

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4LDR-L15-940-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-L15-940-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	1319
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	96
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	28695	28695	28695
55	8930	8930	8930
65	347	347	347
75	138	138	138
85	273	273	273

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CANDELA TABULATION

	<u>0</u>
0.0	1211.506
0.5	1211.506
1.0	1211.506
1.5	1211.912
2.0	1212.319
2.5	1212.725
3.0	1213.945
3.5	1214.758
4.0	1214.758
4.5	1215.571
5.0	1215.978
5.5	1215.571
6.0	1214.351
6.5	1213.132
7.0	1210.692
7.5	1207.034
8.0	1203.375
8.5	1199.309
9.0	1194.024
9.5	1188.332
10.0	1181.828
10.5	1174.510
11.0	1166.786
11.5	1157.842
12.0	1148.491
12.5	1138.734
13.0	1128.570
13.5	1118.000
14.0	1107.023
14.5	1095.234
15.0	1083.037
15.5	1070.434
16.0	1057.425
16.5	1044.822
17.0	1032.219
17.5	1019.616
18.0	1007.420
18.5	994.817
19.0	982.620
19.5	971.237
20.0	959.041
20.5	947.658
21.0	935.868
21.5	924.078
22.0	912.288
22.5	900.092
23.0	887.489
23.5	874.479
24.0	861.063
24.5	847.241
25.0	833.012
25.5	818.376
26.0	803.334
26.5	787.479

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4LDR-L15-940-CS-DIM-UNV_.IES

CANDELA TABULATION - (Cont.)

27.0	771.623
27.5	755.362
28.0	738.287
28.5	721.212
29.0	704.137
29.5	686.655
30.0	668.767
30.5	651.286
31.0	633.398
31.5	615.510
32.0	598.028
32.5	580.547
33.0	563.066
33.5	545.991
34.0	528.916
34.5	512.654
35.0	496.392
35.5	480.943
36.0	464.275
36.5	448.013
37.0	431.751
37.5	415.896
38.0	400.325
38.5	384.795
39.0	369.469
39.5	354.386
40.0	339.547
40.5	324.952
41.0	310.601
41.5	296.616
42.0	282.874
42.5	269.540
43.0	256.530
43.5	243.887
44.0	231.731
44.5	219.819
45.0	208.395
45.5	197.337
46.0	186.726
46.5	176.522
47.0	166.724
47.5	157.333
48.0	148.308
48.5	139.689
49.0	131.396
49.5	123.427
50.0	115.784
50.5	108.507
51.0	101.474
51.5	94.725
52.0	88.180
52.5	81.878
53.0	75.821
53.5	69.845
54.0	64.072
54.5	58.339

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PHOTOMETRIC FILENAME : 4LDR-L15-940-CS-DIM-UNV_.IES

CANDELA TABULATION - (Cont.)

55.0	52.607
55.5	46.793
56.0	40.939
56.5	35.207
57.0	29.759
57.5	24.677
58.0	20.043
58.5	15.855
59.0	12.156
59.5	9.066
60.0	6.667
60.5	4.919
61.0	3.740
61.5	3.090
62.0	2.643
62.5	2.358
63.0	2.114
63.5	1.951
64.0	1.789
64.5	1.626
65.0	1.504
65.5	1.382
66.0	1.301
66.5	1.220
67.0	1.098
67.5	1.057
68.0	0.976
68.5	0.894
69.0	0.854
69.5	0.772
70.0	0.732
70.5	0.691
71.0	0.650
71.5	0.610
72.0	0.569
72.5	0.529
73.0	0.488
73.5	0.447
74.0	0.447
74.5	0.407
75.0	0.366
75.5	0.366
76.0	0.325
76.5	0.325
77.0	0.325
77.5	0.285
78.0	0.285
78.5	0.244
79.0	0.244
79.5	0.244
80.0	0.244
80.5	0.244
81.0	0.244
81.5	0.244
82.0	0.244
82.5	0.203

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4LDR-L15-940-CS-DIM-UNV_.IES

CANDELA TABULATION - (Cont.)

83.0	0.244
83.5	0.244
84.0	0.244
84.5	0.244
85.0	0.244
85.5	0.244
86.0	0.244
86.5	0.244
87.0	0.244
87.5	0.285
88.0	0.285
88.5	0.285
89.0	0.285
89.5	0.244
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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PHOTOMETRIC FILENAME : 4LDR-L15-940-CS-DIM-UNV_.IES

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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4LDR-L15-940-CS-DIM-UNV_.IES

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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PHOTOMETRIC FILENAME : 4LDR-L15-940-CS-DIM-UNV_.IES

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	417.24	N.A.	31.60
0-30	795.47	N.A.	60.30
0-40	1104.65	N.A.	83.70
0-60	1316.56	N.A.	99.80
0-80	1318.9	N.A.	100.00
0-90	1319.17	N.A.	100.00
10-90	1204.1	N.A.	91.30
20-40	687.41	N.A.	52.10
20-50	851.40	N.A.	64.50
40-70	213.82	N.A.	16.20
60-80	2.35	N.A.	0.20
70-80	0.44	N.A.	0.00
80-90	0.27	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	1319.17	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	115.07
10-20	302.17
20-30	378.24
30-40	309.17
40-50	163.98
50-60	47.92
60-70	1.91
70-80	0.44
80-90	0.27
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	108	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

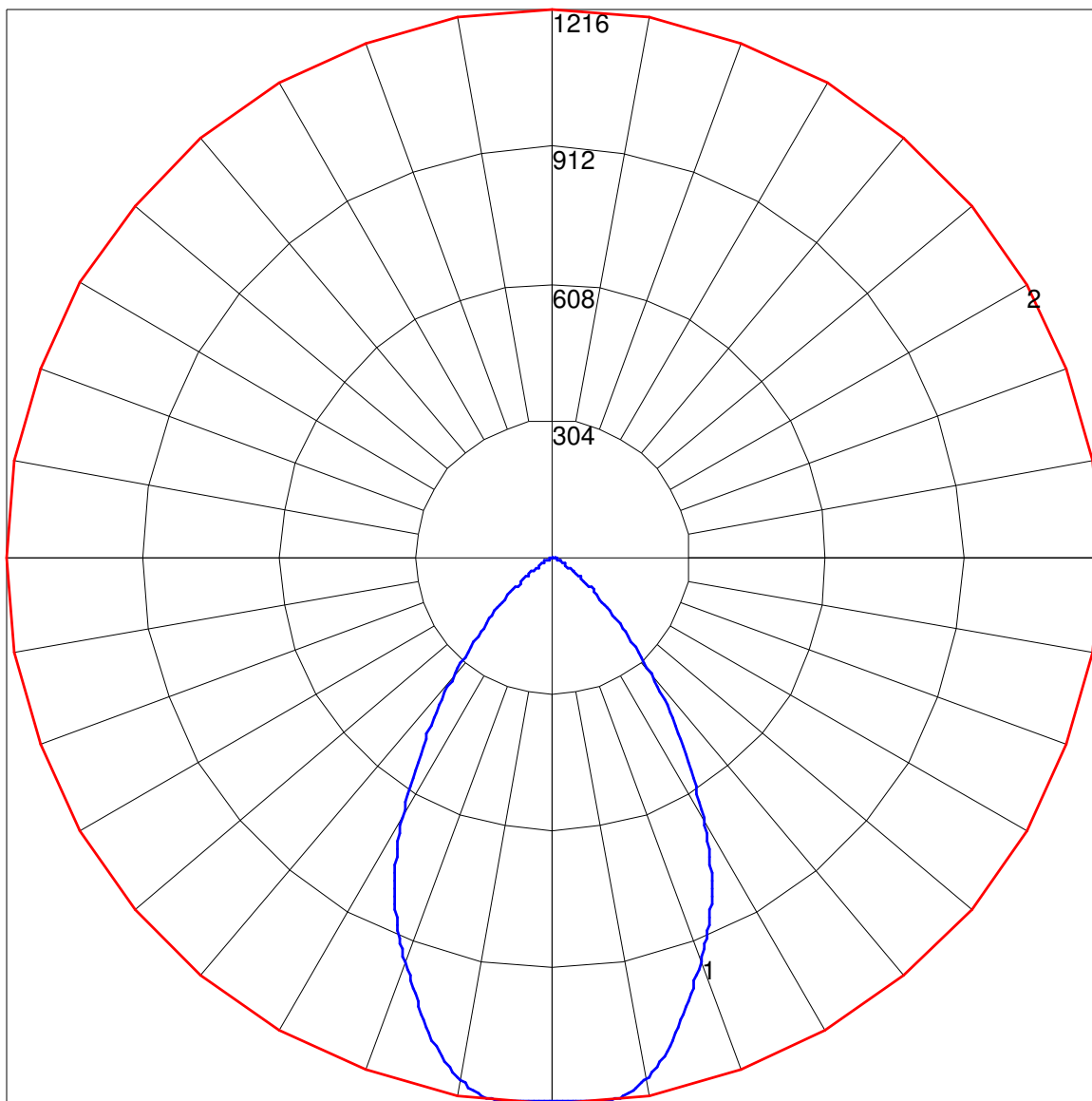
X=2H	Y=2H	9.2	10.3	9.6	10.6	10.9	9.2	10.3	9.6	10.6	10.9
	3H	9.1	10.0	9.5	10.3	10.7	9.1	10.0	9.5	10.3	10.7
	4H	9.0	9.9	9.4	10.2	10.6	9.0	9.9	9.4	10.2	10.6
	6H	8.9	9.7	9.3	10.0	10.4	8.9	9.7	9.3	10.0	10.4
	8H	8.8	9.6	9.3	10.0	10.4	8.8	9.6	9.3	10.0	10.4
	12H	8.8	9.5	9.2	9.9	10.3	8.8	9.5	9.2	9.9	10.3

UGR Viewed Endwise

4H	2H	9.0	9.8	9.4	10.2	10.6	9.0	9.8	9.4	10.2	10.6
	3H	8.8	9.5	9.2	9.9	10.3	8.8	9.5	9.2	9.9	10.3
	4H	8.7	9.3	9.1	9.7	10.2	8.7	9.3	9.1	9.7	10.2
	6H	8.6	9.1	9.1	9.6	10.0	8.6	9.1	9.1	9.6	10.0
	8H	8.5	9.0	9.0	9.5	9.9	8.5	9.0	9.0	9.5	9.9
	12H	8.5	8.9	9.0	9.4	9.9	8.5	8.9	9.0	9.4	9.9
8H	4H	8.5	9.0	9.0	9.5	9.9	8.5	9.0	9.0	9.5	9.9
	6H	8.4	8.8	8.9	9.3	9.8	8.4	8.8	8.9	9.3	9.8
	8H	8.3	8.7	8.9	9.2	9.7	8.3	8.7	8.9	9.2	9.7
	12H	8.3	8.6	8.8	9.1	9.7	8.3	8.6	8.8	9.1	9.7
12H	4H	8.5	8.9	8.9	9.4	9.9	8.5	8.9	8.9	9.4	9.9
	6H	8.3	8.7	8.9	9.2	9.7	8.3	8.7	8.9	9.2	9.7
	8H	8.3	8.6	8.8	9.1	9.7	8.3	8.6	8.8	9.1	9.7

Maximum UGR = 10.9

POLAR GRAPH



Maximum Candela = 1215.978 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.)