

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4LDR-L15-930-CS-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM 4792018053.01
[TESTLAB] UL, LLC
[ISSUE DATE] 2025-12-10
[TEST DATE] 11/12/2025
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC.
[LUMCAT] 4LDR-L15-930-CS-DIM-UNV
[LUMINAIRE] 4" recessed downlight with clear semi-specular finish refl
[MORE] ector 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	1258
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	91
Total Luminaire Watts	13.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.96
Spacing Criterion (90-270)	0.96
Spacing Criterion (Diagonal)	0.96
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	27361	27361	27361
55	8515	8515	8515
65	330	330	330
75	131	131	131
85	260	260	260

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CANDELA TABULATION

	<u>0</u>
0.0	1155.156
0.5	1155.156
1.0	1155.156
1.5	1155.544
2.0	1155.932
2.5	1156.319
3.0	1157.482
3.5	1158.258
4.0	1158.258
4.5	1159.033
5.0	1159.420
5.5	1159.033
6.0	1157.870
6.5	1156.707
7.0	1154.381
7.5	1150.892
8.0	1147.404
8.5	1143.527
9.0	1138.488
9.5	1133.061
10.0	1126.859
10.5	1119.882
11.0	1112.516
11.5	1103.988
12.0	1095.073
12.5	1085.770
13.0	1076.079
13.5	1066.000
14.0	1055.534
14.5	1044.292
15.0	1032.663
15.5	1020.647
16.0	1008.242
16.5	996.226
17.0	984.209
17.5	972.192
18.0	960.563
18.5	948.546
19.0	936.917
19.5	926.063
20.0	914.434
20.5	903.580
21.0	892.339
21.5	881.098
22.0	869.856
22.5	858.227
23.0	846.210
23.5	833.806
24.0	821.014
24.5	807.834
25.0	794.267
25.5	780.312
26.0	765.970
26.5	750.852

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CANDELA TABULATION - (Cont.)

27.0	735.734
27.5	720.228
28.0	703.948
28.5	687.667
29.0	671.386
29.5	654.718
30.0	637.662
30.5	620.994
31.0	603.938
31.5	586.881
32.0	570.213
32.5	553.545
33.0	536.876
33.5	520.596
34.0	504.315
34.5	488.809
35.0	473.304
35.5	458.574
36.0	442.681
36.5	427.175
37.0	411.670
37.5	396.552
38.0	381.706
38.5	366.898
39.0	352.284
39.5	337.903
40.0	323.754
40.5	309.838
41.0	296.154
41.5	282.820
42.0	269.717
42.5	257.003
43.0	244.599
43.5	232.543
44.0	220.953
44.5	209.595
45.0	198.702
45.5	188.159
46.0	178.041
46.5	168.312
47.0	158.970
47.5	150.015
48.0	141.410
48.5	133.192
49.0	125.284
49.5	117.686
50.0	110.399
50.5	103.460
51.0	96.754
51.5	90.319
52.0	84.078
52.5	78.070
53.0	72.294
53.5	66.596
54.0	61.091
54.5	55.626

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CANDELA TABULATION - (Cont.)

55.0	50.160
55.5	44.617
56.0	39.035
56.5	33.569
57.0	28.375
57.5	23.530
58.0	19.110
58.5	15.118
59.0	11.590
59.5	8.644
60.0	6.357
60.5	4.690
61.0	3.566
61.5	2.946
62.0	2.520
62.5	2.248
63.0	2.016
63.5	1.861
64.0	1.706
64.5	1.551
65.0	1.434
65.5	1.318
66.0	1.240
66.5	1.163
67.0	1.047
67.5	1.008
68.0	0.930
68.5	0.853
69.0	0.814
69.5	0.737
70.0	0.698
70.5	0.659
71.0	0.620
71.5	0.581
72.0	0.543
72.5	0.504
73.0	0.465
73.5	0.426
74.0	0.426
74.5	0.388
75.0	0.349
75.5	0.349
76.0	0.310
76.5	0.310
77.0	0.310
77.5	0.271
78.0	0.271
78.5	0.233
79.0	0.233
79.5	0.233
80.0	0.233
80.5	0.233
81.0	0.233
81.5	0.233
82.0	0.233
82.5	0.194

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CANDELA TABULATION - (Cont.)

83.0	0.233
83.5	0.233
84.0	0.233
84.5	0.233
85.0	0.233
85.5	0.233
86.0	0.233
86.5	0.233
87.0	0.233
87.5	0.271
88.0	0.271
88.5	0.271
89.0	0.271
89.5	0.233
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
132.0	0.000
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	397.83	N.A.	31.60
0-30	758.48	N.A.	60.30
0-40	1053.27	N.A.	83.70
0-60	1255.32	N.A.	99.80
0-80	1257.56	N.A.	100.00
0-90	1257.81	N.A.	100.00
10-90	1148.1	N.A.	91.30
20-40	655.44	N.A.	52.10
20-50	811.80	N.A.	64.50
40-70	203.87	N.A.	16.20
60-80	2.24	N.A.	0.20
70-80	0.42	N.A.	0.00
80-90	0.25	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	1257.81	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	109.72
10-20	288.11
20-30	360.64
30-40	294.79
40-50	156.36
50-60	45.70
60-70	1.82
70-80	0.42
80-90	0.25
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	110	107	105	111	108	106	103	104	102	100	100	99	97	97	96	94	93
2	107	102	97	94	105	100	96	93	97	93	91	94	91	89	91	89	87	85
3	101	94	89	84	99	93	88	84	90	86	82	87	84	81	85	82	80	78
4	95	87	81	76	93	86	80	76	84	79	75	82	77	74	80	76	73	72
5	90	81	74	70	88	80	74	69	78	73	69	76	72	68	75	71	68	66
6	85	75	69	64	83	74	68	64	73	67	63	71	66	63	70	66	62	61
7	80	70	64	59	79	69	63	59	68	62	58	67	62	58	66	61	58	56
8	76	65	59	55	74	65	59	54	64	58	54	63	58	54	62	57	54	52
9	72	61	55	51	71	61	55	51	60	54	50	59	54	50	58	53	50	49
10	68	58	51	47	67	57	51	47	56	51	47	56	51	47	55	50	47	45

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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

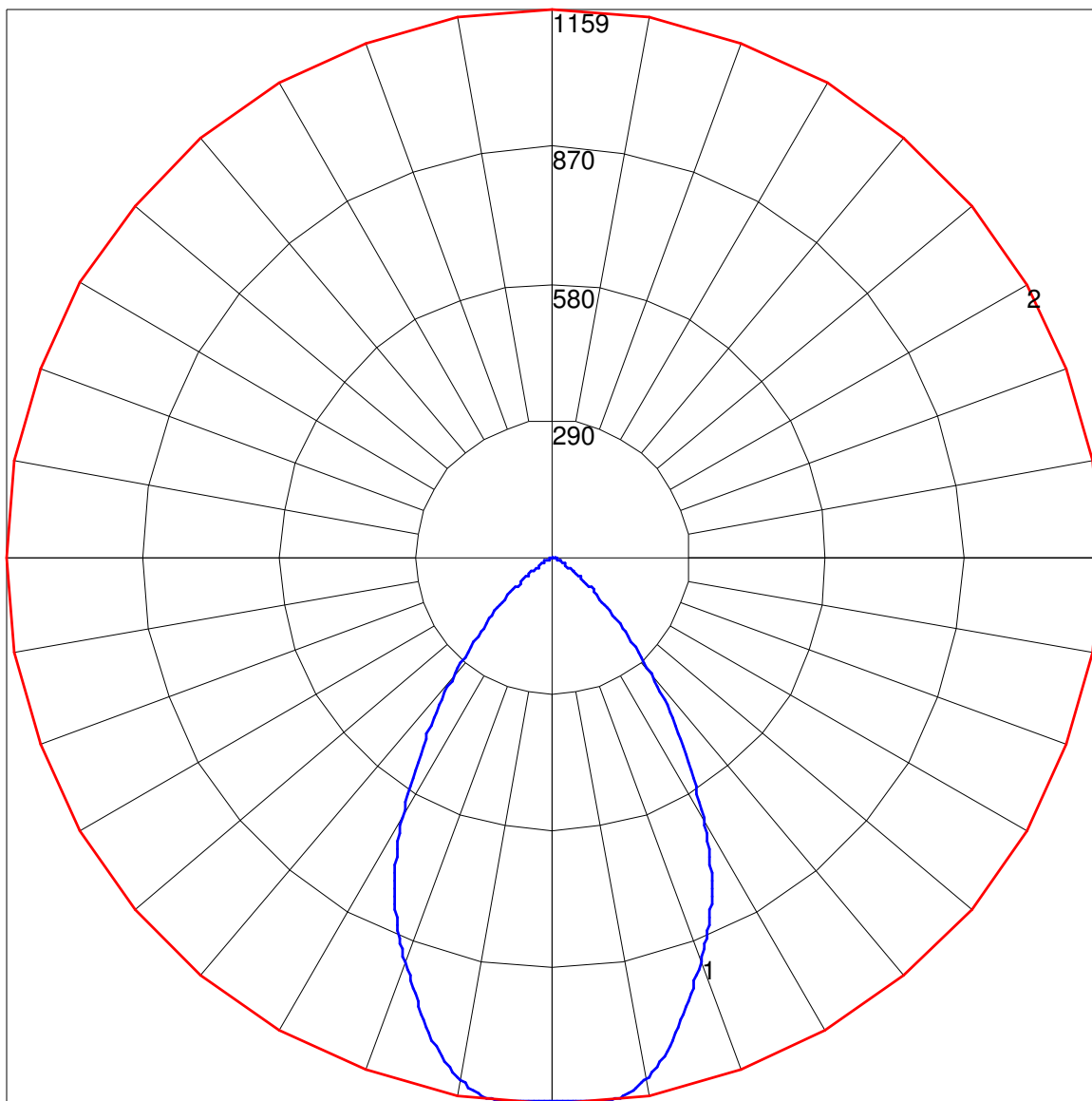
X=2H	Y=2H	9.0	10.1	9.4	10.4	10.7	9.0	10.1	9.4	10.4	10.7
	3H	8.9	9.8	9.3	10.1	10.5	8.9	9.8	9.3	10.1	10.5
	4H	8.8	9.7	9.2	10.0	10.4	8.8	9.7	9.2	10.0	10.4
	6H	8.7	9.5	9.1	9.9	10.2	8.7	9.5	9.1	9.9	10.2
	8H	8.6	9.4	9.1	9.8	10.2	8.6	9.4	9.1	9.8	10.2
	12H	8.6	9.3	9.0	9.7	10.1	8.6	9.3	9.0	9.7	10.1

UGR Viewed Endwise

4H	2H	8.8	9.6	9.2	10.0	10.4	8.8	9.6	9.2	10.0	10.4
	3H	8.6	9.3	9.0	9.7	10.1	8.6	9.3	9.0	9.7	10.1
	4H	8.5	9.1	8.9	9.5	10.0	8.5	9.1	8.9	9.5	10.0
	6H	8.4	8.9	8.9	9.4	9.8	8.4	8.9	8.9	9.4	9.8
	8H	8.3	8.8	8.8	9.3	9.7	8.3	8.8	8.8	9.3	9.7
	12H	8.3	8.7	8.8	9.2	9.7	8.3	8.7	8.8	9.2	9.7
8H	4H	8.3	8.8	8.8	9.3	9.7	8.3	8.8	8.8	9.3	9.7
	6H	8.2	8.6	8.7	9.1	9.6	8.2	8.6	8.7	9.1	9.6
	8H	8.1	8.5	8.7	9.0	9.5	8.1	8.5	8.7	9.0	9.5
	12H	8.1	8.4	8.6	8.9	9.5	8.1	8.4	8.6	8.9	9.5
12H	4H	8.3	8.7	8.7	9.2	9.7	8.3	8.7	8.7	9.2	9.7
	6H	8.1	8.5	8.7	9.0	9.5	8.1	8.5	8.7	9.0	9.5
	8H	8.1	8.4	8.6	8.9	9.5	8.1	8.4	8.6	8.9	9.5

Maximum UGR = 10.7

POLAR GRAPH



Maximum Candela = 1159.42 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.)