



## IES ROAD REPORT

PHOTOMETRIC FILENAME : ENM4-PT-3-LED-18L-50-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  
[MANUFACT] LSI INDUSTRIES, INC.  
[LUMCAT] ENM4-PT-3-LED-18L-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	16178
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	17728
Maximum Candela Angle	57.5H 60V
Maximum Candela (<90 Degrees Vertical)	17728
Maximum Candela Angle (<90 Degrees Vertical)	57.5H 60V
Maximum Candela At 90 Degrees Vertical	37 (0.2% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	763 (4.7% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	600.7	N.A.	3.7
FM - Front-Medium (30-60)	9592.7	N.A.	59.3
FH - Front-High (60-80)	4207.7	N.A.	26.0
FVH - Front-Very High (80-90)	100.4	N.A.	0.6
BL - Back-Low (0-30)	291.4	N.A.	1.8
BM - Back-Medium (30-60)	1100.7	N.A.	6.8
BH - Back-High (60-80)	216.5	N.A.	1.3
BVH - Back-Very High (80-90)	23.9	N.A.	0.1
UL - Uplight-Low (90-100)	11.1	N.A.	0.1
UH - Uplight-High (100-180)	33.2	N.A.	0.2
Total	16178.3	N.A.	100.0
BUG Rating	B2-U2-G2		

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**CANDELA TABULATION**

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<u><b>0.0</b></u>	<u><b>5.0</b></u>	<u><b>15.0</b></u>	<u><b>25.0</b></u>	<u><b>35.0</b></u>	<u><b>45.0</b></u>	<u><b>55.0</b></u>	<u><b>57.5</b></u>	<u><b>65.0</b></u>	<u><b>75.0</b></u>
<b>0.0</b>	783	783	783	783	783	783	783	783	783	783
<b>2.5</b>	771	766	773	768	771	772	776	772	774	771
<b>5.0</b>	778	773	771	771	764	755	745	743	736	734
<b>7.5</b>	752	751	762	760	743	738	749	746	753	752
<b>10.0</b>	749	750	771	733	765	765	800	796	796	789
<b>12.5</b>	813	823	804	796	814	810	836	838	847	831
<b>15.0</b>	866	865	869	881	916	905	912	902	908	921
<b>17.5</b>	922	943	932	967	1009	1044	1006	990	994	1005
<b>20.0</b>	1077	1108	1098	1094	1126	1170	1193	1179	1140	1126
<b>22.5</b>	1248	1240	1282	1313	1362	1393	1469	1458	1426	1340
<b>25.0</b>	1572	1530	1570	1650	1731	1755	1867	1862	1871	1683
<b>27.5</b>	2165	2167	2191	2181	2260	2342	2468	2475	2506	2227
<b>30.0</b>	2850	2847	2786	2903	2959	3111	3234	3282	3247	2900
<b>32.5</b>	3710	3721	3564	3518	3724	3878	4120	4127	4130	3566
<b>35.0</b>	4469	4468	4396	4444	4449	4896	5017	5083	4893	4247
<b>37.5</b>	5660	5628	5411	5247	5356	5623	5822	5827	5602	4687
<b>40.0</b>	6629	6731	6575	6245	6240	6473	6555	6545	6142	5162
<b>42.5</b>	7909	7932	7723	7346	7186	7225	7130	7127	6587	5607
<b>45.0</b>	9232	9268	9048	8591	8273	8137	7794	7680	7073	6120
<b>47.5</b>	10506	10482	10402	10044	9734	9233	8622	8492	7817	6920
<b>50.0</b>	11352	11376	11598	11677	11086	10485	9770	9593	8939	7987
<b>52.5</b>	11339	11563	12246	12940	12961	12116	11650	11407	10535	9244
<b>55.0</b>	10570	10736	11621	12989	13951	14093	14396	14367	12762	10152
<b>57.5</b>	8545	8687	10120	12077	14051	15424	16841	16915	14429	10438
<b>60.0</b>	5526	5679	7171	9878	13109	15581	17655	17728	14763	10035
<b>62.5</b>	2955	2969	4135	6884	10822	14412	16978	17115	14154	8979
<b>65.0</b>	1512	1599	2107	3971	7560	11876	15161	15459	12394	7051
<b>67.5</b>	883	933	1201	2058	4597	8051	11872	12268	9336	4516
<b>70.0</b>	606	638	806	1335	2493	4554	7804	8323	5963	2625
<b>72.5</b>	447	472	584	1010	1655	2284	4284	4715	3183	1134
<b>75.0</b>	306	325	423	788	1260	1309	1861	2036	1429	552
<b>77.5</b>	218	225	310	655	997	864	834	903	747	350
<b>80.0</b>	169	173	241	516	763	543	450	457	457	260
<b>82.5</b>	131	135	192	411	508	331	268	274	303	202
<b>85.0</b>	92	98	146	292	300	171	164	169	174	138
<b>87.5</b>	57	62	103	165	111	64	61	62	59	65
<b>90.0</b>	14	15	24	37	21	15	13	13	9	9
<b>92.5</b>	4	5	7	9	7	8	8	9	7	7
<b>95.0</b>	2	2	4	6	7	7	7	7	7	6
<b>97.5</b>	2	2	4	6	7	7	7	7	6	5
<b>100.0</b>	2	2	4	6	7	7	6	6	5	5
<b>102.5</b>	2	2	4	6	7	7	6	6	5	5
<b>105.0</b>	3	3	4	6	7	7	6	6	5	5
<b>107.5</b>	3	3	4	6	7	7	6	6	5	5
<b>110.0</b>	4	4	4	7	7	7	6	6	5	5
<b>112.5</b>	4	4	5	7	7	7	6	6	6	6
<b>115.0</b>	4	4	5	7	7	7	7	6	6	6
<b>117.5</b>	5	5	6	7	8	8	7	7	6	7
<b>120.0</b>	6	6	6	7	8	8	7	7	7	7
<b>122.5</b>	6	6	7	7	8	8	7	7	7	7
<b>125.0</b>	7	7	7	8	9	8	7	7	7	7
<b>127.5</b>	7	7	7	8	9	9	7	7	7	8
<b>130.0</b>	7	7	7	8	9	9	8	7	7	8

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**CANDELA TABULATION - (Cont.)**

132.5	7	7	7	8	8	9	8	7	7	8
135.0	6	6	6	7	7	7	7	7	7	7
137.5	2	2	4	5	6	6	5	5	5	6
140.0	1	1	3	4	5	5	4	4	4	5
142.5	1	1	3	4	4	4	4	4	4	4
145.0	1	1	3	4	4	4	4	4	4	4
147.5	0	1	2	4	4	4	4	4	4	4
150.0	0	1	2	4	4	4	4	4	4	4
152.5	0	1	2	4	4	4	4	4	4	4
155.0	1	1	2	4	4	4	4	4	4	4
157.5	0	1	2	4	4	4	4	4	4	4
160.0	0	1	2	3	4	4	3	3	4	4
162.5	0	1	2	3	4	3	3	3	3	3
165.0	0	1	2	4	4	4	3	3	3	3
167.5	0	1	2	4	4	4	3	3	3	3
170.0	1	1	2	4	4	4	4	3	3	3
172.5	0	1	2	4	4	4	3	3	3	3
175.0	0	1	2	4	4	4	3	3	3	3
177.5	1	1	2	4	4	4	4	3	3	3
180.0	2	2	2	2	2	2	2	2	2	2

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	783	783	783	783	783	783	783	783	783	783
2.5	774	779	779	779	784	796	787	788	782	787
5.0	743	749	751	732	759	774	771	758	760	758
7.5	738	746	746	759	754	743	724	705	691	705
10.0	773	764	758	804	761	738	678	655	603	596
12.5	814	805	804	803	760	716	634	556	523	503
15.0	854	833	833	834	771	670	568	517	477	455
17.5	924	892	912	847	749	601	541	503	473	448
20.0	1013	972	946	877	698	575	521	503	483	448
22.5	1214	1138	1093	937	689	575	527	512	498	461
25.0	1481	1365	1270	998	715	615	528	519	551	537
27.5	1899	1673	1544	1057	784	667	537	543	659	691
30.0	2373	2074	1801	1104	825	696	567	590	816	867
32.5	2794	2416	2008	1142	836	715	586	651	957	1101
35.0	3218	2680	2186	1158	818	717	606	665	1140	1369
37.5	3571	2955	2316	1175	782	706	601	673	1371	1707
40.0	3933	3199	2479	1191	750	675	590	652	1595	1703
42.5	4343	3481	2635	1208	713	640	557	609	1715	1348
45.0	4913	3911	2876	1251	675	593	510	560	1391	1019
47.5	5739	4462	3153	1294	627	524	450	506	916	762
50.0	6583	5081	3468	1310	565	421	362	436	519	581
52.5	7336	5537	3703	1283	471	311	265	330	339	460
55.0	7689	5662	3633	1176	369	233	197	222	235	372
57.5	7576	5339	3208	1003	300	196	162	157	160	299
60.0	6958	4644	2522	776	255	174	138	119	119	244
62.5	5803	3629	1723	562	219	152	115	92	91	199
65.0	3922	2434	1058	382	182	127	93	72	68	165
67.5	2248	1421	640	262	147	99	70	58	50	133
70.0	1025	724	364	187	117	80	53	44	37	103
72.5	438	373	253	155	94	64	44	37	25	76
75.0	273	254	210	139	79	55	39	26	17	57
77.5	204	199	177	129	69	50	35	22	10	42

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**CANDELA TABULATION - (Cont.)**

80.0	183	166	147	114	62	45	31	18	9	34
82.5	135	124	119	94	55	43	30	18	8	28
85.0	84	81	87	67	47	40	28	17	8	24
87.5	42	38	47	44	39	35	26	15	7	20
90.0	9	8	15	26	31	29	23	14	5	12
92.5	7	5	12	21	26	26	19	13	4	4
95.0	7	4	10	19	24	23	18	12	4	4
97.5	6	5	8	15	20	19	15	10	5	4
100.0	6	5	8	13	16	15	13	9	5	4
102.5	6	6	7	9	13	13	12	9	5	4
105.0	6	6	7	9	12	13	10	9	6	4
107.5	6	6	7	9	10	12	10	9	7	4
110.0	6	7	8	9	10	10	10	9	7	4
112.5	6	7	8	9	10	10	10	9	7	5
115.0	7	7	8	9	10	10	10	9	7	5
117.5	7	7	9	9	10	10	10	9	7	5
120.0	7	8	9	9	10	10	10	9	8	6
122.5	7	9	9	9	10	12	10	9	8	6
125.0	8	9	9	10	10	12	12	10	8	7
127.5	8	9	9	10	10	12	12	10	9	7
130.0	9	9	9	10	10	12	12	10	9	7
132.5	8	9	9	10	10	12	12	10	9	7
135.0	8	8	9	9	10	10	10	9	8	7
137.5	7	7	7	8	9	9	9	8	7	5
140.0	6	6	7	7	8	8	8	7	6	4
142.5	5	6	6	7	7	8	7	7	5	4
145.0	5	6	6	7	7	7	7	7	5	3
147.5	5	6	6	7	7	7	7	6	4	3
150.0	5	6	6	6	7	7	7	6	4	2
152.5	5	5	6	6	7	7	7	6	4	2
155.0	5	5	6	6	7	7	6	5	4	2
157.5	4	5	5	6	6	6	6	4	3	1
160.0	4	4	5	5	6	5	5	4	2	1
162.5	4	4	4	5	5	5	4	4	2	1
165.0	4	4	4	4	5	4	4	3	1	0
167.5	4	4	4	4	4	4	4	3	1	0
170.0	3	4	4	4	4	4	4	3	1	0
172.5	3	4	4	4	4	4	4	3	1	0
175.0	3	4	4	4	4	4	4	3	1	0
177.5	3	3	4	4	4	3	3	3	1	0
180.0	2	2	2	2	2	2	2	2	2	2

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

	<u>175.0</u>	<u>180.0</u>
0.0	783	783
2.5	789	790
5.0	750	752
7.5	689	685
10.0	574	579
12.5	499	497
15.0	460	450
17.5	440	437
20.0	436	428
22.5	428	418
25.0	465	447

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : ENM4-PT-3-LED-18L-50-IL.IES**

**CANDELA TABULATION - (Cont.)**

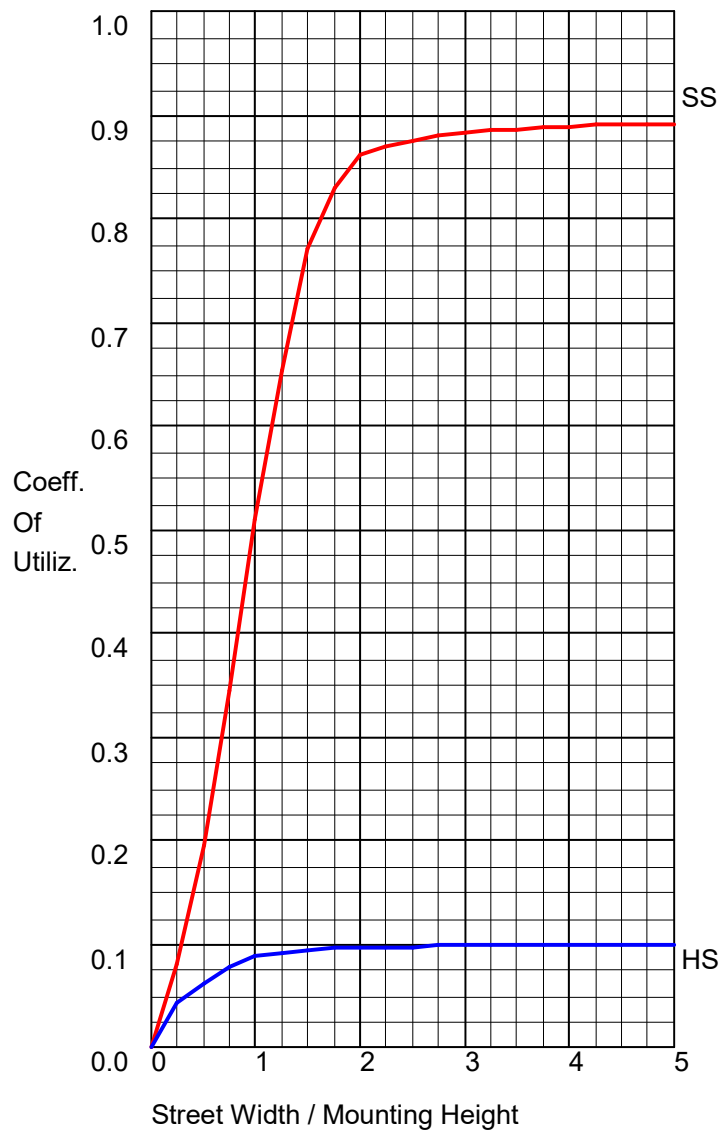
27.5	552	526
30.0	680	655
32.5	861	823
35.0	1067	1021
37.5	1088	1011
40.0	874	781
42.5	652	560
45.0	482	432
47.5	393	344
50.0	336	273
52.5	310	237
55.0	303	223
57.5	312	228
60.0	327	253
62.5	338	286
65.0	344	311
67.5	327	311
70.0	290	297
72.5	254	260
75.0	198	209
77.5	156	171
80.0	126	141
82.5	103	114
85.0	79	89
87.5	59	65
90.0	27	29
92.5	0	0
95.0	0	0
97.5	1	0
100.0	1	0
102.5	1	0
105.0	1	0
107.5	1	0
110.0	1	1
112.5	2	1
115.0	3	2
117.5	3	3
120.0	4	4
122.5	4	4
125.0	5	5
127.5	6	6
130.0	6	6
132.5	6	6
135.0	5	4
137.5	3	3
140.0	1	1
142.5	1	1
145.0	1	0
147.5	1	0
150.0	1	0
152.5	0	0
155.0	0	0
157.5	0	0
160.0	0	0
162.5	0	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>	2	2

### COEFFICIENTS OF UTILIZATION

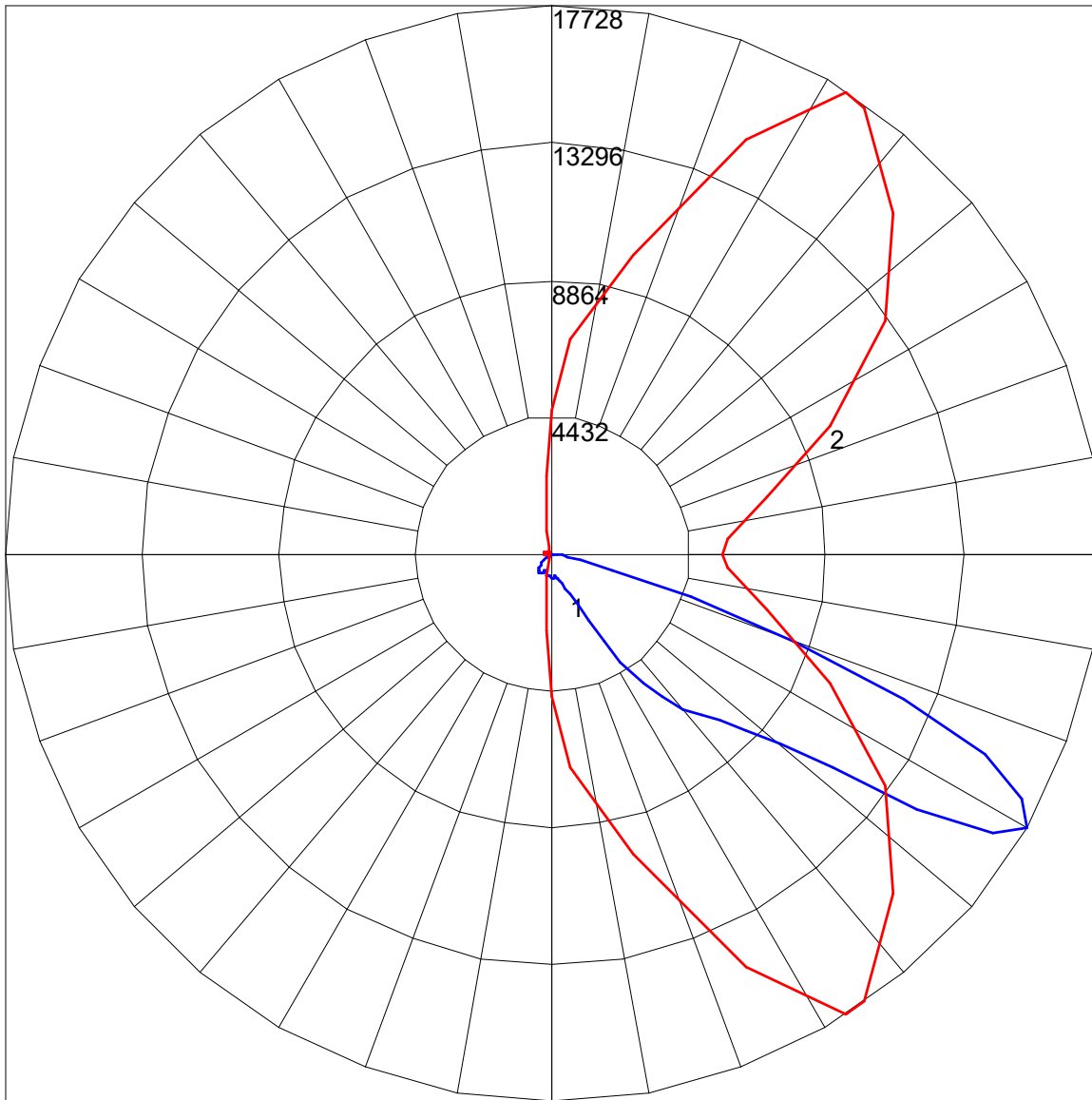


### FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	14501.5	89.6
Downward House Side	1632.5	10.1
Downward Total	16134.0	99.7
Upward Street Side	18.5	0.1
Upward House Side	25.8	0.2
Upward Total	44.3	0.3
Total Flux	16178.3	100.0

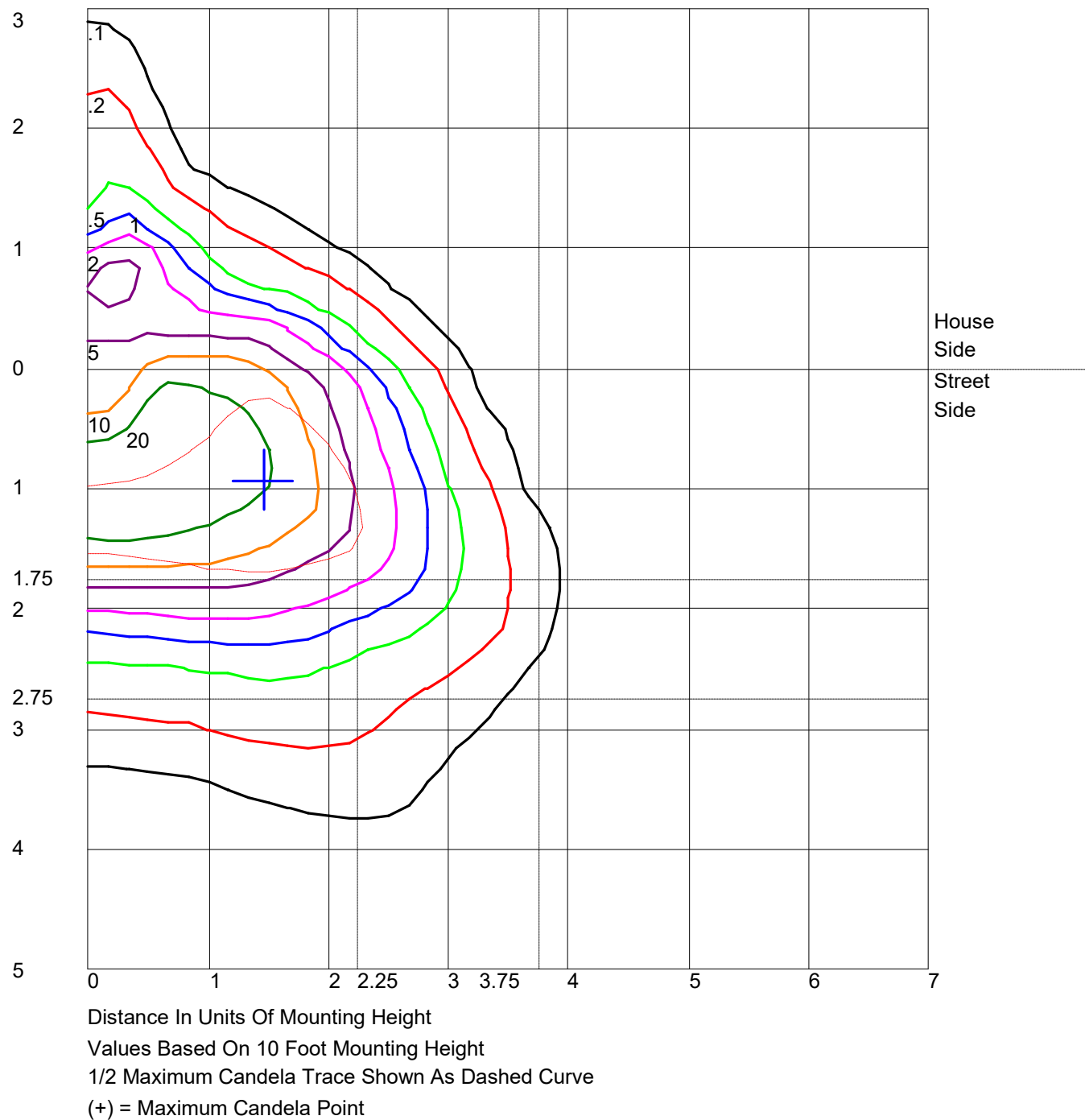


POLAR GRAPH

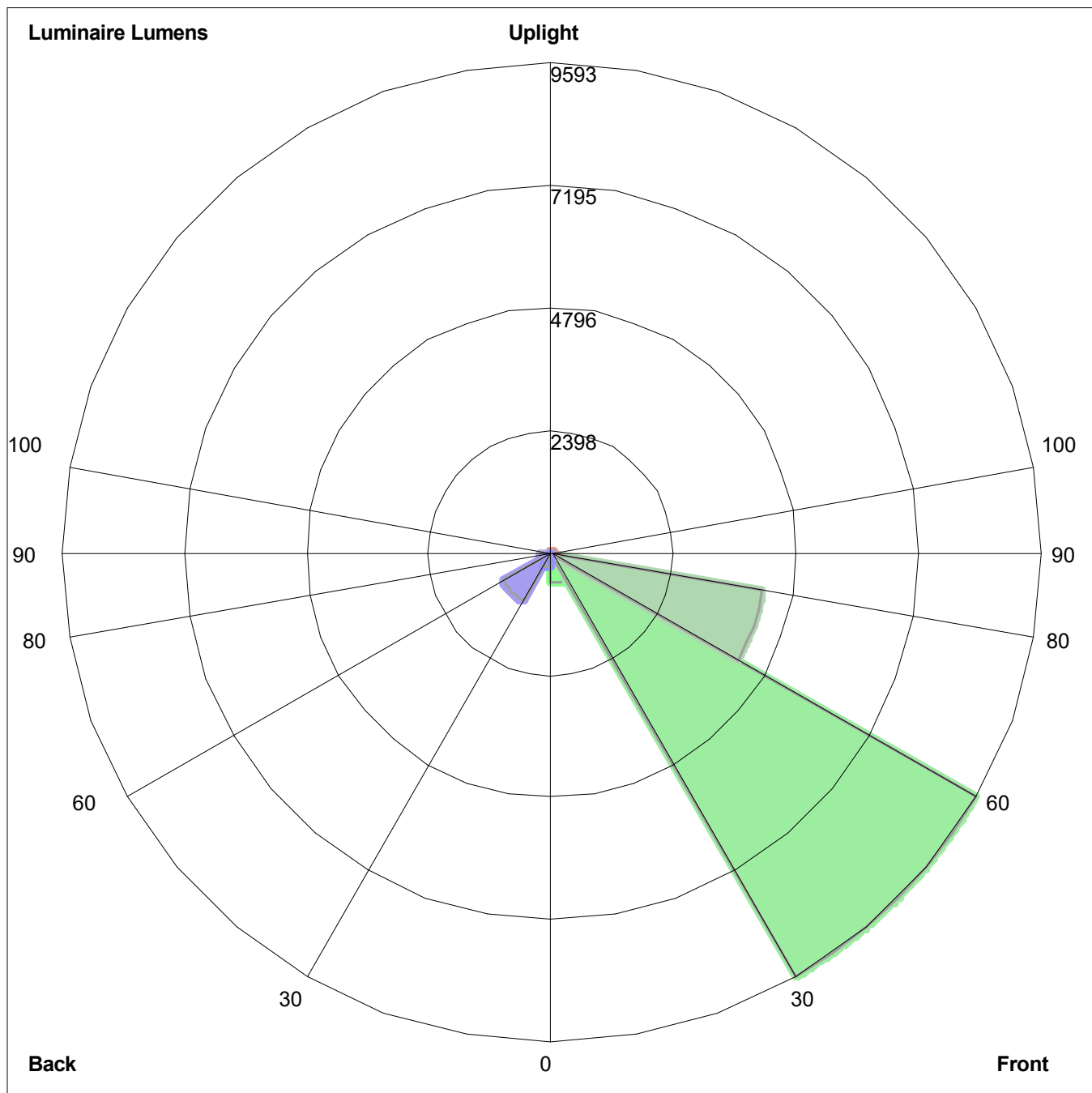


Maximum Candela = 17728 Located At Horizontal Angle = 57.5, Vertical Angle = 60  
# 1 - Vertical Plane Through Horizontal Angles (57.5 - 237.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (60) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=600.7, Medium=9592.7, High=4207.7, Very High=100.4  
Back: Low=291.4, Medium=1100.7, High=216.5, Very High=23.9  
Uplight: Low=11.1, High=33.2

BUG Rating : B2-U2-G2