



## IES ROAD REPORT

PHOTOMETRIC FILENAME : ENM4-PT-2-LED-10L-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  
[MANUFACT] LSI INDUSTRIES, INC.  
[LUMCAT] ENM4-PT-2-LED-10L-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	7903
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	77
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	8129
Maximum Candela Angle	80H 57.5V
Maximum Candela (<90 Degrees Vertical)	8129
Maximum Candela Angle (<90 Degrees Vertical)	80H 57.5V
Maximum Candela At 90 Degrees Vertical	8 (0.1% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	315 (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)	616.0	N.A.	7.8
FM - Front-Medium (30-60)	4478.6	N.A.	56.7
FH - Front-High (60-80)	1433.9	N.A.	18.1
FVH - Front-Very High (80-90)	31.2	N.A.	0.4
BL - Back-Low (0-30)	332.4	N.A.	4.2
BM - Back-Medium (30-60)	828.4	N.A.	10.5
BH - Back-High (60-80)	167.6	N.A.	2.1
BVH - Back-Very High (80-90)	5.5	N.A.	0.1
UL - Uplight-Low (90-100)	2.3	N.A.	0.0
UH - Uplight-High (100-180)	7.7	N.A.	0.1
Total	7903.6	N.A.	100.0
BUG Rating	B1-U1-G1		

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**CANDELA TABULATION**

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<b>0</b>	<b>5</b>	<b>15</b>	<b>25</b>	<b>35</b>	<b>45</b>	<b>55</b>	<b>65</b>	<b>75</b>	<b>80</b>
<b>0.0</b>	809	809	809	809	809	809	809	809	809	809
<b>2.5</b>	824	827	827	833	833	835	838	823	819	806
<b>5.0</b>	827	832	852	847	870	814	812	795	772	763
<b>7.5</b>	847	860	881	838	851	817	830	861	838	810
<b>10.0</b>	896	896	928	862	887	898	908	894	870	843
<b>12.5</b>	973	1022	976	955	979	964	974	958	953	954
<b>15.0</b>	1049	1095	1072	1098	1128	1076	1086	1064	1075	1043
<b>17.5</b>	1118	1162	1143	1167	1200	1252	1198	1220	1240	1180
<b>20.0</b>	1273	1303	1305	1282	1322	1339	1391	1366	1396	1380
<b>22.5</b>	1382	1391	1425	1459	1472	1476	1594	1598	1656	1642
<b>25.0</b>	1592	1544	1583	1615	1654	1637	1807	1934	1950	1941
<b>27.5</b>	1812	1865	1880	1814	1843	1888	2033	2337	2446	2360
<b>30.0</b>	2104	2068	2038	2057	2088	2178	2349	2833	2959	2905
<b>32.5</b>	2478	2509	2365	2272	2359	2451	2800	3456	3628	3568
<b>35.0</b>	2875	2815	2717	2650	2612	2844	3224	3949	4292	4178
<b>37.5</b>	3279	3236	3081	2942	3026	3128	3606	4315	4575	4622
<b>40.0</b>	3441	3441	3374	3334	3377	3490	3902	4452	4779	4747
<b>42.5</b>	3487	3488	3476	3504	3657	3801	4267	4557	4860	4917
<b>45.0</b>	3379	3394	3411	3529	3798	4130	4648	4853	5084	5236
<b>47.5</b>	3120	3134	3192	3362	3722	4243	5027	5335	5455	5666
<b>50.0</b>	2752	2739	2829	3015	3450	4152	5384	5878	5894	6143
<b>52.5</b>	2261	2279	2379	2590	3037	3861	5645	6453	6486	6899
<b>55.0</b>	1737	1756	1855	2103	2523	3353	5664	6934	7161	7652
<b>57.5</b>	1238	1260	1351	1565	1981	2763	5305	7049	7625	8129
<b>60.0</b>	864	881	957	1109	1428	2038	4618	6715	7704	8061
<b>62.5</b>	625	629	693	780	958	1385	3749	5856	7252	7398
<b>65.0</b>	442	448	493	589	694	892	2819	4868	6151	6152
<b>67.5</b>	300	307	329	415	532	610	1907	3687	4892	4751
<b>70.0</b>	184	187	197	274	388	452	1162	2529	3341	3070
<b>72.5</b>	139	138	139	173	266	331	643	1542	1939	1496
<b>75.0</b>	94	96	96	113	180	237	347	941	945	577
<b>77.5</b>	64	64	65	70	114	166	207	540	499	319
<b>80.0</b>	41	43	46	44	63	107	131	296	315	223
<b>82.5</b>	39	39	37	35	38	53	76	151	206	173
<b>85.0</b>	29	29	27	28	30	38	45	73	106	104
<b>87.5</b>	18	17	16	16	17	23	28	37	38	38
<b>90.0</b>	5	5	4	4	4	4	4	4	5	4
<b>92.5</b>	2	2	2	2	1	0	0	0	0	0
<b>95.0</b>	2	1	2	2	1	0	0	0	0	0
<b>97.5</b>	2	1	2	2	1	0	0	0	0	0
<b>100.0</b>	2	1	2	2	1	0	0	0	0	0
<b>102.5</b>	2	1	2	2	1	0	0	0	0	0
<b>105.0</b>	2	1	2	2	1	0	0	0	0	0
<b>107.5</b>	2	2	2	2	1	0	0	0	0	0
<b>110.0</b>	2	2	2	2	1	0	0	0	0	0
<b>112.5</b>	2	2	2	2	1	0	0	0	0	0
<b>115.0</b>	3	2	2	2	1	0	0	0	0	0
<b>117.5</b>	3	3	2	2	2	1	0	0	0	1
<b>120.0</b>	4	3	3	2	2	1	0	0	1	1
<b>122.5</b>	4	4	3	3	2	1	0	1	1	1
<b>125.0</b>	4	4	4	3	2	1	0	1	2	2
<b>127.5</b>	5	5	4	3	2	2	1	1	2	2
<b>130.0</b>	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	809	809	809	809	809	809	809	809	809	809
2.5	809	804	809	807	801	801	806	806	796	793
5.0	775	768	755	750	754	752	739	743	731	714
7.5	808	803	786	787	749	712	656	666	654	675
10.0	836	814	790	801	714	691	662	643	610	639
12.5	905	890	875	824	737	691	656	676	685	717
15.0	1001	976	921	831	729	715	718	751	776	760
17.5	1133	1065	1007	885	755	751	806	827	821	816
20.0	1289	1230	1134	941	800	841	845	863	814	740
22.5	1542	1398	1318	1068	884	903	883	787	643	534
25.0	1829	1704	1544	1162	1025	965	803	593	432	319
27.5	2239	2007	1822	1305	1128	945	626	384	262	217
30.0	2752	2427	2135	1463	1220	843	446	254	208	189
32.5	3250	2908	2470	1614	1266	693	300	216	186	175
35.0	3837	3392	2842	1784	1226	520	250	194	174	163
37.5	4307	3877	3153	1907	1108	359	225	181	158	147
40.0	4485	4108	3298	2008	943	280	204	168	140	128
42.5	4730	4311	3424	2018	679	247	186	150	120	105
45.0	5064	4594	3591	1956	410	222	166	129	98	84
47.5	5481	4932	3756	1770	302	197	143	105	80	66
50.0	5966	5263	3874	1467	258	174	118	84	64	51
52.5	6548	5507	3908	1076	233	152	94	65	50	39
55.0	7149	5558	3790	724	216	128	73	48	38	28
57.5	7316	5297	3442	519	198	104	55	35	27	17
60.0	6984	4745	2937	429	192	85	41	23	16	7
62.5	6064	3977	2345	356	184	67	28	13	8	4
65.0	4892	3032	1701	272	160	52	19	6	6	3
67.5	3486	2101	1072	194	121	39	13	4	5	3
70.0	2077	1265	601	135	83	26	9	5	5	3
72.5	902	629	330	99	52	16	9	7	4	2
75.0	386	332	204	71	29	13	10	7	4	2
77.5	244	227	133	47	19	13	12	8	4	2

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**CANDELA TABULATION - (Cont.)**

80.0	192	161	86	26	15	13	12	8	4	2
82.5	138	98	51	13	12	12	12	8	4	3
85.0	80	50	24	6	8	10	10	8	4	3
87.5	29	13	4	3	6	9	9	6	4	2
90.0	1	1	2	3	6	8	8	6	3	2
92.5	0	1	2	3	5	8	7	4	3	2
95.0	0	1	1	2	4	6	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**

	<b>175</b>	<b>180</b>
0.0	809	809
2.5	785	769
5.0	704	695
7.5	669	656
10.0	654	623
12.5	732	712
15.0	818	803
17.5	853	828
20.0	729	695
22.5	489	482
25.0	282	274

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**CANDELA TABULATION - (Cont.)**

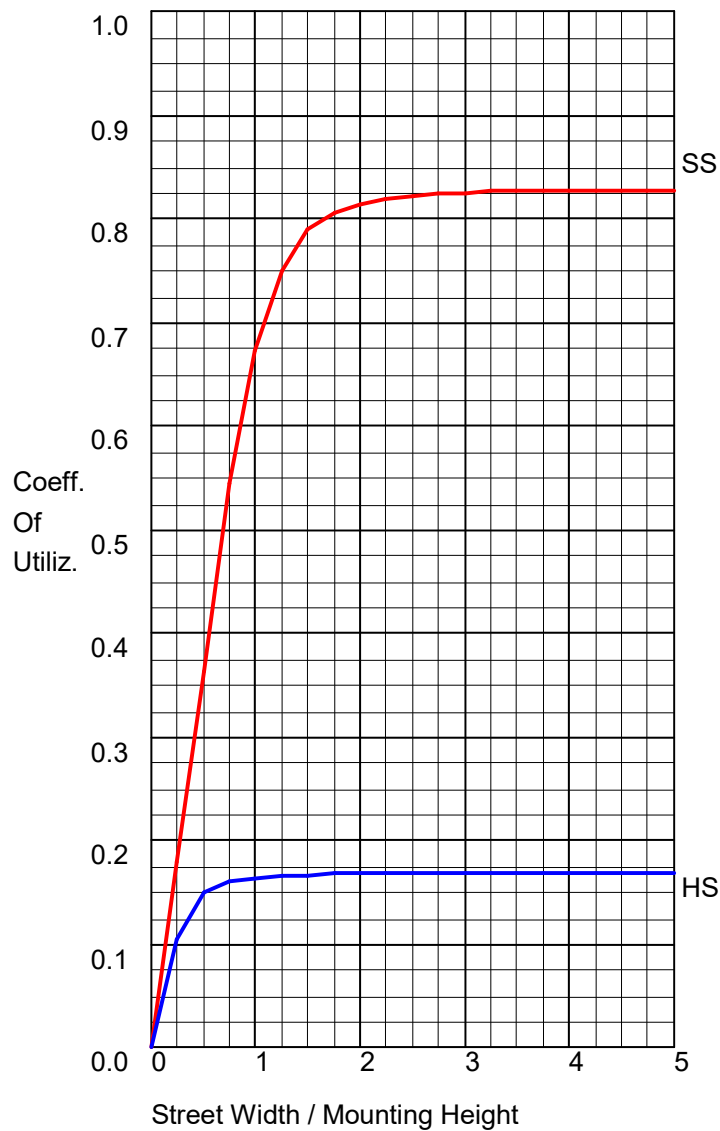
27.5	208	207
30.0	186	186
32.5	177	176
35.0	163	163
37.5	146	148
40.0	125	124
42.5	99	98
45.0	80	79
47.5	62	61
50.0	47	46
52.5	35	35
55.0	23	23
57.5	13	13
60.0	5	5
62.5	2	2
65.0	1	2
67.5	2	2
70.0	2	2
72.5	1	1
75.0	1	1
77.5	1	1
80.0	1	1
82.5	1	1
85.0	1	2
87.5	1	1
90.0	1	1
92.5	1	1
95.0	1	1
97.5	1	1
100.0	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

**IES ROAD REPORT**  
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**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>	0	0

COEFFICIENTS OF UTILIZATION

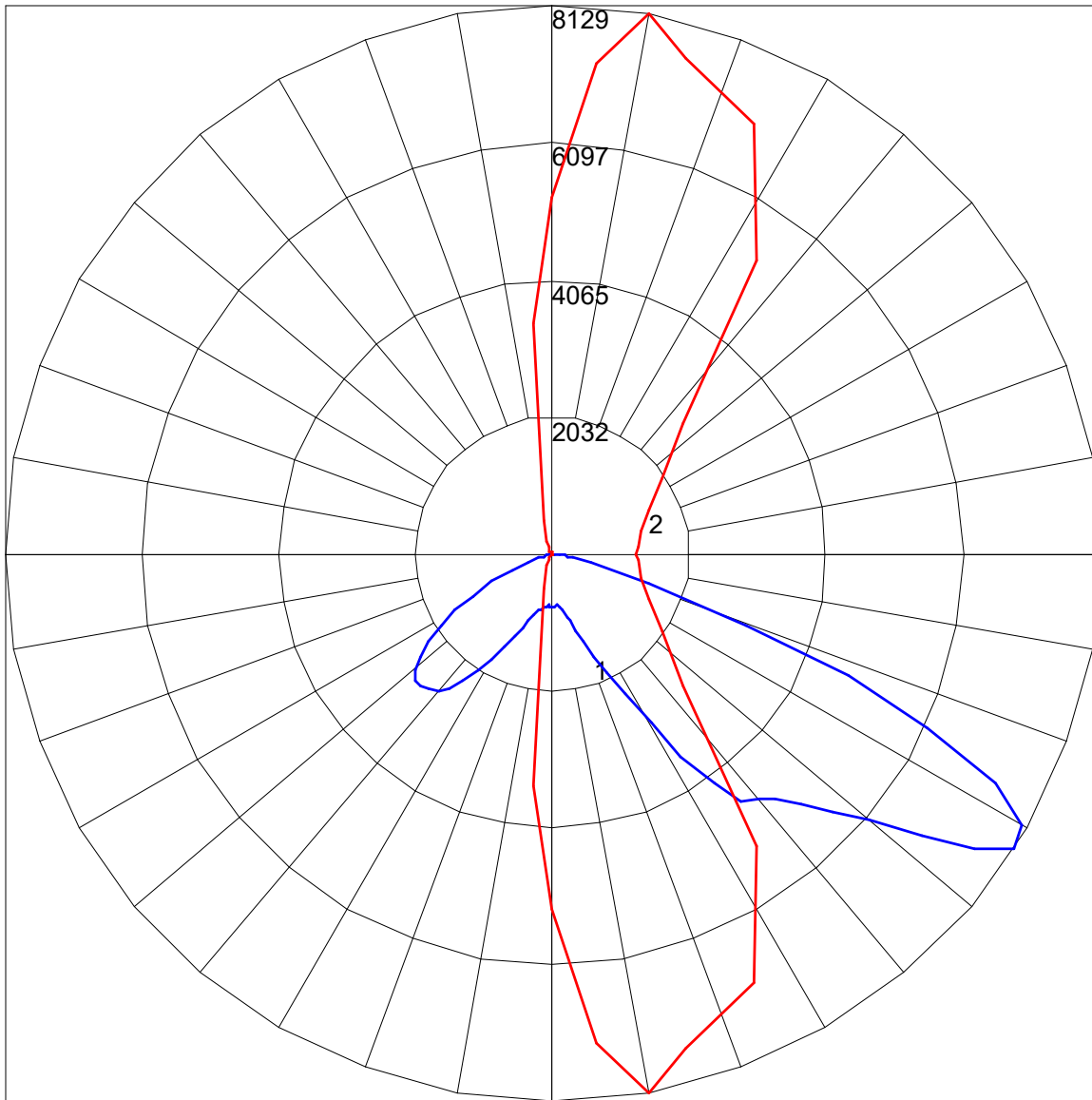


FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	6559.5	83.0
Downward House Side	1333.9	16.9
Downward Total	7893.4	99.9
Upward Street Side	3.2	0.0
Upward House Side	6.7	0.1
Upward Total	9.9	0.1
Total Flux	7903.3	100.0

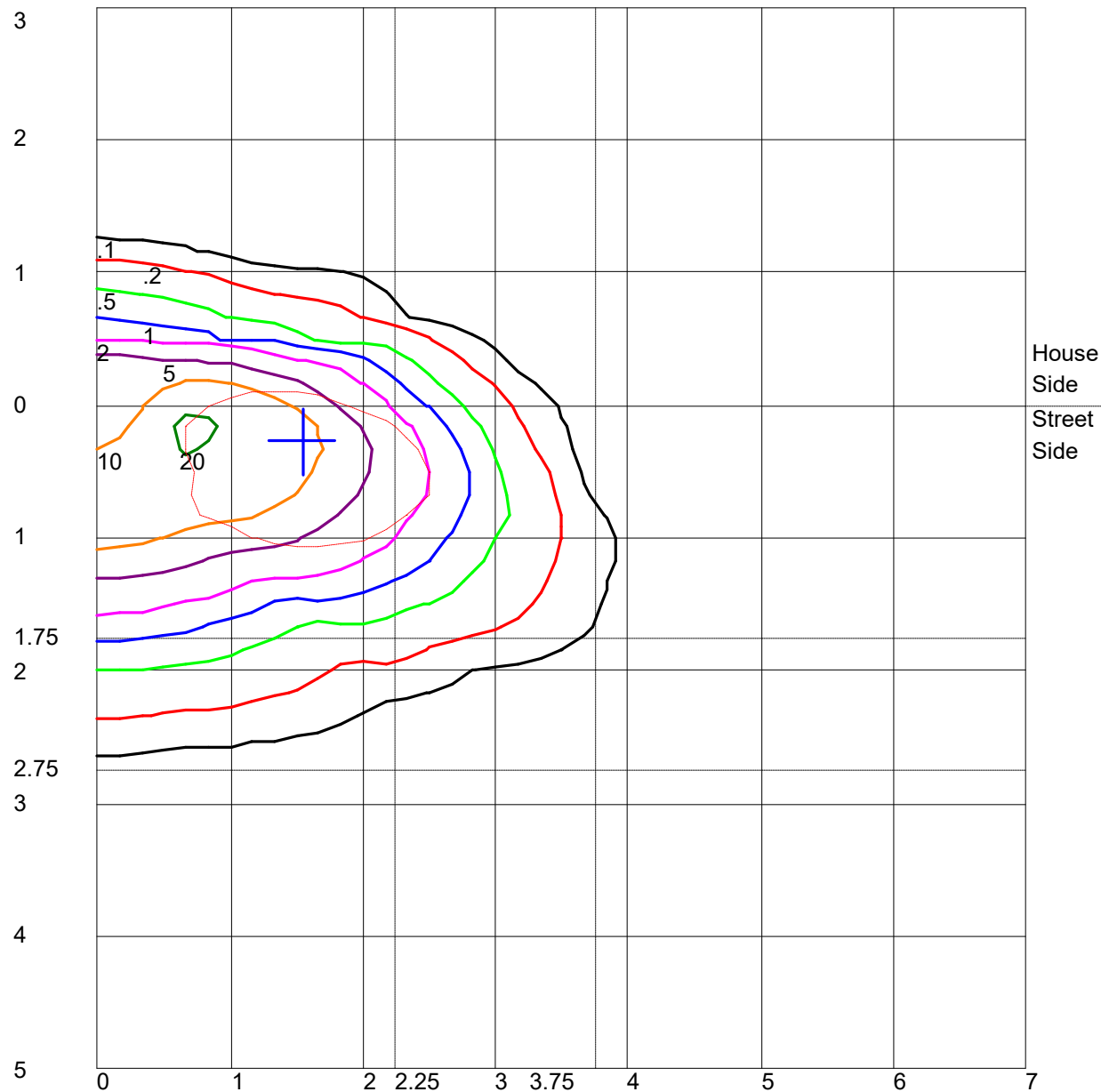


POLAR GRAPH



Maximum Candela = 8129 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



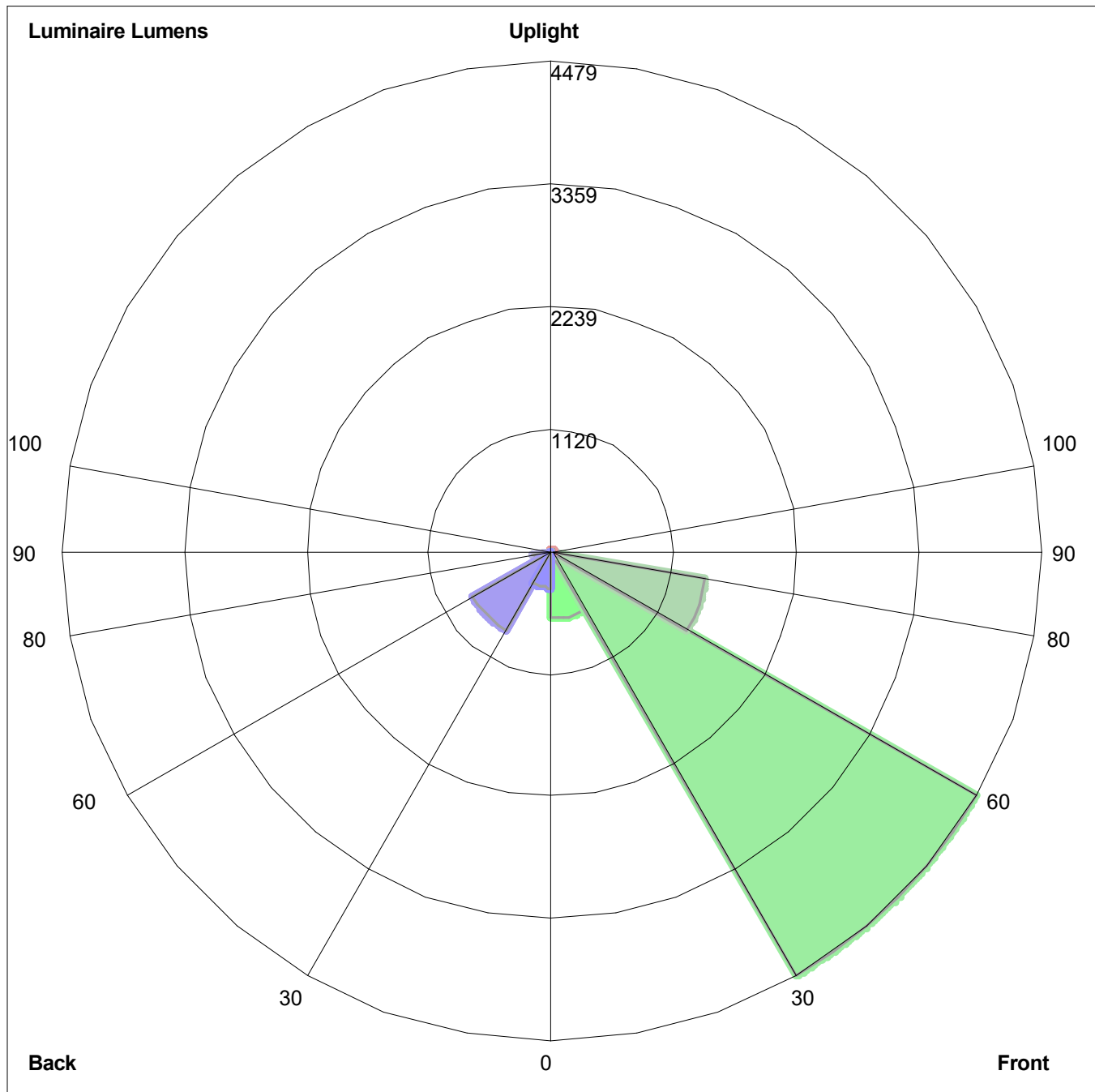
Distance In Units Of Mounting Height

Values Based On 10 Foot Mounting Height

1/2 Maximum Candela Trace Shown As Dashed Curve

(+) = Maximum Candela Point

LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=616.0, Medium=4478.6, High=1433.9, Very High=31.2  
Back: Low=332.4, Medium=828.4, High=167.6, Very High=5.5  
Uplight: Low=2.3, High=7.7

BUG Rating : B1-U1-G1