



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : OSA6R-L9-835-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-L9-835-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	908
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	83
Total Luminaire Watts	11
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	9450	9960	10316
55	14791	16093	17269
65	28443	28078	27103
75	32899	32143	30751
85	31069	34732	34200

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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>	26.601	20.021	20.303	21.619	36.940	38.820	39.290	44.460	45.118	44.460
<b>10.0</b>	70.403	71.061	70.215	75.667	80.460	79.426	80.648	80.742	80.178	80.742
<b>12.5</b>	84.408	88.168	87.416	93.526	92.210	92.962	95.594	93.902	89.954	93.902
<b>15.0</b>	85.912	89.390	93.338	94.936	96.816	93.620	96.910	95.406	92.680	95.406
<b>17.5</b>	86.382	89.954	92.774	93.902	91.082	86.194	89.484	87.604	85.818	87.604
<b>20.0</b>	80.084	83.562	85.912	87.698	86.664	85.912	88.638	86.570	85.442	86.570
<b>22.5</b>	78.957	82.622	84.784	87.886	87.980	84.408	85.818	83.656	82.716	83.656
<b>25.0</b>	79.239	83.750	86.852	89.578	85.630	84.972	84.314	82.528	80.366	82.528
<b>27.5</b>	76.043	83.280	87.792	89.390	87.322	88.356	88.074	85.912	83.844	85.912
<b>30.0</b>	75.949	83.656	90.236	94.466	94.748	97.756	97.568	94.184	91.270	94.184
<b>32.5</b>	85.442	94.372	100.952	105.651	106.967	110.069	111.197	109.035	105.839	109.035
<b>35.0</b>	99.448	110.069	114.205	116.837	119.939	120.785	123.699	121.349	117.401	121.349
<b>37.5</b>	115.521	126.142	127.458	129.056	131.218	128.210	130.560	128.680	125.578	128.680
<b>40.0</b>	122.383	131.218	130.560	132.910	133.474	129.150	130.466	128.868	126.894	128.868
<b>42.5</b>	121.443	128.304	128.680	133.192	133.192	129.338	129.432	127.082	124.826	127.082
<b>45.0</b>	122.007	126.894	128.586	134.038	133.192	129.714	130.090	127.740	126.048	127.740
<b>47.5</b>	124.826	128.116	131.688	137.046	138.550	138.550	138.550	134.038	131.876	134.038
<b>50.0</b>	129.432	134.696	139.490	144.472	150.017	150.957	152.743	148.325	144.942	148.325
<b>52.5</b>	140.054	147.291	150.957	156.315	164.963	167.501	170.790	168.723	164.211	168.723
<b>55.0</b>	154.905	164.681	168.535	173.328	180.848	184.514	189.872	190.906	185.642	190.906
<b>57.5</b>	172.012	184.702	186.112	188.932	195.605	199.459	207.449	209.517	204.159	209.517
<b>60.0</b>	187.616	201.339	202.467	203.689	208.389	211.209	219.856	224.462	223.146	224.462
<b>62.5</b>	204.065	213.747	213.653	211.209	212.431	213.371	224.180	232.922	234.332	232.922
<b>65.0</b>	219.480	221.266	216.660	209.423	209.141	208.953	220.232	229.068	233.862	229.068
<b>67.5</b>	225.026	218.164	212.525	204.347	205.851	203.219	210.833	213.841	216.190	213.841
<b>70.0</b>	210.645	204.911	202.561	195.417	193.819	187.240	188.838	189.402	191.188	189.402
<b>72.5</b>	187.240	181.036	180.284	174.738	171.636	163.553	160.827	159.041	159.793	159.041
<b>75.0</b>	155.469	151.615	151.897	148.513	145.318	137.234	131.688	128.022	126.330	128.022
<b>77.5</b>	124.263	121.913	123.887	122.665	119.469	110.445	103.489	98.696	97.474	98.696
<b>80.0</b>	95.030	94.842	97.850	98.602	95.030	87.040	79.708	74.445	73.129	74.445
<b>82.5</b>	70.497	70.779	75.009	77.077	73.787	66.643	59.875	54.800	53.108	54.800
<b>85.0</b>	49.442	51.228	55.270	57.713	54.424	48.878	43.990	39.948	38.632	39.948
<b>87.5</b>	34.590	36.094	39.290	41.546	38.726	34.590	31.113	28.293	27.353	28.293
<b>90.0</b>	22.935	23.969	26.131	27.635	25.379	22.465	20.585	19.081	18.517	19.081
<b>92.5</b>	17.577	18.517	19.457	19.927	19.551	18.799	18.329	17.953	17.859	17.953
<b>95.0</b>	22.183	22.371	22.747	22.465	21.807	21.149	20.867	20.679	20.585	20.679
<b>97.5</b>	24.157	24.251	24.063	23.781	22.935	22.559	22.277	22.277	22.183	22.277
<b>100.0</b>	25.567	25.661	25.567	25.473	24.533	23.875	23.123	22.841	22.747	22.841
<b>102.5</b>	22.371	22.277	22.559	22.841	21.901	21.149	20.303	19.833	19.739	19.833
<b>105.0</b>	19.363	19.551	19.739	20.115	20.021	19.457	18.705	18.423	18.329	18.423
<b>107.5</b>	18.235	18.423	18.799	19.457	19.739	19.269	18.423	17.953	17.859	17.953
<b>110.0</b>	17.765	18.047	18.799	19.645	19.645	18.987	18.235	17.765	17.671	17.765
<b>112.5</b>	17.295	17.671	17.953	17.953	17.201	16.637	16.637	16.543	16.637	16.543
<b>115.0</b>	15.509	15.697	15.697	15.885	15.791	15.791	15.697	15.509	15.603	15.509
<b>117.5</b>	14.945	15.133	15.321	15.603	15.697	15.603	15.321	15.133	15.133	15.133
<b>120.0</b>	14.287	14.381	14.663	14.757	14.663	14.663	14.663	14.663	14.663	14.663
<b>122.5</b>	13.629	13.817	13.911	14.005	13.817	14.005	14.099	14.193	14.193	14.193
<b>125.0</b>	12.971	13.159	13.253	13.253	13.253	13.441	13.535	13.535	13.535	13.535
<b>127.5</b>	12.313	12.407	12.501	12.501	12.501	12.689	12.783	12.877	12.877	12.877
<b>130.0</b>	11.561	11.655	11.749	11.749	11.749	11.937	12.031	12.125	12.125	12.125
<b>132.5</b>	10.716	10.904	10.904	10.904	10.998	11.186	11.280	11.373	11.280	11.373

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**CANDELA TABULATION - (Cont.)**

135.0	9.870	9.964	10.058	10.058	10.058	10.340	10.528	10.528	10.528	10.528
137.5	9.024	9.024	9.118	9.118	9.212	9.400	9.588	9.588	9.588	9.588
140.0	8.178	8.272	8.366	8.366	8.366	8.366	8.460	8.554	8.554	8.554
142.5	7.332	7.332	7.426	7.426	7.426	7.426	7.520	7.520	7.614	7.520
145.0	6.392	6.392	6.486	6.486	6.486	6.486	6.580	6.674	6.674	6.674
147.5	5.546	5.546	5.546	5.546	5.546	5.546	5.640	5.734	5.734	5.734
150.0	4.606	4.606	4.606	4.606	4.606	4.700	4.794	4.888	4.888	4.888
152.5	3.666	3.666	3.666	3.666	3.760	3.854	3.948	4.042	4.136	4.042
155.0	2.914	2.914	2.914	2.820	2.914	3.102	3.102	3.196	3.290	3.196
157.5	2.162	2.162	2.162	2.068	2.162	2.256	2.350	2.444	2.444	2.444
160.0	1.504	1.410	1.410	1.316	1.316	1.410	1.504	1.598	1.692	1.598
162.5	0.752	0.752	0.752	0.658	0.564	0.658	0.752	0.846	0.846	0.846
165.0	0.094	0.094	0.000	0.000	0.188	0.000	0.000	0.188	0.188	0.188
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	39.290	38.820	36.940	21.619	20.303	20.021	26.601
10.0	80.648	79.426	80.460	75.667	70.215	71.061	70.403
12.5	95.594	92.962	92.210	93.526	87.416	88.168	84.408
15.0	96.910	93.620	96.816	94.936	93.338	89.390	85.912
17.5	89.484	86.194	91.082	93.902	92.774	89.954	86.382
20.0	88.638	85.912	86.664	87.698	85.912	83.562	80.084
22.5	85.818	84.408	87.980	87.886	84.784	82.622	78.957
25.0	84.314	84.972	85.630	89.578	86.852	83.750	79.239
27.5	88.074	88.356	87.322	89.390	87.792	83.280	76.043
30.0	97.568	97.756	94.748	94.466	90.236	83.656	75.949
32.5	111.197	110.069	106.967	105.651	100.952	94.372	85.442
35.0	123.699	120.785	119.939	116.837	114.205	110.069	99.448
37.5	130.560	128.210	131.218	129.056	127.458	126.142	115.521
40.0	130.466	129.150	133.474	132.910	130.560	131.218	122.383
42.5	129.432	129.338	133.192	133.192	128.680	128.304	121.443
45.0	130.090	129.714	133.192	134.038	128.586	126.894	122.007
47.5	138.550	138.550	138.550	137.046	131.688	128.116	124.826
50.0	152.743	150.957	150.017	144.472	139.490	134.696	129.432
52.5	170.790	167.501	164.963	156.315	150.957	147.291	140.054
55.0	189.872	184.514	180.848	173.328	168.535	164.681	154.905
57.5	207.449	199.459	195.605	188.932	186.112	184.702	172.012
60.0	219.856	211.209	208.389	203.689	202.467	201.339	187.616
62.5	224.180	213.371	212.431	211.209	213.653	213.747	204.065
65.0	220.232	208.953	209.141	209.423	216.660	221.266	219.480
67.5	210.833	203.219	205.851	204.347	212.525	218.164	225.026
70.0	188.838	187.240	193.819	195.417	202.561	204.911	210.645
72.5	160.827	163.553	171.636	174.738	180.284	181.036	187.240
75.0	131.688	137.234	145.318	148.513	151.897	151.615	155.469
77.5	103.489	110.445	119.469	122.665	123.887	121.913	124.263
80.0	79.708	87.040	95.030	98.602	97.850	94.842	95.030

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## CANDELA TABULATION - (Cont.)

82.5	59.875	66.643	73.787	77.077	75.009	70.779	70.497
85.0	43.990	48.878	54.424	57.713	55.270	51.228	49.442
87.5	31.113	34.590	38.726	41.546	39.290	36.094	34.590
90.0	20.585	22.465	25.379	27.635	26.131	23.969	22.935
92.5	18.329	18.799	19.551	19.927	19.457	18.517	17.577
95.0	20.867	21.149	21.807	22.465	22.747	22.371	22.183
97.5	22.277	22.559	22.935	23.781	24.063	24.251	24.157
100.0	23.123	23.875	24.533	25.473	25.567	25.661	25.567
102.5	20.303	21.149	21.901	22.841	22.559	22.277	22.371
105.0	18.705	19.457	20.021	20.115	19.739	19.551	19.363
107.5	18.423	19.269	19.739	19.457	18.799	18.423	18.235
110.0	18.235	18.987	19.645	19.645	18.799	18.047	17.765
112.5	16.637	16.637	17.201	17.953	17.953	17.671	17.295
115.0	15.697	15.791	15.791	15.885	15.697	15.697	15.509
117.5	15.321	15.603	15.697	15.603	15.321	15.133	14.945
120.0	14.663	14.663	14.663	14.757	14.663	14.381	14.287
122.5	14.099	14.005	13.817	14.005	13.911	13.817	13.629
125.0	13.535	13.441	13.253	13.253	13.253	13.159	12.971
127.5	12.783	12.689	12.501	12.501	12.501	12.407	12.313
130.0	12.031	11.937	11.749	11.749	11.749	11.655	11.561
132.5	11.280	11.186	10.998	10.904	10.904	10.904	10.716
135.0	10.528	10.340	10.058	10.058	10.058	9.964	9.870
137.5	9.588	9.400	9.212	9.118	9.118	9.024	9.024
140.0	8.460	8.366	8.366	8.366	8.366	8.272	8.178
142.5	7.520	7.426	7.426	7.426	7.426	7.332	7.332
145.0	6.580	6.486	6.486	6.486	6.486	6.392	6.392
147.5	5.640	5.546	5.546	5.546	5.546	5.546	5.546
150.0	4.794	4.700	4.606	4.606	4.606	4.606	4.606
152.5	3.948	3.854	3.760	3.666	3.666	3.666	3.666
155.0	3.102	3.102	2.914	2.820	2.914	2.914	2.914
157.5	2.350	2.256	2.162	2.068	2.162	2.162	2.162
160.0	1.504	1.410	1.316	1.316	1.410	1.410	1.504
162.5	0.752	0.658	0.564	0.658	0.752	0.752	0.752
165.0	0.000	0.000	0.188	0.000	0.000	0.094	0.094
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

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	28.04	N.A.	3.10
0-30	67.99	N.A.	7.50
0-40	140.74	N.A.	15.50
0-60	403.31	N.A.	44.40
0-80	763.85	N.A.	84.20
0-90	820.52	N.A.	90.40
10-90	817.77	N.A.	90.10
20-40	112.70	N.A.	12.40
20-50	215.48	N.A.	23.70
40-70	473.15	N.A.	52.10
60-80	360.54	N.A.	39.70
70-80	149.95	N.A.	16.50
80-90	56.67	N.A.	6.20
90-110	45.32	N.A.	5.00
90-120	61.44	N.A.	6.80
90-130	73.39	N.A.	8.10
90-150	85.45	N.A.	9.40
90-180	87.02	N.A.	9.60
110-180	41.70	N.A.	4.60
0-180	907.54	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	2.75
10-20	25.29
20-30	39.95
30-40	72.75
40-50	102.78
50-60	159.79
60-70	210.58
70-80	149.95
80-90	56.67
90-100	23.85
100-110	21.47
110-120	16.12
120-130	11.94
130-140	7.92
140-150	4.14
150-160	1.45
160-170	0.13
170-180	0.00

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	55	55	55	55	53	53	53	53	49	49	49	46	46	46	44	44	44	42
1	47	44	41	39	46	43	40	38	40	38	36	37	35	34	35	33	32	30
2	41	36	32	28	40	35	31	28	32	29	26	30	27	25	28	26	24	22
3	37	30	25	21	35	29	24	21	27	23	20	25	22	19	23	20	18	16
4	33	26	21	17	31	25	20	16	23	19	15	21	18	15	20	17	14	13
5	30	22	17	13	28	21	17	13	20	16	12	18	15	12	17	14	11	10
6	27	19	14	11	26	19	14	11	17	13	10	16	12	10	15	12	9	8
7	25	17	12	9	23	17	12	9	15	11	8	14	11	8	13	10	8	7
8	23	15	11	8	22	15	11	8	14	10	7	13	9	7	12	9	7	5
9	21	14	10	7	20	14	9	7	13	9	6	12	8	6	11	8	6	5
10	20	13	9	6	19	12	8	6	12	8	5	11	8	5	10	7	5	4

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : OSA6R-L9-835-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

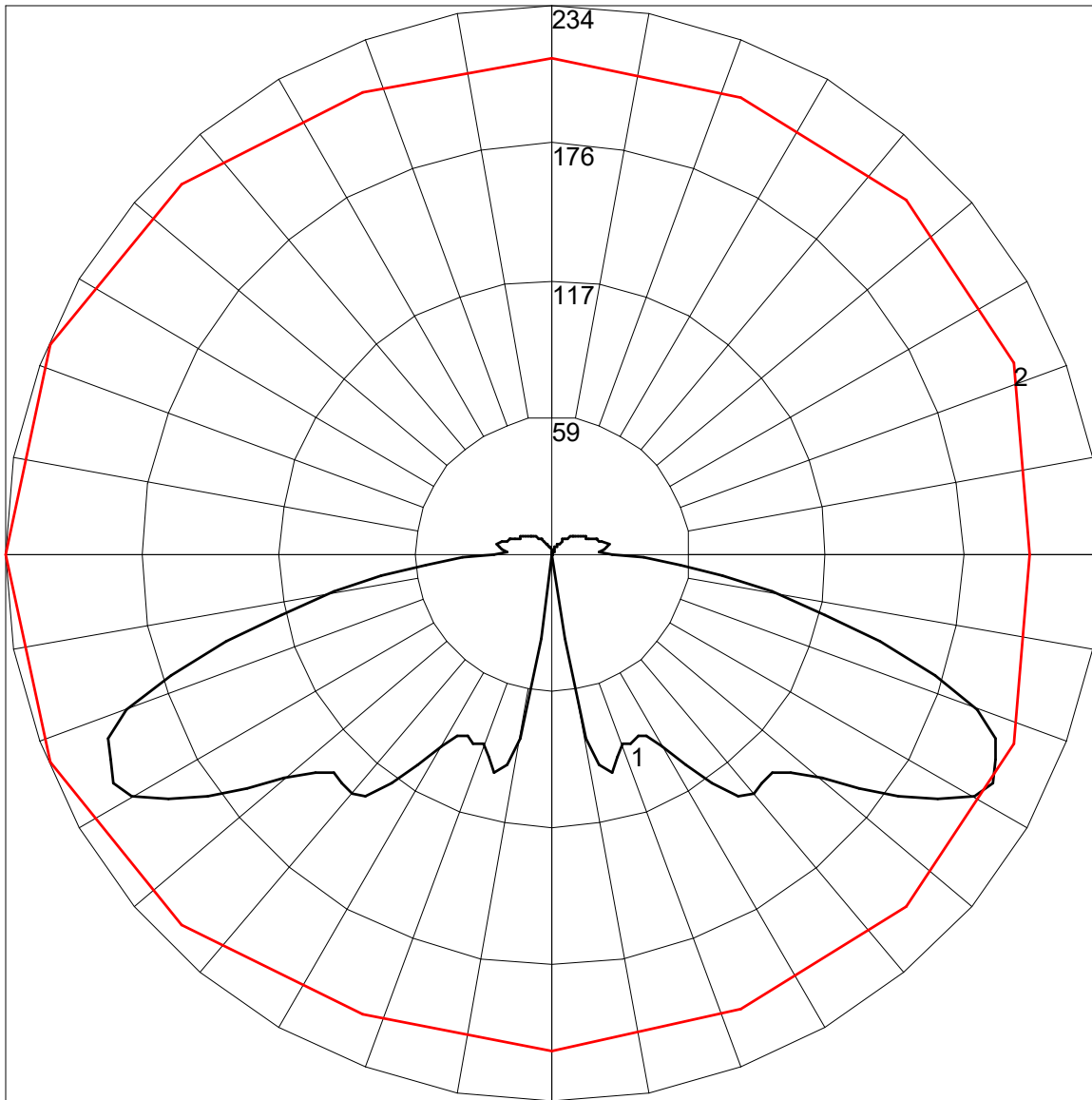
X=2H	Y=2H	24.2	25.9	24.7	26.4	27.0	24.6	26.3	25.1	26.8	27.4
	3H	28.5	30.1	29.0	30.6	31.2	28.3	29.9	28.8	30.4	31.0
	4H	29.9	31.4	30.4	31.9	32.5	29.5	31.1	30.1	31.6	32.2
	6H	30.7	32.2	31.3	32.7	33.3	30.4	31.9	31.0	32.4	33.0
	8H	31.0	32.4	31.6	33.0	33.6	30.8	32.2	31.3	32.7	33.3
	12H	31.3	32.6	31.9	33.2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

### UGR Viewed Endwise

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 = 234.332 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.)