IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-20L-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-20L-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	8057
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	54
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.06
Maximum Candela	9719
Maximum Candela Angle	80H 60V
Maximum Candela (<90 Degrees Vertical)	9719
Maximum Candela Angle (<90 Degrees Vertical)	80H 60V
Maximum Candela At 90 Degrees Vertical	177 (2.2% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	611 (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)	945.8	N.A.	11.7
FM - Front-Medium (30-60)	3843.3	N.A.	47.7
FH - Front-High (60-80)	1606.5	N.A.	19.9
FVH - Front-Very High (80-90)	175.3	N.A.	2.2
BL - Back-Low (0-30)	232.3	N.A.	2.9
BM - Back-Medium (30-60)	500.0	N.A.	6.2
BH - Back-High (60-80)	211.3	N.A.	2.6
BVH - Back-Very High (80-90)	71.9	N.A.	0.9
UL - Uplight-Low (90-100)	131.6	N.A.	1.6
UH - Uplight-High (100-180)	338.8	N.A.	4.2
Total	8056.8	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	1265	1265	1265	1265	1265	1265	1265	1265	1265	1265
2.5	1309	1307	1321	1328	1312	1301	1280	1265	1260	1255
5.0	1486	1474	1499	1472	1472	1463	1461	1414	1300	1267
7.5	1351	1370	1374	1415	1456	1519	1519	1488	1427	1351
10.0	1525	1526	1474	1556	1527	1491	1524	1525	1537	1472
12.5	1632	1628	1565	1570	1630	1596	1523	1633	1705	1661
15.0	1721	1812	1776	1783	1739	1666	1772	1719	1827	1824
17.5	2025	1930	1969	1910	1959	1959	1895	1928	2022	2002
20.0	2142	2163	2213	2167	2130	2141	2204	2188	2193	2207
22.5	2386	2428	2409	2347	2487	2398	2477	2476	2431	2572
25.0	2424	2421	2490	2585	2616	2778	2806	2801	2787	2847
27.5	2467	2450	2506	2542	2830	2993	3215	3258	3164	3329
30.0	2278	2315	2374	2551	2807	3284	3615	3711	3677	3686
32.5	2064	2074	2226	2409	2830	3303	3980	4326	4328	4259
35.0	1779	1785	1928	2256	2733	3376	4224	4896	4814	4662
37.5	1495	1493	1631	1970	2592	3414	4321	5314	5365	5111
40.0	1213	1200	1332	1659	2292	3315	4376	5714	5940	5599
42.5	949	960	1068	1354	1957	3062	4353	6005	6455	6340
45.0	757	765	858	1103	1628	2698	4280	6274	7147	6940
47.5	640	643	709	919	1320	2307	4092	6229	7816	7771
50.0	600	598	637	805	1088	1915	3717	6197	8365	8452
52.5	629	618	615	748	938	1522	3276	6025	8695	8510
55.0	900	866	734	735	856	1168	2811	5593	8835	8862
57.5	1601	1533	1247	898	804	936	2171	4961	8819	9202
60.0	1918	1851	1651	1364	905	810	1463	4024	8772	9719
62.5	1375	1336	1303	1353	1201	681	929	2990	8490	9652
65.0	1031	1035	1003	1004	1039	810	632	1963	7559	8517
67.5	950	952	913	883	819	798	559	1132	5408	6708
70.0	886	889	838	806	744	676	659	664	3275	4510
72.5	692	698	683	705	692	626	663	508	1470	2248
75.0	588	588	560	565	622	595	581	608	578	970
77.5	517	521	514	518	568	594	519	706	322	392
80.0	473	481	475	475	525	611	511	543	337	285
82.5	403	408	422	442	496	573	552	429	351	235
85.0	247	264	282	301	361	473	531	386	313	236
87.5	132	143	168	180	200	247	311	320	222	192
90.0	72	82	108	121	135	150	170	177	162	156
92.5	57	64	89	99	109	119	123	133	144	145
95.0	65	65	90	101	112	122	122	135	144	124
97.5	74	69	92	105	113	123	121	134	133	100
100.0	80	73	93	105	114	122	118	127	105	87
102.5	84	76	93	107	114	121	114	113	88	85
105.0	87	79	92	107	113	117	107	98	77	82
107.5	89	83	92	108	113	113	97	86	71	77
110.0	90	86	90	108	112	106	88	75	67	72
112.5	90	88	90	107	109	97	80	66	63	69
115.0	91	90	90	104	103	90	74	61	61	65
117.5	92	91	89	100	97	84	69	57	59	61
120.0	92	91	87	94	91	79	66	54	57	59
122.5	92	91	85	89	86	76	64	53	55	56
125.0	90	90	82	84	82	73	62	54	53	53
127.5	87	86	81	80	79	71	62	55	53	53
130.0	85	84	79	77	77	70	64	56	54	55

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CANDELA TABULATION - (Cont.)

132.5	82	82	78	75	75	71	64	57	56	57
135.0	82	81	77	75	74	68	58	56	57	57
137.5	82	81	78	73	68	59	52	52	56	58
140.0	77	77	73	65	55	46	43	44	48	51
142.5	67	66	61	53	41	34	32	33	38	41
145.0	53	53	48	39	30	26	23	24	29	30
147.5	39	38	33	27	20	14	14	16	18	19
150.0	27	26	24	18	10	2	3	7	10	10
152.5	19	19	14	7	2	0	0	1	2	2
155.0	6	6	3	2	0	0	0	0	0	0
157.5	2	2	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	2	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	1265	1265	1265	1265	1265	1265	1265	1265	1265	1265
2.5	1264	1262	1270	1289	1291	1280	1263	1231	1216	1218
5.0	1255	1276	1317	1294	1206	1127	1048	960	889	818
7.5	1314	1314	1345	1229	1063	868	707	604	545	492
10.0	1390	1376	1361	1134	906	664	499	381	319	285
12.5	1516	1496	1488	1151	726	487	328	260	236	231
15.0	1644	1623	1527	1083	625	358	248	233	225	218
17.5	1868	1778	1671	1023	503	274	237	219	212	208
20.0	2087	1925	1737	956	405	250	225	212	206	193
22.5	2403	2188	1957	912	327	247	219	203	186	180
25.0	2699	2419	2032	810	291	243	215	186	169	156
27.5	3141	2706	2239	709	285	240	201	169	145	140
30.0	3581	3057	2367	592	283	232	186	149	130	125
32.5	3942	3273	2415	488	274	219	163	133	123	124
35.0	4348	3484	2443	400	263	202	145	127	122	121
37.5	4869	3778	2438	345	245	179	132	128	122	116
40.0	5356	4137	2367	320	225	156	132	131	116	94
42.5	5852	4376	2281	301	202	140	141	129	96	77
45.0	6526	4650	2180	287	184	146	147	110	86	73
47.5	6932	4866	2000	300	183	154	139	97	86	74
50.0	7299	5203	1775	352	219	180	124	97	90	100
52.5	7777	5399	1577	303	231	234	135	103	126	146
55.0	8302	5698	1349	238	180	214	176	146	170	176
57.5	8599	5596	1078	196	153	150	183	192	171	130
60.0	8948	5428	791	176	152	130	171	195	126	106
62.5	8789	5110	603	160	147	135	178	145	109	96
65.0	7789	4237	446	150	138	153	160	119	107	93
67.5	6265	3217	350	149	135	168	131	120	106	94
70.0	4567	2240	293	150	141	153	125	117	109	97
72.5	2677	1410	232	146	149	137	125	117	109	101
75.0	1458	909	190	143	149	133	127	120	113	103
77.5	504	377	158	147	143	133	129	123	117	105

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CANDELA TABULATION - (Cont.)

80.0	320	268	141	157	145	135	133	125	119	109
82.5	227	207	124	164	150	138	139	129	123	118
85.0	181	133	129	169	156	141	148	134	126	127
87.5	157	58	146	165	153	141	145	144	132	117
90.0	128	41	137	156	149	138	145	137	129	118
92.5	90	90	120	158	153	140	147	141	133	123
95.0	81	127	112	154	149	132	143	139	134	124
97.5	97	130	110	141	142	125	138	135	131	121
100.0	104	124	111	121	136	121	133	133	130	118
102.5	101	113	106	103	125	119	130	131	129	114
105.0	94	104	99	92	113	115	127	129	128	110
107.5	89	94	92	84	100	109	124	128	125	105
110.0	82	86	85	78	90	101	118	125	124	100
112.5	75	78	77	73	81	94	112	122	120	96
115.0	69	73	72	70	74	89	105	117	115	93
117.5	65	67	66	67	69	85	99	110	109	92
120.0	61	63	62	64	66	81	94	104	101	90
122.5	57	59	59	61	65	77	90	98	94	88
125.0	55	56	56	59	64	75	86	92	88	86
127.5	54	54	55	58	64	75	83	88	82	83
130.0	55	55	56	59	64	74	82	82	77	81
132.5	56	56	57	61	63	69	77	80	74	79
135.0	58	58	60	62	63	62	68	73	74	79
137.5	59	61	61	61	57	53	53	59	65	75
140.0	53	54	54	51	47	42	39	44	53	61
142.5	43	44	44	40	34	31	29	30	39	47
145.0	32	32	32	29	25	22	19	21	27	33
147.5	20	20	19	17	15	11	10	14	18	22
150.0	10	10	9	9	7	3	2	5	11	14
152.5	2	2	2	2	2	2	1	2	4	7
155.0	0	0	0	0	1	0	1	1	2	2
157.5	0	0	0	0	0	0	1	1	2	2
160.0	0	0	0	0	0	0	0	1	2	2
162.5	0	0	0	0	0	0	0	1	2	2
165.0	0	0	0	0	0	0	0	1	2	2
167.5	0	0	0	0	0	0	0	1	2	2
170.0	0	0	0	0	0	0	0	1	1	2
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	1265	1265
2.5	1220	1228
5.0	806	795
7.5	482	482
10.0	270	272
12.5	228	228
15.0	214	212
17.5	207	207
20.0	188	188
22.5	173	172
25.0	151	152

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CANDELA TABULATION - (Cont.)

27.5	136	135
30.0	126	125
32.5	125	125
35.0	124	123
37.5	115	113
40.0	92	90
42.5	78	77
45.0	75	75
47.5	77	77
50.0	117	124
52.5	151	156
55.0	155	156
57.5	97	100
60.0	83	84
62.5	75	76
65.0	69	68
67.5	66	62
70.0	65	57
72.5	65	53
75.0	67	50
77.5	69	47
80.0	71	45
82.5	78	49
85.0	87	57
87.5	78	56
90.0	81	65
92.5	85	79
95.0	86	90
97.5	87	96
100.0	89	101
102.5	91	104
105.0	93	105
107.5	97	105
110.0	100	105
112.5	101	103
115.0	100	101
117.5	99	100
120.0	97	99
122.5	96	97
125.0	93	94
127.5	90	91
130.0	86	87
132.5	83	84
135.0	82	82
137.5	81	81
140.0	67	68
142.5	52	52
145.0	37	37
147.5	24	24
150.0	16	16
152.5	9	9
155.0	3	3
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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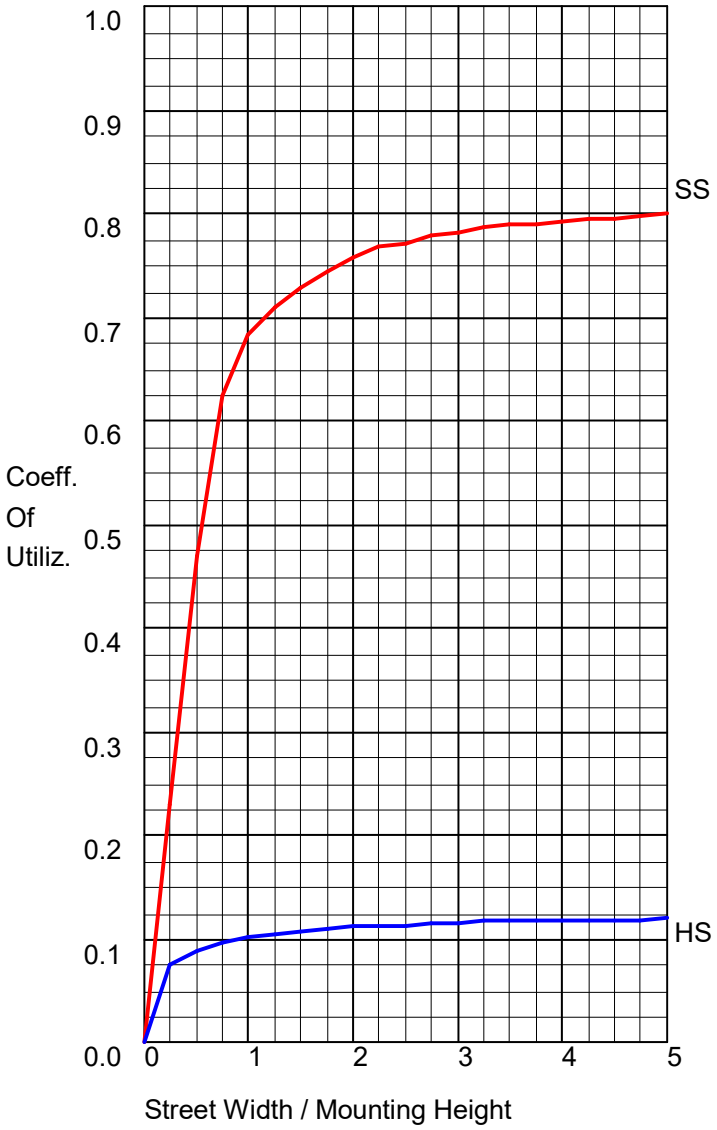
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	6570.9	81.6
Downward House Side	1015.5	12.6
Downward Total	7586.4	94.2
Upward Street Side	223.8	2.8
Upward House Side	246.6	3.1
Upward Total	470.4	5.8
Total Flux	8056.8	100.0

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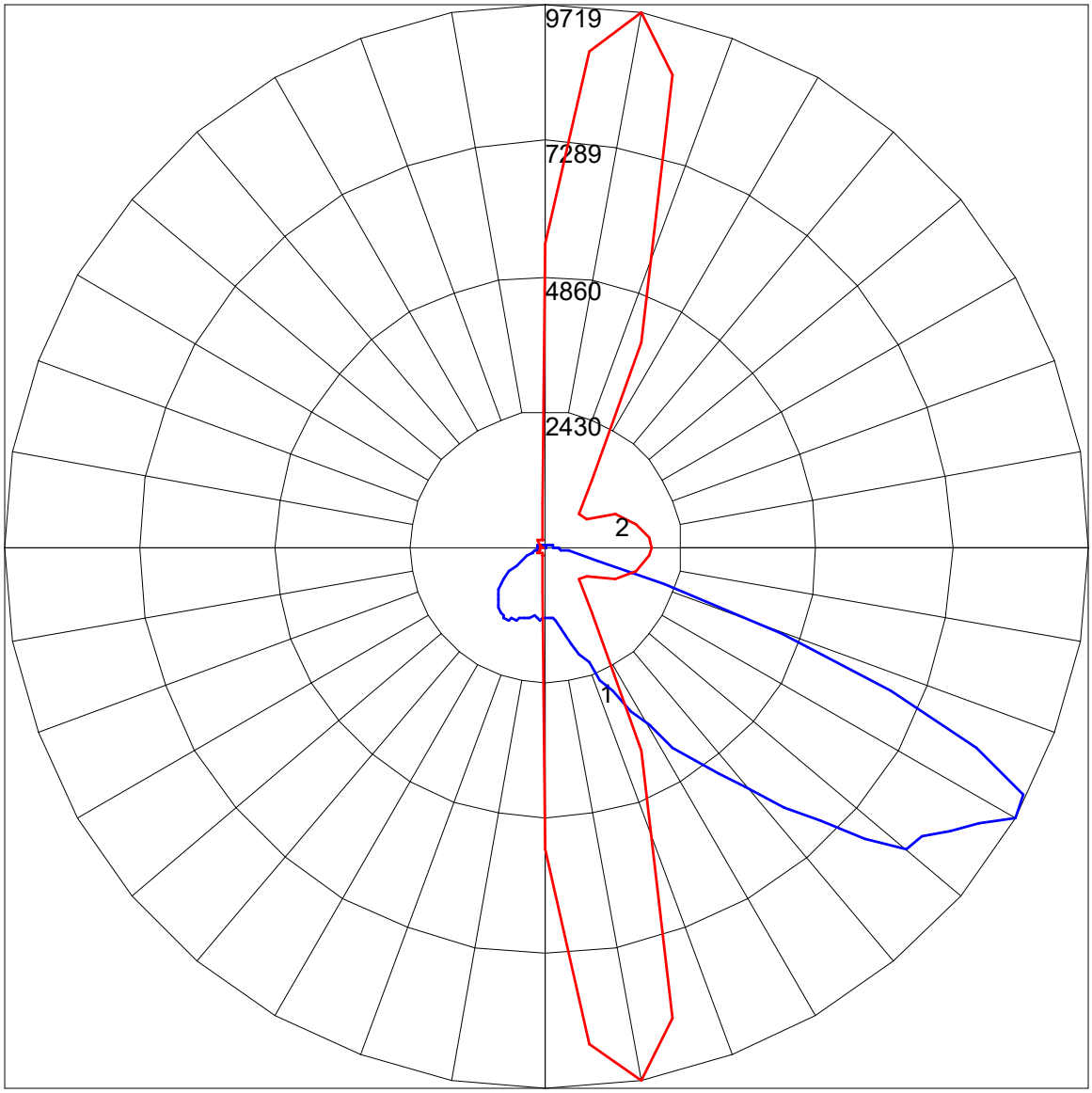
POLAR GRAPH



Maximum Candela = 9719 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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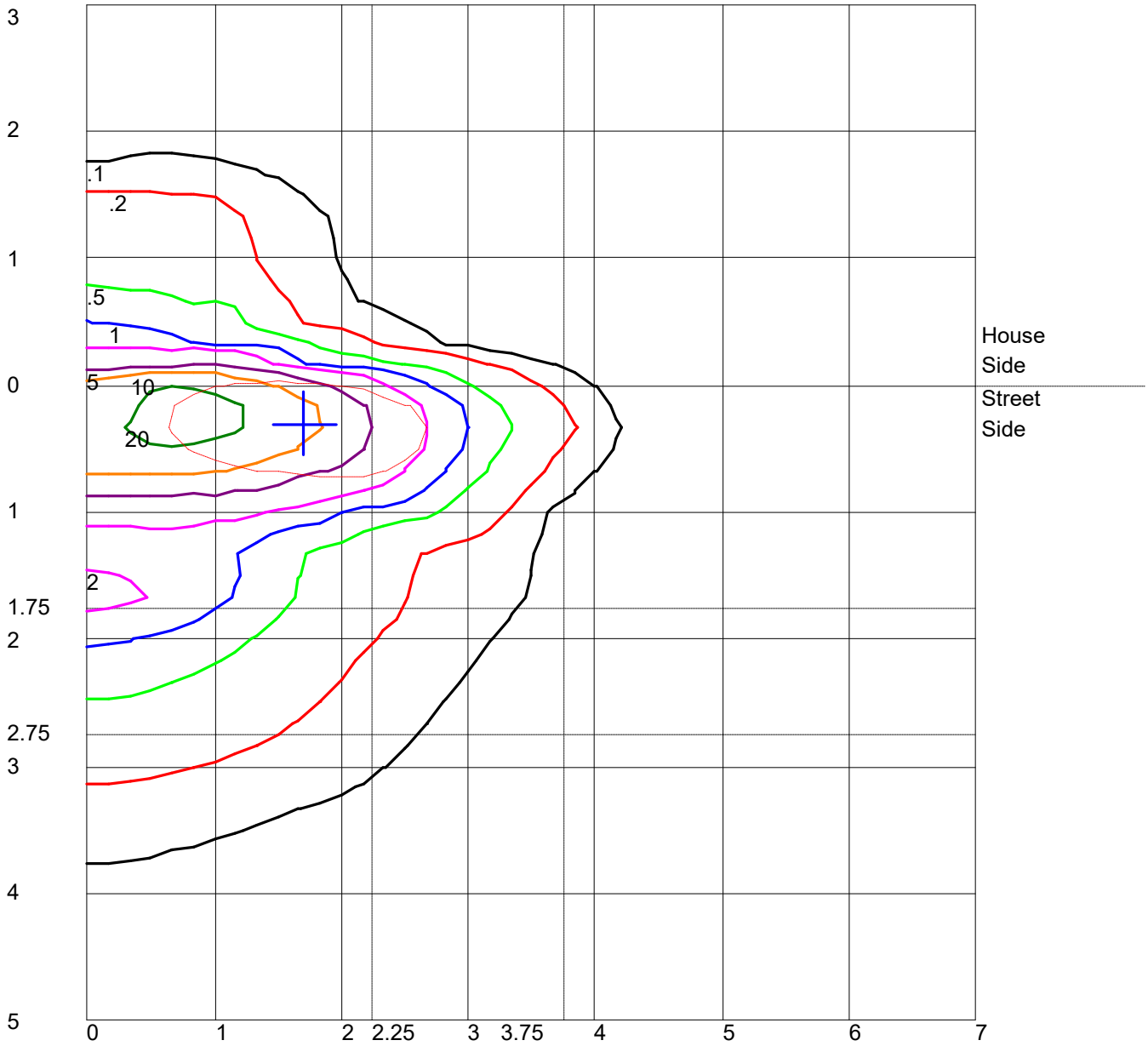
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



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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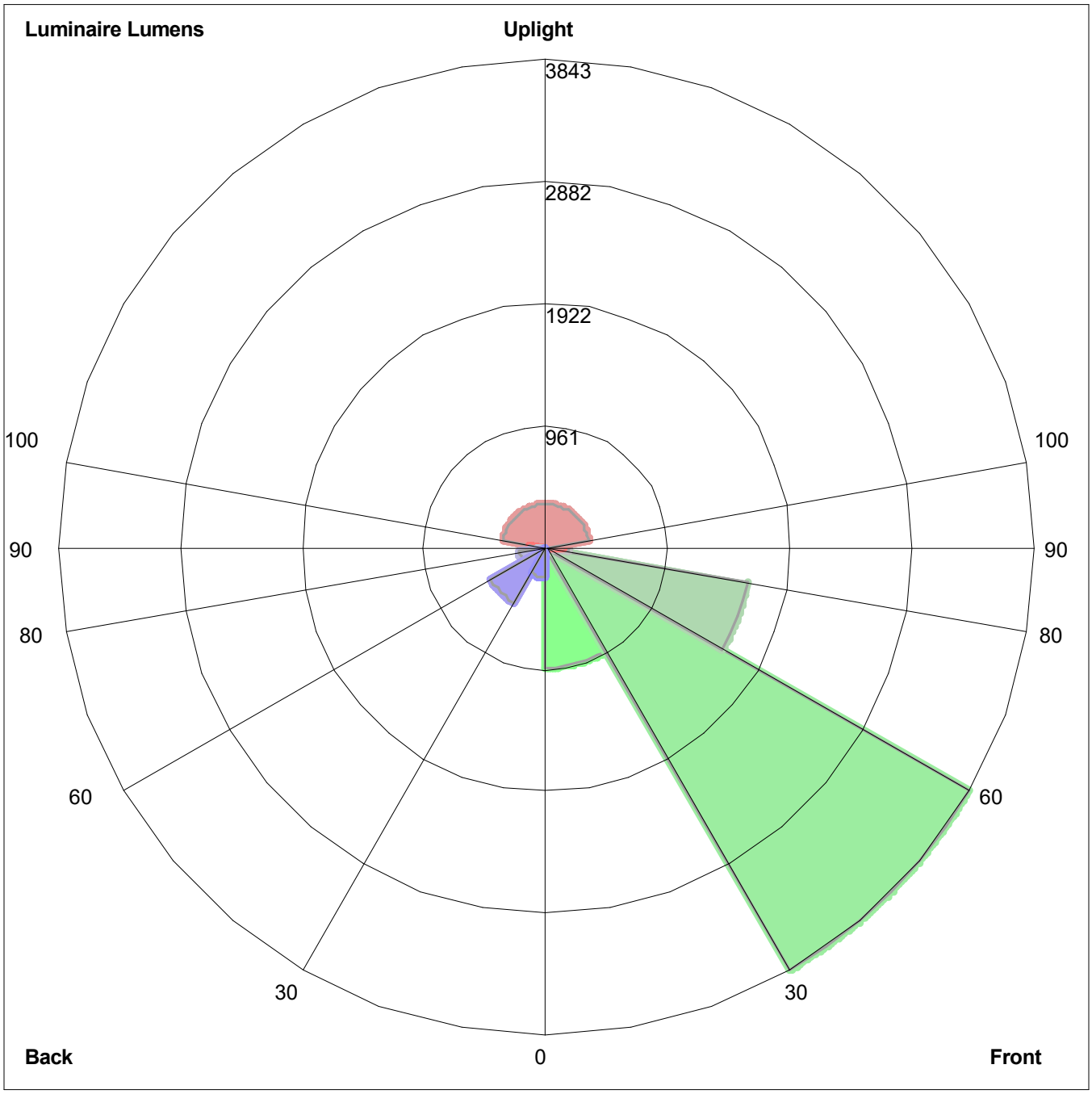
LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=945.8, Medium=3843.3, High=1606.5, Very High=175.3
Back: Low=232.3, Medium=500.0, High=211.3, Very High=71.9
Uplight: Low=131.6, High=338.8

BUG Rating : B1-U3-G2

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