IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-20L-SIL-3-30-70CRI-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-3-30-70CRI-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] 3000

CHARACTERISTICS

IES Classification	Type III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	15840
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.04
Maximum Candela	13930
Maximum Candela Angle	50H 67.5V
Maximum Candela (<90 Degrees Vertical)	13930
Maximum Candela Angle (<90 Degrees Vertical)	50H 67.5V
Maximum Candela At 90 Degrees Vertical	231 (1.5% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1190 (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)	615.3	N.A.	3.9
FM - Front-Medium (30-60)	6728.0	N.A.	42.5
FH - Front-High (60-80)	6111.2	N.A.	38.6
FVH - Front-Very High (80-90)	203.3	N.A.	1.3
BL - Back-Low (0-30)	258.1	N.A.	1.6
BM - Back-Medium (30-60)	815.7	N.A.	5.1
BH - Back-High (60-80)	427.7	N.A.	2.7
BVH - Back-Very High (80-90)	113.6	N.A.	0.7
UL - Uplight-Low (90-100)	179.8	N.A.	1.1
UH - Uplight-High (100-180)	387.2	N.A.	2.4
Total	15839.9	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	770	770	770	770	770	770	770	770	770	770
2.5	795	792	785	784	784	784	779	779	772	772
5.0	898	899	890	883	884	874	859	838	796	775
7.5	903	911	898	919	950	948	929	909	877	815
10.0	968	980	997	975	989	953	941	957	929	872
12.5	1015	1015	1018	1026	1019	1041	1023	1008	1010	942
15.0	1111	1088	1100	1114	1095	1095	1077	1091	1049	1027
17.5	1154	1174	1162	1161	1221	1185	1167	1187	1171	1107
20.0	1289	1305	1311	1347	1310	1351	1361	1333	1288	1230
22.5	1517	1488	1504	1518	1533	1498	1498	1533	1502	1384
25.0	1661	1690	1772	1840	1783	1782	1759	1790	1743	1679
27.5	2089	2158	2175	2134	2223	2114	2132	2087	2112	1891
30.0	2583	2592	2672	2707	2617	2662	2595	2498	2405	2208
32.5	3377	3367	3388	3277	3255	3149	3193	2970	2815	2548
35.0	3900	3880	3897	4023	3873	3772	3710	3547	3176	2793
37.5	4316	4346	4382	4582	4664	4432	4272	3980	3439	3029
40.0	4784	4777	4866	5122	5268	5148	4873	4417	3750	3172
42.5	5299	5311	5415	5674	5877	5807	5488	4874	4088	3279
45.0	5990	6025	6173	6411	6510	6368	6082	5399	4303	3411
47.5	6842	6822	7042	7310	7294	6947	6604	6063	4449	3696
50.0	7699	7675	7941	8267	8228	7614	7148	6532	4820	3917
52.5	8626	8620	8829	9211	9238	8406	7762	6985	5343	4212
55.0	9612	9656	9818	10226	10186	9292	8526	7581	6095	4795
57.5	10630	10612	10820	11327	11309	10286	9483	8345	6906	5376
60.0	10475	10606	11071	12045	12358	11544	10619	9346	7754	6056
62.5	9037	9275	10026	11434	12953	12666	11903	10672	8852	6918
65.0	5833	6006	7375	9808	11937	13696	13259	12233	10012	7726
67.5	1954	2050	3156	6392	10500	12876	13930	13411	10601	8301
70.0	1219	1259	1541	2711	7777	11340	12689	13757	10425	7738
72.5	873	905	1069	1666	3606	9144	10492	11496	10013	6269
75.0	636	665	805	1167	2031	4966	6545	7086	7787	2659
77.5	431	450	590	899	1352	2174	2369	3448	2302	988
80.0	289	313	419	676	932	1165	1140	1190	898	599
82.5	218	241	330	543	620	662	611	579	532	451
85.0	165	187	265	443	457	396	357	326	327	354
87.5	125	145	210	349	298	234	220	220	233	262
90.0	87	102	154	205	156	163	171	179	194	213
92.5	54	60	87	105	127	151	158	167	183	199
95.0	62	63	89	107	128	152	158	166	183	187
97.5	71	65	91	109	128	149	156	161	179	157
100.0	76	67	91	110	128	147	155	156	164	133
102.5	79	70	91	110	128	144	150	146	144	103
105.0	80	73	91	112	128	140	143	133	119	87
107.5	82	76	89	112	126	133	131	117	95	80
110.0	83	80	88	112	124	122	114	99	79	72
112.5	83	82	86	110	117	107	97	84	69	69
115.0	84	83	85	107	108	91	84	74	62	67
117.5	83	83	84	100	96	80	73	67	59	65
120.0	83	83	81	90	84	72	67	63	56	63
122.5	82	80	76	80	76	67	63	60	56	62
125.0	79	77	70	71	71	64	62	60	57	61
127.5	73	72	66	65	67	63	61	60	59	61
130.0	68	67	63	61	64	63	62	61	60	63

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CANDELA TABULATION - (Cont.)

132.5	65	64	62	60	62	63	62	61	60	64
135.0	63	63	61	59	60	60	60	59	60	65
137.5	63	63	61	58	56	54	52	53	57	63
140.0	60	60	57	52	46	44	44	45	51	57
142.5	53	52	49	42	36	33	34	36	40	48
145.0	43	42	39	33	25	23	25	26	31	37
147.5	33	32	27	21	17	14	14	15	21	27
150.0	21	21	18	15	10	8	9	10	13	17
152.5	16	15	12	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	770	770	770	770	770	770	770	770	770	770
2.5	775	773	774	771	764	767	759	760	759	755
5.0	781	785	778	770	761	752	735	706	674	659
7.5	783	786	781	772	749	688	636	610	591	569
10.0	806	817	803	774	689	631	582	550	519	499
12.5	838	844	833	771	647	588	533	496	481	469
15.0	902	879	878	759	636	563	508	482	449	435
17.5	965	922	908	750	624	543	494	452	434	433
20.0	1073	1012	974	764	618	540	475	457	435	425
22.5	1215	1102	1058	776	620	536	485	456	445	451
25.0	1417	1257	1154	812	629	544	493	466	455	458
27.5	1583	1450	1242	849	647	560	507	481	480	504
30.0	1883	1556	1380	879	657	575	525	500	513	571
32.5	2063	1696	1459	932	670	586	534	529	597	709
35.0	2209	1807	1490	933	667	587	542	568	702	902
37.5	2345	1882	1522	925	665	582	549	603	853	1087
40.0	2442	1965	1606	909	650	567	558	634	950	1041
42.5	2570	2102	1617	891	617	555	555	636	940	751
45.0	2659	2140	1680	888	564	531	527	584	805	554
47.5	2760	2232	1796	863	484	480	469	518	642	446
50.0	2981	2423	1831	837	415	413	410	448	500	397
52.5	3186	2634	1951	827	362	353	351	375	406	371
55.0	3683	2977	2144	799	336	323	313	328	342	350
57.5	4269	3404	2357	752	322	300	292	297	306	330
60.0	4826	3744	2623	683	300	287	277	278	281	314
62.5	5238	3977	2865	565	283	276	265	265	264	300
65.0	5368	3930	2668	452	272	265	256	250	255	323
67.5	5117	3230	1875	349	265	254	248	253	296	397
70.0	4149	2129	1054	279	253	246	253	284	373	500
72.5	2314	1085	406	257	245	239	269	330	368	325
75.0	773	447	329	247	235	244	248	265	210	234
77.5	493	334	264	241	232	246	227	209	196	203

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CANDELA TABULATION - (Cont.)

80.0	385	293	232	237	226	233	223	206	195	194
82.5	322	244	223	237	222	208	219	206	196	196
85.0	280	194	206	229	217	204	221	209	200	197
87.5	222	168	197	229	214	204	224	214	204	194
90.0	176	147	206	231	219	205	227	215	205	189
92.5	156	142	203	230	219	202	222	217	209	195
95.0	149	174	191	226	211	194	213	210	205	191
97.5	132	186	183	207	199	180	202	199	197	181
100.0	135	176	175	183	185	166	191	191	190	171
102.5	133	157	160	161	171	157	180	182	183	158
105.0	122	140	145	144	153	150	171	176	176	144
107.5	109	123	130	129	138	141	161	168	168	130
110.0	99	109	115	118	125	133	153	160	158	114
112.5	89	98	104	110	114	126	144	154	149	103
115.0	83	90	95	104	108	122	137	145	136	92
117.5	77	84	89	99	105	117	130	137	123	84
120.0	73	80	84	95	102	114	125	128	110	77
122.5	70	76	80	91	99	110	119	118	97	73
125.0	68	73	78	87	97	108	114	109	84	70
127.5	67	71	76	86	95	106	108	99	76	67
130.0	68	71	76	85	94	102	102	87	68	64
132.5	69	72	76	85	91	94	92	79	63	62
135.0	71	74	77	84	85	84	78	67	60	61
137.5	69	72	75	79	78	71	60	52	52	57
140.0	64	67	69	70	66	56	44	38	40	46
142.5	56	59	60	58	51	41	31	26	30	35
145.0	44	46	47	44	36	28	20	17	20	24
147.5	32	33	33	30	24	17	12	12	13	13
150.0	20	20	20	19	17	12	9	7	8	10
152.5	13	13	13	13	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	770	770
2.5	753	752
5.0	657	653
7.5	564	562
10.0	491	490
12.5	461	461
15.0	425	421
17.5	423	423
20.0	421	416
22.5	442	439
25.0	459	458

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CANDELA TABULATION - (Cont.)

27.5	497	496
30.0	585	570
32.5	689	667
35.0	868	833
37.5	953	898
40.0	745	693
42.5	498	477
45.0	414	398
47.5	370	360
50.0	346	337
52.5	326	322
55.0	311	311
57.5	301	307
60.0	294	308
62.5	291	311
65.0	349	378
67.5	448	458
70.0	289	258
72.5	251	229
75.0	217	180
77.5	170	124
80.0	153	103
82.5	281	282
85.0	200	144
87.5	136	95
90.0	112	68
92.5	118	88
95.0	118	104
97.5	114	115
100.0	112	124
102.5	110	126
105.0	107	125
107.5	104	118
110.0	100	111
112.5	96	104
115.0	92	97
117.5	87	90
120.0	84	85
122.5	80	80
125.0	76	76
127.5	71	71
130.0	67	67
132.5	63	64
135.0	62	62
137.5	60	60
140.0	48	48
142.5	36	36
145.0	25	25
147.5	15	15
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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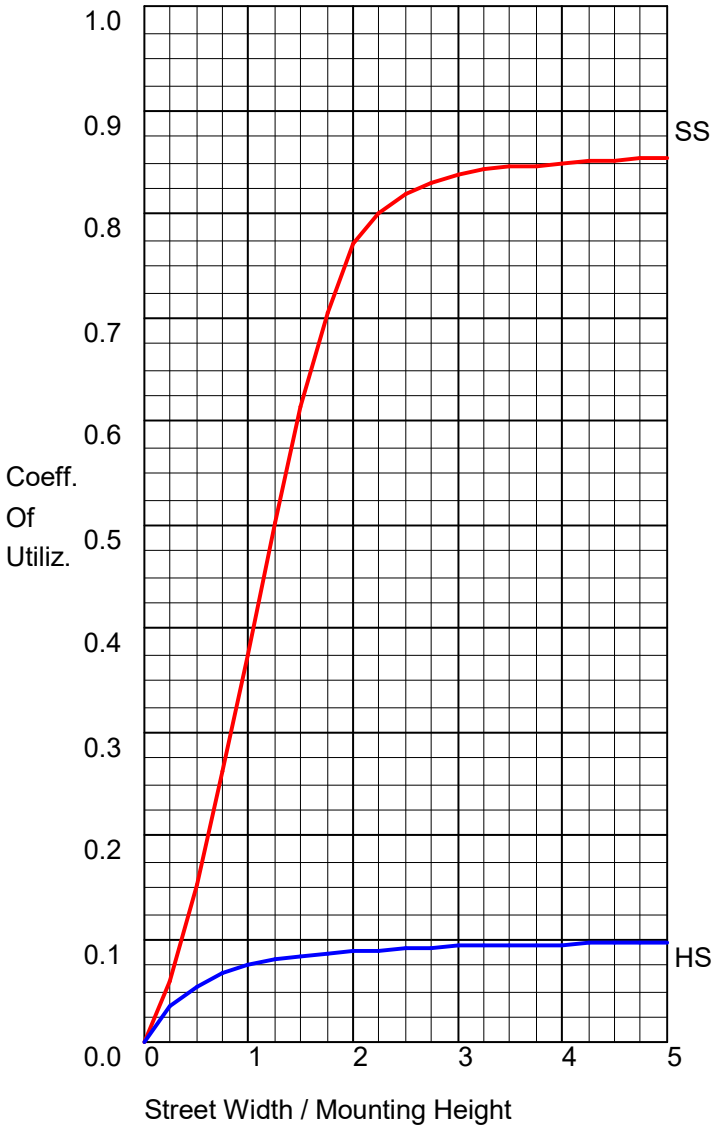
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	13657.7	86.2
Downward House Side	1615.2	10.2
Downward Total	15272.9	96.4
Upward Street Side	244.1	1.5
Upward House Side	323.0	2.0
Upward Total	567.1	3.6
Total Flux	15840.0	100.0

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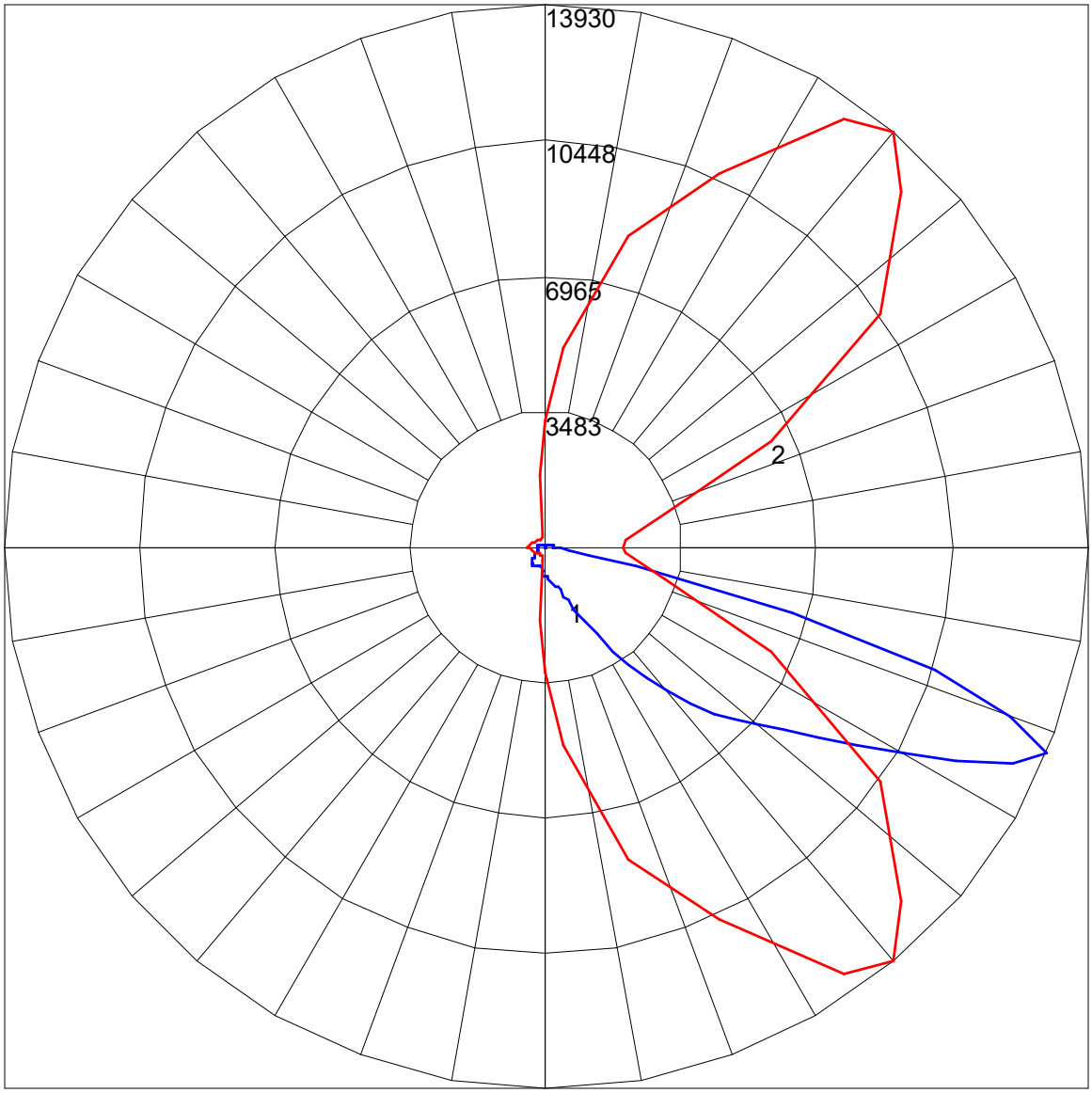
POLAR GRAPH



Maximum Candela = 13930 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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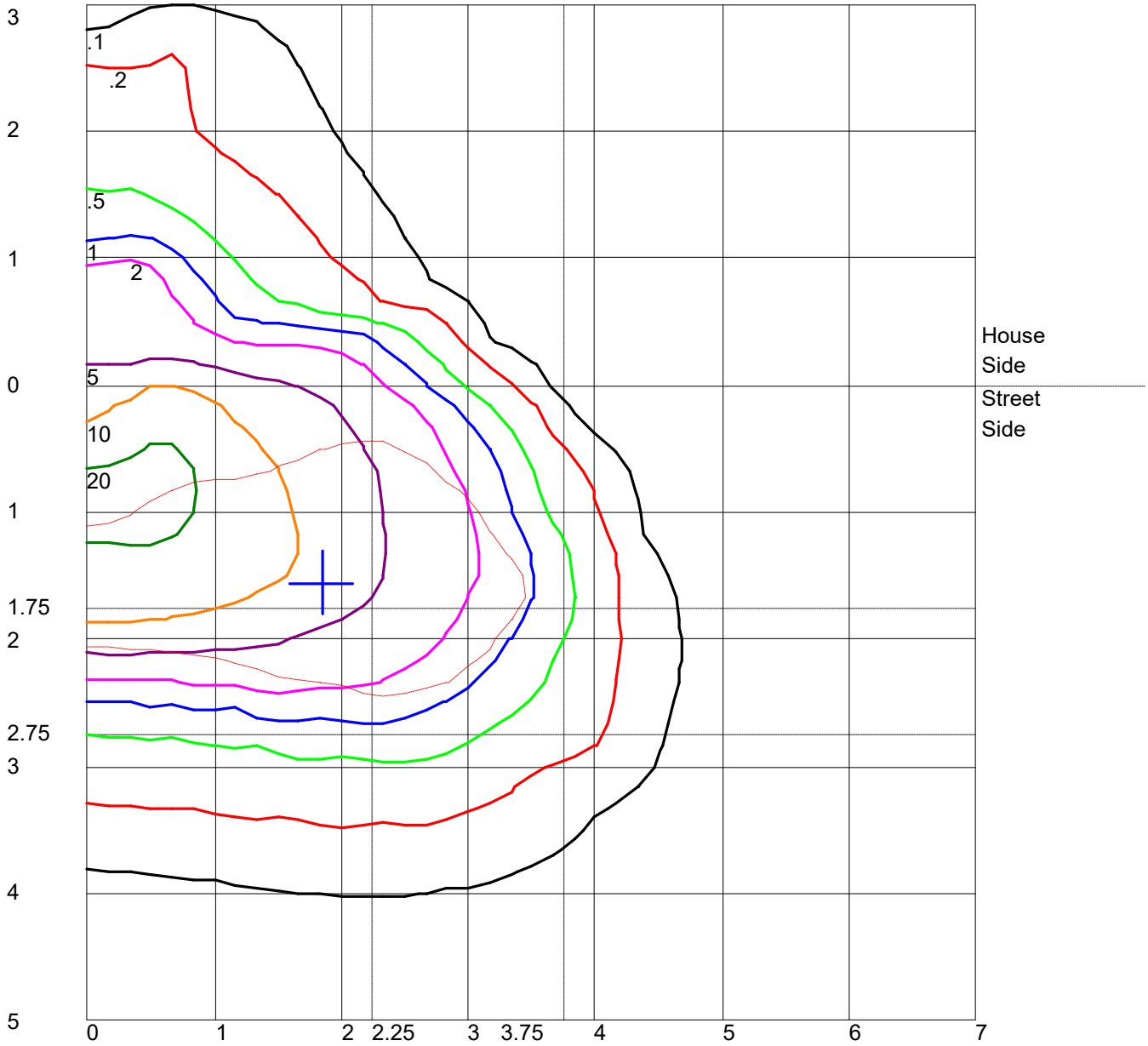
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



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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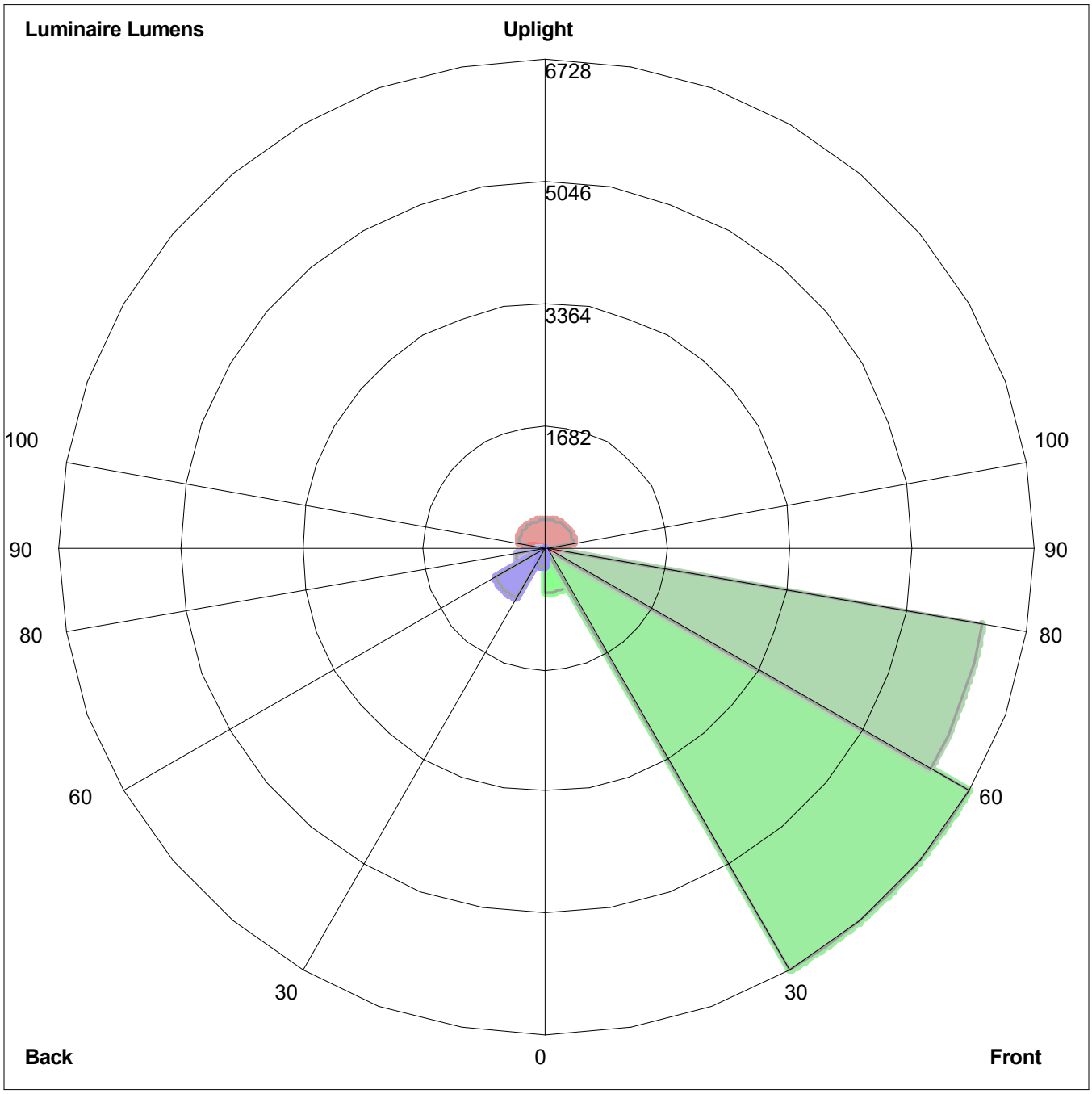
LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=615.3, Medium= 6728.0, High=6111.2, Very High=203.3
Back: Low=258.1, Medium=815.7, High=427.7, Very High=113.6
Uplight: Low=179.8, High=387.2

BUG Rating : B1-U3-G3

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