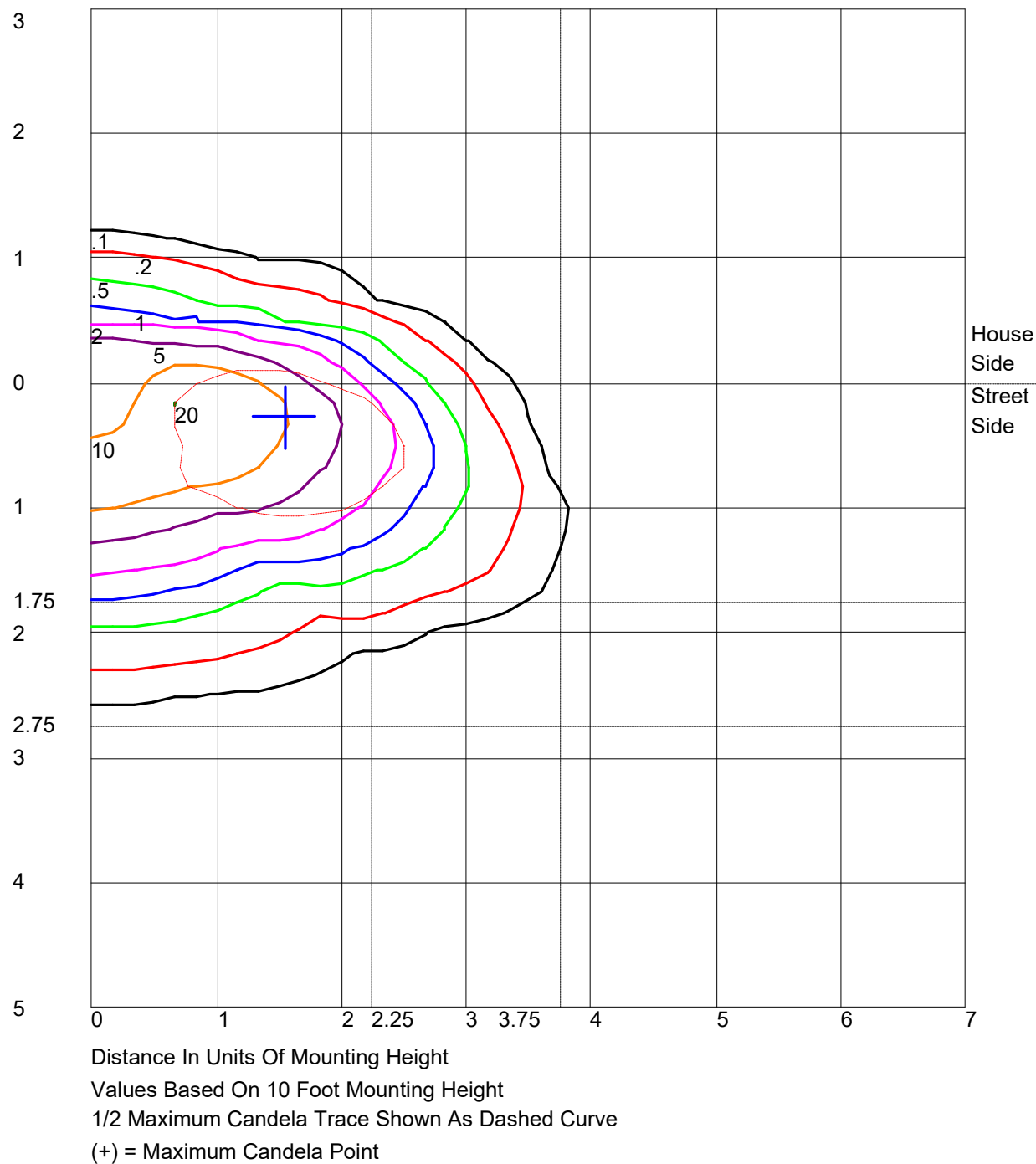
	Lumens	Percent Of Luminaire
Downward Street Side	5669.8	83.0
Downward House Side	1153.1	16.9
Downward Total	6822.9	99.9
Upward Street Side	3.2	0.0
Upward House Side	6.7	0.1
Upward Total	9.9	0.1
Total Flux	6832.8	100.0

POLAR GRAPH

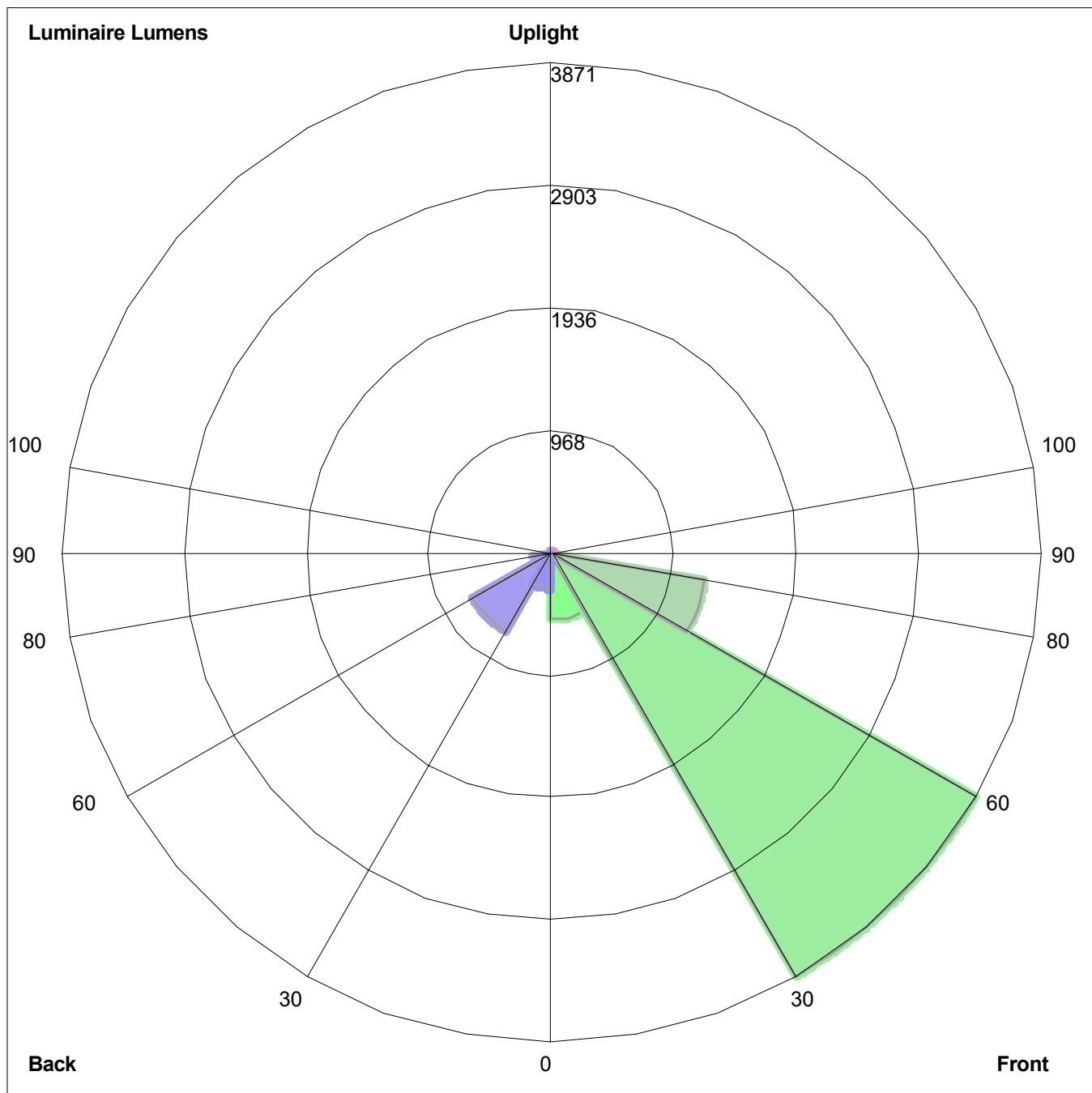


Maximum Candela = 7027 Located At Horizontal Angle = 80, Vertical Angle = 57.5
1 - Vertical Plane Through Horizontal Angles (80 - 260) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (57.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=532.4, Medium=3871.1, High=1239.4, Very High=26.9
Back: Low=287.3, Medium=716.0, High=144.9, Very High=4.9
Uplight: Low=2.2, High=7.7

BUG Rating : B1-U1-G1