



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CR-L12-840-EM10WRM-XXX-DIM-UNV-OM-CS-XX\_EMER MODE.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM 13131414.06  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUEDATE] 01-17-2024  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836  
 [LUMCAT] 4CR-L12-840-EM10WRM-xxx-DIM-UNV-OM-CS-xx  
 [LUMINAIRE] Aluminum cylinder housing and reflector, no lens enclosure  
 [LAMP] One white LED  
 [\_SEARCH\_SOURCETYPE] LED  
 [\_SEARCH\_APPLICATION] Indoor, Downlight  
 [\_SEARCH\_MOUNTING] Surface, Suspended, Wall

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	860
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.66
Spacing Criterion (90-270)	0.66
Spacing Criterion (Diagonal)	0.66
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.21 ft (Diameter)
Luminous Width (90-270)	0.21 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	5930	5930	5930
55	1783	1783	1783
65	592	592	592
75	263	263	263
85	131	131	131

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CR-L12-840-EM10WRM-XXX-DIM-UNV-OM-CS-XX\_EMER MODE.IES

## CANDELA TABULATION

	<u>0</u>
0.0	1940.835
0.5	1940.835
1.0	1940.476
1.5	1940.117
2.0	1940.117
2.5	1937.244
3.0	1932.217
3.5	1927.190
4.0	1921.085
4.5	1914.981
5.0	1907.799
5.5	1897.745
6.0	1885.177
6.5	1866.505
7.0	1844.601
7.5	1821.979
8.0	1797.561
8.5	1770.271
9.0	1740.827
9.5	1709.946
10.0	1677.269
10.5	1643.156
11.0	1607.966
11.5	1572.417
12.0	1536.509
12.5	1499.883
13.0	1463.616
13.5	1427.708
14.0	1392.877
14.5	1358.764
15.0	1325.010
15.5	1291.616
16.0	1258.221
16.5	1224.827
17.0	1191.791
17.5	1159.115
18.0	1126.797
18.5	1094.839
19.0	1061.804
19.5	1028.409
20.0	993.937
20.5	959.106
21.0	923.557
21.5	887.290
22.0	850.305
22.5	811.524
23.0	771.666
23.5	730.731
24.0	688.359
24.5	645.269
25.0	601.461
25.5	556.935
26.0	512.409
26.5	467.524

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 4CR-L12-840-EM10WRM-XXX-DIM-UNV-OM-CS-XX\_EMER MODE.IES****CANDELA TABULATION - (Cont.)**

27.0	423.357
27.5	380.267
28.0	339.296
28.5	299.905
29.0	263.673
29.5	230.315
30.0	200.224
30.5	172.610
31.0	147.762
31.5	125.535
32.0	106.683
32.5	90.668
33.0	77.454
33.5	66.502
34.0	57.561
34.5	50.128
35.0	44.382
35.5	40.073
36.0	36.770
36.5	34.149
37.0	31.779
37.5	29.624
38.0	27.721
38.5	26.105
39.0	24.633
39.5	23.304
40.0	22.084
40.5	20.970
41.0	19.929
41.5	18.924
42.0	17.990
42.5	17.128
43.0	16.302
43.5	15.512
44.0	14.758
44.5	14.040
45.0	13.250
45.5	12.460
46.0	11.742
46.5	11.060
47.0	10.449
47.5	9.803
48.0	9.228
48.5	8.654
49.0	8.115
49.5	7.613
50.0	7.074
50.5	6.571
51.0	6.068
51.5	5.566
52.0	5.099
52.5	4.740
53.0	4.417
53.5	4.094
54.0	3.770
54.5	3.519

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 4CR-L12-840-EM10WRM-XXX-DIM-UNV-OM-CS-XX\_EMER MODE.IES****CANDELA TABULATION - (Cont.)**

55.0	3.232
55.5	2.980
56.0	2.765
56.5	2.514
57.0	2.298
57.5	2.154
58.0	2.011
58.5	1.867
59.0	1.724
59.5	1.616
60.0	1.508
60.5	1.436
61.0	1.329
61.5	1.257
62.0	1.185
62.5	1.113
63.0	1.041
63.5	0.970
64.0	0.898
64.5	0.862
65.0	0.790
65.5	0.754
66.0	0.718
66.5	0.682
67.0	0.610
67.5	0.575
68.0	0.539
68.5	0.503
69.0	0.503
69.5	0.467
70.0	0.431
70.5	0.395
71.0	0.359
71.5	0.359
72.0	0.323
72.5	0.323
73.0	0.287
73.5	0.251
74.0	0.251
74.5	0.215
75.0	0.215
75.5	0.215
76.0	0.180
76.5	0.180
77.0	0.180
77.5	0.144
78.0	0.144
78.5	0.144
79.0	0.108
79.5	0.108
80.0	0.108
80.5	0.108
81.0	0.072
81.5	0.072
82.0	0.072
82.5	0.072

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 4CR-L12-840-EM10WRM-XXX-DIM-UNV-OM-CS-XX\_EMER MODE.IES****CANDELA TABULATION - (Cont.)**

83.0	0.072
83.5	0.036
84.0	0.036
84.5	0.036
85.0	0.036
85.5	0.036
86.0	0.036
86.5	0.036
87.0	0.036
87.5	0.036
88.0	0.036
88.5	0.036
89.0	0.000
89.5	0.000
90.0	0.000
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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 4CR-L12-840-EM10WRM-XXX-DIM-UNV-OM-CS-XX\_EMER MODE.IES****CANDELA TABULATION - (Cont.)**

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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 4CR-L12-840-EM10WRM-XXX-DIM-UNV-OM-CS-XX\_EMER MODE.IES****CANDELA TABULATION - (Cont.)**

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

**IES INDOOR REPORT**

**PHOTOMETRIC FILENAME : 4CR-L12-840-EM10WRM-XXX-DIM-UNV-OM-CS-XX\_EMER MODE.IES**

**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



**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 4CR-L12-840-EM10WRM-XXX-DIM-UNV-OM-CS-XX\_EMER MODE.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	541.38	N.A.	62.90
0-30	805.77	N.A.	93.70
0-40	845.41	N.A.	98.30
0-60	858.94	N.A.	99.90
0-80	860.03	N.A.	100.00
0-90	860.08	N.A.	100.00
10-90	685.25	N.A.	79.70
20-40	304.03	N.A.	35.30
20-50	314.41	N.A.	36.60
40-70	14.38	N.A.	1.70
60-80	1.09	N.A.	0.10
70-80	0.24	N.A.	0.00
80-90	0.05	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	860.08	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	174.83
10-20	366.55
20-30	264.39
30-40	39.64
40-50	10.39
50-60	3.15
60-70	0.85
70-80	0.24
80-90	0.05
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

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CR-L12-840-EM10WRM-XXX-DIM-UNV-OM-CS-XX\_EMER MODE.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

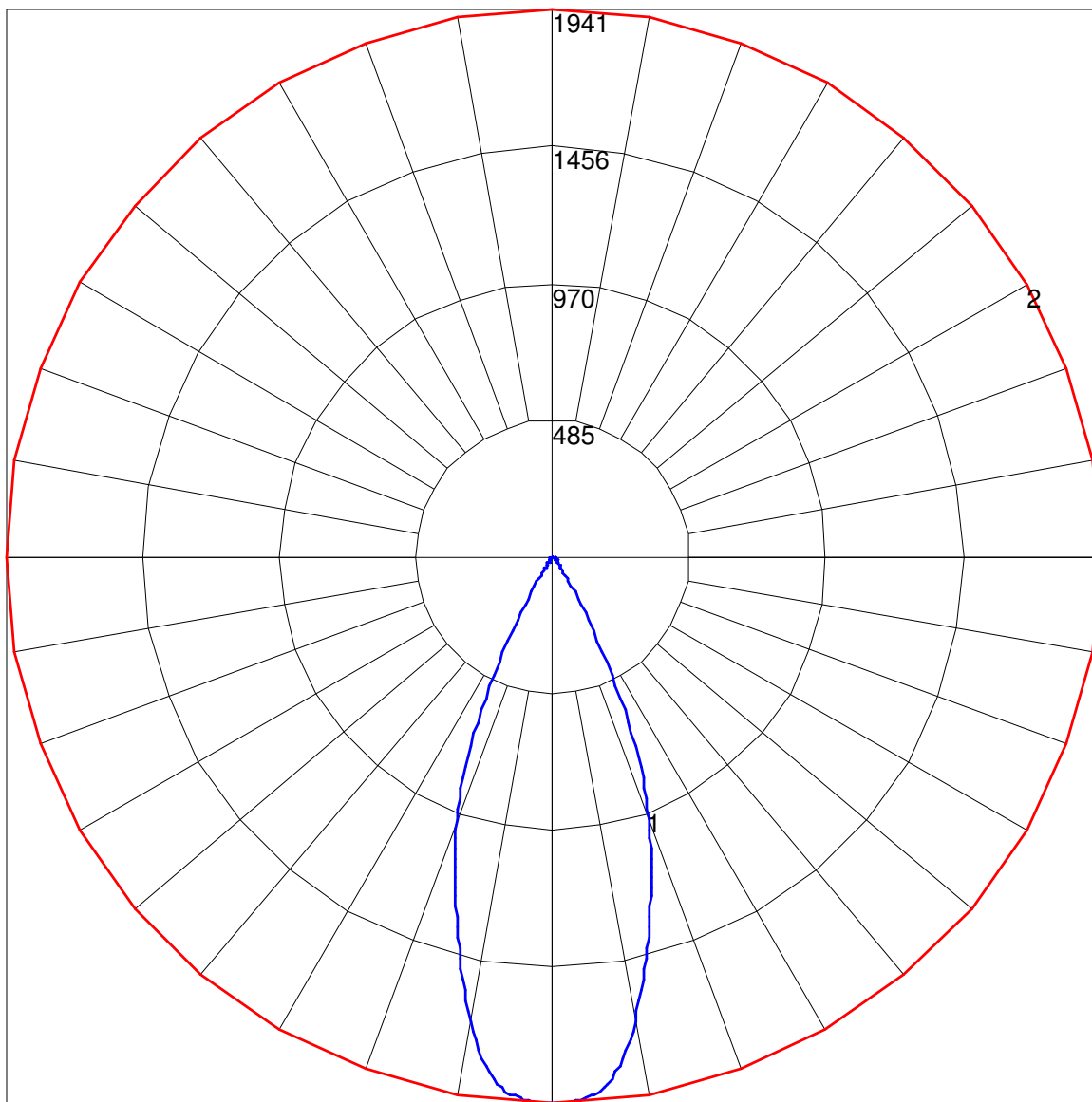
Effective Floor Cavity Reflectance 0.20

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	110	108	112	110	108	106	106	105	103	102	101	100	99	98	97	96
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91
3	106	101	97	93	104	99	96	93	97	94	91	94	92	90	92	90	88	87
4	102	96	91	88	100	95	91	87	93	89	86	91	88	85	89	86	84	83
5	98	91	87	83	97	90	86	83	89	85	82	87	84	81	86	83	81	79
6	94	87	82	79	93	87	82	79	85	81	78	84	80	78	83	80	77	76
7	91	84	79	75	90	83	78	75	82	78	75	81	77	74	80	76	74	73
8	88	80	75	72	87	80	75	72	79	75	72	78	74	71	77	74	71	70
9	85	77	72	69	84	77	72	69	76	72	69	75	71	68	74	71	68	67
10	82	74	69	66	81	74	69	66	73	69	66	72	68	66	72	68	66	65

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CR-L12-840-EM10WRM-XXX-DIM-UNV-OM-CS-XX\_EMER MODE.IES

## POLAR GRAPH



Maximum Candela = 1940.835 Located At Horizontal Angle = 0, Vertical Angle = 0

# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)