



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CR-L12-935-XXX-DIM-UNV-OM-OF-CS-TD-XX\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST]GEN FROM 13131414.06  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUE DATE] 01/25/2021  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836  
 [LUMCAT] 4CR-L12-835-xxx-DIM-UNV-OM-OF-CS-TD-xx  
 [LUMINAIRE] Aluminum housing and reflector, no lens enclosure  
 [LAMP] One white LED  
 [ \_SEARCH\_SOURCETYPE] LED  
 [ \_SEARCH\_APPLICATION] Indoor, Downlight  
 [ \_SEARCH\_MOUNTING] Pendant, Surface, Suspended, Wall

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	673
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	47
Total Luminaire Watts	14.3
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	4641	4641	4641
55	1395	1395	1395
65	463	463	463
75	207	207	207
85	102	102	102

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CANDELA TABULATION

	<u>0</u>
0.0	1518.816
0.5	1518.816
1.0	1518.535
1.5	1518.254
2.0	1518.254
2.5	1516.006
3.0	1512.072
3.5	1508.138
4.0	1503.361
4.5	1498.584
5.0	1492.964
5.5	1485.096
6.0	1475.261
6.5	1460.649
7.0	1443.508
7.5	1425.805
8.0	1406.697
8.5	1385.340
9.0	1362.298
9.5	1338.132
10.0	1312.561
10.5	1285.866
11.0	1258.327
11.5	1230.508
12.0	1202.408
12.5	1173.746
13.0	1145.365
13.5	1117.264
14.0	1090.007
14.5	1063.312
15.0	1036.898
15.5	1010.765
16.0	984.631
16.5	958.498
17.0	932.646
17.5	907.075
18.0	881.785
18.5	856.775
19.0	830.923
19.5	804.790
20.0	777.814
20.5	750.557
21.0	722.737
21.5	694.356
22.0	665.413
22.5	635.065
23.0	603.874
23.5	571.839
24.0	538.681
24.5	504.961
25.0	470.679
25.5	435.834
26.0	400.990
26.5	365.865

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**CANDELA TABULATION - (Cont.)**

27.0	331.301
27.5	297.581
28.0	265.519
28.5	234.693
29.0	206.340
29.5	180.235
30.0	156.687
30.5	135.078
31.0	115.632
31.5	98.238
32.0	83.486
32.5	70.953
33.0	60.612
33.5	52.042
34.0	45.045
34.5	39.228
35.0	34.732
35.5	31.360
36.0	28.775
36.5	26.723
37.0	24.869
37.5	23.183
38.0	21.693
38.5	20.429
39.0	19.277
39.5	18.237
40.0	17.282
40.5	16.411
41.0	15.596
41.5	14.809
42.0	14.078
42.5	13.404
43.0	12.757
43.5	12.139
44.0	11.549
44.5	10.987
45.0	10.369
45.5	9.751
46.0	9.189
46.5	8.655
47.0	8.177
47.5	7.671
48.0	7.222
48.5	6.772
49.0	6.351
49.5	5.957
50.0	5.536
50.5	5.142
51.0	4.749
51.5	4.356
52.0	3.990
52.5	3.709
53.0	3.456
53.5	3.203
54.0	2.951
54.5	2.754

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CANDELA TABULATION - (Cont.)

55.0	2.529
55.5	2.332
56.0	2.164
56.5	1.967
57.0	1.798
57.5	1.686
58.0	1.574
58.5	1.461
59.0	1.349
59.5	1.265
60.0	1.180
60.5	1.124
61.0	1.040
61.5	0.984
62.0	0.927
62.5	0.871
63.0	0.815
63.5	0.759
64.0	0.703
64.5	0.674
65.0	0.618
65.5	0.590
66.0	0.562
66.5	0.534
67.0	0.478
67.5	0.450
68.0	0.422
68.5	0.393
69.0	0.393
69.5	0.365
70.0	0.337
70.5	0.309
71.0	0.281
71.5	0.281
72.0	0.253
72.5	0.253
73.0	0.225
73.5	0.197
74.0	0.197
74.5	0.169
75.0	0.169
75.5	0.169
76.0	0.141
76.5	0.141
77.0	0.141
77.5	0.112
78.0	0.112
78.5	0.112
79.0	0.084
79.5	0.084
80.0	0.084
80.5	0.084
81.0	0.056
81.5	0.056
82.0	0.056
82.5	0.056

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CANDELA TABULATION - (Cont.)

83.0	0.056
83.5	0.028
84.0	0.028
84.5	0.028
85.0	0.028
85.5	0.028
86.0	0.028
86.5	0.028
87.0	0.028
87.5	0.028
88.0	0.028
88.5	0.028
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

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
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126.0	0.000
126.5	0.000
127.0	0.000
127.5	0.000
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128.5	0.000
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129.5	0.000
130.0	0.000
130.5	0.000
131.0	0.000
131.5	0.000
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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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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
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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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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	423.66	N.A.	62.90
0-30	630.56	N.A.	93.70
0-40	661.58	N.A.	98.30
0-60	672.17	N.A.	99.90
0-80	673.02	N.A.	100.00
0-90	673.06	N.A.	100.00
10-90	536.25	N.A.	79.70
20-40	237.92	N.A.	35.30
20-50	246.05	N.A.	36.60
40-70	11.25	N.A.	1.70
60-80	0.85	N.A.	0.10
70-80	0.19	N.A.	0.00
80-90	0.04	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	673.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	136.82
10-20	286.84
20-30	206.90
30-40	31.02
40-50	8.13
50-60	2.46
60-70	0.66
70-80	0.19
80-90	0.04
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

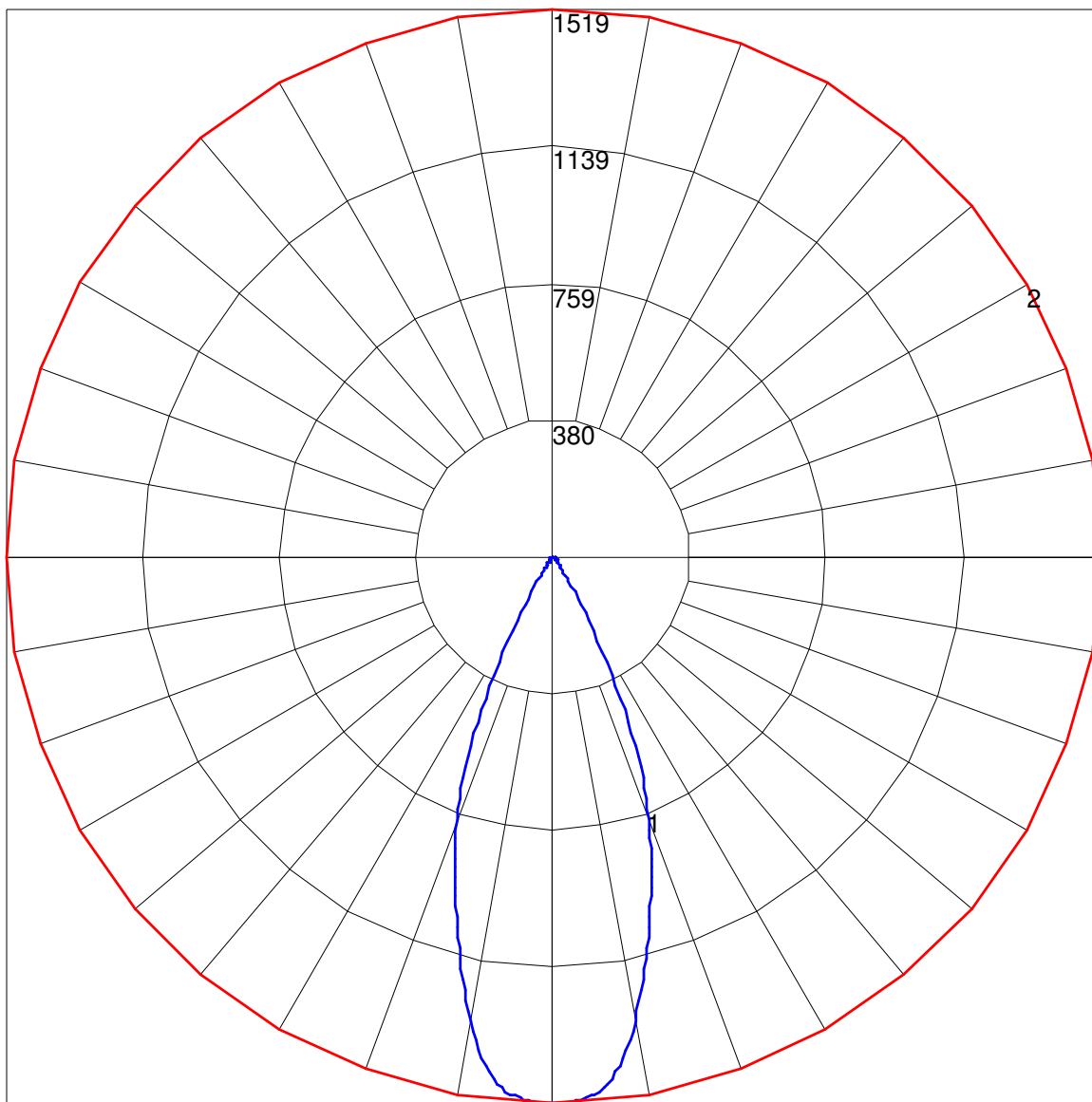
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	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

POLAR GRAPH



Maximum Candela = 1518.816 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.)