

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4LDR-L20-835-BL-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] GEN FROM 4792018053.05  
[TESTLAB] UL, LLC  
[ISSUE DATE] 2025-12-10  
[TEST DATE] 11/11/2025  
[MANUFAC] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
[LUMCAT] 4LDR-L20-835-BL-DIM-UNV  
[LUMINAIRE] 4" recessed downlight with textured black finish reflector  
[MORE] and top diffuser lens  
[LAMP] LED  
[BALLAST] 0-10V LED DRIVER

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	803
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	47
Total Luminaire Watts	17
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.00
Spacing Criterion (90-270)	1.00
Spacing Criterion (Diagonal)	0.94
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.38 ft (Diameter)
Luminous Width (90-270)	0.38 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	10071	10071	10071
55	1304	1304	1304
65	452	452	452
75	196	196	196
85	130	130	130

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CANDELA TABULATION

	<u>0</u>
0.0	803.000
0.5	803.000
1.0	803.000
1.5	802.422
2.0	801.845
2.5	801.267
3.0	800.689
3.5	798.956
4.0	797.801
4.5	796.645
5.0	794.912
5.5	793.757
6.0	791.446
6.5	789.713
7.0	787.402
7.5	785.091
8.0	782.781
8.5	779.892
9.0	777.004
9.5	774.115
10.0	771.227
10.5	767.760
11.0	764.294
11.5	760.828
12.0	756.784
12.5	753.318
13.0	748.696
13.5	745.230
14.0	740.609
14.5	736.565
15.0	731.943
15.5	727.322
16.0	723.278
16.5	718.656
17.0	715.190
17.5	710.568
18.0	705.947
18.5	701.325
19.0	695.548
19.5	689.193
20.0	682.839
20.5	676.484
21.0	668.974
21.5	661.464
22.0	652.799
22.5	644.133
23.0	634.312
23.5	623.914
24.0	612.360
24.5	600.228
25.0	588.096
25.5	575.387
26.0	562.100
26.5	548.409

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**CANDELA TABULATION - (Cont.)**

27.0	534.370
27.5	519.928
28.0	505.139
28.5	490.119
29.0	475.041
29.5	459.790
30.0	444.596
30.5	429.287
31.0	413.920
31.5	398.611
32.0	383.418
32.5	368.340
33.0	353.436
33.5	338.820
34.0	324.435
34.5	310.166
35.0	296.243
35.5	282.552
36.0	269.092
36.5	255.747
37.0	242.749
37.5	229.924
38.0	217.388
38.5	205.083
39.0	192.951
39.5	180.993
40.0	169.381
40.5	158.058
41.0	147.024
41.5	136.337
42.0	125.996
42.5	116.002
43.0	106.527
43.5	97.458
44.0	88.850
44.5	80.762
45.0	73.137
45.5	65.973
46.0	59.330
46.5	53.206
47.0	47.602
47.5	42.461
48.0	37.781
48.5	33.506
49.0	29.694
49.5	26.285
50.0	23.223
50.5	20.508
51.0	18.140
51.5	16.118
52.0	14.327
52.5	12.767
53.0	11.438
53.5	10.283
54.0	9.301
54.5	8.434

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**CANDELA TABULATION - (Cont.)**

55.0	7.683
55.5	7.106
56.0	6.586
56.5	6.181
57.0	5.835
57.5	5.488
58.0	5.142
58.5	4.795
59.0	4.506
59.5	4.159
60.0	3.928
60.5	3.639
61.0	3.408
61.5	3.177
62.0	2.946
62.5	2.773
63.0	2.600
63.5	2.426
64.0	2.253
64.5	2.137
65.0	1.964
65.5	1.849
66.0	1.733
66.5	1.618
67.0	1.502
67.5	1.444
68.0	1.329
68.5	1.271
69.0	1.155
69.5	1.098
70.0	1.040
70.5	0.982
71.0	0.924
71.5	0.867
72.0	0.809
72.5	0.751
73.0	0.693
73.5	0.693
74.0	0.635
74.5	0.578
75.0	0.520
75.5	0.520
76.0	0.462
76.5	0.462
77.0	0.404
77.5	0.404
78.0	0.347
78.5	0.347
79.0	0.347
79.5	0.289
80.0	0.289
80.5	0.231
81.0	0.231
81.5	0.231
82.0	0.231
82.5	0.173

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CANDELA TABULATION - (Cont.)

83.0	0.173
83.5	0.173
84.0	0.116
84.5	0.116
85.0	0.116
85.5	0.116
86.0	0.116
86.5	0.058
87.0	0.058
87.5	0.058
88.0	0.058
88.5	0.058
89.0	0.058
89.5	0.058
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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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
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122.0	0.000
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123.5	0.000
124.0	0.000
124.5	0.000
125.0	0.000
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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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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	281.03	N.A.	35.00
0-30	545.91	N.A.	68.00
0-40	730.77	N.A.	91.00
0-60	800.41	N.A.	99.60
0-80	803.13	N.A.	100.00
0-90	803.27	N.A.	100.00
10-90	728.14	N.A.	90.60
20-40	449.75	N.A.	56.00
20-50	510.91	N.A.	63.60
40-70	71.74	N.A.	8.90
60-80	2.72	N.A.	0.30
70-80	0.62	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	803.27	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	75.13
10-20	205.89
20-30	264.88
30-40	184.87
40-50	61.16
50-60	8.47
60-70	2.11
70-80	0.62
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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	86
3	102	96	90	86	100	94	89	86	91	88	84	89	86	83	87	84	82	80
4	97	89	83	79	95	88	83	79	86	81	78	84	80	77	82	79	76	74
5	92	83	77	73	90	82	77	72	80	75	72	79	74	71	77	73	70	69
6	87	78	72	67	85	77	71	67	75	70	66	74	69	66	73	69	66	64
7	82	73	67	62	81	72	66	62	71	66	62	70	65	62	69	64	61	60
8	78	68	62	58	77	68	62	58	67	61	58	66	61	57	65	60	57	56
9	74	64	58	54	73	64	58	54	63	58	54	62	57	54	61	57	54	52
10	71	61	55	51	70	60	55	51	59	54	51	59	54	50	58	54	50	49

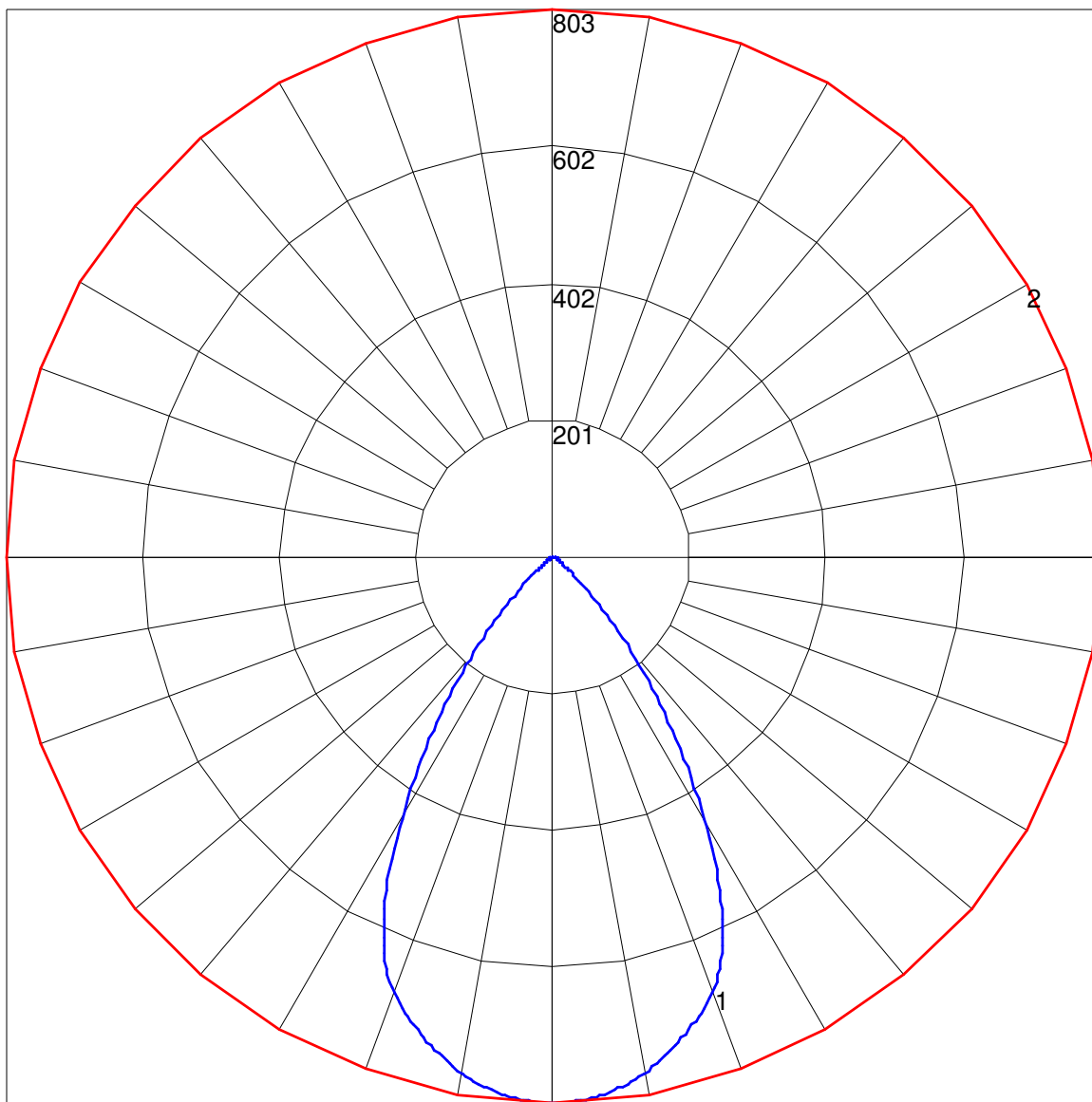
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**UGR TABLE - CORRECTED**

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					UGR Viewed Endwise				
X=2H	Y=2H	1.0	2.0	1.4	2.3	2.6	1.0	2.0	1.4	2.3	2.6
	3H	1.1	2.0	1.5	2.4	2.7	1.1	2.0	1.5	2.4	2.7
	4H	1.1	1.9	1.6	2.3	2.7	1.1	1.9	1.6	2.3	2.7
	6H	1.1	1.8	1.5	2.2	2.6	1.1	1.8	1.5	2.2	2.6
	8H	1.1	1.7	1.5	2.1	2.5	1.1	1.7	1.5	2.1	2.5
	12H	1.0	1.7	1.4	2.1	2.5	1.0	1.7	1.4	2.1	2.5
4H	2H	0.9	1.7	1.3	2.1	2.5	0.9	1.7	1.3	2.1	2.5
	3H	1.2	1.8	1.6	2.2	2.6	1.2	1.8	1.6	2.2	2.6
	4H	1.2	1.7	1.6	2.2	2.6	1.2	1.7	1.6	2.2	2.6
	6H	1.1	1.6	1.6	2.1	2.6	1.1	1.6	1.6	2.1	2.6
	8H	1.1	1.6	1.6	2.0	2.5	1.1	1.6	1.6	2.0	2.5
	12H	1.1	1.5	1.6	1.9	2.4	1.1	1.5	1.6	1.9	2.4
8H	4H	1.0	1.5	1.5	2.0	2.4	1.0	1.5	1.5	2.0	2.4
	6H	1.0	1.4	1.6	1.9	2.4	1.0	1.4	1.6	1.9	2.4
	8H	1.0	1.3	1.6	1.9	2.4	1.0	1.3	1.6	1.9	2.4
	12H	1.0	1.3	1.5	1.8	2.4	1.0	1.3	1.5	1.8	2.4
12H	4H	1.0	1.4	1.5	1.9	2.4	1.0	1.4	1.5	1.9	2.4
	6H	1.0	1.3	1.5	1.8	2.3	1.0	1.3	1.5	1.8	2.3
	8H	1.0	1.3	1.5	1.8	2.3	1.0	1.3	1.5	1.8	2.3

Maximum UGR = 2.7

POLAR GRAPH



Maximum Candela = 803 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.)