



**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : VALS-21L-4F-30K8-IS.IES**

**DESCRIPTIVE INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] LED-15005  
[TESTLAB] LSI INDUSTRIES, INC.  
[TESTDATE] 08/22/24  
[ISSUE DATE] 09/23/24  
[MANUFAC] LSI INDUSTRIES, INC.  
[LUMCAT] VALS-21L-4F-30K8-IS  
[ ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.  
[TEST PROCEDURE] IESNA LM-79-19  
[ FACTORED] SCALED FROM ORIGINAL TEST DATA  
[ SEARCH\_SOURCETYPE] LED  
[ SEARCH\_APPLICATION] Outdoor  
[ SEARCH\_COLORTEMP] 3000

**CHARACTERISTICS**

IES Classification	Type IV
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	12405
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	95
Total Luminaire Watts	130
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	17120
Maximum Candela Angle	35H 72.5V
Maximum Candela (<90 Degrees Vertical)	17120
Maximum Candela Angle (<90 Degrees Vertical)	35H 72.5V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	6303 (50.8% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)



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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	550.4	N.A.	4.4
FM - Front-Medium (30-60)	3959.5	N.A.	31.9
FH - Front-High (60-80)	7243.2	N.A.	58.4
FVH - Front-Very High (80-90)	440.7	N.A.	3.6
BL - Back-Low (0-30)	70.9	N.A.	0.6
BM - Back-Medium (30-60)	103.5	N.A.	0.8
BH - Back-High (60-80)	34.5	N.A.	0.3
BVH - Back-Very High (80-90)	1.8	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	12404.5	N.A.	100.0
BUG Rating	B0-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>37.5</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>	434	434	434	434	434	434	434	434	434	434
<b>2.5</b>	547	540	538	538	533	522	520	501	494	475
<b>5.0</b>	748	750	745	723	702	685	669	621	587	536
<b>7.5</b>	937	937	932	906	881	867	832	767	697	612
<b>10.0</b>	1055	1059	1059	1041	1031	1020	993	938	832	709
<b>12.5</b>	1132	1132	1133	1125	1126	1127	1127	1096	998	831
<b>15.0</b>	1198	1193	1195	1188	1200	1202	1220	1235	1178	987
<b>17.5</b>	1244	1238	1244	1243	1267	1274	1310	1364	1369	1181
<b>20.0</b>	1270	1265	1274	1284	1332	1347	1411	1499	1559	1390
<b>22.5</b>	1270	1266	1281	1311	1404	1424	1526	1650	1752	1608
<b>25.0</b>	1247	1244	1263	1320	1485	1520	1664	1827	1944	1818
<b>27.5</b>	1216	1211	1227	1314	1570	1631	1845	2032	2128	2010
<b>30.0</b>	1202	1195	1202	1302	1657	1754	2060	2271	2312	2186
<b>32.5</b>	1280	1262	1225	1320	1748	1874	2284	2540	2497	2331
<b>35.0</b>	1446	1429	1345	1394	1882	2032	2519	2809	2725	2455
<b>37.5</b>	1633	1615	1531	1539	2090	2264	2778	3084	2991	2560
<b>40.0</b>	1888	1860	1743	1745	2395	2593	3110	3343	3272	2653
<b>42.5</b>	2147	2131	1991	2002	2799	3068	3554	3654	3549	2768
<b>45.0</b>	2442	2392	2246	2310	3272	3593	4082	4024	3775	2927
<b>47.5</b>	2708	2651	2498	2608	3812	4200	4699	4446	3997	3150
<b>50.0</b>	3002	2939	2767	2910	4421	4876	5371	4908	4264	3385
<b>52.5</b>	3362	3336	3224	3270	5116	5640	6135	5414	4587	3638
<b>55.0</b>	3808	3881	4261	3931	6035	6522	7018	6000	4964	3891
<b>57.5</b>	4572	4773	5940	5264	7065	7507	7984	6698	5419	4187
<b>60.0</b>	5999	6377	7655	6849	8379	8637	8861	7444	6067	4512
<b>62.5</b>	7521	8053	9101	8313	9776	9953	9682	8146	6849	5027
<b>65.0</b>	8362	8873	9904	9444	11628	11687	10836	8864	7618	5517
<b>67.5</b>	8653	9099	10250	10489	13448	13591	12429	9161	7355	5239
<b>70.0</b>	7964	8448	9977	11475	15925	16277	13412	7932	6260	4411
<b>72.5</b>	6950	7394	9248	11513	17120	17108	11692	6185	5013	2916
<b>75.0</b>	5886	6197	8262	10850	15041	14699	8285	4473	3074	1072
<b>77.5</b>	3741	3982	6100	9282	10888	10051	5157	2561	1143	258
<b>80.0</b>	1916	2056	3873	5712	6303	5568	2364	841	347	184
<b>82.5</b>	1111	1126	1729	3041	3339	2750	851	218	209	140
<b>85.0</b>	476	473	774	2021	1699	1220	225	93	129	89
<b>87.5</b>	241	235	417	805	437	253	61	39	59	46
<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>	434	434	434	434	434	434	434	434	434	434
<b>2.5</b>	457	446	435	412	396	372	358	342	329	324
<b>5.0</b>	483	453	426	370	324	277	247	221	203	194
<b>7.5</b>	520	471	424	334	263	209	181	167	159	156
<b>10.0</b>	573	500	429	302	212	174	160	154	150	146
<b>12.5</b>	643	541	441	270	182	159	150	144	137	132
<b>15.0</b>	735	592	455	238	164	149	138	127	116	110
<b>17.5</b>	842	652	462	207	151	137	122	109	102	99
<b>20.0</b>	960	704	457	182	142	123	107	99	94	90
<b>22.5</b>	1083	746	440	162	131	110	99	92	87	83
<b>25.0</b>	1192	775	410	148	122	102	93	86	81	78
<b>27.5</b>	1293	791	371	138	113	96	88	81	74	73

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**CANDELA TABULATION - (Cont.)**

30.0	1377	786	327	130	105	92	83	74	70	68
32.5	1445	766	285	124	99	87	77	70	67	65
35.0	1496	737	247	118	93	81	71	66	62	61
37.5	1538	707	217	112	88	75	67	62	59	57
40.0	1580	681	201	107	83	71	62	58	53	53
42.5	1626	665	193	102	80	66	58	53	49	47
45.0	1676	656	195	95	74	62	54	50	44	42
47.5	1738	655	206	89	71	59	51	46	40	38
50.0	1820	668	225	84	66	55	47	41	35	32
52.5	1944	704	249	80	61	52	44	37	30	25
55.0	2081	760	275	74	57	47	39	32	23	19
57.5	2245	847	308	69	53	42	33	25	17	12
60.0	2456	1014	353	62	46	36	27	18	10	6
62.5	2770	1286	375	53	40	30	20	11	4	3
65.0	2902	1302	220	44	32	22	12	5	2	0
67.5	2359	714	81	34	25	15	6	2	0	0
70.0	1468	223	53	28	19	8	4	0	0	0
72.5	621	117	47	23	14	5	2	0	0	0
75.0	197	73	40	17	8	4	2	1	0	0
77.5	98	56	34	14	5	4	3	2	1	0
80.0	74	43	26	8	4	4	4	5	4	2
82.5	53	30	17	4	3	4	4	4	3	0
85.0	38	17	7	2	2	3	3	4	2	0
87.5	21	8	3	2	2	2	3	4	2	0
90.0	0	0	0	0	0	0	0	0	0	0

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

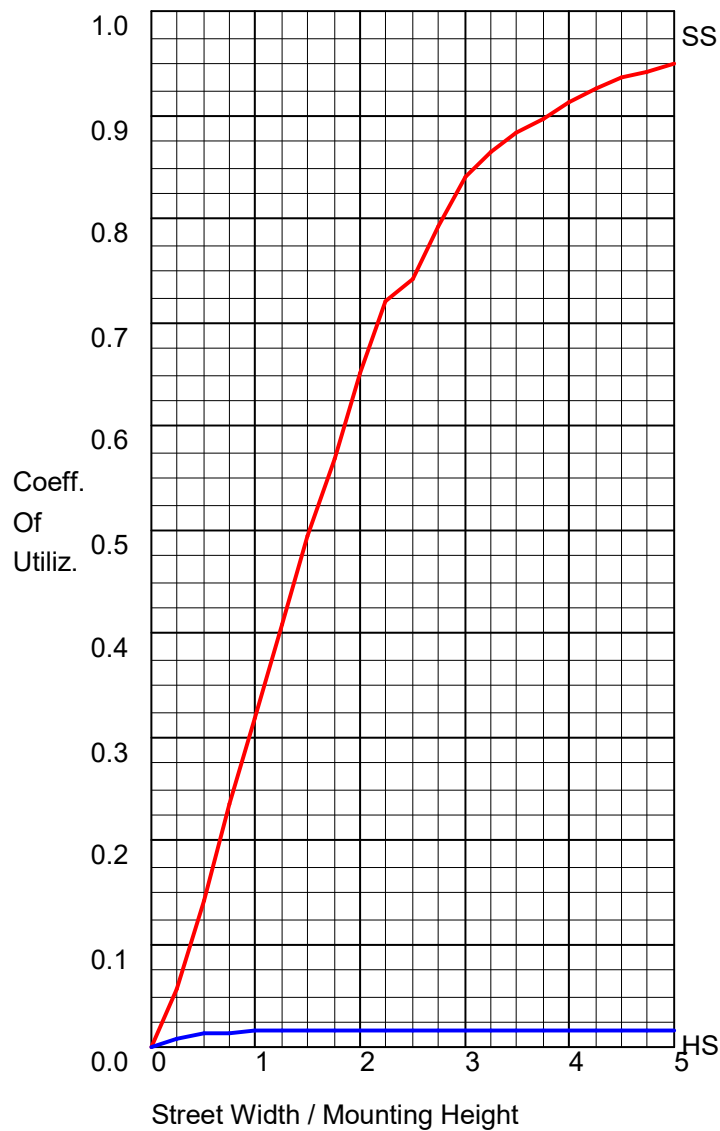
	<u>175.0</u>	<u>180.0</u>
0.0	434	434
2.5	326	326
5.0	188	184
7.5	152	152
10.0	144	144
12.5	129	129
15.0	110	110
17.5	99	98
20.0	89	89
22.5	82	82
25.0	77	77
27.5	72	72
30.0	68	68
32.5	65	66
35.0	62	62
37.5	58	58
40.0	53	53
42.5	47	47
45.0	42	42
47.5	37	37
50.0	32	32
52.5	25	25
55.0	18	18
57.5	11	11
60.0	4	4
62.5	0	0
65.0	0	0

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**CANDELA TABULATION - (Cont.)**

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

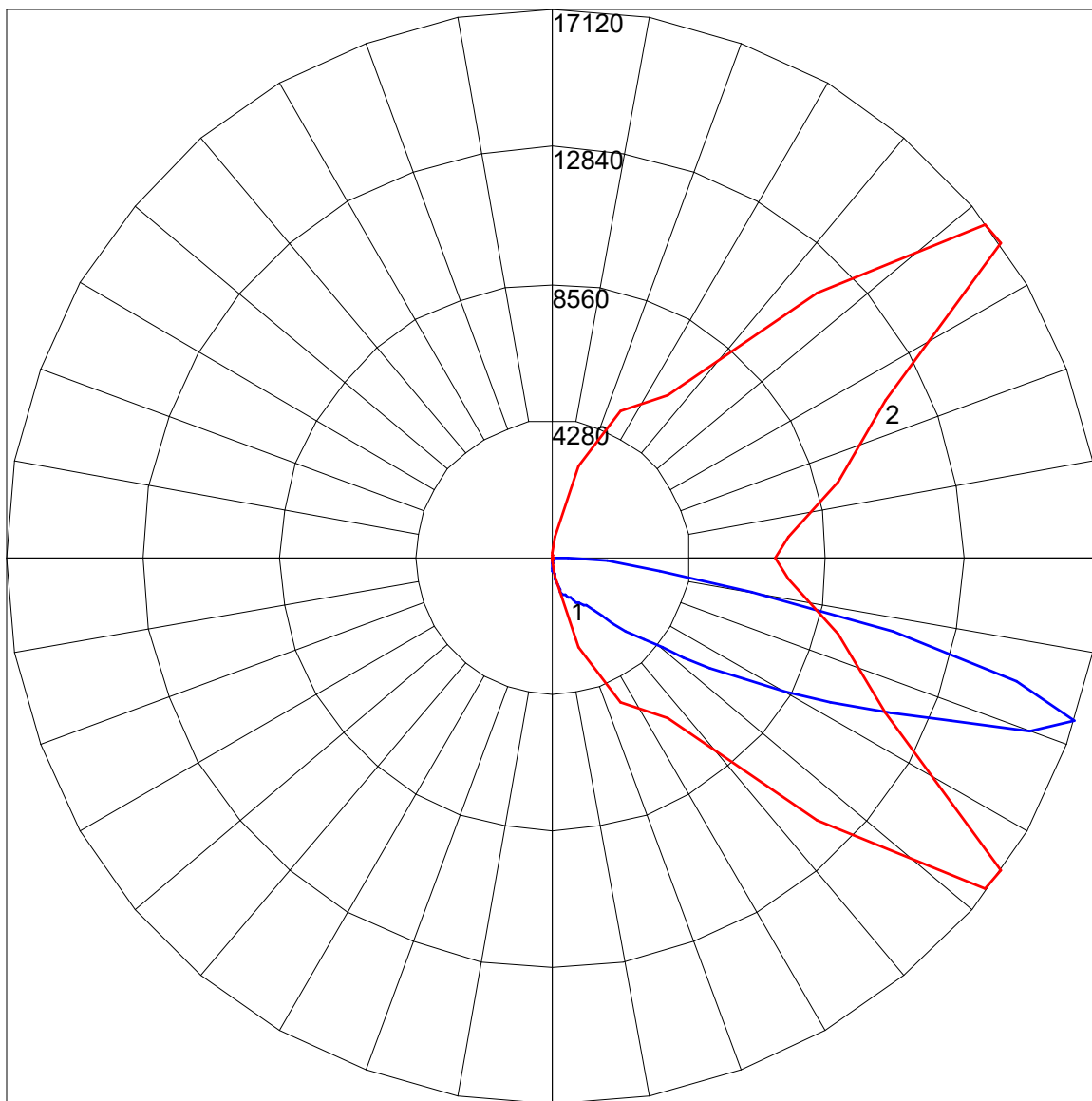
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

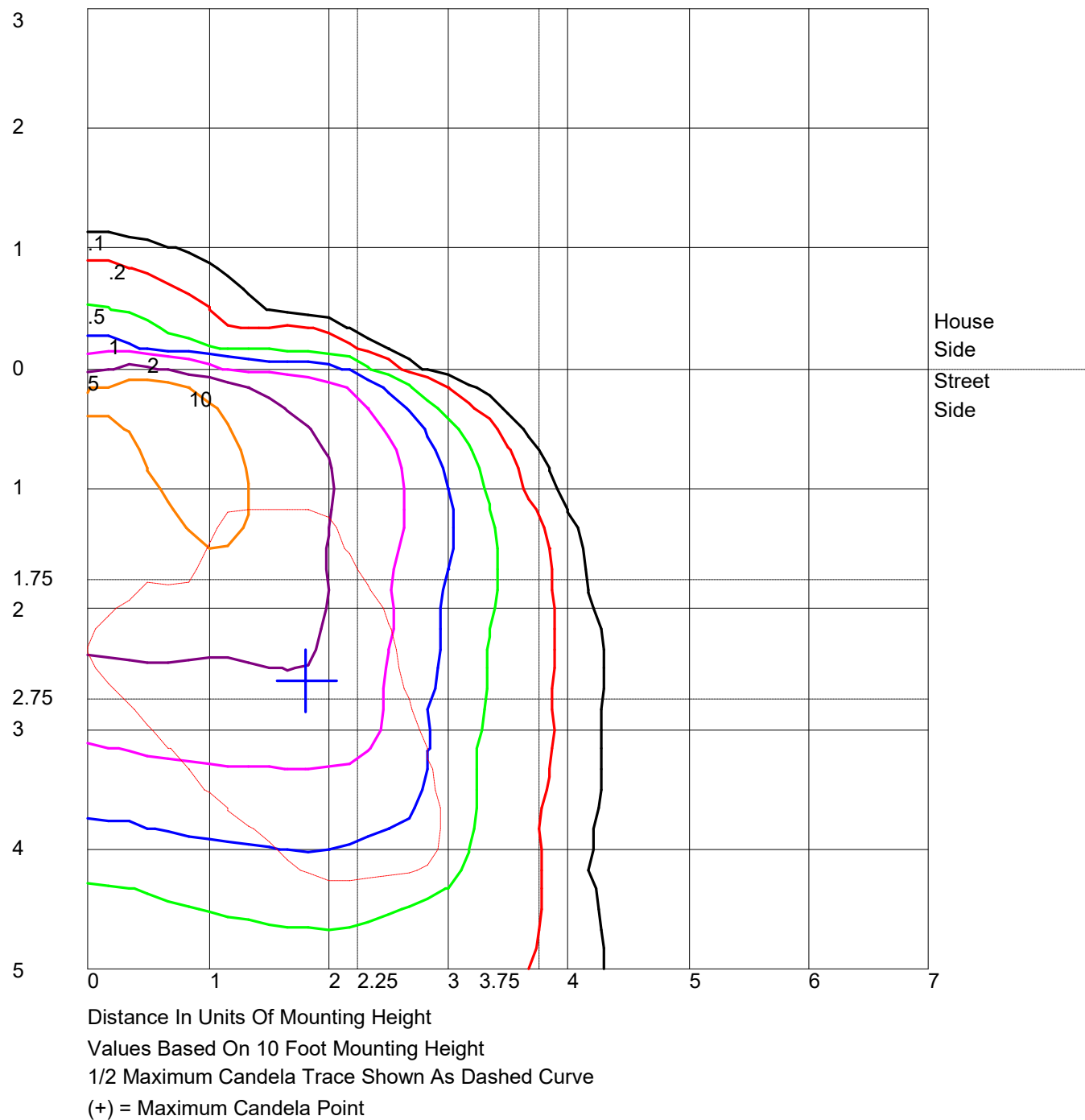
	Lumens	Percent Of Luminaire
Downward Street Side	12193.8	98.3
Downward House Side	210.7	1.7
Downward Total	12404.5	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	12404.5	100.0

POLAR GRAPH



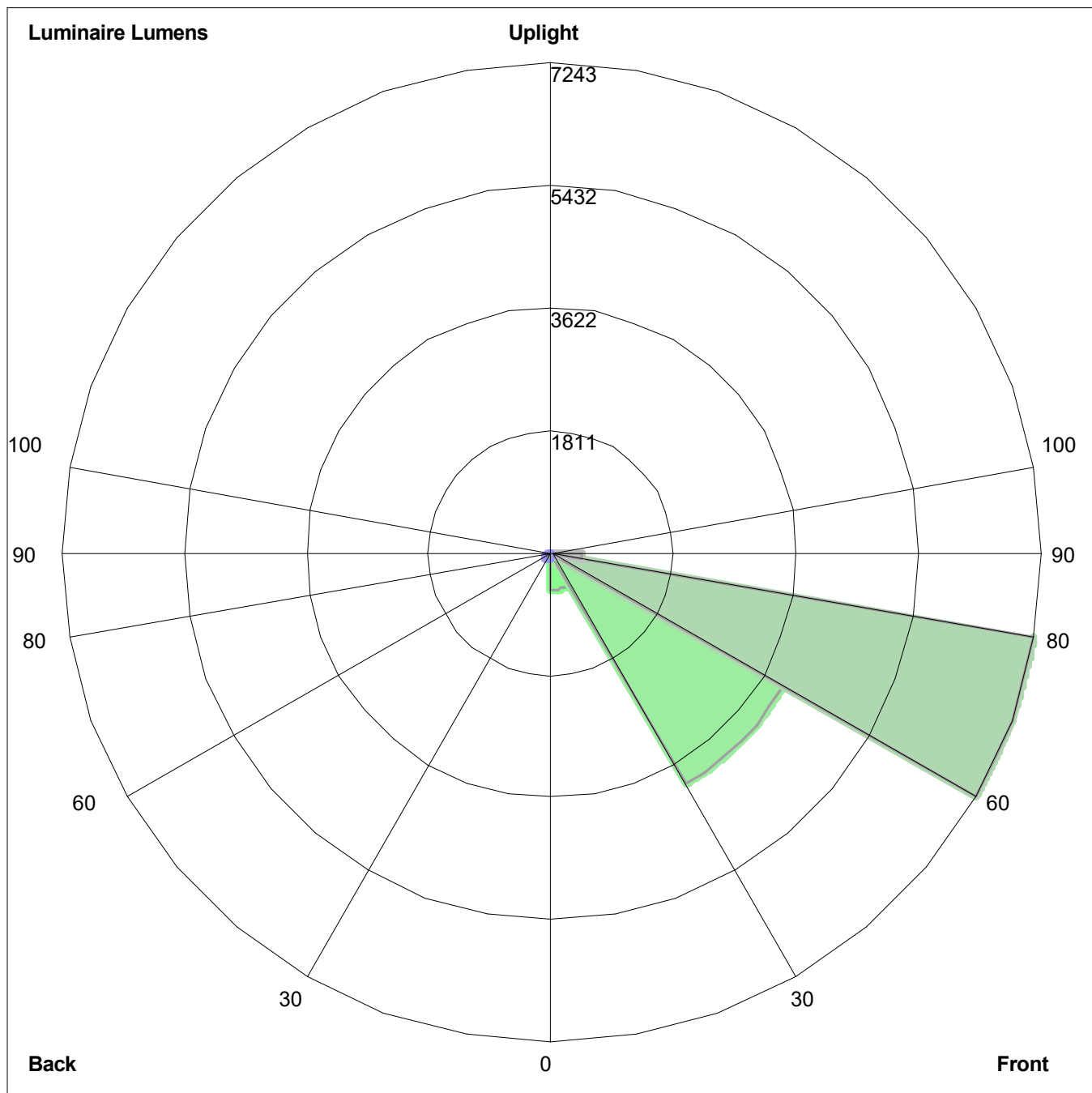
Maximum Candela = 17120 Located At Horizontal Angle = 35, Vertical Angle = 72.5  
# 1 - Vertical Plane Through Horizontal Angles (35 - 215) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (72.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE





LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=550.4, Medium=3959.5, High=7243.2, Very High=440.7  
Back: Low=70.9, Medium=103.5, High=34.5, Very High=1.8  
Uplight: Low=0.0, High=0.0

BUG Rating : B0-U0-G3