



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-3-LED-27L-40.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]LED-8439
[TESTLAB]LSI INDUSTRIES, INC
[ISSUE DATE]01/10/17
[TEST DATE]01/10/17
[MANUFACTURER]LSI INDUSTRIES, INC
[LUMCAT]HLN-3-LED-27L-40
[OTHER]TEST PROCEDURE: IESNA LM-79-08
[_ABSOLUTE]NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED
[_SEARCH_SOURCE TYPE] LED
[_SEARCH_APPLICATION] Outdoor

CHARACTERISTICS

IES Classification	Type III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	27422
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	115
Total Luminaire Watts	238.2
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	22998
Maximum Candela Angle	55H 67.5V
Maximum Candela (<90 Degrees Vertical)	22998
Maximum Candela Angle (<90 Degrees Vertical)	55H 67.5V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1960 (7.1% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1264.8	N.A.	4.6
FM - Front-Medium (30-60)	10675.6	N.A.	38.9
FH - Front-High (60-80)	8825.0	N.A.	32.2
FVH - Front-Very High (80-90)	279.3	N.A.	1.0
BL - Back-Low (0-30)	1261.1	N.A.	4.6
BM - Back-Medium (30-60)	3531.9	N.A.	12.9
BH - Back-High (60-80)	1451.9	N.A.	5.3
BVH - Back-Very High (80-90)	132.3	N.A.	0.5
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	27421.9	N.A.	100.0
BUG Rating	B3-U0-G4		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	<u>0.0</u>	<u>5.0</u>	<u>15.0</u>	<u>25.0</u>	<u>35.0</u>	<u>45.0</u>	<u>52.5</u>	<u>55.0</u>	<u>65.0</u>	<u>75.0</u>
0.0	2485	2485	2485	2485	2485	2485	2485	2485	2485	2485
2.5	2456	2438	2443	2442	2448	2459	2448	2460	2470	2470
5.0	2355	2339	2352	2357	2378	2403	2404	2420	2446	2459
7.5	2239	2227	2239	2259	2291	2336	2357	2373	2424	2454
10.0	2151	2141	2159	2185	2231	2283	2319	2339	2408	2461
12.5	2098	2093	2112	2149	2207	2276	2320	2342	2421	2483
15.0	2111	2108	2134	2176	2246	2328	2377	2398	2478	2539
17.5	2247	2250	2273	2320	2378	2464	2513	2543	2601	2645
20.0	2524	2531	2550	2587	2629	2708	2740	2770	2800	2805
22.5	2911	2921	2939	2977	3024	3064	3069	3086	3065	3018
25.0	3364	3381	3415	3471	3521	3534	3493	3494	3441	3282
27.5	3932	3900	3941	4026	4096	4104	4051	3997	3845	3596
30.0	4484	4455	4512	4618	4718	4733	4653	4567	4303	3944
32.5	5008	5007	5087	5271	5409	5404	5302	5192	4795	4328
35.0	5533	5530	5646	5907	6093	6151	5988	5856	5323	4702
37.5	6135	6138	6267	6568	6818	6902	6702	6582	5862	5071
40.0	6816	6827	7020	7324	7610	7714	7446	7302	6414	5432
42.5	7627	7644	7899	8193	8498	8634	8279	8052	6984	5800
45.0	8616	8648	8947	9255	9526	9599	9125	8883	7575	6204
47.5	9793	9909	10179	10532	10758	10673	10041	9742	8200	6631
50.0	11314	11478	11729	12151	12204	11859	11020	10645	8893	7128
52.5	13176	13362	13531	13812	13862	13193	12177	11658	9727	7781
55.0	14736	14731	15223	15821	15779	14552	13418	12799	10718	8714
57.5	15743	15805	16426	17473	18026	16645	14823	14174	12073	10054
60.0	14732	14774	15846	17720	19473	18895	17076	16382	13974	11481
62.5	10737	10940	12754	16015	19484	21055	19918	19130	15962	12886
65.0	5686	5813	7101	11340	17228	21993	22280	21895	18021	13619
67.5	2439	2506	3163	5972	12512	20073	22808	22998	19179	13552
70.0	1453	1457	1759	2923	6983	15051	19727	20982	18236	11545
72.5	960	971	1213	1880	3836	9142	13830	15300	13920	7276
75.0	644	674	875	1420	2459	4994	7006	7955	7825	3659
77.5	472	486	656	1154	1869	2796	3226	3477	3363	1507
80.0	346	360	514	970	1459	1851	1956	1960	1708	909
82.5	244	255	386	696	1021	1222	1153	1152	1062	585
85.0	191	198	296	523	702	717	620	585	618	366
87.5	193	174	216	352	458	357	312	307	319	218
90.0	0	0	0	0	0	0	0	0	0	0

Vert. Angles	Horizontal Angles									
	<u>85.0</u>	<u>90.0</u>	<u>95.0</u>	<u>105.0</u>	<u>115.0</u>	<u>125.0</u>	<u>135.0</u>	<u>145.0</u>	<u>155.0</u>	<u>165.0</u>
0.0	2485	2485	2485	2485	2485	2485	2485	2485	2485	2485
2.5	2493	2480	2494	2510	2515	2522	2522	2526	2525	2526
5.0	2500	2490	2513	2544	2565	2586	2601	2618	2635	2633
7.5	2506	2504	2534	2580	2618	2655	2680	2722	2757	2767
10.0	2523	2524	2558	2617	2670	2725	2789	2863	2899	2916
12.5	2555	2553	2592	2656	2724	2815	2898	2967	3000	3014
15.0	2607	2600	2633	2698	2777	2897	2985	3049	3085	3101
17.5	2688	2667	2688	2738	2829	2961	3054	3118	3156	3168
20.0	2796	2748	2748	2770	2873	3009	3110	3171	3206	3212
22.5	2940	2862	2827	2799	2896	3048	3154	3209	3238	3239
25.0	3107	2982	2913	2821	2905	3078	3180	3233	3263	3266
27.5	3297	3117	3000	2831	2903	3094	3196	3248	3289	3306

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CANDELA TABULATION - (Cont.)

30.0	3508	3259	3083	2826	2888	3096	3194	3259	3334	3384
32.5	3728	3401	3158	2805	2859	3081	3178	3282	3440	3571
35.0	3957	3538	3221	2771	2815	3056	3159	3333	3614	3890
37.5	4175	3662	3271	2716	2753	3014	3133	3364	3804	4185
40.0	4389	3794	3302	2646	2672	2957	3067	3340	4051	4399
42.5	4620	3915	3329	2568	2576	2874	2963	3306	4353	4288
45.0	4852	4045	3362	2484	2462	2759	2850	3280	4631	3866
47.5	5122	4216	3423	2411	2336	2624	2743	3261	4695	3550
50.0	5462	4451	3535	2355	2202	2495	2642	3208	4533	3341
52.5	5865	4734	3692	2330	2091	2374	2534	3059	4266	3195
55.0	6476	5181	3950	2341	1991	2245	2416	2837	3914	3057
57.5	7225	5560	4126	2335	1893	2110	2287	2563	3465	2885
60.0	8087	5913	4211	2264	1777	1949	2138	2258	2945	2738
62.5	8932	6110	3997	2053	1619	1744	1933	1991	2369	2593
65.0	9361	6024	3354	1664	1405	1500	1674	1737	1888	2403
67.5	8948	5619	2661	1231	1157	1232	1370	1499	1506	2163
70.0	6604	4242	1905	911	933	968	1097	1268	1243	1843
72.5	3660	2332	1141	667	722	783	888	1075	1058	1459
75.0	1417	952	584	486	586	649	733	864	831	1069
77.5	777	579	404	399	491	549	584	560	548	708
80.0	478	386	302	335	410	395	386	425	387	512
82.5	307	254	233	287	320	279	275	313	255	368
85.0	195	178	189	237	204	196	186	190	147	243
87.5	119	123	149	171	128	113	115	119	94	135
90.0	0	0	0	0	0	0	0	0	0	0

Vert. Angles **Horizontal Angles**

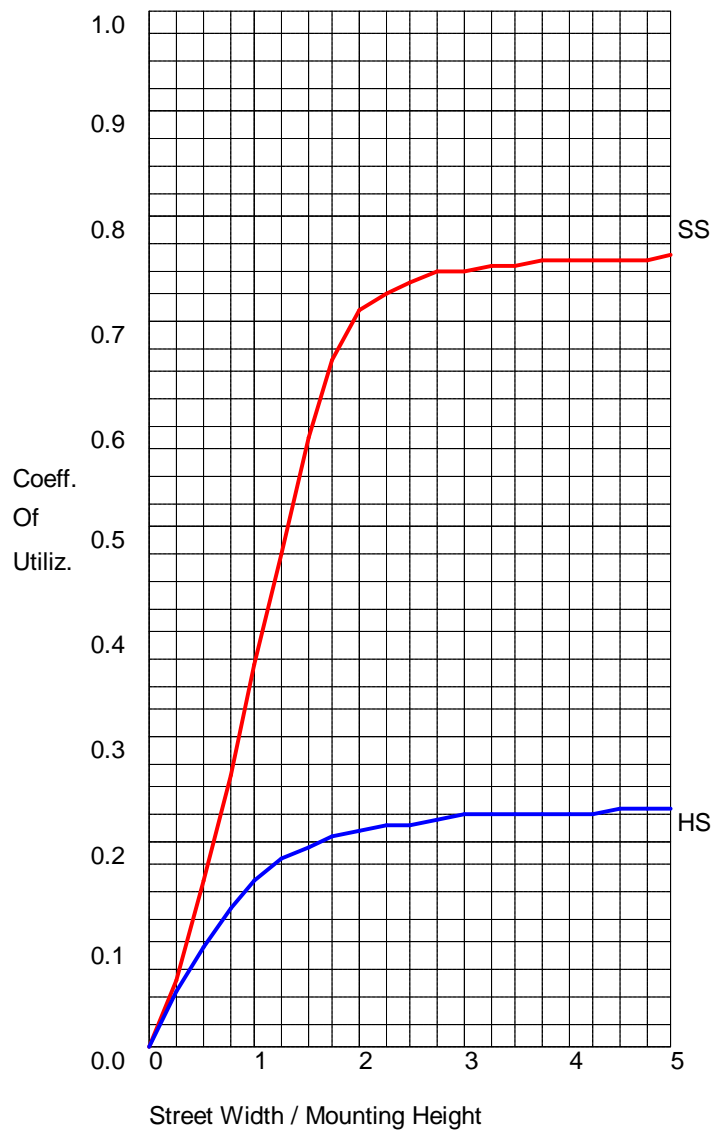
	<u>175.0</u>	<u>180.0</u>
0.0	2485	2485
2.5	2529	2524
5.0	2638	2634
7.5	2784	2781
10.0	2923	2921
12.5	3024	3020
15.0	3111	3107
17.5	3178	3174
20.0	3219	3213
22.5	3244	3243
25.0	3273	3268
27.5	3314	3310
30.0	3412	3404
32.5	3629	3623
35.0	3967	3957
37.5	4154	4110
40.0	3962	3844
42.5	3357	3243
45.0	2998	2905
47.5	2792	2709
50.0	2649	2566
52.5	2510	2403
55.0	2333	2217
57.5	2160	2016
60.0	2043	1872
62.5	1964	1767
65.0	1932	1713

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CANDELA TABULATION - (Cont.)

67.5	1972	1752
70.0	2015	1851
72.5	1860	1813
75.0	1556	1651
77.5	1320	1466
80.0	1018	1162
82.5	716	829
85.0	488	561
87.5	408	556
90.0	0	0

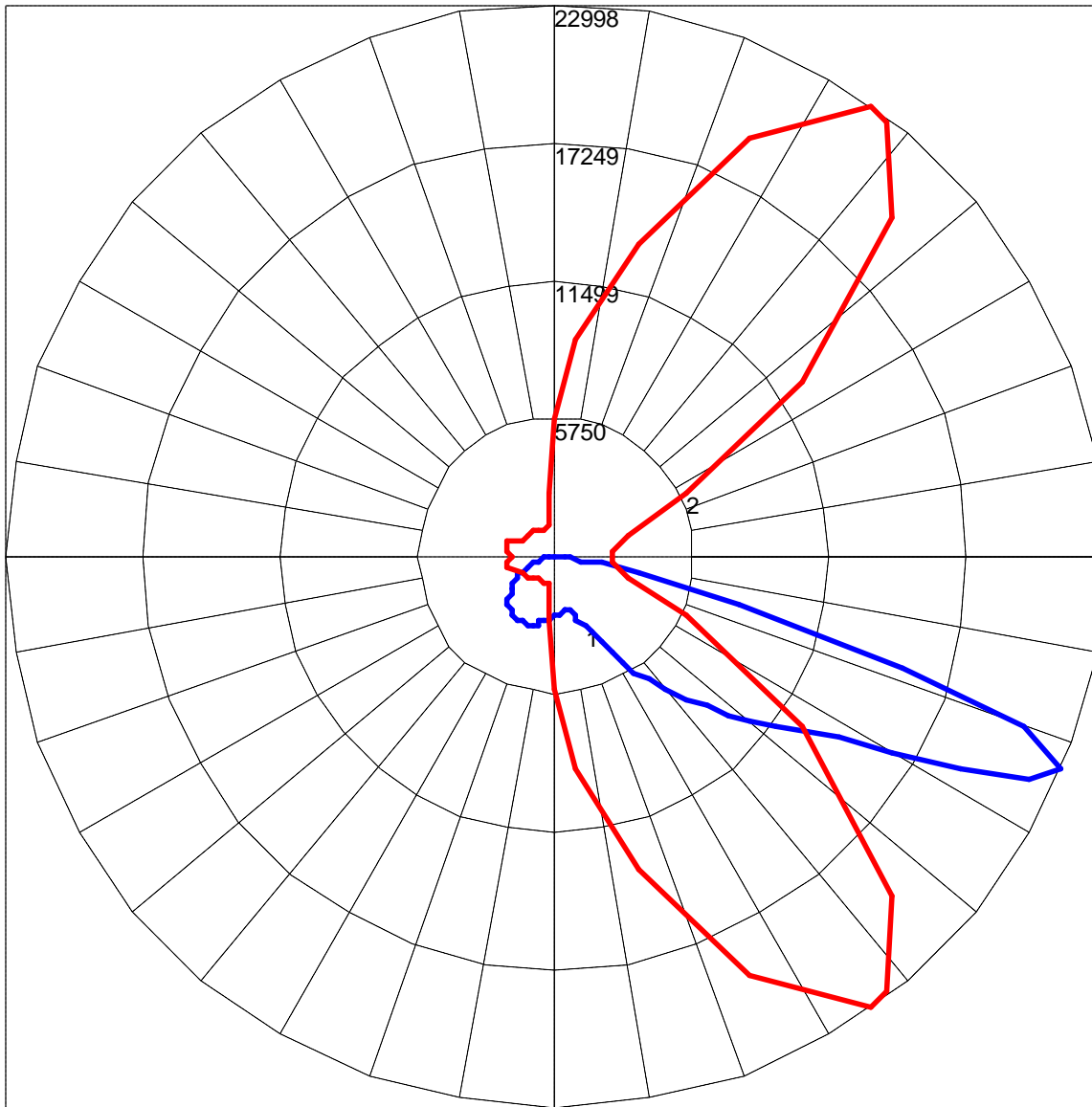
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

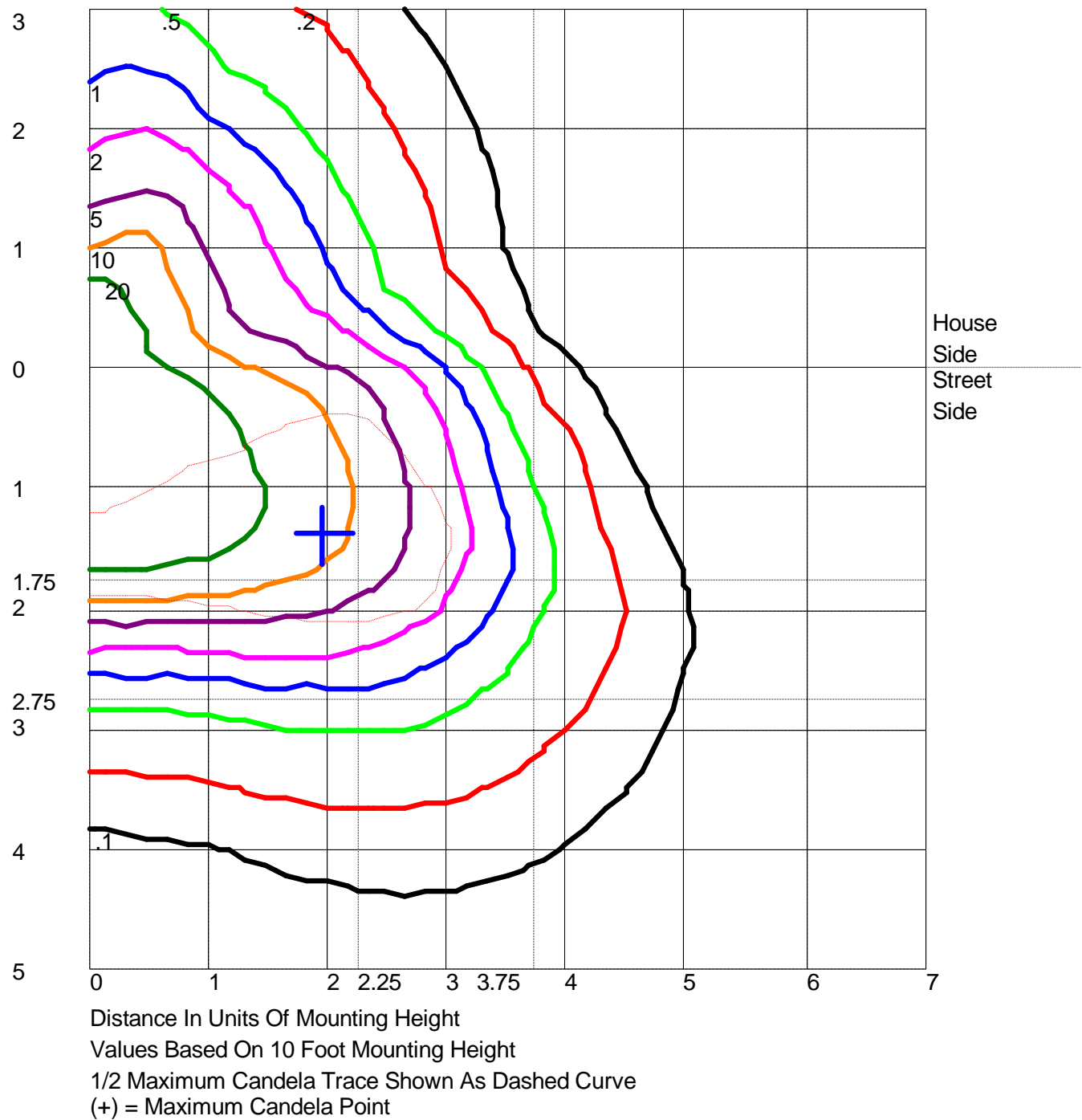
	Lumens	Percent Of Luminaire
Downward Street Side	21044.6	76.7
Downward House Side	6377.3	23.3
Downward Total	27421.9	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	27421.9	100.0

POLAR GRAPH

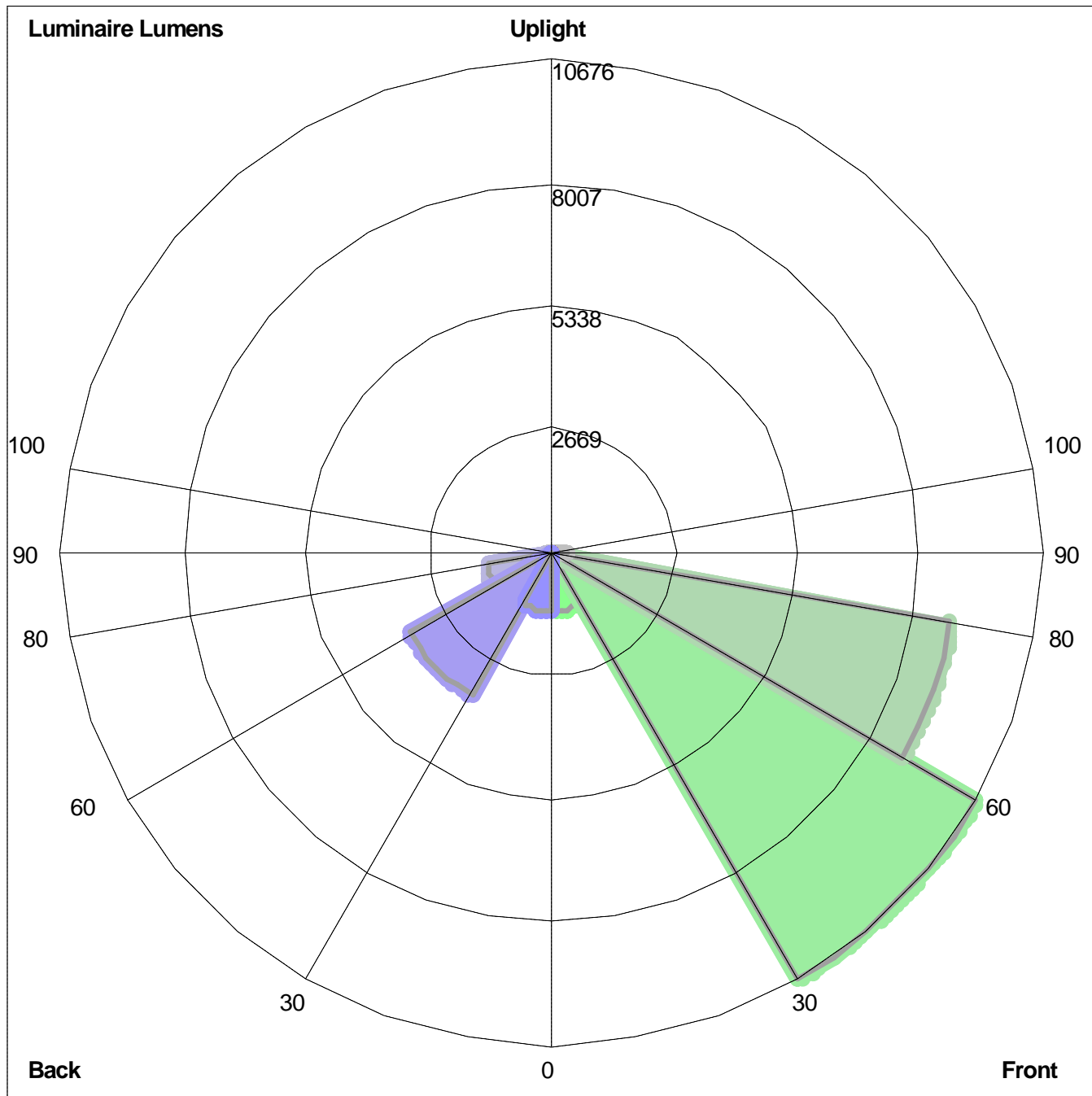


Maximum Candela = 22998 Located At Horizontal Angle = 55, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=1264.8, Medium=10675.6, High= 8825.0, Very High=279.3
Back: Low=1261.1, Medium=3531.9, High=1451.9, Very High=132.3
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G4