



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L40-835-EM10W-XXX-DIM-UNV-OM-CS-XX_ EM MODE ONLY.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from UL #12326812.22
 [TESTLAB] UL Verification Services Inc.
 [ISSUE DATE] 2-FEB-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 8CR-TL-L40-835-EM10W-xxx-DIM-UNV-OM-CS-xx EM MODE ONLY
 [LUMINAIRE] 6" DIA. SURFACE CYLINDER
 [LAMP] One white LED
 [BALLAST] Philips XI036C100V054DSM5
 [OTHER] 25.2 C, 119.981 V, 0.30405 A, 36.3881 W, 0.997477 PF, 59.9994
 [MORE] Hz
 [OTHER] This test was performed using the calibrated photodetector met
 [MORE] hod of absolute photometry.

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1103
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.64
Spacing Criterion (90-270)	0.64
Spacing Criterion (Diagonal)	0.72
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	1991	1991	1991
55	734	734	734
65	292	292	292
75	163	163	163
85	155	155	155

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CANDELA TABULATION

	<u>0</u>
0.0	2052.744
0.5	2058.786
1.0	2074.990
1.5	2101.632
2.0	2125.252
2.5	2148.322
3.0	2170.294
3.5	2187.598
4.0	2199.957
4.5	2196.386
5.0	2177.710
5.5	2151.344
6.0	2115.364
6.5	2072.244
7.0	2024.180
7.5	1973.095
8.0	1916.791
8.5	1856.093
9.0	1792.924
9.5	1731.676
10.0	1675.098
10.5	1622.091
11.0	1571.555
11.5	1525.139
12.0	1483.941
12.5	1446.863
13.0	1412.257
13.5	1379.573
14.0	1349.087
14.5	1321.073
15.0	1293.333
15.5	1267.241
16.0	1242.248
16.5	1218.078
17.0	1194.458
17.5	1170.564
18.0	1146.669
18.5	1122.225
19.0	1097.781
19.5	1073.337
20.0	1049.168
20.5	1024.999
21.0	1000.005
21.5	973.913
22.0	947.547
22.5	921.180
23.0	894.539
23.5	867.349
24.0	840.158
24.5	813.242
25.0	787.151
25.5	761.059
26.0	735.242
26.5	710.523

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27.0	687.178
27.5	665.480
28.0	644.607
28.5	625.106
29.0	606.979
29.5	588.028
30.0	566.056
30.5	541.063
31.0	514.422
31.5	485.858
32.0	453.724
32.5	416.097
33.0	375.174
33.5	333.152
34.0	291.405
34.5	250.839
35.0	213.349
35.5	180.364
36.0	153.640
36.5	131.256
37.0	111.975
37.5	96.375
38.0	85.252
38.5	78.468
39.0	73.249
39.5	68.086
40.0	62.758
40.5	57.622
41.0	52.568
41.5	47.679
42.0	43.148
42.5	38.891
43.0	34.963
43.5	31.832
44.0	29.360
44.5	27.328
45.0	25.707
45.5	24.252
46.0	23.016
46.5	21.862
47.0	20.791
47.5	19.802
48.0	18.786
48.5	17.852
49.0	16.864
49.5	15.847
50.0	14.859
50.5	13.952
51.0	13.128
51.5	12.249
52.0	11.453
52.5	10.711
53.0	9.970
53.5	9.366
54.0	8.789
54.5	8.157

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55.0	7.690
55.5	7.196
56.0	6.756
56.5	6.372
57.0	5.932
57.5	5.603
58.0	5.301
58.5	4.944
59.0	4.642
59.5	4.367
60.0	4.065
60.5	3.873
61.0	3.653
61.5	3.433
62.0	3.213
62.5	3.049
63.0	2.856
63.5	2.719
64.0	2.527
64.5	2.444
65.0	2.252
65.5	2.142
66.0	2.060
66.5	1.923
67.0	1.813
67.5	1.675
68.0	1.648
68.5	1.538
69.0	1.428
69.5	1.346
70.0	1.318
70.5	1.208
71.0	1.126
71.5	1.181
72.0	1.044
72.5	0.989
73.0	0.906
73.5	0.906
74.0	0.824
74.5	0.742
75.0	0.769
75.5	0.687
76.0	0.632
76.5	0.604
77.0	0.604
77.5	0.549
78.0	0.467
78.5	0.494
79.0	0.494
79.5	0.494
80.0	0.412
80.5	0.385
81.0	0.357
81.5	0.357
82.0	0.330
82.5	0.302

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83.0	0.275
83.5	0.275
84.0	0.330
84.5	0.247
85.0	0.247
85.5	0.247
86.0	0.220
86.5	0.220
87.0	0.220
87.5	0.192
88.0	0.165
88.5	0.192
89.0	0.192
89.5	0.137
90.0	0.165
90.5	0.000
91.0	0.000
91.5	0.000
92.0	0.000
92.5	0.000
93.0	0.000
93.5	0.000
94.0	0.000
94.5	0.000
95.0	0.000
95.5	0.000
96.0	0.000
96.5	0.000
97.0	0.000
97.5	0.000
98.0	0.000
98.5	0.000
99.0	0.000
99.5	0.000
100.0	0.000
100.5	0.000
101.0	0.000
101.5	0.000
102.0	0.000
102.5	0.000
103.0	0.000
103.5	0.000
104.0	0.000
104.5	0.000
105.0	0.000
105.5	0.000
106.0	0.000
106.5	0.000
107.0	0.000
107.5	0.000
108.0	0.000
108.5	0.000
109.0	0.000
109.5	0.000
110.0	0.000
110.5	0.000

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111.0	0.000
111.5	0.000
112.0	0.000
112.5	0.000
113.0	0.000
113.5	0.000
114.0	0.000
114.5	0.000
115.0	0.000
115.5	0.000
116.0	0.000
116.5	0.000
117.0	0.000
117.5	0.000
118.0	0.000
118.5	0.000
119.0	0.000
119.5	0.000
120.0	0.000
120.5	0.000
121.0	0.000
121.5	0.000
122.0	0.000
122.5	0.000
123.0	0.000
123.5	0.000
124.0	0.000
124.5	0.000
125.0	0.000
125.5	0.000
126.0	0.000
126.5	0.000
127.0	0.000
127.5	0.000
128.0	0.000
128.5	0.000
129.0	0.000
129.5	0.000
130.0	0.000
130.5	0.000
131.0	0.000
131.5	0.000
132.0	0.000
132.5	0.000
133.0	0.000
133.5	0.000
134.0	0.000
134.5	0.000
135.0	0.000
135.5	0.000
136.0	0.000
136.5	0.000
137.0	0.000
137.5	0.000
138.0	0.000
138.5	0.000

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139.0	0.000
139.5	0.000
140.0	0.000
140.5	0.000
141.0	0.000
141.5	0.000
142.0	0.000
142.5	0.000
143.0	0.000
143.5	0.000
144.0	0.000
144.5	0.000
145.0	0.000
145.5	0.000
146.0	0.000
146.5	0.000
147.0	0.000
147.5	0.000
148.0	0.000
148.5	0.000
149.0	0.000
149.5	0.000
150.0	0.000
150.5	0.000
151.0	0.000
151.5	0.000
152.0	0.000
152.5	0.000
153.0	0.000
153.5	0.000
154.0	0.000
154.5	0.000
155.0	0.000
155.5	0.000
156.0	0.000
156.5	0.000
157.0	0.000
157.5	0.000
158.0	0.000
158.5	0.000
159.0	0.000
159.5	0.000
160.0	0.000
160.5	0.000
161.0	0.000
161.5	0.000
162.0	0.000
162.5	0.000
163.0	0.000
163.5	0.000
164.0	0.000
164.5	0.000
165.0	0.000
165.5	0.000
166.0	0.000
166.5	0.000

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CANDELA TABULATION - (Cont.)

167.0	0.000
167.5	0.000
168.0	0.000
168.5	0.000
169.0	0.000
169.5	0.000
170.0	0.000
170.5	0.000
171.0	0.000
171.5	0.000
172.0	0.000
172.5	0.000
173.0	0.000
173.5	0.000
174.0	0.000
174.5	0.000
175.0	0.000
175.5	0.000
176.0	0.000
176.5	0.000
177.0	0.000
177.5	0.000
178.0	0.000
178.5	0.000
179.0	0.000
179.5	0.000
180.0	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	553.41	N.A.	50.20
0-30	914.29	N.A.	82.90
0-40	1069.22	N.A.	96.90
0-60	1099.59	N.A.	99.70
0-80	1102.78	N.A.	100.00
0-90	1103.07	N.A.	100.00
10-90	913.37	N.A.	82.80
20-40	515.81	N.A.	46.80
20-50	538.82	N.A.	48.80
40-70	32.74	N.A.	3.00
60-80	3.20	N.A.	0.30
70-80	0.82	N.A.	0.10
80-90	0.28	N.A.	0.00
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1103.07	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	189.69
10-20	363.72
20-30	360.88
30-40	154.93
40-50	23.01
50-60	7.35
60-70	2.38
70-80	0.82
80-90	0.28
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	112	109	107	112	109	107	106	105	104	102	102	100	99	98	97	96	95
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89
3	104	99	94	91	102	97	93	90	95	91	88	92	89	87	90	88	86	84
4	100	93	88	84	98	92	87	84	90	86	83	88	85	82	86	83	81	80
5	96	88	83	79	94	87	82	79	85	81	78	84	80	77	82	79	77	75
6	91	84	78	74	90	83	78	74	81	77	74	80	76	73	79	75	73	71
7	88	79	74	70	86	79	74	70	78	73	70	76	72	69	75	72	69	68
8	84	76	70	67	83	75	70	66	74	69	66	73	69	66	72	68	66	64
9	81	72	67	63	80	72	67	63	71	66	63	70	66	63	69	65	63	61
10	77	69	64	60	77	68	63	60	68	63	60	67	63	60	66	62	60	58

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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

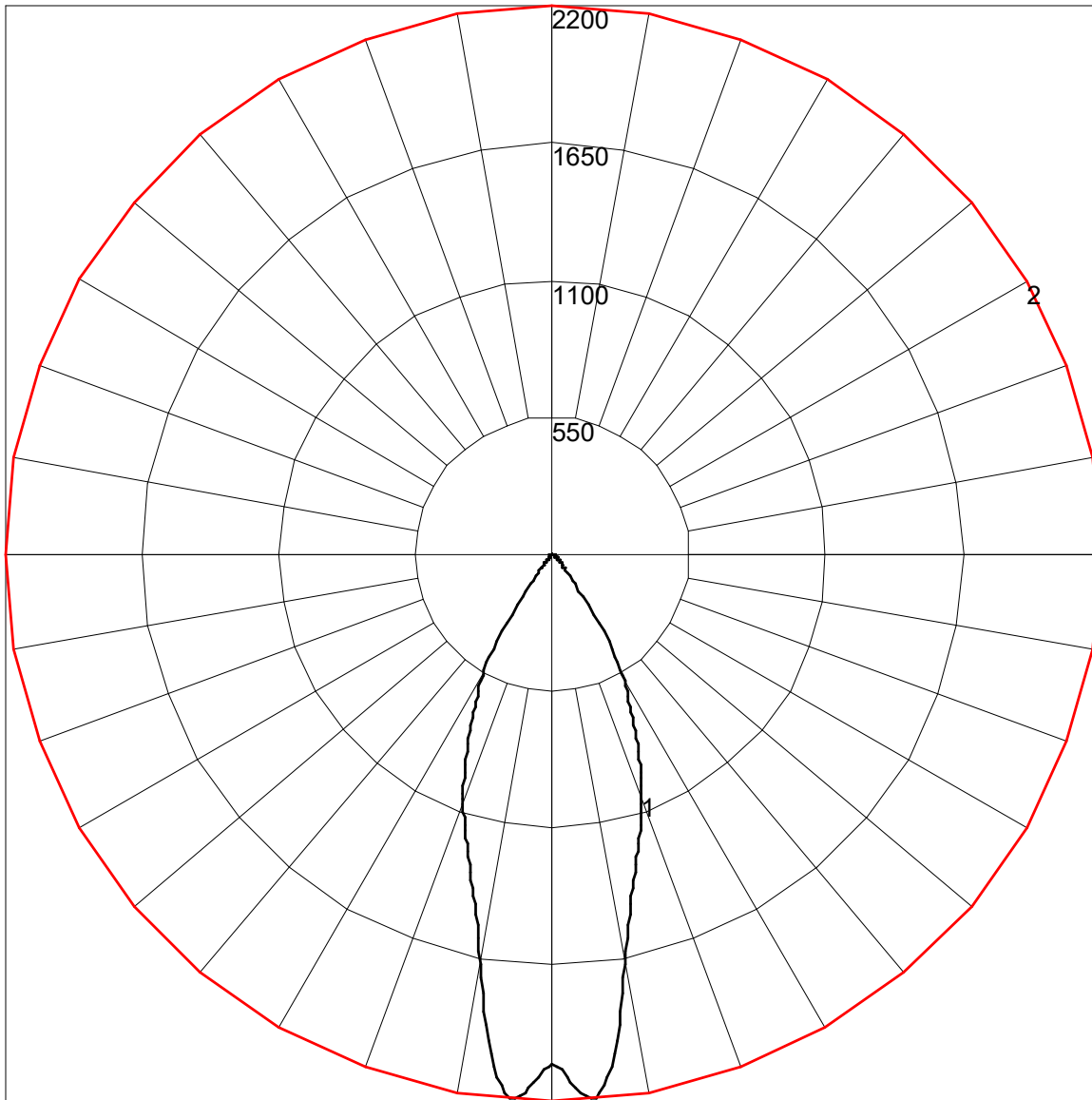
X=2H	Y=2H	0.4	0.4	0.4	0.4	0.4	UGR Viewed Endwise	0.4	0.4	0.4	0.4	0.4
	3H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	4H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	6H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	8H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	12H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
4H	2H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	3H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	4H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	6H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	8H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	12H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
8H	4H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	6H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	8H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	12H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
12H	4H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	6H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	8H	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

Maximum UGR = 0.4

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POLAR GRAPH



Maximum Candela = 2199.957 Located At Horizontal Angle = 0, Vertical Angle = 4

1 - Vertical Plane Through Horizontal Angles (90 - 270)

2 - Horizontal Cone Through Vertical Angle (4) (Through Max. Cd.)