

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4LDR-L10-830-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-L10-830-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	854
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	92
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	20418	20418	20418
55	13725	13725	13725
65	10338	10338	10338
75	7850	7850	7850
85	5742	5742	5742

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CANDELA TABULATION

	<u>0</u>
0.0	582.609
0.5	582.917
1.0	582.609
1.5	582.301
2.0	581.993
2.5	581.686
3.0	581.070
3.5	580.455
4.0	579.839
4.5	578.916
5.0	578.300
5.5	577.069
6.0	576.454
6.5	574.915
7.0	573.684
7.5	572.145
8.0	570.914
8.5	569.375
9.0	567.528
9.5	565.682
10.0	564.143
10.5	562.296
11.0	560.450
11.5	558.295
12.0	555.833
12.5	553.679
13.0	551.524
13.5	548.754
14.0	546.292
14.5	543.830
15.0	541.060
15.5	538.290
16.0	535.212
16.5	532.442
17.0	529.365
17.5	525.979
18.0	522.902
18.5	519.516
19.0	515.823
19.5	512.130
20.0	508.129
20.5	504.128
21.0	499.819
21.5	494.894
22.0	489.970
22.5	484.738
23.0	479.198
23.5	473.043
24.0	466.272
24.5	459.809
25.0	452.422
25.5	445.036
26.0	437.957
26.5	429.955

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CANDELA TABULATION - (Cont.)

27.0	421.953
27.5	413.335
28.0	405.026
28.5	396.716
29.0	388.406
29.5	380.712
30.0	372.710
30.5	364.092
31.0	355.475
31.5	346.549
32.0	337.932
32.5	329.314
33.0	320.697
33.5	312.387
34.0	303.892
34.5	295.613
35.0	287.457
35.5	279.363
36.0	271.392
36.5	263.482
37.0	255.695
37.5	248.032
38.0	240.492
38.5	232.951
39.0	225.596
39.5	218.301
40.0	211.161
40.5	204.082
41.0	197.188
41.5	190.387
42.0	183.831
42.5	177.368
43.0	171.151
43.5	165.119
44.0	159.271
44.5	153.670
45.0	148.284
45.5	143.113
46.0	138.189
46.5	133.511
47.0	129.048
47.5	124.832
48.0	120.831
48.5	117.014
49.0	113.413
49.5	109.966
50.0	106.735
50.5	103.626
51.0	100.702
51.5	97.902
52.0	95.224
52.5	92.639
53.0	90.146
53.5	87.715
54.0	85.375
54.5	83.098

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CANDELA TABULATION - (Cont.)

55.0	80.851
55.5	78.728
56.0	76.696
56.5	74.696
57.0	72.695
57.5	70.726
58.0	68.756
58.5	66.786
59.0	64.878
59.5	63.031
60.0	61.185
60.5	59.400
61.0	57.615
61.5	55.922
62.0	54.229
62.5	52.598
63.0	50.998
63.5	49.428
64.0	47.827
64.5	46.350
65.0	44.873
65.5	43.426
66.0	41.980
66.5	40.595
67.0	39.241
67.5	37.917
68.0	36.625
68.5	35.332
69.0	34.070
69.5	32.839
70.0	31.639
70.5	30.469
71.0	29.300
71.5	28.161
72.0	27.053
72.5	25.976
73.0	24.899
73.5	23.883
74.0	22.867
74.5	21.852
75.0	20.867
75.5	19.913
76.0	18.989
76.5	18.066
77.0	17.174
77.5	16.281
78.0	15.450
78.5	14.588
79.0	13.757
79.5	12.957
80.0	12.157
80.5	11.387
81.0	10.618
81.5	9.879
82.0	9.172
82.5	8.464

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CANDELA TABULATION - (Cont.)

83.0	7.756
83.5	7.079
84.0	6.432
84.5	5.755
85.0	5.140
85.5	4.524
86.0	3.909
86.5	3.324
87.0	2.739
87.5	2.185
88.0	1.662
88.5	1.139
89.0	0.677
89.5	0.308
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
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118.5	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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152.0	0.000
152.5	0.000
153.0	0.000
153.5	0.000
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155.0	0.000
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158.0	0.000
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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	206.81	N.A.	24.20
0-30	412.26	N.A.	48.30
0-40	591.72	N.A.	69.30
0-60	781.30	N.A.	91.40
0-80	848.52	N.A.	99.30
0-90	854.41	N.A.	100.00
10-90	799.67	N.A.	93.60
20-40	384.90	N.A.	45.00
20-50	501.41	N.A.	58.70
40-70	234.43	N.A.	27.40
60-80	67.22	N.A.	7.90
70-80	22.37	N.A.	2.60
80-90	5.89	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	854.41	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	54.74
10-20	152.07
20-30	205.45
30-40	179.46
40-50	116.50
50-60	73.08
60-70	44.85
70-80	22.37
80-90	5.89
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

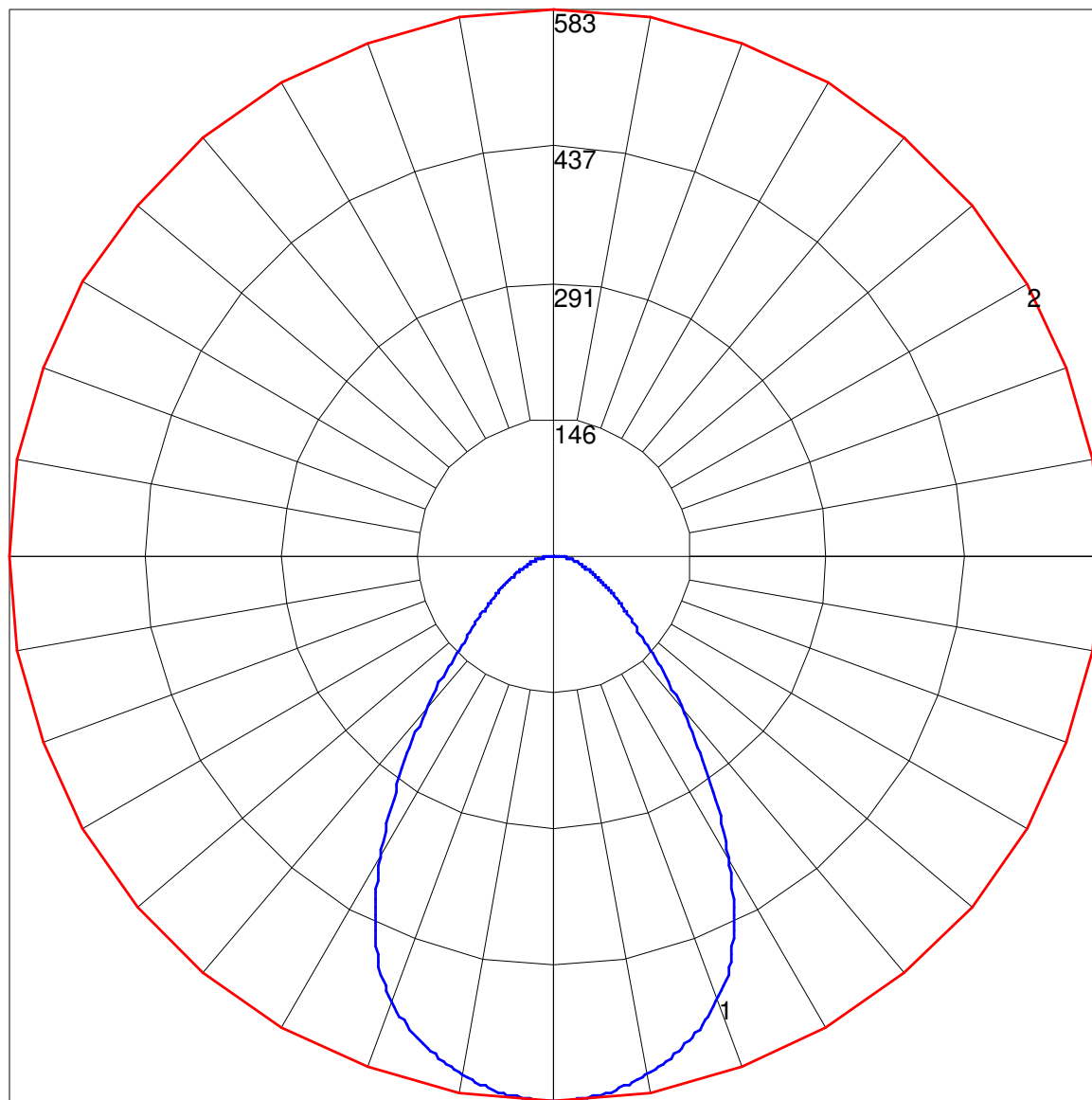
Reflectances

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	18.2	19.5	18.5	19.8	20.1	18.2	19.5	18.5	19.8	20.1
	3H	19.4	20.6	19.8	20.9	21.3	19.4	20.6	19.8	20.9	21.3
	4H	19.8	20.9	20.2	21.3	21.7	19.8	20.9	20.2	21.3	21.7
	6H	20.1	21.1	20.5	21.5	21.9	20.1	21.1	20.5	21.5	21.9
	8H	20.2	21.2	20.7	21.6	22.0	20.2	21.2	20.7	21.6	22.0
	12H	20.3	21.2	20.7	21.6	22.0	20.3	21.2	20.7	21.6	22.0
4H	2H	18.6	19.7	19.0	20.0	20.4	18.6	19.7	19.0	20.0	20.4
	3H	20.0	20.9	20.4	21.3	21.7	20.0	20.9	20.4	21.3	21.7
	4H	20.5	21.4	21.0	21.8	22.2	20.5	21.4	21.0	21.8	22.2
	6H	21.0	21.7	21.4	22.1	22.6	21.0	21.7	21.4	22.1	22.6
	8H	21.1	21.7	21.5	22.2	22.6	21.1	21.7	21.5	22.2	22.6
	12H	21.2	21.7	21.7	22.2	22.7	21.2	21.7	21.7	22.2	22.7
8H	4H	20.7	21.4	21.2	21.8	22.3	20.7	21.4	21.2	21.8	22.3
	6H	21.2	21.8	21.7	22.2	22.7	21.2	21.8	21.7	22.2	22.7
	8H	21.4	21.9	21.9	22.4	22.9	21.4	21.9	21.9	22.4	22.9
	12H	21.5	22.0	22.1	22.5	23.0	21.5	22.0	22.1	22.5	23.0
12H	4H	20.7	21.3	21.2	21.8	22.2	20.7	21.3	21.2	21.8	22.2
	6H	21.2	21.7	21.8	22.2	22.7	21.2	21.7	21.8	22.2	22.7
	8H	21.5	21.9	22.0	22.4	23.0	21.5	21.9	22.0	22.4	23.0

Maximum UGR = 23.0

POLAR GRAPH



Maximum Candela = 582.917 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.)