



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 192_168_39_135-11_49_58-MERGED.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.05 & #12326812.10

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 15-MAR-2021

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS INC. - CARTHAGE, MO.

[LUMCAT] 8CRDI-L25-9DWU-L25-9DWD-xxx-DIM-UNV-ON-CSU-LN-WHD-WM

[LUMINAIRE] 8" DIA. ALUMINUM CYLINDER

[LAMP] Two white LEDs, one up/ one down

[BALLAST]

[OTHER]

[OTHER] This test was performed using the calibrated photodetector met

[MORE] hod of absolute photometry.

[_ CONVERT] Photometric web converted from original test data

[_ CONVERT] Luminaire test position and photometric web converted from original test data for upright orientation and clear glass

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4613
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	61
Total Luminaire Watts	75.4
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.50 ft (Diameter)
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	7264	7264	7264
55	5316	5316	5316
65	4322	4322	4322
75	3529	3529	3529
85	2285	2285	2285

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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>
0.0	8609.934	8609.934	8609.934	8609.934	8609.934	8609.934	8609.934	8609.934	8609.934	8609.934
2.5	8396.786	8396.786	8396.786	8396.786	8396.786	8396.786	8396.786	8396.786	8396.786	8396.786
5.0	7792.448	7792.448	7792.448	7792.448	7792.448	7792.448	7792.448	7792.448	7792.448	7792.448
7.5	6873.403	6873.403	6873.403	6873.403	6873.403	6873.403	6873.403	6873.403	6873.403	6873.403
10.0	5731.179	5731.179	5731.179	5731.179	5731.179	5731.179	5731.179	5731.179	5731.179	5731.179
12.5	4504.950	4504.950	4504.950	4504.950	4504.950	4504.950	4504.950	4504.950	4504.950	4504.950
15.0	3346.427	3346.427	3346.427	3346.427	3346.427	3346.427	3346.427	3346.427	3346.427	3346.427
17.5	2396.037	2396.037	2396.037	2396.037	2396.037	2396.037	2396.037	2396.037	2396.037	2396.037
20.0	1685.125	1685.125	1685.125	1685.125	1685.125	1685.125	1685.125	1685.125	1685.125	1685.125
22.5	1164.416	1164.416	1164.416	1164.416	1164.416	1164.416	1164.416	1164.416	1164.416	1164.416
25.0	795.419	795.419	795.419	795.419	795.419	795.419	795.419	795.419	795.419	795.419
27.5	544.907	544.907	544.907	544.907	544.907	544.907	544.907	544.907	544.907	544.907
30.0	381.410	381.410	381.410	381.410	381.410	381.410	381.410	381.410	381.410	381.410
32.5	275.588	275.588	275.588	275.588	275.588	275.588	275.588	275.588	275.588	275.588
35.0	206.378	206.378	206.378	206.378	206.378	206.378	206.378	206.378	206.378	206.378
37.5	160.864	160.864	160.864	160.864	160.864	160.864	160.864	160.864	160.864	160.864
40.0	130.397	130.397	130.397	130.397	130.397	130.397	130.397	130.397	130.397	130.397
42.5	109.332	109.332	109.332	109.332	109.332	109.332	109.332	109.332	109.332	109.332
45.0	93.785	93.785	93.785	93.785	93.785	93.785	93.785	93.785	93.785	93.785
47.5	81.623	81.623	81.623	81.623	81.623	81.623	81.623	81.623	81.623	81.623
50.0	71.467	71.467	71.467	71.467	71.467	71.467	71.467	71.467	71.467	71.467
52.5	62.941	62.941	62.941	62.941	62.941	62.941	62.941	62.941	62.941	62.941
55.0	55.669	55.669	55.669	55.669	55.669	55.669	55.669	55.669	55.669	55.669
57.5	49.275	49.275	49.275	49.275	49.275	49.275	49.275	49.275	49.275	49.275
60.0	43.507	43.507	43.507	43.507	43.507	43.507	43.507	43.507	43.507	43.507
62.5	38.241	38.241	38.241	38.241	38.241	38.241	38.241	38.241	38.241	38.241
65.0	33.351	33.351	33.351	33.351	33.351	33.351	33.351	33.351	33.351	33.351
67.5	28.712	28.712	28.712	28.712	28.712	28.712	28.712	28.712	28.712	28.712
70.0	24.324	24.324	24.324	24.324	24.324	24.324	24.324	24.324	24.324	24.324
72.5	20.312	20.312	20.312	20.312	20.312	20.312	20.312	20.312	20.312	20.312
75.0	16.676	16.676	16.676	16.676	16.676	16.676	16.676	16.676	16.676	16.676
77.5	13.040	13.040	13.040	13.040	13.040	13.040	13.040	13.040	13.040	13.040
80.0	9.780	9.780	9.780	9.780	9.780	9.780	9.780	9.780	9.780	9.780
82.5	6.645	6.645	6.645	6.645	6.645	6.645	6.645	6.645	6.645	6.645
85.0	3.636	3.636	3.636	3.636	3.636	3.636	3.636	3.636	3.636	3.636
87.5	1.379	1.379	1.379	1.379	1.379	1.379	1.379	1.379	1.379	1.379
90.0	0.251	0.251	0.251	0.251	0.251	0.251	0.251	0.251	0.251	0.251
92.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107.5	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112
110.0	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112
112.5	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112
115.0	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112
117.5	2.224	2.224	2.224	2.224	2.224	2.224	2.224	2.224	2.224	2.224
120.0	2.224	2.224	2.224	2.224	2.224	2.224	2.224	2.224	2.224	2.224
122.5	3.336	3.336	3.336	3.336	3.336	3.336	3.336	3.336	3.336	3.336
125.0	4.448	4.448	4.448	4.448	4.448	4.448	4.448	4.448	4.448	4.448
127.5	5.560	5.560	5.560	5.560	5.560	5.560	5.560	5.560	5.560	5.560
130.0	8.897	8.897	8.897	8.897	8.897	8.897	8.897	8.897	8.897	8.897
132.5	11.121	11.121	11.121	11.121	11.121	11.121	11.121	11.121	11.121	11.121

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CANDELA TABULATION - (Cont.)

135.0	14.457	14.457	14.457	14.457	14.457	14.457	14.457	14.457	14.457	14.457
137.5	18.905	18.905	18.905	18.905	18.905	18.905	18.905	18.905	18.905	18.905
140.0	23.354	23.354	23.354	23.354	23.354	23.354	23.354	23.354	23.354	23.354
142.5	42.259	42.259	42.259	42.259	42.259	42.259	42.259	42.259	42.259	42.259
145.0	269.123	269.123	269.123	269.123	269.123	269.123	269.123	269.123	269.123	269.123
147.5	602.747	602.747	602.747	602.747	602.747	602.747	602.747	602.747	602.747	602.747
150.0	839.620	839.620	839.620	839.620	839.620	839.620	839.620	839.620	839.620	839.620
152.5	915.242	915.242	915.242	915.242	915.242	915.242	915.242	915.242	915.242	915.242
155.0	1135.434	1135.434	1135.434	1135.434	1135.434	1135.434	1135.434	1135.434	1135.434	1135.434
157.5	1466.834	1466.834	1466.834	1466.834	1466.834	1466.834	1466.834	1466.834	1466.834	1466.834
160.0	1732.621	1732.621	1732.621	1732.621	1732.621	1732.621	1732.621	1732.621	1732.621	1732.621
162.5	1948.364	1948.364	1948.364	1948.364	1948.364	1948.364	1948.364	1948.364	1948.364	1948.364
165.0	2259.747	2259.747	2259.747	2259.747	2259.747	2259.747	2259.747	2259.747	2259.747	2259.747
167.5	2811.338	2811.338	2811.338	2811.338	2811.338	2811.338	2811.338	2811.338	2811.338	2811.338
170.0	3921.194	3921.194	3921.194	3921.194	3921.194	3921.194	3921.194	3921.194	3921.194	3921.194
172.5	6150.924	6150.924	6150.924	6150.924	6150.924	6150.923	6150.923	6150.923	6150.923	6150.923
175.0	10931.768	10931.768	10931.768	10931.768	10931.768	10931.766	10931.766	10931.766	10931.766	10931.766
177.5	19272.364	19272.364	19272.364	19272.363	19272.363	19272.363	19272.362	19272.362	19272.362	19272.362
180.0	24465.761	24465.761	24465.761	24465.761	24465.761	24465.761	24465.761	24465.761	24465.761	24465.761

Vert. 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	8609.934	8609.934	8609.934	8609.934	8609.934	8609.934	8609.934
2.5	8396.786	8396.786	8396.786	8396.786	8396.786	8396.786	8396.786
5.0	7792.448	7792.448	7792.448	7792.448	7792.448	7792.448	7792.448
7.5	6873.403	6873.403	6873.403	6873.403	6873.403	6873.403	6873.403
10.0	5731.179	5731.179	5731.179	5731.179	5731.179	5731.179	5731.179
12.5	4504.950	4504.950	4504.950	4504.950	4504.950	4504.950	4504.950
15.0	3346.427	3346.427	3346.427	3346.427	3346.427	3346.427	3346.427
17.5	2396.037	2396.037	2396.037	2396.037	2396.037	2396.037	2396.037
20.0	1685.125	1685.125	1685.125	1685.125	1685.125	1685.125	1685.125
22.5	1164.416	1164.416	1164.416	1164.416	1164.416	1164.416	1164.416
25.0	795.419	795.419	795.419	795.419	795.419	795.419	795.419
27.5	544.907	544.907	544.907	544.907	544.907	544.907	544.907
30.0	381.410	381.410	381.410	381.410	381.410	381.410	381.410
32.5	275.588	275.588	275.588	275.588	275.588	275.588	275.588
35.0	206.378	206.378	206.378	206.378	206.378	206.378	206.378
37.5	160.864	160.864	160.864	160.864	160.864	160.864	160.864
40.0	130.397	130.397	130.397	130.397	130.397	130.397	130.397
42.5	109.332	109.332	109.332	109.332	109.332	109.332	109.332
45.0	93.785	93.785	93.785	93.785	93.785	93.785	93.785
47.5	81.623	81.623	81.623	81.623	81.623	81.623	81.623
50.0	71.467	71.467	71.467	71.467	71.467	71.467	71.467
52.5	62.941	62.941	62.941	62.941	62.941	62.941	62.941
55.0	55.669	55.669	55.669	55.669	55.669	55.669	55.669
57.5	49.275	49.275	49.275	49.275	49.275	49.275	49.275
60.0	43.507	43.507	43.507	43.507	43.507	43.507	43.507
62.5	38.241	38.241	38.241	38.241	38.241	38.241	38.241
65.0	33.351	33.351	33.351	33.351	33.351	33.351	33.351
67.5	28.712	28.712	28.712	28.712	28.712	28.712	28.712
70.0	24.324	24.324	24.324	24.324	24.324	24.324	24.324
72.5	20.312	20.312	20.312	20.312	20.312	20.312	20.312
75.0	16.676	16.676	16.676	16.676	16.676	16.676	16.676
77.5	13.040	13.040	13.040	13.040	13.040	13.040	13.040
80.0	9.780	9.780	9.780	9.780	9.780	9.780	9.780

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82.5	6.645	6.645	6.645	6.645	6.645	6.645	6.645
85.0	3.636	3.636	3.636	3.636	3.636	3.636	3.636
87.5	1.379	1.379	1.379	1.379	1.379	1.379	1.379
90.0	0.251	0.251	0.251	0.251	0.251	0.251	0.251
92.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107.5	1.112	1.112	1.112	1.112	1.112	1.112	1.112
110.0	1.112	1.112	1.112	1.112	1.112	1.112	1.112
112.5	1.112	1.112	1.112	1.112	1.112	1.112	1.112
115.0	1.112	1.112	1.112	1.112	1.112	1.112	1.112
117.5	2.224	2.224	2.224	2.224	2.224	2.224	2.224
120.0	2.224	2.224	2.224	2.224	2.224	2.224	2.224
122.5	3.336	3.336	3.336	3.336	3.336	3.336	3.336
125.0	4.448	4.448	4.448	4.448	4.448	4.448	4.448
127.5	5.560	5.560	5.560	5.560	5.560	5.560	5.560
130.0	8.897	8.897	8.897	8.897	8.897	8.897	8.897
132.5	11.121	11.121	11.121	11.121	11.121	11.121	11.121
135.0	14.457	14.457	14.457	14.457	14.457	14.457	14.457
137.5	18.905	18.905	18.905	18.905	18.905	18.905	18.905
140.0	23.354	23.354	23.354	23.354	23.354	23.354	23.354
142.5	42.259	42.259	42.259	42.259	42.259	42.259	42.259
145.0	269.123	269.123	269.123	269.123	269.123	269.123	269.123
147.5	602.747	602.747	602.747	602.747	602.747	602.747	602.747
150.0	839.620	839.620	839.620	839.620	839.620	839.620	839.620
152.5	915.242	915.242	915.242	915.242	915.242	915.242	915.242
155.0	1135.434	1135.434	1135.434	1135.434	1135.434	1135.434	1135.434
157.5	1466.834	1466.834	1466.834	1466.834	1466.834	1466.834	1466.834
160.0	1732.621	1732.621	1732.621	1732.621	1732.621	1732.621	1732.621
162.5	1948.364	1948.364	1948.364	1948.364	1948.364	1948.364	1948.364
165.0	2259.747	2259.747	2259.747	2259.747	2259.747	2259.747	2259.747
167.5	2811.338	2811.338	2811.338	2811.338	2811.338	2811.338	2811.338
170.0	3921.194	3921.194	3921.194	3921.194	3921.194	3921.194	3921.194
172.5	6150.923	6150.923	6150.924	6150.924	6150.924	6150.924	6150.924
175.0	10931.766	10931.766	10931.768	10931.768	10931.768	10931.768	10931.768
177.5	19272.362	19272.363	19272.363	19272.363	19272.364	19272.364	19272.364
180.0	24465.761	24465.761	24465.761	24465.761	24465.761	24465.761	24465.761

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1607.22	N.A.	34.80
0-30	1999.29	N.A.	43.30
0-40	2137.46	N.A.	46.30
0-60	2261.84	N.A.	49.00
0-80	2312.71	N.A.	50.10
0-90	2317.24	N.A.	50.20
10-90	1639.6	N.A.	35.50
20-40	530.25	N.A.	11.50
20-50	604.31	N.A.	13.10
40-70	157.56	N.A.	3.40
60-80	50.87	N.A.	1.10
70-80	17.68	N.A.	0.40
80-90	4.54	N.A.	0.10
90-110	0.47	N.A.	0.00
90-120	1.98	N.A.	0.00
90-130	6.17	N.A.	0.10
90-150	217.57	N.A.	4.70
90-180	2295.47	N.A.	49.80
110-180	2295.00	N.A.	49.80
0-180	4612.72	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	677.65
10-20	929.57
20-30	392.07
30-40	138.17
40-50	74.06
50-60	50.31
60-70	33.19
70-80	17.68
80-90	4.54
90-100	0.03
100-110	0.43
110-120	1.51
120-130	4.19
130-140	11.58
140-150	199.82
150-160	542.61
160-170	668.82
170-180	866.47

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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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	100	97	94	92	93	90	88	86	77	75	74	65	64	63	54	53	53	48
2	94	89	84	80	87	83	79	76	72	69	67	61	59	58	52	51	50	45
3	89	82	76	72	82	76	72	68	67	63	61	58	56	54	49	48	47	43
4	84	75	70	65	78	71	66	62	63	59	56	55	52	50	47	46	45	41
5	79	70	64	60	74	66	61	57	59	55	52	52	49	47	46	44	42	40
6	75	66	60	55	70	62	57	53	56	52	49	50	47	45	44	42	41	38
7	71	62	56	51	67	59	53	50	53	49	46	47	45	42	42	40	39	37
8	68	58	52	48	64	55	50	47	50	46	44	45	43	40	41	39	37	35
9	64	55	49	45	61	53	48	44	48	44	41	44	41	39	40	38	36	34
10	62	52	47	43	58	50	45	42	46	42	39	42	39	37	38	36	35	33

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 192_168_39_135-11_49_58-MERGED.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

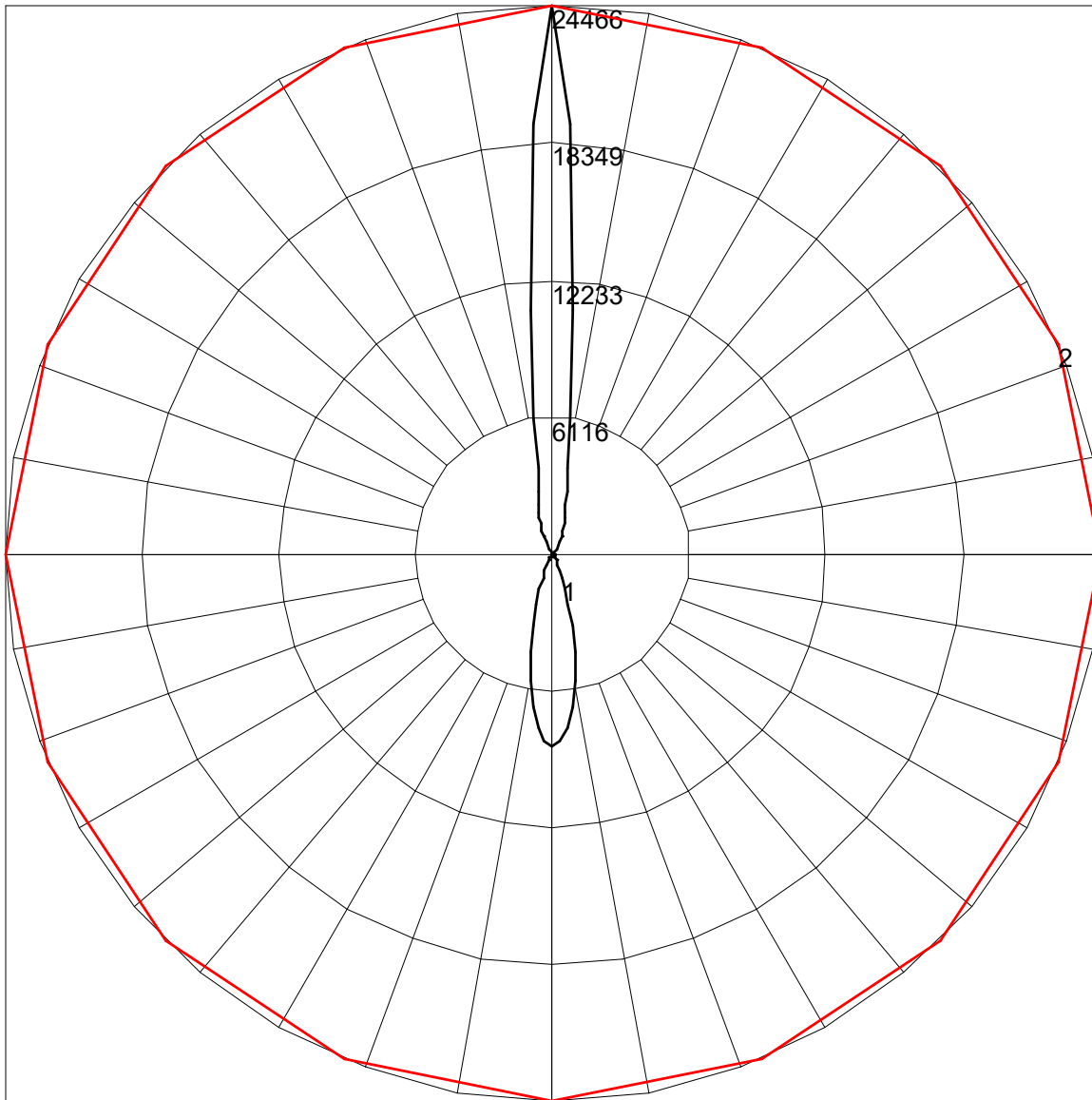
X=2H	Y=2H	6.2	6.9	7.2	7.9	9.2	6.2	6.9	7.2	7.9	9.2
	3H	7.6	8.2	8.6	9.2	10.5	7.6	8.2	8.6	9.2	10.5
	4H	8.1	8.7	9.1	9.7	11.0	8.1	8.7	9.1	9.7	11.0
	6H	8.5	9.0	9.5	10.0	11.3	8.5	9.0	9.5	10.0	11.3
	8H	8.5	9.0	9.6	10.0	11.4	8.5	9.0	9.6	10.0	11.4
	12H	8.6	9.0	9.6	10.0	11.4	8.6	9.0	9.6	10.0	11.4

UGR Viewed Endwise

4H	2H	6.6	7.2	7.7	8.2	9.5	6.6	7.2	7.7	8.2	9.5
	3H	8.2	8.7	9.3	9.7	11.0	8.2	8.7	9.3	9.7	11.0
	4H	8.8	9.3	9.9	10.3	11.6	8.8	9.3	9.9	10.3	11.6
	6H	9.3	9.6	10.3	10.7	12.0	9.3	9.6	10.3	10.7	12.0
	8H	9.4	9.8	10.5	10.8	12.1	9.4	9.8	10.5	10.8	12.1
	12H	9.5	9.8	10.5	10.8	12.2	9.5	9.8	10.5	10.8	12.2
8H	4H	9.0	9.3	10.1	10.4	11.7	9.0	9.3	10.1	10.4	11.7
	6H	9.6	9.8	10.7	10.9	12.3	9.6	9.8	10.7	10.9	12.3
	8H	9.8	10.0	10.9	11.1	12.5	9.8	10.0	10.9	11.1	12.5
	12H	9.9	10.1	11.0	11.2	12.6	9.9	10.1	11.0	11.2	12.6
12H	4H	9.0	9.3	10.0	10.3	11.7	9.0	9.3	10.0	10.3	11.7
	6H	9.6	9.8	10.7	10.9	12.3	9.6	9.8	10.7	10.9	12.3
	8H	9.8	10.0	10.9	11.1	12.5	9.8	10.0	10.9	11.1	12.5

Maximum UGR = 12.6

POLAR GRAPH



Maximum Candela = 24465.761 Located At Horizontal Angle = 0, Vertical Angle = 180
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (180) (Through Max. Cd.)