

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4LDR-L15-935-WH-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] GEN FROM 4792018053.02  
[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-L15-935-WH-DIM-UNV  
[LUMINAIRE] 4" recessed downlight with textured white 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	1081
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	78
Total Luminaire Watts	13.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.04
Spacing Criterion (90-270)	1.04
Spacing Criterion (Diagonal)	1.04
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	25826	25826	25826
55	17360	17360	17360
65	13076	13076	13076
75	9929	9929	9929
85	7263	7263	7263

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CANDELA TABULATION

	<u>0</u>
0.0	736.920
0.5	737.309
1.0	736.920
1.5	736.531
2.0	736.141
2.5	735.752
3.0	734.973
3.5	734.195
4.0	733.416
4.5	732.248
5.0	731.470
5.5	729.913
6.0	729.134
6.5	727.188
7.0	725.631
7.5	723.684
8.0	722.127
8.5	720.181
9.0	717.845
9.5	715.509
10.0	713.563
10.5	711.227
11.0	708.891
11.5	706.166
12.0	703.052
12.5	700.327
13.0	697.602
13.5	694.098
14.0	690.984
14.5	687.870
15.0	684.366
15.5	680.863
16.0	676.970
16.5	673.466
17.0	669.573
17.5	665.291
18.0	661.398
18.5	657.116
19.0	652.445
19.5	647.773
20.0	642.712
20.5	637.652
21.0	632.202
21.5	625.973
22.0	619.745
22.5	613.127
23.0	606.120
23.5	598.334
24.0	589.769
24.5	581.594
25.0	572.252
25.5	562.909
26.0	553.955
26.5	543.834

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**CANDELA TABULATION - (Cont.)**

27.0	533.712
27.5	522.812
28.0	512.301
28.5	501.791
29.0	491.280
29.5	481.548
30.0	471.426
30.5	460.526
31.0	449.626
31.5	438.337
32.0	427.437
32.5	416.537
33.0	405.637
33.5	395.126
34.0	384.382
34.5	373.910
35.0	363.594
35.5	353.356
36.0	343.273
36.5	333.268
37.0	323.419
37.5	313.726
38.0	304.189
38.5	294.651
39.0	285.347
39.5	276.121
40.0	267.090
40.5	258.136
41.0	249.416
41.5	240.813
42.0	232.521
42.5	224.346
43.0	216.482
43.5	208.852
44.0	201.456
44.5	194.371
45.0	187.558
45.5	181.018
46.0	174.790
46.5	168.873
47.0	163.228
47.5	157.895
48.0	152.834
48.5	148.007
49.0	143.452
49.5	139.092
50.0	135.005
50.5	131.073
51.0	127.375
51.5	123.832
52.0	120.445
52.5	117.175
53.0	114.022
53.5	110.947
54.0	107.988
54.5	105.107

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**CANDELA TABULATION - (Cont.)**

55.0	102.266
55.5	99.580
56.0	97.010
56.5	94.480
57.0	91.950
57.5	89.458
58.0	86.967
58.5	84.475
59.0	82.062
59.5	79.726
60.0	77.390
60.5	75.132
61.0	72.874
61.5	70.733
62.0	68.592
62.5	66.529
63.0	64.505
63.5	62.519
64.0	60.495
64.5	58.627
65.0	56.758
65.5	54.928
66.0	53.099
66.5	51.347
67.0	49.634
67.5	47.960
68.0	46.325
68.5	44.690
69.0	43.094
69.5	41.537
70.0	40.019
70.5	38.539
71.0	37.060
71.5	35.620
72.0	34.218
72.5	32.856
73.0	31.493
73.5	30.209
74.0	28.924
74.5	27.639
75.0	26.394
75.5	25.187
76.0	24.019
76.5	22.851
77.0	21.722
77.5	20.593
78.0	19.542
78.5	18.452
79.0	17.401
79.5	16.389
80.0	15.377
80.5	14.404
81.0	13.430
81.5	12.496
82.0	11.601
82.5	10.705

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CANDELA TABULATION - (Cont.)

83.0	9.810
83.5	8.954
84.0	8.136
84.5	7.280
85.0	6.501
85.5	5.723
86.0	4.944
86.5	4.204
87.0	3.465
87.5	2.764
88.0	2.102
88.5	1.440
89.0	0.856
89.5	0.389
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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121.0	0.000
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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
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130.0	0.000
130.5	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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149.0	0.000
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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	261.59	N.A.	24.20
0-30	521.45	N.A.	48.30
0-40	748.44	N.A.	69.30
0-60	988.24	N.A.	91.40
0-80	1073.26	N.A.	99.30
0-90	1080.71	N.A.	100.00
10-90	1011.47	N.A.	93.60
20-40	486.85	N.A.	45.00
20-50	634.21	N.A.	58.70
40-70	296.53	N.A.	27.40
60-80	85.02	N.A.	7.90
70-80	28.29	N.A.	2.60
80-90	7.45	N.A.	0.70
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	1080.71	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	69.24
10-20	192.35
20-30	259.86
30-40	226.99
40-50	147.36
50-60	92.44
60-70	56.73
70-80	28.29
80-90	7.45
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	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	74	79	75	72	70
4	90	81	73	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	44
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	48	43	39	48	42	39	37

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**UGR TABLE - CORRECTED**

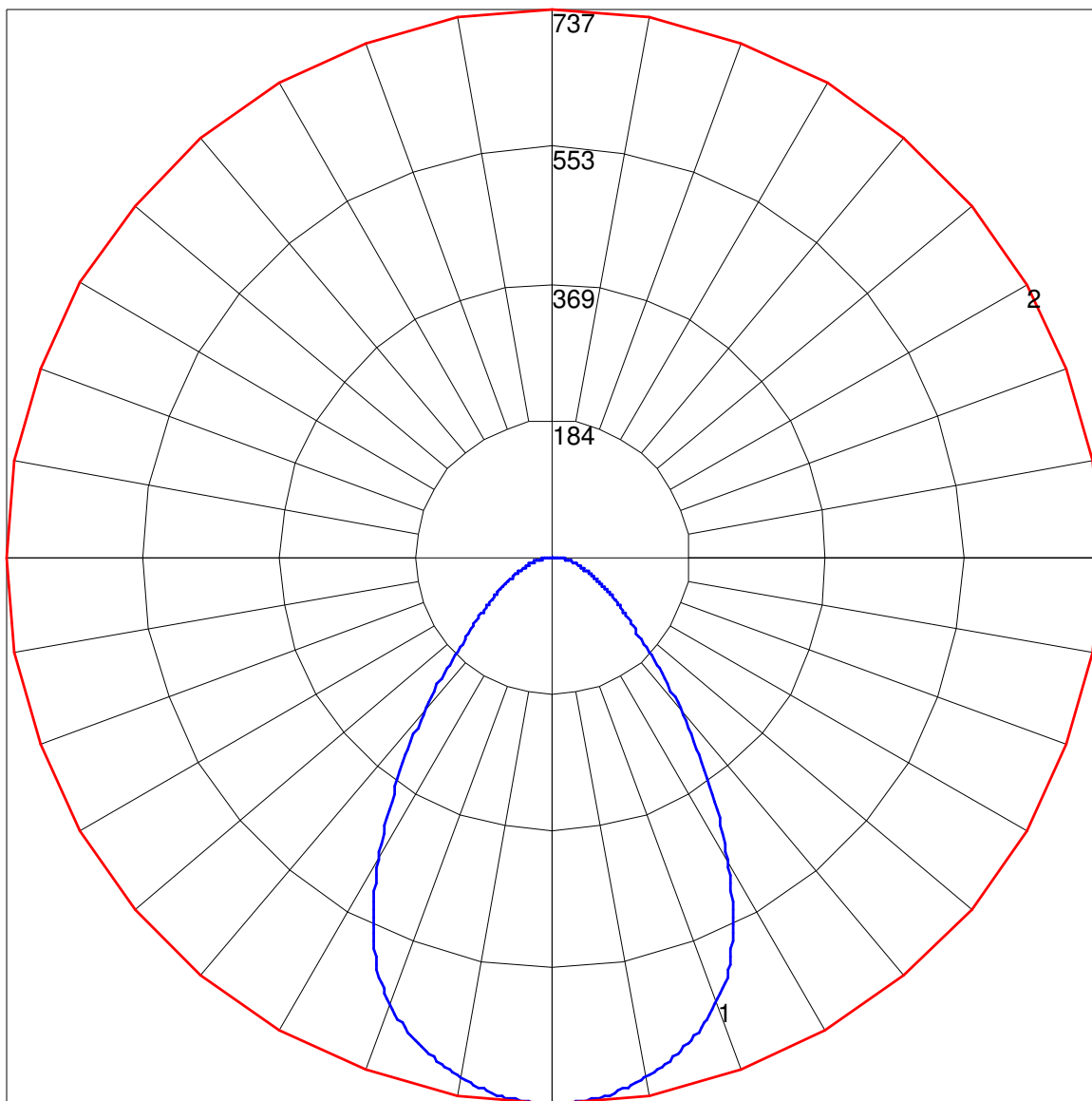
Reflectances

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	19.0	20.3	19.3	20.6	20.9	19.0	20.3	19.3	20.6	20.9
	3H	20.2	21.4	20.6	21.7	22.1	20.2	21.4	20.6	21.7	22.1
	4H	20.6	21.7	21.0	22.1	22.5	20.6	21.7	21.0	22.1	22.5
	6H	20.9	21.9	21.3	22.3	22.7	20.9	21.9	21.3	22.3	22.7
	8H	21.0	22.0	21.5	22.4	22.8	21.0	22.0	21.5	22.4	22.8
	12H	21.1	22.0	21.5	22.4	22.8	21.1	22.0	21.5	22.4	22.8
4H	2H	19.4	20.5	19.8	20.8	21.2	19.4	20.5	19.8	20.8	21.2
	3H	20.8	21.7	21.2	22.1	22.5	20.8	21.7	21.2	22.1	22.5
	4H	21.4	22.2	21.8	22.6	23.0	21.4	22.2	21.8	22.6	23.0
	6H	21.8	22.5	22.2	22.9	23.4	21.8	22.5	22.2	22.9	23.4
	8H	21.9	22.5	22.3	23.0	23.4	21.9	22.5	22.3	23.0	23.4
	12H	22.0	22.5	22.5	23.0	23.5	22.0	22.5	22.5	23.0	23.5
8H	4H	21.5	22.2	22.0	22.6	23.1	21.5	22.2	22.0	22.6	23.1
	6H	22.0	22.6	22.5	23.1	23.5	22.0	22.6	22.5	23.1	23.5
	8H	22.2	22.7	22.7	23.2	23.7	22.2	22.7	22.7	23.2	23.7
	12H	22.3	22.8	22.9	23.3	23.8	22.3	22.8	22.9	23.3	23.8
12H	4H	21.5	22.1	22.0	22.6	23.0	21.5	22.1	22.0	22.6	23.0
	6H	22.0	22.5	22.6	23.0	23.5	22.0	22.5	22.6	23.0	23.5
	8H	22.3	22.7	22.8	23.2	23.8	22.3	22.7	22.8	23.2	23.8

Maximum UGR = 23.8

POLAR GRAPH



Maximum Candela = 737.309 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.)