

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4LDR-L15-830-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-L15-830-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	1519
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
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	33033	33033	33033
55	10280	10280	10280
65	399	399	399
75	158	158	158
85	314	314	314

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CANDELA TABULATION

	<u>0</u>
0.0	1394.640
0.5	1394.640
1.0	1394.640
1.5	1395.108
2.0	1395.576
2.5	1396.044
3.0	1397.448
3.5	1398.384
4.0	1398.384
4.5	1399.320
5.0	1399.788
5.5	1399.320
6.0	1397.916
6.5	1396.512
7.0	1393.704
7.5	1389.492
8.0	1385.280
8.5	1380.600
9.0	1374.516
9.5	1367.964
10.0	1360.476
10.5	1352.052
11.0	1343.160
11.5	1332.864
12.0	1322.100
12.5	1310.868
13.0	1299.168
13.5	1287.000
14.0	1274.364
14.5	1260.792
15.0	1246.752
15.5	1232.244
16.0	1217.268
16.5	1202.760
17.0	1188.252
17.5	1173.744
18.0	1159.704
18.5	1145.196
19.0	1131.156
19.5	1118.052
20.0	1104.012
20.5	1090.908
21.0	1077.336
21.5	1063.764
22.0	1050.192
22.5	1036.152
23.0	1021.644
23.5	1006.668
24.0	991.224
24.5	975.312
25.0	958.932
25.5	942.084
26.0	924.768
26.5	906.516

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CANDELA TABULATION - (Cont.)

27.0	888.264
27.5	869.544
28.0	849.888
28.5	830.232
29.0	810.576
29.5	790.452
30.0	769.860
30.5	749.736
31.0	729.144
31.5	708.552
32.0	688.428
32.5	668.304
33.0	648.180
33.5	628.524
34.0	608.868
34.5	590.148
35.0	571.428
35.5	553.644
36.0	534.456
36.5	515.736
37.0	497.016
37.5	478.764
38.0	460.840
38.5	442.962
39.0	425.318
39.5	407.956
40.0	390.874
40.5	374.072
41.0	357.552
41.5	341.453
42.0	325.634
42.5	310.284
43.0	295.308
43.5	280.753
44.0	266.760
44.5	253.048
45.0	239.897
45.5	227.167
46.0	214.952
46.5	203.206
47.0	191.927
47.5	181.116
48.0	170.726
48.5	160.805
49.0	151.258
49.5	142.085
50.0	133.286
50.5	124.909
51.0	116.813
51.5	109.044
52.0	101.509
52.5	94.255
53.0	87.282
53.5	80.402
54.0	73.757
54.5	67.158

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CANDELA TABULATION - (Cont.)

55.0	60.559
55.5	53.867
56.0	47.128
56.5	40.529
57.0	34.258
57.5	28.408
58.0	23.072
58.5	18.252
59.0	13.993
59.5	10.436
60.0	7.675
60.5	5.663
61.0	4.306
61.5	3.557
62.0	3.042
62.5	2.714
63.0	2.434
63.5	2.246
64.0	2.059
64.5	1.872
65.0	1.732
65.5	1.591
66.0	1.498
66.5	1.404
67.0	1.264
67.5	1.217
68.0	1.123
68.5	1.030
69.0	0.983
69.5	0.889
70.0	0.842
70.5	0.796
71.0	0.749
71.5	0.702
72.0	0.655
72.5	0.608
73.0	0.562
73.5	0.515
74.0	0.515
74.5	0.468
75.0	0.421
75.5	0.421
76.0	0.374
76.5	0.374
77.0	0.374
77.5	0.328
78.0	0.328
78.5	0.281
79.0	0.281
79.5	0.281
80.0	0.281
80.5	0.281
81.0	0.281
81.5	0.281
82.0	0.281
82.5	0.234

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CANDELA TABULATION - (Cont.)

83.0	0.281
83.5	0.281
84.0	0.281
84.5	0.281
85.0	0.281
85.5	0.281
86.0	0.281
86.5	0.281
87.0	0.281
87.5	0.328
88.0	0.328
88.5	0.328
89.0	0.328
89.5	0.281
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
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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
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150.0	0.000
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151.0	0.000
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152.0	0.000
152.5	0.000
153.0	0.000
153.5	0.000
154.0	0.000
154.5	0.000
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156.0	0.000
156.5	0.000
157.0	0.000
157.5	0.000
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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	480.31	N.A.	31.60
0-30	915.72	N.A.	60.30
0-40	1271.63	N.A.	83.70
0-60	1515.57	N.A.	99.80
0-80	1518.27	N.A.	100.00
0-90	1518.58	N.A.	100.00
10-90	1386.11	N.A.	91.30
20-40	791.32	N.A.	52.10
20-50	980.09	N.A.	64.50
40-70	246.14	N.A.	16.20
60-80	2.70	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	1518.58	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	132.47
10-20	347.84
20-30	435.41
30-40	355.91
40-50	188.77
50-60	55.17
60-70	2.20
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**

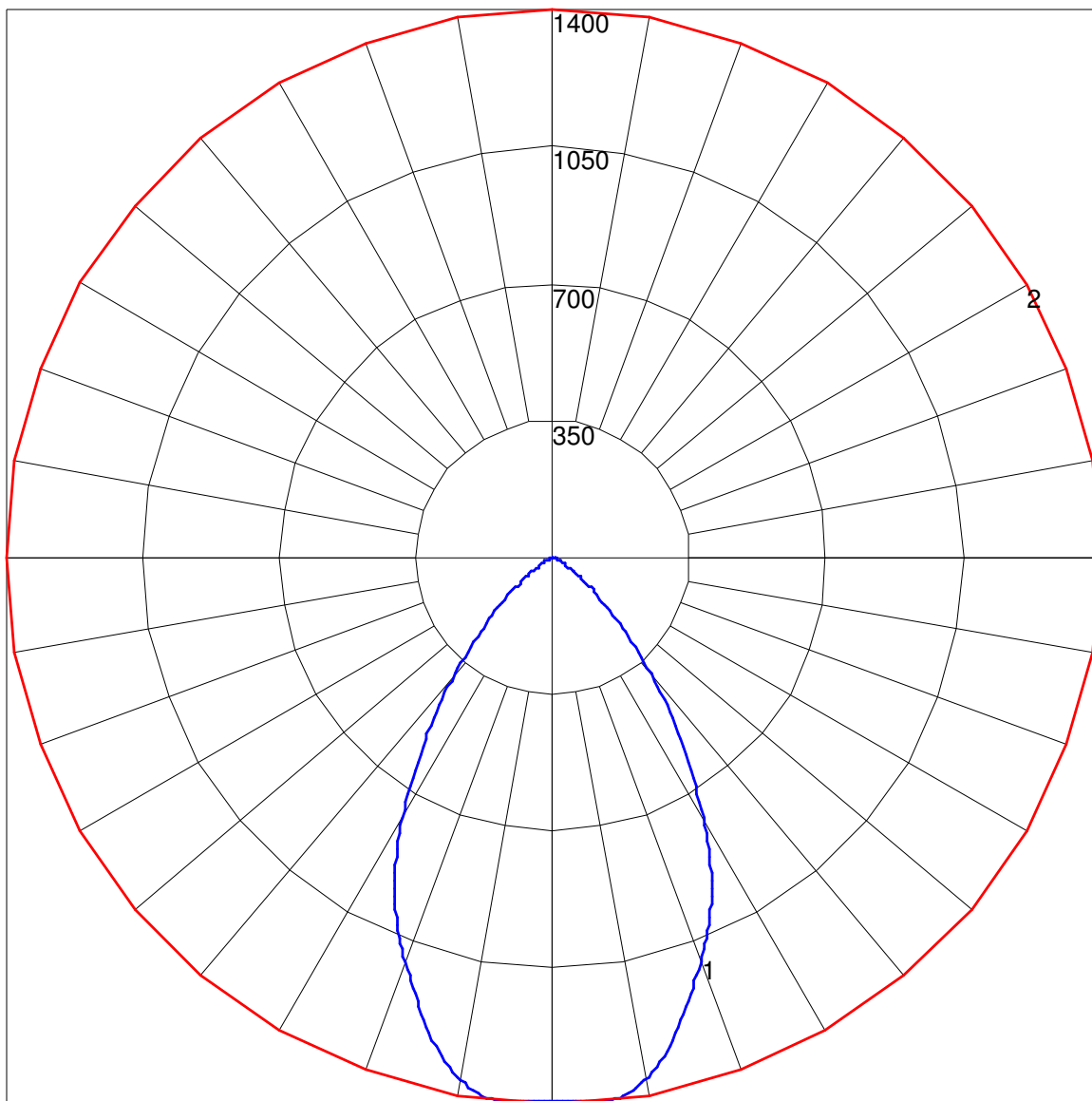
Reflectances

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	9.9	10.8	11.2	9.6	10.5	9.9	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	9.7	10.5	10.9	9.3	10.1	9.7	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	9.4	9.9	10.4	9.0	9.4	9.4	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	9.3	9.7	10.2	8.8	9.2	9.3	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 = 1399.788 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.)