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

CHARACTERISTICS

IES Classification	Type IV
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7417
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	73
Total Luminaire Watts	102
Ballast Factor	1.00
Upward Waste Light Ratio	0.04
Maximum Candela	5926
Maximum Candela Angle	30H 67.5V
Maximum Candela (<90 Degrees Vertical)	5926
Maximum Candela Angle (<90 Degrees Vertical)	30H 67.5V
Maximum Candela At 90 Degrees Vertical	105 (1.4% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1034 (13.9% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	603.2	N.A.	8.1
FM - Front-Medium (30-60)	2978.5	N.A.	40.2
FH - Front-High (60-80)	2786.4	N.A.	37.6
FVH - Front-Very High (80-90)	119.0	N.A.	1.6
BL - Back-Low (0-30)	127.3	N.A.	1.7
BM - Back-Medium (30-60)	277.3	N.A.	3.7
BH - Back-High (60-80)	153.8	N.A.	2.1
BVH - Back-Very High (80-90)	50.0	N.A.	0.7
UL - Uplight-Low (90-100)	87.5	N.A.	1.2
UH - Uplight-High (100-180)	233.6	N.A.	3.1
Total	7416.6	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	566	566	566	566	566	566	566	566	566	566
2.5	664	662	642	639	639	640	632	616	601	586
5.0	732	729	708	732	728	741	756	728	689	645
7.5	1005	979	969	957	936	906	842	772	748	701
10.0	1073	1060	1057	1083	1067	1074	1028	956	819	783
12.5	1188	1146	1187	1200	1184	1166	1126	1091	986	845
15.0	1211	1195	1194	1211	1228	1261	1280	1211	1184	965
17.5	1356	1317	1355	1364	1362	1334	1355	1382	1329	1151
20.0	1520	1513	1520	1484	1495	1514	1464	1502	1481	1289
22.5	1645	1645	1685	1700	1669	1628	1661	1606	1617	1467
25.0	1807	1823	1863	1799	1818	1861	1776	1728	1749	1584
27.5	1889	1894	1900	1972	1997	1963	1986	1884	1815	1735
30.0	1881	1913	1976	2020	2031	2120	2112	2033	1883	1885
32.5	1800	1808	1899	2077	2157	2209	2294	2172	2013	1971
35.0	1737	1732	1810	2002	2110	2269	2451	2298	2112	2002
37.5	1677	1680	1752	1932	2049	2222	2602	2500	2262	2015
40.0	1676	1677	1748	1920	2032	2191	2635	2671	2438	2062
42.5	1789	1774	1841	1982	2068	2213	2655	2918	2535	2190
45.0	2010	2004	2051	2153	2190	2307	2685	3064	2679	2314
47.5	2349	2344	2395	2458	2435	2504	2769	3178	2935	2492
50.0	2745	2723	2791	2891	2815	2806	2907	3270	3174	2769
52.5	2934	2940	3073	3287	3232	3180	3061	3363	3319	2859
55.0	3019	3022	3179	3507	3541	3502	3236	3336	3249	2972
57.5	3493	3473	3463	3625	3664	3668	3425	3149	3151	3099
60.0	4417	4456	4316	4108	3944	3736	3353	2859	2945	3287
62.5	5014	5080	5131	5150	4852	4288	3021	2579	2618	3349
65.0	5123	5212	5373	5746	5699	5360	3139	2259	2154	3107
67.5	4849	4912	5180	5787	5926	5870	4476	1860	1639	2483
70.0	3732	3764	4353	5116	5428	5666	5091	2201	1166	1726
72.5	1458	1633	2401	3660	4517	5218	4702	3037	757	920
75.0	519	566	965	1573	2116	3133	4466	2687	525	437
77.5	382	395	514	844	1023	1409	2234	1680	494	232
80.0	268	275	323	465	548	716	997	1034	526	179
82.5	148	156	174	214	251	320	492	516	351	214
85.0	80	87	100	122	147	188	278	351	247	179
87.5	44	49	63	84	98	105	143	172	145	118
90.0	31	34	47	57	63	67	85	100	95	97
92.5	35	35	47	57	61	66	75	78	84	93
95.0	39	36	49	59	63	68	77	80	86	88
97.5	42	38	50	59	63	68	77	80	84	74
100.0	44	40	51	60	64	68	77	77	77	61
102.5	46	42	51	61	64	68	76	73	67	51
105.0	47	44	52	62	65	69	73	66	56	48
107.5	49	47	52	63	66	68	68	57	49	46
110.0	50	49	52	63	66	67	62	50	44	44
112.5	50	50	53	63	64	64	56	46	42	44
115.0	52	52	53	61	61	59	50	44	40	43
117.5	53	53	53	58	57	54	48	43	39	43
120.0	53	53	52	54	53	51	46	42	39	42
122.5	53	53	50	50	50	49	46	42	39	42
125.0	52	51	48	49	49	48	45	42	39	41
127.5	50	50	47	47	48	47	45	43	40	42
130.0	49	49	47	46	47	47	46	43	42	43

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CANDELA TABULATION - (Cont.)

132.5	49	49	47	46	47	47	45	42	42	44
135.0	49	49	48	46	46	45	42	40	42	45
137.5	49	48	46	42	40	39	35	35	39	44
140.0	43	43	40	36	33	31	28	29	33	39
142.5	36	35	32	28	25	22	21	23	27	33
145.0	28	26	23	19	17	15	15	16	20	25
147.5	18	18	16	13	12	10	7	10	14	18
150.0	13	13	11	8	5	4	4	5	8	11
152.5	5	5	4	2	2	2	2	3	5	6
155.0	1	1	1	1	1	1	2	2	3	4
157.5	0	1	1	1	1	1	2	2	2	3
160.0	0	1	1	1	1	1	2	2	2	2
162.5	0	1	1	1	1	1	2	2	2	2
165.0	0	1	1	1	1	1	2	2	2	2
167.5	0	1	1	1	2	2	2	2	2	2
170.0	0	1	1	2	2	2	2	2	2	2
172.5	0	1	1	2	2	2	2	2	2	2
175.0	1	1	1	2	2	2	2	2	2	2
177.5	1	1	1	2	2	2	2	2	2	2
180.0	1	1	1	1	1	1	1	1	1	1

Vert. Angles	**Horizontal Angles**									
	85	**90**	**95**	**105**	**115**	**125**	**135**	**145**	**155**	**165**
0.0	566	566	566	566	566	566	566	566	566	566
2.5	575	575	569	559	542	521	505	501	496	491
5.0	602	587	570	526	494	501	495	475	463	450
7.5	633	605	579	513	503	471	437	400	361	319
10.0	683	641	589	540	484	428	333	253	220	188
12.5	781	717	629	580	481	331	238	177	150	143
15.0	858	777	690	609	436	265	167	140	134	131
17.5	964	861	755	623	378	197	137	129	127	124
20.0	1071	931	831	623	314	149	131	122	120	121
22.5	1161	1063	900	618	236	136	125	116	115	112
25.0	1285	1109	954	589	171	132	121	111	107	108
27.5	1400	1188	1032	542	146	128	117	105	101	99
30.0	1437	1259	1055	453	142	123	111	100	93	94
32.5	1546	1297	1087	382	139	119	106	93	94	98
35.0	1600	1351	1109	321	136	115	99	93	101	110
37.5	1653	1441	1114	248	132	111	94	100	111	113
40.0	1718	1486	1120	194	127	105	95	111	114	98
42.5	1854	1512	1139	165	122	100	106	117	94	71
45.0	1914	1603	1132	155	117	104	120	104	75	59
47.5	1989	1623	1139	155	114	114	122	85	68	56
50.0	2127	1648	1091	171	139	124	107	77	67	57
52.5	2160	1724	1066	146	146	160	96	76	76	101
55.0	2284	1803	1003	130	110	158	112	90	139	173
57.5	2465	1883	1005	122	105	105	140	149	186	160
60.0	2688	2099	1035	116	104	93	137	184	136	67
62.5	2827	2152	1001	109	101	90	142	142	83	67
65.0	2862	2081	861	106	97	111	124	91	87	71
67.5	2568	1755	653	104	90	112	88	91	87	73
70.0	1926	1143	358	99	94	100	92	97	83	73
72.5	969	528	174	96	93	98	93	87	84	76
75.0	424	276	129	95	100	97	91	88	85	80
77.5	282	194	112	94	99	90	94	90	87	83

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CANDELA TABULATION - (Cont.)

80.0	206	160	101	100	95	91	96	91	87	84
82.5	156	126	91	107	100	93	100	94	90	86
85.0	125	89	89	112	103	97	103	97	92	88
87.5	97	64	86	110	104	98	107	101	94	89
90.0	74	52	90	105	102	94	105	102	98	91
92.5	63	63	89	106	105	95	107	105	102	95
95.0	64	81	84	105	104	92	105	107	105	99
97.5	67	85	81	97	97	86	100	101	102	98
100.0	70	81	78	85	90	81	94	96	98	93
102.5	68	76	73	75	84	79	89	92	94	87
105.0	63	70	69	68	78	78	86	89	91	81
107.5	59	65	66	64	73	77	85	88	89	75
110.0	56	61	62	61	68	75	83	87	87	69
112.5	53	57	59	60	64	73	82	86	84	64
115.0	51	54	56	59	62	71	80	85	81	60
117.5	49	52	54	57	60	69	77	83	77	57
120.0	47	50	52	56	59	68	76	80	71	55
122.5	46	48	50	55	59	66	73	75	66	54
125.0	44	47	49	54	58	65	71	70	60	53
127.5	44	46	49	54	58	64	68	66	55	52
130.0	45	47	49	54	57	63	64	60	52	51
132.5	46	47	50	54	56	61	61	56	49	50
135.0	47	49	51	54	54	54	56	53	48	49
137.5	48	50	51	52	50	46	46	45	47	49
140.0	44	46	47	46	43	38	35	36	40	46
142.5	37	39	39	38	34	29	25	27	32	37
145.0	29	30	30	29	25	21	18	19	23	28
147.5	20	20	20	20	17	13	12	13	16	20
150.0	12	13	13	12	10	6	6	8	11	13
152.5	7	7	7	7	6	4	3	4	6	9
155.0	5	5	5	4	4	3	2	2	2	4
157.5	3	3	3	3	3	2	2	2	2	2
160.0	2	2	2	3	2	2	2	1	1	1
162.5	2	2	2	2	2	2	2	1	1	1
165.0	2	2	2	2	2	2	2	1	1	1
167.5	2	2	2	2	2	2	2	1	1	1
170.0	2	2	2	2	2	2	2	1	1	1
172.5	2	2	2	2	2	2	1	1	1	1
175.0	2	2	2	2	2	2	1	1	1	0
177.5	2	2	2	2	2	2	1	1	1	0
180.0	1	1	1	1	1	1	1	1	1	1

Vert. Angles	**Horizontal Angles**	
	175	**180**
0.0	566	566
2.5	491	491
5.0	444	449
7.5	303	306
10.0	174	177
12.5	137	135
15.0	130	130
17.5	122	121
20.0	119	119
22.5	111	111
25.0	105	105

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CANDELA TABULATION - (Cont.)

27.5	96	97
30.0	94	94
32.5	102	102
35.0	113	113
37.5	113	112
40.0	89	86
42.5	67	64
45.0	58	57
47.5	55	54
50.0	60	60
52.5	124	134
55.0	180	185
57.5	110	109
60.0	53	57
62.5	52	55
65.0	53	54
67.5	50	50
70.0	50	46
72.5	50	42
75.0	50	38
77.5	52	35
80.0	54	32
82.5	56	30
85.0	55	30
87.5	56	32
90.0	58	35
92.5	60	42
95.0	64	52
97.5	64	59
100.0	63	64
102.5	60	66
105.0	59	65
107.5	58	64
110.0	57	63
112.5	58	61
115.0	59	60
117.5	58	59
120.0	58	59
122.5	57	58
125.0	57	57
127.5	56	56
130.0	54	54
132.5	52	52
135.0	50	51
137.5	50	50
140.0	48	49
142.5	40	40
145.0	30	31
147.5	22	22
150.0	14	15
152.5	9	9
155.0	5	5
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	1	1

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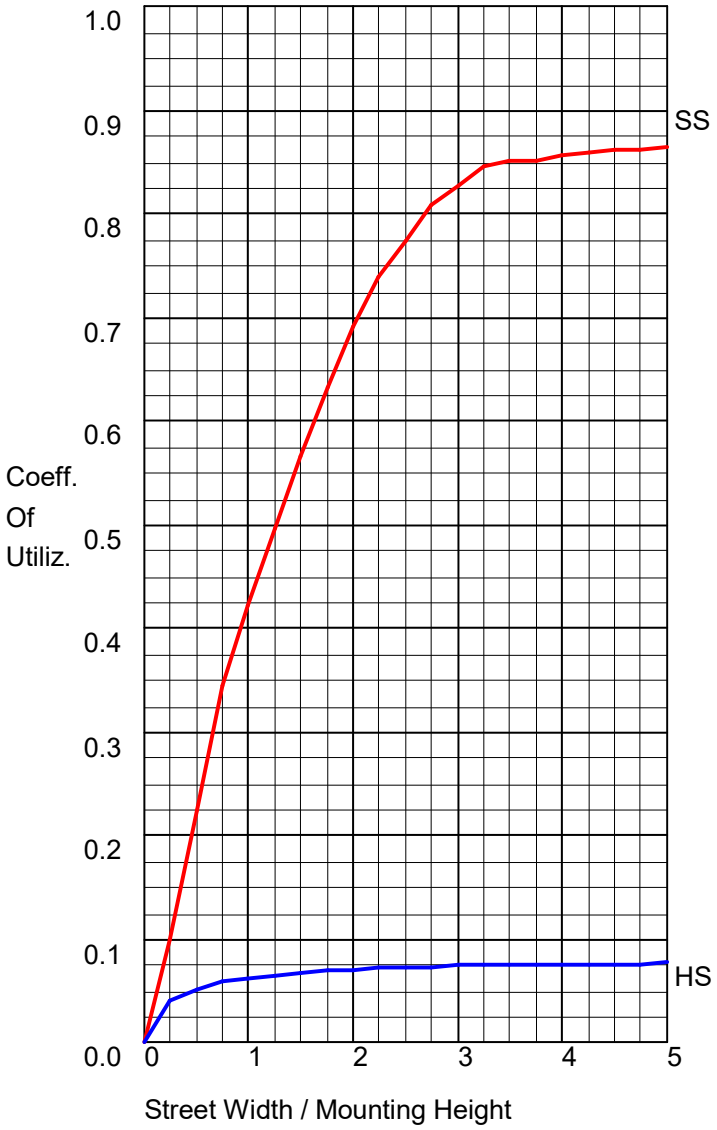
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	6487.1	87.5
Downward House Side	608.5	8.2
Downward Total	7095.6	95.7
Upward Street Side	138.9	1.9
Upward House Side	182.2	2.5
Upward Total	321.1	4.3
Total Flux	7416.7	100.0

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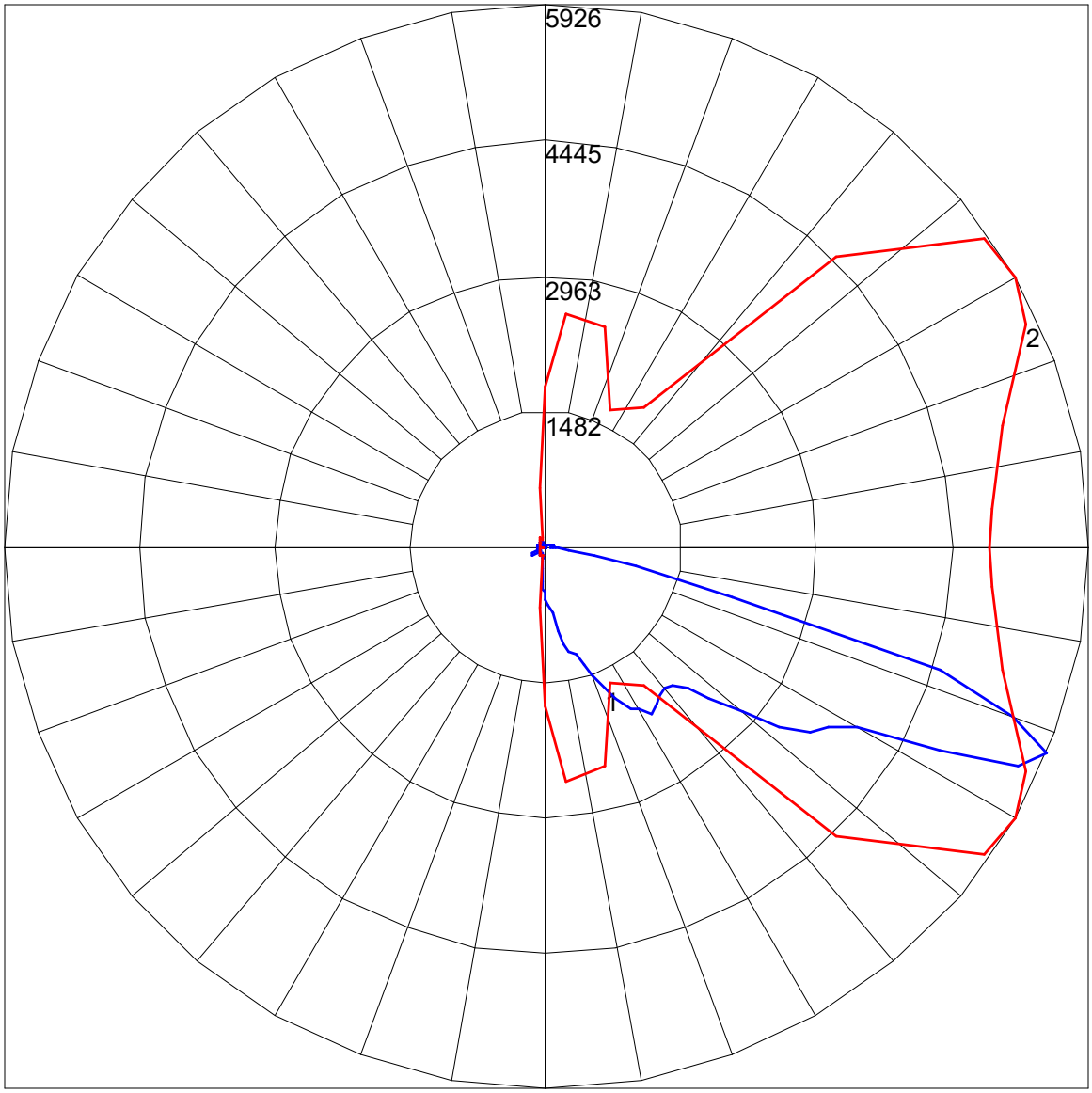
POLAR GRAPH



Maximum Candela = 5926 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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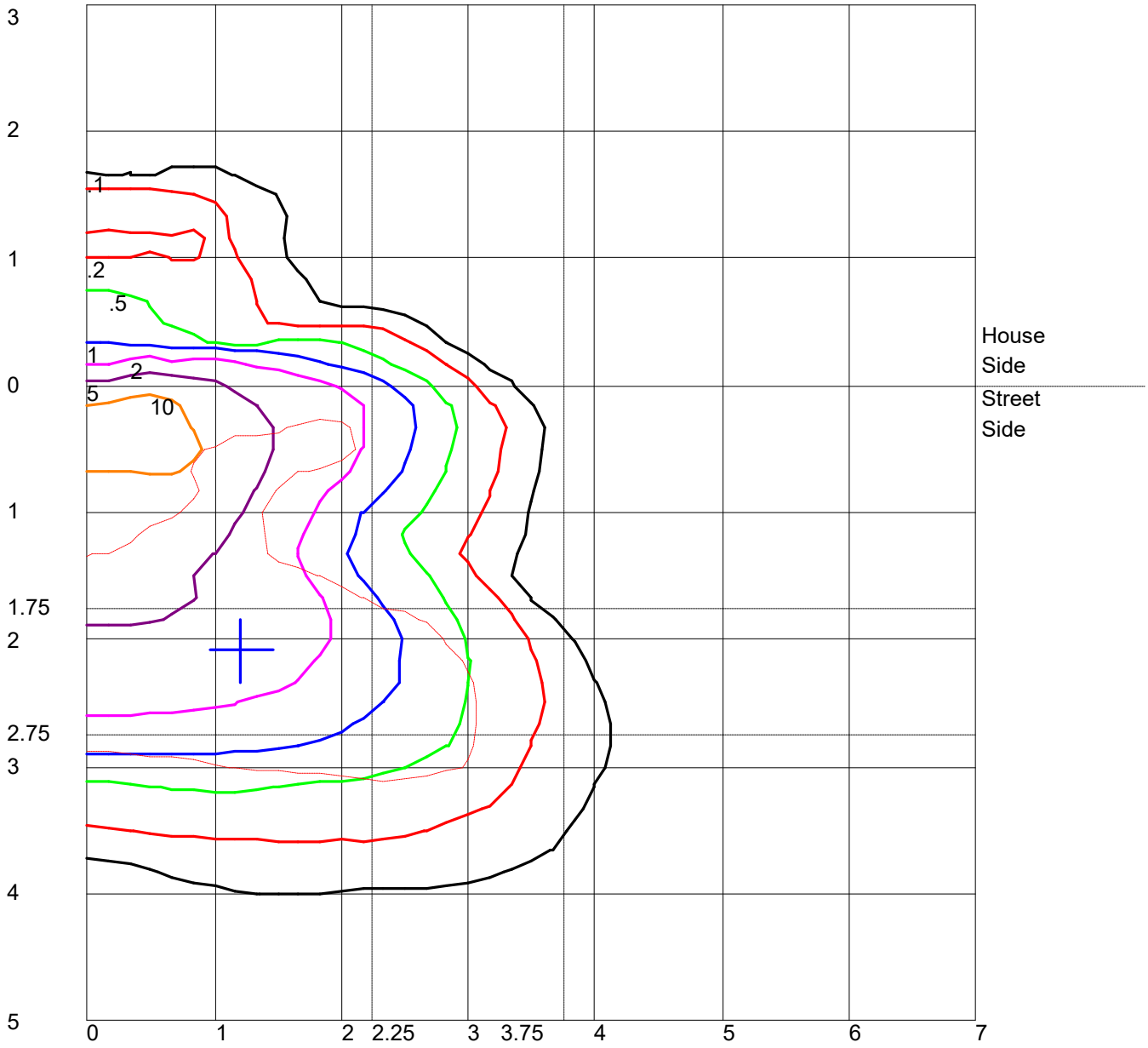
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



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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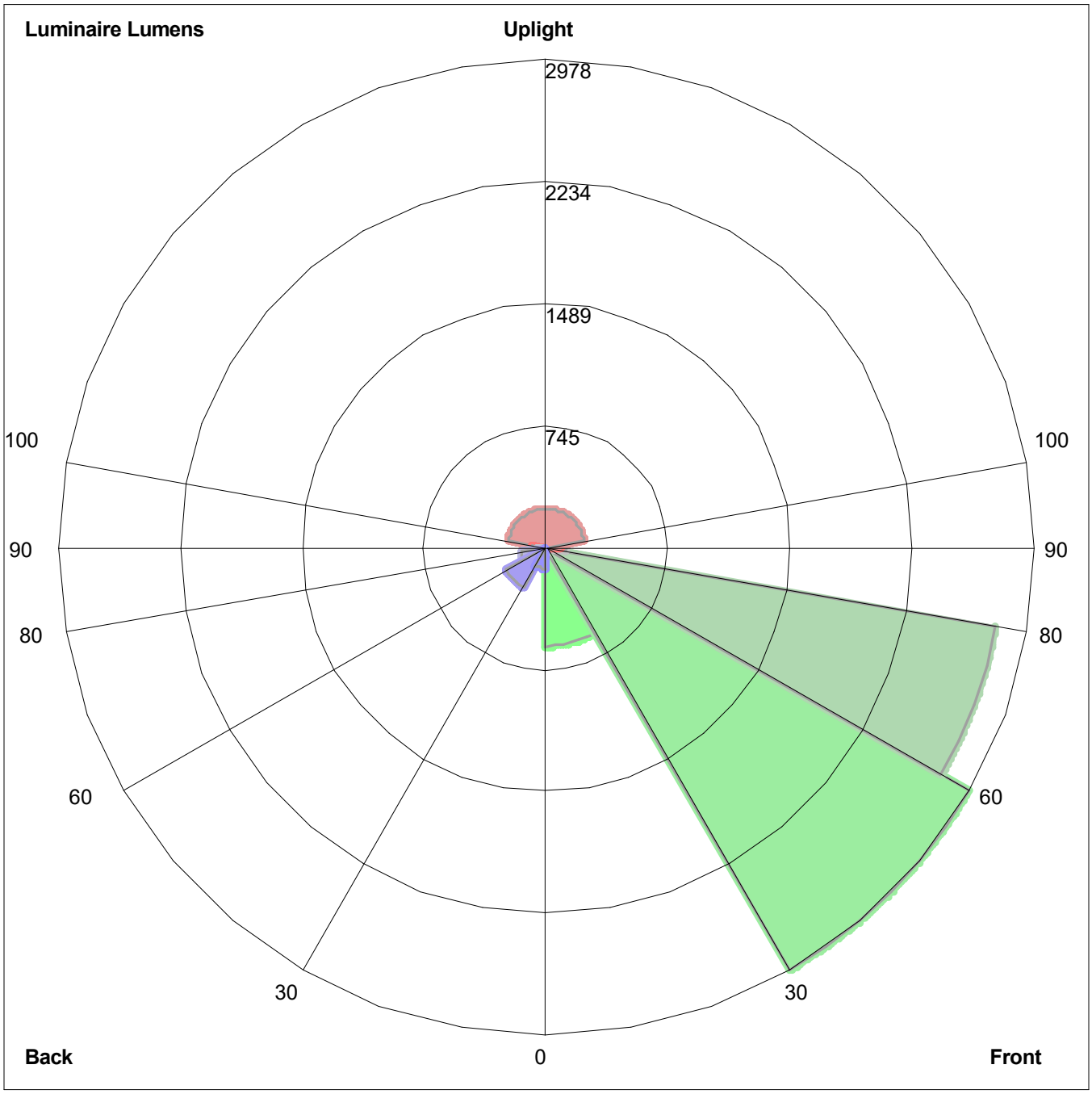
LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=603.2, Medium=2978.5, High=2786.4, Very High=119.0
Back: Low=127.3, Medium=277.3, High=153.8, Very High=50.0
Uplight: Low=87.5, High=233.6

BUG Rating : B1-U3-G2

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