

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4LDR-L10-840-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-L10-840-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	889
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	96
Total Luminaire Watts	9.3
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	21243	21243	21243
55	14279	14279	14279
65	10756	10756	10756
75	8167	8167	8167
85	5973	5973	5973

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CANDELA TABULATION

	<u>0</u>
0.0	606.149
0.5	606.469
1.0	606.149
1.5	605.828
2.0	605.508
2.5	605.188
3.0	604.548
3.5	603.907
4.0	603.267
4.5	602.306
5.0	601.666
5.5	600.385
6.0	599.745
6.5	598.144
7.0	596.863
7.5	595.262
8.0	593.981
8.5	592.380
9.0	590.459
9.5	588.537
10.0	586.936
10.5	585.015
11.0	583.094
11.5	580.852
12.0	578.291
12.5	576.049
13.0	573.808
13.5	570.926
14.0	568.364
14.5	565.803
15.0	562.921
15.5	560.039
16.0	556.837
16.5	553.955
17.0	550.753
17.5	547.231
18.0	544.029
18.5	540.507
19.0	536.664
19.5	532.822
20.0	528.659
20.5	524.496
21.0	520.013
21.5	514.890
22.0	509.767
22.5	504.323
23.0	498.560
23.5	492.156
24.0	485.111
24.5	478.387
25.0	470.702
25.5	463.017
26.0	455.652
26.5	447.327

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**CANDELA TABULATION - (Cont.)**

27.0	439.001
27.5	430.036
28.0	421.390
28.5	412.745
29.0	404.099
29.5	396.094
30.0	387.769
30.5	378.803
31.0	369.837
31.5	360.551
32.0	351.585
32.5	342.620
33.0	333.654
33.5	325.008
34.0	316.171
34.5	307.557
35.0	299.072
35.5	290.650
36.0	282.357
36.5	274.128
37.0	266.027
37.5	258.053
38.0	250.208
38.5	242.363
39.0	234.710
39.5	227.122
40.0	219.693
40.5	212.328
41.0	205.156
41.5	198.079
42.0	191.259
42.5	184.534
43.0	178.066
43.5	171.790
44.0	165.706
44.5	159.879
45.0	154.275
45.5	148.895
46.0	143.772
46.5	138.905
47.0	134.262
47.5	129.875
48.0	125.713
48.5	121.742
49.0	117.996
49.5	114.409
50.0	111.047
50.5	107.813
51.0	104.771
51.5	101.857
52.0	99.072
52.5	96.382
53.0	93.788
53.5	91.259
54.0	88.825
54.5	86.455

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**CANDELA TABULATION - (Cont.)**

55.0	84.118
55.5	81.909
56.0	79.795
56.5	77.714
57.0	75.632
57.5	73.583
58.0	71.534
58.5	69.485
59.0	67.499
59.5	65.578
60.0	63.657
60.5	61.800
61.0	59.942
61.5	58.181
62.0	56.420
62.5	54.723
63.0	53.058
63.5	51.425
64.0	49.760
64.5	48.223
65.0	46.686
65.5	45.181
66.0	43.676
66.5	42.235
67.0	40.826
67.5	39.449
68.0	38.104
68.5	36.760
69.0	35.447
69.5	34.166
70.0	32.917
70.5	31.700
71.0	30.484
71.5	29.299
72.0	28.146
72.5	27.025
73.0	25.905
73.5	24.848
74.0	23.791
74.5	22.735
75.0	21.710
75.5	20.717
76.0	19.757
76.5	18.796
77.0	17.867
77.5	16.939
78.0	16.074
78.5	15.178
79.0	14.313
79.5	13.481
80.0	12.648
80.5	11.848
81.0	11.047
81.5	10.279
82.0	9.542
82.5	8.806

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CANDELA TABULATION - (Cont.)

83.0	8.069
83.5	7.365
84.0	6.692
84.5	5.988
85.0	5.347
85.5	4.707
86.0	4.067
86.5	3.458
87.0	2.850
87.5	2.273
88.0	1.729
88.5	1.185
89.0	0.704
89.5	0.320
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
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103.0	0.000
103.5	0.000
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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
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134.5	0.000
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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
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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	215.17	N.A.	24.20
0-30	428.92	N.A.	48.30
0-40	615.63	N.A.	69.30
0-60	812.87	N.A.	91.40
0-80	882.81	N.A.	99.30
0-90	888.93	N.A.	100.00
10-90	831.98	N.A.	93.60
20-40	400.46	N.A.	45.00
20-50	521.67	N.A.	58.70
40-70	243.91	N.A.	27.40
60-80	69.93	N.A.	7.90
70-80	23.27	N.A.	2.60
80-90	6.12	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	888.93	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	56.95
10-20	158.22
20-30	213.75
30-40	186.71
40-50	121.21
50-60	76.03
60-70	46.66
70-80	23.27
80-90	6.12
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**

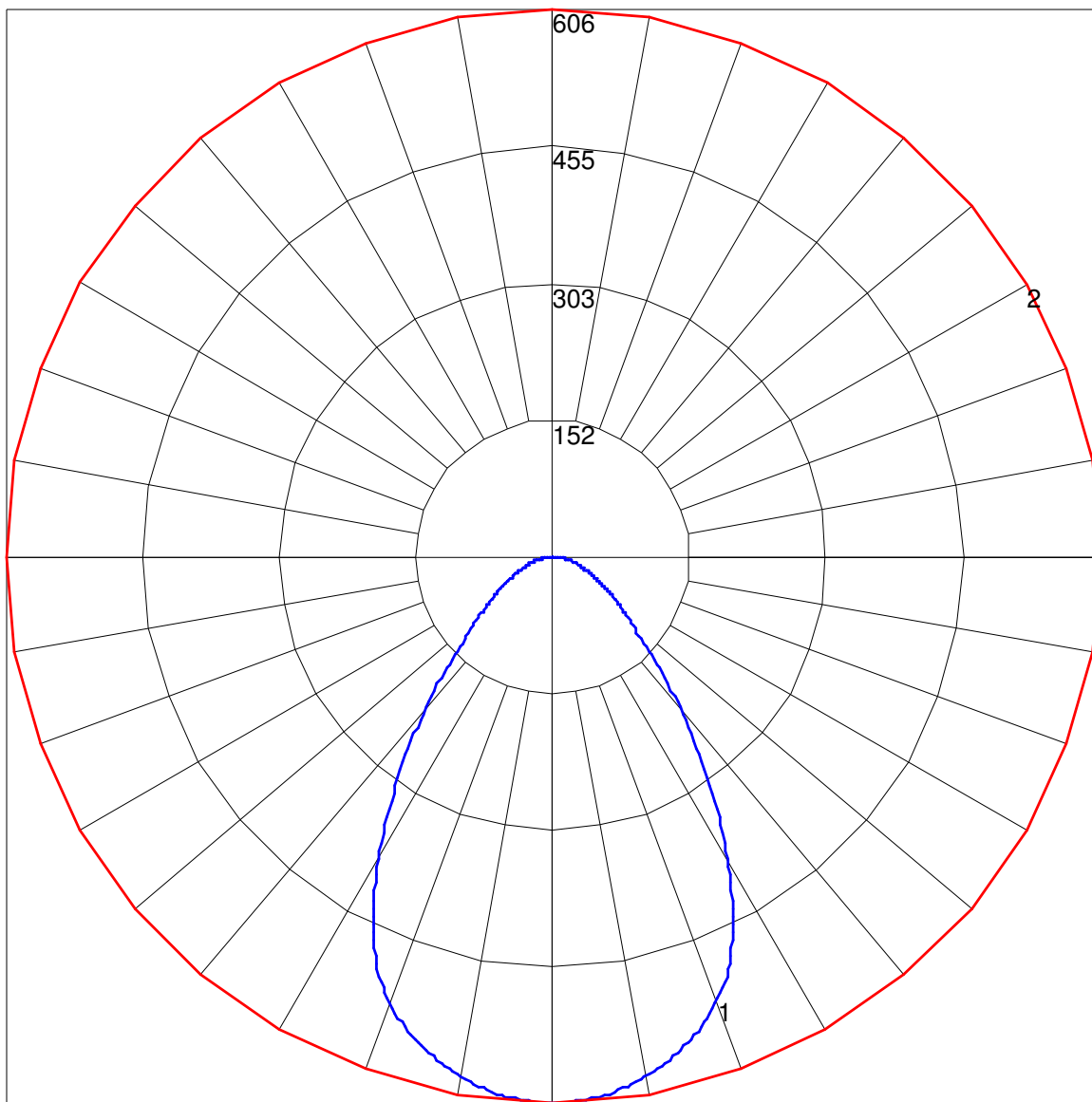
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	18.3	19.6	18.6	19.9	20.2	18.3	19.6	18.6	19.9	20.2
	3H	19.5	20.7	19.9	21.0	21.4	19.5	20.7	19.9	21.0	21.4
	4H	19.9	21.0	20.3	21.4	21.8	19.9	21.0	20.3	21.4	21.8
	6H	20.2	21.2	20.6	21.6	22.0	20.2	21.2	20.6	21.6	22.0
	8H	20.3	21.3	20.8	21.7	22.1	20.3	21.3	20.8	21.7	22.1
	12H	20.4	21.3	20.8	21.7	22.1	20.4	21.3	20.8	21.7	22.1
4H	2H	18.7	19.8	19.1	20.1	20.5	18.7	19.8	19.1	20.1	20.5
	3H	20.1	21.0	20.5	21.4	21.8	20.1	21.0	20.5	21.4	21.8
	4H	20.6	21.5	21.1	21.9	22.3	20.6	21.5	21.1	21.9	22.3
	6H	21.1	21.8	21.5	22.2	22.7	21.1	21.8	21.5	22.2	22.7
	8H	21.2	21.8	21.6	22.3	22.7	21.2	21.8	21.6	22.3	22.7
	12H	21.3	21.8	21.7	22.3	22.8	21.3	21.8	21.7	22.3	22.8
8H	4H	20.8	21.5	21.3	21.9	22.4	20.8	21.5	21.3	21.9	22.4
	6H	21.3	21.9	21.8	22.3	22.8	21.3	21.9	21.8	22.3	22.8
	8H	21.5	22.0	22.0	22.5	23.0	21.5	22.0	22.0	22.5	23.0
	12H	21.6	22.1	22.2	22.6	23.1	21.6	22.1	22.2	22.6	23.1
12H	4H	20.8	21.4	21.3	21.9	22.3	20.8	21.4	21.3	21.9	22.3
	6H	21.3	21.8	21.9	22.3	22.8	21.3	21.8	21.9	22.3	22.8
	8H	21.6	22.0	22.1	22.5	23.1	21.6	22.0	22.1	22.5	23.1

Maximum UGR = 23.1

POLAR GRAPH



Maximum Candela = 606.469 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.)