

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4LDR-L15-840-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-L15-840-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	1580
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
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	34368	34368	34368
55	10696	10696	10696
65	415	415	415
75	165	165	165
85	326	326	326

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CANDELA TABULATION

	<u>0</u>
0.0	1450.989
0.5	1450.989
1.0	1450.989
1.5	1451.476
2.0	1451.963
2.5	1452.450
3.0	1453.911
3.5	1454.884
4.0	1454.884
4.5	1455.858
5.0	1456.345
5.5	1455.858
6.0	1454.397
6.5	1452.937
7.0	1450.015
7.5	1445.633
8.0	1441.251
8.5	1436.382
9.0	1430.052
9.5	1423.235
10.0	1415.445
10.5	1406.680
11.0	1397.429
11.5	1386.717
12.0	1375.518
12.5	1363.832
13.0	1351.660
13.5	1339.000
14.0	1325.853
14.5	1311.733
15.0	1297.126
15.5	1282.032
16.0	1266.451
16.5	1251.356
17.0	1236.262
17.5	1221.168
18.0	1206.561
18.5	1191.467
19.0	1176.859
19.5	1163.226
20.0	1148.619
20.5	1134.985
21.0	1120.865
21.5	1106.744
22.0	1092.624
22.5	1078.017
23.0	1062.923
23.5	1047.341
24.0	1031.273
24.5	1014.719
25.0	997.677
25.5	980.148
26.0	962.132
26.5	943.143

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CANDELA TABULATION - (Cont.)

27.0	924.153
27.5	904.677
28.0	884.227
28.5	863.777
29.0	843.327
29.5	822.389
30.0	800.965
30.5	780.028
31.0	758.604
31.5	737.180
32.0	716.243
32.5	695.306
33.0	674.369
33.5	653.919
34.0	633.469
34.5	613.992
35.0	594.516
35.5	576.013
36.0	556.050
36.5	536.574
37.0	517.097
37.5	498.108
38.0	479.459
38.5	460.859
39.0	442.503
39.5	424.439
40.0	406.666
40.5	389.186
41.0	371.999
41.5	355.249
42.0	338.791
42.5	322.821
43.0	307.240
43.5	292.097
44.0	277.538
44.5	263.272
45.0	249.590
45.5	236.346
46.0	223.637
46.5	211.416
47.0	199.681
47.5	188.434
48.0	177.624
48.5	167.302
49.0	157.369
49.5	147.826
50.0	138.672
50.5	129.956
51.0	121.533
51.5	113.450
52.0	105.611
52.5	98.063
53.0	90.809
53.5	83.651
54.0	76.737
54.5	69.871

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CANDELA TABULATION - (Cont.)

55.0	63.006
55.5	56.043
56.0	49.032
56.5	42.166
57.0	35.642
57.5	29.555
58.0	24.005
58.5	18.989
59.0	14.559
59.5	10.858
60.0	7.985
60.5	5.892
61.0	4.480
61.5	3.701
62.0	3.165
62.5	2.824
63.0	2.532
63.5	2.337
64.0	2.142
64.5	1.948
65.0	1.802
65.5	1.655
66.0	1.558
66.5	1.461
67.0	1.315
67.5	1.266
68.0	1.169
68.5	1.071
69.0	1.023
69.5	0.925
70.0	0.876
70.5	0.828
71.0	0.779
71.5	0.730
72.0	0.682
72.5	0.633
73.0	0.584
73.5	0.536
74.0	0.536
74.5	0.487
75.0	0.438
75.5	0.438
76.0	0.390
76.5	0.390
77.0	0.390
77.5	0.341
78.0	0.341
78.5	0.292
79.0	0.292
79.5	0.292
80.0	0.292
80.5	0.292
81.0	0.292
81.5	0.292
82.0	0.292
82.5	0.243

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CANDELA TABULATION - (Cont.)

83.0	0.292
83.5	0.292
84.0	0.292
84.5	0.292
85.0	0.292
85.5	0.292
86.0	0.292
86.5	0.292
87.0	0.292
87.5	0.341
88.0	0.341
88.5	0.341
89.0	0.341
89.5	0.292
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
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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
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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
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145.5	0.000
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148.5	0.000
149.0	0.000
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152.0	0.000
152.5	0.000
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153.5	0.000
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158.0	0.000
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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	499.71	N.A.	31.60
0-30	952.72	N.A.	60.30
0-40	1323.01	N.A.	83.70
0-60	1576.81	N.A.	99.80
0-80	1579.62	N.A.	100.00
0-90	1579.94	N.A.	100.00
10-90	1442.12	N.A.	91.30
20-40	823.29	N.A.	52.10
20-50	1019.69	N.A.	64.50
40-70	256.08	N.A.	16.20
60-80	2.81	N.A.	0.20
70-80	0.53	N.A.	0.00
80-90	0.32	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	1579.94	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	137.82
10-20	361.90
20-30	453.00
30-40	370.29
40-50	196.40
50-60	57.40
60-70	2.29
70-80	0.53
80-90	0.32
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

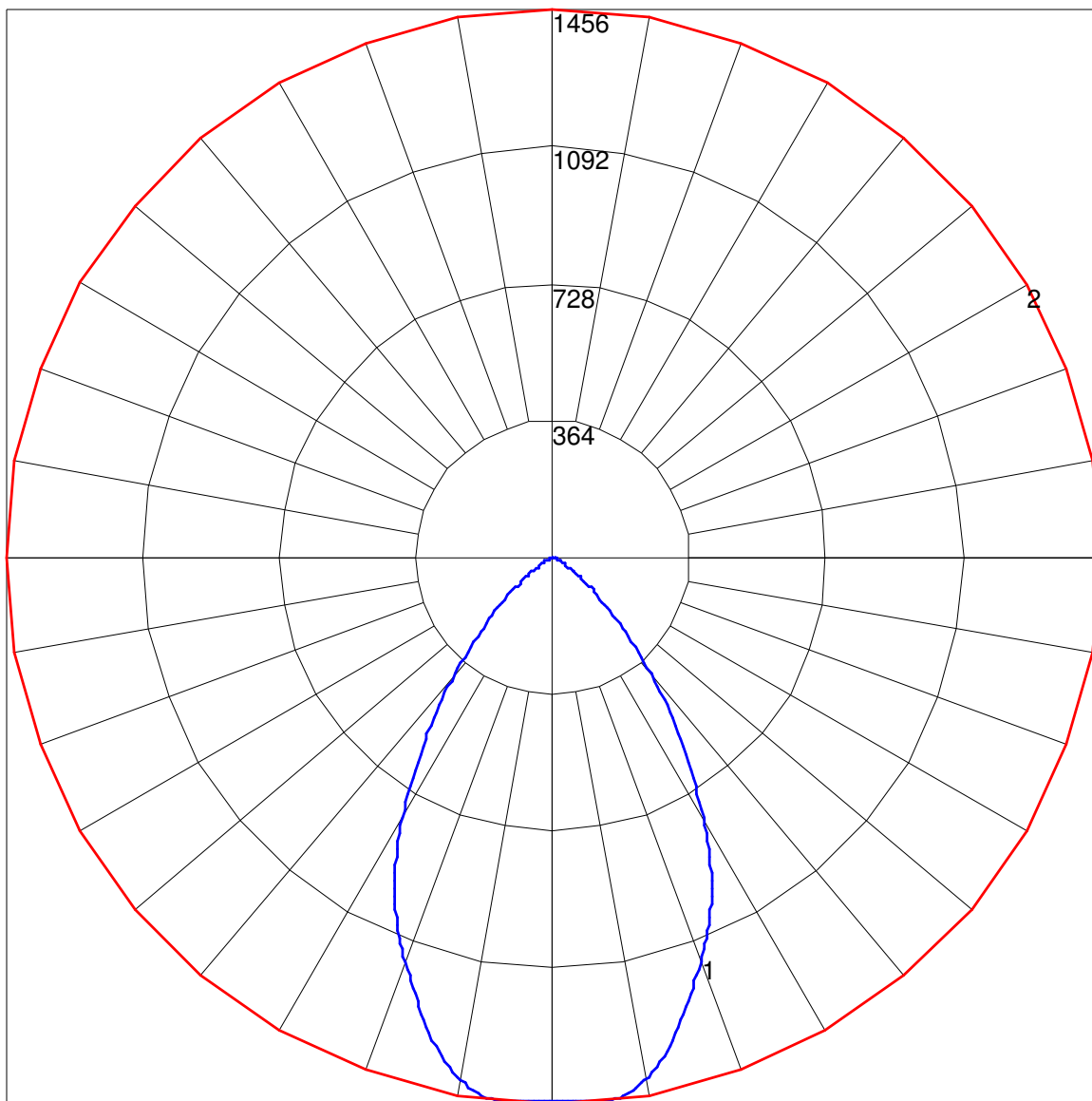
Reflectances

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	9.8	10.9	10.2	11.2	11.5	9.8	10.9	10.2	11.2	11.5
	3H	9.7	10.6	10.1	10.9	11.3	9.7	10.6	10.1	10.9	11.3
	4H	9.6	10.5	10.0	10.8	11.2	9.6	10.5	10.0	10.8	11.2
	6H	9.5	10.3	9.9	10.7	11.0	9.5	10.3	9.9	10.7	11.0
	8H	9.4	10.2	9.9	10.6	11.0	9.4	10.2	9.9	10.6	11.0
	12H	9.4	10.1	9.8	10.5	10.9	9.4	10.1	9.8	10.5	10.9
4H	2H	9.6	10.4	10.0	10.8	11.2	9.6	10.4	10.0	10.8	11.2
	3H	9.4	10.1	9.8	10.5	10.9	9.4	10.1	9.8	10.5	10.9
	4H	9.3	9.9	9.7	10.3	10.8	9.3	9.9	9.7	10.3	10.8
	6H	9.2	9.7	9.7	10.2	10.6	9.2	9.7	9.7	10.2	10.6
	8H	9.1	9.6	9.6	10.1	10.5	9.1	9.6	9.6	10.1	10.5
	12H	9.1	9.5	9.6	10.0	10.5	9.1	9.5	9.6	10.0	10.5
8H	4H	9.1	9.6	9.6	10.1	10.5	9.1	9.6	9.6	10.1	10.5
	6H	9.0	9.4	9.5	9.9	10.4	9.0	9.4	9.5	9.9	10.4
	8H	8.9	9.3	9.5	9.8	10.3	8.9	9.3	9.5	9.8	10.3
	12H	8.9	9.2	9.4	9.7	10.3	8.9	9.2	9.4	9.7	10.3
12H	4H	9.1	9.5	9.5	10.0	10.5	9.1	9.5	9.5	10.0	10.5
	6H	8.9	9.3	9.5	9.8	10.3	8.9	9.3	9.5	9.8	10.3
	8H	8.9	9.2	9.4	9.7	10.3	8.9	9.2	9.4	9.7	10.3

Maximum UGR = 11.5

POLAR GRAPH



Maximum Candela = 1456.345 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.)