



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 192_168_39_135-11_51_59-MERGED.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.05 & #12326812.07

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 15-MAR-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CRDI-L25-9DWU-L25-9DWD-xxx-DIM-UNV-ON-CSU-LW-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	4420
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	59
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	29603	29603	29603
55	24645	24645	24645
65	18723	18723	18723
75	13578	13578	13578
85	8849	8849	8849

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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	1350.049	1350.049	1350.049	1350.049	1350.049	1350.049	1350.049	1350.049	1350.049	1350.049
2.5	1342.301	1342.301	1342.301	1342.301	1342.301	1342.301	1342.301	1342.301	1342.301	1342.301
5.0	1328.710	1328.710	1328.710	1328.710	1328.710	1328.710	1328.710	1328.710	1328.710	1328.710
7.5	1319.604	1319.604	1319.604	1319.604	1319.604	1319.604	1319.604	1319.604	1319.604	1319.604
10.0	1311.856	1311.856	1311.856	1311.856	1311.856	1311.856	1311.856	1311.856	1311.856	1311.856
12.5	1307.371	1307.371	1307.371	1307.371	1307.371	1307.371	1307.371	1307.371	1307.371	1307.371
15.0	1297.042	1297.042	1297.042	1297.042	1297.042	1297.042	1297.042	1297.042	1297.042	1297.042
17.5	1279.509	1279.509	1279.509	1279.509	1279.509	1279.509	1279.509	1279.509	1279.509	1279.509
20.0	1254.092	1254.092	1254.092	1254.092	1254.092	1254.092	1254.092	1254.092	1254.092	1254.092
22.5	1203.804	1203.804	1203.804	1203.804	1203.804	1203.804	1203.804	1203.804	1203.804	1203.804
25.0	1118.449	1118.449	1118.449	1118.449	1118.449	1118.449	1118.449	1118.449	1118.449	1118.449
27.5	1002.513	1002.513	1002.513	1002.513	1002.513	1002.513	1002.513	1002.513	1002.513	1002.513
30.0	856.268	856.268	856.268	856.268	856.268	856.268	856.268	856.268	856.268	856.268
32.5	696.295	696.295	696.295	696.295	696.295	696.295	696.295	696.295	696.295	696.295
35.0	571.389	571.389	571.389	571.389	571.389	571.389	571.389	571.389	571.389	571.389
37.5	495.548	495.548	495.548	495.548	495.548	495.548	495.548	495.548	495.548	495.548
40.0	448.113	448.113	448.113	448.113	448.113	448.113	448.113	448.113	448.113	448.113
42.5	413.047	413.047	413.047	413.047	413.047	413.047	413.047	413.047	413.047	413.047
45.0	382.194	382.194	382.194	382.194	382.194	382.194	382.194	382.194	382.194	382.194
47.5	352.293	352.293	352.293	352.293	352.293	352.293	352.293	352.293	352.293	352.293
50.0	321.440	321.440	321.440	321.440	321.440	321.440	321.440	321.440	321.440	321.440
52.5	289.772	289.772	289.772	289.772	289.772	289.772	289.772	289.772	289.772	289.772
55.0	258.104	258.104	258.104	258.104	258.104	258.104	258.104	258.104	258.104	258.104
57.5	227.115	227.115	227.115	227.115	227.115	227.115	227.115	227.115	227.115	227.115
60.0	197.077	197.077	197.077	197.077	197.077	197.077	197.077	197.077	197.077	197.077
62.5	169.623	169.623	169.623	169.623	169.623	169.623	169.623	169.623	169.623	169.623
65.0	144.478	144.478	144.478	144.478	144.478	144.478	144.478	144.478	144.478	144.478
67.5	121.196	121.196	121.196	121.196	121.196	121.196	121.196	121.196	121.196	121.196
70.0	99.599	99.599	99.599	99.599	99.599	99.599	99.599	99.599	99.599	99.599
72.5	80.625	80.625	80.625	80.625	80.625	80.625	80.625	80.625	80.625	80.625
75.0	64.166	64.166	64.166	64.166	64.166	64.166	64.166	64.166	64.166	64.166
77.5	49.609	49.609	49.609	49.609	49.609	49.609	49.609	49.609	49.609	49.609
80.0	36.670	36.670	36.670	36.670	36.670	36.670	36.670	36.670	36.670	36.670
82.5	24.913	24.913	24.913	24.913	24.913	24.913	24.913	24.913	24.913	24.913
85.0	14.081	14.081	14.081	14.081	14.081	14.081	14.081	14.081	14.081	14.081
87.5	4.907	4.907	4.907	4.907	4.907	4.907	4.907	4.907	4.907	4.907
90.0	0.761	0.761	0.761	0.761	0.761	0.761	0.761	0.761	0.761	0.761
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. 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	1350.049	1350.049	1350.049	1350.049	1350.049	1350.049	1350.049
2.5	1342.301	1342.301	1342.301	1342.301	1342.301	1342.301	1342.301
5.0	1328.710	1328.710	1328.710	1328.710	1328.710	1328.710	1328.710
7.5	1319.604	1319.604	1319.604	1319.604	1319.604	1319.604	1319.604
10.0	1311.856	1311.856	1311.856	1311.856	1311.856	1311.856	1311.856
12.5	1307.371	1307.371	1307.371	1307.371	1307.371	1307.371	1307.371
15.0	1297.042	1297.042	1297.042	1297.042	1297.042	1297.042	1297.042
17.5	1279.509	1279.509	1279.509	1279.509	1279.509	1279.509	1279.509
20.0	1254.092	1254.092	1254.092	1254.092	1254.092	1254.092	1254.092
22.5	1203.804	1203.804	1203.804	1203.804	1203.804	1203.804	1203.804
25.0	1118.449	1118.449	1118.449	1118.449	1118.449	1118.449	1118.449
27.5	1002.513	1002.513	1002.513	1002.513	1002.513	1002.513	1002.513
30.0	856.268	856.268	856.268	856.268	856.268	856.268	856.268
32.5	696.295	696.295	696.295	696.295	696.295	696.295	696.295
35.0	571.389	571.389	571.389	571.389	571.389	571.389	571.389
37.5	495.548	495.548	495.548	495.548	495.548	495.548	495.548
40.0	448.113	448.113	448.113	448.113	448.113	448.113	448.113
42.5	413.047	413.047	413.047	413.047	413.047	413.047	413.047
45.0	382.194	382.194	382.194	382.194	382.194	382.194	382.194
47.5	352.293	352.293	352.293	352.293	352.293	352.293	352.293
50.0	321.440	321.440	321.440	321.440	321.440	321.440	321.440
52.5	289.772	289.772	289.772	289.772	289.772	289.772	289.772
55.0	258.104	258.104	258.104	258.104	258.104	258.104	258.104
57.5	227.115	227.115	227.115	227.115	227.115	227.115	227.115
60.0	197.077	197.077	197.077	197.077	197.077	197.077	197.077
62.5	169.623	169.623	169.623	169.623	169.623	169.623	169.623
65.0	144.478	144.478	144.478	144.478	144.478	144.478	144.478
67.5	121.196	121.196	121.196	121.196	121.196	121.196	121.196
70.0	99.599	99.599	99.599	99.599	99.599	99.599	99.599
72.5	80.625	80.625	80.625	80.625	80.625	80.625	80.625
75.0	64.166	64.166	64.166	64.166	64.166	64.166	64.166
77.5	49.609	49.609	49.609	49.609	49.609	49.609	49.609
80.0	36.670	36.670	36.670	36.670	36.670	36.670	36.670

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82.5	24.913	24.913	24.913	24.913	24.913	24.913	24.913
85.0	14.081	14.081	14.081	14.081	14.081	14.081	14.081
87.5	4.907	4.907	4.907	4.907	4.907	4.907	4.907
90.0	0.761	0.761	0.761	0.761	0.761	0.761	0.761
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	491.72	N.A.	11.10
0-30	993.15	N.A.	22.50
0-40	1367.51	N.A.	30.90
0-60	1893.77	N.A.	42.80
0-80	2107.18	N.A.	47.70
0-90	2124.21	N.A.	48.10
10-90	1997.83	N.A.	45.20
20-40	875.79	N.A.	19.80
20-50	1171.15	N.A.	26.50
40-70	670.48	N.A.	15.20
60-80	213.41	N.A.	4.80
70-80	69.19	N.A.	1.60
80-90	17.03	N.A.	0.40
90-110	0.54	N.A.	0.00
90-120	2.05	N.A.	0.00
90-130	6.24	N.A.	0.10
90-150	217.64	N.A.	4.90
90-180	2295.54	N.A.	51.90
110-180	2295.00	N.A.	51.90
0-180	4419.75	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	126.38
10-20	365.34
20-30	501.42
30-40	374.37
40-50	295.36
50-60	230.90
60-70	144.22
70-80	69.19
80-90	17.03
90-100	0.10
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	98	98	98	98	82	82	82	68	68	68	54	54	54	48
1	98	94	91	88	90	87	84	81	74	71	70	61	60	58	50	49	48	42
2	90	84	78	73	83	77	73	69	66	62	59	55	52	50	45	43	42	37
3	83	75	68	62	77	69	63	59	59	55	51	50	47	44	41	39	37	33
4	77	67	60	54	71	62	56	51	53	48	45	45	42	39	37	35	33	29
5	71	60	53	47	65	56	49	45	48	43	39	41	37	34	34	32	30	26
6	66	55	47	42	61	51	44	39	44	39	35	38	34	31	32	29	27	24
7	61	50	42	37	56	46	40	35	40	35	32	35	31	28	29	26	24	22
8	57	46	38	33	53	43	36	32	37	32	28	32	28	25	27	24	22	20
9	53	42	35	30	49	39	33	29	34	29	26	30	26	23	25	23	20	18
10	50	39	32	27	46	36	30	26	32	27	24	28	24	21	24	21	19	17

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 192_168_39_135-11_51_59-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	16.9	17.6	17.8	18.6	19.9	UGR Viewed Endwise	16.9	17.6	17.8	18.6	19.9
	3H	18.0	18.7	19.0	19.7	21.0		18.0	18.7	19.0	19.7	21.0
	4H	18.4	19.1	19.4	20.1	21.4		18.4	19.1	19.4	20.1	21.4
	6H	18.6	19.2	19.6	20.2	21.6		18.6	19.2	19.6	20.2	21.6
	8H	18.7	19.3	19.7	20.3	21.6		18.7	19.3	19.7	20.3	21.6
	12H	18.7	19.3	19.7	20.3	21.6		18.7	19.3	19.7	20.3	21.6

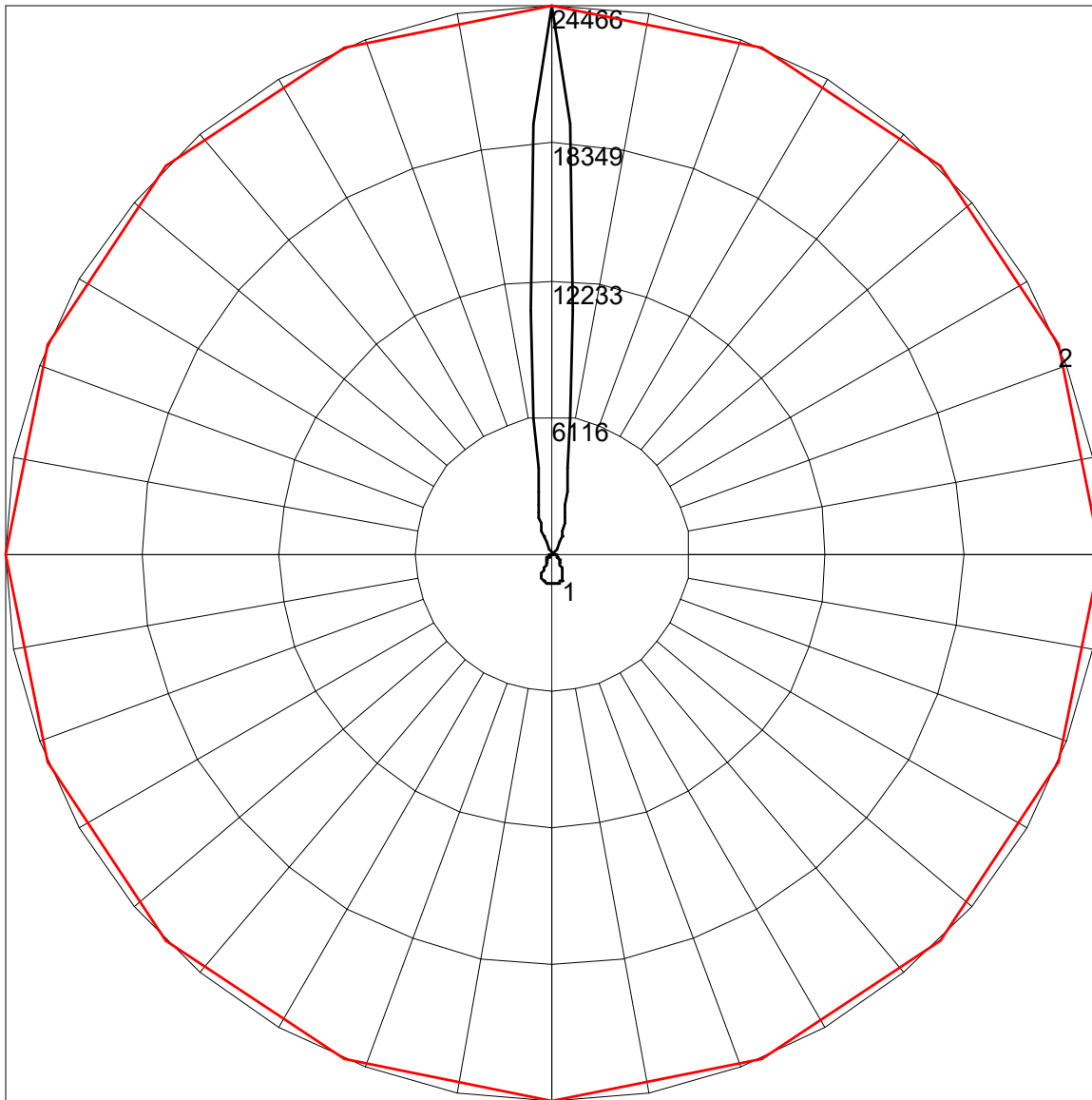
4H	2H	17.2	17.9	18.2	18.9	20.2	17.2	17.9	18.2	18.9	20.2
	3H	18.6	19.1	19.6	20.1	21.5	18.6	19.1	19.6	20.1	21.5
	4H	19.0	19.5	20.1	20.6	21.9	19.0	19.5	20.1	20.6	21.9
	6H	19.4	19.8	20.4	20.9	22.2	19.4	19.8	20.4	20.9	22.2
	8H	19.5	19.9	20.5	20.9	22.3	19.5	19.9	20.5	20.9	22.3
	12H	19.5	19.9	20.6	20.9	22.3	19.5	19.9	20.6	20.9	22.3

8H	4H	19.1	19.6	20.2	20.6	22.0	19.1	19.6	20.2	20.6	22.0
	6H	19.6	19.9	20.7	21.0	22.4	19.6	19.9	20.7	21.0	22.4
	8H	19.8	20.1	20.8	21.1	22.5	19.8	20.1	20.8	21.1	22.5
	12H	19.9	20.1	20.9	21.2	22.6	19.9	20.1	20.9	21.2	22.6

12H	4H	19.1	19.5	20.2	20.5	21.9	19.1	19.5	20.2	20.5	21.9
	6H	19.6	19.9	20.7	21.0	22.4	19.6	19.9	20.7	21.0	22.4
	8H	19.8	20.1	20.9	21.1	22.5	19.8	20.1	20.9	21.1	22.5

Maximum UGR = 22.6

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.)