

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4LDR-L10-935-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-L10-935-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	716
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	77
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	17118	17118	17118
55	11507	11507	11507
65	8667	8667	8667
75	6581	6581	6581
85	4814	4814	4814

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CANDELA TABULATION

	<u>0</u>
0.0	488.450
0.5	488.708
1.0	488.450
1.5	488.192
2.0	487.934
2.5	487.676
3.0	487.160
3.5	486.644
4.0	486.128
4.5	485.354
5.0	484.838
5.5	483.806
6.0	483.289
6.5	481.999
7.0	480.967
7.5	479.677
8.0	478.645
8.5	477.355
9.0	475.807
9.5	474.258
10.0	472.968
10.5	471.420
11.0	469.872
11.5	468.066
12.0	466.001
12.5	464.195
13.0	462.389
13.5	460.067
14.0	458.003
14.5	455.938
15.0	453.616
15.5	451.294
16.0	448.713
16.5	446.391
17.0	443.811
17.5	440.973
18.0	438.392
18.5	435.554
19.0	432.458
19.5	429.361
20.0	426.007
20.5	422.653
21.0	419.040
21.5	414.912
22.0	410.783
22.5	406.397
23.0	401.752
23.5	396.592
24.0	390.915
24.5	385.496
25.0	379.304
25.5	373.111
26.0	367.176
26.5	360.467

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**CANDELA TABULATION - (Cont.)**

27.0	353.759
27.5	346.534
28.0	339.567
28.5	332.600
29.0	325.633
29.5	319.183
30.0	312.474
30.5	305.249
31.0	298.024
31.5	290.541
32.0	283.317
32.5	276.092
33.0	268.867
33.5	261.900
34.0	254.778
34.5	247.837
35.0	241.000
35.5	234.213
36.0	227.531
36.5	220.899
37.0	214.371
37.5	207.946
38.0	201.624
38.5	195.303
39.0	189.136
39.5	183.020
40.0	177.034
40.5	171.099
41.0	165.320
41.5	159.617
42.0	154.121
42.5	148.702
43.0	143.490
43.5	138.433
44.0	133.530
44.5	128.834
45.0	124.319
45.5	119.984
46.0	115.855
46.5	111.933
47.0	108.192
47.5	104.657
48.0	101.302
48.5	98.103
49.0	95.084
49.5	92.194
50.0	89.485
50.5	86.879
51.0	84.427
51.5	82.079
52.0	79.834
52.5	77.667
53.0	75.577
53.5	73.538
54.0	71.577
54.5	69.668

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**CANDELA TABULATION - (Cont.)**

55.0	67.784
55.5	66.004
56.0	64.301
56.5	62.624
57.0	60.947
57.5	59.295
58.0	57.644
58.5	55.992
59.0	54.393
59.5	52.844
60.0	51.296
60.5	49.800
61.0	48.303
61.5	46.884
62.0	45.465
62.5	44.097
63.0	42.756
63.5	41.440
64.0	40.098
64.5	38.859
65.0	37.621
65.5	36.408
66.0	35.195
66.5	34.034
67.0	32.899
67.5	31.789
68.0	30.706
68.5	29.622
69.0	28.564
69.5	27.532
70.0	26.525
70.5	25.545
71.0	24.564
71.5	23.610
72.0	22.681
72.5	21.778
73.0	20.875
73.5	20.023
74.0	19.172
74.5	18.320
75.0	17.494
75.5	16.695
76.0	15.920
76.5	15.146
77.0	14.398
77.5	13.650
78.0	12.953
78.5	12.231
79.0	11.534
79.5	10.863
80.0	10.192
80.5	9.547
81.0	8.902
81.5	8.283
82.0	7.689
82.5	7.096

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CANDELA TABULATION - (Cont.)

83.0	6.502
83.5	5.935
84.0	5.393
84.5	4.825
85.0	4.309
85.5	3.793
86.0	3.277
86.5	2.787
87.0	2.296
87.5	1.832
88.0	1.393
88.5	0.955
89.0	0.568
89.5	0.258
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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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
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
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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	173.39	N.A.	24.20
0-30	345.63	N.A.	48.30
0-40	496.09	N.A.	69.30
0-60	655.03	N.A.	91.40
0-80	711.39	N.A.	99.30
0-90	716.32	N.A.	100.00
10-90	670.43	N.A.	93.60
20-40	322.70	N.A.	45.00
20-50	420.37	N.A.	58.70
40-70	196.55	N.A.	27.40
60-80	56.36	N.A.	7.90
70-80	18.75	N.A.	2.60
80-90	4.94	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	716.32	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	45.89
10-20	127.50
20-30	172.24
30-40	150.45
40-50	97.68
50-60	61.27
60-70	37.60
70-80	18.75
80-90	4.94
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	105	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	95	87	81	76	84	79	75	82	77	74	79	76	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	83	73	66	61	71	65	60	69	64	60	67	63	59	57
6	79	68	61	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	43	39	37

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**UGR TABLE - CORRECTED**

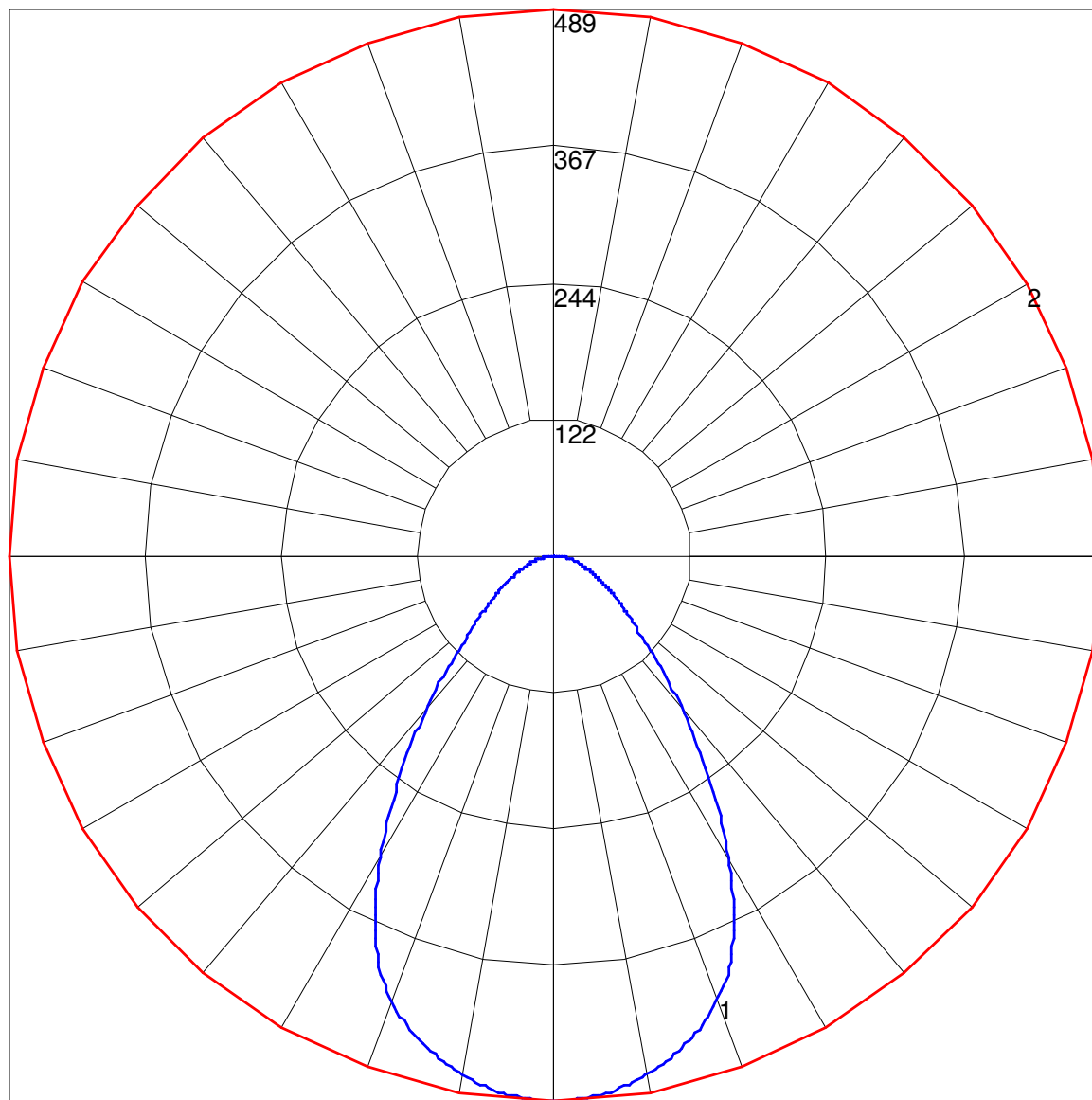
Reflectances

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	17.6	18.9	17.9	19.2	19.5	17.6	18.9	17.9	19.2	19.5
	3H	18.8	20.0	19.2	20.3	20.7	18.8	20.0	19.2	20.3	20.7
	4H	19.2	20.3	19.6	20.7	21.1	19.2	20.3	19.6	20.7	21.1
	6H	19.5	20.5	19.9	20.9	21.3	19.5	20.5	19.9	20.9	21.3
	8H	19.6	20.6	20.1	21.0	21.4	19.6	20.6	20.1	21.0	21.4
	12H	19.7	20.6	20.1	21.0	21.4	19.7	20.6	20.1	21.0	21.4
4H	2H	18.0	19.1	18.4	19.4	19.8	18.0	19.1	18.4	19.4	19.8
	3H	19.4	20.3	19.8	20.7	21.1	19.4	20.3	19.8	20.7	21.1
	4H	20.0	20.8	20.4	21.2	21.6	20.0	20.8	20.4	21.2	21.6
	6H	20.4	21.1	20.8	21.5	22.0	20.4	21.1	20.8	21.5	22.0
	8H	20.5	21.1	20.9	21.6	22.1	20.5	21.1	20.9	21.6	22.1
	12H	20.6	21.1	21.1	21.6	22.1	20.6	21.1	21.1	21.6	22.1
8H	4H	20.1	20.8	20.6	21.2	21.7	20.1	20.8	20.6	21.2	21.7
	6H	20.6	21.2	21.1	21.7	22.1	20.6	21.2	21.1	21.7	22.1
	8H	20.8	21.3	21.3	21.8	22.3	20.8	21.3	21.3	21.8	22.3
	12H	21.0	21.4	21.5	21.9	22.4	21.0	21.4	21.5	21.9	22.4
12H	4H	20.1	20.7	20.6	21.2	21.6	20.1	20.7	20.6	21.2	21.6
	6H	20.6	21.1	21.2	21.6	22.1	20.6	21.1	21.2	21.6	22.1
	8H	20.9	21.3	21.4	21.8	22.4	20.9	21.3	21.4	21.8	22.4

Maximum UGR = 22.4

POLAR GRAPH



Maximum Candela = 488.708 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.)