IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-20L-SIL-FT-30-70CRI-IL.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] LED-12643
[TESTLAB] LSI INDUSTRIES, INC.
[ISSUEDATE] 03/30/21
[TESTDATE] 03/29/21
[MANUFAC] LSI INDUSTRIES, INC.
[LUMCAT] MPP-LED-20L-SIL-FT-30-70CRI-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] 3000

CHARACTERISTICS

IES Classification	Type IV
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	9744
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	65
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.04
Maximum Candela	7785
Maximum Candela Angle	30H 67.5V
Maximum Candela (<90 Degrees Vertical)	7785
Maximum Candela Angle (<90 Degrees Vertical)	30H 67.5V
Maximum Candela At 90 Degrees Vertical	138 (1.4% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1360 (14.0% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	792.4	N.A.	8.1
FM - Front-Medium (30-60)	3913.0	N.A.	40.2
FH - Front-High (60-80)	3660.6	N.A.	37.6
FVH - Front-Very High (80-90)	156.4	N.A.	1.6
BL - Back-Low (0-30)	167.2	N.A.	1.7
BM - Back-Medium (30-60)	364.2	N.A.	3.7
BH - Back-High (60-80)	202.0	N.A.	2.1
BVH - Back-Very High (80-90)	65.8	N.A.	0.7
UL - Uplight-Low (90-100)	114.9	N.A.	1.2
UH - Uplight-High (100-180)	306.9	N.A.	3.1
Total	9743.4	N.A.	100.0
BUG Rating	B1-U3-G2		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	0	5	15	25	30	35	45	55	65	75
0.0	743	743	743	743	743	743	743	743	743	743
2.5	872	870	844	840	839	841	830	810	789	770
5.0	962	957	930	962	956	973	993	957	905	847
7.5	1320	1287	1273	1258	1230	1191	1106	1014	983	922
10.0	1409	1393	1389	1423	1402	1411	1351	1256	1076	1028
12.5	1560	1506	1559	1576	1556	1531	1479	1432	1296	1111
15.0	1591	1571	1568	1591	1614	1657	1682	1591	1555	1267
17.5	1782	1730	1781	1792	1790	1753	1781	1816	1745	1512
20.0	1997	1987	1997	1949	1963	1989	1924	1974	1946	1693
22.5	2160	2160	2214	2233	2192	2138	2182	2109	2125	1928
25.0	2373	2395	2447	2364	2389	2444	2334	2271	2298	2081
27.5	2482	2489	2496	2591	2624	2579	2610	2475	2384	2279
30.0	2471	2514	2596	2655	2668	2786	2775	2671	2473	2476
32.5	2365	2375	2495	2729	2833	2902	3014	2853	2645	2588
35.0	2282	2275	2377	2630	2772	2981	3220	3020	2775	2630
37.5	2203	2207	2301	2539	2692	2920	3419	3285	2972	2647
40.0	2202	2203	2296	2523	2670	2878	3461	3509	3204	2708
42.5	2349	2331	2418	2604	2716	2907	3488	3834	3331	2877
45.0	2641	2633	2694	2828	2876	3031	3528	4026	3520	3041
47.5	3087	3079	3146	3229	3199	3289	3638	4175	3856	3273
50.0	3606	3577	3668	3798	3698	3687	3818	4296	4171	3638
52.5	3855	3862	4037	4319	4247	4178	4022	4418	4360	3756
55.0	3965	3970	4176	4608	4653	4600	4251	4383	4269	3904
57.5	4589	4563	4549	4762	4814	4819	4500	4137	4139	4072
60.0	5802	5855	5670	5397	5182	4908	4406	3757	3869	4318
62.5	6587	6674	6742	6765	6374	5634	3969	3388	3439	4399
65.0	6730	6847	7059	7549	7488	7041	4124	2968	2829	4081
67.5	6370	6453	6805	7602	7785	7712	5881	2443	2154	3262
70.0	4903	4945	5718	6721	7132	7444	6688	2892	1531	2268
72.5	1915	2146	3154	4808	5934	6855	6177	3990	995	1209
75.0	682	743	1267	2067	2780	4116	5868	3530	690	574
77.5	502	519	675	1108	1344	1850	2935	2206	648	305
80.0	352	362	423	611	720	941	1310	1360	690	235
82.5	195	205	229	281	329	420	647	678	462	281
85.0	105	114	131	160	193	247	366	461	325	235
87.5	59	63	83	110	130	138	188	226	190	155
90.0	40	44	61	76	83	88	112	132	125	128
92.5	45	45	62	75	81	87	99	103	110	122
95.0	51	48	63	77	83	89	102	105	113	116
97.5	55	50	65	78	84	90	102	105	110	97
100.0	58	52	67	80	84	90	101	102	102	80
102.5	60	56	67	80	84	90	99	96	87	67
105.0	62	59	67	82	85	91	96	86	74	63
107.5	63	62	67	84	86	90	90	75	63	60
110.0	65	64	68	84	87	88	82	65	59	59
112.5	66	66	69	84	84	84	73	60	55	58
115.0	67	67	69	81	81	77	66	58	52	57
117.5	69	69	69	76	75	72	63	56	51	56
120.0	70	70	67	71	69	67	60	55	51	56
122.5	70	69	65	66	66	64	60	55	52	55
125.0	68	67	63	63	64	63	60	55	52	54
127.5	66	65	62	62	63	62	60	56	53	55
130.0	64	64	62	60	61	61	60	57	55	56

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CANDELA TABULATION - (Cont.)

132.5	64	63	62	60	61	62	60	56	56	58
135.0	64	64	63	60	60	60	55	52	55	60
137.5	63	63	60	56	53	51	46	46	51	58
140.0	57	56	52	47	44	40	36	38	44	52
142.5	47	46	42	36	33	29	28	30	36	43
145.0	36	35	31	25	22	20	20	21	26	33
147.5	23	23	21	17	16	13	10	13	18	23
150.0	17	17	14	10	7	5	5	6	11	14
152.5	7	6	5	3	3	2	2	4	6	9
155.0	2	2	2	2	2	2	2	3	4	6
157.5	0	1	2	2	2	2	2	2	3	4
160.0	0	1	2	2	2	2	2	2	3	3
162.5	0	1	2	2	2	2	2	2	3	3
165.0	0	1	2	2	2	2	2	2	2	3
167.5	0	1	2	2	2	2	2	2	3	3
170.0	0	1	2	2	2	2	2	2	3	3
172.5	0	1	2	2	2	2	2	2	2	3
175.0	1	1	2	2	2	2	2	2	2	3
177.5	1	1	2	2	2	2	2	2	2	3
180.0	2	2	2	2	2	2	2	2	2	2

Vert. Angles	**Horizontal Angles**									
	85	**90**	**95**	**105**	**115**	**125**	**135**	**145**	**155**	**165**
0.0	743	743	743	743	743	743	743	743	743	743
2.5	756	756	748	734	712	685	663	658	652	645
5.0	791	771	749	691	649	658	650	624	608	591
7.5	832	795	760	675	662	619	574	525	473	420
10.0	898	842	774	710	637	563	438	332	288	247
12.5	1026	942	827	761	632	435	313	232	198	187
15.0	1127	1022	906	801	573	348	219	183	176	172
17.5	1266	1131	992	819	496	258	180	169	167	162
20.0	1408	1224	1092	818	412	195	172	160	157	158
22.5	1526	1397	1183	812	310	179	164	153	151	148
25.0	1688	1456	1254	774	225	174	158	145	141	142
27.5	1839	1560	1356	712	192	168	154	137	132	130
30.0	1889	1654	1386	595	187	161	146	131	122	124
32.5	2032	1704	1429	502	182	156	139	122	123	130
35.0	2102	1775	1457	422	180	152	130	122	133	145
37.5	2172	1892	1463	325	173	145	123	132	145	149
40.0	2257	1952	1471	254	167	138	126	146	149	129
42.5	2435	1986	1497	217	160	132	139	154	124	93
45.0	2515	2105	1487	203	153	137	157	136	99	78
47.5	2613	2132	1496	204	150	149	160	111	89	73
50.0	2794	2165	1433	225	183	163	141	102	87	76
52.5	2838	2265	1400	191	191	210	126	99	100	133
55.0	3001	2369	1317	171	145	207	147	118	182	227
57.5	3238	2473	1320	160	138	137	183	196	244	210
60.0	3531	2758	1360	153	137	122	180	242	179	87
62.5	3714	2827	1315	144	133	118	186	187	109	87
65.0	3761	2733	1131	139	127	145	162	119	114	94
67.5	3374	2305	858	136	118	147	115	119	114	95
70.0	2531	1503	469	130	124	132	121	128	109	96
72.5	1273	694	229	126	122	130	122	114	110	99
75.0	558	362	170	126	131	127	119	116	111	106
77.5	371	254	147	124	130	118	123	118	114	109

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CANDELA TABULATION - (Cont.)

80.0	271	210	133	132	126	119	126	120	114	110
82.5	205	166	120	140	131	122	131	124	118	113
85.0	164	117	117	148	135	128	135	127	121	116
87.5	127	84	113	145	137	130	140	132	124	117
90.0	97	68	118	138	134	124	138	134	130	120
92.5	83	83	117	139	137	125	140	138	133	125
95.0	84	107	110	137	136	121	138	140	137	130
97.5	87	112	107	127	127	113	131	133	133	129
100.0	92	107	103	111	118	107	123	126	129	122
102.5	89	99	96	99	110	104	117	121	124	114
105.0	84	91	91	90	103	103	113	117	120	107
107.5	78	85	86	84	96	102	111	115	117	99
110.0	74	80	82	81	90	99	109	114	114	91
112.5	70	76	78	79	84	95	108	113	110	84
115.0	67	72	74	77	82	93	105	111	107	80
117.5	63	68	71	76	80	91	102	108	101	75
120.0	61	66	68	74	77	89	99	105	93	72
122.5	60	63	66	72	77	87	96	99	86	71
125.0	59	61	64	71	76	85	93	92	79	69
127.5	59	60	64	71	76	84	89	86	72	68
130.0	60	61	64	71	76	84	84	80	67	67
132.5	60	62	65	71	74	80	81	74	64	65
135.0	62	64	67	72	72	71	73	69	63	64
137.5	63	65	67	68	66	60	60	60	62	63
140.0	59	60	61	60	56	50	46	47	53	60
142.5	49	51	52	50	44	38	33	36	42	48
145.0	37	39	39	37	33	28	23	25	31	36
147.5	26	27	27	26	22	17	15	17	21	26
150.0	16	17	17	16	13	9	8	11	13	17
152.5	10	10	10	10	8	6	4	5	9	12
155.0	6	6	6	6	5	4	2	3	3	5
157.5	4	4	4	4	4	3	2	2	2	2
160.0	3	3	3	4	3	3	2	2	2	2
162.5	3	3	3	3	3	2	2	2	2	2
165.0	3	3	3	3	3	2	2	2	2	1
167.5	3	3	3	3	3	2	2	2	2	1
170.0	3	3	3	3	3	2	2	2	2	1
172.5	3	3	3	3	3	2	2	2	1	1
175.0	3	3	3	3	3	2	2	2	1	0
177.5	3	3	3	3	3	2	2	1	1	0
180.0	2	2	2	2	2	2	2	2	2	2

Vert. Angles	**Horizontal Angles**	
	175	**180**
0.0	743	743
2.5	644	645
5.0	584	590
7.5	397	401
10.0	229	232
12.5	180	177
15.0	171	171
17.5	160	159
20.0	156	156
22.5	145	145
25.0	137	137

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CANDELA TABULATION - (Cont.)

27.5	126	127
30.0	124	123
32.5	134	133
35.0	149	149
37.5	149	148
40.0	117	113
42.5	87	84
45.0	76	75
47.5	72	72
50.0	79	79
52.5	163	176
55.0	236	243
57.5	145	144
60.0	70	76
62.5	68	72
65.0	69	72
67.5	66	65
70.0	65	60
72.5	65	56
75.0	65	50
77.5	68	46
80.0	71	42
82.5	73	40
85.0	72	40
87.5	74	41
90.0	76	46
92.5	80	56
95.0	84	68
97.5	84	78
100.0	83	84
102.5	80	86
105.0	77	85
107.5	76	84
110.0	76	83
112.5	76	81
115.0	77	80
117.5	76	78
120.0	76	77
122.5	76	76
125.0	75	75
127.5	73	73
130.0	71	71
132.5	68	68
135.0	66	67
137.5	65	65
140.0	63	63
142.5	52	52
145.0	40	40
147.5	29	29
150.0	18	19
152.5	12	12
155.0	6	6
157.5	2	2
160.0	1	0
162.5	1	0
165.0	0	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	2	2

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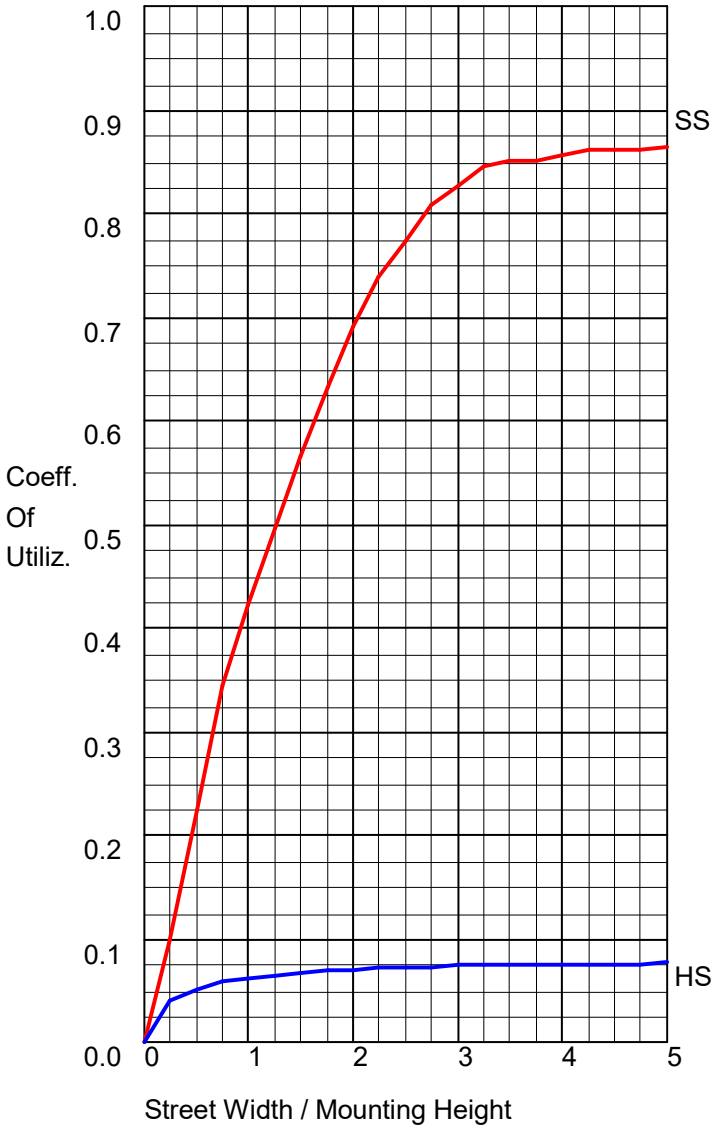
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	8522.5	87.5
Downward House Side	799.3	8.2
Downward Total	9321.8	95.7
Upward Street Side	182.5	1.9
Upward House Side	239.3	2.5
Upward Total	421.8	4.3
Total Flux	9743.6	100.0

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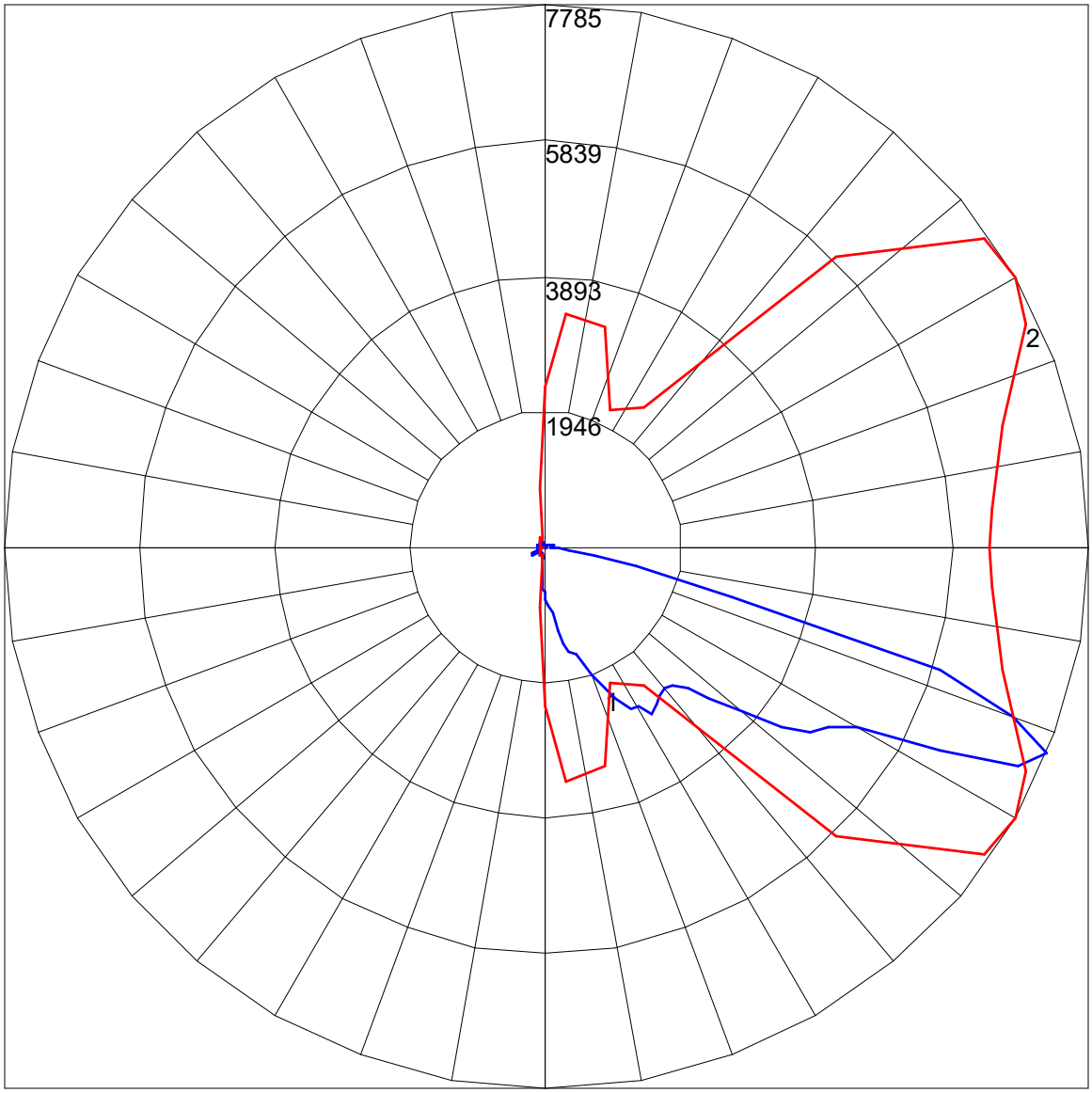
POLAR GRAPH



Maximum Candela = 7785 Located At Horizontal Angle = 30, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (30 - 210) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

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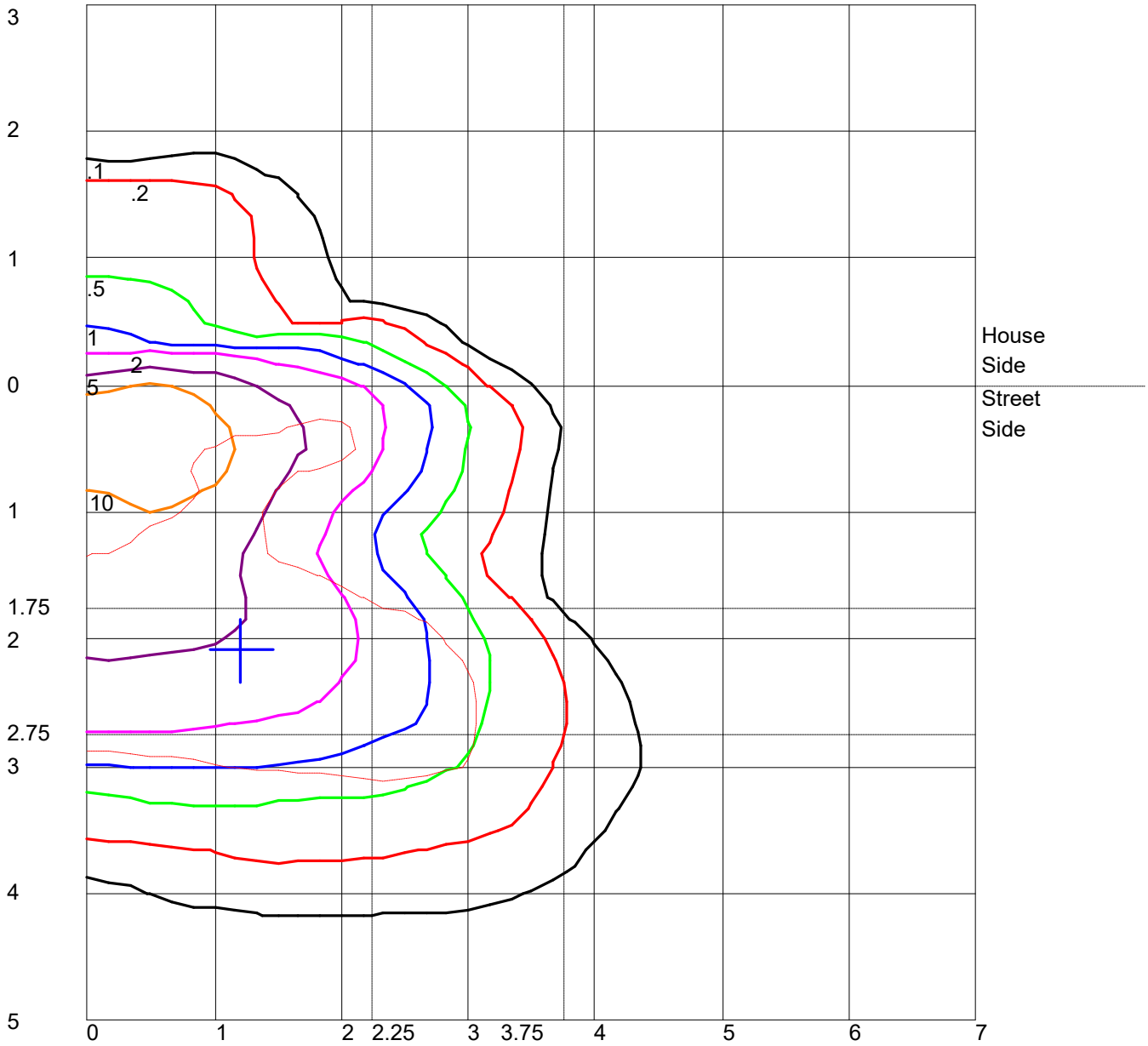
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



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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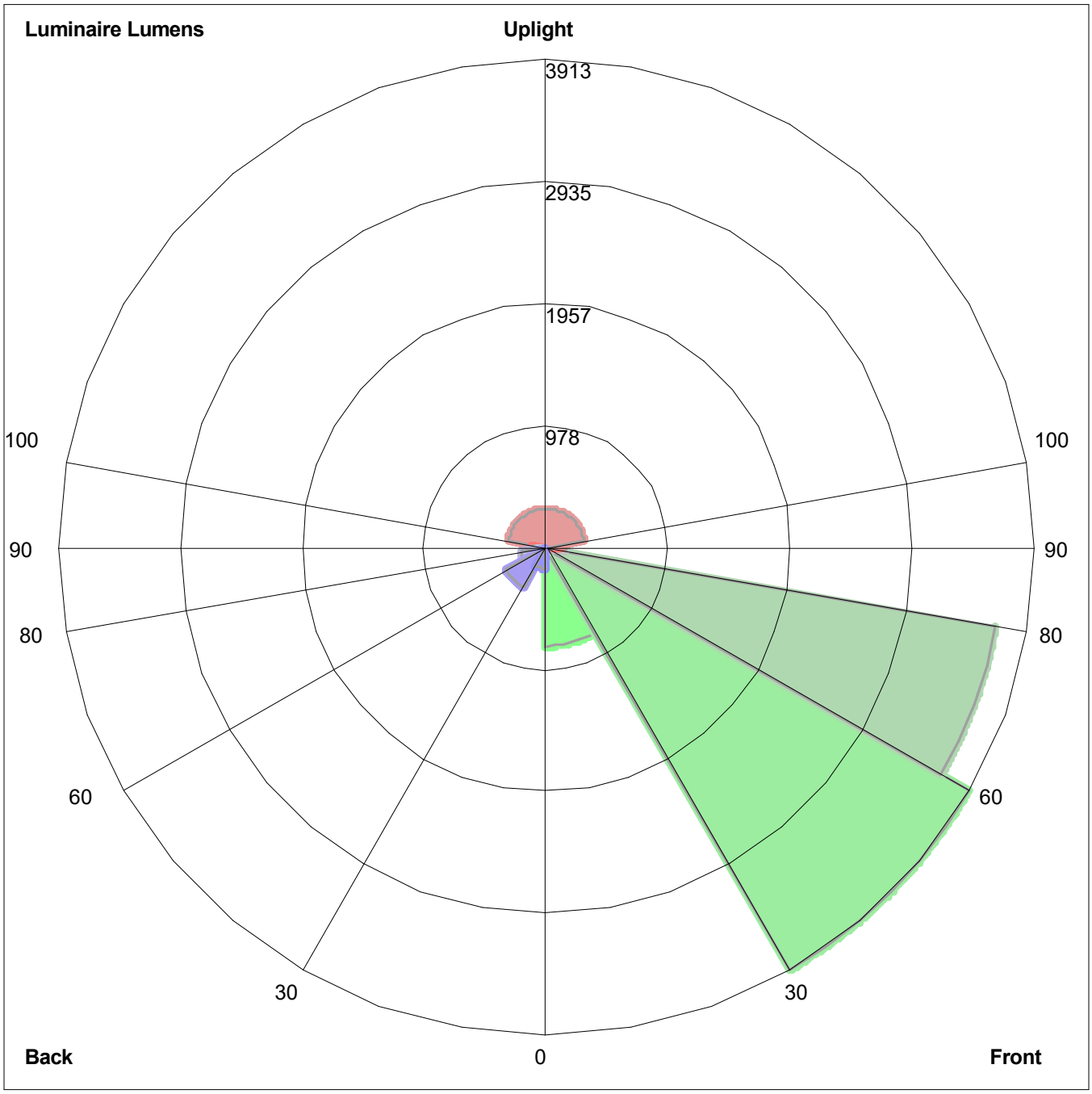
LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=792.4, Medium= 3913.0, High=3660.6, Very High=156.4
Back: Low=167.2, Medium=364.2, High=202.0, Very High=65.8
Uplight: Low=114.9, High=306.9

BUG Rating : B1-U3-G2

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