



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CR-L7-835-XXX-DIM-UNV-OW-OF-SG-XX\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM 13131414.04  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUE DATE] 09/14/2022  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836  
 [LUMCAT] 4CRR-L7-835-xxx-DIM-UNV-OW-OF-SG-xx  
 [LUMINAIRE] 4 INCH DIA. LED DOWNLIGHT CYLINDER  
 [MORE] WITH OPEN WIDE DISTRIBUTION, ANODIZED TRIM  
 [LAMP] COB LED  
 [LAMPCAT] BRIDGELUX VERO COB 80 CRI, 3500K CCT  
 [SEARCH\_SOURCETYPE] LED  
 [SEARCH\_APPLICATION] Indoor, Downlight  
 [SEARCH\_MOUNTING] Pendant

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	667
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	77
Total Luminaire Watts	8.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.02
Spacing Criterion (90-270)	1.02
Spacing Criterion (Diagonal)	0.88
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	41472	41472	41472
55	15981	15981	15981
65	5790	5790	5790
75	2109	2109	2109
85	646	646	646

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CANDELA TABULATION

	<u>0</u>
0.0	605.444
0.5	605.444
1.0	605.147
1.5	604.552
2.0	603.957
2.5	603.065
3.0	602.173
3.5	601.281
4.0	600.092
4.5	599.497
5.0	598.605
5.5	598.307
6.0	597.713
6.5	597.415
7.0	597.118
7.5	596.821
8.0	596.821
8.5	596.523
9.0	596.226
9.5	596.226
10.0	596.226
10.5	595.928
11.0	595.928
11.5	595.928
12.0	595.928
12.5	595.928
13.0	595.334
13.5	594.739
14.0	593.550
14.5	592.360
15.0	590.576
15.5	588.792
16.0	587.007
16.5	585.223
17.0	583.439
17.5	581.655
18.0	579.573
18.5	577.194
19.0	574.815
19.5	572.139
20.0	569.463
20.5	565.597
21.0	561.731
21.5	555.486
22.0	547.457
22.5	537.941
23.0	527.831
23.5	516.828
24.0	505.231
24.5	492.147
25.0	478.170
25.5	461.517
26.0	443.973
26.5	424.644

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 4CR-L7-835-XXX-DIM-UNV-OW-OF-SG-XX\_.IES****CANDELA TABULATION - (Cont.)**

27.0	404.720
27.5	384.499
28.0	364.278
28.5	344.651
29.0	325.917
29.5	308.670
30.0	293.028
30.5	278.814
31.0	265.640
31.5	253.359
32.0	241.672
32.5	230.640
33.0	220.618
33.5	211.995
34.0	204.620
34.5	198.643
35.0	193.588
35.5	189.008
36.0	184.310
36.5	179.344
37.0	174.288
37.5	169.203
38.0	164.029
38.5	158.706
39.0	153.353
39.5	147.941
40.0	142.529
40.5	137.117
41.0	131.735
41.5	126.471
42.0	121.297
42.5	116.242
43.0	111.246
43.5	106.399
44.0	101.671
44.5	97.091
45.0	92.660
45.5	88.408
46.0	84.275
46.5	80.260
47.0	76.454
47.5	72.737
48.0	69.168
48.5	65.689
49.0	62.269
49.5	58.879
50.0	55.608
50.5	52.456
51.0	49.423
51.5	46.538
52.0	43.743
52.5	41.037
53.0	38.390
53.5	35.833
54.0	33.424
54.5	31.135

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CANDELA TABULATION - (Cont.)

55.0	28.964
55.5	26.912
56.0	25.039
56.5	23.284
57.0	21.678
57.5	20.221
58.0	18.883
58.5	17.634
59.0	16.474
59.5	15.433
60.0	14.452
60.5	13.560
61.0	12.727
61.5	11.954
62.0	11.241
62.5	10.557
63.0	9.902
63.5	9.308
64.0	8.772
64.5	8.237
65.0	7.732
65.5	7.256
66.0	6.780
66.5	6.364
67.0	5.947
67.5	5.561
68.0	5.174
68.5	4.817
69.0	4.490
69.5	4.163
70.0	3.866
70.5	3.598
71.0	3.331
71.5	3.093
72.0	2.855
72.5	2.617
73.0	2.409
73.5	2.230
74.0	2.052
74.5	1.873
75.0	1.725
75.5	1.576
76.0	1.427
76.5	1.308
77.0	1.189
77.5	1.071
78.0	0.981
78.5	0.892
79.0	0.803
79.5	0.714
80.0	0.624
80.5	0.565
81.0	0.506
81.5	0.446
82.0	0.416
82.5	0.357

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CANDELA TABULATION - (Cont.)

83.0	0.327
83.5	0.268
84.0	0.238
84.5	0.208
85.0	0.178
85.5	0.149
86.0	0.119
86.5	0.119
87.0	0.089
87.5	0.059
88.0	0.059
88.5	0.059
89.0	0.030
89.5	0.030
90.0	0.030
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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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
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131.0	0.000
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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
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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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	223.33	N.A.	33.50
0-30	431.62	N.A.	64.70
0-40	556.65	N.A.	83.50
0-60	656.71	N.A.	98.50
0-80	666.76	N.A.	100.00
0-90	667.01	N.A.	100.00
10-90	609.92	N.A.	91.40
20-40	333.31	N.A.	50.00
20-50	405.87	N.A.	60.80
40-70	108.12	N.A.	16.20
60-80	10.05	N.A.	1.50
70-80	2.00	N.A.	0.30
80-90	0.25	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	667.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	57.09
10-20	166.25
20-30	208.28
30-40	125.03
40-50	72.56
50-60	27.50
60-70	8.06
70-80	2.00
80-90	0.25
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 RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	71	71	71	71	69	69	69	69	66	66	66	63	63	63	60	60	60	59
1	67	65	64	62	65	64	62	61	61	60	59	59	58	58	57	57	56	55
2	63	60	58	55	62	59	57	55	57	55	54	55	54	52	54	52	51	50
3	60	56	52	50	59	55	52	49	53	51	49	52	50	48	50	49	47	46
4	56	52	48	45	55	51	48	45	50	47	45	48	46	44	47	45	43	43
5	53	48	44	41	52	47	44	41	46	43	41	45	43	41	44	42	40	39
6	50	45	41	38	49	44	41	38	43	40	38	42	40	37	42	39	37	36
7	48	42	38	35	47	41	38	35	41	37	35	40	37	35	39	37	35	34
8	45	39	35	33	44	39	35	33	38	35	33	37	35	32	37	34	32	31
9	43	37	33	31	42	36	33	30	36	33	30	35	32	30	35	32	30	29
10	41	35	31	29	40	34	31	29	34	31	28	33	30	28	33	30	28	27

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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	16.4	17.5	16.8	17.8	18.1	UGR Viewed Endwise	16.4	17.5	16.8	17.8	18.1
	3H	16.6	17.6	17.0	17.9	18.3		16.6	17.6	17.0	17.9	18.3
	4H	16.6	17.5	17.0	17.8	18.2		16.6	17.5	17.0	17.8	18.2
	6H	16.5	17.3	16.9	17.7	18.1		16.5	17.3	16.9	17.7	18.1
	8H	16.5	17.2	16.9	17.6	18.0		16.5	17.2	16.9	17.6	18.0
	12H	16.4	17.1	16.9	17.5	18.0		16.4	17.1	16.9	17.5	18.0

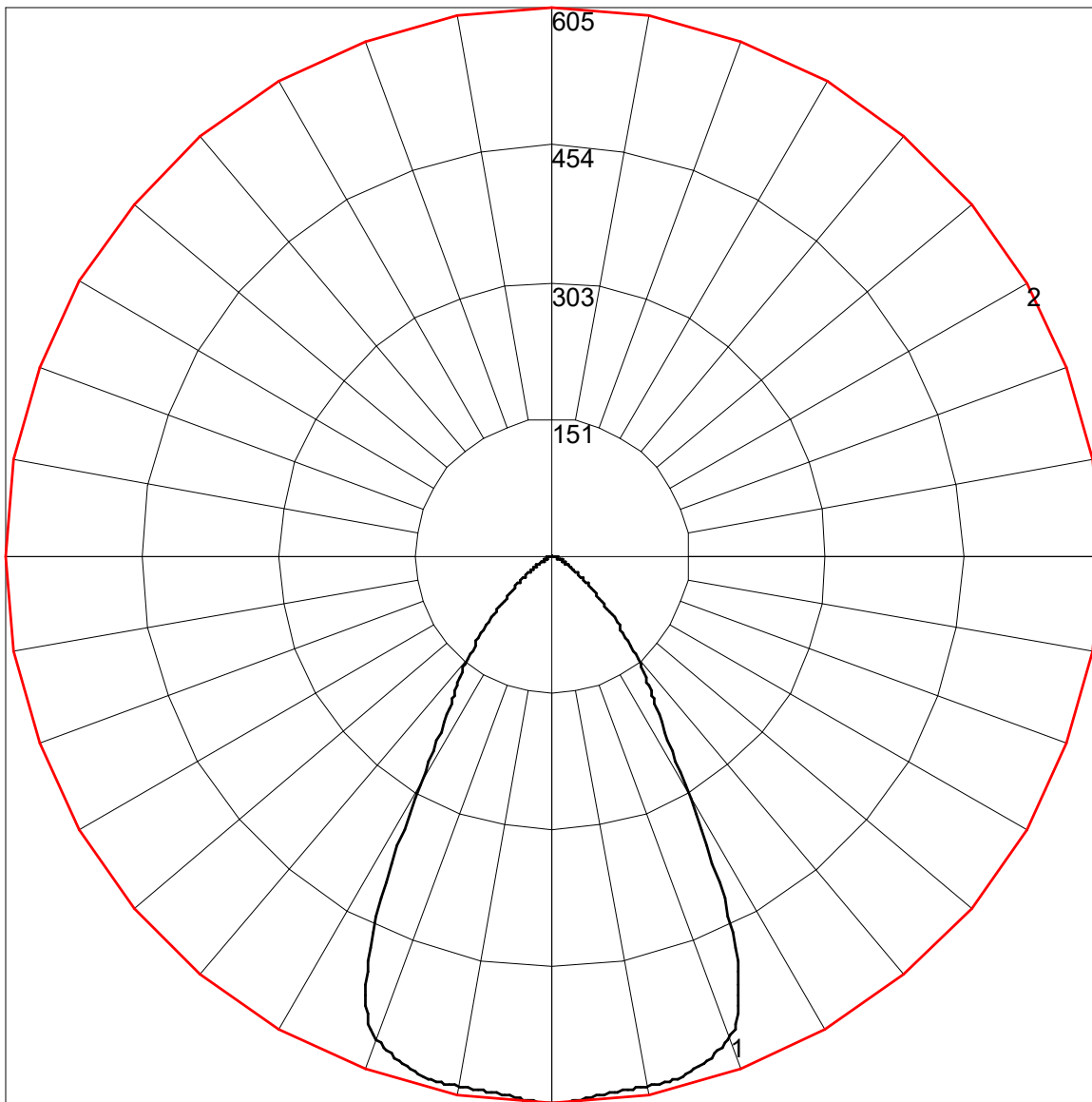
4H	2H	16.4	17.3	16.8	17.6	18.0	16.4	17.3	16.8	17.6	18.0
	3H	16.7	17.4	17.1	17.8	18.2	16.7	17.4	17.1	17.8	18.2
	4H	16.6	17.3	17.1	17.7	18.1	16.6	17.3	17.1	17.7	18.1
	6H	16.6	17.1	17.1	17.6	18.0	16.6	17.1	17.1	17.6	18.0
	8H	16.5	17.0	17.0	17.5	18.0	16.5	17.0	17.0	17.5	18.0
	12H	16.5	16.9	17.0	17.4	17.9	16.5	16.9	17.0	17.4	17.9

8H	4H	16.5	17.0	17.0	17.5	18.0	16.5	17.0	17.0	17.5	18.0
	6H	16.5	16.9	17.0	17.4	17.8	16.5	16.9	17.0	17.4	17.8
	8H	16.4	16.8	16.9	17.3	17.8	16.4	16.8	16.9	17.3	17.8
	12H	16.4	16.7	16.9	17.2	17.7	16.4	16.7	16.9	17.2	17.7

12H	4H	16.5	16.9	17.0	17.4	17.9	16.5	16.9	17.0	17.4	17.9
	6H	16.4	16.8	16.9	17.2	17.8	16.4	16.8	16.9	17.2	17.8
	8H	16.4	16.7	16.9	17.2	17.7	16.4	16.7	16.9	17.2	17.7

Maximum UGR = 18.3

POLAR GRAPH



Maximum Candela = 605.444 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)