IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-20L-SIL-3-50-70CRI-IH.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] LED-12640
[TESTLAB] LSI INDUSTRIES, INC.
[ISSUEDATE] 03/30/21
[TESTDATE] 03/26/21
[MANUFAC] LSI INDUSTRIES, INC.
[LUMCAT] MPP-LED-20L-SIL-3-50-70CRI-IH
[_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 III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	16233
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	0.04
Maximum Candela	14275
Maximum Candela Angle	50H 67.5V
Maximum Candela (<90 Degrees Vertical)	14275
Maximum Candela Angle (<90 Degrees Vertical)	50H 67.5V
Maximum Candela At 90 Degrees Vertical	237 (1.5% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1219 (7.5% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	630.6	N.A.	3.9
FM - Front-Medium (30-60)	6894.8	N.A.	42.5
FH - Front-High (60-80)	6262.6	N.A.	38.6
FVH - Front-Very High (80-90)	208.3	N.A.	1.3
BL - Back-Low (0-30)	264.5	N.A.	1.6
BM - Back-Medium (30-60)	835.9	N.A.	5.1
BH - Back-High (60-80)	438.4	N.A.	2.7
BVH - Back-Very High (80-90)	116.5	N.A.	0.7
UL - Uplight-Low (90-100)	184.4	N.A.	1.1
UH - Uplight-High (100-180)	397.0	N.A.	2.4
Total	16233.0	N.A.	100.0
BUG Rating	B1-U3-G3		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	0	5	15	25	35	45	50	55	65	75
0.0	789	789	789	789	789	789	789	789	789	789
2.5	815	812	805	804	804	804	798	798	791	791
5.0	920	921	912	905	906	895	881	859	816	794
7.5	926	934	920	942	974	971	952	932	898	835
10.0	992	1005	1021	999	1013	977	964	981	952	893
12.5	1040	1040	1043	1052	1044	1067	1048	1033	1035	965
15.0	1138	1115	1128	1141	1123	1123	1104	1118	1075	1053
17.5	1183	1203	1191	1190	1252	1214	1195	1216	1200	1134
20.0	1321	1337	1344	1380	1342	1384	1395	1366	1320	1260
22.5	1555	1525	1541	1556	1571	1535	1535	1571	1539	1419
25.0	1702	1732	1816	1885	1827	1826	1803	1834	1786	1721
27.5	2141	2212	2229	2187	2278	2167	2185	2139	2165	1938
30.0	2647	2657	2738	2775	2682	2728	2659	2560	2465	2263
32.5	3460	3451	3472	3358	3335	3227	3272	3043	2885	2611
35.0	3997	3976	3994	4123	3969	3866	3802	3635	3255	2862
37.5	4423	4454	4491	4695	4780	4542	4378	4078	3524	3104
40.0	4903	4896	4986	5249	5399	5276	4994	4527	3843	3251
42.5	5430	5443	5549	5815	6022	5951	5624	4995	4189	3360
45.0	6139	6174	6326	6570	6672	6526	6233	5532	4410	3496
47.5	7011	6991	7217	7491	7475	7120	6767	6213	4559	3788
50.0	7890	7865	8138	8472	8432	7802	7325	6693	4939	4014
52.5	8840	8833	9048	9440	9467	8614	7955	7158	5475	4316
55.0	9850	9895	10061	10480	10438	9522	8737	7769	6246	4914
57.5	10894	10875	11089	11608	11589	10541	9718	8552	7077	5509
60.0	10734	10869	11345	12344	12665	11830	10882	9577	7946	6206
62.5	9261	9504	10275	11717	13274	12980	12198	10937	9072	7090
65.0	5977	6155	7557	10052	12233	14035	13588	12536	10260	7917
67.5	2002	2101	3234	6551	10760	13195	14275	13743	10864	8507
70.0	1250	1290	1579	2779	7970	11621	13003	14098	10683	7930
72.5	894	928	1095	1707	3696	9371	10752	11781	10261	6425
75.0	651	682	825	1196	2081	5089	6707	7261	7980	2725
77.5	442	461	604	921	1385	2228	2427	3533	2359	1012
80.0	296	321	429	693	955	1193	1168	1219	920	614
82.5	223	247	338	557	636	678	626	593	545	462
85.0	169	192	272	454	468	405	366	335	336	363
87.5	128	149	215	358	305	240	225	225	239	269
90.0	90	104	157	211	160	167	175	183	199	218
92.5	55	61	90	107	130	154	162	171	188	204
95.0	64	65	92	109	131	155	162	170	188	192
97.5	73	67	93	112	131	153	160	165	183	161
100.0	78	69	93	113	131	151	158	159	168	137
102.5	81	72	93	113	131	148	153	150	148	105
105.0	82	75	93	115	131	144	147	137	122	90
107.5	84	78	92	115	129	137	134	120	97	82
110.0	85	82	91	115	127	125	117	101	81	74
112.5	85	84	89	113	120	109	99	86	71	71
115.0	86	85	88	109	110	93	86	76	64	69
117.5	85	85	86	102	98	82	75	69	60	67
120.0	85	85	83	92	87	74	69	65	57	65
122.5	84	82	78	82	78	69	65	62	57	64
125.0	81	79	72	73	73	66	64	61	58	63
127.5	75	74	68	67	69	65	63	61	60	63
130.0	70	69	65	63	66	65	64	63	61	65

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CANDELA TABULATION - (Cont.)

132.5	67	66	64	61	64	65	64	63	62	66
135.0	65	65	63	60	62	61	61	60	61	67
137.5	65	65	63	59	57	55	53	54	58	65
140.0	62	61	58	53	47	45	45	46	52	58
142.5	54	53	50	43	36	33	34	36	41	49
145.0	44	43	40	33	26	24	26	27	31	38
147.5	33	32	28	22	18	15	15	16	22	28
150.0	22	22	19	16	10	8	9	10	14	18
152.5	17	16	13	7	5	4	5	6	9	12
155.0	5	5	3	2	2	2	3	3	6	7
157.5	2	2	2	2	2	2	2	2	4	5
160.0	0	1	1	2	2	2	2	2	3	4
162.5	0	1	1	2	2	2	2	2	3	4
165.0	0	1	1	2	2	2	2	2	3	4
167.5	0	1	2	2	2	2	2	2	3	4
170.0	0	1	2	2	2	2	2	2	3	4
172.5	0	1	2	2	2	2	2	3	3	4
175.0	1	1	2	2	2	2	2	3	3	4
177.5	1	1	2	2	2	2	2	2	3	4
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	789	789	789	789	789	789	789	789	789	789
2.5	794	792	793	790	783	786	778	779	778	773
5.0	800	805	797	789	780	770	754	723	691	675
7.5	803	806	800	791	767	705	651	625	606	583
10.0	826	837	823	793	706	646	596	564	532	512
12.5	859	865	854	790	663	602	546	509	493	481
15.0	925	901	899	778	651	577	520	494	460	446
17.5	989	945	931	768	640	557	507	463	445	444
20.0	1100	1037	998	783	634	553	487	468	446	436
22.5	1246	1130	1084	795	636	549	497	467	456	462
25.0	1452	1288	1183	832	644	558	505	477	466	469
27.5	1622	1486	1273	870	663	574	519	493	492	517
30.0	1929	1595	1414	901	673	589	538	513	525	585
32.5	2114	1738	1496	955	687	600	547	542	612	726
35.0	2264	1852	1527	956	684	601	556	582	719	924
37.5	2403	1928	1559	947	682	596	563	618	874	1114
40.0	2502	2014	1646	932	666	581	572	649	974	1067
42.5	2634	2154	1657	913	633	569	569	651	963	769
45.0	2725	2193	1722	910	578	544	540	598	825	568
47.5	2829	2288	1841	885	496	492	480	531	658	458
50.0	3055	2483	1876	858	425	423	420	459	513	406
52.5	3265	2699	1999	847	371	362	360	385	416	380
55.0	3774	3051	2197	819	344	331	321	336	350	359
57.5	4374	3488	2415	770	330	307	299	304	314	338
60.0	4946	3837	2688	700	307	294	284	285	288	322
62.5	5368	4075	2936	579	290	282	272	272	271	307
65.0	5501	4027	2734	463	278	272	263	256	262	331
67.5	5244	3310	1922	357	272	261	254	260	303	406
70.0	4251	2181	1080	286	260	252	260	291	383	513
72.5	2371	1112	416	264	251	245	275	338	377	334
75.0	792	458	337	253	241	250	254	272	215	240
77.5	506	342	271	247	238	252	232	214	201	208

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CANDELA TABULATION - (Cont.)

80.0	395	300	238	243	231	239	228	212	200	199
82.5	330	250	228	243	227	214	224	212	201	201
85.0	287	199	212	235	222	209	226	214	205	202
87.5	227	172	202	235	219	209	229	219	209	199
90.0	180	151	212	237	224	211	232	220	210	194
92.5	160	146	208	236	224	207	227	222	214	200
95.0	153	178	196	231	216	199	218	215	211	196
97.5	136	191	188	213	204	184	207	204	202	186
100.0	139	180	179	188	190	170	196	196	195	175
102.5	137	161	164	165	175	161	184	187	188	162
105.0	125	144	149	148	156	153	175	180	180	148
107.5	112	126	133	132	142	145	165	172	172	133
110.0	101	112	118	121	128	137	156	164	162	117
112.5	92	100	106	113	117	129	148	157	153	105
115.0	85	92	97	106	111	125	141	149	140	94
117.5	79	86	92	101	107	120	133	141	126	86
120.0	75	82	86	97	104	117	128	131	113	79
122.5	72	78	82	93	101	113	122	121	99	75
125.0	70	75	80	90	99	110	117	112	87	72
127.5	69	73	78	89	97	108	110	101	78	69
130.0	70	73	78	88	96	104	104	90	70	66
132.5	71	74	78	88	93	96	94	81	65	64
135.0	73	76	79	86	88	86	80	69	62	63
137.5	71	74	77	81	80	73	62	53	53	58
140.0	66	69	71	72	68	57	45	39	41	47
142.5	57	60	61	59	52	42	31	27	31	35
145.0	45	47	48	45	37	29	21	18	21	25
147.5	32	33	33	31	25	18	13	12	14	14
150.0	21	21	21	20	18	12	9	7	8	10
152.5	14	14	14	14	11	9	6	5	3	3
155.0	9	10	10	9	9	7	6	3	2	2
157.5	6	6	7	7	7	6	5	3	2	1
160.0	5	6	6	6	6	6	5	3	2	0
162.5	5	6	6	6	6	6	4	2	2	0
165.0	5	6	6	6	6	6	4	2	1	0
167.5	5	6	6	6	6	6	4	2	1	0
170.0	5	6	6	6	6	6	4	2	1	0
172.5	5	5	6	6	6	6	4	2	1	0
175.0	5	5	5	6	6	6	4	2	1	0
177.5	5	5	5	6	6	5	4	2	1	0
180.0	2	2	2	2	2	2	2	2	2	2

Vert. Angles	**Horizontal Angles**	
	175	**180**
0.0	789	789
2.5	771	770
5.0	673	669
7.5	578	576
10.0	503	502
12.5	472	472
15.0	436	432
17.5	434	434
20.0	431	426
22.5	453	450
25.0	470	469

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CANDELA TABULATION - (Cont.)

27.5	510	509
30.0	599	584
32.5	706	684
35.0	889	854
37.5	977	920
40.0	764	710
42.5	511	489
45.0	424	408
47.5	379	369
50.0	354	345
52.5	335	330
55.0	319	319
57.5	308	315
60.0	301	316
62.5	298	319
65.0	358	388
67.5	459	469
70.0	296	265
72.5	257	235
75.0	222	185
77.5	174	127
80.0	156	105
82.5	288	289
85.0	205	148
87.5	140	97
90.0	115	70
92.5	121	91
95.0	121	106
97.5	117	118
100.0	115	127
102.5	113	129
105.0	109	128
107.5	106	121
110.0	102	114
112.5	98	106
115.0	94	99
117.5	90	92
120.0	86	88
122.5	82	82
125.0	78	78
127.5	73	73
130.0	69	69
132.5	65	66
135.0	64	64
137.5	61	62
140.0	49	49
142.5	37	37
145.0	26	26
147.5	16	16
150.0	10	10
152.5	4	4
155.0	0	0
157.5	0	0
160.0	0	0
162.5	0	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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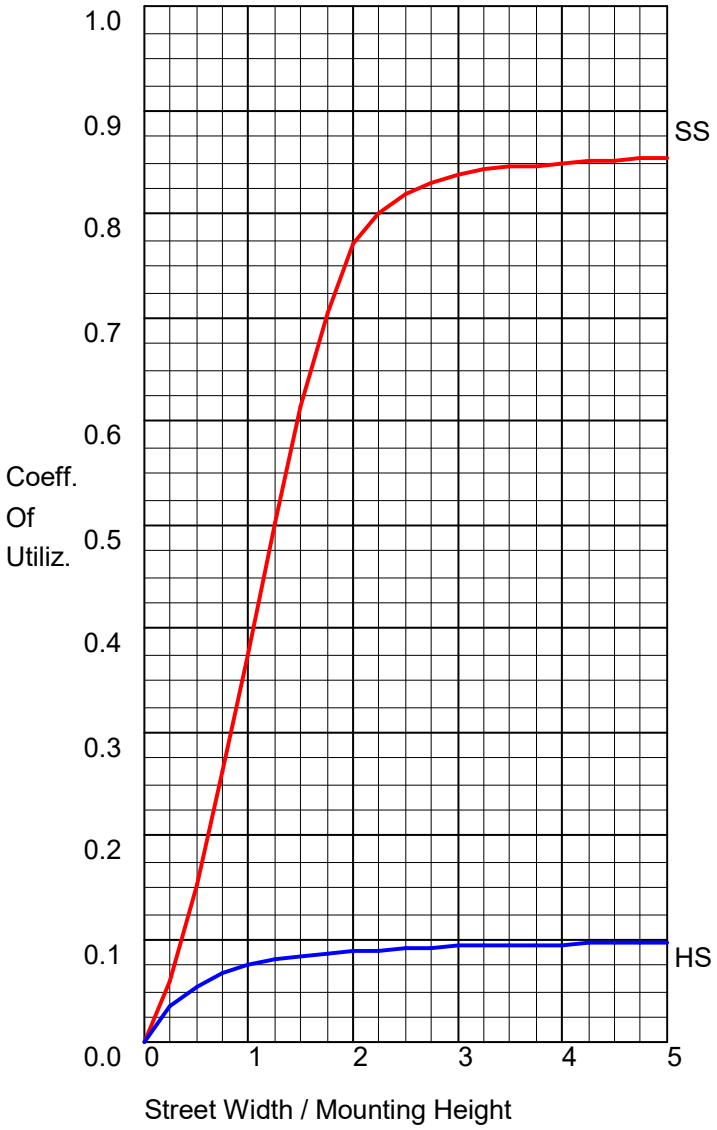
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	13996.2	86.2
Downward House Side	1655.3	10.2
Downward Total	15651.5	96.4
Upward Street Side	250.3	1.5
Upward House Side	331.1	2.0
Upward Total	581.4	3.6
Total Flux	16232.9	100.0

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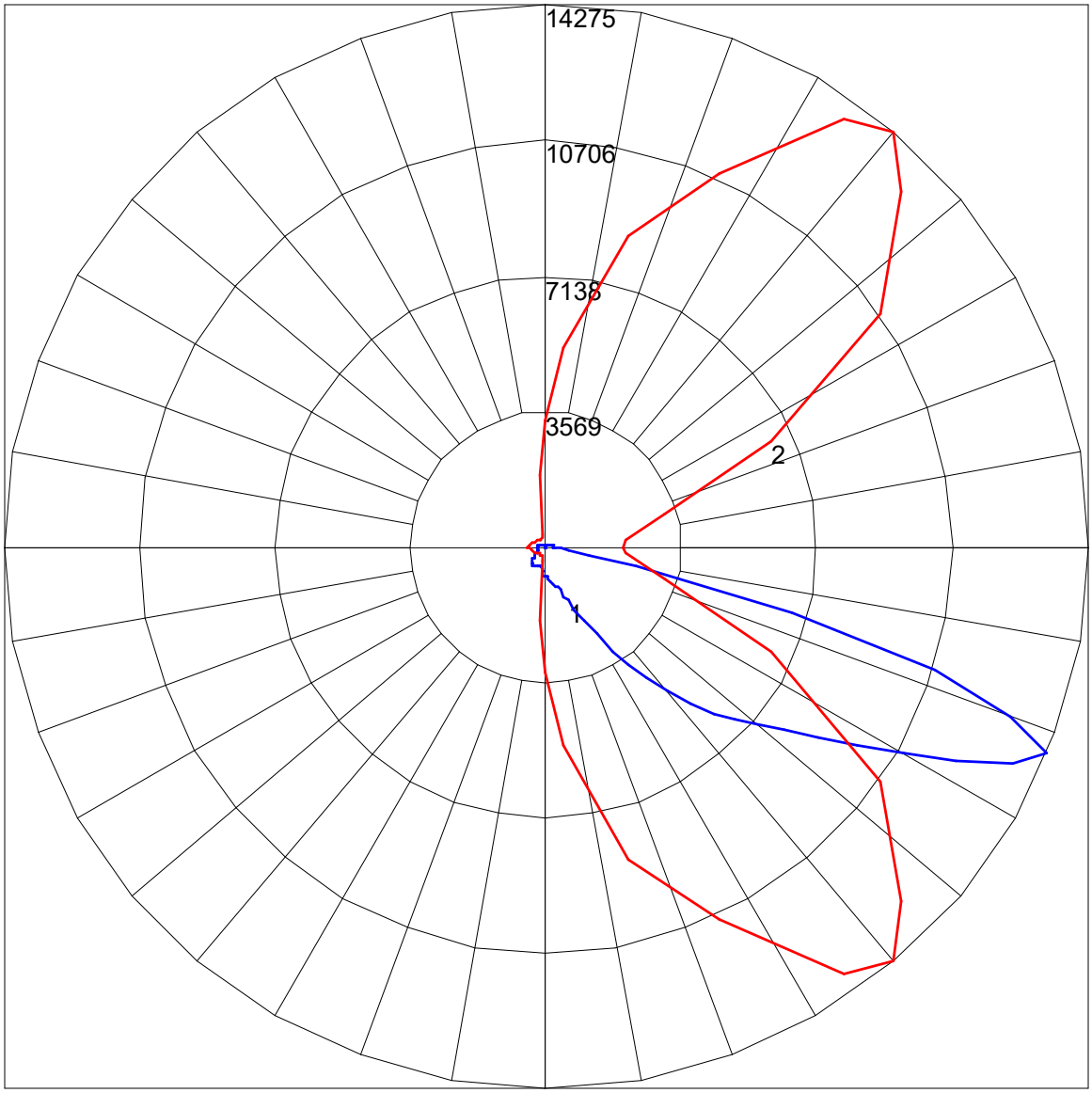
POLAR GRAPH



Maximum Candela = 14275 Located At Horizontal Angle = 50, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (50 - 230) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

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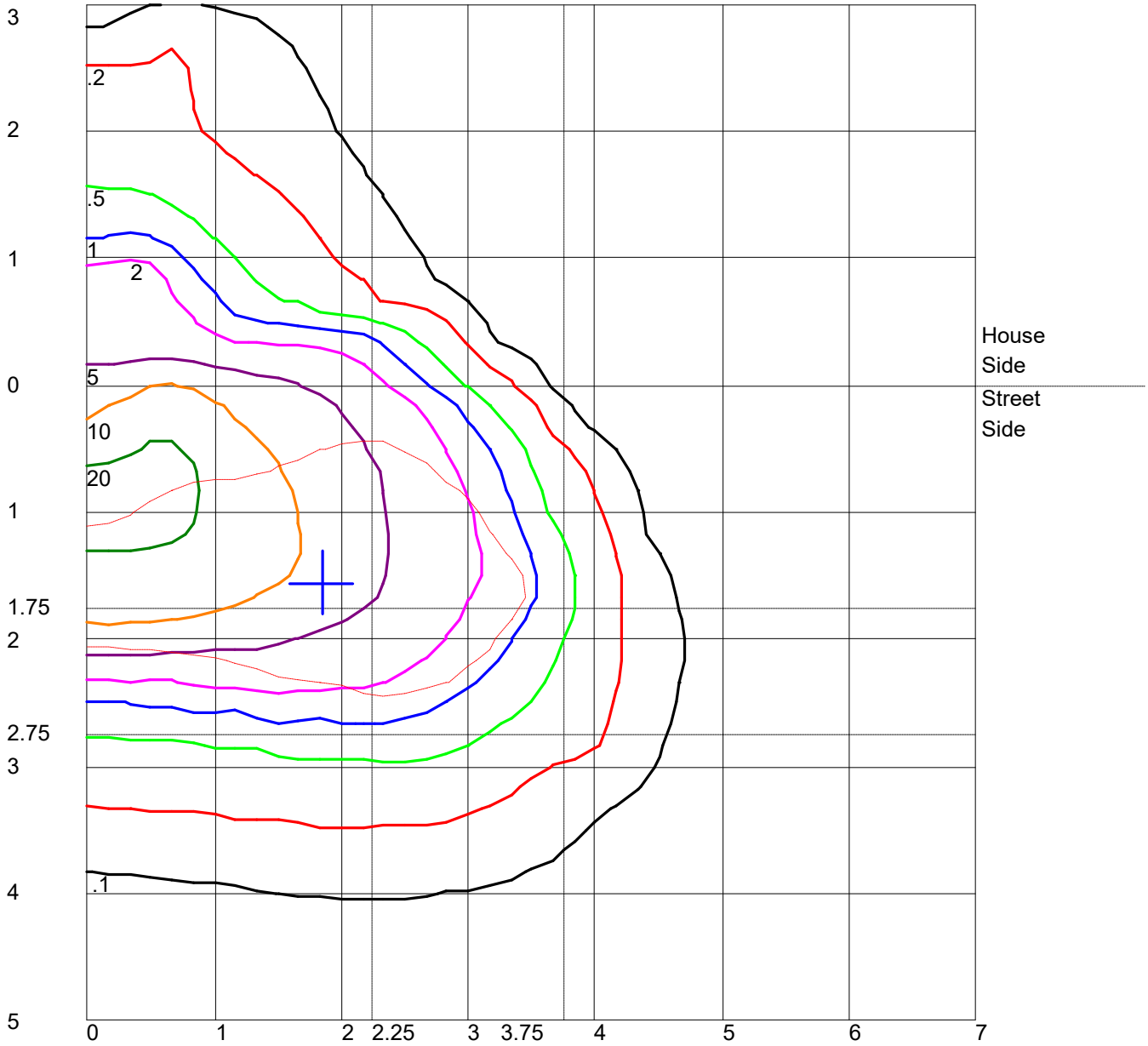
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



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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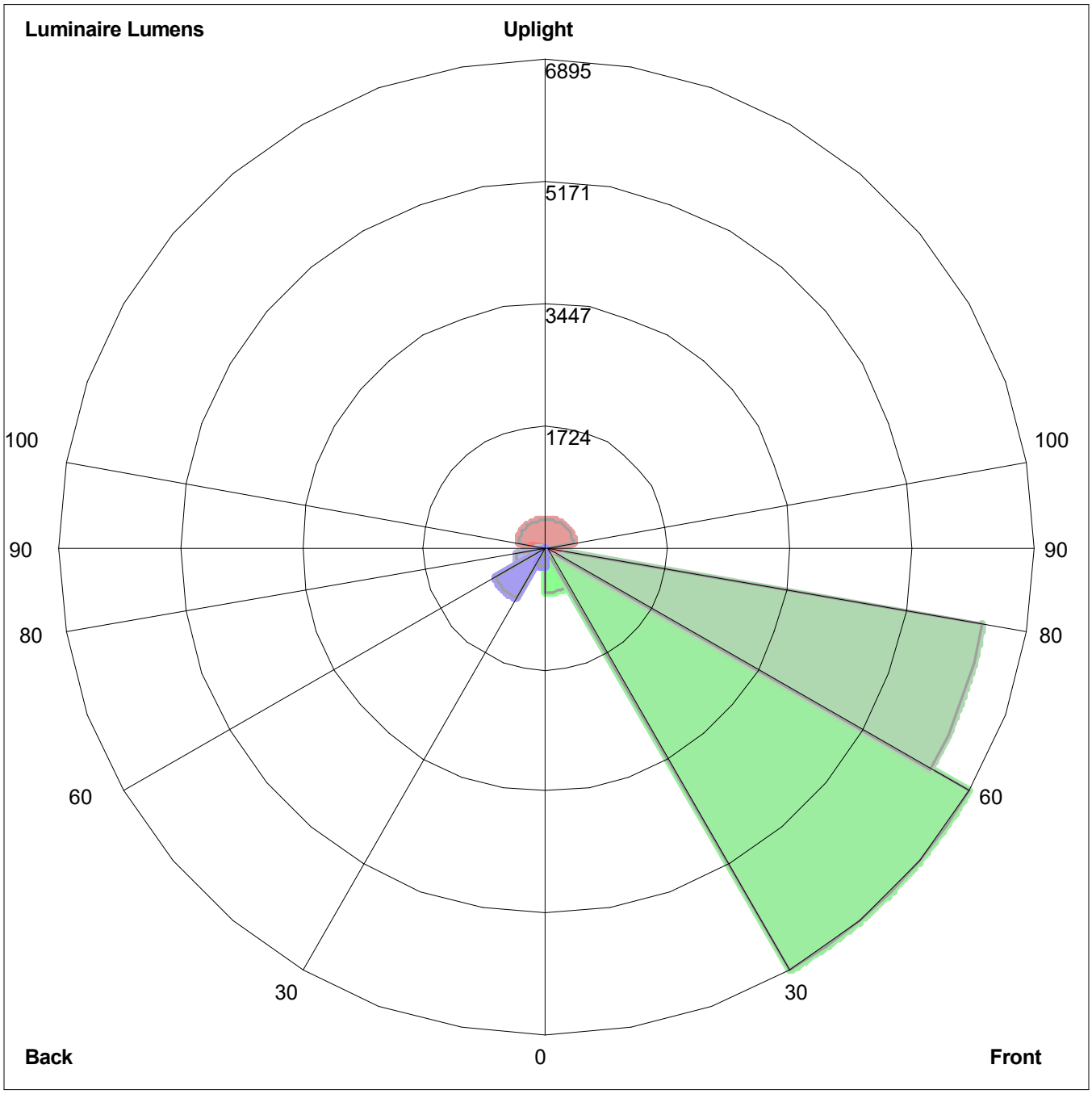
LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=630.6, Medium=6894.8, High=6262.6, Very High=208.3
Back: Low=264.5, Medium=835.9, High=438.4, Very High=116.5
Uplight: Low=184.4, High=397.0

BUG Rating : B1-U3-G3

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