

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4LDR-L15-840-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-L15-840-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	1341
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	97
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	32049	32049	32049
55	21543	21543	21543
65	16227	16227	16227
75	12322	12322	12322
85	9013	9013	9013

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CANDELA TABULATION

	<u>0</u>
0.0	914.491
0.5	914.974
1.0	914.491
1.5	914.008
2.0	913.525
2.5	913.042
3.0	912.075
3.5	911.109
4.0	910.143
4.5	908.694
5.0	907.728
5.5	905.795
6.0	904.829
6.5	902.414
7.0	900.481
7.5	898.066
8.0	896.133
8.5	893.718
9.0	890.819
9.5	887.921
10.0	885.505
10.5	882.607
11.0	879.708
11.5	876.327
12.0	872.462
12.5	869.080
13.0	865.699
13.5	861.351
14.0	857.486
14.5	853.621
15.0	849.274
15.5	844.926
16.0	840.095
16.5	835.747
17.0	830.916
17.5	825.602
18.0	820.771
18.5	815.457
19.0	809.660
19.5	803.863
20.0	797.583
20.5	791.303
21.0	784.539
21.5	776.810
22.0	769.081
22.5	760.868
23.0	752.172
23.5	742.511
24.0	731.883
24.5	721.738
25.0	710.143
25.5	698.549
26.0	687.438
26.5	674.878

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CANDELA TABULATION - (Cont.)

27.0	662.317
27.5	648.791
28.0	635.747
28.5	622.704
29.0	609.661
29.5	597.583
30.0	585.023
30.5	571.496
31.0	557.970
31.5	543.960
32.0	530.434
32.5	516.907
33.0	503.381
33.5	490.337
34.0	477.004
34.5	464.009
35.0	451.207
35.5	438.502
36.0	425.989
36.5	413.574
37.0	401.352
37.5	389.323
38.0	377.487
38.5	365.651
39.0	354.106
39.5	342.656
40.0	331.449
40.5	320.338
41.0	309.516
41.5	298.840
42.0	288.550
42.5	278.405
43.0	268.647
43.5	259.178
44.0	249.999
44.5	241.207
45.0	232.753
45.5	224.637
46.0	216.908
46.5	209.565
47.0	202.560
47.5	195.942
48.0	189.661
48.5	183.671
49.0	178.019
49.5	172.608
50.0	167.536
50.5	162.657
51.0	158.067
51.5	153.671
52.0	149.468
52.5	145.410
53.0	141.497
53.5	137.681
54.0	134.009
54.5	130.435

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CANDELA TABULATION - (Cont.)

55.0	126.908
55.5	123.575
56.0	120.386
56.5	117.246
57.0	114.106
57.5	111.014
58.0	107.922
58.5	104.831
59.0	101.836
59.5	98.937
60.0	96.038
60.5	93.237
61.0	90.435
61.5	87.778
62.0	85.121
62.5	82.560
63.0	80.048
63.5	77.584
64.0	75.072
64.5	72.753
65.0	70.435
65.5	68.164
66.0	65.894
66.5	63.720
67.0	61.594
67.5	59.517
68.0	57.488
68.5	55.459
69.0	53.478
69.5	51.546
70.0	49.662
70.5	47.826
71.0	45.990
71.5	44.203
72.0	42.464
72.5	40.773
73.0	39.082
73.5	37.488
74.0	35.894
74.5	34.299
75.0	32.754
75.5	31.256
76.0	29.807
76.5	28.357
77.0	26.956
77.5	25.556
78.0	24.251
78.5	22.899
79.0	21.594
79.5	20.338
80.0	19.082
80.5	17.874
81.0	16.667
81.5	15.507
82.0	14.396
82.5	13.285

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CANDELA TABULATION - (Cont.)

83.0	12.174
83.5	11.111
84.0	10.097
84.5	9.034
85.0	8.068
85.5	7.101
86.0	6.135
86.5	5.217
87.0	4.300
87.5	3.430
88.0	2.609
88.5	1.787
89.0	1.063
89.5	0.483
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
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124.5	0.000
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125.5	0.000
126.0	0.000
126.5	0.000
127.0	0.000
127.5	0.000
128.0	0.000
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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
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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
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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	324.63	N.A.	24.20
0-30	647.11	N.A.	48.30
0-40	928.79	N.A.	69.30
0-60	1226.37	N.A.	91.40
0-80	1331.88	N.A.	99.30
0-90	1341.12	N.A.	100.00
10-90	1255.2	N.A.	93.60
20-40	604.16	N.A.	45.00
20-50	787.04	N.A.	58.70
40-70	367.98	N.A.	27.40
60-80	105.51	N.A.	7.90
70-80	35.11	N.A.	2.60
80-90	9.24	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	1341.12	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	85.92
10-20	238.70
20-30	322.48
30-40	281.68
40-50	182.87
50-60	114.71
60-70	70.40
70-80	35.11
80-90	9.24
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	102	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	71
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	60	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	55	64	58	54	62	58	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

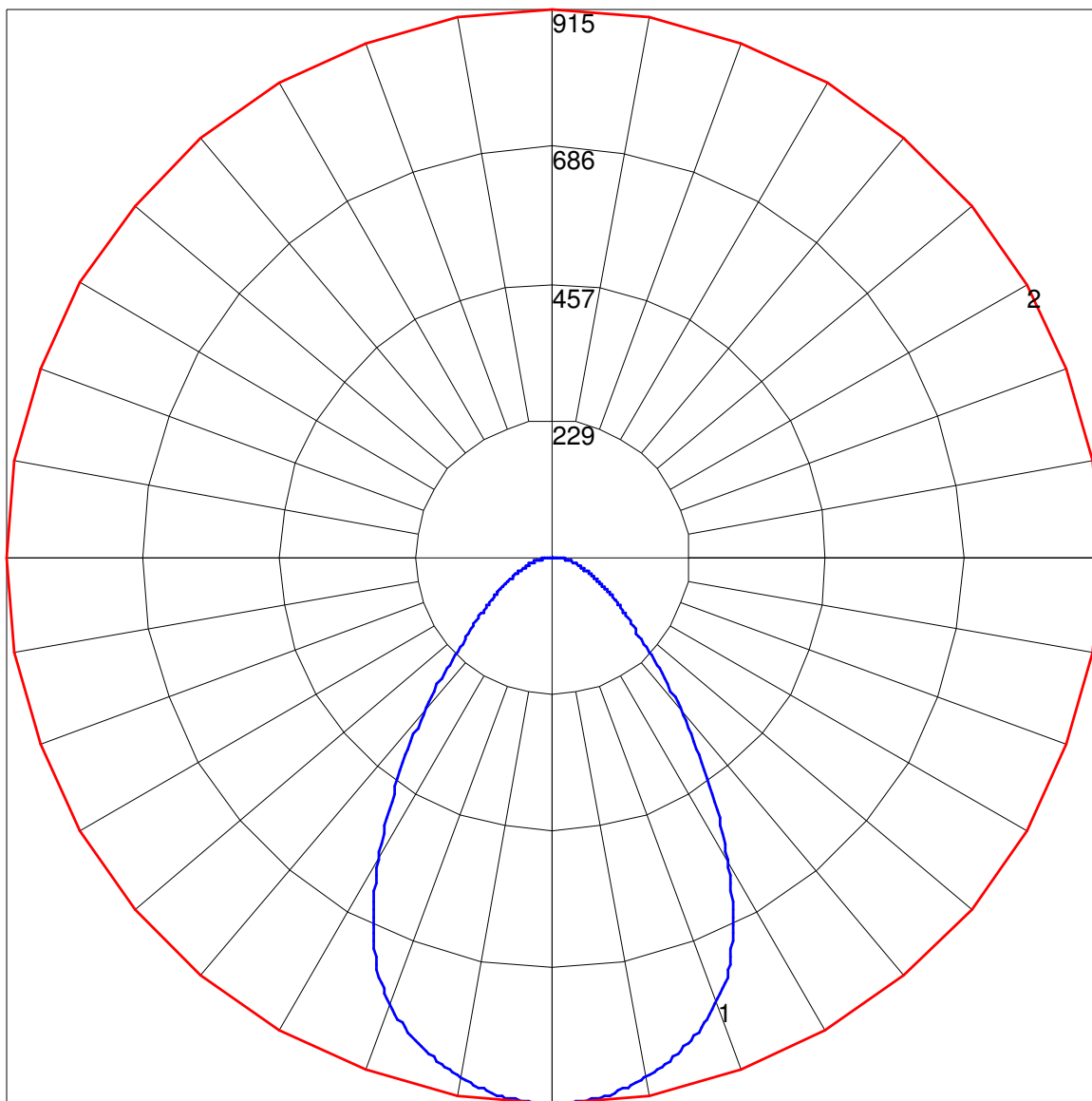
X=2H	Y=2H	19.7	21.0	20.0	21.3	21.6	19.7	21.0	20.0	21.3	21.6
	3H	20.9	22.1	21.3	22.4	22.8	20.9	22.1	21.3	22.4	22.8
	4H	21.3	22.4	21.7	22.8	23.2	21.3	22.4	21.7	22.8	23.2
	6H	21.6	22.6	22.0	23.0	23.4	21.6	22.6	22.0	23.0	23.4
	8H	21.7	22.7	22.2	23.1	23.5	21.7	22.7	22.2	23.1	23.5
	12H	21.8	22.7	22.2	23.1	23.5	21.8	22.7	22.2	23.1	23.5

UGR Viewed Endwise

4H	2H	20.1	21.2	20.5	21.5	21.9	20.1	21.2	20.5	21.5	21.9
	3H	21.5	22.4	21.9	22.8	23.2	21.5	22.4	21.9	22.8	23.2
	4H	22.0	22.9	22.5	23.3	23.7	22.0	22.9	22.5	23.3	23.7
	6H	22.5	23.2	22.9	23.6	24.1	22.5	23.2	22.9	23.6	24.1
	8H	22.6	23.2	23.0	23.7	24.1	22.6	23.2	23.0	23.7	24.1
	12H	22.7	23.2	23.2	23.7	24.2	22.7	23.2	23.2	23.7	24.2
8H	4H	22.2	22.9	22.7	23.3	23.8	22.2	22.9	22.7	23.3	23.8
	6H	22.7	23.3	23.2	23.7	24.2	22.7	23.3	23.2	23.7	24.2
	8H	22.9	23.4	23.4	23.9	24.4	22.9	23.4	23.4	23.9	24.4
	12H	23.0	23.5	23.6	24.0	24.5	23.0	23.5	23.6	24.0	24.5
12H	4H	22.2	22.8	22.7	23.3	23.7	22.2	22.8	22.7	23.3	23.7
	6H	22.7	23.2	23.3	23.7	24.2	22.7	23.2	23.3	23.7	24.2
	8H	23.0	23.4	23.5	23.9	24.5	23.0	23.4	23.5	23.9	24.5

Maximum UGR = 24.5

POLAR GRAPH



Maximum Candela = 914.974 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.)