IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-15L-SIL-3-40-70CRI-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-15L-SIL-3-40-70CRI-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] 4000

CHARACTERISTICS

IES Classification	Type III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	12058
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	118
Total Luminaire Watts	102
Ballast Factor	1.00
Upward Waste Light Ratio	0.04
Maximum Candela	10604
Maximum Candela Angle	50H 67.5V
Maximum Candela (<90 Degrees Vertical)	10604
Maximum Candela Angle (<90 Degrees Vertical)	50H 67.5V
Maximum Candela At 90 Degrees Vertical	176 (1.5% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	906 (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)	468.4	N.A.	3.9
FM - Front-Medium (30-60)	5121.7	N.A.	42.5
FH - Front-High (60-80)	4652.1	N.A.	38.6
FVH - Front-Very High (80-90)	154.8	N.A.	1.3
BL - Back-Low (0-30)	196.5	N.A.	1.6
BM - Back-Medium (30-60)	620.9	N.A.	5.1
BH - Back-High (60-80)	325.6	N.A.	2.7
BVH - Back-Very High (80-90)	86.5	N.A.	0.7
UL - Uplight-Low (90-100)	136.9	N.A.	1.1
UH - Uplight-High (100-180)	294.9	N.A.	2.4
Total	12058.3	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	50	55	65	75
0.0	586	586	586	586	586	586	586	586	586	586
2.5	605	603	598	597	597	597	593	593	588	588
5.0	683	684	677	672	673	665	654	638	606	590
7.5	688	694	683	700	724	721	708	692	667	621
10.0	737	746	759	742	753	726	716	728	707	663
12.5	772	773	775	782	776	792	778	768	769	717
15.0	845	828	838	848	834	834	820	830	799	782
17.5	878	894	885	883	930	902	888	903	892	843
20.0	981	994	998	1025	997	1029	1036	1015	981	936
22.5	1155	1133	1145	1156	1167	1141	1141	1167	1143	1054
25.0	1264	1286	1350	1400	1357	1357	1339	1362	1327	1278
27.5	1590	1643	1655	1625	1692	1609	1624	1589	1608	1440
30.0	1966	1974	2034	2061	1992	2027	1975	1902	1831	1681
32.5	2571	2563	2579	2494	2478	2397	2431	2261	2143	1940
35.0	2969	2953	2967	3062	2948	2872	2824	2700	2417	2126
37.5	3285	3309	3336	3488	3551	3374	3252	3029	2618	2306
40.0	3642	3637	3704	3899	4011	3919	3710	3363	2855	2415
42.5	4033	4043	4122	4320	4474	4420	4178	3711	3112	2496
45.0	4560	4586	4700	4880	4956	4848	4630	4110	3276	2597
47.5	5208	5193	5361	5565	5552	5289	5027	4615	3387	2814
50.0	5861	5843	6045	6293	6263	5796	5441	4972	3669	2982
52.5	6567	6562	6721	7012	7032	6399	5909	5317	4067	3206
55.0	7317	7351	7474	7785	7754	7073	6490	5771	4640	3650
57.5	8093	8078	8237	8623	8609	7830	7219	6353	5257	4092
60.0	7974	8074	8428	9169	9408	8788	8084	7114	5903	4610
62.5	6880	7060	7632	8704	9860	9642	9062	8124	6739	5266
65.0	4440	4573	5614	7467	9087	10426	10094	9312	7621	5881
67.5	1487	1560	2402	4866	7993	9802	10604	10209	8070	6319
70.0	929	958	1173	2064	5920	8632	9659	10473	7936	5891
72.5	665	689	814	1268	2745	6961	7987	8752	7622	4772
75.0	484	506	612	889	1546	3780	4982	5394	5928	2025
77.5	328	343	448	684	1029	1655	1803	2625	1753	752
80.0	220	238	319	515	710	886	868	906	683	456
82.5	166	183	252	414	472	504	465	441	405	344
85.0	126	142	201	337	348	301	272	248	249	270
87.5	95	110	160	266	227	179	167	167	177	200
90.0	67	77	117	156	119	124	130	136	148	162
92.5	41	46	66	80	97	115	121	127	139	151
95.0	47	48	68	81	97	115	121	126	140	143
97.5	54	50	69	83	97	114	119	123	136	120
100.0	57	52	70	84	97	112	118	118	125	101
102.5	60	53	70	84	97	109	114	111	109	78
105.0	61	56	69	85	97	107	109	102	91	66
107.5	62	58	68	85	96	101	100	89	73	60
110.0	63	60	67	85	94	93	87	76	60	55
112.5	63	62	66	84	89	81	74	64	53	53
115.0	63	63	65	81	82	70	63	56	47	52
117.5	63	63	64	76	73	61	56	51	44	50
120.0	63	63	61	69	64	55	52	48	43	49
122.5	62	61	57	61	58	52	49	46	43	47
125.0	60	59	53	54	54	49	47	46	43	47
127.5	56	55	50	50	52	48	47	46	44	47
130.0	52	52	49	47	49	48	47	47	45	48

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CANDELA TABULATION - (Cont.)

132.5	50	49	47	45	47	48	47	47	46	49
135.0	49	48	47	44	46	46	46	44	46	50
137.5	48	48	47	44	42	41	40	40	43	48
140.0	46	46	43	39	35	33	33	35	39	43
142.5	40	40	37	32	27	25	26	27	31	37
145.0	33	32	30	25	19	18	19	20	23	29
147.5	25	24	20	16	13	11	11	12	16	20
150.0	16	16	14	12	7	6	6	8	11	13
152.5	12	12	9	5	4	3	4	4	6	9
155.0	4	4	2	2	2	2	2	2	4	5
157.5	1	1	1	1	1	2	2	2	3	4
160.0	0	1	1	1	1	2	2	2	2	3
162.5	0	1	1	1	1	2	2	2	2	3
165.0	0	1	1	1	1	2	2	2	2	3
167.5	0	1	1	1	2	2	2	2	2	3
170.0	0	1	1	1	2	2	2	2	2	3
172.5	0	1	1	1	2	2	2	2	2	3
175.0	1	1	1	1	2	2	2	2	2	3
177.5	1	1	1	1	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	586	586	586	586	586	586	586	586	586	586
2.5	590	588	589	587	582	584	578	579	578	574
5.0	594	598	592	586	580	572	560	537	513	501
7.5	597	598	594	588	570	524	484	464	450	433
10.0	614	622	611	589	525	480	443	419	395	380
12.5	638	642	635	587	492	447	406	378	367	357
15.0	687	669	668	578	484	428	386	367	342	331
17.5	734	702	691	571	475	414	376	344	330	330
20.0	817	770	741	582	471	411	362	348	331	324
22.5	925	839	806	591	472	408	369	347	338	344
25.0	1078	957	879	618	479	415	375	354	347	348
27.5	1205	1104	946	646	493	426	386	367	365	383
30.0	1433	1185	1050	669	500	438	400	381	391	435
32.5	1571	1290	1111	710	510	446	406	403	454	539
35.0	1682	1375	1135	711	508	447	413	433	534	686
37.5	1785	1433	1158	704	506	443	418	459	649	827
40.0	1859	1496	1223	692	495	432	424	482	724	792
42.5	1957	1600	1231	679	470	423	423	484	715	571
45.0	2025	1629	1279	676	429	404	401	444	612	422
47.5	2101	1699	1368	657	368	365	357	395	489	340
50.0	2269	1845	1393	637	316	314	312	341	381	302
52.5	2425	2005	1485	629	275	269	268	286	309	282
55.0	2804	2266	1632	608	256	245	238	250	261	267
57.5	3249	2591	1795	572	245	228	222	226	233	252
60.0	3674	2851	1996	519	228	218	211	212	214	239
62.5	3988	3028	2181	430	215	210	202	201	201	228
65.0	4087	2992	2031	344	207	201	195	190	194	245
67.5	3895	2458	1427	265	202	194	189	193	225	302
70.0	3158	1621	803	213	193	187	193	217	285	381
72.5	1761	826	309	196	186	182	204	252	280	248
75.0	588	341	251	188	179	186	189	202	160	178
77.5	376	255	201	183	177	187	173	159	149	154

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CANDELA TABULATION - (Cont.)

80.0	293	223	177	180	172	177	170	157	148	148
82.5	245	186	169	180	169	159	166	157	149	149
85.0	214	148	157	174	165	155	168	159	152	150
87.5	169	128	150	174	163	155	170	163	155	148
90.0	133	112	157	176	166	156	172	164	156	144
92.5	119	108	154	176	166	153	169	165	159	149
95.0	113	132	146	172	161	148	162	160	156	146
97.5	101	142	140	158	151	136	153	151	150	138
100.0	103	133	133	140	141	126	145	145	145	130
102.5	102	120	122	123	130	120	137	139	140	121
105.0	93	107	111	109	117	114	130	133	134	109
107.5	83	94	98	98	105	108	123	128	128	98
110.0	75	83	88	90	95	101	116	122	121	87
112.5	68	74	79	84	87	96	109	117	113	78
115.0	63	69	73	79	83	93	104	111	104	70
117.5	59	64	68	76	80	89	99	104	94	63
120.0	56	60	64	72	77	87	95	97	84	59
122.5	53	57	61	69	76	84	91	90	74	56
125.0	52	56	59	67	74	82	87	83	64	53
127.5	52	54	58	66	73	80	82	75	57	51
130.0	52	54	58	65	71	77	77	67	52	49
132.5	53	55	58	65	69	71	70	60	48	47
135.0	54	56	59	64	65	63	59	52	46	47
137.5	53	55	57	60	59	54	46	40	40	43
140.0	49	52	53	53	50	43	33	29	31	35
142.5	42	44	45	44	39	32	23	20	23	26
145.0	34	35	36	33	28	21	15	13	15	18
147.5	24	25	25	23	18	13	9	9	10	11
150.0	15	15	15	15	13	9	6	5	6	7
152.5	11	11	11	10	8	6	5	4	2	2
155.0	6	7	7	6	6	5	4	2	2	1
157.5	5	5	5	5	5	5	4	2	1	1
160.0	4	4	4	5	5	5	4	2	1	0
162.5	4	4	4	5	5	4	3	2	1	0
165.0	4	4	4	5	5	4	3	2	1	0
167.5	4	4	4	5	5	4	3	2	1	0
170.0	4	4	4	4	5	4	3	2	1	0
172.5	4	4	4	4	4	4	3	2	1	0
175.0	4	4	4	4	4	4	3	2	1	0
177.5	4	4	4	4	4	4	3	2	1	0
180.0	2	2	2	2	2	2	2	2	2	2

Vert. Angles	**Horizontal Angles**	
	175	**180**
0.0	586	586
2.5	573	573
5.0	500	497
7.5	429	427
10.0	374	373
12.5	351	351
15.0	324	321
17.5	323	322
20.0	320	317
22.5	336	334
25.0	350	348

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CANDELA TABULATION - (Cont.)

27.5	379	378
30.0	445	434
32.5	525	508
35.0	660	634
37.5	725	683
40.0	567	528
42.5	379	363
45.0	315	303
47.5	282	274
50.0	263	256
52.5	249	245
55.0	237	237
57.5	229	234
60.0	224	235
62.5	221	237
65.0	266	288
67.5	341	349
70.0	220	197
72.5	191	174
75.0	165	138
77.5	129	94
80.0	117	78
82.5	214	215
85.0	152	109
87.5	104	72
90.0	85	52
92.5	90	67
95.0	90	79
97.5	87	88
100.0	85	94
102.5	84	96
105.0	81	95
107.5	79	90
110.0	76	85
112.5	73	79
115.0	70	74
117.5	67	69
120.0	64	65
122.5	60	61
125.0	57	58
127.5	54	54
130.0	51	52
132.5	49	49
135.0	47	47
137.5	46	46
140.0	37	37
142.5	28	28
145.0	19	19
147.5	12	12
150.0	8	8
152.5	3	3
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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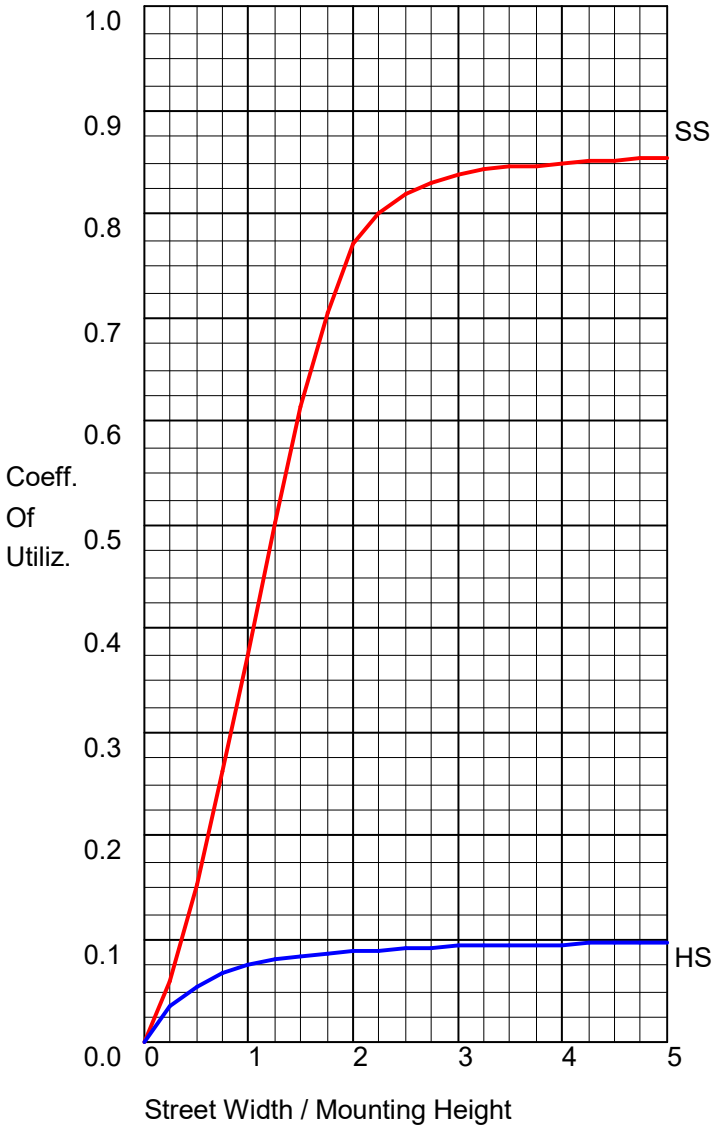
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	10397.0	86.2
Downward House Side	1229.5	10.2
Downward Total	11626.5	96.4
Upward Street Side	185.9	1.5
Upward House Side	245.9	2.0
Upward Total	431.8	3.6
Total Flux	12058.3	100.0

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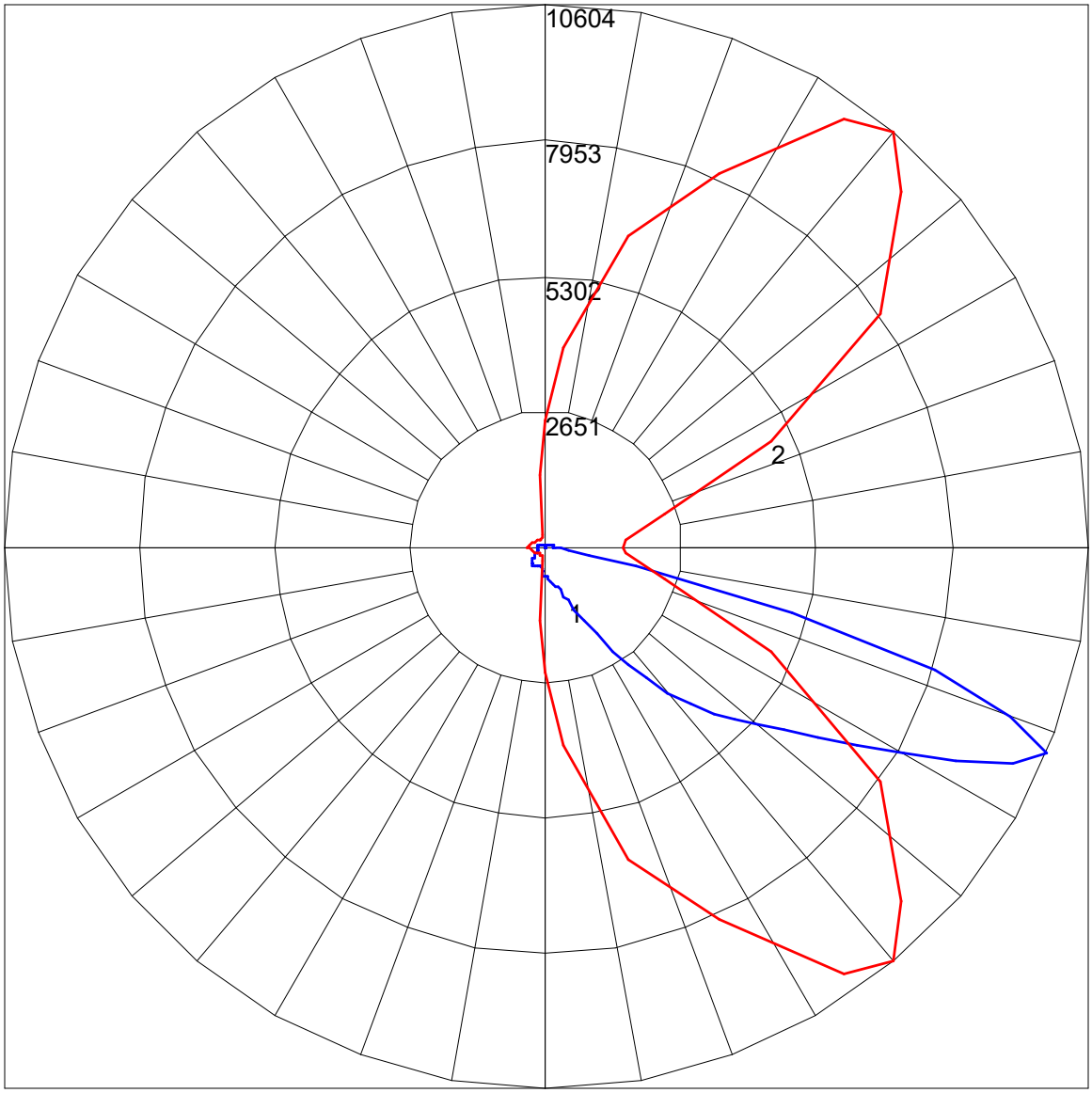
POLAR GRAPH



Maximum Candela = 10604 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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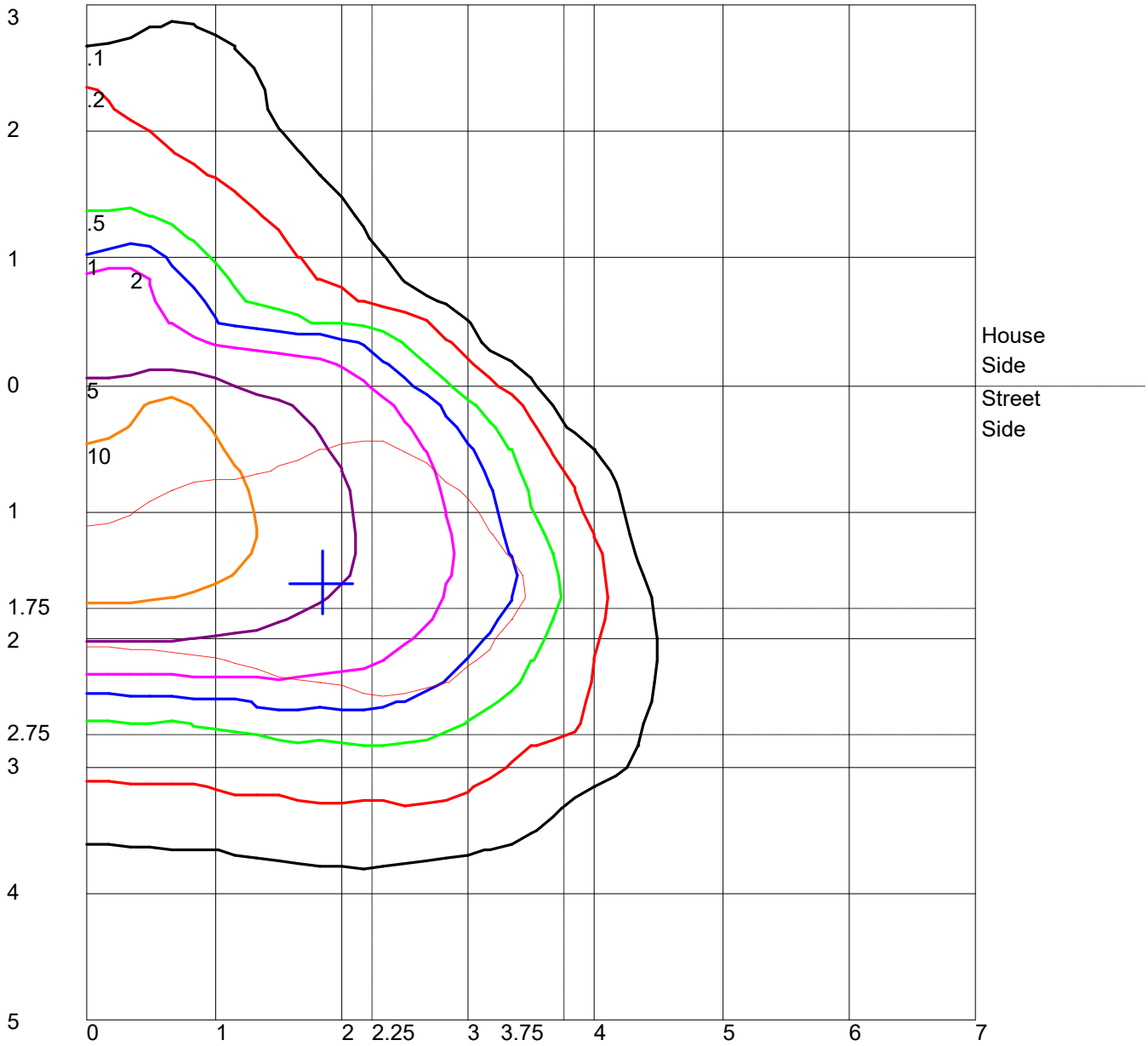
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



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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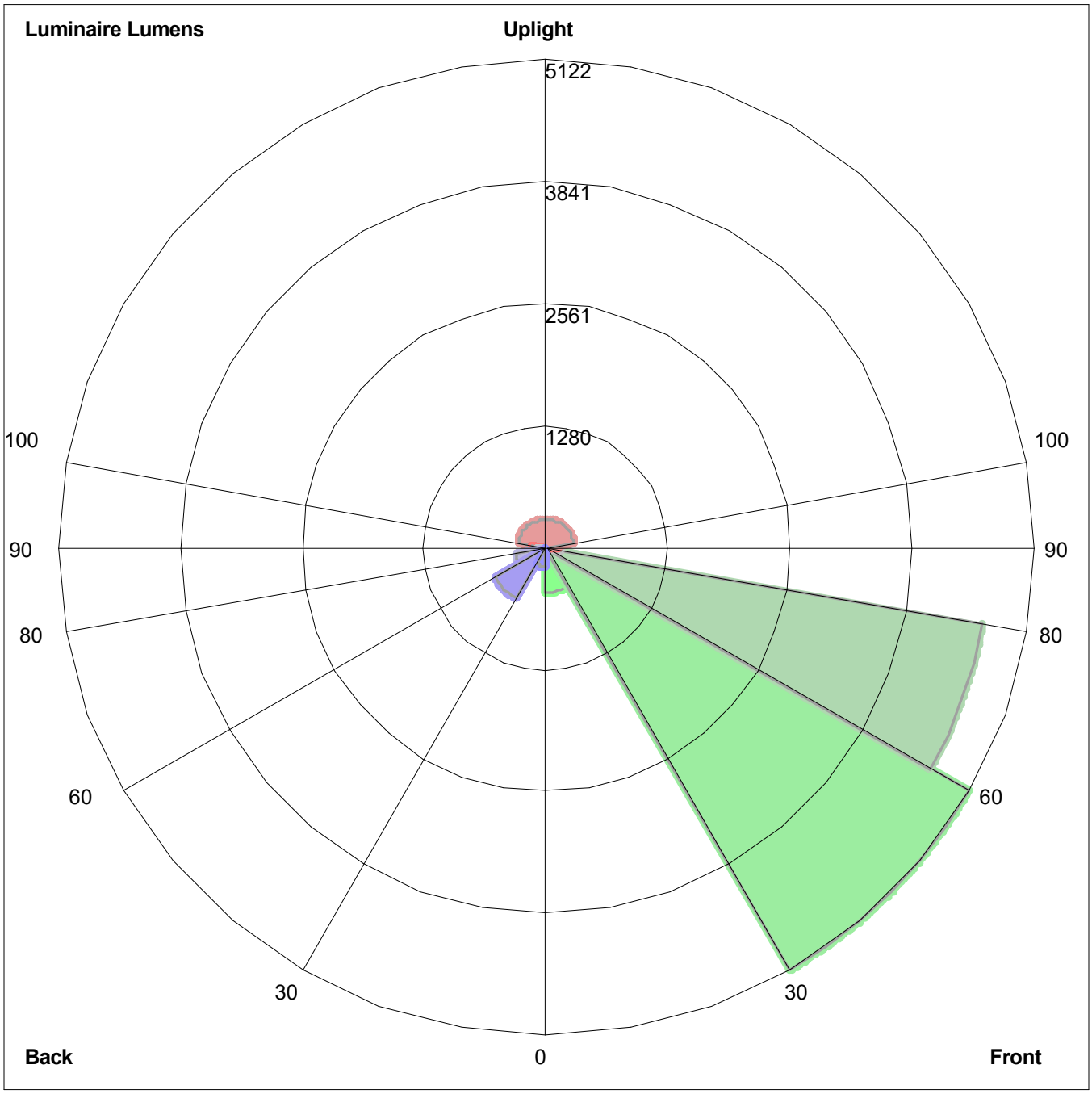
LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=468.4, Medium=5121.7, High=4652.1, Very High=154.8
Back: Low=196.5, Medium=620.9, High=325.6, Very High=86.5
Uplight: Low=136.9, High=294.9

BUG Rating : B1-U3-G2

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