



## IES ROAD REPORT

PHOTOMETRIC FILENAME : ENM4-SAX-2-LED-18L-40.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] LED-11800

[TESTLAB] LSI INDUSTRIES, INC.

[ISSUE DATE] 06/10/2020

[TEST DATE] 05/05/20

[MANUFAC] LSI INDUSTRIES, INC.

[LUMCAT] ENM4-SAX-2-LED-18L-40

[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.

[OTHER] TEST PROCEDURE: IESNA LM-79-08

[SEARCH\_SOURCETYPE] LED

[SEARCH\_APPLICATION] Outdoor

### CHARACTERISTICS

IES Classification	Type II
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	20281
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	136
Total Luminaire Watts	149.2
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	16614
Maximum Candela Angle	77.5H 65V
Maximum Candela (<90 Degrees Vertical)	16614
Maximum Candela Angle (<90 Degrees Vertical)	77.5H 65V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1077 (5.3% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1462.3	N.A.	7.2
FM - Front-Medium (30-60)	7755.0	N.A.	38.2
FH - Front-High (60-80)	3966.2	N.A.	19.6
FVH - Front-Very High (80-90)	101.9	N.A.	0.5
BL - Back-Low (0-30)	1343.5	N.A.	6.6
BM - Back-Medium (30-60)	4227.1	N.A.	20.8
BH - Back-High (60-80)	1309.8	N.A.	6.5
BVH - Back-Very High (80-90)	115.3	N.A.	0.6
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	20281.1	N.A.	100.0
BUG Rating	B3-U0-G3		

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**CANDELA TABULATION**

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<u><b>0.0</b></u>	<u><b>5.0</b></u>	<u><b>15.0</b></u>	<u><b>25.0</b></u>	<u><b>35.0</b></u>	<u><b>45.0</b></u>	<u><b>55.0</b></u>	<u><b>65.0</b></u>	<u><b>75.0</b></u>	<u><b>77.5</b></u>
<b>0.0</b>	2703	2703	2703	2703	2703	2703	2703	2703	2703	2703
<b>2.5</b>	2763	2766	2761	2759	2760	2750	2739	2730	2717	2714
<b>5.0</b>	2848	2853	2848	2841	2840	2828	2812	2787	2765	2755
<b>7.5</b>	2924	2935	2927	2930	2926	2911	2894	2865	2827	2817
<b>10.0</b>	2997	3006	3003	3011	3011	3003	2993	2965	2908	2900
<b>12.5</b>	3052	3058	3067	3088	3105	3120	3114	3077	3026	3008
<b>15.0</b>	3082	3090	3114	3149	3196	3236	3256	3225	3164	3141
<b>17.5</b>	3114	3120	3156	3210	3290	3360	3401	3404	3339	3315
<b>20.0</b>	3153	3164	3212	3282	3386	3494	3571	3590	3548	3519
<b>22.5</b>	3226	3232	3295	3376	3496	3632	3753	3817	3788	3763
<b>25.0</b>	3313	3336	3398	3487	3620	3776	3952	4061	4064	4039
<b>27.5</b>	3453	3474	3539	3634	3767	3939	4146	4318	4382	4355
<b>30.0</b>	3657	3682	3736	3825	3958	4142	4367	4627	4726	4713
<b>32.5</b>	3928	3953	4007	4080	4214	4382	4610	4926	5093	5088
<b>35.0</b>	4322	4326	4363	4421	4539	4672	4874	5244	5485	5486
<b>37.5</b>	4767	4761	4805	4856	4952	5051	5227	5559	5926	5945
<b>40.0</b>	5251	5257	5304	5378	5470	5526	5631	5906	6401	6429
<b>42.5</b>	5718	5742	5838	5926	6059	6158	6108	6250	6880	6977
<b>45.0</b>	6055	6097	6241	6453	6675	6844	6746	6649	7353	7498
<b>47.5</b>	6221	6249	6438	6760	7220	7553	7601	7211	7970	8188
<b>50.0</b>	6037	6082	6314	6743	7456	8290	8595	8001	8790	9082
<b>52.5</b>	5527	5573	5808	6347	7288	8718	9720	9078	9876	10243
<b>55.0</b>	4640	4679	4917	5520	6623	8678	10942	10489	11357	11708
<b>57.5</b>	3491	3471	3731	4282	5441	7985	11790	12128	12852	13268
<b>60.0</b>	2422	2347	2564	2974	3901	6520	12085	13543	14575	15011
<b>62.5</b>	1586	1595	1698	1961	2525	4594	11330	14196	15871	16075
<b>65.0</b>	1149	1153	1189	1374	1685	2708	9248	13811	16482	16614
<b>67.5</b>	859	869	901	1028	1266	1711	6387	12005	15210	14894
<b>70.0</b>	654	670	689	790	993	1235	3849	8886	11525	10636
<b>72.5</b>	464	484	478	591	780	984	2159	5651	6534	5613
<b>75.0</b>	277	291	274	368	555	803	1249	3311	2875	2358
<b>77.5</b>	207	230	191	224	328	589	816	1821	1430	1141
<b>80.0</b>	208	233	174	164	217	399	493	1077	828	681
<b>82.5</b>	236	246	155	121	151	284	268	629	511	446
<b>85.0</b>	221	236	124	84	93	171	164	210	249	217
<b>87.5</b>	154	142	79	42	39	69	65	59	60	53
<b>90.0</b>	0	0	0	0	0	0	0	0	0	0

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<u><b>85.0</b></u>	<u><b>90.0</b></u>	<u><b>95.0</b></u>	<u><b>105.0</b></u>	<u><b>115.0</b></u>	<u><b>125.0</b></u>	<u><b>135.0</b></u>	<u><b>145.0</b></u>	<u><b>155.0</b></u>	<u><b>165.0</b></u>
<b>0.0</b>	2703	2703	2703	2703	2703	2703	2703	2703	2703	2703
<b>2.5</b>	2714	2712	2702	2680	2690	2687	2678	2669	2673	2663
<b>5.0</b>	2746	2736	2717	2685	2675	2657	2638	2629	2627	2621
<b>7.5</b>	2797	2775	2756	2700	2671	2649	2623	2618	2614	2613
<b>10.0</b>	2861	2830	2803	2724	2674	2646	2633	2634	2648	2669
<b>12.5</b>	2953	2903	2864	2758	2687	2665	2667	2700	2741	2785
<b>15.0</b>	3071	3006	2947	2809	2711	2697	2735	2806	2885	2956
<b>17.5</b>	3222	3135	3054	2867	2753	2757	2829	2958	3073	3162
<b>20.0</b>	3413	3306	3182	2937	2810	2838	2955	3134	3307	3404
<b>22.5</b>	3630	3495	3337	3025	2885	2939	3114	3332	3538	3654
<b>25.0</b>	3884	3717	3523	3131	2977	3068	3297	3543	3762	3905
<b>27.5</b>	4187	3981	3740	3261	3075	3216	3474	3741	3972	4119

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**CANDELA TABULATION - (Cont.)**

30.0	4518	4284	3980	3414	3197	3370	3651	3912	4152	4291
32.5	4886	4606	4241	3568	3354	3527	3788	4044	4271	4388
35.0	5282	4963	4520	3710	3485	3656	3886	4117	4287	4389
37.5	5726	5352	4818	3863	3608	3737	3917	4092	4213	4268
40.0	6240	5779	5151	4012	3719	3767	3881	3979	4038	4033
42.5	6776	6230	5461	4148	3795	3743	3768	3806	3775	3698
45.0	7340	6723	5793	4269	3829	3671	3604	3559	3434	3339
47.5	8077	7267	6131	4389	3821	3555	3403	3278	3099	2991
50.0	8981	7939	6478	4470	3777	3390	3175	3002	2766	2652
52.5	10051	8667	6826	4523	3683	3174	2923	2735	2460	2331
55.0	11296	9391	7074	4494	3520	2903	2663	2473	2154	1998
57.5	12513	9979	7133	4333	3264	2592	2375	2188	1821	1718
60.0	13372	10148	6824	3979	2883	2207	2061	1861	1545	1457
62.5	13623	9666	5966	3371	2434	1834	1696	1581	1293	1212
65.0	12843	8317	4705	2661	1959	1493	1397	1314	1074	988
67.5	10270	6009	3230	1930	1553	1188	1139	1062	882	864
70.0	6492	3537	1997	1339	1224	949	946	857	781	774
72.5	2859	1838	1262	966	966	780	783	742	667	631
75.0	1177	986	875	739	765	653	669	604	460	372
77.5	708	655	630	596	609	559	515	359	274	267
80.0	500	430	397	484	491	413	284	241	292	280
82.5	327	235	218	383	372	226	195	214	405	390
85.0	168	117	113	257	156	147	158	221	427	402
87.5	47	28	35	51	51	58	69	102	204	205
90.0	0	0	0	0	0	0	0	0	0	0

**Vert. Horizontal Angles**  
**Angles**

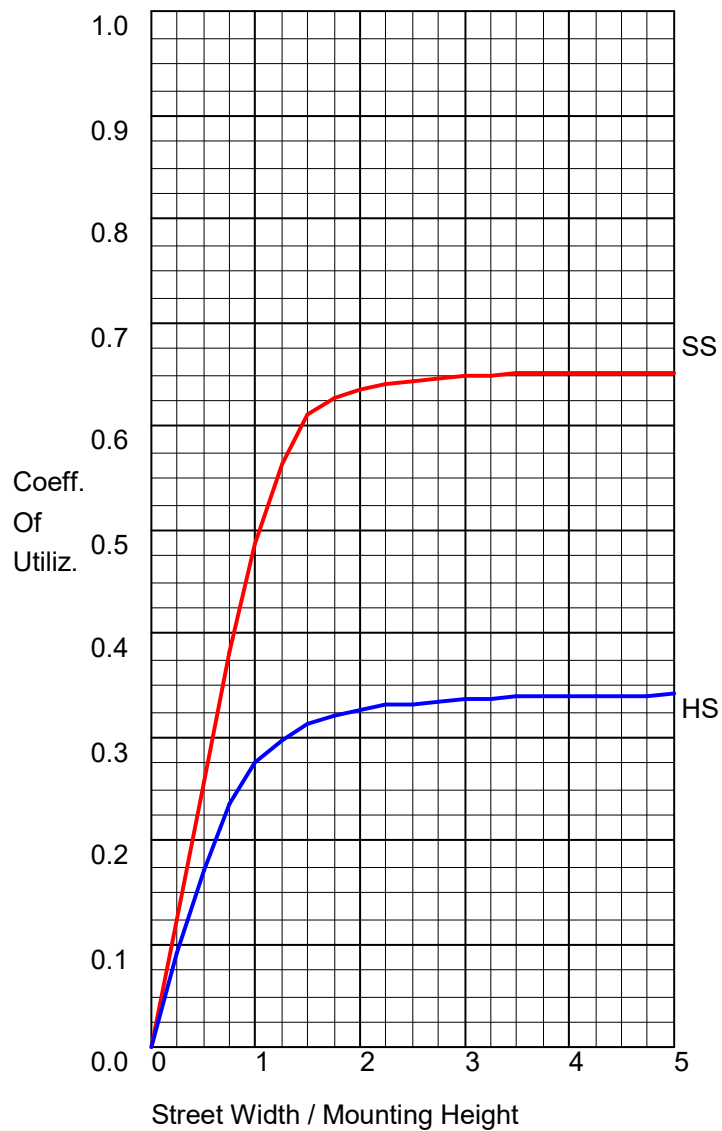
	<b><u>175.0</u></b>	<b><u>180.0</u></b>
0.0	2703	2703
2.5	2672	2658
5.0	2621	2612
7.5	2616	2611
10.0	2677	2674
12.5	2801	2803
15.0	2988	2995
17.5	3212	3229
20.0	3462	3483
22.5	3715	3740
25.0	3958	3985
27.5	4181	4202
30.0	4368	4381
32.5	4450	4471
35.0	4416	4429
37.5	4253	4268
40.0	3983	3989
42.5	3635	3639
45.0	3270	3273
47.5	2916	2915
50.0	2569	2569
52.5	2239	2244
55.0	1917	1912
57.5	1641	1609
60.0	1378	1355
62.5	1142	1136
65.0	973	979

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**CANDELA TABULATION - (Cont.)**

<b>67.5</b>	901	910
<b>70.0</b>	829	848
<b>72.5</b>	683	731
<b>75.0</b>	406	472
<b>77.5</b>	310	352
<b>80.0</b>	315	341
<b>82.5</b>	414	420
<b>85.0</b>	415	414
<b>87.5</b>	109	188
<b>90.0</b>	0	0

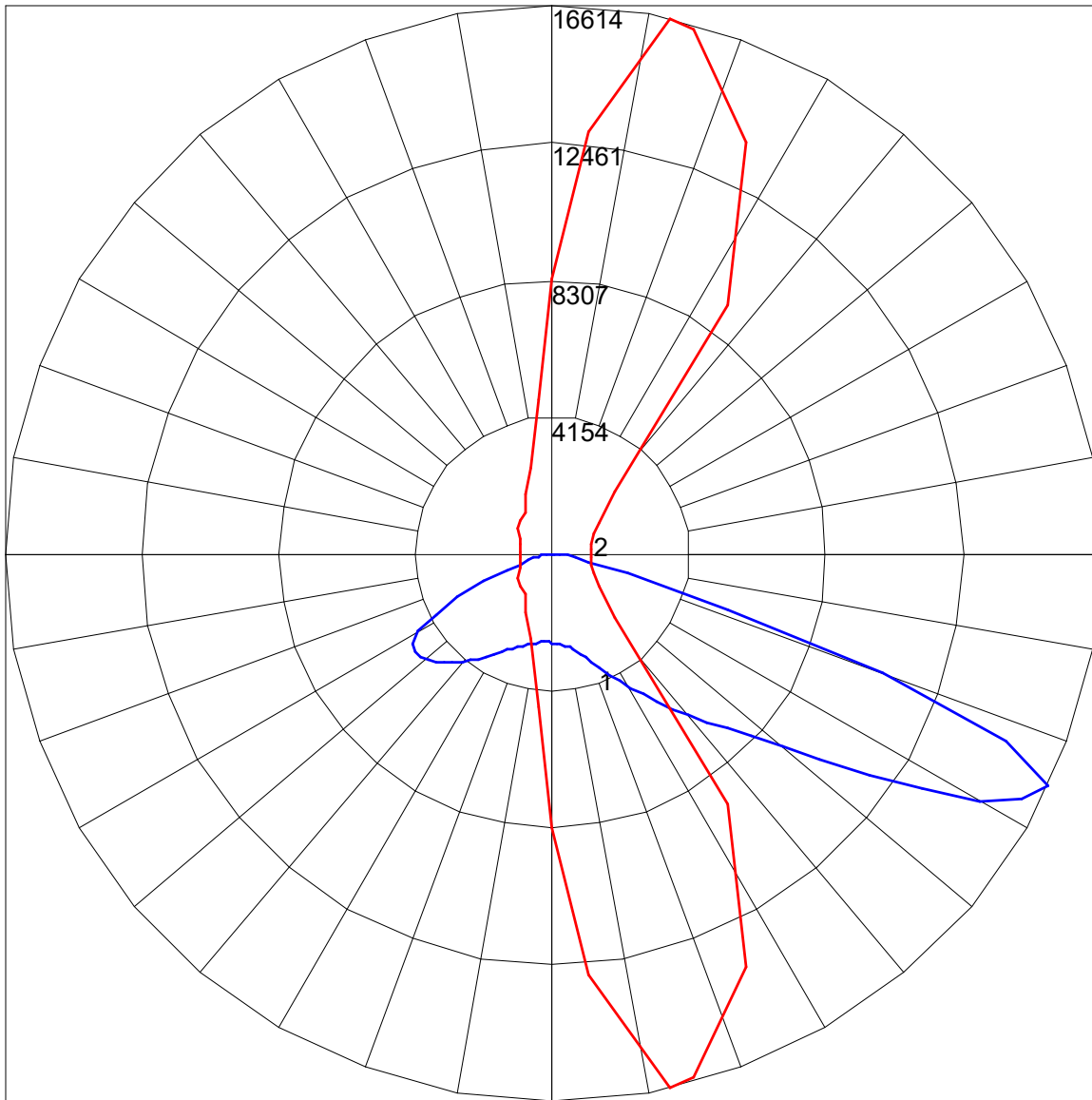
### COEFFICIENTS OF UTILIZATION



### FLUX DISTRIBUTION

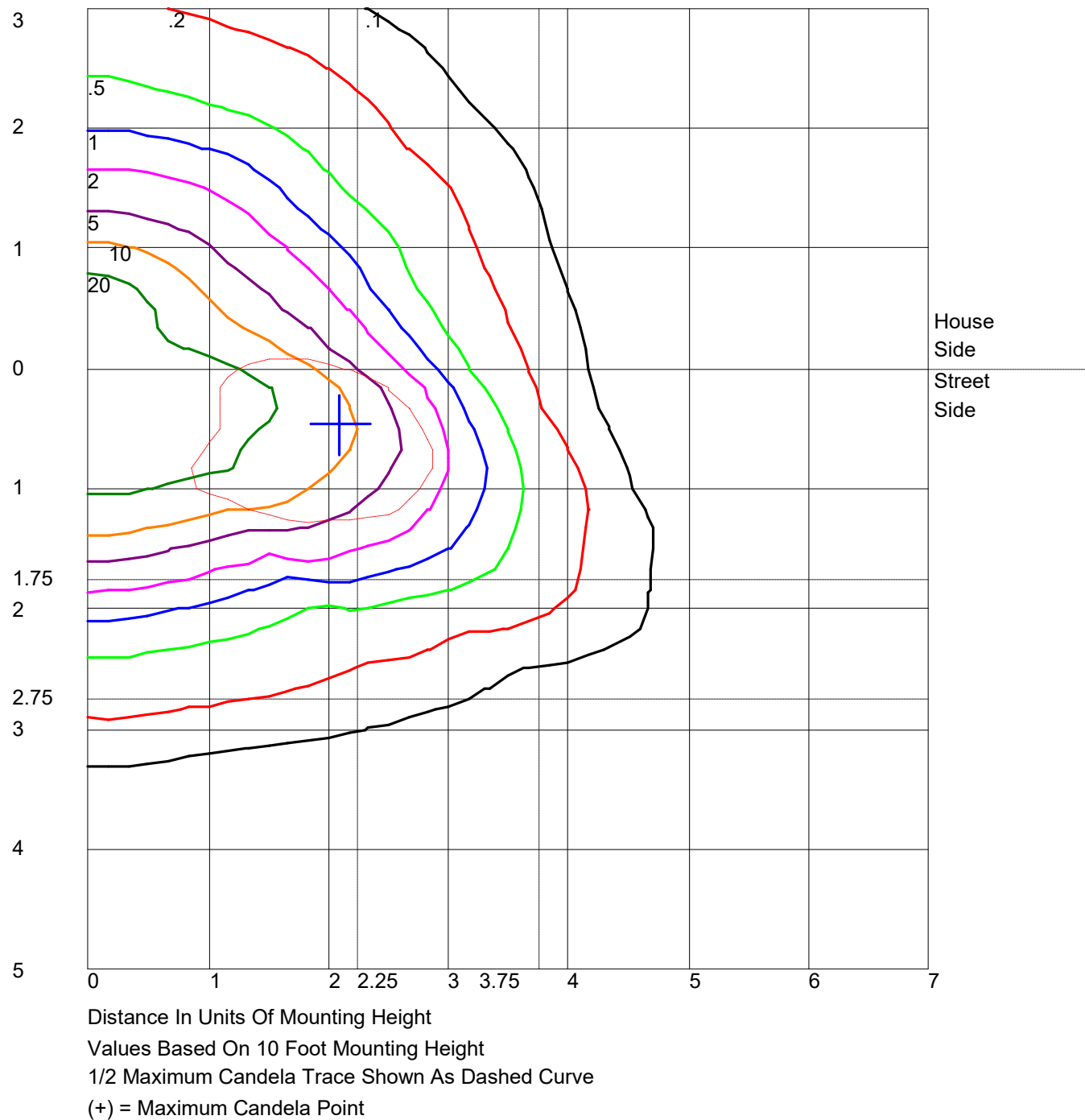
	Lumens	Percent Of Luminaire
Downward Street Side	13285.4	65.5
Downward House Side	6995.8	34.5
Downward Total	20281.2	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	20281.2	100.0

POLAR GRAPH



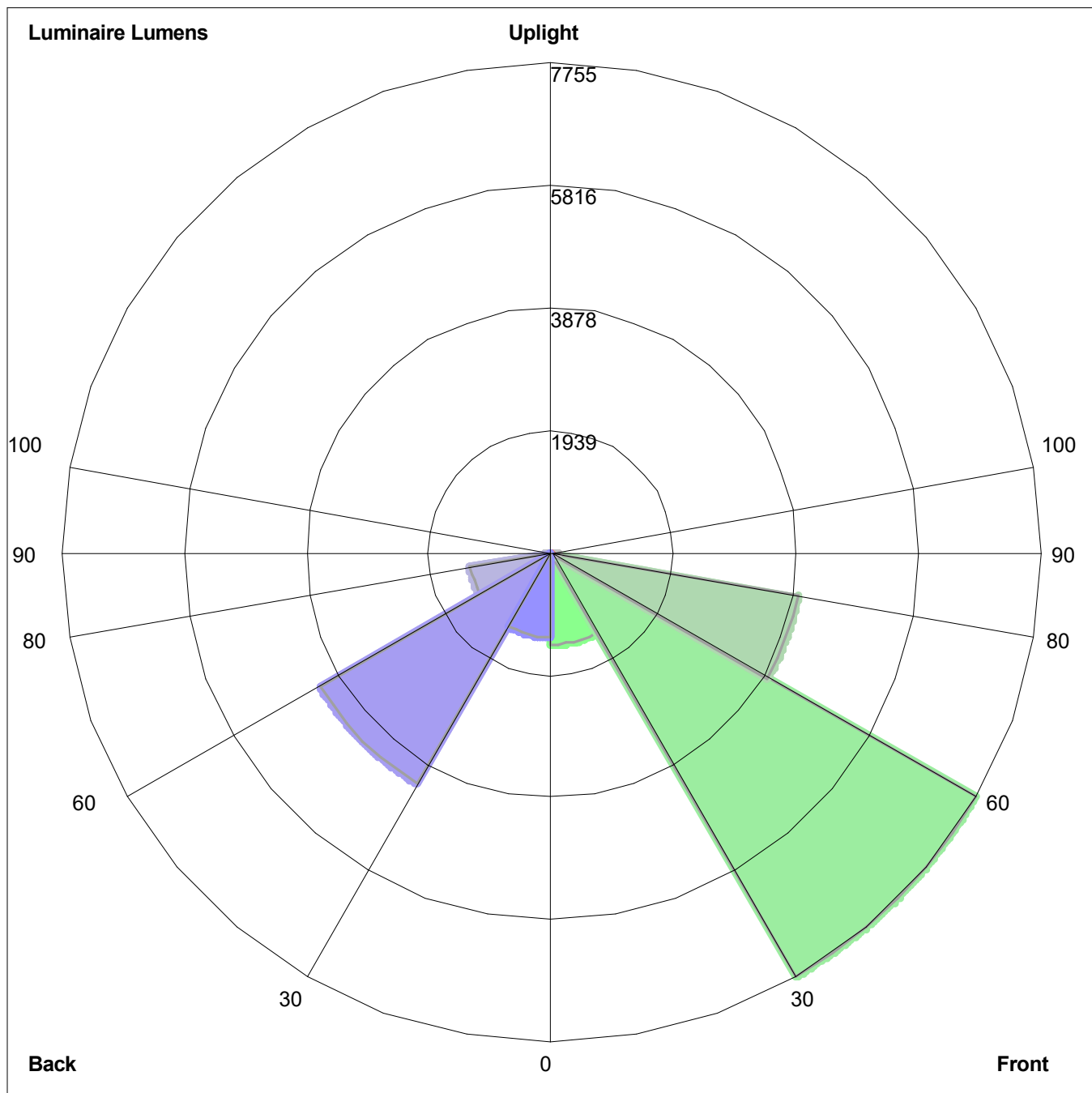
Maximum Candela = 16614 Located At Horizontal Angle = 77.5, Vertical Angle = 65  
# 1 - Vertical Plane Through Horizontal Angles (77.5 - 257.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE





LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=1462.3, Medium= 7755.0, High=3966.2, Very High=101.9  
Back: Low=1343.5, Medium=4227.1, High=1309.8, Very High=115.3  
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G3