IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-20L-SIL-FT-40-70CRI-IH.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] LED-12642
[TESTLAB] LSI INDUSTRIES, INC.
[ISSUEDATE] 03/30/21
[TESTDATE] 03/29/21
[MANUFAC] LSI INDUSTRIES, INC.
[LUMCAT] MPP-LED-20L-SIL-FT-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	15412
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.05
Maximum Candela	10220
Maximum Candela Angle	45H 67.5V
Maximum Candela (<90 Degrees Vertical)	10220
Maximum Candela Angle (<90 Degrees Vertical)	45H 67.5V
Maximum Candela At 90 Degrees Vertical	222 (1.4% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1187 (7.7% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	978.8	N.A.	6.4
FM - Front-Medium (30-60)	6086.4	N.A.	39.5
FH - Front-High (60-80)	4971.6	N.A.	32.3
FVH - Front-Very High (80-90)	192.6	N.A.	1.2
BL - Back-Low (0-30)	634.6	N.A.	4.1
BM - Back-Medium (30-60)	1234.5	N.A.	8.0
BH - Back-High (60-80)	503.1	N.A.	3.3
BVH - Back-Very High (80-90)	110.8	N.A.	0.7
UL - Uplight-Low (90-100)	185.4	N.A.	1.2
UH - Uplight-High (100-180)	513.8	N.A.	3.3
Total	15411.6	N.A.	100.0
BUG Rating	B2-U4-G2		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	0.0	5.0	15.0	25.0	35.0	42.5	45.0	55.0	65.0	75.0
0.0	1657	1657	1657	1657	1657	1657	1657	1657	1657	1657
2.5	1730	1738	1741	1734	1739	1731	1734	1718	1710	1706
5.0	1598	1577	1605	1693	1766	1786	1800	1792	1778	1744
7.5	1631	1633	1616	1640	1659	1621	1617	1685	1787	1767
10.0	1624	1608	1644	1662	1667	1673	1677	1704	1724	1818
12.5	1688	1747	1783	1754	1753	1736	1716	1738	1750	1958
15.0	1809	1806	1869	1817	1898	1875	1883	1877	1915	1963
17.5	2023	2002	2051	2040	1976	2004	2057	2018	2068	2092
20.0	2227	2261	2227	2197	2273	2148	2150	2237	2236	2205
22.5	2456	2447	2515	2476	2405	2396	2408	2357	2365	2397
25.0	2919	2869	2795	2663	2717	2623	2558	2519	2543	2467
27.5	3128	3186	3058	3030	2933	2917	2902	2721	2618	2640
30.0	3616	3644	3602	3318	3244	3188	3112	2928	2752	2745
32.5	3924	3925	3857	3757	3631	3513	3434	3187	2954	2858
35.0	4230	4202	4123	4028	4021	3908	3820	3417	3099	2921
37.5	4578	4501	4407	4336	4291	4321	4271	3733	3270	2966
40.0	4960	4847	4757	4693	4609	4670	4646	4078	3513	2997
42.5	5356	5286	5157	5106	5015	5066	5003	4578	3685	3039
45.0	5831	5776	5652	5599	5487	5487	5444	5040	3977	3330
47.5	6484	6381	6272	6200	6061	5980	5981	5527	4321	3625
50.0	7092	7033	6975	6935	6739	6648	6603	6097	4852	3934
52.5	7440	7446	7476	7646	7492	7344	7296	6841	5513	4345
55.0	7561	7608	7703	8095	8196	8097	8042	7573	6252	4690
57.5	7566	7637	7817	8359	8718	8865	8702	8277	6912	4899
60.0	7506	7595	7868	8552	9057	9371	9290	8943	7362	5221
62.5	7190	7308	7746	8699	9326	9638	9780	9438	7570	5837
65.0	5771	5918	6707	8364	9632	9985	10134	9341	7596	5957
67.5	3880	3913	4824	6844	9370	10187	10220	8857	7496	5759
70.0	2068	2291	3078	4728	7434	9098	9262	8254	6856	4927
72.5	1089	1213	2068	3028	4671	6043	6596	7248	5395	3221
75.0	783	838	1602	2348	3136	3796	4025	4561	2840	1532
77.5	606	646	933	1601	2299	2205	2253	2426	1585	939
80.0	457	495	667	858	1134	1171	1187	1185	836	669
82.5	359	391	518	644	591	473	440	373	358	483
85.0	285	304	406	389	255	219	214	220	247	294
87.5	153	163	193	161	151	163	167	179	195	223
90.0	62	72	102	120	139	153	158	169	182	198
92.5	70	76	105	123	143	157	162	171	186	199
95.0	79	80	107	127	144	158	163	171	187	195
97.5	87	85	110	130	146	159	164	169	183	167
100.0	95	90	112	133	148	159	163	166	171	126
102.5	101	95	114	135	150	159	163	160	151	108
105.0	106	100	115	138	151	158	160	148	131	99
107.5	109	105	117	141	152	156	155	132	113	99
110.0	113	110	119	143	151	148	144	117	99	99
112.5	116	114	119	143	146	137	131	107	92	96
115.0	119	118	121	141	138	125	119	102	89	95
117.5	121	120	121	135	128	117	112	98	87	94
120.0	123	123	119	126	120	111	108	96	87	92
122.5	123	121	115	118	115	108	105	94	87	91
125.0	120	119	111	111	111	107	103	95	88	90
127.5	115	115	109	108	109	105	103	96	90	91
130.0	113	112	108	106	108	106	105	98	91	94

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CANDELA TABULATION - (Cont.)

132.5	111	111	107	106	108	106	103	95	92	96
135.0	111	111	109	106	103	97	95	88	92	98
137.5	111	111	105	96	88	83	80	79	87	96
140.0	99	98	91	80	70	65	63	66	75	85
142.5	80	80	74	63	51	48	47	52	60	71
145.0	61	60	54	44	35	34	34	36	45	54
147.5	40	40	37	30	23	18	17	21	30	38
150.0	29	28	26	18	7	6	6	10	16	23
152.5	14	13	9	5	3	3	3	6	9	12
155.0	4	4	2	2	2	2	2	3	6	7
157.5	1	1	2	2	2	2	2	2	3	5
160.0	1	1	1	2	2	2	2	2	3	3
162.5	0	1	1	2	2	2	2	2	2	3
165.0	1	1	2	2	2	2	2	2	3	3
167.5	1	1	1	2	2	2	2	2	2	3
170.0	1	1	1	2	2	2	2	2	2	3
172.5	1	1	2	2	2	2	2	2	3	3
175.0	1	1	2	2	2	2	2	2	3	3
177.5	1	1	2	2	2	2	2	2	2	3
180.0	2	2	2	2	2	2	2	2	2	2

Vert. Angles	**Horizontal Angles**									
	85.0	**90.0**	**95.0**	**105.0**	**115.0**	**125.0**	**135.0**	**145.0**	**155.0**	**165.0**
0.0	1657	1657	1657	1657	1657	1657	1657	1657	1657	1657
2.5	1693	1677	1669	1633	1621	1617	1609	1608	1613	1615
5.0	1734	1681	1654	1637	1716	1750	1740	1731	1730	1709
7.5	1752	1724	1673	1713	1755	1776	1750	1665	1574	1552
10.0	1828	1776	1704	1782	1756	1709	1604	1598	1540	1537
12.5	1986	1922	1826	1909	1792	1647	1577	1534	1501	1499
15.0	2096	2018	1917	2012	1782	1681	1561	1544	1490	1425
17.5	2223	2157	2098	2112	1876	1706	1630	1453	1300	1218
20.0	2340	2282	2250	2144	1931	1687	1487	1268	1136	1027
22.5	2532	2440	2432	2230	1918	1667	1319	1116	929	851
25.0	2601	2584	2527	2287	1893	1516	1157	924	817	757
27.5	2752	2677	2656	2364	1823	1337	993	838	728	686
30.0	2821	2736	2739	2453	1704	1180	904	754	683	656
32.5	2842	2744	2732	2418	1543	1055	829	706	651	683
35.0	2845	2733	2764	2302	1352	970	775	675	675	707
37.5	2876	2751	2784	2180	1182	895	731	682	682	765
40.0	2926	2813	2776	2037	1074	831	716	670	715	867
42.5	2908	2797	2792	1876	1007	780	714	662	764	1085
45.0	3028	2798	2849	1746	932	783	707	647	820	1107
47.5	3083	2910	2783	1648	856	808	687	626	846	702
50.0	3224	3030	2784	1627	820	800	662	598	724	491
52.5	3449	3099	2854	1605	821	775	629	574	580	414
55.0	3697	3273	2906	1642	844	711	580	531	469	375
57.5	3780	3238	2862	1544	790	620	504	477	409	351
60.0	3924	3373	2874	1526	662	497	425	410	364	327
62.5	4122	3396	2838	1492	491	393	361	357	329	300
65.0	4049	3328	2654	1271	377	339	327	323	297	273
67.5	3742	3010	2315	848	332	313	305	297	265	250
70.0	3025	2249	1590	525	310	296	286	264	243	277
72.5	1762	1295	924	341	288	280	262	247	284	344
75.0	858	769	578	296	271	256	244	256	252	236
77.5	574	525	332	280	252	235	232	220	213	215

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CANDELA TABULATION - (Cont.)

80.0	449	393	260	266	232	225	231	211	201	197
82.5	364	304	209	249	223	218	219	209	199	193
85.0	298	200	196	232	216	203	218	209	200	191
87.5	245	99	215	224	211	200	219	211	202	191
90.0	168	88	207	222	212	202	221	214	204	191
92.5	112	158	193	227	219	206	226	219	210	196
95.0	110	195	184	224	218	197	224	219	214	201
97.5	146	194	178	208	207	179	211	211	210	197
100.0	154	182	173	188	195	172	203	204	205	191
102.5	148	167	164	169	184	169	195	199	200	182
105.0	139	153	152	154	171	167	188	194	196	171
107.5	129	140	143	143	159	163	183	191	192	160
110.0	120	130	133	135	147	158	179	188	187	148
112.5	113	122	125	128	138	153	175	186	182	136
115.0	108	115	119	125	132	150	170	183	176	127
117.5	103	111	114	122	128	147	165	177	167	121
120.0	101	107	111	119	125	144	161	170	156	119
122.5	98	103	107	116	124	142	156	162	143	115
125.0	95	99	104	114	123	139	152	154	131	114
127.5	95	99	103	114	123	139	147	144	121	113
130.0	97	100	105	115	123	138	143	135	114	112
132.5	99	102	107	115	121	133	136	126	108	111
135.0	103	105	109	116	118	120	124	118	107	110
137.5	104	107	111	113	111	104	104	102	106	110
140.0	96	99	101	100	94	87	79	82	92	103
142.5	82	85	86	82	75	66	58	62	74	84
145.0	63	66	66	62	54	46	40	43	55	65
147.5	43	46	46	43	37	30	26	31	38	46
150.0	26	27	28	26	21	14	13	20	26	30
152.5	14	15	14	14	10	8	7	8	15	20
155.0	9	9	9	8	7	6	4	5	5	7
157.5	6	6	6	6	6	5	4	3	2	2
160.0	4	5	5	5	5	5	3	2	2	1
162.5	4	4	5	5	5	4	3	2	2	0
165.0	4	4	5	5	5	4	3	2	2	0
167.5	4	4	4	5	5	4	3	2	1	0
170.0	4	4	4	5	4	4	3	2	1	0
172.5	4	4	4	4	4	4	3	2	1	0
175.0	4	4	4	4	4	3	3	2	1	0
177.5	4	4	4	4	4	3	2	2	1	0
180.0	2	2	2	2	2	2	2	2	2	2

Vert. Angles	**Horizontal Angles**	
	175.0	**180.0**
0.0	1657	1657
2.5	1622	1627
5.0	1706	1724
7.5	1532	1532
10.0	1524	1556
12.5	1486	1476
15.0	1376	1411
17.5	1186	1179
20.0	974	971
22.5	814	803
25.0	721	717

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CANDELA TABULATION - (Cont.)

27.5	683	682
30.0	662	662
32.5	703	706
35.0	749	750
37.5	825	830
40.0	949	969
42.5	1174	1125
45.0	691	661
47.5	502	499
50.0	429	427
52.5	388	389
55.0	359	362
57.5	332	335
60.0	304	306
62.5	277	280
65.0	255	260
67.5	239	243
70.0	302	303
72.5	340	289
75.0	211	195
77.5	190	159
80.0	163	120
82.5	149	96
85.0	137	83
87.5	132	86
90.0	124	83
92.5	123	98
95.0	127	119
97.5	125	133
100.0	123	143
102.5	122	147
105.0	124	148
107.5	128	147
110.0	131	143
112.5	132	139
115.0	131	135
117.5	130	131
120.0	127	129
122.5	125	127
125.0	123	124
127.5	120	121
130.0	117	118
132.5	115	115
135.0	112	112
137.5	111	111
140.0	107	108
142.5	91	91
145.0	70	71
147.5	50	50
150.0	32	33
152.5	22	22
155.0	10	10
157.5	2	2
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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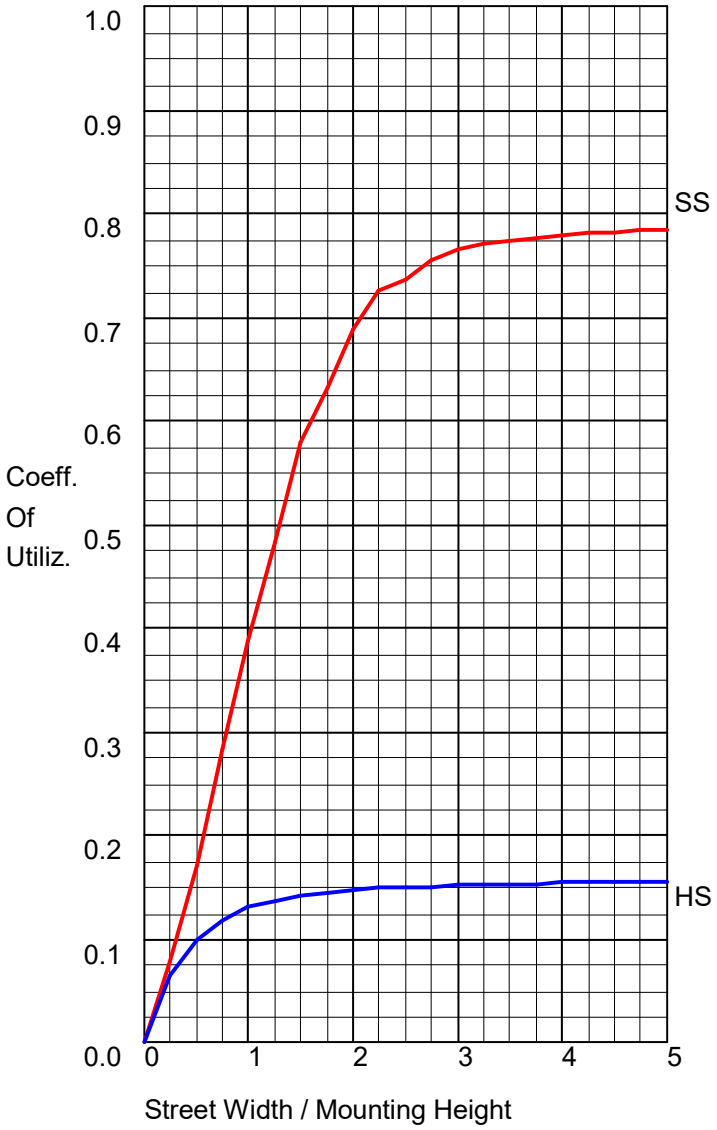
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	12229.4	79.4
Downward House Side	2483.0	16.1
Downward Total	14712.4	95.5
Upward Street Side	307.2	2.0
Upward House Side	392.0	2.5
Upward Total	699.2	4.5
Total Flux	15411.6	100.0

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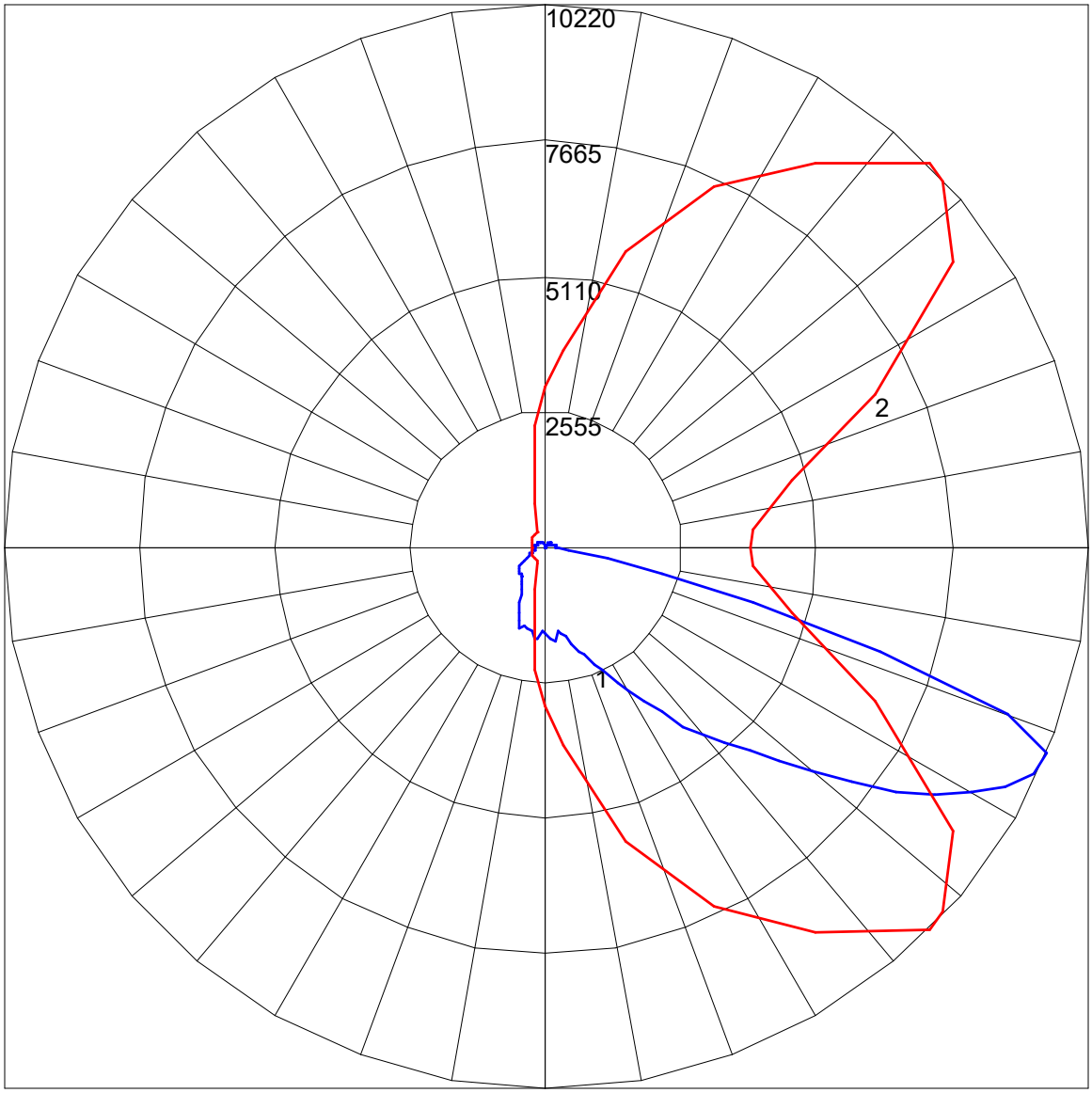
POLAR GRAPH



Maximum Candela = 10220 Located At Horizontal Angle = 45, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

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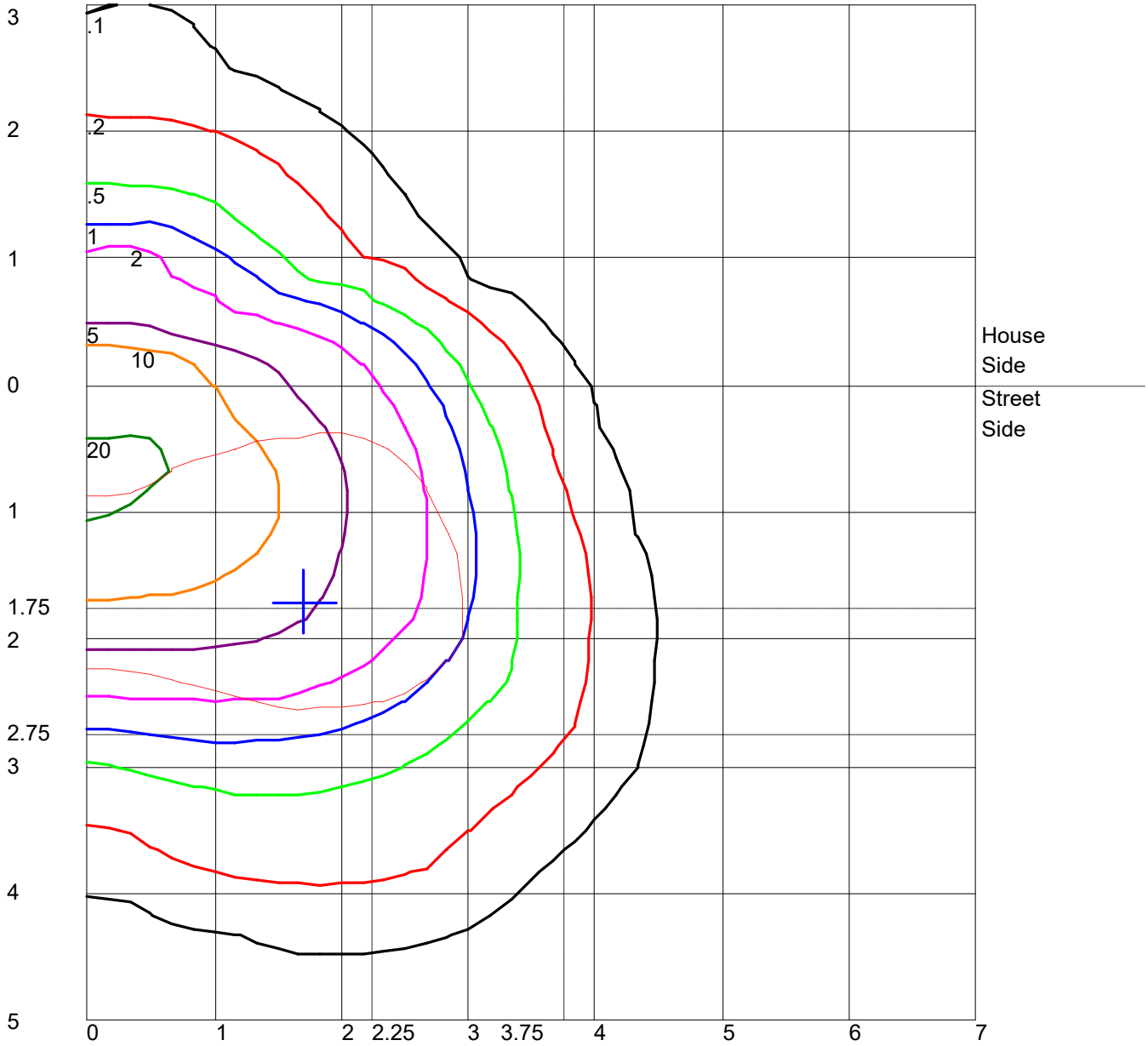
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



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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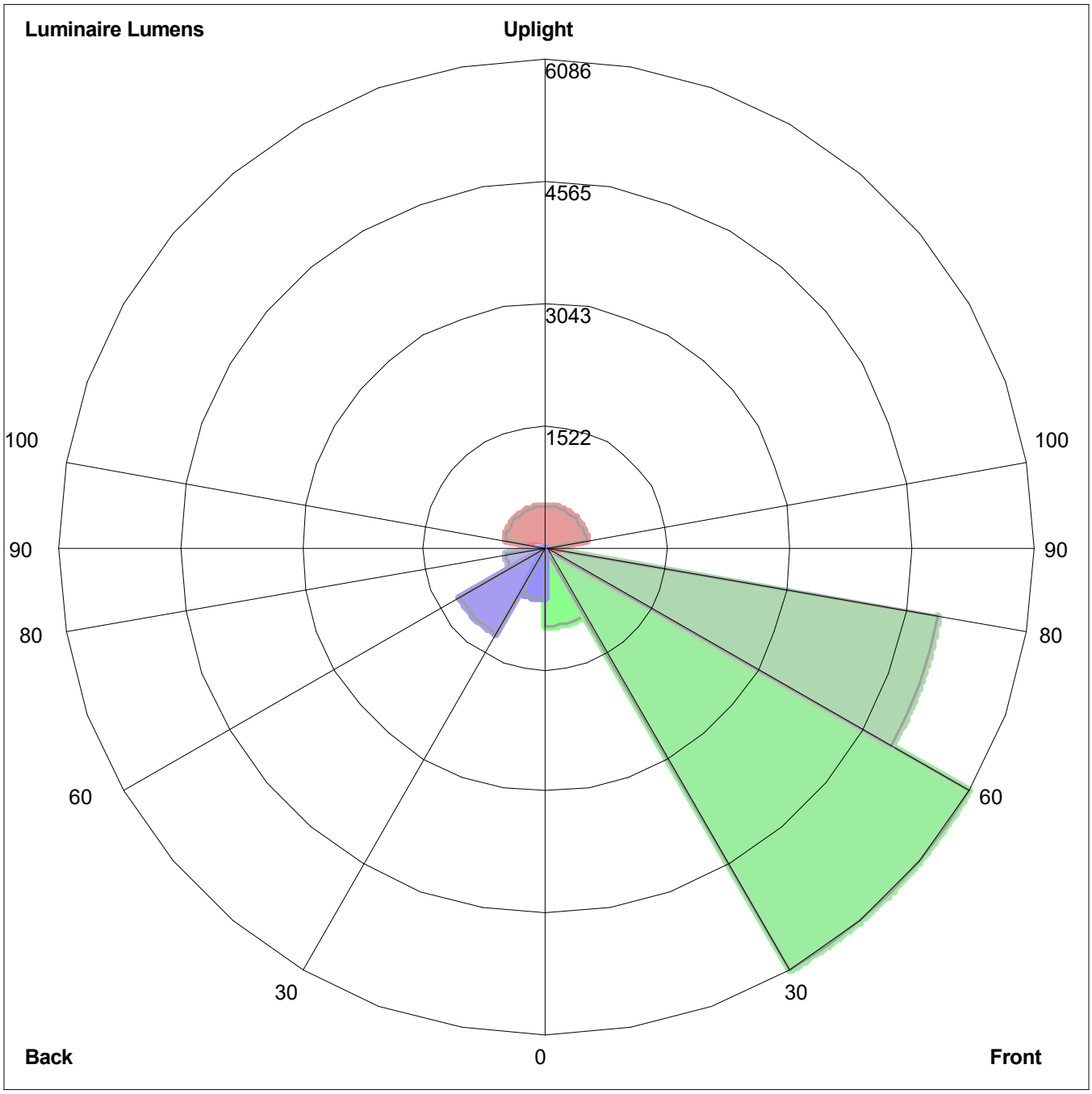
LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=978.8, Medium=6086.4, High=4971.6, Very High=192.6
Back: Low=634.6, Medium=1234.5, High=503.1, Very High=110.8
Uplight: Low=185.4, High=513.8

BUG Rating : B2-U4-G2

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