



## IES ROAD REPORT

PHOTOMETRIC FILENAME : ENM4-PT-5W-LED-18L-40-IL.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] LED-11752

[TESTLAB] LSI INDUSTRIES, INC.

[ISSUE DATE] 06/10/2020

[TEST DATE] 04/24/20

[MANUFAC] LSI INDUSTRIES, INC.

[LUMCAT] ENM4-PT-5W-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	11345
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	76
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	8163
Maximum Candela Angle	47.5H 67.5V
Maximum Candela (<90 Degrees Vertical)	8163
Maximum Candela Angle (<90 Degrees Vertical)	47.5H 67.5V
Maximum Candela At 90 Degrees Vertical	15 (0.1% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	366 (3.2% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	634.3	N.A.	5.6
FM - Front-Medium (30-60)	5145.6	N.A.	45.4
FH - Front-High (60-80)	3312.1	N.A.	29.2
FVH - Front-Very High (80-90)	41.0	N.A.	0.4
BL - Back-Low (0-30)	360.3	N.A.	3.2
BM - Back-Medium (30-60)	1348.3	N.A.	11.9
BH - Back-High (60-80)	473.0	N.A.	4.2
BVH - Back-Very High (80-90)	7.8	N.A.	0.1
UL - Uplight-Low (90-100)	5.7	N.A.	0.1
UH - Uplight-High (100-180)	17.1	N.A.	0.2
Total	11345.2	N.A.	100.0
BUG Rating	B2-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>47.5</u>	<u>55.0</u>	<u>65.0</u>	<u>75.0</u>
0.0	661	661	661	661	661	661	661	661	661	661
2.5	675	678	684	687	682	680	680	678	669	663
5.0	676	689	696	695	716	673	673	672	655	641
7.5	709	720	744	686	698	680	682	682	709	701
10.0	782	776	808	733	761	771	791	767	743	754
12.5	896	937	875	864	901	877	889	881	847	830
15.0	1015	1066	1026	1072	1092	1037	1046	1045	989	958
17.5	1144	1186	1159	1210	1250	1292	1286	1213	1166	1142
20.0	1387	1407	1379	1414	1470	1501	1492	1476	1373	1302
22.5	1582	1580	1626	1693	1708	1737	1781	1769	1621	1531
25.0	1807	1757	1854	1957	2052	2035	2051	2065	1904	1723
27.5	2080	2175	2267	2236	2366	2420	2423	2365	2187	2010
30.0	2462	2408	2469	2639	2648	2811	2842	2735	2538	2282
32.5	2943	2949	2880	2899	3096	3158	3149	3161	2931	2608
35.0	3388	3331	3264	3348	3411	3579	3489	3558	3271	3009
37.5	3789	3828	3691	3685	3824	3935	3855	3933	3650	3201
40.0	4117	4157	4086	4103	4186	4256	4232	4262	3983	3571
42.5	4369	4383	4337	4349	4475	4488	4494	4550	4242	3793
45.0	4580	4586	4541	4615	4733	4784	4806	4752	4458	3979
47.5	4751	4786	4786	4825	4947	4998	4982	4950	4659	4210
50.0	4908	4967	5004	4978	5110	5167	5158	5153	4880	4487
52.5	5077	5105	5181	5122	5284	5369	5387	5375	5132	4702
55.0	5233	5305	5400	5406	5521	5738	5774	5766	5479	5005
57.5	5476	5532	5679	5720	5975	6295	6323	6238	5715	5158
60.0	5457	5503	5766	5920	6319	6799	6787	6632	5829	5225
62.5	4884	4999	5444	5841	6573	7278	7244	6972	5881	5169
65.0	3844	3974	4558	5211	6559	7756	7677	7194	5779	5010
67.5	2099	2259	2932	4000	5789	8071	8163	7451	5739	4703
70.0	451	468	783	2017	4160	7096	7471	6866	4782	3511
72.5	208	213	257	456	1586	4597	5080	4760	3120	2095
75.0	130	132	146	189	390	1589	2156	2293	1555	949
77.5	67	69	75	98	164	334	424	816	743	446
80.0	48	48	50	57	80	123	140	232	366	253
82.5	42	43	45	49	58	70	74	103	190	201
85.0	33	33	35	40	49	58	61	73	105	163
87.5	23	23	25	27	33	40	41	50	74	93
90.0	11	11	11	11	11	11	9	6	9	15
92.5	2	2	2	3	4	4	4	4	4	4
95.0	1	1	1	1	2	4	4	4	4	4
97.5	1	1	1	1	2	2	2	3	3	4
100.0	1	1	1	1	2	2	2	2	3	3
102.5	1	1	1	1	1	2	2	2	2	3
105.0	1	2	1	1	2	2	2	2	2	3
107.5	2	2	1	2	2	2	2	2	2	3
110.0	3	2	2	2	2	2	2	2	3	3
112.5	3	3	3	2	3	3	3	2	3	4
115.0	4	4	3	3	3	3	3	3	3	4
117.5	4	4	4	3	3	3	4	3	4	4
120.0	5	4	4	3	4	4	4	4	4	4
122.5	5	5	4	4	4	4	4	4	4	4
125.0	6	6	5	4	4	4	4	4	4	5
127.5	6	6	6	5	4	4	4	4	4	5
130.0	6	6	6	5	4	4	4	4	4	5

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**CANDELA TABULATION - (Cont.)**

132.5	6	6	6	5	4	4	4	4	4	5
135.0	6	6	5	4	4	4	4	4	4	5
137.5	2	3	2	2	3	3	2	2	3	4
140.0	0	1	1	1	1	1	1	1	1	2
142.5	0	1	1	1	1	1	1	1	1	2
145.0	0	1	1	1	1	1	1	1	1	2
147.5	0	0	1	1	1	1	1	1	1	2
150.0	1	1	1	1	1	1	1	1	1	2
152.5	0	1	1	1	1	1	1	1	1	2
155.0	0	1	1	1	1	1	1	1	1	2
157.5	1	1	1	1	1	1	1	1	1	1
160.0	1	1	1	1	1	1	1	1	1	1
162.5	1	1	1	1	1	1	1	1	1	1
165.0	0	1	1	1	1	1	1	1	1	1
167.5	0	1	1	1	1	1	1	1	1	1
170.0	1	1	1	1	1	1	1	1	1	1
172.5	1	1	1	1	1	1	1	1	1	1
175.0	1	1	1	1	1	1	1	1	1	1
177.5	1	1	1	1	1	1	1	1	1	1
180.0	1	1	1	1	1	1	1	1	1	1

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	661	661	661	661	661	661	661	661	661	661
2.5	659	658	660	658	653	646	649	650	647	637
5.0	638	634	621	618	622	619	602	604	595	585
7.5	664	670	654	653	621	583	553	558	537	548
10.0	706	687	675	689	604	588	556	537	522	529
12.5	781	770	750	705	629	597	572	582	577	593
15.0	866	845	809	739	660	641	654	665	655	641
17.5	1005	954	910	811	722	733	750	728	697	692
20.0	1162	1103	1049	910	828	845	830	794	773	743
22.5	1392	1266	1195	1030	970	974	923	884	816	779
25.0	1557	1462	1351	1143	1175	1110	1038	943	876	745
27.5	1771	1640	1540	1325	1377	1253	1137	998	814	619
30.0	2041	1861	1737	1557	1599	1465	1300	944	623	430
32.5	2236	2097	1929	1817	1833	1685	1330	717	405	292
35.0	2551	2322	2165	2091	2080	1904	1186	479	271	216
37.5	2819	2606	2437	2407	2342	1980	860	315	205	179
40.0	3008	2812	2630	2723	2621	1808	550	229	170	153
42.5	3225	3005	2813	2979	2841	1414	341	187	146	130
45.0	3466	3245	3050	3252	2928	909	244	156	125	110
47.5	3665	3460	3292	3546	2761	556	188	132	106	88
50.0	3942	3739	3580	3867	2311	366	149	111	86	67
52.5	4211	4054	3903	4215	1683	257	123	89	65	47
55.0	4474	4329	4312	4499	1073	181	101	67	47	32
57.5	4667	4429	4563	4481	726	129	80	47	31	18
60.0	4745	4461	4633	3974	588	103	60	31	18	7
62.5	4645	4393	4616	3118	551	94	44	18	10	4
65.0	4443	4215	4444	2050	554	122	30	10	8	3
67.5	4040	3844	4086	1146	541	175	21	9	7	4
70.0	2932	2776	2924	563	416	227	21	8	8	5
72.5	1650	1533	1627	203	179	220	18	9	6	3
75.0	719	653	680	111	76	90	16	8	2	1
77.5	315	285	281	68	37	43	11	6	1	1

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**CANDELA TABULATION - (Cont.)**

80.0	192	166	137	41	25	23	9	6	0	1
82.5	146	122	88	26	20	15	9	6	0	1
85.0	104	80	47	16	14	13	9	6	0	1
87.5	60	32	13	11	13	12	9	6	0	1
90.0	11	4	9	12	14	13	11	7	1	1
92.5	5	4	9	12	15	14	11	8	1	2
95.0	4	3	7	11	13	13	10	7	1	2
97.5	4	3	6	9	11	11	8	6	1	2
100.0	4	4	5	6	9	9	6	5	2	1
102.5	3	4	5	6	6	6	6	4	2	1
105.0	3	4	4	5	6	6	5	4	2	1
107.5	3	4	4	5	6	6	5	4	3	2
110.0	4	4	4	5	6	6	5	4	3	2
112.5	4	4	5	5	6	6	5	4	3	2
115.0	4	4	5	6	6	6	5	4	3	2
117.5	4	5	5	6	6	6	5	4	4	3
120.0	4	5	5	6	6	6	6	5	4	3
122.5	5	5	6	6	6	6	6	5	4	4
125.0	5	6	6	6	6	6	6	6	5	4
127.5	6	6	6	6	6	6	6	6	5	4
130.0	6	6	6	6	6	6	6	6	5	5
132.5	6	6	6	6	6	6	6	5	5	4
135.0	5	6	6	6	6	6	6	5	4	4
137.5	4	4	4	5	5	5	4	4	4	3
140.0	3	3	3	4	4	4	4	3	2	1
142.5	2	3	3	3	4	4	3	3	2	1
145.0	2	3	3	3	4	4	3	2	2	1
147.5	2	3	3	3	4	4	3	2	1	1
150.0	2	3	3	3	3	4	3	2	1	1
152.5	2	3	3	3	3	3	3	2	1	1
155.0	2	2	3	3	3	3	3	2	1	1
157.5	2	2	2	3	3	3	3	2	1	1
160.0	2	2	2	2	3	3	2	1	1	1
162.5	1	2	2	2	2	2	2	1	1	0
165.0	1	1	2	2	2	2	2	1	1	0
167.5	1	1	1	2	2	2	2	1	1	0
170.0	1	1	1	2	2	2	1	1	1	0
172.5	1	1	1	2	2	2	1	1	1	0
175.0	1	1	1	1	1	1	1	1	1	0
177.5	1	1	1	1	1	1	1	1	0	0
180.0	1	1	1	1	1	1	1	1	1	1

**Vert. Horizontal Angles**  
**Angles**

	<u>175.0</u>	<u>180.0</u>
0.0	661	661
2.5	631	629
5.0	570	569
7.5	535	529
10.0	539	514
12.5	600	587
15.0	657	629
17.5	695	666
20.0	743	709
22.5	738	716
25.0	680	664

**IES ROAD REPORT**  
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**CANDELA TABULATION - (Cont.)**

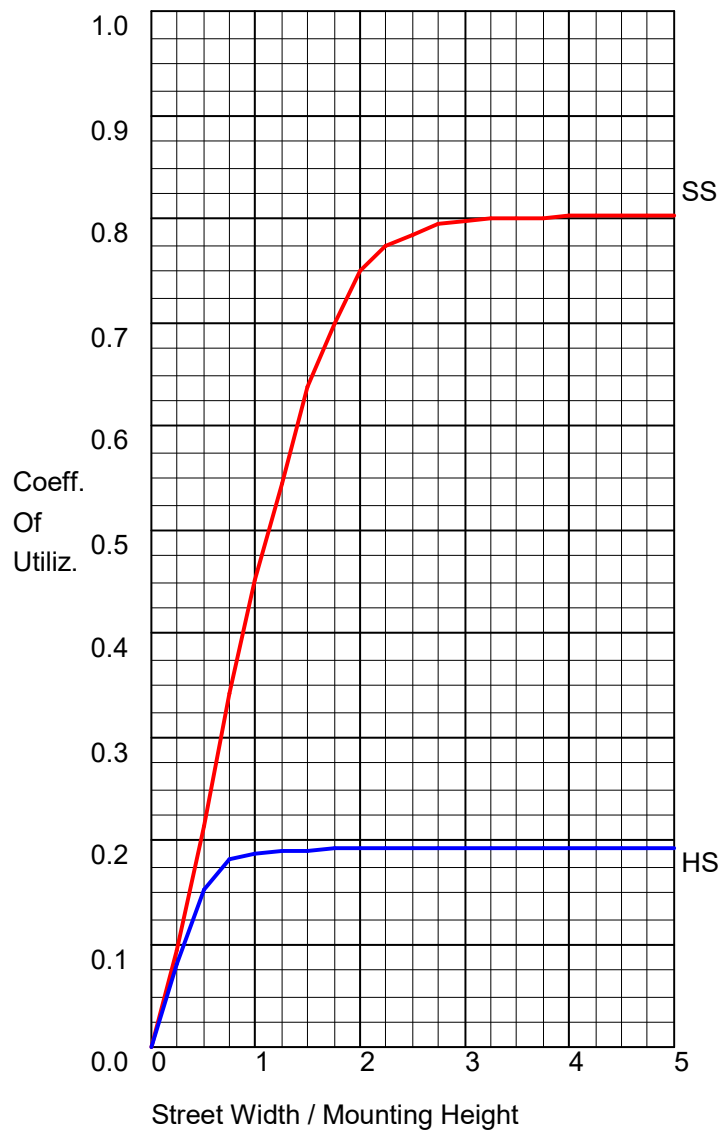
27.5	531	507
30.0	359	349
32.5	256	249
35.0	201	201
37.5	171	169
40.0	147	147
42.5	125	125
45.0	103	101
47.5	80	80
50.0	60	59
52.5	41	40
55.0	26	25
57.5	12	12
60.0	4	4
62.5	1	1
65.0	1	0
67.5	2	1
70.0	3	3
72.5	0	0
75.0	0	0
77.5	0	0
80.0	0	0
82.5	0	0
85.0	0	0
87.5	0	0
90.0	0	0
92.5	0	0
95.0	1	0
97.5	1	0
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	2	2
117.5	2	2
120.0	3	3
122.5	3	3
125.0	4	4
127.5	4	4
130.0	4	4
132.5	4	4
135.0	4	4
137.5	2	2
140.0	1	1
142.5	1	1
145.0	1	0
147.5	1	0
150.0	1	1
152.5	1	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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**PHOTOMETRIC FILENAME : ENM4-PT-5W-LED-18L-40-IL.IES**

**CANDELA TABULATION - (Cont.)**

<b>167.5</b>	0	0
<b>170.0</b>	0	0
<b>172.5</b>	0	0
<b>175.0</b>	0	0
<b>177.5</b>	0	0
<b>180.0</b>	1	1

COEFFICIENTS OF UTILIZATION

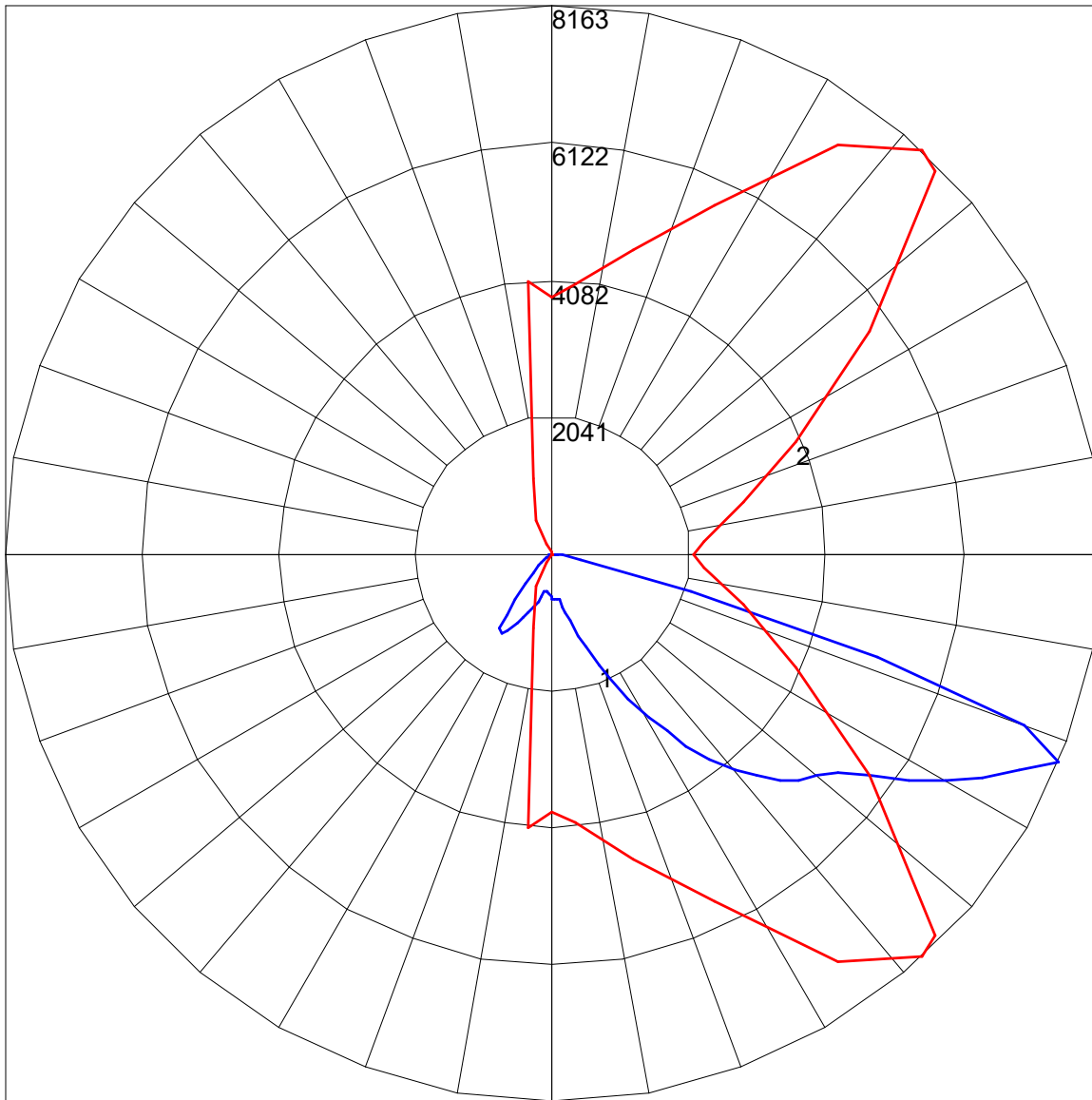


FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	9132.9	80.5
Downward House Side	2189.4	19.3
Downward Total	11322.3	99.8
Upward Street Side	9.1	0.1
Upward House Side	13.7	0.1
Upward Total	22.8	0.2
Total Flux	11345.1	100.0

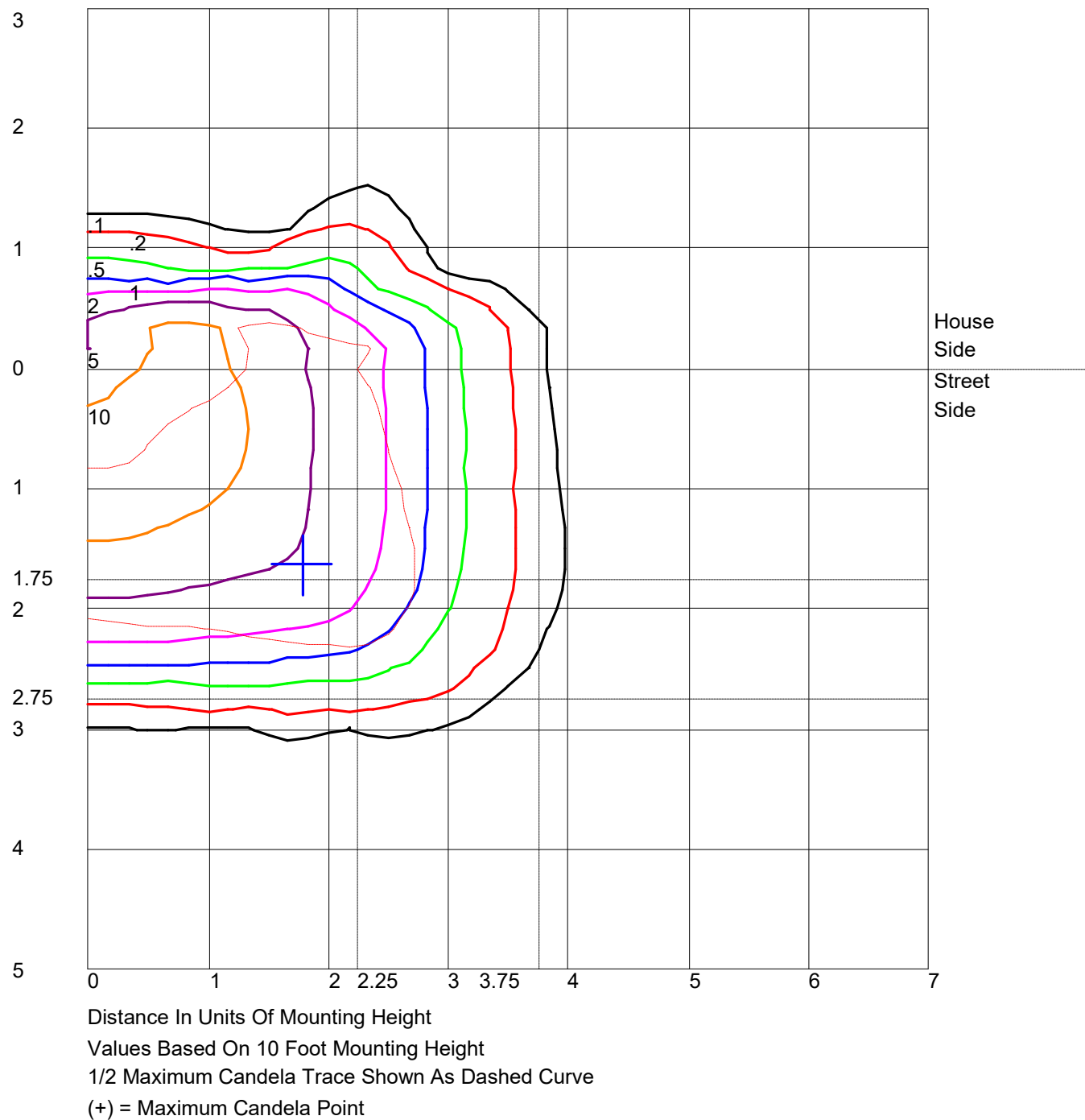


POLAR GRAPH

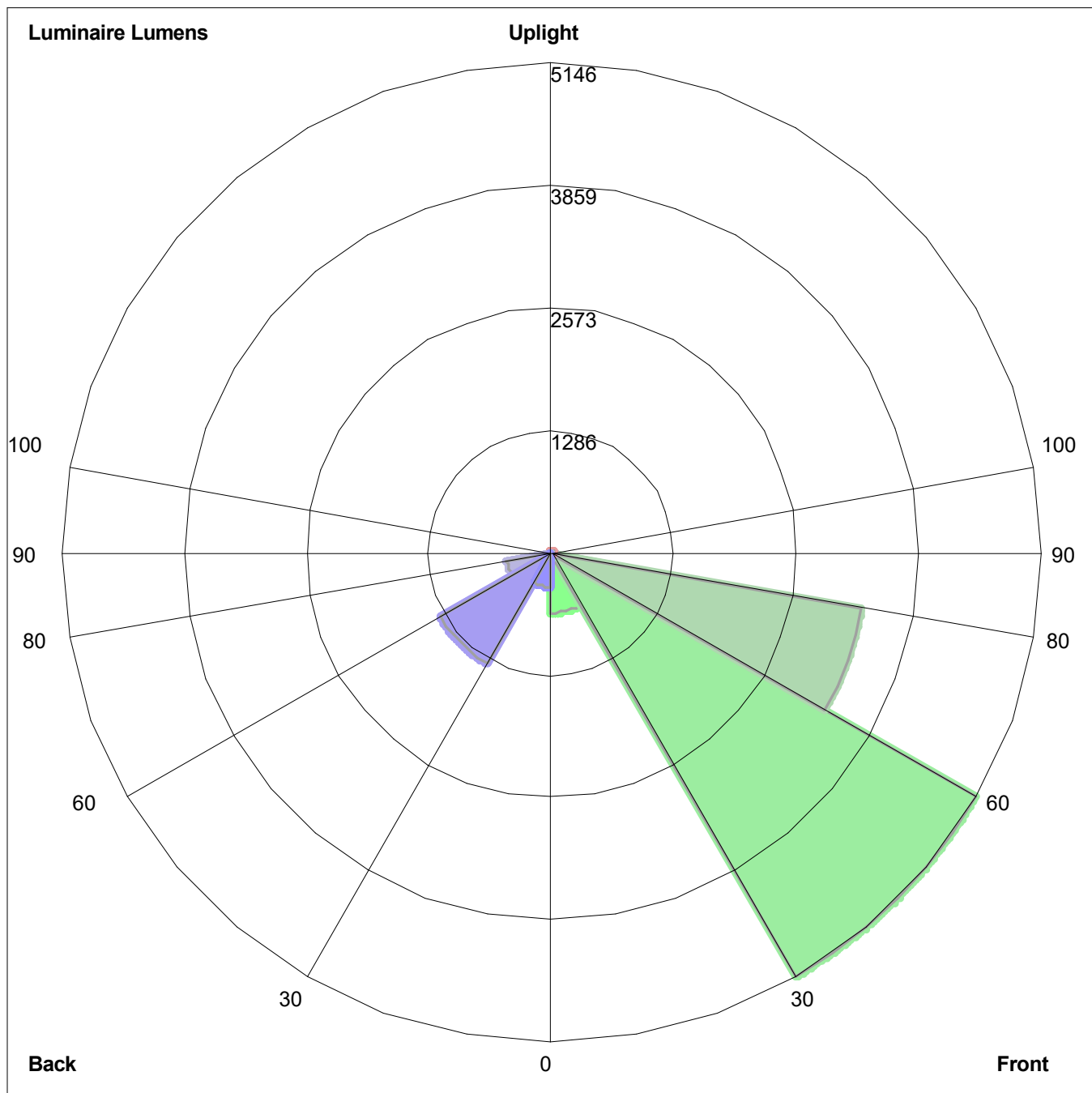


Maximum Candela = 8163 Located At Horizontal Angle = 47.5, Vertical Angle = 67.5  
# 1 - Vertical Plane Through Horizontal Angles (47.5 - 227.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=634.3, Medium=5145.6, High=3312.1, Very High=41.0  
Back: Low=360.3, Medium=1348.3, High=473.0, Very High=7.8  
Uplight: Low=5.7, High=17.1

BUG Rating : B2-U2-G2