



## IES ROAD REPORT

PHOTOMETRIC FILENAME : ENM4-PT-3-LED-10L-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-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	7706
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	77
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	8443
Maximum Candela Angle	57.5H 60V
Maximum Candela (<90 Degrees Vertical)	8443
Maximum Candela Angle (<90 Degrees Vertical)	57.5H 60V
Maximum Candela At 90 Degrees Vertical	18 (0.2% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	364 (4.7% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : ENM4-PT-3-LED-10L-30-IL.IES**

**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	286.0	N.A.	3.7
FM - Front-Medium (30-60)	4568.3	N.A.	59.3
FH - Front-High (60-80)	2003.8	N.A.	26.0
FVH - Front-Very High (80-90)	47.8	N.A.	0.6
BL - Back-Low (0-30)	138.8	N.A.	1.8
BM - Back-Medium (30-60)	524.2	N.A.	6.8
BH - Back-High (60-80)	103.1	N.A.	1.3
BVH - Back-Very High (80-90)	11.4	N.A.	0.1
UL - Uplight-Low (90-100)	5.5	N.A.	0.1
UH - Uplight-High (100-180)	17.5	N.A.	0.2
Total	7706.4	N.A.	100.0
BUG Rating	B1-U2-G2		

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : ENM4-PT-3-LED-10L-30-IL.IES**

**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	373	373	373	373	373	373	373	373	373	373
2.5	366	365	368	366	366	367	370	367	368	367
5.0	370	368	366	367	364	359	355	354	350	349
7.5	357	357	363	362	354	352	357	356	358	358
10.0	357	357	366	349	365	365	381	378	378	376
12.5	387	392	383	379	387	385	398	399	404	396
15.0	413	412	414	420	436	431	434	430	433	439
17.5	439	450	444	461	481	497	479	471	473	479
20.0	513	528	523	521	537	557	568	561	543	537
22.5	595	590	611	625	649	663	699	694	679	638
25.0	748	728	747	785	824	835	889	887	891	802
27.5	1031	1032	1043	1039	1076	1115	1175	1178	1194	1061
30.0	1357	1356	1327	1383	1409	1482	1540	1563	1546	1381
32.5	1766	1772	1698	1675	1774	1847	1962	1965	1966	1698
35.0	2128	2127	2094	2117	2118	2332	2389	2421	2330	2022
37.5	2695	2680	2577	2498	2551	2678	2773	2775	2668	2232
40.0	3156	3205	3131	2974	2972	3082	3121	3117	2926	2459
42.5	3766	3778	3678	3498	3422	3440	3396	3394	3137	2670
45.0	4396	4413	4309	4091	3940	3875	3712	3658	3368	2915
47.5	5003	4991	4953	4783	4636	4397	4106	4044	3723	3296
50.0	5406	5418	5523	5561	5279	4993	4653	4568	4258	3803
52.5	5400	5506	5832	6162	6172	5770	5548	5432	5017	4402
55.0	5034	5113	5534	6186	6644	6712	6856	6842	6077	4835
57.5	4069	4137	4819	5752	6692	7345	8020	8055	6872	4971
60.0	2631	2705	3415	4704	6243	7420	8407	8443	7031	4779
62.5	1407	1414	1969	3278	5153	6863	8085	8150	6741	4277
65.0	720	761	1004	1891	3600	5656	7220	7362	5903	3357
67.5	421	444	572	980	2189	3834	5654	5842	4446	2151
70.0	289	304	384	635	1187	2169	3716	3963	2840	1250
72.5	213	224	278	481	788	1088	2041	2246	1516	540
75.0	146	155	201	376	601	623	887	970	680	262
77.5	103	107	147	312	474	412	397	430	356	167
80.0	80	82	115	246	364	259	214	218	218	124
82.5	62	64	91	195	242	157	128	130	144	96
85.0	43	47	70	139	143	81	78	80	83	66
87.5	27	30	49	79	53	31	29	30	28	31
90.0	6	7	12	18	10	7	5	5	5	5
92.5	2	3	4	5	4	4	4	5	4	4
95.0	1	1	2	3	4	4	4	4	4	3
97.5	1	1	2	3	4	4	4	4	3	3
100.0	1	1	2	3	4	4	3	3	3	3
102.5	1	1	2	3	4	4	3	3	3	3
105.0	2	2	2	3	4	4	3	3	3	3
107.5	2	2	2	3	4	4	3	3	3	3
110.0	2	2	2	4	4	4	3	3	3	3
112.5	2	2	3	4	4	4	3	3	3	3
115.0	2	2	3	4	4	4	4	3	3	3
117.5	3	3	3	4	4	4	4	4	3	4
120.0	3	3	3	4	4	4	4	4	4	4
122.5	3	3	4	4	4	4	4	4	4	4
125.0	4	4	4	4	5	4	4	4	4	4
127.5	4	4	4	4	5	5	4	4	4	4
130.0	4	4	4	4	5	5	4	4	4	4

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : ENM4-PT-3-LED-10L-30-IL.IES**

**CANDELA TABULATION - (Cont.)**

132.5	4	4	4	4	4	5	4	4	4	4
135.0	3	3	3	4	4	4	4	4	4	4
137.5	1	1	2	3	3	3	3	3	3	3
140.0	0	0	2	2	3	3	2	2	2	3
142.5	0	0	2	2	2	2	2	2	2	2
145.0	0	0	2	2	2	2	2	2	2	2
147.5	0	0	1	2	2	2	2	2	2	2
150.0	0	0	1	2	2	2	2	2	2	2
152.5	0	0	1	2	2	2	2	2	2	2
155.0	0	0	1	2	2	2	2	2	2	2
157.5	0	0	1	2	2	2	2	2	2	2
160.0	0	0	1	2	2	2	2	2	2	2
162.5	0	0	1	2	2	2	2	2	2	2
165.0	0	0	1	2	2	2	2	2	2	2
167.5	0	0	1	2	2	2	2	2	2	2
170.0	0	0	1	2	2	2	2	2	2	2
172.5	0	0	1	2	2	2	2	2	2	2
175.0	0	0	1	2	2	2	2	2	2	2
177.5	0	0	1	2	2	2	2	2	2	2
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	373	373	373	373	373	373	373	373	373	373
2.5	368	371	371	371	374	379	375	376	373	375
5.0	354	357	357	348	361	368	367	361	362	361
7.5	352	356	356	361	359	354	345	336	329	336
10.0	368	364	361	383	363	351	323	312	287	284
12.5	387	384	383	382	362	341	302	265	249	239
15.0	407	396	397	397	366	319	271	246	227	217
17.5	440	424	434	404	357	286	258	239	225	214
20.0	482	462	451	418	332	273	249	240	230	214
22.5	578	542	520	446	328	273	251	243	237	219
25.0	706	650	604	475	340	293	252	247	262	256
27.5	904	796	736	503	374	318	256	259	313	328
30.0	1130	988	858	526	393	331	271	281	388	413
32.5	1330	1151	956	544	398	340	279	310	456	524
35.0	1533	1276	1042	551	389	341	289	317	543	652
37.5	1701	1407	1103	559	373	336	286	320	653	814
40.0	1873	1523	1181	567	357	322	281	310	760	811
42.5	2068	1658	1255	576	339	304	265	290	817	642
45.0	2340	1862	1370	595	321	282	243	267	662	485
47.5	2733	2125	1502	616	299	250	214	241	436	363
50.0	3135	2420	1651	623	270	201	173	207	247	277
52.5	3494	2637	1764	612	224	148	126	157	162	219
55.0	3662	2697	1730	560	176	111	94	106	112	177
57.5	3608	2543	1527	478	143	93	77	75	76	142
60.0	3313	2212	1201	370	121	83	66	57	57	116
62.5	2764	1727	821	268	104	72	55	44	43	95
65.0	1868	1159	504	182	87	61	44	34	33	79
67.5	1070	677	305	124	70	48	33	27	24	63
70.0	488	345	174	89	56	38	25	21	18	49
72.5	208	177	120	73	45	31	21	17	12	36
75.0	130	121	100	66	37	26	18	13	8	26
77.5	98	94	84	62	33	24	16	11	5	20

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : ENM4-PT-3-LED-10L-30-IL.IES**

**CANDELA TABULATION - (Cont.)**

80.0	87	80	70	54	30	22	14	9	5	16
82.5	64	59	57	45	26	20	14	8	4	14
85.0	40	38	42	32	23	19	14	8	4	12
87.5	20	18	23	21	18	16	13	7	4	9
90.0	5	4	7	13	14	14	11	6	3	5
92.5	4	3	5	10	13	13	9	5	2	2
95.0	4	2	5	9	12	11	8	5	2	2
97.5	3	3	4	7	9	9	7	5	3	2
100.0	3	3	4	5	7	7	5	5	3	2
102.5	3	3	4	5	6	6	5	5	3	2
105.0	3	3	4	5	5	5	5	5	3	2
107.5	3	3	4	5	5	5	5	5	4	2
110.0	3	4	4	5	5	5	5	5	4	2
112.5	3	4	4	5	5	5	5	5	4	3
115.0	4	4	4	5	5	5	5	5	4	3
117.5	4	4	5	5	5	5	5	5	4	3
120.0	4	4	5	5	5	5	5	5	4	3
122.5	4	5	5	5	5	5	5	5	4	3
125.0	4	5	5	5	5	5	5	5	4	4
127.5	4	5	5	5	5	5	5	5	5	4
130.0	5	5	5	5	5	5	5	5	5	4
132.5	4	5	5	5	5	5	5	5	5	4
135.0	4	4	5	5	5	5	5	5	4	4
137.5	4	4	4	4	5	5	5	4	4	3
140.0	3	3	4	4	4	4	4	4	3	2
142.5	3	3	3	4	4	4	4	4	3	2
145.0	3	3	3	4	4	4	4	4	3	2
147.5	3	3	3	4	4	4	4	3	2	2
150.0	3	3	3	3	4	4	4	3	2	1
152.5	3	3	3	3	4	4	4	3	2	1
155.0	3	3	3	3	4	4	3	3	2	1
157.5	2	3	3	3	3	3	3	2	2	1
160.0	2	2	3	3	3	3	3	2	1	0
162.5	2	2	2	3	3	3	2	2	1	0
165.0	2	2	2	2	3	2	2	2	1	0
167.5	2	2	2	2	2	2	2	2	1	0
170.0	2	2	2	2	2	2	2	2	1	0
172.5	2	2	2	2	2	2	2	2	1	0
175.0	2	2	2	2	2	2	2	2	1	0
177.5	2	2	2	2	2	2	2	2	1	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	373	373
2.5	376	376
5.0	357	358
7.5	328	326
10.0	273	275
12.5	238	237
15.0	219	214
17.5	209	208
20.0	207	205
22.5	204	199
25.0	222	213

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : ENM4-PT-3-LED-10L-30-IL.IES**

**CANDELA TABULATION - (Cont.)**

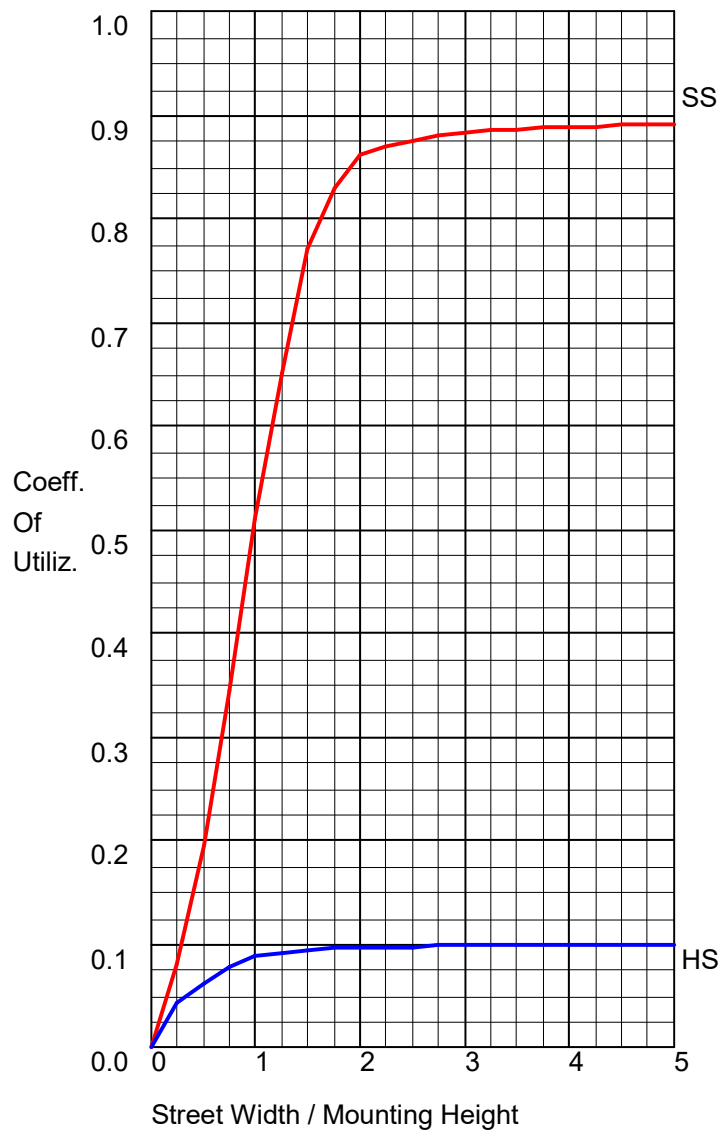
<b>27.5</b>	<b>263</b>	<b>251</b>
<b>30.0</b>	<b>324</b>	<b>312</b>
<b>32.5</b>	<b>410</b>	<b>392</b>
<b>35.0</b>	<b>509</b>	<b>486</b>
<b>37.5</b>	<b>518</b>	<b>481</b>
<b>40.0</b>	<b>416</b>	<b>372</b>
<b>42.5</b>	<b>310</b>	<b>267</b>
<b>45.0</b>	<b>229</b>	<b>206</b>
<b>47.5</b>	<b>186</b>	<b>164</b>
<b>50.0</b>	<b>160</b>	<b>130</b>
<b>52.5</b>	<b>147</b>	<b>113</b>
<b>55.0</b>	<b>144</b>	<b>106</b>
<b>57.5</b>	<b>148</b>	<b>109</b>
<b>60.0</b>	<b>156</b>	<b>120</b>
<b>62.5</b>	<b>161</b>	<b>137</b>
<b>65.0</b>	<b>164</b>	<b>148</b>
<b>67.5</b>	<b>156</b>	<b>147</b>
<b>70.0</b>	<b>138</b>	<b>141</b>
<b>72.5</b>	<b>121</b>	<b>124</b>
<b>75.0</b>	<b>94</b>	<b>100</b>
<b>77.5</b>	<b>74</b>	<b>81</b>
<b>80.0</b>	<b>60</b>	<b>68</b>
<b>82.5</b>	<b>49</b>	<b>54</b>
<b>85.0</b>	<b>37</b>	<b>43</b>
<b>87.5</b>	<b>28</b>	<b>31</b>
<b>90.0</b>	<b>13</b>	<b>14</b>
<b>92.5</b>	<b>0</b>	<b>0</b>
<b>95.0</b>	<b>0</b>	<b>0</b>
<b>97.5</b>	<b>0</b>	<b>0</b>
<b>100.0</b>	<b>0</b>	<b>0</b>
<b>102.5</b>	<b>0</b>	<b>0</b>
<b>105.0</b>	<b>0</b>	<b>0</b>
<b>107.5</b>	<b>1</b>	<b>0</b>
<b>110.0</b>	<b>1</b>	<b>0</b>
<b>112.5</b>	<b>1</b>	<b>1</b>
<b>115.0</b>	<b>2</b>	<b>1</b>
<b>117.5</b>	<b>2</b>	<b>2</b>
<b>120.0</b>	<b>2</b>	<b>2</b>
<b>122.5</b>	<b>2</b>	<b>2</b>
<b>125.0</b>	<b>3</b>	<b>3</b>
<b>127.5</b>	<b>3</b>	<b>3</b>
<b>130.0</b>	<b>3</b>	<b>3</b>
<b>132.5</b>	<b>3</b>	<b>3</b>
<b>135.0</b>	<b>3</b>	<b>2</b>
<b>137.5</b>	<b>2</b>	<b>2</b>
<b>140.0</b>	<b>1</b>	<b>1</b>
<b>142.5</b>	<b>1</b>	<b>0</b>
<b>145.0</b>	<b>0</b>	<b>0</b>
<b>147.5</b>	<b>0</b>	<b>0</b>
<b>150.0</b>	<b>0</b>	<b>0</b>
<b>152.5</b>	<b>0</b>	<b>0</b>
<b>155.0</b>	<b>0</b>	<b>0</b>
<b>157.5</b>	<b>0</b>	<b>0</b>
<b>160.0</b>	<b>0</b>	<b>0</b>
<b>162.5</b>	<b>0</b>	<b>0</b>
<b>165.0</b>	<b>0</b>	<b>0</b>

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : ENM4-PT-3-LED-10L-30-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

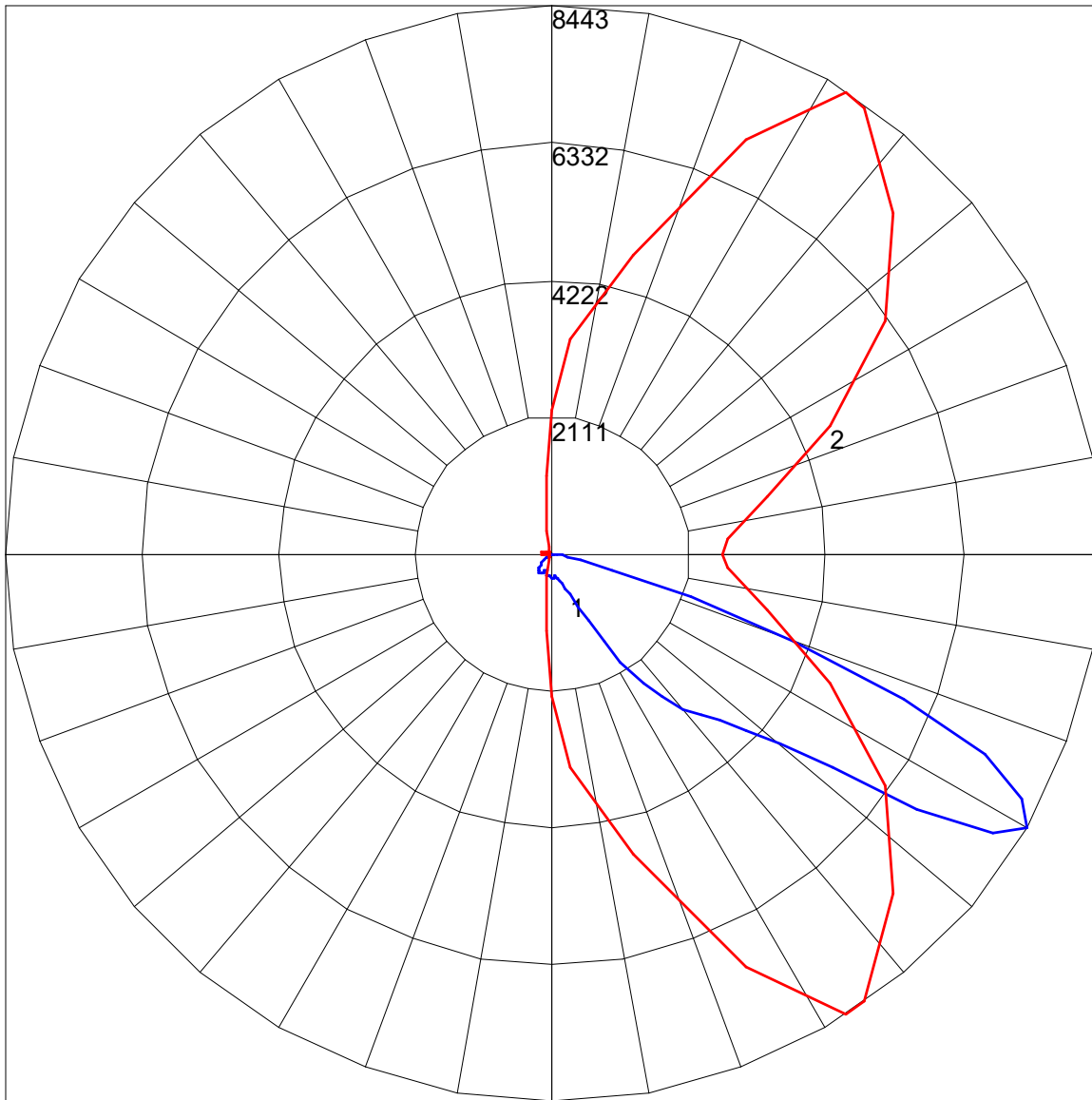


### FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	6906.0	89.6
Downward House Side	777.4	10.1
Downward Total	7683.4	99.7
Upward Street Side	9.9	0.1
Upward House Side	13.0	0.2
Upward Total	22.9	0.3
Total Flux	7706.3	100.0

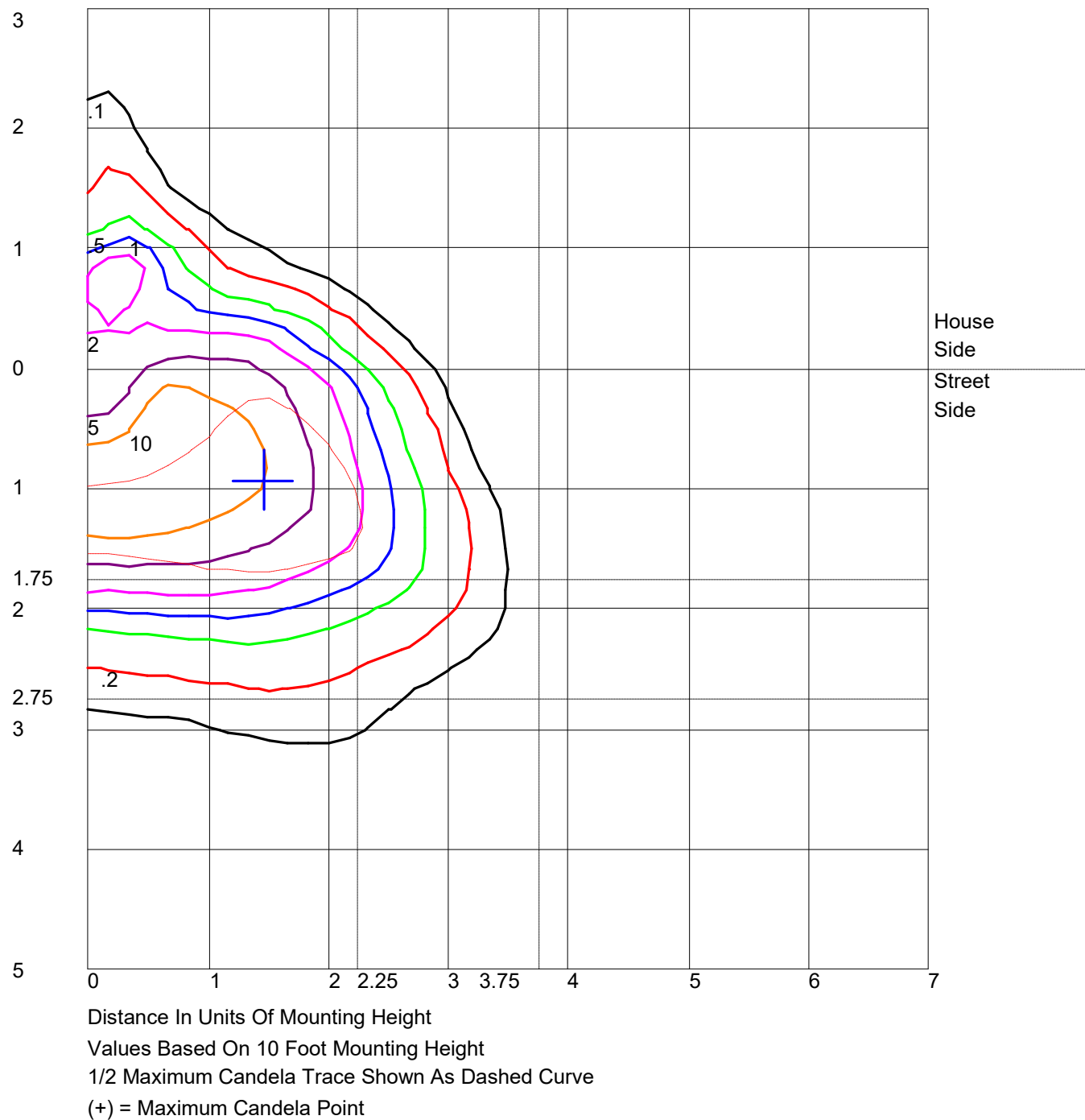


POLAR GRAPH

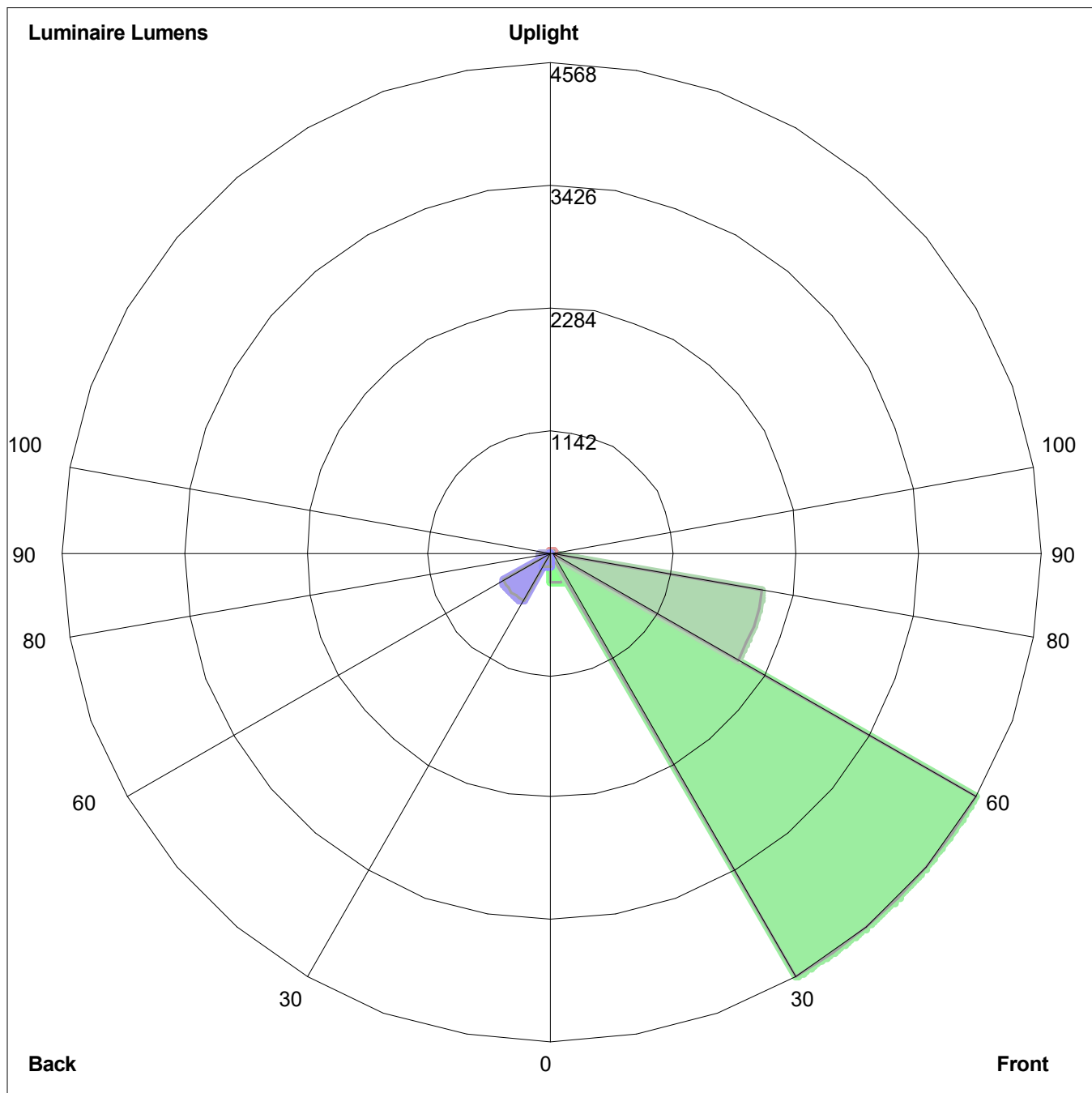


Maximum Candela = 8443 Located At Horizontal Angle = 57.5, Vertical Angle = 60  
# 1 - Vertical Plane Through Horizontal Angles (57.5 - 237.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (60) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=286.0, Medium=4568.3, High=2003.8, Very High=47.8  
Back: Low=138.8, Medium=524.2, High=103.1, Very High=11.4  
Uplight: Low=5.5, High=17.5

BUG Rating : B1-U2-G2