

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4LDR-L20-935-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-L20-935-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	667
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	39
Total Luminaire Watts	17
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	8359	8359	8359
55	1083	1083	1083
65	376	376	376
75	163	163	163
85	107	107	107

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CANDELA TABULATION

	<u>0</u>
0.0	666.490
0.5	666.490
1.0	666.490
1.5	666.011
2.0	665.531
2.5	665.052
3.0	664.572
3.5	663.134
4.0	662.175
4.5	661.216
5.0	659.777
5.5	658.818
6.0	656.900
6.5	655.462
7.0	653.544
7.5	651.626
8.0	649.708
8.5	647.310
9.0	644.913
9.5	642.516
10.0	640.118
10.5	637.241
11.0	634.364
11.5	631.487
12.0	628.131
12.5	625.254
13.0	621.418
13.5	618.541
14.0	614.705
14.5	611.349
15.0	607.513
15.5	603.677
16.0	600.320
16.5	596.485
17.0	593.608
17.5	589.772
18.0	585.936
18.5	582.100
19.0	577.305
19.5	572.031
20.0	566.756
20.5	561.482
21.0	555.249
21.5	549.015
22.0	541.823
22.5	534.630
23.0	526.479
23.5	517.848
24.0	508.259
24.5	498.189
25.0	488.120
25.5	477.571
26.0	466.543
26.5	455.179

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CANDELA TABULATION - (Cont.)

27.0	443.528
27.5	431.540
28.0	419.265
28.5	406.799
29.0	394.284
29.5	381.625
30.0	369.015
30.5	356.308
31.0	343.554
31.5	330.848
32.0	318.237
32.5	305.722
33.0	293.351
33.5	281.220
34.0	269.281
34.5	257.438
35.0	245.882
35.5	234.518
36.0	223.346
36.5	212.270
37.0	201.481
37.5	190.837
38.0	180.432
38.5	170.219
39.0	160.149
39.5	150.224
40.0	140.586
40.5	131.188
41.0	122.030
41.5	113.159
42.0	104.577
42.5	96.281
43.0	88.418
43.5	80.890
44.0	73.745
44.5	67.033
45.0	60.703
45.5	54.758
46.0	49.244
46.5	44.161
47.0	39.510
47.5	35.242
48.0	31.359
48.5	27.810
49.0	24.646
49.5	21.817
50.0	19.275
50.5	17.022
51.0	15.056
51.5	13.378
52.0	11.891
52.5	10.597
53.0	9.494
53.5	8.535
54.0	7.720
54.5	7.001

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CANDELA TABULATION - (Cont.)

55.0	6.377
55.5	5.898
56.0	5.466
56.5	5.131
57.0	4.843
57.5	4.555
58.0	4.267
58.5	3.980
59.0	3.740
59.5	3.452
60.0	3.261
60.5	3.021
61.0	2.829
61.5	2.637
62.0	2.445
62.5	2.302
63.0	2.158
63.5	2.014
64.0	1.870
64.5	1.774
65.0	1.630
65.5	1.534
66.0	1.438
66.5	1.343
67.0	1.247
67.5	1.199
68.0	1.103
68.5	1.055
69.0	0.959
69.5	0.911
70.0	0.863
70.5	0.815
71.0	0.767
71.5	0.719
72.0	0.671
72.5	0.623
73.0	0.575
73.5	0.575
74.0	0.527
74.5	0.479
75.0	0.432
75.5	0.432
76.0	0.384
76.5	0.384
77.0	0.336
77.5	0.336
78.0	0.288
78.5	0.288
79.0	0.288
79.5	0.240
80.0	0.240
80.5	0.192
81.0	0.192
81.5	0.192
82.0	0.192
82.5	0.144

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CANDELA TABULATION - (Cont.)

83.0	0.144
83.5	0.144
84.0	0.096
84.5	0.096
85.0	0.096
85.5	0.096
86.0	0.096
86.5	0.048
87.0	0.048
87.5	0.048
88.0	0.048
88.5	0.048
89.0	0.048
89.5	0.048
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
131.5	0.000
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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	233.25	N.A.	35.00
0-30	453.10	N.A.	68.00
0-40	606.54	N.A.	91.00
0-60	664.34	N.A.	99.60
0-80	666.60	N.A.	100.00
0-90	666.72	N.A.	100.00
10-90	604.36	N.A.	90.60
20-40	373.29	N.A.	56.00
20-50	424.06	N.A.	63.60
40-70	59.55	N.A.	8.90
60-80	2.26	N.A.	0.30
70-80	0.51	N.A.	0.10
80-90	0.12	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	666.72	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	62.36
10-20	170.89
20-30	219.85
30-40	153.44
40-50	50.77
50-60	7.03
60-70	1.75
70-80	0.51
80-90	0.12
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	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	86
3	102	95	90	86	100	94	89	86	91	87	84	89	86	83	87	84	82	80
4	97	89	83	79	95	88	83	78	86	81	78	84	80	77	82	78	76	74
5	92	83	77	73	90	82	76	72	80	75	72	79	74	71	77	73	70	69
6	87	78	72	67	85	77	71	67	75	70	66	74	69	66	73	69	66	64
7	82	73	67	62	81	72	66	62	71	66	62	70	65	61	68	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	53	50	49

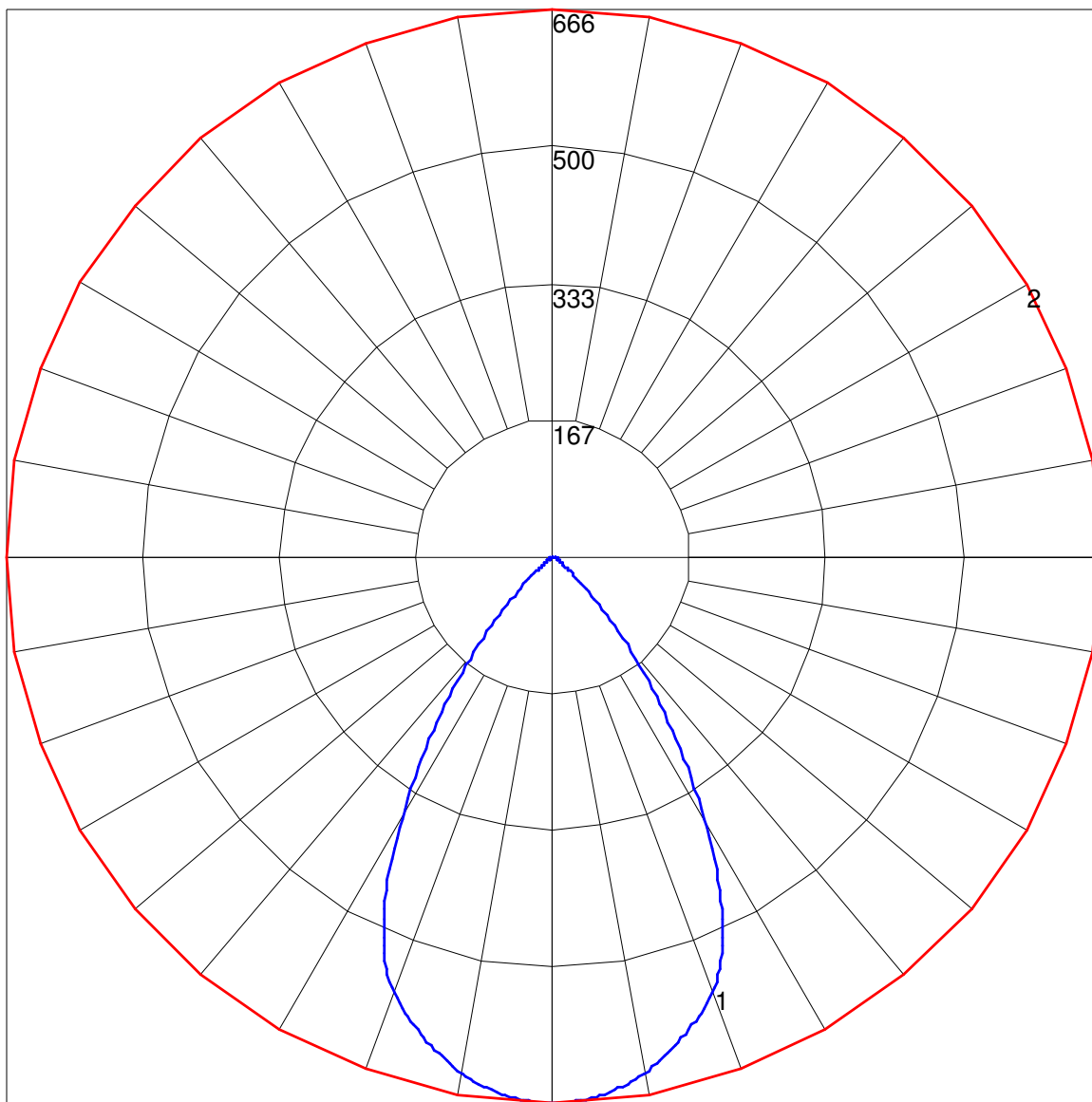
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UGR TABLE - CORRECTED

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	0.3	1.3	0.7	1.6	1.9	0.3	1.3	0.7	1.6	1.9
	3H	0.4	1.3	0.8	1.7	2.0	0.4	1.3	0.8	1.7	2.0
	4H	0.4	1.2	0.8	1.6	2.0	0.4	1.2	0.8	1.6	2.0
	6H	0.4	1.1	0.8	1.5	1.9	0.4	1.1	0.8	1.5	1.9
	8H	0.3	1.0	0.8	1.4	1.8	0.3	1.0	0.8	1.4	1.8
	12H	0.3	1.0	0.7	1.3	1.8	0.3	1.0	0.7	1.3	1.8
4H	2H	0.2	1.0	0.6	1.4	1.8	0.2	1.0	0.6	1.4	1.8
	3H	0.5	1.1	0.9	1.5	1.9	0.5	1.1	0.9	1.5	1.9
	4H	0.5	1.0	0.9	1.5	1.9	0.5	1.0	0.9	1.5	1.9
	6H	0.4	0.9	0.9	1.4	1.9	0.4	0.9	0.9	1.4	1.9
	8H	0.4	0.9	0.9	1.3	1.8	0.4	0.9	0.9	1.3	1.8
	12H	0.4	0.7	0.9	1.2	1.7	0.4	0.7	0.9	1.2	1.7
8H	4H	0.3	0.8	0.8	1.3	1.7	0.3	0.8	0.8	1.3	1.7
	6H	0.3	0.7	0.9	1.2	1.7	0.3	0.7	0.9	1.2	1.7
	8H	0.3	0.6	0.8	1.2	1.7	0.3	0.6	0.8	1.2	1.7
	12H	0.3	0.6	0.8	1.1	1.6	0.3	0.6	0.8	1.1	1.6
12H	4H	0.3	0.7	0.8	1.2	1.6	0.3	0.7	0.8	1.2	1.6
	6H	0.3	0.6	0.8	1.1	1.6	0.3	0.6	0.8	1.1	1.6
	8H	0.3	0.6	0.8	1.1	1.6	0.3	0.6	0.8	1.1	1.6

Maximum UGR = 2.0

POLAR GRAPH



Maximum Candela = 666.49 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.)