



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : OSA6R-L14-835-AC-XX-XXX-XX-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TESTLAB] GEN from Intertek TEST  
 [ISSUEDATE] 18 OCT 2021  
 [MANUFAC] WILLIAMS OUTDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMCAT] OSA6R-L14-835-AC-xx-xxx-xx-DIM-UNV  
 [LUMINAIRE] LED 835cct  
 [LAMP] LED. LUMINAIRE  
 [ \_SEARCH\_SOURCE] LED  
 [ \_SEARCH\_APPLICATION] OUTDOOR, AREA, SIDEWALK, SECURITY  
 [ \_SEARCH\_MOUNTING] GROUND

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1408
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	78
Total Luminaire Watts	18.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.02
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	0.02
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.00 ft
Luminous Width (90-270)	0.50 ft (Diameter)
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	14664	15455	16009
55	22953	24972	26797
65	44137	43570	42058
75	51051	49878	47718
85	48212	53895	53070

**IES INDOOR REPORT**  
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**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
<b>0.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>2.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>5.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>7.5</b>	41.278	31.068	31.506	33.548	57.323	60.240	60.969	68.991	70.012	68.991
<b>10.0</b>	109.249	110.270	108.957	117.417	124.855	123.251	125.147	125.293	124.418	125.293
<b>12.5</b>	130.982	136.816	135.649	145.130	143.088	144.255	148.339	145.713	139.587	145.713
<b>15.0</b>	133.315	138.712	144.838	147.318	150.235	145.276	150.381	148.047	143.817	148.047
<b>17.5</b>	134.045	139.587	143.963	145.713	141.338	133.753	138.858	135.941	133.169	135.941
<b>20.0</b>	124.272	129.669	133.315	136.087	134.482	133.315	137.545	134.336	132.586	134.336
<b>22.5</b>	122.522	128.210	131.565	136.378	136.524	130.982	133.169	129.815	128.356	129.815
<b>25.0</b>	122.959	129.961	134.774	139.004	132.878	131.857	130.836	128.064	124.710	128.064
<b>27.5</b>	118.000	129.231	136.232	138.712	135.503	137.108	136.670	133.315	130.106	133.315
<b>30.0</b>	117.854	129.815	140.025	146.589	147.026	151.694	151.402	146.151	141.629	146.151
<b>32.5</b>	132.586	146.443	156.653	163.946	165.988	170.801	172.551	169.197	164.237	169.197
<b>35.0</b>	154.319	170.801	177.219	181.303	186.116	187.429	191.951	188.304	182.178	188.304
<b>37.5</b>	179.261	195.743	197.785	200.265	203.619	198.952	202.598	199.681	194.868	199.681
<b>40.0</b>	189.909	203.619	202.598	206.245	207.120	200.411	202.453	199.973	196.910	199.973
<b>42.5</b>	188.450	199.098	199.681	206.682	206.682	200.702	200.848	197.202	193.701	197.202
<b>45.0</b>	189.325	196.910	199.535	207.995	206.682	201.286	201.869	198.223	195.597	198.223
<b>47.5</b>	193.701	198.806	204.349	212.663	214.996	214.996	214.996	207.995	204.640	207.995
<b>50.0</b>	200.848	209.016	216.455	224.186	232.791	234.250	237.021	230.166	224.915	230.166
<b>52.5</b>	217.330	228.561	234.250	242.564	255.983	259.921	265.026	261.817	254.816	261.817
<b>55.0</b>	240.376	255.545	261.526	268.964	280.633	286.322	294.636	296.240	288.072	296.240
<b>57.5</b>	266.922	286.613	288.801	293.177	303.533	309.513	321.911	325.120	316.806	325.120
<b>60.0</b>	291.135	312.430	314.181	316.077	323.370	327.746	341.165	348.312	346.270	348.312
<b>62.5</b>	316.660	331.684	331.538	327.746	329.642	331.100	347.874	361.439	363.627	361.439
<b>65.0</b>	340.581	343.353	336.205	324.974	324.537	324.245	341.748	355.459	362.898	355.459
<b>67.5</b>	349.187	338.539	329.788	317.098	319.432	315.348	327.162	331.830	335.476	331.830
<b>70.0</b>	326.870	317.973	314.327	303.241	300.762	290.552	293.031	293.906	296.678	293.906
<b>72.5</b>	290.552	280.925	279.758	271.152	266.339	253.795	249.565	246.794	247.961	246.794
<b>75.0</b>	241.251	235.271	235.708	230.458	225.498	212.954	204.349	198.660	196.035	198.660
<b>77.5</b>	192.826	189.179	192.242	190.346	185.387	171.385	160.591	153.152	151.256	153.152
<b>80.0</b>	147.464	147.172	151.839	153.006	147.464	135.066	123.689	115.520	113.478	115.520
<b>82.5</b>	109.394	109.832	116.396	119.605	114.499	103.414	92.912	85.036	82.410	85.036
<b>85.0</b>	76.722	79.493	85.765	89.558	84.452	75.847	68.262	61.990	59.948	61.990
<b>87.5</b>	53.676	56.010	60.969	64.470	60.094	53.676	48.279	43.904	42.445	43.904
<b>90.0</b>	35.590	37.194	40.549	42.883	39.382	34.860	31.943	29.609	28.734	29.609
<b>92.5</b>	27.276	28.734	30.193	30.922	30.339	29.172	28.443	27.859	27.713	27.859
<b>95.0</b>	34.423	34.714	35.298	34.860	33.839	32.818	32.381	32.089	31.943	32.089
<b>97.5</b>	37.486	37.632	37.340	36.902	35.590	35.006	34.569	34.569	34.423	34.569
<b>100.0</b>	39.674	39.820	39.674	39.528	38.069	37.048	35.881	35.444	35.298	35.444
<b>102.5</b>	34.714	34.569	35.006	35.444	33.985	32.818	31.506	30.776	30.630	30.776
<b>105.0</b>	30.047	30.339	30.630	31.214	31.068	30.193	29.026	28.588	28.443	28.588
<b>107.5</b>	28.297	28.588	29.172	30.193	30.630	29.901	28.588	27.859	27.713	27.859
<b>110.0</b>	27.567	28.005	29.172	30.485	30.485	29.464	28.297	27.567	27.422	27.567
<b>112.5</b>	26.838	27.422	27.859	27.859	26.692	25.817	25.817	25.671	25.817	25.671
<b>115.0</b>	24.067	24.358	24.358	24.650	24.504	24.504	24.358	24.067	24.213	24.067
<b>117.5</b>	23.192	23.483	23.775	24.213	24.358	24.213	23.775	23.483	23.483	23.483
<b>120.0</b>	22.171	22.316	22.754	22.900	22.754	22.754	22.754	22.754	22.754	22.754
<b>122.5</b>	21.150	21.441	21.587	21.733	21.441	21.733	21.879	22.025	22.025	22.025
<b>125.0</b>	20.129	20.420	20.566	20.566	20.566	20.858	21.004	21.004	21.004	21.004
<b>127.5</b>	19.108	19.253	19.399	19.399	19.399	19.691	19.837	19.983	19.983	19.983
<b>130.0</b>	17.941	18.087	18.232	18.232	18.232	18.524	18.670	18.816	18.816	18.816
<b>132.5</b>	16.628	16.920	16.920	16.920	17.066	17.357	17.503	17.649	17.503	17.649

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## CANDELA TABULATION - (Cont.)

135.0	15.315	15.461	15.607	15.607	15.607	16.045	16.336	16.336	16.336	16.336
137.5	14.002	14.002	14.148	14.148	14.294	14.586	14.878	14.878	14.878	14.878
140.0	12.690	12.836	12.981	12.981	12.981	12.981	13.127	13.273	13.273	13.273
142.5	11.377	11.377	11.523	11.523	11.523	11.523	11.669	11.669	11.815	11.669
145.0	9.918	9.918	10.064	10.064	10.064	10.064	10.210	10.356	10.356	10.356
147.5	8.606	8.606	8.606	8.606	8.606	8.606	8.752	8.897	8.897	8.897
150.0	7.147	7.147	7.147	7.147	7.147	7.293	7.439	7.585	7.585	7.585
152.5	5.689	5.689	5.689	5.689	5.834	5.980	6.126	6.272	6.418	6.272
155.0	4.522	4.522	4.522	4.376	4.522	4.813	4.813	4.959	5.105	4.959
157.5	3.355	3.355	3.355	3.209	3.355	3.501	3.646	3.792	3.792	3.792
160.0	2.334	2.188	2.188	2.042	2.042	2.188	2.334	2.480	2.625	2.480
162.5	1.167	1.167	1.167	1.021	0.875	1.021	1.167	1.313	1.313	1.313
165.0	0.146	0.146	0.000	0.000	0.292	0.000	0.000	0.292	0.292	0.292
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

## Vert. Angles Horizontal Angles

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7.5	60.969	60.240	57.323	33.548	31.506	31.068	41.278
10.0	125.147	123.251	124.855	117.417	108.957	110.270	109.249
12.5	148.339	144.255	143.088	145.130	135.649	136.816	130.982
15.0	150.381	145.276	150.235	147.318	144.838	138.712	133.315
17.5	138.858	133.753	141.338	145.713	143.963	139.587	134.045
20.0	137.545	133.315	134.482	136.087	133.315	129.669	124.272
22.5	133.169	130.982	136.524	136.378	131.565	128.210	122.522
25.0	130.836	131.857	132.878	139.004	134.774	129.961	122.959
27.5	136.670	137.108	135.503	138.712	136.232	129.231	118.000
30.0	151.402	151.694	147.026	146.589	140.025	129.815	117.854
32.5	172.551	170.801	165.988	163.946	156.653	146.443	132.586
35.0	191.951	187.429	186.116	181.303	177.219	170.801	154.319
37.5	202.598	198.952	203.619	200.265	197.785	195.743	179.261
40.0	202.453	200.411	207.120	206.245	202.598	203.619	189.909
42.5	200.848	200.702	206.682	206.682	199.681	199.098	188.450
45.0	201.869	201.286	206.682	207.995	199.535	196.910	189.325
47.5	214.996	214.996	214.996	212.663	204.349	198.806	193.701
50.0	237.021	234.250	232.791	224.186	216.455	209.016	200.848
52.5	265.026	259.921	255.983	242.564	234.250	228.561	217.330
55.0	294.636	286.322	280.633	268.964	261.526	255.545	240.376
57.5	321.911	309.513	303.533	293.177	288.801	286.613	266.922
60.0	341.165	327.746	323.370	316.077	314.181	312.430	291.135
62.5	347.874	331.100	329.642	327.746	331.538	331.684	316.660
65.0	341.748	324.245	324.537	324.974	336.205	343.353	340.581
67.5	327.162	315.348	319.432	317.098	329.788	338.539	349.187
70.0	293.031	290.552	300.762	303.241	314.327	317.973	326.870
72.5	249.565	253.795	266.339	271.152	279.758	280.925	290.552
75.0	204.349	212.954	225.498	230.458	235.708	235.271	241.251
77.5	160.591	171.385	185.387	190.346	192.242	189.179	192.826
80.0	123.689	135.066	147.464	153.006	151.839	147.172	147.464

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

82.5	92.912	103.414	114.499	119.605	116.396	109.832	109.394
85.0	68.262	75.847	84.452	89.558	85.765	79.493	76.722
87.5	48.279	53.676	60.094	64.470	60.969	56.010	53.676
90.0	31.943	34.860	39.382	42.883	40.549	37.194	35.590
92.5	28.443	29.172	30.339	30.922	30.193	28.734	27.276
95.0	32.381	32.818	33.839	34.860	35.298	34.714	34.423
97.5	34.569	35.006	35.590	36.902	37.340	37.632	37.486
100.0	35.881	37.048	38.069	39.528	39.674	39.820	39.674
102.5	31.506	32.818	33.985	35.444	35.006	34.569	34.714
105.0	29.026	30.193	31.068	31.214	30.630	30.339	30.047
107.5	28.588	29.901	30.630	30.193	29.172	28.588	28.297
110.0	28.297	29.464	30.485	30.485	29.172	28.005	27.567
112.5	25.817	25.817	26.692	27.859	27.859	27.422	26.838
115.0	24.358	24.504	24.504	24.650	24.358	24.358	24.067
117.5	23.775	24.213	24.358	24.213	23.775	23.483	23.192
120.0	22.754	22.754	22.754	22.900	22.754	22.316	22.171
122.5	21.879	21.733	21.441	21.733	21.587	21.441	21.150
125.0	21.004	20.858	20.566	20.566	20.566	20.420	20.129
127.5	19.837	19.691	19.399	19.399	19.399	19.253	19.108
130.0	18.670	18.524	18.232	18.232	18.232	18.087	17.941
132.5	17.503	17.357	17.066	16.920	16.920	16.920	16.628
135.0	16.336	16.045	15.607	15.607	15.607	15.461	15.315
137.5	14.878	14.586	14.294	14.148	14.148	14.002	14.002
140.0	13.127	12.981	12.981	12.981	12.981	12.836	12.690
142.5	11.669	11.523	11.523	11.523	11.523	11.377	11.377
145.0	10.210	10.064	10.064	10.064	10.064	9.918	9.918
147.5	8.752	8.606	8.606	8.606	8.606	8.606	8.606
150.0	7.439	7.293	7.147	7.147	7.147	7.147	7.147
152.5	6.126	5.980	5.834	5.689	5.689	5.689	5.689
155.0	4.813	4.813	4.522	4.376	4.522	4.522	4.522
157.5	3.646	3.501	3.355	3.209	3.355	3.355	3.355
160.0	2.334	2.188	2.042	2.042	2.188	2.188	2.334
162.5	1.167	1.021	0.875	1.021	1.167	1.167	1.167
165.0	0.000	0.000	0.292	0.000	0.000	0.146	0.146
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : OSA6R-L14-835-AC-XX-XXX-XX-DIM-UNV\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	43.52	N.A.	3.10
0-30	105.51	N.A.	7.50
0-40	218.40	N.A.	15.50
0-60	625.84	N.A.	44.40
0-80	1185.31	N.A.	84.20
0-90	1273.25	N.A.	90.40
10-90	1268.98	N.A.	90.10
20-40	174.88	N.A.	12.40
20-50	334.37	N.A.	23.70
40-70	734.21	N.A.	52.10
60-80	559.47	N.A.	39.70
70-80	232.69	N.A.	16.50
80-90	87.94	N.A.	6.20
90-110	70.33	N.A.	5.00
90-120	95.35	N.A.	6.80
90-130	113.88	N.A.	8.10
90-150	132.60	N.A.	9.40
90-180	135.04	N.A.	9.60
110-180	64.71	N.A.	4.60
0-180	1408.29	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	4.27
10-20	39.25
20-30	61.99
30-40	112.89
40-50	159.49
50-60	247.95
60-70	326.78
70-80	232.69
80-90	87.94
90-100	37.01
100-110	33.32
110-120	25.02
120-130	18.53
130-140	12.29
140-150	6.43
150-160	2.25
160-170	0.20
170-180	0.00

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	85	85	85	85	82	82	82	82	77	77	77	72	72	72	68	68	68	65
1	74	69	64	60	71	66	62	58	62	58	55	57	55	52	54	51	49	47
2	64	56	49	44	61	54	48	43	50	45	41	47	42	39	43	40	37	34
3	57	47	39	33	54	45	38	32	42	36	31	39	34	29	36	31	28	26
4	51	40	32	26	48	38	31	25	35	29	24	33	27	23	30	26	22	20
5	46	34	26	21	44	33	26	20	31	24	19	28	23	18	26	21	17	15
6	42	30	22	17	40	29	22	17	27	21	16	25	19	15	23	18	14	12
7	38	27	19	14	36	26	19	14	24	18	13	22	17	13	21	16	12	10
8	35	24	17	12	34	23	16	12	22	16	11	20	15	11	19	14	10	9
9	33	22	15	10	31	21	15	10	20	14	10	18	13	9	17	12	9	7
10	31	20	13	9	29	19	13	9	18	12	8	17	12	8	16	11	8	6

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : OSA6R-L14-835-AC-XX-XXX-XX-DIM-UNV\_.IES

## UGR TABLE - CORRECTED

### Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

### Room Size UGR Viewed Crosswise

X=2H	Y=2H	24.2	25.9	24.7	26.4	27.0	UGR Viewed Endwise	24.6	26.3	25.1	26.8	27.4
	3H	28.5	30.1	29.0	30.6	31.2		28.3	29.9	28.8	30.4	31.0
	4H	29.9	31.4	30.4	31.9	32.5		29.5	31.1	30.1	31.6	32.2
	6H	30.7	32.2	31.3	32.7	33.3		30.4	31.9	31.0	32.4	33.0
	8H	31.0	32.4	31.6	33.0	33.6		30.8	32.2	31.3	32.7	33.3
	12H	31.3	32.6	31.9	33.2	33.8		31.1	32.4	31.7	33.0	33.6

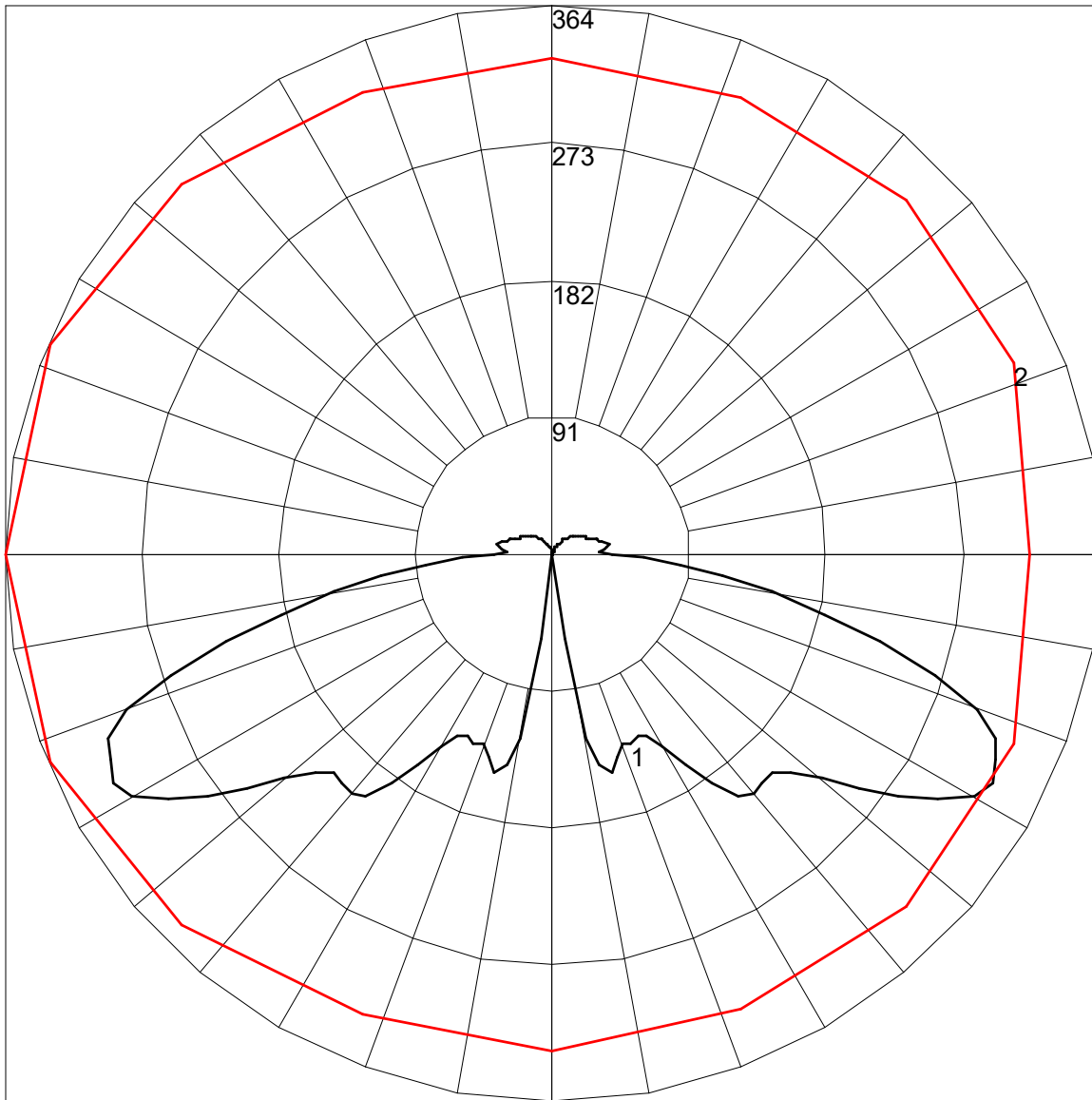
4H	2H	25.7	27.2	26.2	27.8	28.4	26.0	27.5	26.5	28.1	28.7
	3H	29.8	31.2	30.4	31.7	32.4	29.6	30.9	30.1	31.5	32.1
	4H	31.2	32.4	31.8	33.0	33.7	30.9	32.1	31.5	32.7	33.3
	6H	32.2	33.3	32.8	33.9	34.5	31.9	33.0	32.5	33.6	34.3
	8H	32.6	33.6	33.1	34.2	34.9	32.3	33.3	32.9	34.0	34.6
	12H	32.9	33.8	33.5	34.4	35.1	32.7	33.6	33.3	34.3	34.9

8H	4H	31.7	32.8	32.3	33.4	34.0	31.4	32.4	32.0	33.0	33.7
	6H	32.9	33.7	33.5	34.4	35.1	32.6	33.4	33.2	34.1	34.8
	8H	33.4	34.1	34.0	34.8	35.5	33.1	33.9	33.7	34.5	35.2
	12H	33.8	34.5	34.4	35.1	35.9	33.6	34.3	34.3	34.9	35.7

12H	4H	31.8	32.8	32.4	33.4	34.1	31.5	32.4	32.1	33.0	33.7
	6H	33.0	33.8	33.7	34.4	35.2	32.7	33.5	33.4	34.1	34.9
	8H	33.6	34.2	34.2	34.9	35.6	33.3	34.0	33.9	34.6	35.4

Maximum UGR = 35.9

POLAR GRAPH



Maximum Candela = 363.627 Located At Horizontal Angle = 180, Vertical Angle = 62.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (62.5) (Through Max. Cd.)