

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CR-XX-L15-835-XXX-EM10WRM-DIM-UNV-OW-CS-XX_EMER MODE ONLY.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM 13131414.01
[TESTLAB] UL Verification Services Inc.
[ISSUE DATE] 01/28/2026
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836
[LUMCAT] 4CR-xx-L15-835-xxx-EM/10W-DIM-UNV-OW-CS-xx
[LUMINAIRE] Aluminum housing and reflector, no 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	890
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	89
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.04
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	24150	24150	24150
55	6874	6874	6874
65	3119	3119	3119
75	966	966	966
85	261	261	261

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CANDELA TABULATION

	<u>0</u>
0.0	721.969
0.5	721.969
1.0	721.969
1.5	722.328
2.0	722.687
2.5	723.046
3.0	723.405
3.5	724.482
4.0	725.918
4.5	727.713
5.0	729.867
5.5	732.380
6.0	734.534
6.5	737.407
7.0	740.279
7.5	743.151
8.0	746.382
8.5	748.895
9.0	751.049
9.5	752.485
10.0	753.921
10.5	754.998
11.0	755.716
11.5	756.075
12.0	755.716
12.5	755.357
13.0	754.280
13.5	753.203
14.0	751.767
14.5	750.690
15.0	749.254
15.5	747.818
16.0	746.023
16.5	744.946
17.0	743.510
17.5	742.433
18.0	741.715
18.5	740.638
19.0	738.843
19.5	735.612
20.0	732.380
20.5	728.072
21.0	723.046
21.5	717.661
22.0	712.276
22.5	705.814
23.0	698.992
23.5	691.453
24.0	683.914
24.5	676.016
25.0	667.400
25.5	658.065
26.0	648.013
26.5	636.884

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4CR-XX-L15-835-XXX-EM10WRM-DIM-UNV-OW-CS-XX_EMER MODE ONLY.IES****CANDELA TABULATION - (Cont.)**

27.0	625.036
27.5	611.394
28.0	598.470
28.5	584.827
29.0	571.544
29.5	558.261
30.0	544.259
30.5	529.899
31.0	515.179
31.5	500.101
32.0	485.741
32.5	470.662
33.0	455.225
33.5	439.787
34.0	423.632
34.5	407.476
35.0	390.962
35.5	373.729
36.0	355.887
36.5	337.182
37.0	317.185
37.5	295.968
38.0	274.032
38.5	251.666
39.0	229.407
39.5	207.831
40.0	187.296
40.5	167.981
41.0	149.958
41.5	133.121
42.0	117.396
42.5	102.964
43.0	89.932
43.5	78.444
44.0	68.750
44.5	60.673
45.0	53.959
45.5	48.395
46.0	43.763
46.5	39.814
47.0	36.475
47.5	33.603
48.0	31.090
48.5	28.864
49.0	26.890
49.5	25.131
50.0	23.479
50.5	22.007
51.0	20.643
51.5	19.387
52.0	18.238
52.5	17.125
53.0	16.084
53.5	15.078
54.0	14.145
54.5	13.247

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55.0	12.458
55.5	11.740
56.0	11.093
56.5	10.483
57.0	9.945
57.5	9.442
58.0	8.975
58.5	8.544
59.0	8.150
59.5	7.719
60.0	7.360
60.5	6.965
61.0	6.642
61.5	6.283
62.0	5.960
62.5	5.636
63.0	5.349
63.5	5.026
64.0	4.739
64.5	4.452
65.0	4.165
65.5	3.913
66.0	3.662
66.5	3.375
67.0	3.159
67.5	2.908
68.0	2.693
68.5	2.513
69.0	2.298
69.5	2.118
70.0	1.939
70.5	1.795
71.0	1.651
71.5	1.508
72.0	1.364
72.5	1.257
73.0	1.149
73.5	1.041
74.0	0.969
74.5	0.862
75.0	0.790
75.5	0.718
76.0	0.646
76.5	0.610
77.0	0.539
77.5	0.467
78.0	0.431
78.5	0.395
79.0	0.359
79.5	0.323
80.0	0.287
80.5	0.251
81.0	0.215
81.5	0.215
82.0	0.180
82.5	0.144

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83.0	0.144
83.5	0.108
84.0	0.108
84.5	0.108
85.0	0.072
85.5	0.072
86.0	0.072
86.5	0.036
87.0	0.036
87.5	0.036
88.0	0.036
88.5	0.036
89.0	0.036
89.5	0.036
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

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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	282.30	N.A.	31.70
0-30	583.58	N.A.	65.60
0-40	818.54	N.A.	92.00
0-60	884.65	N.A.	99.40
0-80	889.85	N.A.	100.00
0-90	889.97	N.A.	100.00
10-90	819.38	N.A.	92.10
20-40	536.25	N.A.	60.30
20-50	590.39	N.A.	66.30
40-70	70.37	N.A.	7.90
60-80	5.20	N.A.	0.60
70-80	0.94	N.A.	0.10
80-90	0.11	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	889.97	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	70.59
10-20	211.71
20-30	301.29
30-40	234.96
40-50	54.14
50-60	11.96
60-70	4.26
70-80	0.94
80-90	0.11
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	113	110	108	106	111	108	106	104	104	102	101	100	99	98	97	96	95	93
2	107	102	98	95	105	101	97	94	97	94	92	94	92	90	92	90	88	86
3	102	95	90	86	100	94	89	85	91	87	84	88	85	82	86	83	81	79
4	96	88	83	78	94	87	82	78	85	80	77	83	79	76	81	78	75	73
5	91	82	76	72	89	81	76	71	79	74	71	78	73	70	76	72	69	68
6	86	77	71	66	85	76	70	66	74	69	65	73	68	65	72	68	64	63
7	81	72	65	61	80	71	65	61	70	64	61	69	64	60	67	63	60	58
8	77	67	61	57	76	67	61	57	66	60	56	64	60	56	63	59	56	54
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51
10	70	59	53	49	68	59	53	49	58	53	49	57	52	49	57	52	49	47

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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	8.4	9.4	8.8	9.8	10.1	8.4	9.4	8.8	9.8	10.1
	3H	8.7	9.6	9.1	9.9	10.3	8.7	9.6	9.1	9.9	10.3
	4H	8.7	9.5	9.1	9.8	10.2	8.7	9.5	9.1	9.8	10.2
	6H	8.6	9.3	9.0	9.7	10.1	8.6	9.3	9.0	9.7	10.1
	8H	8.6	9.2	9.0	9.6	10.0	8.6	9.2	9.0	9.6	10.0
	12H	8.5	9.2	8.9	9.5	10.0	8.5	9.2	8.9	9.5	10.0

UGR Viewed Endwise

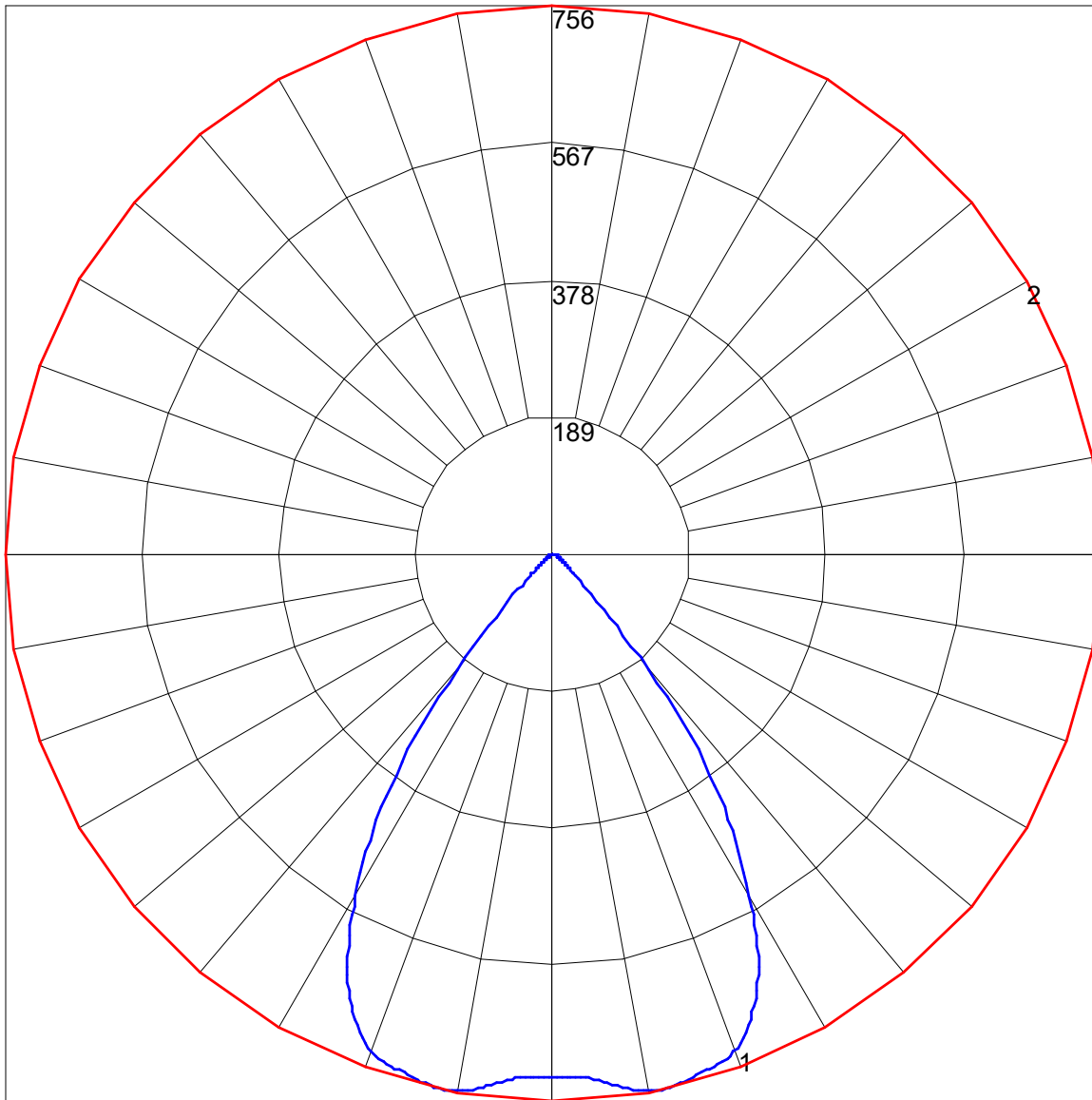
4H	2H	8.5	9.3	8.9	9.7	10.0	8.5	9.3	8.9	9.7	10.0
	3H	8.8	9.5	9.2	9.9	10.3	8.8	9.5	9.2	9.9	10.3
	4H	8.8	9.4	9.2	9.8	10.2	8.8	9.4	9.2	9.8	10.2
	6H	8.7	9.2	9.2	9.6	10.1	8.7	9.2	9.2	9.6	10.1
	8H	8.6	9.1	9.1	9.5	10.0	8.6	9.1	9.1	9.5	10.0
	12H	8.6	9.0	9.1	9.5	9.9	8.6	9.0	9.1	9.5	9.9
8H	4H	8.6	9.1	9.1	9.6	10.0	8.6	9.1	9.1	9.6	10.0
	6H	8.5	8.9	9.1	9.4	9.9	8.5	8.9	9.1	9.4	9.9
	8H	8.5	8.8	9.0	9.3	9.8	8.5	8.8	9.0	9.3	9.8
	12H	8.4	8.7	8.9	9.2	9.8	8.4	8.7	8.9	9.2	9.8
12H	4H	8.6	9.0	9.1	9.5	9.9	8.6	9.0	9.1	9.5	9.9
	6H	8.5	8.8	9.0	9.3	9.8	8.5	8.8	9.0	9.3	9.8
	8H	8.4	8.7	8.9	9.2	9.8	8.4	8.7	8.9	9.2	9.8

Maximum UGR = 10.3

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POLAR GRAPH



Maximum Candela = 756.075 Located At Horizontal Angle = 0, Vertical Angle = 11.5

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

2 - Horizontal Cone Through Vertical Angle (11.5) (Through Max. Cd.)