



## IES ROAD REPORT

PHOTOMETRIC FILENAME : ENM4-SAX-2-LED-18L-50-IL.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] LED-11792  
[TESTLAB] LSI INDUSTRIES, INC.  
[ISSUE DATE] 06/10/2020  
[TEST DATE] 05/01/20  
[MANUFACT] LSI INDUSTRIES, INC.  
[LUMCAT] ENM4-SAX-2-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 II
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	16145
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	14708
Maximum Candela Angle	75H 65V
Maximum Candela (<90 Degrees Vertical)	14708
Maximum Candela Angle (<90 Degrees Vertical)	75H 65V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	899 (5.6% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1572.3	N.A.	9.7
FM - Front-Medium (30-60)	7662.2	N.A.	47.5
FH - Front-High (60-80)	3799.3	N.A.	23.5
FVH - Front-Very High (80-90)	65.6	N.A.	0.4
BL - Back-Low (0-30)	1034.8	N.A.	6.4
BM - Back-Medium (30-60)	1542.2	N.A.	9.6
BH - Back-High (60-80)	463.0	N.A.	2.9
BVH - Back-Very High (80-90)	5.4	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	16144.8	N.A.	100.0
BUG Rating	B3-U0-G2		

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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>	2973	2973	2973	2973	2973	2973	2973	2973	2973	2973
<b>2.5</b>	3028	3027	3040	3034	3026	3022	3015	2994	2997	2965
<b>5.0</b>	3114	3089	3095	3102	3096	3086	3083	3058	3039	3007
<b>7.5</b>	3159	3152	3164	3164	3170	3159	3158	3129	3117	3079
<b>10.0</b>	3207	3201	3222	3230	3237	3248	3246	3226	3194	3171
<b>12.5</b>	3282	3272	3284	3294	3330	3338	3341	3336	3306	3284
<b>15.0</b>	3328	3320	3348	3377	3419	3444	3459	3450	3426	3419
<b>17.5</b>	3375	3389	3423	3453	3508	3570	3603	3600	3591	3579
<b>20.0</b>	3460	3485	3508	3564	3618	3698	3737	3782	3778	3742
<b>22.5</b>	3598	3611	3653	3703	3773	3831	3918	3983	3968	3948
<b>25.0</b>	3773	3785	3823	3867	3925	4004	4110	4189	4204	4186
<b>27.5</b>	3960	3970	4002	4078	4153	4225	4294	4424	4453	4433
<b>30.0</b>	4210	4225	4271	4317	4415	4488	4572	4678	4709	4711
<b>32.5</b>	4504	4516	4552	4636	4709	4804	4855	4941	5005	5024
<b>35.0</b>	4811	4808	4878	4975	5095	5164	5182	5231	5302	5331
<b>37.5</b>	5136	5140	5199	5325	5472	5571	5549	5571	5642	5697
<b>40.0</b>	5463	5475	5545	5705	5905	6026	6015	5979	6042	6105
<b>42.5</b>	5729	5769	5867	6087	6362	6539	6507	6423	6456	6639
<b>45.0</b>	5925	5960	6121	6375	6744	7059	7078	6933	6996	7117
<b>47.5</b>	5998	5979	6181	6554	7035	7570	7784	7573	7601	7714
<b>50.0</b>	5790	5763	5999	6474	7236	8019	8498	8420	8398	8497
<b>52.5</b>	5281	5294	5539	6063	7045	8349	9313	9382	9364	9475
<b>55.0</b>	4506	4508	4791	5379	6504	8336	10084	10400	10435	10575
<b>57.5</b>	3495	3521	3829	4384	5546	7878	10618	11538	11733	11881
<b>60.0</b>	2364	2390	2672	3226	4351	6881	10726	12747	13109	13222
<b>62.5</b>	1300	1344	1559	1991	2931	5454	10283	13404	14154	14304
<b>65.0</b>	697	703	826	1095	1740	3925	9059	13059	14708	14578
<b>67.5</b>	426	438	477	654	1034	2472	6973	11443	13799	13492
<b>70.0</b>	277	277	301	403	665	1411	4700	8717	10570	10033
<b>72.5</b>	184	189	199	261	451	902	2752	5537	6250	5644
<b>75.0</b>	112	114	120	156	291	659	1343	3304	3086	2543
<b>77.5</b>	61	63	65	83	167	457	706	1813	1570	1245
<b>80.0</b>	52	52	50	54	79	256	416	766	899	730
<b>82.5</b>	55	55	52	54	62	104	194	275	523	456
<b>85.0</b>	43	44	41	43	52	81	91	128	232	217
<b>87.5</b>	28	27	25	26	31	48	58	83	83	81
<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>	2973	2973	2973	2973	2973	2973	2973	2973	2973	2973
<b>2.5</b>	2997	2981	2983	2968	2954	2953	2940	2935	2937	2945
<b>5.0</b>	3037	3015	2995	2961	2947	2924	2908	2893	2868	2863
<b>7.5</b>	3086	3052	3054	2985	2953	2899	2866	2840	2819	2805
<b>10.0</b>	3166	3142	3096	3012	2961	2894	2848	2798	2759	2736
<b>12.5</b>	3271	3223	3188	3062	2979	2894	2799	2733	2704	2672
<b>15.0</b>	3389	3339	3273	3130	3010	2862	2757	2700	2654	2638
<b>17.5</b>	3532	3459	3405	3187	3016	2851	2723	2645	2576	2497
<b>20.0</b>	3711	3626	3534	3281	3036	2828	2680	2523	2228	1969
<b>22.5</b>	3900	3813	3698	3378	3048	2815	2571	2074	1641	1317
<b>25.0</b>	4112	3991	3846	3470	3075	2751	2158	1526	1012	708
<b>27.5</b>	4359	4233	4059	3565	3083	2562	1655	924	603	489

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**CANDELA TABULATION - (Cont.)**

30.0	4632	4474	4254	3637	3097	2162	1117	590	464	420
32.5	4924	4749	4485	3729	3007	1699	696	471	411	381
35.0	5238	5039	4701	3806	2759	1179	523	417	377	351
37.5	5596	5350	4978	3893	2383	752	446	378	343	313
40.0	5972	5712	5226	3948	1910	549	400	343	304	266
42.5	6436	6105	5545	3926	1326	466	360	308	253	208
45.0	6922	6515	5867	3796	819	415	322	256	193	150
47.5	7497	7029	6183	3475	590	373	280	199	138	105
50.0	8231	7606	6577	2974	485	323	228	145	96	72
52.5	9079	8325	6981	2294	417	274	171	97	64	47
55.0	10094	9073	7331	1516	371	224	122	64	40	31
57.5	11195	9832	7575	979	338	175	83	40	24	18
60.0	12208	10262	7583	747	315	132	52	23	10	6
62.5	12893	10319	7076	597	291	99	29	9	5	4
65.0	12750	9704	5929	479	247	71	15	5	3	2
67.5	10903	7779	4192	364	173	45	6	3	2	1
70.0	7311	4865	2307	260	111	25	4	2	2	1
72.5	3379	2368	1076	187	63	9	2	2	1	1
75.0	1300	1039	509	118	35	6	2	1	1	0
77.5	670	598	287	68	16	4	1	1	1	0
80.0	428	373	180	29	6	1	0	1	1	0
82.5	281	199	102	10	4	1	1	1	1	1
85.0	159	100	41	3	1	1	1	1	1	1
87.5	55	26	2	0	0	0	1	1	1	1
90.0	0	0	0	0	0	0	0	0	0	0

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

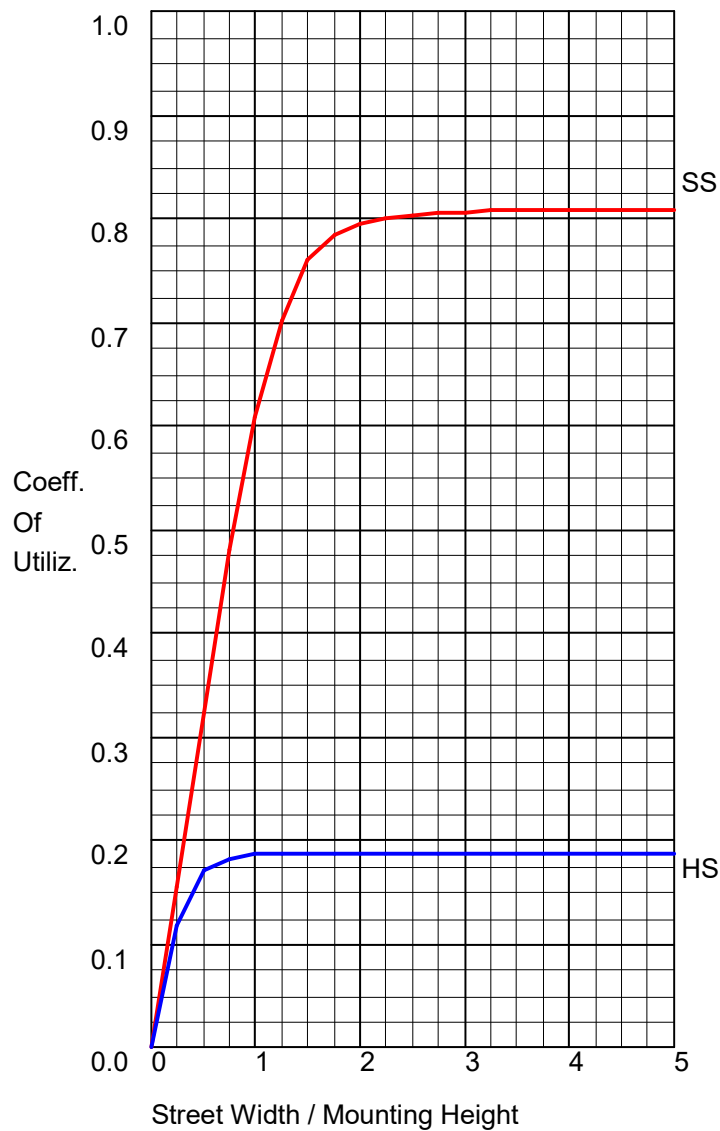
	<b><u>175.0</u></b>	<b><u>180.0</u></b>
0.0	2973	2973
2.5	2923	2922
5.0	2866	2855
7.5	2793	2778
10.0	2718	2709
12.5	2664	2664
15.0	2608	2598
17.5	2404	2379
20.0	1808	1788
22.5	1121	1100
25.0	617	610
27.5	458	451
30.0	402	400
32.5	366	362
35.0	333	332
37.5	294	292
40.0	248	245
42.5	188	183
45.0	134	130
47.5	91	90
50.0	62	61
52.5	41	40
55.0	26	25
57.5	13	12
60.0	4	4
62.5	1	0
65.0	0	0

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**CANDELA TABULATION - (Cont.)**

<b>67.5</b>	<b>0</b>	<b>0</b>
<b>70.0</b>	<b>0</b>	<b>0</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>

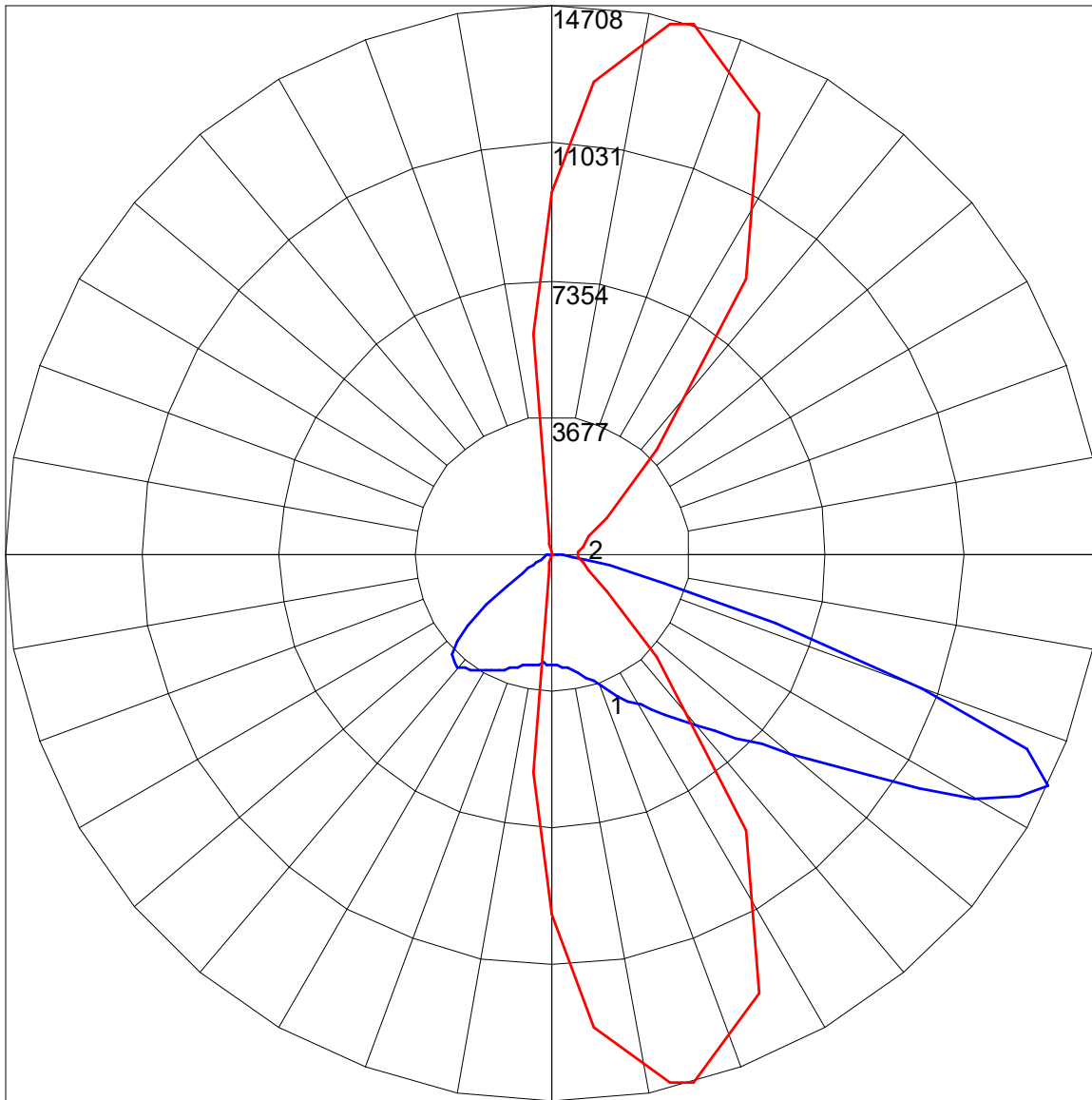
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

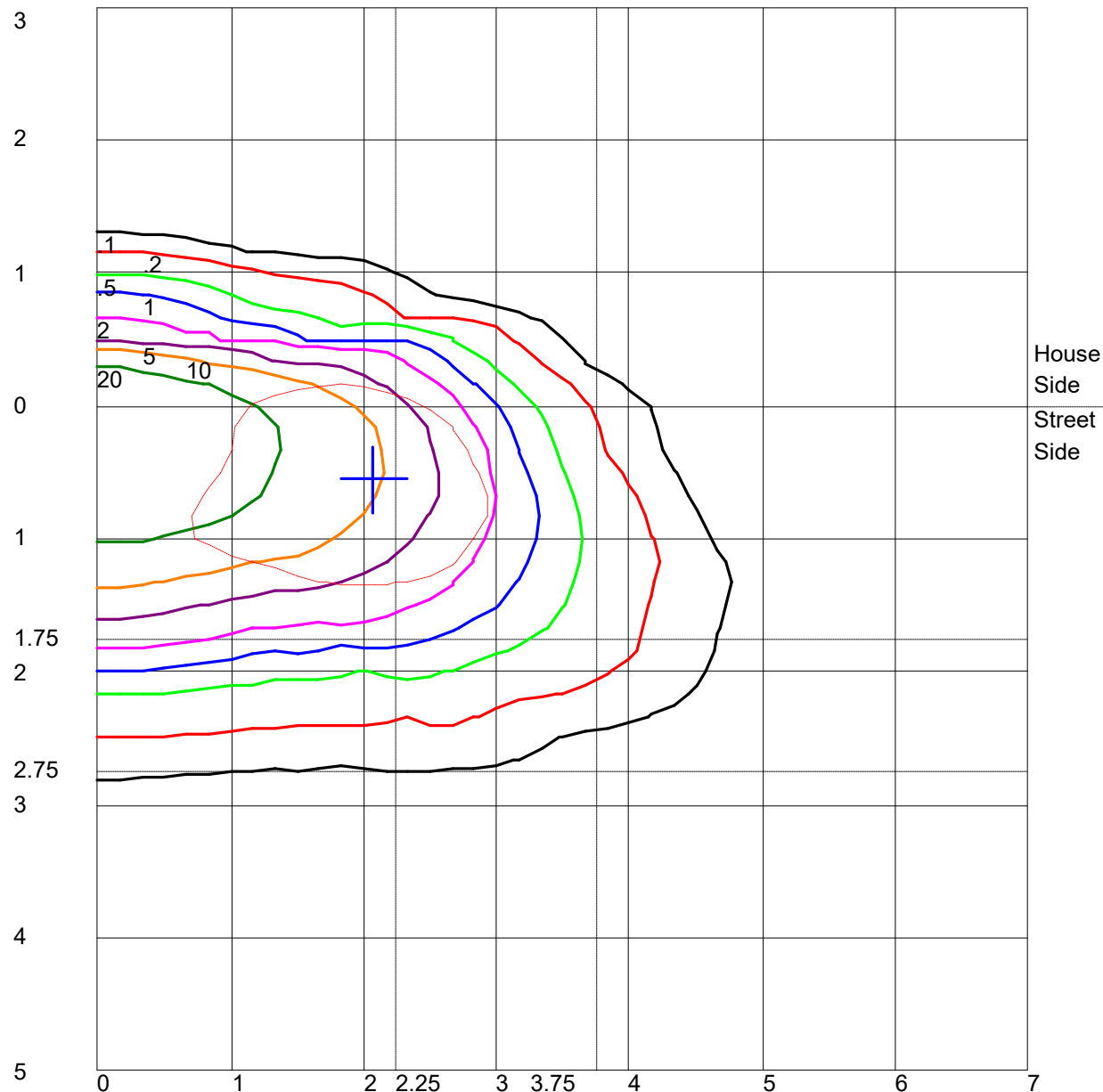
	Lumens	Percent Of Luminaire
Downward Street Side	13099.5	81.1
Downward House Side	3045.4	18.9
Downward Total	16144.9	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	16144.9	100.0

POLAR GRAPH



Maximum Candela = 14708 Located At Horizontal Angle = 75, Vertical Angle = 65  
# 1 - Vertical Plane Through Horizontal Angles (75 - 255) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

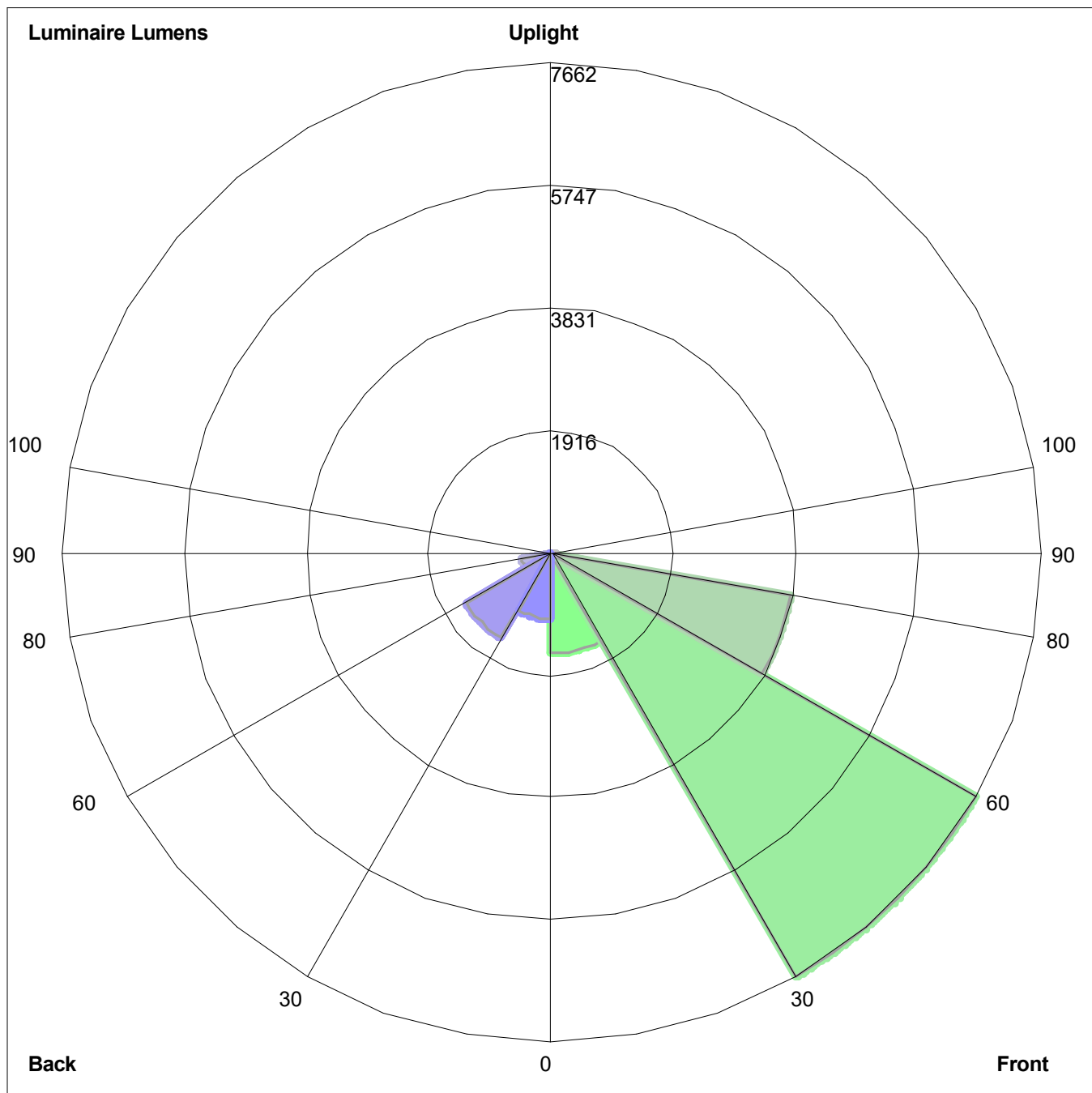
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



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



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=1572.3, Medium=7662.2, High=3799.3, Very High=65.6  
Back: Low=1034.8, Medium=1542.2, High=463.0, Very High=5.4  
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G2