

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4LDR-L15-840-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-L15-840-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	624
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	45
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	7828	7828	7828
55	1014	1014	1014
65	352	352	352
75	152	152	152
85	101	101	101

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CANDELA TABULATION

	<u>0</u>
0.0	624.180
0.5	624.180
1.0	624.180
1.5	623.731
2.0	623.282
2.5	622.833
3.0	622.384
3.5	621.037
4.0	620.139
4.5	619.240
5.0	617.893
5.5	616.995
6.0	615.199
6.5	613.852
7.0	612.056
7.5	610.259
8.0	608.463
8.5	606.218
9.0	603.973
9.5	601.728
10.0	599.482
10.5	596.788
11.0	594.094
11.5	591.399
12.0	588.256
12.5	585.562
13.0	581.969
13.5	579.275
14.0	575.683
14.5	572.539
15.0	568.947
15.5	565.354
16.0	562.211
16.5	558.619
17.0	555.924
17.5	552.332
18.0	548.740
18.5	545.147
19.0	540.657
19.5	535.717
20.0	530.778
20.5	525.838
21.0	520.000
21.5	514.163
22.0	507.427
22.5	500.691
23.0	493.057
23.5	484.974
24.0	475.993
24.5	466.563
25.0	457.133
25.5	447.254
26.0	436.926
26.5	426.284

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CANDELA TABULATION - (Cont.)

27.0	415.372
27.5	404.145
28.0	392.650
28.5	380.974
29.0	369.254
29.5	357.399
30.0	345.589
30.5	333.689
31.0	321.745
31.5	309.845
32.0	298.035
32.5	286.315
33.0	274.729
33.5	263.368
34.0	252.187
34.5	241.095
35.0	230.273
35.5	219.631
36.0	209.168
36.5	198.795
37.0	188.691
37.5	178.722
38.0	168.978
38.5	159.413
39.0	149.983
39.5	140.687
40.0	131.662
40.5	122.860
41.0	114.283
41.5	105.976
42.0	97.938
42.5	90.169
43.0	82.805
43.5	75.755
44.0	69.064
44.5	62.777
45.0	56.850
45.5	51.282
46.0	46.117
46.5	41.358
47.0	37.002
47.5	33.005
48.0	29.368
48.5	26.045
49.0	23.081
49.5	20.432
50.0	18.052
50.5	15.941
51.0	14.100
51.5	12.529
52.0	11.136
52.5	9.924
53.0	8.891
53.5	7.993
54.0	7.230
54.5	6.556

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CANDELA TABULATION - (Cont.)

55.0	5.972
55.5	5.523
56.0	5.119
56.5	4.805
57.0	4.535
57.5	4.266
58.0	3.997
58.5	3.727
59.0	3.503
59.5	3.233
60.0	3.054
60.5	2.829
61.0	2.649
61.5	2.470
62.0	2.290
62.5	2.155
63.0	2.021
63.5	1.886
64.0	1.751
64.5	1.661
65.0	1.527
65.5	1.437
66.0	1.347
66.5	1.257
67.0	1.168
67.5	1.123
68.0	1.033
68.5	0.988
69.0	0.898
69.5	0.853
70.0	0.808
70.5	0.763
71.0	0.718
71.5	0.674
72.0	0.629
72.5	0.584
73.0	0.539
73.5	0.539
74.0	0.494
74.5	0.449
75.0	0.404
75.5	0.404
76.0	0.359
76.5	0.359
77.0	0.314
77.5	0.314
78.0	0.269
78.5	0.269
79.0	0.269
79.5	0.225
80.0	0.225
80.5	0.180
81.0	0.180
81.5	0.180
82.0	0.180
82.5	0.135

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CANDELA TABULATION - (Cont.)

83.0	0.135
83.5	0.135
84.0	0.090
84.5	0.090
85.0	0.090
85.5	0.090
86.0	0.090
86.5	0.045
87.0	0.045
87.5	0.045
88.0	0.045
88.5	0.045
89.0	0.045
89.5	0.045
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
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	218.44	N.A.	35.00
0-30	424.34	N.A.	68.00
0-40	568.04	N.A.	91.00
0-60	622.17	N.A.	99.60
0-80	624.28	N.A.	100.00
0-90	624.39	N.A.	100.00
10-90	565.99	N.A.	90.60
20-40	349.59	N.A.	56.00
20-50	397.14	N.A.	63.60
40-70	55.77	N.A.	8.90
60-80	2.12	N.A.	0.30
70-80	0.48	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	624.39	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	58.40
10-20	160.04
20-30	205.90
30-40	143.70
40-50	47.54
50-60	6.59
60-70	1.64
70-80	0.48
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	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	87
3	102	96	90	86	100	94	89	86	92	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	67	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

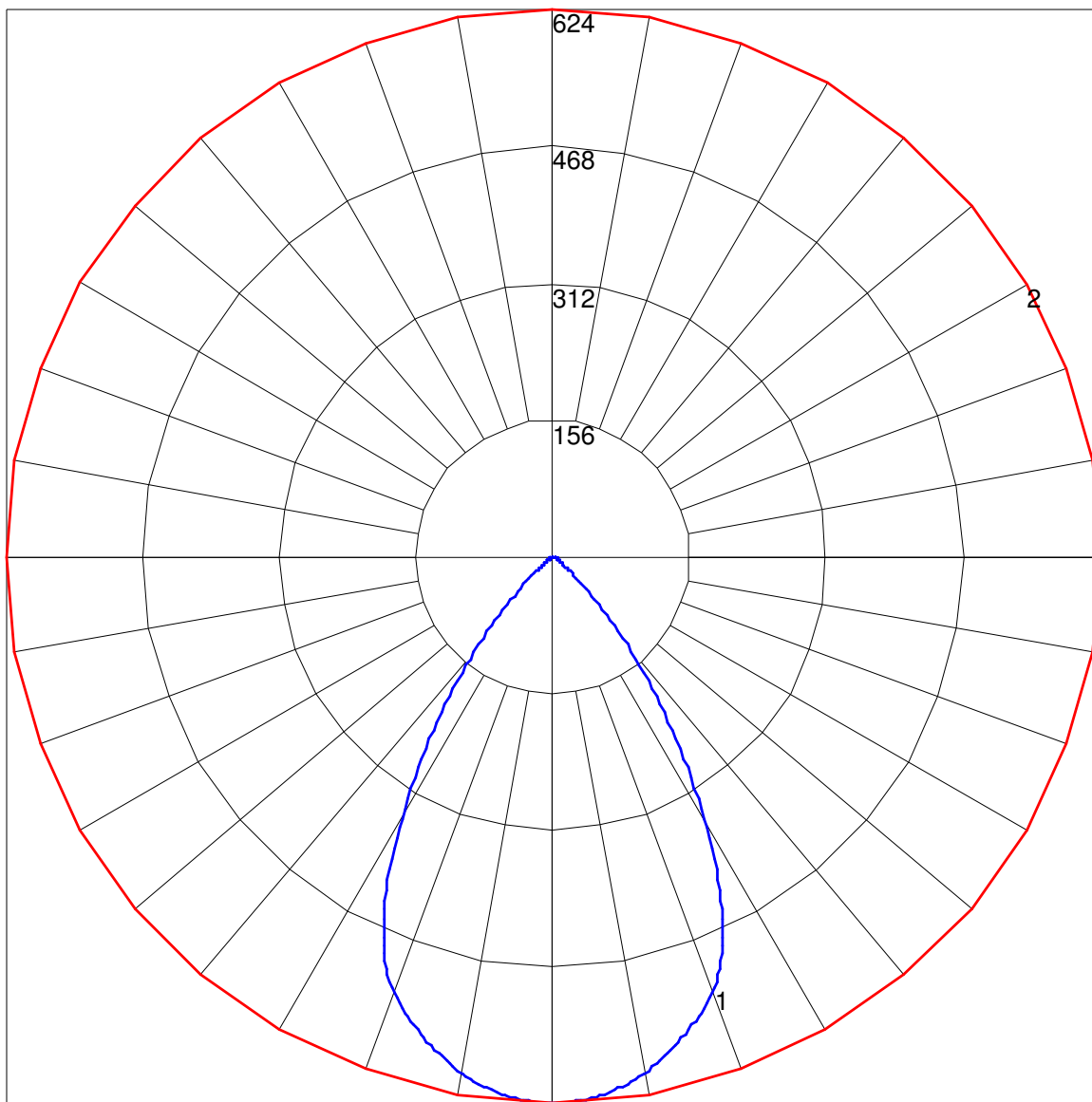
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UGR TABLE - CORRECTED

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	0.1	1.1	0.5	1.4	1.7	0.1	1.1	0.5	1.4	1.7
	3H	0.2	1.1	0.6	1.5	1.8	0.2	1.1	0.6	1.5	1.8
	4H	0.2	1.0	0.7	1.4	1.8	0.2	1.0	0.7	1.4	1.8
	6H	0.2	0.9	0.6	1.3	1.7	0.2	0.9	0.6	1.3	1.7
	8H	0.2	0.8	0.6	1.2	1.6	0.2	0.8	0.6	1.2	1.6
	12H	0.1	0.8	0.5	1.2	1.6	0.1	0.8	0.5	1.2	1.6
4H	2H	0.0	0.8	0.4	1.2	1.6	0.0	0.8	0.4	1.2	1.6
	3H	0.3	0.9	0.7	1.3	1.7	0.3	0.9	0.7	1.3	1.7
	4H	0.3	0.8	0.7	1.3	1.7	0.3	0.8	0.7	1.3	1.7
	6H	0.2	0.7	0.7	1.2	1.7	0.2	0.7	0.7	1.2	1.7
	8H	0.2	0.7	0.7	1.1	1.6	0.2	0.7	0.7	1.1	1.6
	12H	0.2	0.6	0.7	1.0	1.5	0.2	0.6	0.7	1.0	1.5
8H	4H	0.1	0.6	0.6	1.1	1.5	0.1	0.6	0.6	1.1	1.5
	6H	0.1	0.5	0.7	1.0	1.5	0.1	0.5	0.7	1.0	1.5
	8H	0.1	0.4	0.7	1.0	1.5	0.1	0.4	0.7	1.0	1.5
	12H	0.1	0.4	0.6	0.9	1.5	0.1	0.4	0.6	0.9	1.5
12H	4H	0.1	0.5	0.6	1.0	1.5	0.1	0.5	0.6	1.0	1.5
	6H	0.1	0.4	0.6	0.9	1.4	0.1	0.4	0.6	0.9	1.4
	8H	0.1	0.4	0.6	0.9	1.4	0.1	0.4	0.6	0.9	1.4

Maximum UGR = 1.8

POLAR GRAPH



Maximum Candela = 624.18 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.)