IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-15L-SIL-2-50-70CRI-IL.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] LED-12638
[TESTLAB] LSI INDUSTRIES, INC.
[ISSUEDATE] 03/30/21
[TESTDATE] 03/26/21
[MANUFAC] LSI INDUSTRIES, INC.
[LUMCAT] MPP-LED-15L-SIL-2-50-70CRI-IL
[_ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.
[OTHER] TEST PROCEDURE: IESNA LM-79-08
[OTHER] SCALED FROM ORIGINAL TEST DATA
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Outdoor
[_SEARCH_COLORTEMP] 5000

CHARACTERISTICS

IES Classification	Type I
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5889
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	58
Total Luminaire Watts	102
Ballast Factor	1.00
Upward Waste Light Ratio	0.06
Maximum Candela	7104
Maximum Candela Angle	80H 60V
Maximum Candela (<90 Degrees Vertical)	7104
Maximum Candela Angle (<90 Degrees Vertical)	80H 60V
Maximum Candela At 90 Degrees Vertical	130 (2.2% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	447 (7.6% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	691.3	N.A.	11.7
FM - Front-Medium (30-60)	2809.2	N.A.	47.7
FH - Front-High (60-80)	1174.3	N.A.	19.9
FVH - Front-Very High (80-90)	128.2	N.A.	2.2
BL - Back-Low (0-30)	169.8	N.A.	2.9
BM - Back-Medium (30-60)	365.5	N.A.	6.2
BH - Back-High (60-80)	154.4	N.A.	2.6
BVH - Back-Very High (80-90)	52.4	N.A.	0.9
UL - Uplight-Low (90-100)	96.1	N.A.	1.6
UH - Uplight-High (100-180)	247.6	N.A.	4.2
Total	5888.8	N.A.	100.0
BUG Rating	B1-U3-G2		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	0	5	15	25	35	45	55	65	75	80
0.0	925	925	925	925	925	925	925	925	925	925
2.5	956	955	966	971	958	951	936	925	921	918
5.0	1086	1077	1096	1076	1076	1069	1069	1033	949	926
7.5	988	1002	1005	1034	1065	1111	1110	1087	1043	988
10.0	1115	1116	1077	1137	1117	1089	1114	1115	1124	1076
12.5	1193	1191	1144	1147	1192	1167	1114	1193	1247	1214
15.0	1257	1325	1298	1303	1271	1218	1296	1256	1335	1333
17.5	1480	1411	1439	1396	1433	1433	1385	1410	1478	1463
20.0	1565	1581	1618	1584	1558	1565	1611	1599	1603	1613
22.5	1744	1775	1760	1716	1818	1752	1811	1810	1777	1879
25.0	1772	1770	1820	1889	1912	2030	2051	2047	2038	2081
27.5	1803	1791	1832	1859	2068	2188	2351	2381	2313	2433
30.0	1665	1692	1736	1864	2052	2401	2643	2713	2687	2694
32.5	1508	1516	1626	1760	2069	2414	2909	3162	3164	3113
35.0	1300	1305	1410	1649	1998	2468	3087	3578	3518	3407
37.5	1092	1091	1192	1439	1894	2495	3158	3884	3922	3737
40.0	886	878	973	1212	1675	2423	3199	4177	4342	4093
42.5	695	702	780	990	1431	2238	3182	4389	4719	4634
45.0	553	560	627	807	1191	1972	3128	4586	5224	5073
47.5	467	470	519	672	965	1686	2991	4553	5713	5680
50.0	439	437	465	588	796	1400	2718	4529	6115	6178
52.5	459	452	450	547	686	1113	2395	4404	6355	6220
55.0	658	633	536	537	626	854	2054	4088	6458	6478
57.5	1170	1121	911	656	587	684	1587	3626	6447	6727
60.0	1402	1353	1207	997	661	592	1069	2942	6412	7104
62.5	1006	976	952	989	878	498	679	2185	6205	7056
65.0	754	757	733	733	760	592	462	1435	5526	6225
67.5	695	697	668	645	598	583	408	827	3953	4904
70.0	648	650	613	589	544	494	482	486	2394	3297
72.5	506	510	500	516	506	458	484	371	1074	1643
75.0	430	430	409	413	455	435	425	445	422	709
77.5	378	382	376	379	415	434	379	517	235	286
80.0	345	351	347	347	385	447	373	397	247	209
82.5	295	298	309	323	362	418	403	314	257	171
85.0	180	193	207	220	264	345	389	282	228	172
87.5	96	104	123	132	146	180	227	234	162	141
90.0	52	60	79	89	98	109	124	130	119	115
92.5	42	46	65	73	80	87	90	97	105	106
95.0	47	48	65	75	82	90	90	98	105	91
97.5	54	51	68	77	83	90	89	98	96	73
100.0	58	53	68	77	84	90	87	92	77	63
102.5	61	55	68	79	84	89	84	83	64	62
105.0	63	58	68	79	83	86	79	72	56	59
107.5	65	60	67	79	83	83	71	63	52	56
110.0	65	62	66	79	82	78	64	55	49	52
112.5	66	64	65	79	80	72	58	48	46	50
115.0	66	65	65	76	76	66	54	44	44	47
117.5	67	66	65	73	71	61	51	41	43	45
120.0	67	66	63	69	66	58	48	39	42	43
122.5	67	66	62	65	63	55	46	39	40	41
125.0	66	65	60	61	60	53	45	39	39	39
127.5	63	63	59	58	58	52	45	40	39	39
130.0	62	61	58	56	56	51	46	41	39	40

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CANDELA TABULATION - (Cont.)

132.5	60	59	57	55	55	52	46	41	41	41
135.0	59	59	56	55	54	49	42	41	42	42
137.5	59	59	57	53	49	43	38	38	41	42
140.0	56	56	53	47	40	34	31	32	35	37
142.5	49	48	45	38	31	26	24	25	29	30
145.0	39	39	35	29	22	19	17	18	21	22
147.5	29	29	25	20	15	11	10	12	13	14
150.0	20	19	18	13	8	2	2	5	7	7
152.5	14	14	11	5	1	0	0	1	1	2
155.0	5	5	2	1	0	0	0	0	0	0
157.5	1	1	1	0	0	0	0	0	0	0
160.0	0	1	0	0	0	0	0	0	0	0
162.5	0	1	0	0	0	0	0	0	0	0
165.0	0	1	1	1	0	0	0	0	0	0
167.5	0	1	1	1	0	0	0	0	0	0
170.0	1	1	1	1	0	0	0	0	0	0
172.5	1	1	1	1	0	0	0	0	0	0
175.0	1	1	1	1	0	0	0	0	0	0
177.5	1	1	1	1	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0	0

Vert. Angles	**Horizontal Angles**									
	85	**90**	**95**	**105**	**115**	**125**	**135**	**145**	**155**	**165**
0.0	925	925	925	925	925	925	925	925	925	925
2.5	924	923	929	942	944	936	924	900	888	890
5.0	918	933	962	946	882	824	765	703	649	598
7.5	961	961	983	898	776	635	517	441	398	359
10.0	1016	1006	995	829	662	486	365	278	233	209
12.5	1109	1093	1087	841	530	356	240	190	172	169
15.0	1201	1187	1117	791	457	262	181	170	164	159
17.5	1366	1300	1221	748	368	200	173	160	154	153
20.0	1525	1407	1269	699	296	183	164	154	151	141
22.5	1756	1600	1431	666	239	180	160	148	136	131
25.0	1973	1768	1485	591	213	177	157	136	124	114
27.5	2295	1978	1637	519	209	176	147	124	105	102
30.0	2618	2234	1731	433	208	170	136	108	95	92
32.5	2882	2393	1766	356	200	160	119	97	90	91
35.0	3178	2547	1786	292	192	148	106	92	90	89
37.5	3559	2762	1782	252	179	131	96	93	90	85
40.0	3915	3024	1731	234	164	114	96	95	85	69
42.5	4277	3199	1667	220	148	102	102	93	70	56
45.0	4771	3398	1594	211	134	106	107	81	63	53
47.5	5066	3557	1462	219	134	113	101	72	62	54
50.0	5335	3803	1298	258	160	131	91	71	66	73
52.5	5684	3946	1153	221	169	171	98	76	92	106
55.0	6069	4165	986	174	132	156	129	106	124	129
57.5	6285	4091	788	144	111	109	134	141	125	95
60.0	6540	3968	579	129	110	95	125	143	92	78
62.5	6425	3735	441	117	107	98	130	105	80	70
65.0	5694	3097	326	109	100	112	117	87	79	69
67.5	4580	2352	256	108	98	123	95	88	78	69
70.0	3338	1638	214	109	103	112	92	86	80	71
72.5	1957	1030	170	106	108	100	92	86	80	74
75.0	1066	664	139	104	109	97	92	88	83	76
77.5	368	275	116	107	104	97	94	90	86	77

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CANDELA TABULATION - (Cont.)

80.0	234	195	102	115	105	98	97	92	87	80
82.5	166	151	91	120	109	100	101	94	90	87
85.0	133	97	94	124	114	103	107	98	92	92
87.5	115	42	106	121	112	102	106	105	96	86
90.0	93	31	100	115	109	100	105	99	93	87
92.5	65	65	88	116	111	102	107	102	97	90
95.0	59	92	82	113	109	96	104	101	98	91
97.5	72	95	81	102	103	92	100	98	95	89
100.0	76	91	82	89	99	89	97	96	95	87
102.5	74	83	78	76	92	87	95	95	93	84
105.0	69	76	73	67	83	84	92	94	93	81
107.5	65	69	68	61	73	80	91	93	92	77
110.0	59	63	62	57	65	74	87	92	91	73
112.5	55	57	56	53	59	69	82	90	88	70
115.0	51	53	52	51	54	65	77	86	84	69
117.5	47	49	48	49	51	62	73	81	80	67
120.0	45	46	45	46	48	59	69	76	75	66
122.5	42	43	43	44	47	56	66	72	69	64
125.0	40	41	41	43	46	55	63	68	64	62
127.5	39	39	40	42	46	55	60	64	59	60
130.0	40	40	41	43	46	54	59	60	56	59
132.5	41	41	42	45	46	51	56	58	54	58
135.0	42	42	43	45	46	45	49	53	54	58
137.5	43	44	45	44	41	39	39	43	48	55
140.0	38	39	39	37	34	31	29	32	38	45
142.5	31	32	32	30	26	23	21	22	29	34
145.0	24	24	24	21	18	16	14	15	20	25
147.5	15	15	14	12	11	8	7	10	13	16
150.0	7	7	6	6	5	2	2	4	8	11
152.5	2	2	2	1	1	1	1	1	3	5
155.0	0	0	0	0	1	0	1	1	1	2
157.5	0	0	0	0	0	0	1	1	1	1
160.0	0	0	0	0	0	0	0	1	1	1
162.5	0	0	0	0	0	0	0	1	1	1
165.0	0	0	0	0	0	0	0	1	1	1
167.5	0	0	0	0	0	0	0	1	1	1
170.0	0	0	0	0	0	0	0	1	1	1
172.5	0	0	0	0	0	0	0	0	1	1
175.0	0	0	0	0	0	0	0	0	1	1
177.5	0	0	0	0	0	0	0	0	0	1
180.0	0	0	0	0	0	0	0	0	0	0

Vert. Angles	**Horizontal Angles**	
	175	**180**
0.0	925	925
2.5	891	897
5.0	588	581
7.5	352	352
10.0	197	199
12.5	167	167
15.0	156	154
17.5	151	151
20.0	138	137
22.5	127	126
25.0	110	110

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CANDELA TABULATION - (Cont.)

27.5	99	98
30.0	92	92
32.5	92	92
35.0	91	90
37.5	84	83
40.0	67	66
42.5	57	56
45.0	55	55
47.5	56	56
50.0	86	91
52.5	110	114
55.0	113	114
57.5	72	73
60.0	60	61
62.5	55	55
65.0	50	49
67.5	48	45
70.0	47	41
72.5	47	38
75.0	49	36
77.5	51	34
80.0	52	32
82.5	57	36
85.0	63	41
87.5	57	41
90.0	59	48
92.5	62	58
95.0	63	66
97.5	63	70
100.0	65	75
102.5	66	76
105.0	69	77
107.5	72	77
110.0	73	77
112.5	74	76
115.0	73	75
117.5	73	73
120.0	72	73
122.5	70	72
125.0	68	69
127.5	66	66
130.0	63	63
132.5	60	61
135.0	59	60
137.5	59	59
140.0	49	49
142.5	38	38
145.0	28	28
147.5	18	18
150.0	12	12
152.5	6	6
155.0	2	2
157.5	1	0
160.0	1	0
162.5	1	0
165.0	1	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

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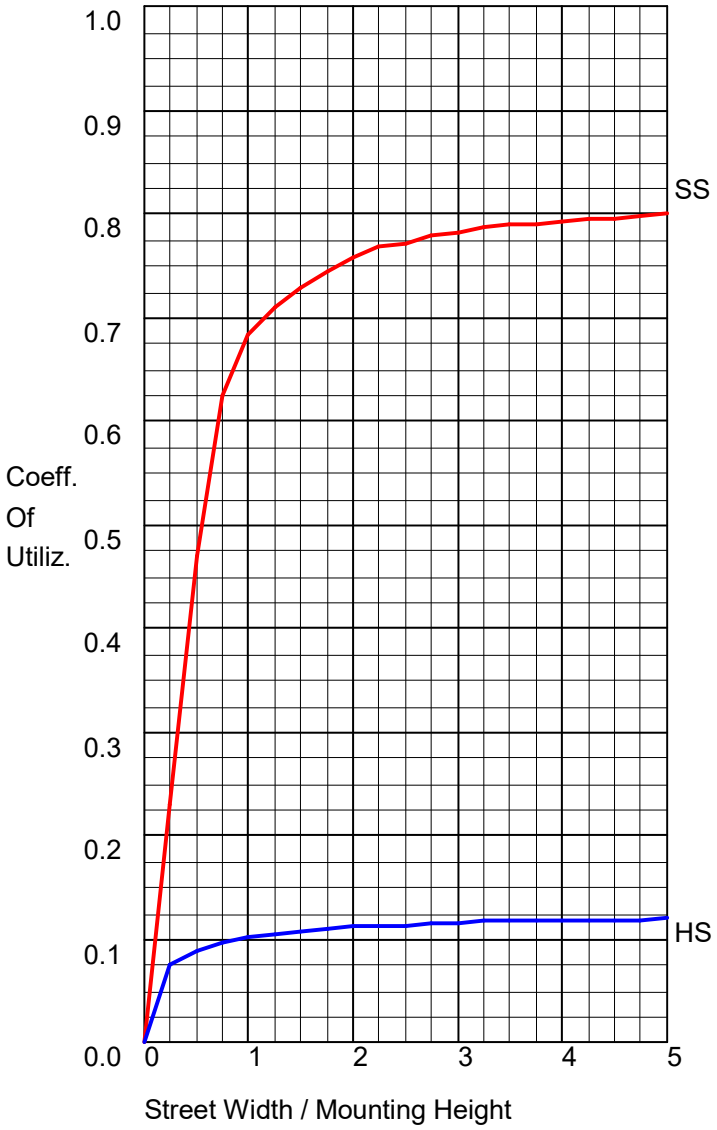
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	4803.1	81.6
Downward House Side	742.1	12.6
Downward Total	5545.2	94.2
Upward Street Side	163.6	2.8
Upward House Side	180.2	3.1
Upward Total	343.8	5.8
Total Flux	5889.0	100.0

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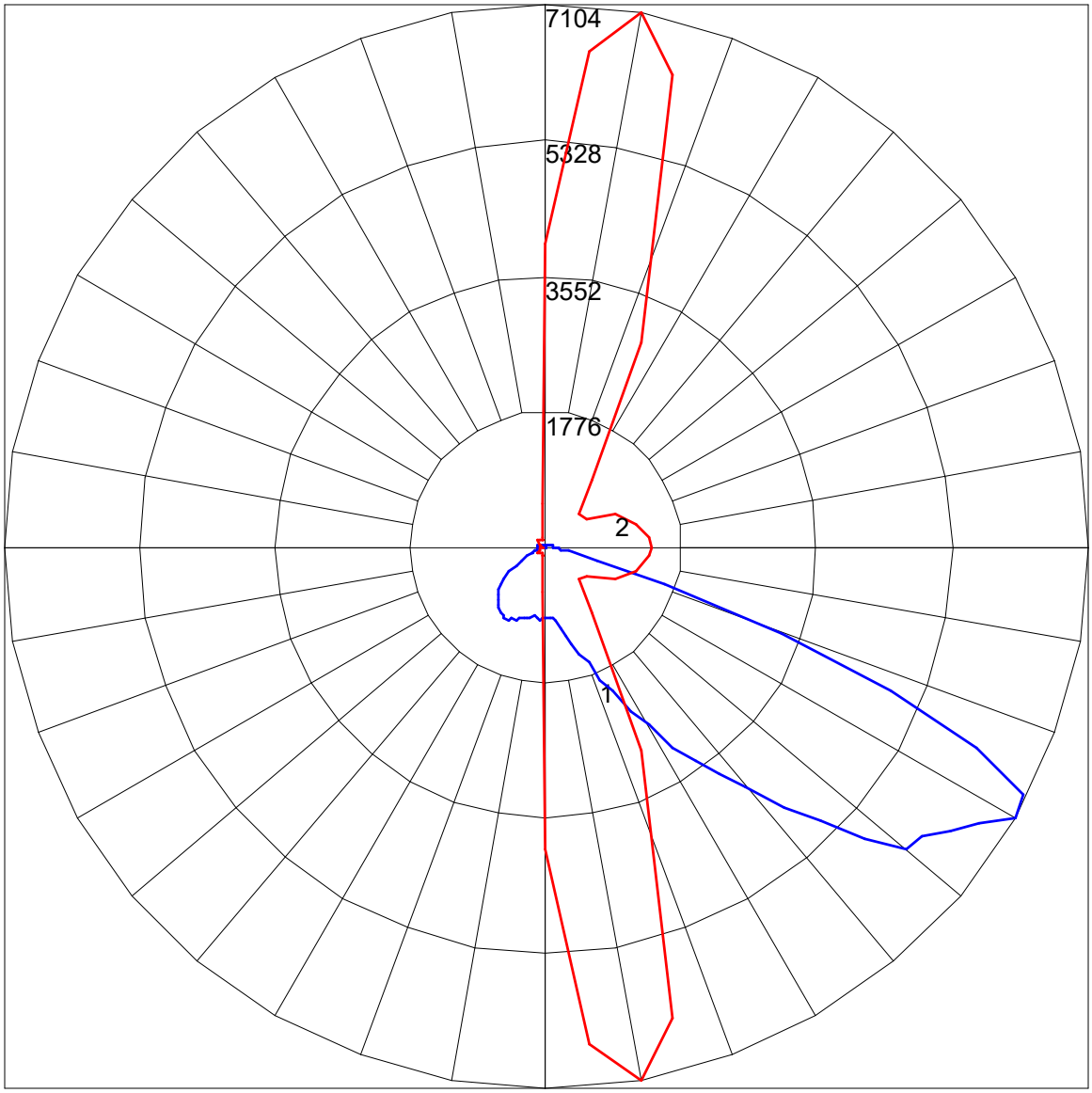
POLAR GRAPH



Maximum Candela = 7104 Located At Horizontal Angle = 80, Vertical Angle = 60
1 - Vertical Plane Through Horizontal Angles (80 - 260) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (60) (Through Max. Cd.)

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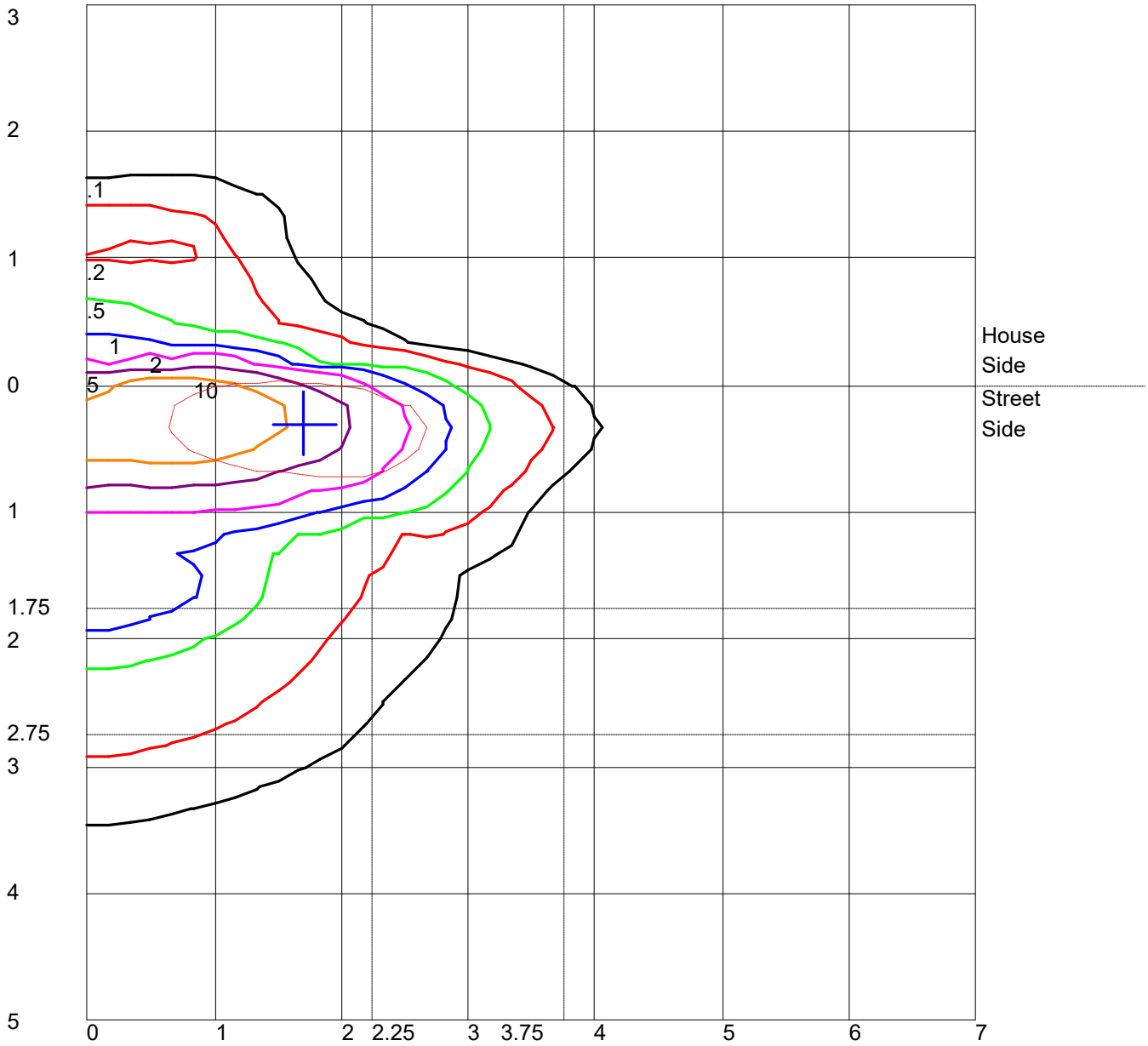
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



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

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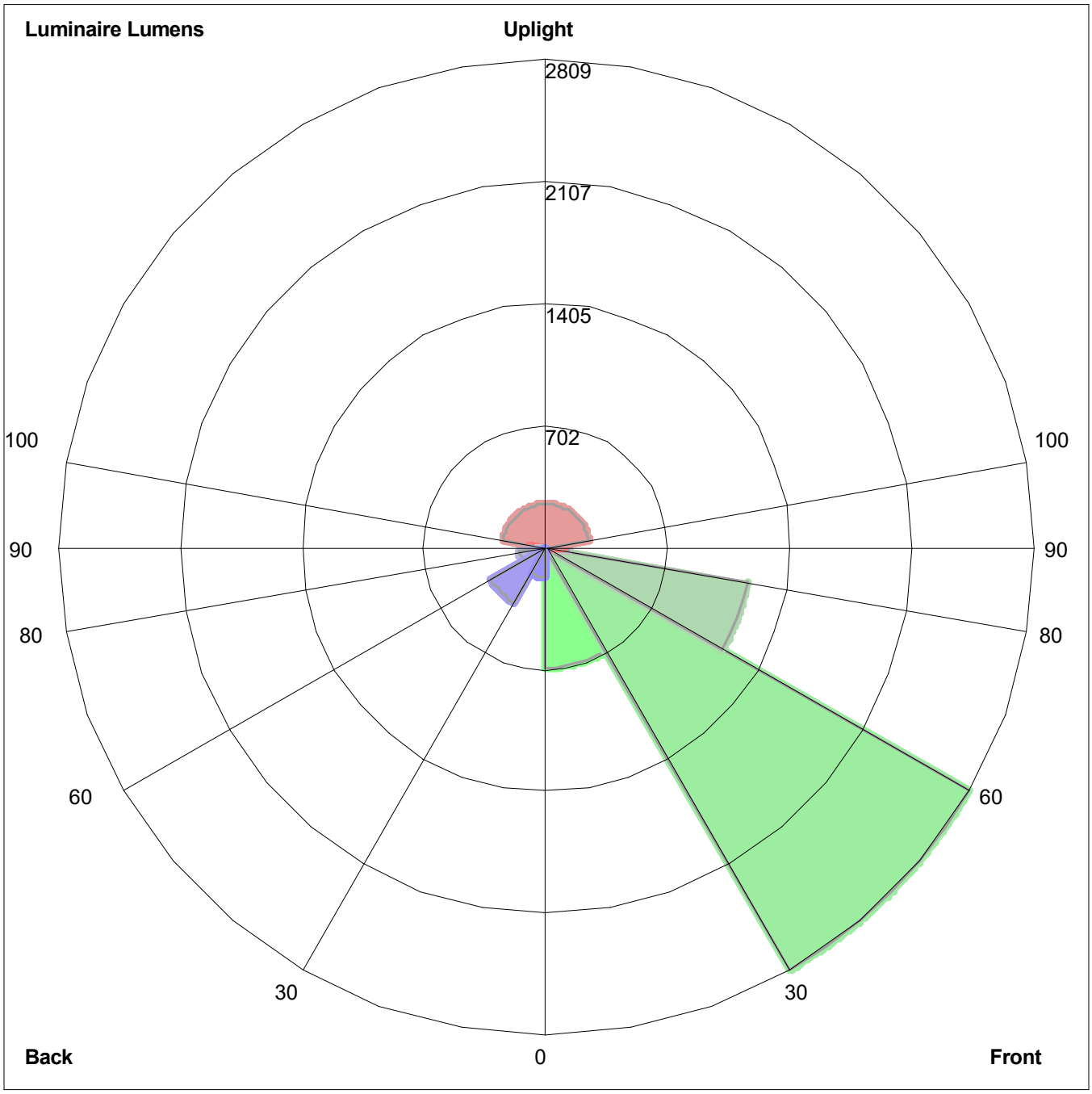
LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=691.3, Medium=2809.2, High=1174.3, Very High=128.2
Back: Low=169.8, Medium=365.5, High=154.4, Very High=52.4
Uplight: Low=96.1, High=247.6

BUG Rating : B1-U3-G2

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