



## IES ROAD REPORT

PHOTOMETRIC FILENAME : ENM4-SAX-FT-LED-18L-50-IL.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] LED-11788  
[TESTLAB] LSI INDUSTRIES, INC.  
[ISSUE DATE] 06/10/2020  
[TEST DATE] 04/30/20  
[MANUFACT] LSI INDUSTRIES, INC.  
[LUMCAT] ENM4-SAX-FT-LED-18L-50-IL  
[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.  
[OTHER] TEST PROCEDURE: IESNA LM-79-08  
[SEARCH\_SOURCETYPE] LED  
[SEARCH\_APPLICATION] Outdoor  
[FACTORED] SCALED FROM ORIGINAL TEST DATA

### CHARACTERISTICS

IES Classification	Type III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	16190
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	12597
Maximum Candela Angle	42.5H 67.5V
Maximum Candela (<90 Degrees Vertical)	12597
Maximum Candela Angle (<90 Degrees Vertical)	42.5H 67.5V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1601 (9.9% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1472.6	N.A.	9.1
FM - Front-Medium (30-60)	6691.2	N.A.	41.3
FH - Front-High (60-80)	5771.3	N.A.	35.6
FVH - Front-Very High (80-90)	181.0	N.A.	1.1
BL - Back-Low (0-30)	754.0	N.A.	4.7
BM - Back-Medium (30-60)	1113.9	N.A.	6.9
BH - Back-High (60-80)	201.6	N.A.	1.2
BVH - Back-Very High (80-90)	4.0	N.A.	0.0
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	16189.6	N.A.	100.0
BUG Rating	B2-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>42.5</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>
<b>0.0</b>	2984	2984	2984	2984	2984	2984	2984	2984	2984	2984
<b>2.5</b>	3079	3050	3053	3052	3054	3019	3040	3037	3022	3025
<b>5.0</b>	3153	3124	3126	3132	3135	3092	3123	3113	3090	3078
<b>7.5</b>	3184	3150	3159	3170	3180	3141	3183	3178	3166	3143
<b>10.0</b>	3195	3166	3172	3189	3205	3189	3213	3241	3233	3218
<b>12.5</b>	3223	3188	3196	3210	3229	3229	3255	3295	3304	3292
<b>15.0</b>	3265	3247	3256	3272	3293	3278	3310	3347	3370	3369
<b>17.5</b>	3324	3324	3328	3352	3363	3347	3380	3410	3441	3456
<b>20.0</b>	3417	3410	3423	3440	3443	3432	3457	3484	3508	3538
<b>22.5</b>	3523	3510	3522	3530	3541	3531	3553	3571	3568	3604
<b>25.0</b>	3641	3634	3632	3643	3653	3655	3662	3670	3651	3682
<b>27.5</b>	3788	3773	3773	3789	3795	3796	3788	3781	3753	3765
<b>30.0</b>	3962	3948	3946	3958	3954	3961	3952	3903	3865	3839
<b>32.5</b>	4156	4152	4153	4158	4140	4151	4149	4063	3992	3915
<b>35.0</b>	4362	4370	4388	4385	4382	4394	4362	4278	4134	4016
<b>37.5</b>	4616	4615	4619	4622	4644	4667	4634	4537	4304	4141
<b>40.0</b>	4856	4858	4875	4892	4930	4982	4942	4821	4521	4293
<b>42.5</b>	5112	5121	5142	5207	5276	5357	5305	5178	4828	4511
<b>45.0</b>	5406	5420	5459	5589	5673	5773	5757	5632	5199	4766
<b>47.5</b>	5751	5748	5833	6010	6149	6295	6244	6187	5637	5070
<b>50.0</b>	6121	6127	6255	6494	6741	6908	6844	6804	6137	5411
<b>52.5</b>	6505	6511	6704	7079	7391	7631	7569	7506	6705	5806
<b>55.0</b>	6923	6948	7204	7664	8135	8454	8459	8273	7325	6229
<b>57.5</b>	7350	7449	7738	8315	8970	9402	9306	9114	7976	6550
<b>60.0</b>	7806	7956	8318	9014	9825	10313	10194	9940	8498	6730
<b>62.5</b>	8023	8176	8776	9778	10639	11305	11182	10619	8809	6591
<b>65.0</b>	7381	7564	8489	10146	11597	12316	12189	10941	8614	6050
<b>67.5</b>	5995	6186	7328	9402	11648	12597	12595	10785	7850	4912
<b>70.0</b>	3153	3337	4796	7582	10109	11428	11860	9899	6249	3544
<b>72.5</b>	1246	1329	2007	4010	7237	9200	9615	7855	4420	2121
<b>75.0</b>	896	933	1276	2060	3619	5400	5947	5397	2674	1364
<b>77.5</b>	705	737	1049	1560	2223	2726	2863	3023	1742	933
<b>80.0</b>	561	581	870	1235	1483	1581	1601	1362	1065	631
<b>82.5</b>	402	432	651	855	755	643	623	486	508	382
<b>85.0</b>	173	195	258	294	271	249	244	185	194	217
<b>87.5</b>	62	66	89	111	94	75	66	51	55	69
<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>	2984	2984	2984	2984	2984	2984	2984	2984	2984	2984
<b>2.5</b>	3004	3005	3000	2977	2976	2959	2941	2937	2912	2902
<b>5.0</b>	3040	3032	3009	2970	2944	2902	2851	2823	2800	2774
<b>7.5</b>	3087	3076	3037	2971	2899	2833	2759	2685	2607	2546
<b>10.0</b>	3162	3134	3086	2985	2864	2745	2575	2381	2219	2101
<b>12.5</b>	3244	3201	3146	3002	2815	2561	2250	1958	1720	1552
<b>15.0</b>	3324	3276	3211	3010	2714	2269	1828	1471	1247	1143
<b>17.5</b>	3414	3358	3291	3009	2543	1938	1414	1155	1011	931
<b>20.0</b>	3506	3452	3355	2995	2316	1573	1168	971	867	811
<b>22.5</b>	3591	3530	3422	2939	2042	1316	1018	862	778	736
<b>25.0</b>	3655	3598	3486	2823	1752	1160	919	791	732	708
<b>27.5</b>	3721	3664	3538	2677	1529	1062	856	748	709	699

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**CANDELA TABULATION - (Cont.)**

30.0	3789	3727	3583	2509	1386	994	810	718	687	690
32.5	3850	3778	3626	2308	1290	948	775	682	661	674
35.0	3905	3810	3654	2140	1225	916	737	643	629	631
37.5	3968	3848	3666	2026	1172	878	689	590	573	550
40.0	4055	3914	3692	1959	1135	832	630	521	489	449
42.5	4176	3997	3720	1934	1090	764	553	442	386	342
45.0	4312	4082	3717	1932	1022	681	468	351	287	254
47.5	4501	4179	3720	1956	915	569	369	265	210	185
50.0	4718	4325	3755	1995	758	422	262	184	153	138
52.5	4944	4462	3783	1998	564	285	176	129	108	103
55.0	5124	4516	3754	1895	377	203	128	92	77	71
57.5	5229	4524	3689	1630	264	155	100	69	52	44
60.0	5183	4403	3412	1183	208	124	77	50	30	21
62.5	4867	3991	2852	716	174	100	61	34	17	10
65.0	4183	3262	2032	400	144	79	45	23	9	4
67.5	3103	2293	1215	250	107	60	31	17	7	4
70.0	2004	1387	653	159	75	41	24	14	7	4
72.5	1092	818	360	103	49	26	18	12	6	1
75.0	752	535	213	69	29	17	15	6	2	0
77.5	505	352	154	42	17	14	8	4	1	0
80.0	285	199	105	24	10	8	6	2	0	0
82.5	187	131	64	9	6	6	4	1	0	0
85.0	117	71	22	5	4	5	4	1	0	0
87.5	44	16	3	1	2	3	2	1	0	0
90.0	0	0	0	0	0	0	0	0	0	0

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

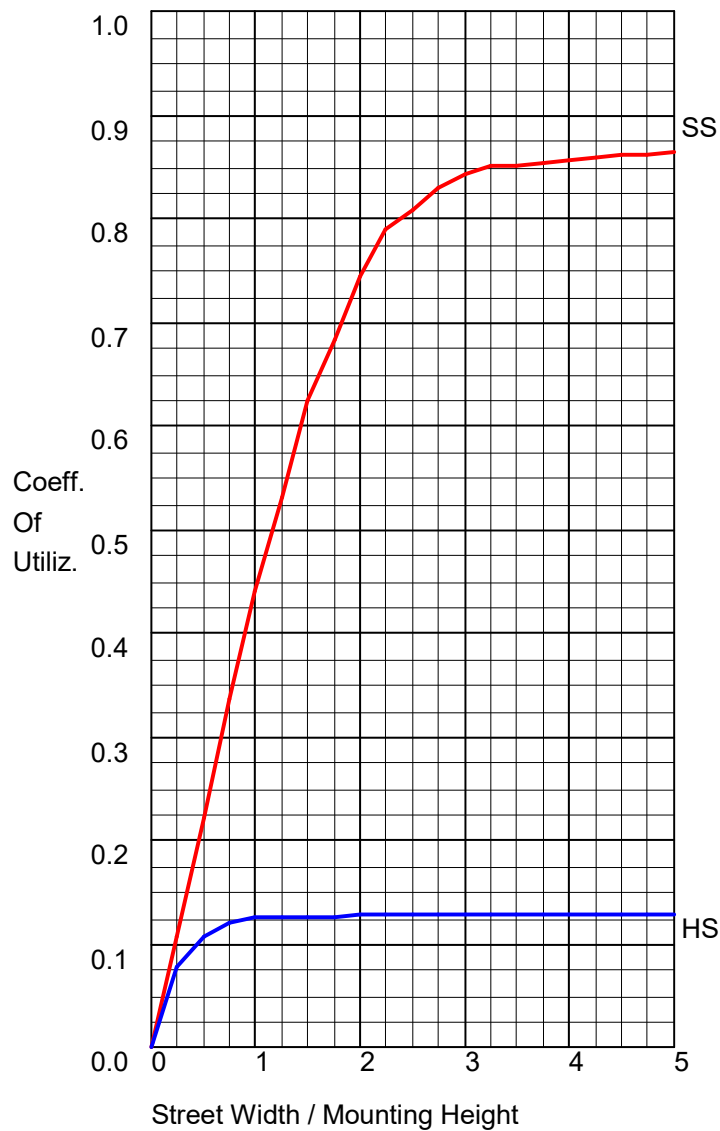
	<b><u>175.0</u></b>	<b><u>180.0</u></b>
0.0	2984	2984
2.5	2899	2883
5.0	2756	2737
7.5	2515	2488
10.0	2014	2019
12.5	1445	1445
15.0	1083	1083
17.5	894	891
20.0	784	780
22.5	719	716
25.0	699	702
27.5	692	695
30.0	687	687
32.5	667	666
35.0	604	593
37.5	507	501
40.0	399	398
42.5	307	300
45.0	223	218
47.5	171	169
50.0	133	132
52.5	101	101
55.0	70	70
57.5	41	41
60.0	20	19
62.5	8	8
65.0	2	2

**IES ROAD REPORT**  
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**CANDELA TABULATION - (Cont.)**

<b>67.5</b>	<b>1</b>	<b>1</b>
<b>70.0</b>	<b>1</b>	<b>1</b>
<b>72.5</b>	<b>0</b>	<b>0</b>
<b>75.0</b>	<b>0</b>	<b>0</b>
<b>77.5</b>	<b>0</b>	<b>0</b>
<b>80.0</b>	<b>0</b>	<b>0</b>
<b>82.5</b>	<b>0</b>	<b>0</b>
<b>85.0</b>	<b>0</b>	<b>0</b>
<b>87.5</b>	<b>0</b>	<b>0</b>
<b>90.0</b>	<b>0</b>	<b>0</b>

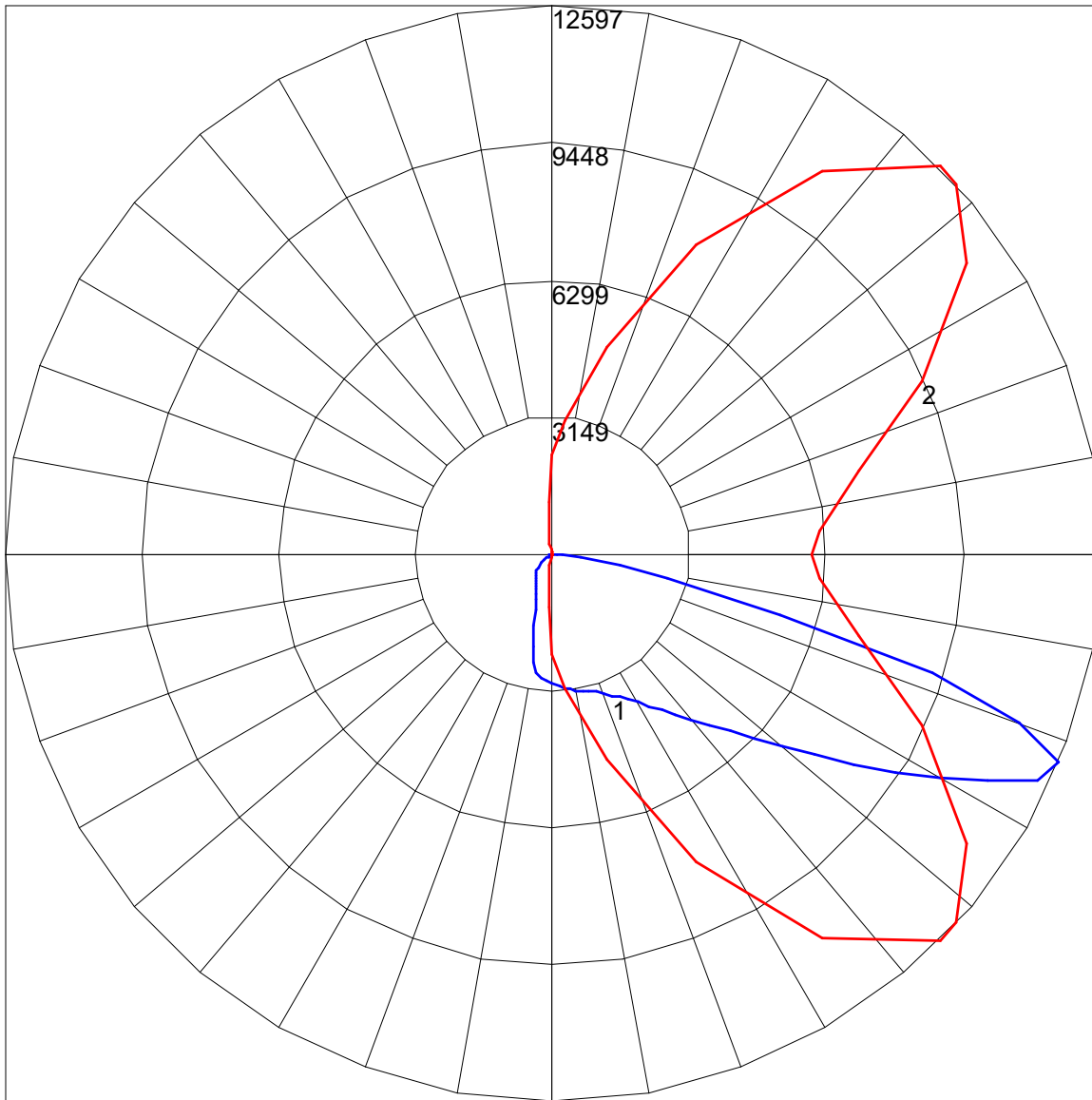
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

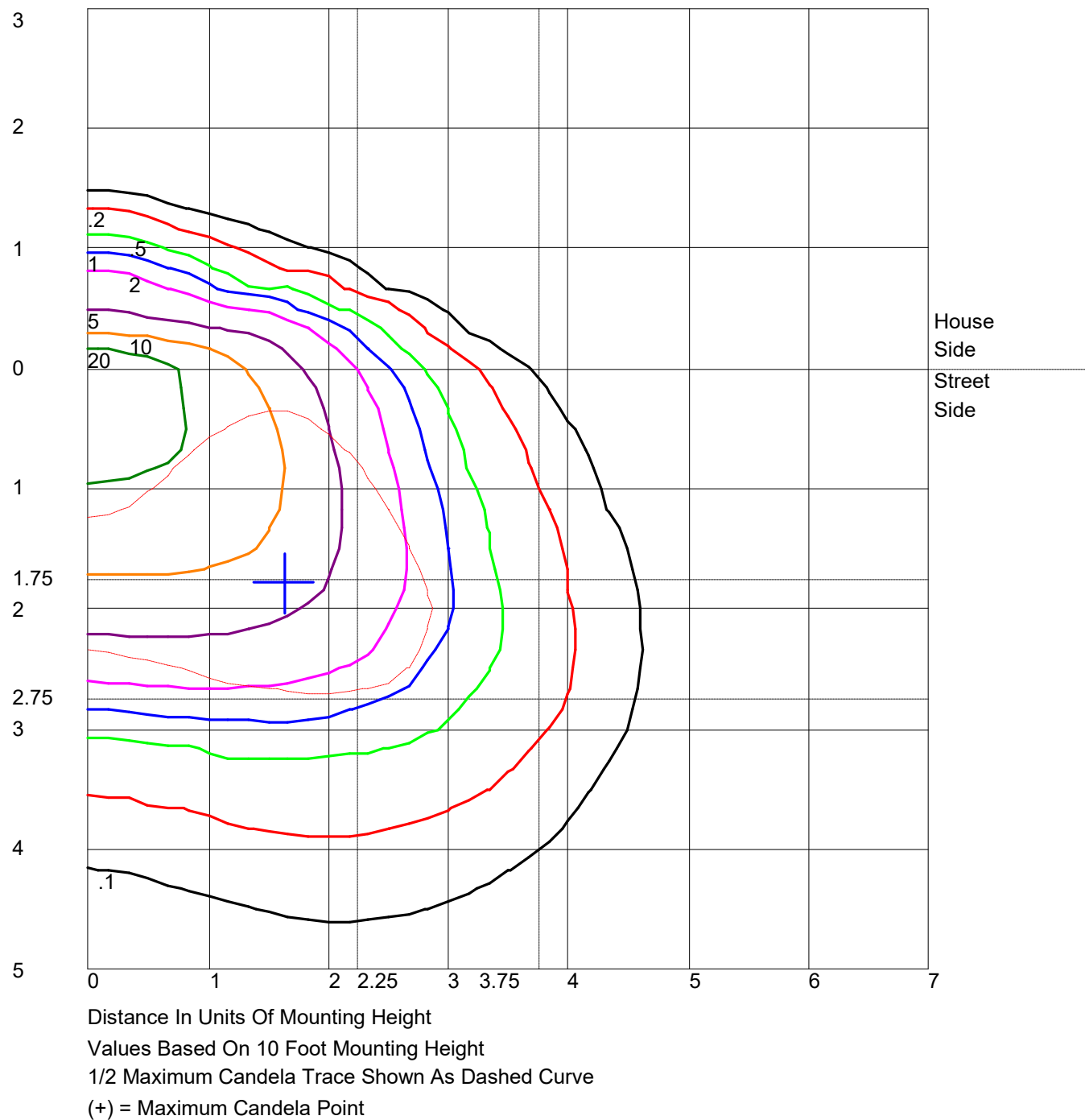
	Lumens	Percent Of Luminaire
Downward Street Side	14116.2	87.2
Downward House Side	2073.5	12.8
Downward Total	16189.7	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	16189.7	100.0

POLAR GRAPH



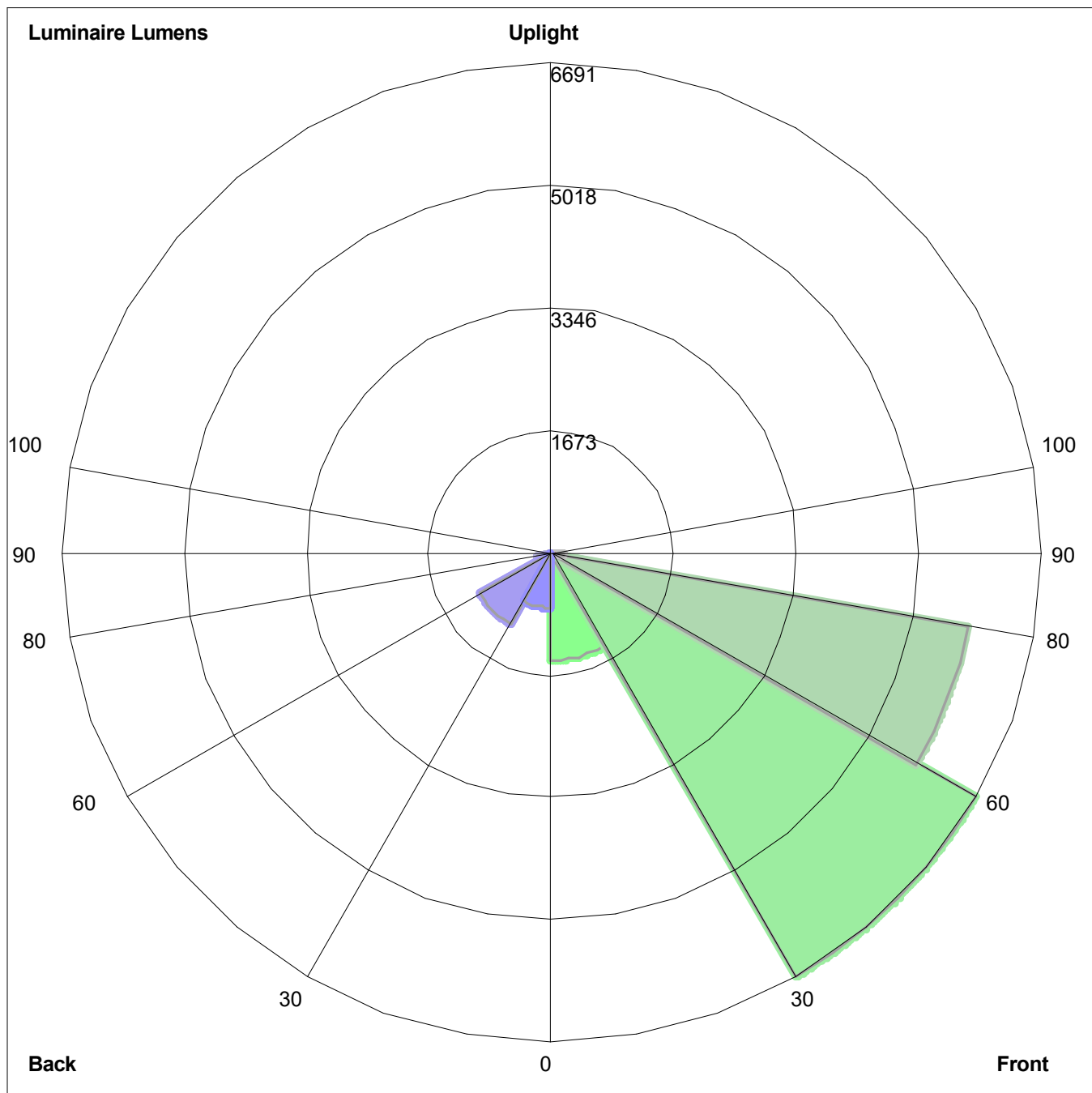
Maximum Candela = 12597 Located At Horizontal Angle = 42.5, Vertical Angle = 67.5  
# 1 - Vertical Plane Through Horizontal Angles (42.5 - 222.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE





LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=1472.6, Medium=6691.2, High=5771.3, Very High=181.0  
Back: Low=754.0, Medium=1113.9, High=201.6, Very High=4.0  
Uplight: Low=0.0, High=0.0

BUG Rating : B2-U0-G3