

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4LDR-L15-830-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-L15-830-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	600
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	43
Total Luminaire Watts	13.8
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	7524	7524	7524
55	974	974	974
65	338	338	338
75	146	146	146
85	96	96	96

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CANDELA TABULATION

	<u>0</u>
0.0	599.940
0.5	599.940
1.0	599.940
1.5	599.508
2.0	599.077
2.5	598.645
3.0	598.214
3.5	596.919
4.0	596.055
4.5	595.192
5.0	593.897
5.5	593.034
6.0	591.308
6.5	590.013
7.0	588.286
7.5	586.560
8.0	584.834
8.5	582.676
9.0	580.517
9.5	578.359
10.0	576.201
10.5	573.612
11.0	571.022
11.5	568.432
12.0	565.411
12.5	562.821
13.0	559.369
13.5	556.779
14.0	553.326
14.5	550.305
15.0	546.852
15.5	543.399
16.0	540.378
16.5	536.925
17.0	534.335
17.5	530.882
18.0	527.429
18.5	523.976
19.0	519.660
19.5	514.913
20.0	510.165
20.5	505.417
21.0	499.806
21.5	494.195
22.0	487.721
22.5	481.247
23.0	473.909
23.5	466.140
24.0	457.508
24.5	448.444
25.0	439.381
25.5	429.885
26.0	419.958
26.5	409.729

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CANDELA TABULATION - (Cont.)

27.0	399.241
27.5	388.450
28.0	377.401
28.5	366.179
29.0	354.914
29.5	343.520
30.0	332.168
30.5	320.731
31.0	309.250
31.5	297.812
32.0	286.461
32.5	275.195
33.0	264.060
33.5	253.140
34.0	242.393
34.5	231.732
35.0	221.330
35.5	211.101
36.0	201.045
36.5	191.074
37.0	181.363
37.5	171.781
38.0	162.415
38.5	153.222
39.0	144.158
39.5	135.224
40.0	126.548
40.5	118.089
41.0	109.845
41.5	101.860
42.0	94.134
42.5	86.668
43.0	79.589
43.5	72.813
44.0	66.382
44.5	60.339
45.0	54.642
45.5	49.290
46.0	44.327
46.5	39.751
47.0	35.565
47.5	31.723
48.0	28.227
48.5	25.033
49.0	22.185
49.5	19.638
50.0	17.351
50.5	15.322
51.0	13.553
51.5	12.042
52.0	10.704
52.5	9.539
53.0	8.546
53.5	7.683
54.0	6.949
54.5	6.302

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CANDELA TABULATION - (Cont.)

55.0	5.740
55.5	5.309
56.0	4.920
56.5	4.618
57.0	4.359
57.5	4.100
58.0	3.841
58.5	3.582
59.0	3.367
59.5	3.108
60.0	2.935
60.5	2.719
61.0	2.547
61.5	2.374
62.0	2.201
62.5	2.072
63.0	1.942
63.5	1.813
64.0	1.683
64.5	1.597
65.0	1.467
65.5	1.381
66.0	1.295
66.5	1.209
67.0	1.122
67.5	1.079
68.0	0.993
68.5	0.950
69.0	0.863
69.5	0.820
70.0	0.777
70.5	0.734
71.0	0.691
71.5	0.647
72.0	0.604
72.5	0.561
73.0	0.518
73.5	0.518
74.0	0.475
74.5	0.432
75.0	0.388
75.5	0.388
76.0	0.345
76.5	0.345
77.0	0.302
77.5	0.302
78.0	0.259
78.5	0.259
79.0	0.259
79.5	0.216
80.0	0.216
80.5	0.173
81.0	0.173
81.5	0.173
82.0	0.173
82.5	0.129

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CANDELA TABULATION - (Cont.)

83.0	0.129
83.5	0.129
84.0	0.086
84.5	0.086
85.0	0.086
85.5	0.086
86.0	0.086
86.5	0.043
87.0	0.043
87.5	0.043
88.0	0.043
88.5	0.043
89.0	0.043
89.5	0.043
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
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
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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	209.96	N.A.	35.00
0-30	407.86	N.A.	68.00
0-40	545.98	N.A.	91.00
0-60	598.01	N.A.	99.60
0-80	600.04	N.A.	100.00
0-90	600.14	N.A.	100.00
10-90	544.01	N.A.	90.60
20-40	336.02	N.A.	56.00
20-50	381.71	N.A.	63.60
40-70	53.60	N.A.	8.90
60-80	2.03	N.A.	0.30
70-80	0.46	N.A.	0.10
80-90	0.10	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	600.14	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	56.13
10-20	153.83
20-30	197.90
30-40	138.12
40-50	45.70
50-60	6.33
60-70	1.57
70-80	0.46
80-90	0.10
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

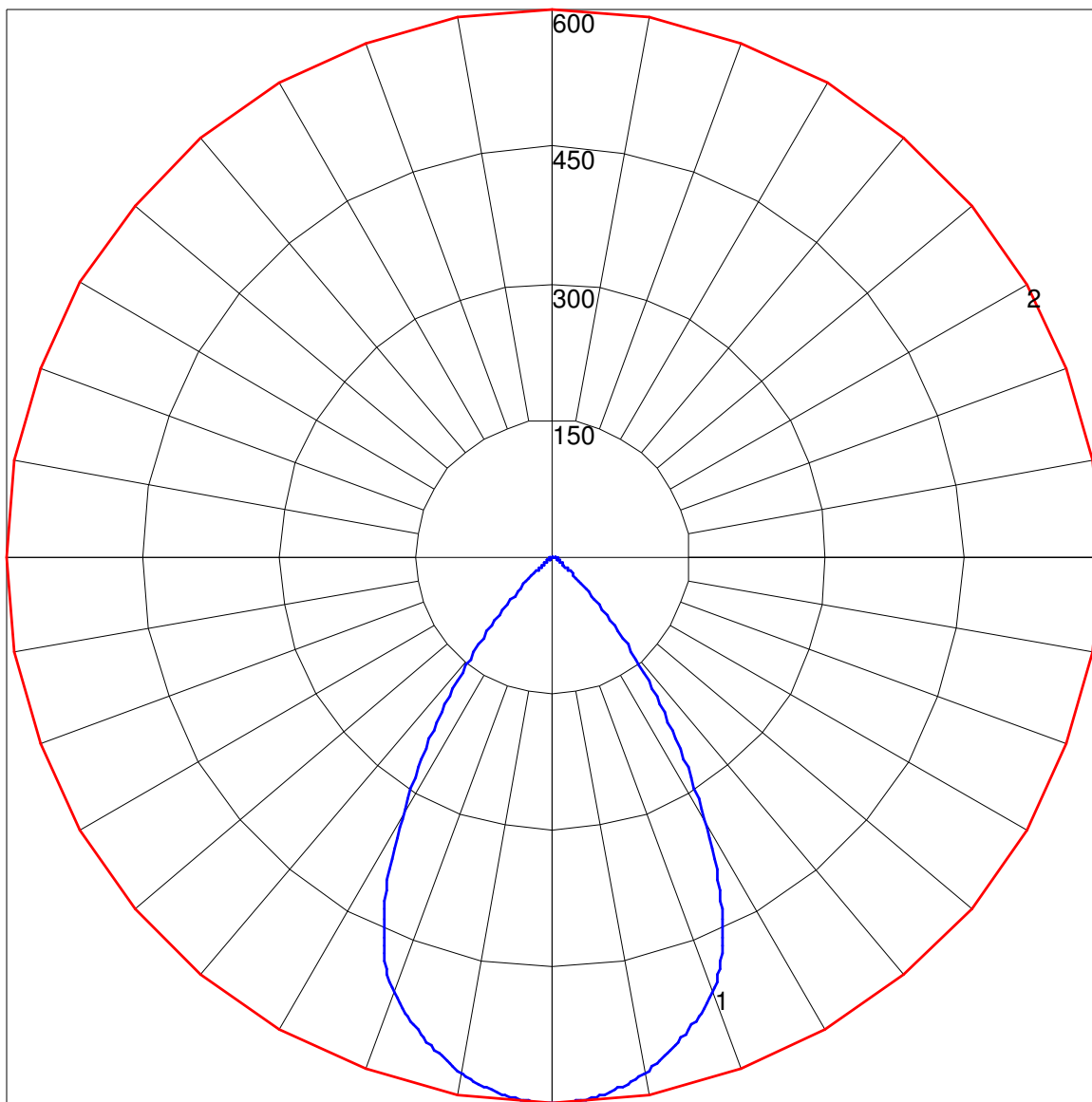
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UGR TABLE - CORRECTED

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	0.0	0.9	0.3	1.2	1.5	0.0	0.9	0.3	1.2	1.5
	3H	0.0	0.9	0.4	1.3	1.6	0.0	0.9	0.4	1.3	1.6
	4H	0.0	0.8	0.4	1.2	1.6	0.0	0.8	0.4	1.2	1.6
	6H	0.0	0.7	0.4	1.1	1.5	0.0	0.7	0.4	1.1	1.5
	8H	0.0	0.6	0.4	1.0	1.4	0.0	0.6	0.4	1.0	1.4
	12H	0.0	0.6	0.3	0.9	1.4	0.0	0.6	0.3	0.9	1.4
4H	2H	0.0	0.6	0.2	1.0	1.4	0.0	0.6	0.2	1.0	1.4
	3H	0.1	0.7	0.5	1.1	1.5	0.1	0.7	0.5	1.1	1.5
	4H	0.1	0.6	0.5	1.1	1.5	0.1	0.6	0.5	1.1	1.5
	6H	0.0	0.5	0.5	1.0	1.5	0.0	0.5	0.5	1.0	1.5
	8H	0.0	0.5	0.5	0.9	1.4	0.0	0.5	0.5	0.9	1.4
	12H	0.0	0.3	0.5	0.8	1.3	0.0	0.3	0.5	0.8	1.3
8H	4H	0.0	0.4	0.4	0.9	1.3	0.0	0.4	0.4	0.9	1.3
	6H	0.0	0.3	0.5	0.8	1.3	0.0	0.3	0.5	0.8	1.3
	8H	0.0	0.2	0.4	0.8	1.3	0.0	0.2	0.4	0.8	1.3
	12H	0.0	0.2	0.4	0.7	1.2	0.0	0.2	0.4	0.7	1.2
12H	4H	0.0	0.3	0.4	0.8	1.2	0.0	0.3	0.4	0.8	1.2
	6H	0.0	0.2	0.4	0.7	1.2	0.0	0.2	0.4	0.7	1.2
	8H	0.0	0.2	0.4	0.7	1.2	0.0	0.2	0.4	0.7	1.2

Maximum UGR = 1.6

POLAR GRAPH



Maximum Candela = 599.94 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.)