

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4LDR-L10-840-BL-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM 4792018053.05
[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-BL-DIM-UNV
[LUMINAIRE] 4" recessed downlight with textured black 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	414
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	45
Total Luminaire Watts	9.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.00
Spacing Criterion (90-270)	1.00
Spacing Criterion (Diagonal)	0.94
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	5193	5193	5193
55	673	673	673
65	233	233	233
75	101	101	101
85	67	67	67

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CANDELA TABULATION

	<u>0</u>
0.0	414.060
0.5	414.060
1.0	414.060
1.5	413.762
2.0	413.464
2.5	413.166
3.0	412.868
3.5	411.975
4.0	411.379
4.5	410.783
5.0	409.890
5.5	409.294
6.0	408.102
6.5	407.209
7.0	406.017
7.5	404.826
8.0	403.634
8.5	402.145
9.0	400.655
9.5	399.166
10.0	397.676
10.5	395.889
11.0	394.102
11.5	392.314
12.0	390.229
12.5	388.442
13.0	386.059
13.5	384.272
14.0	381.888
14.5	379.803
15.0	377.420
15.5	375.037
16.0	372.952
16.5	370.569
17.0	368.782
17.5	366.398
18.0	364.015
18.5	361.632
19.0	358.653
19.5	355.377
20.0	352.100
20.5	348.823
21.0	344.951
21.5	341.078
22.0	336.610
22.5	332.142
23.0	327.078
23.5	321.716
24.0	315.758
24.5	309.502
25.0	303.247
25.5	296.693
26.0	289.842
26.5	282.782

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CANDELA TABULATION - (Cont.)

27.0	275.544
27.5	268.096
28.0	260.471
28.5	252.726
29.0	244.951
29.5	237.087
30.0	229.252
30.5	221.358
31.0	213.435
31.5	205.541
32.0	197.706
32.5	189.931
33.0	182.246
33.5	174.710
34.0	167.292
34.5	159.934
35.0	152.755
35.5	145.696
36.0	138.755
36.5	131.874
37.0	125.171
37.5	118.558
38.0	112.094
38.5	105.749
39.0	99.494
39.5	93.327
40.0	87.340
40.5	81.501
41.0	75.812
41.5	70.301
42.0	64.969
42.5	59.815
43.0	54.930
43.5	50.253
44.0	45.815
44.5	41.644
45.0	37.712
45.5	34.018
46.0	30.593
46.5	27.435
47.0	24.546
47.5	21.895
48.0	19.482
48.5	17.277
49.0	15.311
49.5	13.554
50.0	11.975
50.5	10.575
51.0	9.354
51.5	8.311
52.0	7.388
52.5	6.583
53.0	5.898
53.5	5.302
54.0	4.796
54.5	4.349

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CANDELA TABULATION - (Cont.)

55.0	3.962
55.5	3.664
56.0	3.396
56.5	3.187
57.0	3.009
57.5	2.830
58.0	2.651
58.5	2.472
59.0	2.324
59.5	2.145
60.0	2.026
60.5	1.877
61.0	1.758
61.5	1.638
62.0	1.519
62.5	1.430
63.0	1.340
63.5	1.251
64.0	1.162
64.5	1.102
65.0	1.013
65.5	0.953
66.0	0.894
66.5	0.834
67.0	0.775
67.5	0.745
68.0	0.685
68.5	0.655
69.0	0.596
69.5	0.566
70.0	0.536
70.5	0.506
71.0	0.477
71.5	0.447
72.0	0.417
72.5	0.387
73.0	0.357
73.5	0.357
74.0	0.328
74.5	0.298
75.0	0.268
75.5	0.268
76.0	0.238
76.5	0.238
77.0	0.209
77.5	0.209
78.0	0.179
78.5	0.179
79.0	0.179
79.5	0.149
80.0	0.149
80.5	0.119
81.0	0.119
81.5	0.119
82.0	0.119
82.5	0.089

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CANDELA TABULATION - (Cont.)

83.0	0.089
83.5	0.089
84.0	0.060
84.5	0.060
85.0	0.060
85.5	0.060
86.0	0.060
86.5	0.030
87.0	0.030
87.5	0.030
88.0	0.030
88.5	0.030
89.0	0.030
89.5	0.030
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
120.0	0.000
120.5	0.000
121.0	0.000
121.5	0.000
122.0	0.000
122.5	0.000
123.0	0.000
123.5	0.000
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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
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133.5	0.000
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
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	144.91	N.A.	35.00
0-30	281.49	N.A.	68.00
0-40	376.82	N.A.	91.00
0-60	412.73	N.A.	99.60
0-80	414.13	N.A.	100.00
0-90	414.20	N.A.	100.00
10-90	375.46	N.A.	90.60
20-40	231.91	N.A.	56.00
20-50	263.45	N.A.	63.60
40-70	36.99	N.A.	8.90
60-80	1.40	N.A.	0.30
70-80	0.32	N.A.	0.10
80-90	0.07	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	414.20	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	38.74
10-20	106.17
20-30	136.59
30-40	95.32
40-50	31.54
50-60	4.37
60-70	1.09
70-80	0.32
80-90	0.07
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	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87
3	102	96	90	86	100	94	89	86	92	88	84	89	86	83	87	84	82	80
4	97	89	83	79	95	88	83	79	86	81	78	84	80	77	82	79	76	74
5	92	83	77	73	90	82	77	72	80	75	72	79	74	71	77	73	70	69
6	87	78	72	67	85	77	71	67	75	70	67	74	69	66	73	69	66	64
7	82	73	67	62	81	72	66	62	71	66	62	70	65	62	69	64	61	60
8	78	68	62	58	77	68	62	58	67	61	58	66	61	57	65	60	57	56
9	74	64	58	54	73	64	58	54	63	58	54	62	57	54	61	57	54	52
10	71	61	55	51	70	60	55	51	59	54	51	59	54	50	58	54	50	49

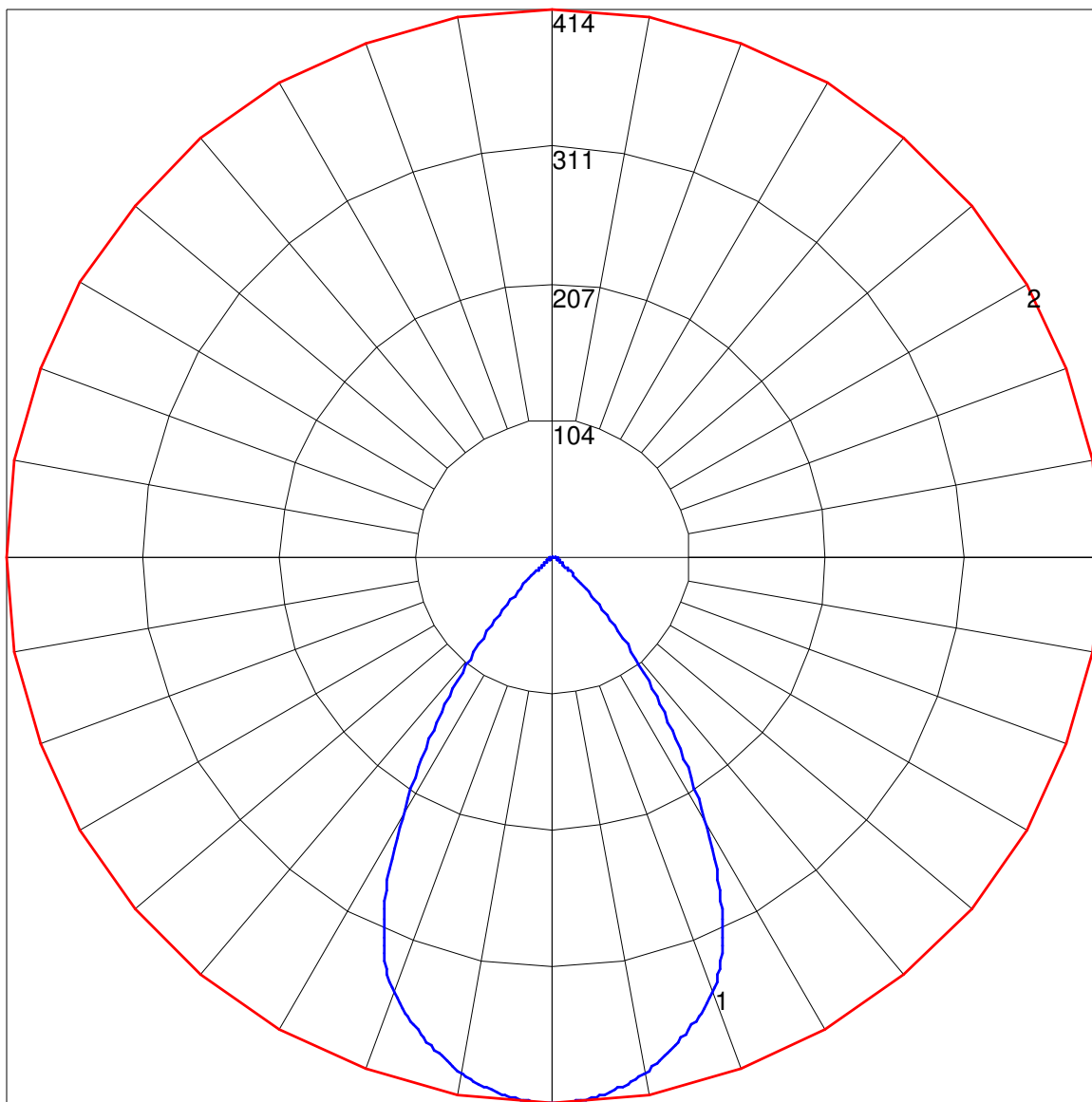
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UGR TABLE - CORRECTED

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	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3
	3H	0.0	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.1	0.4
	4H	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.4
	6H	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3
	8H	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
	12H	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
4H	2H	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
	3H	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3
	4H	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3
	6H	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3
	8H	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
	12H	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
8H	4H	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
	6H	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
	8H	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
	12H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12H	4H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Maximum UGR = 0.4

POLAR GRAPH



Maximum Candela = 414.06 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)