

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4LDR-L15-940-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-L15-940-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	521
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	38
Total Luminaire Watts	13.8
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	6536	6536	6536
55	847	847	847
65	294	294	294
75	127	127	127
85	84	84	84

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CANDELA TABULATION

	<u>0</u>
0.0	521.160
0.5	521.160
1.0	521.160
1.5	520.785
2.0	520.410
2.5	520.035
3.0	519.660
3.5	518.535
4.0	517.786
4.5	517.036
5.0	515.911
5.5	515.161
6.0	513.661
6.5	512.536
7.0	511.037
7.5	509.537
8.0	508.037
8.5	506.163
9.0	504.288
9.5	502.413
10.0	500.539
10.5	498.289
11.0	496.039
11.5	493.790
12.0	491.165
12.5	488.916
13.0	485.916
13.5	483.666
14.0	480.667
14.5	478.042
15.0	475.043
15.5	472.043
16.0	469.419
16.5	466.419
17.0	464.170
17.5	461.170
18.0	458.171
18.5	455.171
19.0	451.422
19.5	447.298
20.0	443.173
20.5	439.049
21.0	434.175
21.5	429.301
22.0	423.677
22.5	418.053
23.0	411.679
23.5	404.930
24.0	397.431
24.5	389.558
25.0	381.684
25.5	373.435
26.0	364.812
26.5	355.926

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CANDELA TABULATION - (Cont.)

27.0	346.815
27.5	337.442
28.0	327.843
28.5	318.095
29.0	308.309
29.5	298.411
30.0	288.550
30.5	278.614
31.0	268.641
31.5	258.705
32.0	248.844
32.5	239.059
33.0	229.385
33.5	219.900
34.0	210.564
34.5	201.303
35.0	192.267
35.5	183.381
36.0	174.645
36.5	165.984
37.0	157.548
37.5	149.224
38.0	141.088
38.5	133.102
39.0	125.228
39.5	117.467
40.0	109.931
40.5	102.582
41.0	95.421
41.5	88.485
42.0	81.773
42.5	75.287
43.0	69.138
43.5	63.252
44.0	57.665
44.5	52.416
45.0	47.467
45.5	42.818
46.0	38.506
46.5	34.532
47.0	30.895
47.5	27.558
48.0	24.521
48.5	21.746
49.0	19.272
49.5	17.060
50.0	15.072
50.5	13.310
51.0	11.773
51.5	10.461
52.0	9.298
52.5	8.286
53.0	7.424
53.5	6.674
54.0	6.036
54.5	5.474

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CANDELA TABULATION - (Cont.)

55.0	4.987
55.5	4.612
56.0	4.274
56.5	4.012
57.0	3.787
57.5	3.562
58.0	3.337
58.5	3.112
59.0	2.924
59.5	2.700
60.0	2.550
60.5	2.362
61.0	2.212
61.5	2.062
62.0	1.912
62.5	1.800
63.0	1.687
63.5	1.575
64.0	1.462
64.5	1.387
65.0	1.275
65.5	1.200
66.0	1.125
66.5	1.050
67.0	0.975
67.5	0.937
68.0	0.862
68.5	0.825
69.0	0.750
69.5	0.712
70.0	0.675
70.5	0.637
71.0	0.600
71.5	0.562
72.0	0.525
72.5	0.487
73.0	0.450
73.5	0.450
74.0	0.412
74.5	0.375
75.0	0.337
75.5	0.337
76.0	0.300
76.5	0.300
77.0	0.262
77.5	0.262
78.0	0.225
78.5	0.225
79.0	0.225
79.5	0.187
80.0	0.187
80.5	0.150
81.0	0.150
81.5	0.150
82.0	0.150
82.5	0.112

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CANDELA TABULATION - (Cont.)

83.0	0.112
83.5	0.112
84.0	0.075
84.5	0.075
85.0	0.075
85.5	0.075
86.0	0.075
86.5	0.037
87.0	0.037
87.5	0.037
88.0	0.037
88.5	0.037
89.0	0.037
89.5	0.037
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
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
129.0	0.000
129.5	0.000
130.0	0.000
130.5	0.000
131.0	0.000
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132.5	0.000
133.0	0.000
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	182.39	N.A.	35.00
0-30	354.30	N.A.	68.00
0-40	474.28	N.A.	91.00
0-60	519.48	N.A.	99.60
0-80	521.25	N.A.	100.00
0-90	521.34	N.A.	100.00
10-90	472.57	N.A.	90.60
20-40	291.89	N.A.	56.00
20-50	331.59	N.A.	63.60
40-70	46.56	N.A.	8.90
60-80	1.77	N.A.	0.30
70-80	0.40	N.A.	0.10
80-90	0.09	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	521.34	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	48.76
10-20	133.63
20-30	171.91
30-40	119.98
40-50	39.70
50-60	5.50
60-70	1.37
70-80	0.40
80-90	0.09
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

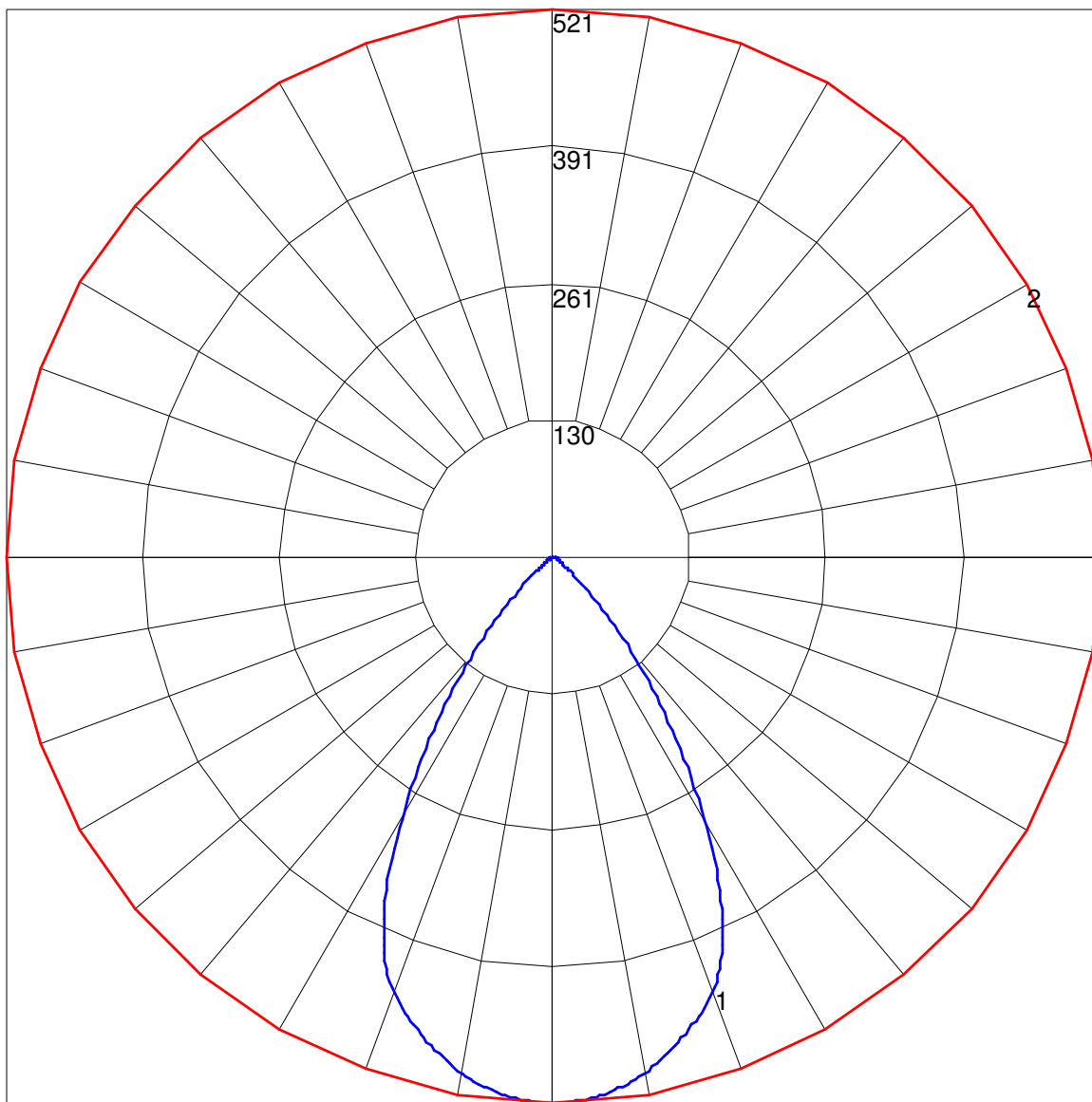
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UGR TABLE - CORRECTED

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	0.5	0.0	0.8	1.1	0.0	0.5	0.0	0.8	1.1
	3H	0.0	0.5	0.0	0.8	1.2	0.0	0.5	0.0	0.8	1.2
	4H	0.0	0.4	0.0	0.8	1.2	0.0	0.4	0.0	0.8	1.2
	6H	0.0	0.3	0.0	0.7	1.1	0.0	0.3	0.0	0.7	1.1
	8H	0.0	0.2	0.0	0.6	1.0	0.0	0.2	0.0	0.6	1.0
	12H	0.0	0.2	0.0	0.5	1.0	0.0	0.2	0.0	0.5	1.0
4H	2H	0.0	0.2	0.0	0.6	1.0	0.0	0.2	0.0	0.6	1.0
	3H	0.0	0.3	0.1	0.7	1.1	0.0	0.3	0.1	0.7	1.1
	4H	0.0	0.2	0.1	0.7	1.1	0.0	0.2	0.1	0.7	1.1
	6H	0.0	0.1	0.1	0.6	1.1	0.0	0.1	0.1	0.6	1.1
	8H	0.0	0.1	0.1	0.5	1.0	0.0	0.1	0.1	0.5	1.0
	12H	0.0	0.0	0.0	0.4	0.9	0.0	0.0	0.0	0.4	0.9
8H	4H	0.0	0.0	0.0	0.4	0.9	0.0	0.0	0.0	0.4	0.9
	6H	0.0	0.0	0.0	0.4	0.9	0.0	0.0	0.0	0.4	0.9
	8H	0.0	0.0	0.0	0.4	0.8	0.0	0.0	0.0	0.4	0.8
	12H	0.0	0.0	0.0	0.3	0.8	0.0	0.0	0.0	0.3	0.8
12H	4H	0.0	0.0	0.0	0.4	0.8	0.0	0.0	0.0	0.4	0.8
	6H	0.0	0.0	0.0	0.3	0.8	0.0	0.0	0.0	0.3	0.8
	8H	0.0	0.0	0.0	0.2	0.8	0.0	0.0	0.0	0.2	0.8

Maximum UGR = 1.2

POLAR GRAPH



Maximum Candela = 521.16 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.)