



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L15-935-EM10W-XXX-DIM-UNV-OM-SPC-XX_ EM MODE ONLY.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.04

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 3-FEB-2021

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.64836

[LUMCAT] 8CR-TL-L15-935-EM10W-xxx-DIM-UNV-OM-SPC-xx EM MODE ONLY

[LUMINAIRE] 8" DIA. SURFACE CYLINDER

[MORE] enclosure

[LAMP] One white LED

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Healthcare, Office, Downlight

[_SEARCH_MOUNTING] Surface

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	910
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	91
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.58
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.68
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	1642	1642	1642
55	605	605	605
65	238	238	238
75	107	107	107
85	87	87	87

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	<u>0</u>
0.0	1841.568
0.5	1844.322
1.0	1849.829
1.5	1853.041
2.0	1860.842
2.5	1864.055
3.0	1869.561
3.5	1870.938
4.0	1866.808
4.5	1844.781
5.0	1822.754
5.5	1799.350
6.0	1761.720
6.5	1724.090
7.0	1684.166
7.5	1639.193
8.0	1586.879
8.5	1533.187
9.0	1477.660
9.5	1423.510
10.0	1373.490
10.5	1329.435
11.0	1291.347
11.5	1258.765
12.0	1226.642
12.5	1194.977
13.0	1164.690
13.5	1136.238
14.0	1110.540
14.5	1087.595
15.0	1066.944
15.5	1047.211
16.0	1027.938
16.5	1007.746
17.0	987.095
17.5	966.445
18.0	947.630
18.5	931.110
19.0	914.130
19.5	896.692
20.0	877.418
20.5	856.768
21.0	835.658
21.5	814.090
22.0	791.145
22.5	769.118
23.0	745.714
23.5	721.851
24.0	697.070
24.5	672.290
25.0	647.968
25.5	623.646
26.0	601.160
26.5	579.592

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27.0	559.400
27.5	540.126
28.0	522.688
28.5	507.085
29.0	492.400
29.5	478.175
30.0	460.277
30.5	437.883
31.0	412.185
31.5	383.916
32.0	355.235
32.5	326.370
33.0	297.505
33.5	267.218
34.0	236.472
34.5	208.433
35.0	181.495
35.5	156.072
36.0	131.613
36.5	109.723
37.0	91.780
37.5	79.160
38.0	72.369
38.5	67.780
39.0	63.191
39.5	58.326
40.0	53.141
40.5	47.634
41.0	42.357
41.5	37.446
42.0	33.270
42.5	29.966
43.0	27.396
43.5	25.423
44.0	23.771
44.5	22.440
45.0	21.201
45.5	20.146
46.0	19.136
46.5	18.218
47.0	17.301
47.5	16.429
48.0	15.557
48.5	14.685
49.0	13.813
49.5	13.033
50.0	12.299
50.5	11.564
51.0	10.876
51.5	10.188
52.0	9.499
52.5	8.903
53.0	8.306
53.5	7.755
54.0	7.251
54.5	6.792

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55.0	6.333
55.5	5.966
56.0	5.553
56.5	5.231
57.0	4.910
57.5	4.589
58.0	4.314
58.5	4.038
59.0	3.809
59.5	3.579
60.0	3.350
60.5	3.121
61.0	2.937
61.5	2.753
62.0	2.616
62.5	2.478
63.0	2.295
63.5	2.203
64.0	2.065
64.5	1.927
65.0	1.836
65.5	1.698
66.0	1.606
66.5	1.514
67.0	1.423
67.5	1.331
68.0	1.285
68.5	1.193
69.0	1.101
69.5	1.055
70.0	1.010
70.5	0.918
71.0	0.872
71.5	0.826
72.0	0.780
72.5	0.734
73.0	0.688
73.5	0.642
74.0	0.597
74.5	0.551
75.0	0.505
75.5	0.505
76.0	0.459
76.5	0.413
77.0	0.413
77.5	0.367
78.0	0.367
78.5	0.321
79.0	0.321
79.5	0.275
80.0	0.275
80.5	0.229
81.0	0.229
81.5	0.229
82.0	0.184
82.5	0.184

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83.0	0.184
83.5	0.138
84.0	0.138
84.5	0.138
85.0	0.138
85.5	0.092
86.0	0.092
86.5	0.092
87.0	0.092
87.5	0.092
88.0	0.046
88.5	0.046
89.0	0.046
89.5	0.046
90.0	0.046
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	459.25	N.A.	50.50
0-30	756.74	N.A.	83.20
0-40	882.62	N.A.	97.00
0-60	907.36	N.A.	99.70
0-80	909.85	N.A.	100.00
0-90	909.99	N.A.	100.00
10-90	751.32	N.A.	82.60
20-40	423.37	N.A.	46.50
20-50	442.03	N.A.	48.60
40-70	26.64	N.A.	2.90
60-80	2.49	N.A.	0.30
70-80	0.59	N.A.	0.10
80-90	0.14	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	909.99	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	158.67
10-20	300.58
20-30	297.48
30-40	125.88
40-50	18.66
50-60	6.08
60-70	1.90
70-80	0.59
80-90	0.14
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

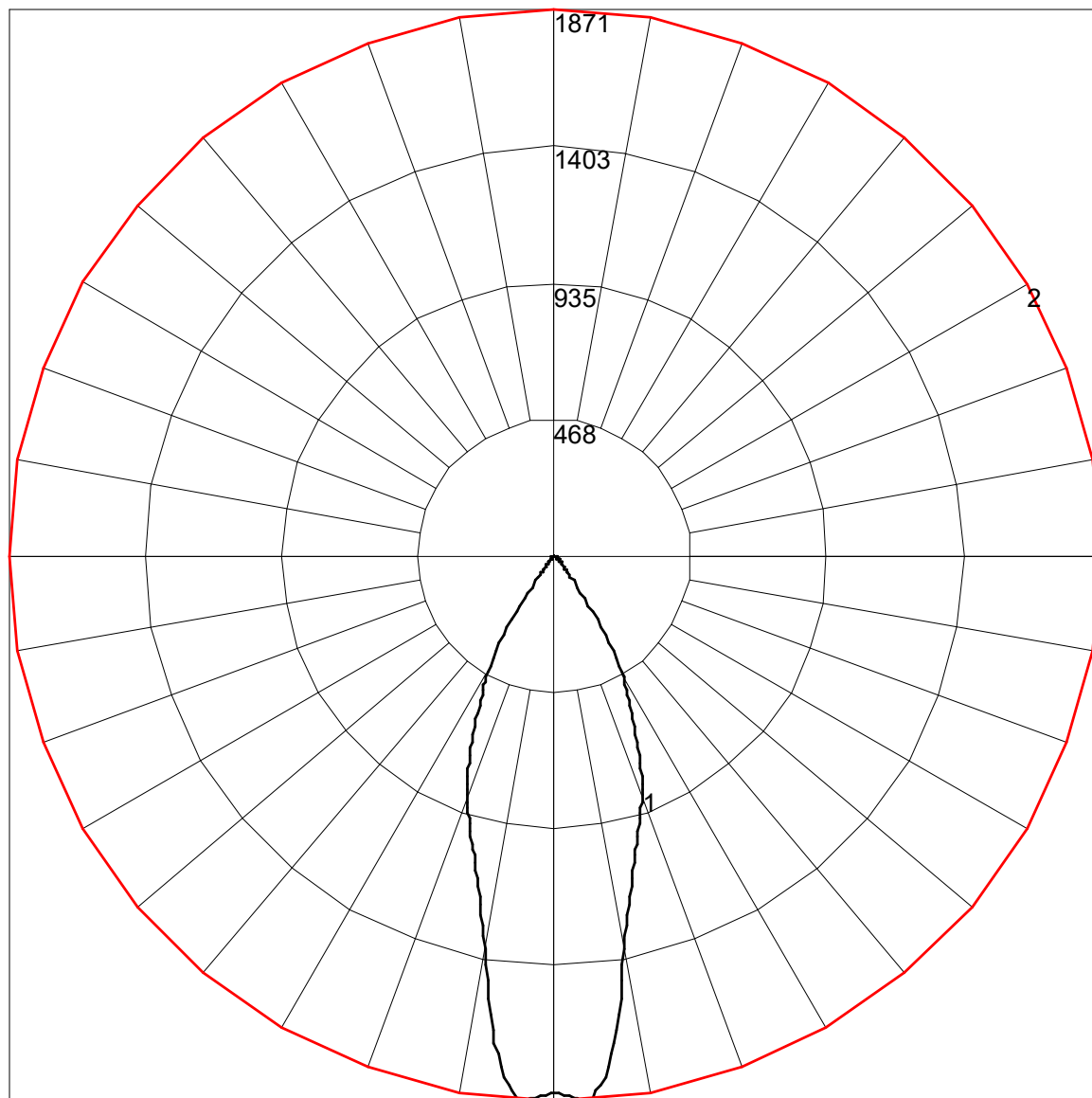
Effective Floor Cavity Reflectance 0.20

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	103	97	93	90	95	91	89	92	90	87	90	88	86	84
4	100	93	88	84	98	92	88	84	90	86	83	88	85	82	86	83	81	80
5	96	88	83	79	94	87	82	79	86	81	78	84	80	77	82	79	77	75
6	92	84	78	75	90	83	78	74	81	77	74	80	76	73	79	75	73	72
7	88	80	74	70	87	79	74	70	78	73	70	77	73	70	75	72	69	68
8	84	76	70	67	83	75	70	67	74	70	66	73	69	66	72	69	66	65
9	81	72	67	63	80	72	67	63	71	66	63	70	66	63	69	65	63	62
10	78	69	64	60	77	69	64	60	68	63	60	67	63	60	66	63	60	59

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POLAR GRAPH



Maximum Candela = 1870.938 Located At Horizontal Angle = 0, Vertical Angle = 3.5

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

2 - Horizontal Cone Through Vertical Angle (3.5) (Through Max. Cd.)