

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4LDR-L15-835-CS-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM 4792018053.01
[TESTLAB] UL, LLC
[ISSUE DATE] 2025-12-10
[TEST DATE] 11/12/2025
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC.
[LUMCAT] 4LDR-L15-835-CS-DIM-UNV
[LUMINAIRE] 4" recessed downlight with clear semi-specular finish refl
[MORE] ector 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	1534
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
Total Luminaire Watts	13.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.96
Spacing Criterion (90-270)	0.96
Spacing Criterion (Diagonal)	0.96
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	33367	33367	33367
55	10384	10384	10384
65	403	403	403
75	160	160	160
85	317	317	317

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CANDELA TABULATION

	<u>0</u>
0.0	1408.727
0.5	1408.727
1.0	1408.727
1.5	1409.200
2.0	1409.673
2.5	1410.146
3.0	1411.564
3.5	1412.509
4.0	1412.509
4.5	1413.455
5.0	1413.927
5.5	1413.455
6.0	1412.036
6.5	1410.618
7.0	1407.782
7.5	1403.527
8.0	1399.273
8.5	1394.546
9.0	1388.400
9.5	1381.782
10.0	1374.218
10.5	1365.709
11.0	1356.727
11.5	1346.327
12.0	1335.455
12.5	1324.109
13.0	1312.291
13.5	1300.000
14.0	1287.236
14.5	1273.527
15.0	1259.346
15.5	1244.691
16.0	1229.564
16.5	1214.909
17.0	1200.255
17.5	1185.600
18.0	1171.418
18.5	1156.764
19.0	1142.582
19.5	1129.346
20.0	1115.164
20.5	1101.927
21.0	1088.218
21.5	1074.509
22.0	1060.800
22.5	1046.618
23.0	1031.964
23.5	1016.836
24.0	1001.236
24.5	985.164
25.0	968.618
25.5	951.600
26.0	934.109
26.5	915.673

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CANDELA TABULATION - (Cont.)

27.0	897.236
27.5	878.327
28.0	858.473
28.5	838.618
29.0	818.764
29.5	798.436
30.0	777.636
30.5	757.309
31.0	736.509
31.5	715.709
32.0	695.382
32.5	675.055
33.0	654.727
33.5	634.873
34.0	615.018
34.5	596.109
35.0	577.200
35.5	559.236
36.0	539.855
36.5	520.945
37.0	502.036
37.5	483.600
38.0	465.495
38.5	447.436
39.0	429.615
39.5	412.076
40.0	394.822
40.5	377.851
41.0	361.164
41.5	344.902
42.0	328.924
42.5	313.418
43.0	298.291
43.5	283.589
44.0	269.455
44.5	255.604
45.0	242.320
45.5	229.462
46.0	217.124
46.5	205.258
47.0	193.865
47.5	182.945
48.0	172.451
48.5	162.429
49.0	152.785
49.5	143.520
50.0	134.633
50.5	126.171
51.0	117.993
51.5	110.145
52.0	102.535
52.5	95.207
53.0	88.164
53.5	81.215
54.0	74.502
54.5	67.836

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CANDELA TABULATION - (Cont.)

55.0	61.171
55.5	54.411
56.0	47.604
56.5	40.938
57.0	34.604
57.5	28.695
58.0	23.305
58.5	18.436
59.0	14.135
59.5	10.542
60.0	7.753
60.5	5.720
61.0	4.349
61.5	3.593
62.0	3.073
62.5	2.742
63.0	2.458
63.5	2.269
64.0	2.080
64.5	1.891
65.0	1.749
65.5	1.607
66.0	1.513
66.5	1.418
67.0	1.276
67.5	1.229
68.0	1.135
68.5	1.040
69.0	0.993
69.5	0.898
70.0	0.851
70.5	0.804
71.0	0.756
71.5	0.709
72.0	0.662
72.5	0.615
73.0	0.567
73.5	0.520
74.0	0.520
74.5	0.473
75.0	0.425
75.5	0.425
76.0	0.378
76.5	0.378
77.0	0.378
77.5	0.331
78.0	0.331
78.5	0.284
79.0	0.284
79.5	0.284
80.0	0.284
80.5	0.284
81.0	0.284
81.5	0.284
82.0	0.284
82.5	0.236

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CANDELA TABULATION - (Cont.)

83.0	0.284
83.5	0.284
84.0	0.284
84.5	0.284
85.0	0.284
85.5	0.284
86.0	0.284
86.5	0.284
87.0	0.284
87.5	0.331
88.0	0.331
88.5	0.331
89.0	0.331
89.5	0.284
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
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124.5	0.000
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125.5	0.000
126.0	0.000
126.5	0.000
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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	485.16	N.A.	31.60
0-30	924.97	N.A.	60.30
0-40	1284.47	N.A.	83.70
0-60	1530.88	N.A.	99.80
0-80	1533.61	N.A.	100.00
0-90	1533.92	N.A.	100.00
10-90	1400.12	N.A.	91.30
20-40	799.31	N.A.	52.10
20-50	989.99	N.A.	64.50
40-70	248.63	N.A.	16.20
60-80	2.73	N.A.	0.20
70-80	0.51	N.A.	0.00
80-90	0.31	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	1533.92	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	133.80
10-20	351.36
20-30	439.81
30-40	359.50
40-50	190.68
50-60	55.73
60-70	2.22
70-80	0.51
80-90	0.31
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	107	105	111	108	106	103	104	102	100	100	99	97	97	96	94	93
2	107	102	97	94	105	100	96	93	97	93	91	94	91	89	91	89	87	85
3	101	94	89	84	99	93	88	84	90	86	82	87	84	81	85	82	80	78
4	95	87	81	76	93	86	80	76	84	79	75	82	77	74	80	76	73	72
5	90	81	74	70	88	80	74	69	78	73	69	76	72	68	75	71	68	66
6	85	75	69	64	83	74	68	64	73	67	63	71	66	63	70	66	62	61
7	80	70	64	59	79	69	63	59	68	62	58	67	62	58	66	61	58	56
8	76	65	59	55	74	65	59	54	64	58	54	63	58	54	62	57	54	52
9	72	61	55	51	71	61	55	51	60	54	50	59	54	50	58	53	50	49
10	68	58	51	47	67	57	51	47	56	51	47	56	51	47	55	50	47	45

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UGR TABLE - CORRECTED

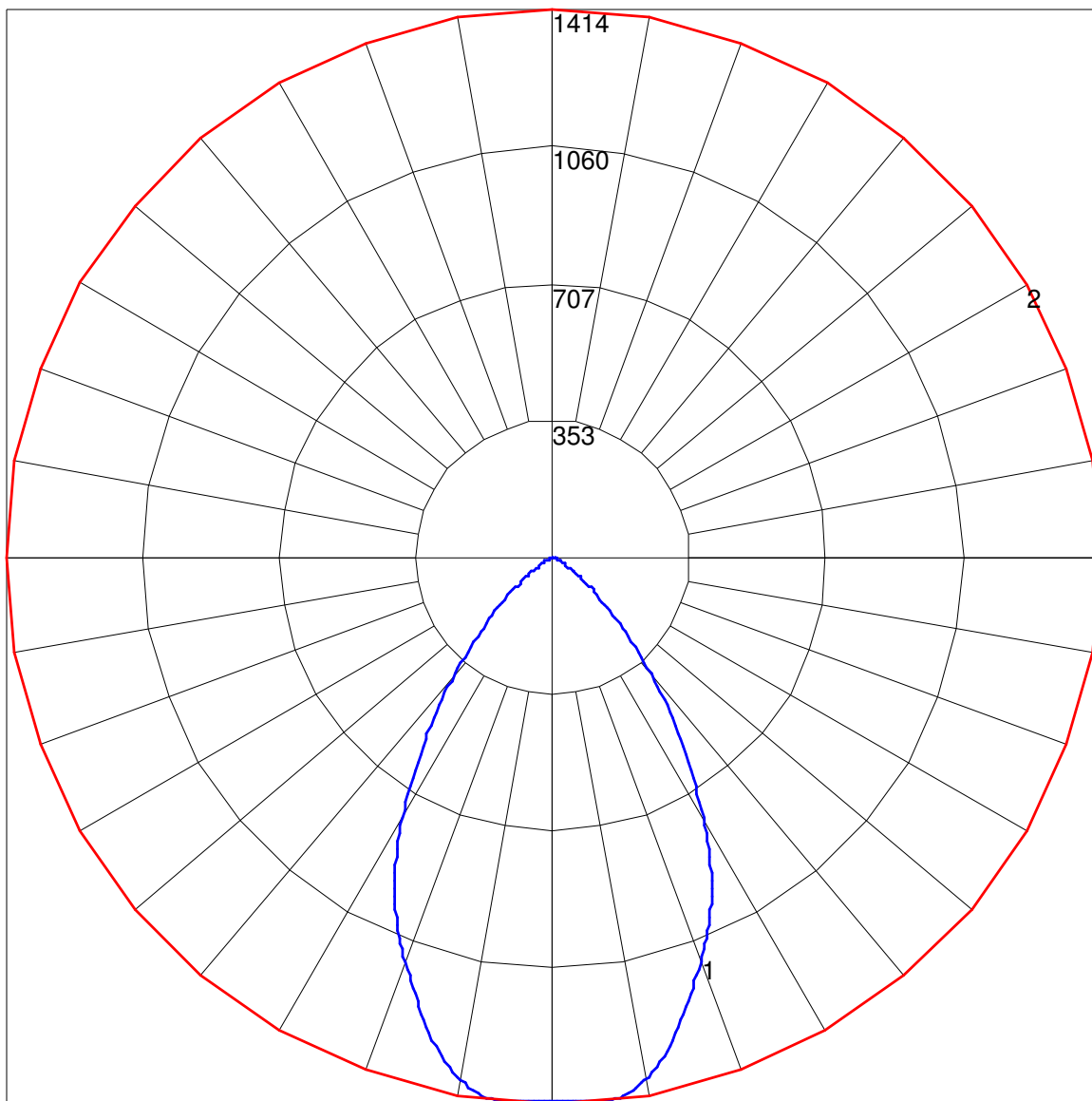
Reflectances

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	9.7	10.8	10.1	11.1	11.4	9.7	10.8	10.1	11.1	11.4
	3H	9.6	10.5	10.0	10.8	11.2	9.6	10.5	10.0	10.8	11.2
	4H	9.5	10.4	9.9	10.7	11.1	9.5	10.4	9.9	10.7	11.1
	6H	9.4	10.2	9.8	10.5	10.9	9.4	10.2	9.8	10.5	10.9
	8H	9.3	10.1	9.8	10.5	10.9	9.3	10.1	9.8	10.5	10.9
	12H	9.3	10.0	9.7	10.4	10.8	9.3	10.0	9.7	10.4	10.8
4H	2H	9.5	10.3	9.9	10.7	11.1	9.5	10.3	9.9	10.7	11.1
	3H	9.3	10.0	9.7	10.4	10.8	9.3	10.0	9.7	10.4	10.8
	4H	9.2	9.8	9.6	10.2	10.7	9.2	9.8	9.6	10.2	10.7
	6H	9.1	9.6	9.6	10.1	10.5	9.1	9.6	9.6	10.1	10.5
	8H	9.0	9.5	9.5	10.0	10.4	9.0	9.5	9.5	10.0	10.4
	12H	9.0	9.4	9.5	9.9	10.4	9.0	9.4	9.5	9.9	10.4
8H	4H	9.0	9.5	9.5	10.0	10.4	9.0	9.5	9.5	10.0	10.4
	6H	8.9	9.3	9.4	9.8	10.3	8.9	9.3	9.4	9.8	10.3
	8H	8.8	9.2	9.4	9.7	10.2	8.8	9.2	9.4	9.7	10.2
	12H	8.8	9.1	9.3	9.6	10.2	8.8	9.1	9.3	9.6	10.2
12H	4H	9.0	9.4	9.4	9.9	10.4	9.0	9.4	9.4	9.9	10.4
	6H	8.8	9.2	9.4	9.7	10.2	8.8	9.2	9.4	9.7	10.2
	8H	8.8	9.1	9.3	9.6	10.2	8.8	9.1	9.3	9.6	10.2

Maximum UGR = 11.4

POLAR GRAPH



Maximum Candela = 1413.927 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)