

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4LDR-L15-940-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-L15-940-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	1120
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	81
Total Luminaire Watts	13.8
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	26760	26760	26760
55	17987	17987	17987
65	13549	13549	13549
75	10288	10288	10288
85	7525	7525	7525

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CANDELA TABULATION

	<u>0</u>
0.0	763.556
0.5	763.959
1.0	763.556
1.5	763.152
2.0	762.749
2.5	762.345
3.0	761.539
3.5	760.732
4.0	759.925
4.5	758.715
5.0	757.909
5.5	756.295
6.0	755.488
6.5	753.472
7.0	751.858
7.5	749.841
8.0	748.228
8.5	746.211
9.0	743.791
9.5	741.371
10.0	739.354
10.5	736.934
11.0	734.514
11.5	731.690
12.0	728.463
12.5	725.640
13.0	722.816
13.5	719.186
14.0	715.959
14.5	712.733
15.0	709.102
15.5	705.472
16.0	701.438
16.5	697.808
17.0	693.775
17.5	689.338
18.0	685.304
18.5	680.867
19.0	676.027
19.5	671.187
20.0	665.943
20.5	660.699
21.0	655.052
21.5	648.599
22.0	642.145
22.5	635.288
23.0	628.027
23.5	619.960
24.0	611.086
24.5	602.616
25.0	592.935
25.5	583.255
26.0	573.978
26.5	563.490

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CANDELA TABULATION - (Cont.)

27.0	553.003
27.5	541.709
28.0	530.818
28.5	519.928
29.0	509.037
29.5	498.953
30.0	488.466
30.5	477.172
31.0	465.878
31.5	454.180
32.0	442.886
32.5	431.592
33.0	420.298
33.5	409.408
34.0	398.275
34.5	387.425
35.0	376.736
35.5	366.127
36.0	355.681
36.5	345.314
37.0	335.109
37.5	325.066
38.0	315.183
38.5	305.301
39.0	295.661
39.5	286.101
40.0	276.744
40.5	267.466
41.0	258.431
41.5	249.517
42.0	240.925
42.5	232.455
43.0	224.307
43.5	216.401
44.0	208.737
44.5	201.396
45.0	194.338
45.5	187.561
46.0	181.107
46.5	174.976
47.0	169.128
47.5	163.602
48.0	158.358
48.5	153.356
49.0	148.637
49.5	144.120
50.0	139.884
50.5	135.810
51.0	131.979
51.5	128.308
52.0	124.799
52.5	121.411
53.0	118.143
53.5	114.957
54.0	111.891
54.5	108.906

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CANDELA TABULATION - (Cont.)

55.0	105.962
55.5	103.179
56.0	100.517
56.5	97.895
57.0	95.273
57.5	92.692
58.0	90.110
58.5	87.529
59.0	85.028
59.5	82.608
60.0	80.187
60.5	77.848
61.0	75.509
61.5	73.290
62.0	71.072
62.5	68.934
63.0	66.836
63.5	64.779
64.0	62.682
64.5	60.746
65.0	58.810
65.5	56.914
66.0	55.018
66.5	53.203
67.0	51.428
67.5	49.694
68.0	48.000
68.5	46.305
69.0	44.652
69.5	43.038
70.0	41.465
70.5	39.932
71.0	38.400
71.5	36.907
72.0	35.455
72.5	34.043
73.0	32.632
73.5	31.301
74.0	29.969
74.5	28.638
75.0	27.348
75.5	26.097
76.0	24.887
76.5	23.677
77.0	22.507
77.5	21.338
78.0	20.249
78.5	19.119
79.0	18.030
79.5	16.981
80.0	15.933
80.5	14.924
81.0	13.916
81.5	12.948
82.0	12.020
82.5	11.092

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CANDELA TABULATION - (Cont.)

83.0	10.165
83.5	9.277
84.0	8.430
84.5	7.543
85.0	6.736
85.5	5.929
86.0	5.123
86.5	4.356
87.0	3.590
87.5	2.864
88.0	2.178
88.5	1.492
89.0	0.887
89.5	0.403
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
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127.0	0.000
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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
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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	271.05	N.A.	24.20
0-30	540.30	N.A.	48.30
0-40	775.49	N.A.	69.30
0-60	1023.96	N.A.	91.40
0-80	1112.06	N.A.	99.30
0-90	1119.77	N.A.	100.00
10-90	1048.03	N.A.	93.60
20-40	504.45	N.A.	45.00
20-50	657.14	N.A.	58.70
40-70	307.25	N.A.	27.40
60-80	88.10	N.A.	7.90
70-80	29.32	N.A.	2.60
80-90	7.71	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	1119.77	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	71.74
10-20	199.31
20-30	269.26
30-40	235.19
40-50	152.69
50-60	95.78
60-70	58.78
70-80	29.32
80-90	7.71
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	104	101	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	94	87	81	76	84	79	75	81	77	74	79	75	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	82	73	66	61	71	65	60	69	64	60	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	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	42	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

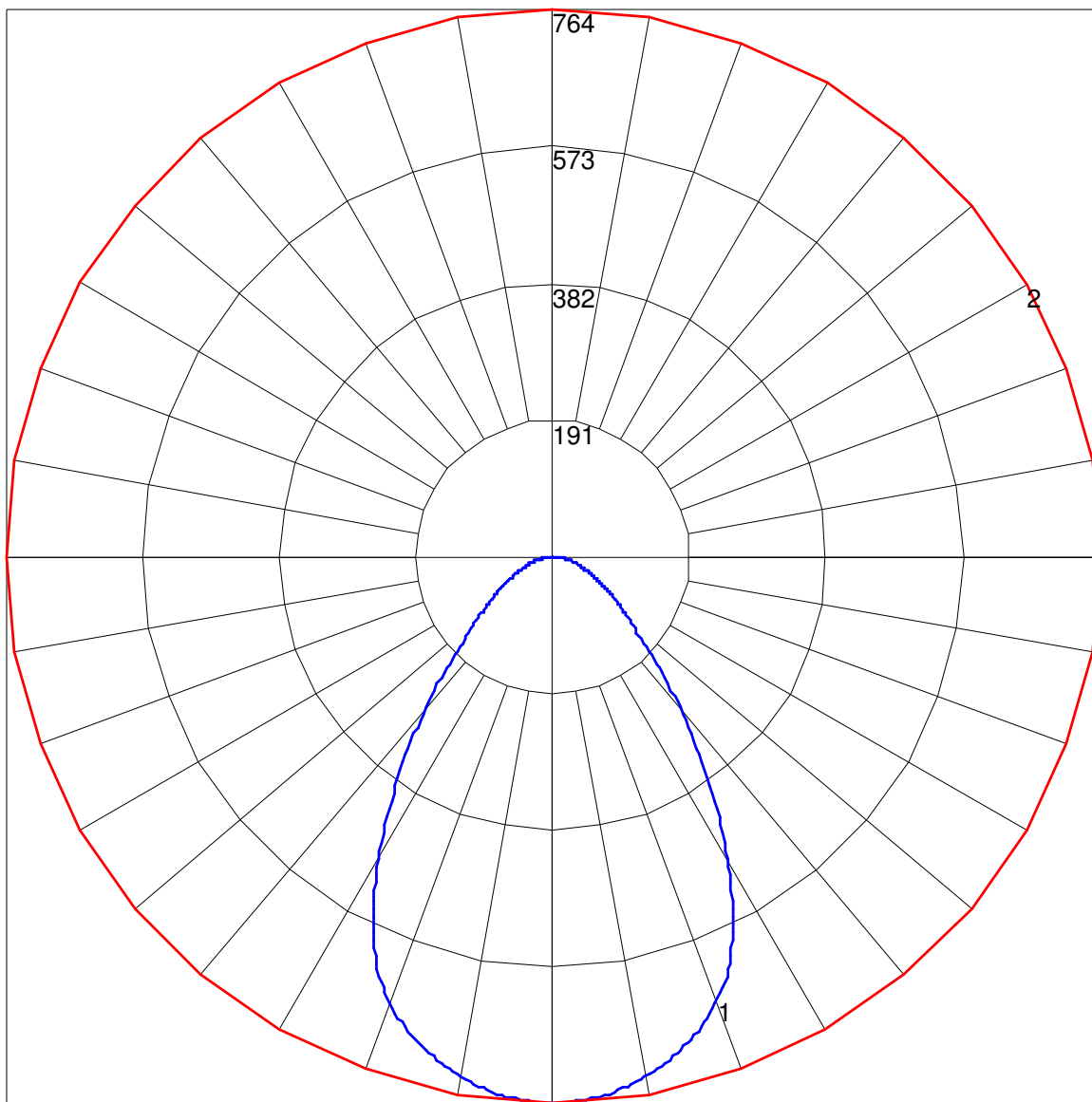
X=2H	Y=2H	19.1	20.4	19.4	20.7	21.0	19.1	20.4	19.4	20.7	21.0
	3H	20.3	21.5	20.7	21.8	22.2	20.3	21.5	20.7	21.8	22.2
	4H	20.7	21.8	21.1	22.2	22.6	20.7	21.8	21.1	22.2	22.6
	6H	21.0	22.0	21.4	22.4	22.8	21.0	22.0	21.4	22.4	22.8
	8H	21.1	22.1	21.6	22.5	22.9	21.1	22.1	21.6	22.5	22.9
	12H	21.2	22.1	21.6	22.5	22.9	21.2	22.1	21.6	22.5	22.9

UGR Viewed Endwise

4H	2H	19.5	20.6	19.9	20.9	21.3	19.5	20.6	19.9	20.9	21.3
	3H	20.9	21.8	21.3	22.2	22.6	20.9	21.8	21.3	22.2	22.6
	4H	21.5	22.3	21.9	22.7	23.1	21.5	22.3	21.9	22.7	23.1
	6H	21.9	22.6	22.3	23.0	23.5	21.9	22.6	22.3	23.0	23.5
	8H	22.0	22.6	22.4	23.1	23.6	22.0	22.6	22.4	23.1	23.6
	12H	22.1	22.6	22.6	23.1	23.6	22.1	22.6	22.6	23.1	23.6
8H	4H	21.6	22.3	22.1	22.7	23.2	21.6	22.3	22.1	22.7	23.2
	6H	22.1	22.7	22.6	23.2	23.6	22.1	22.7	22.6	23.2	23.6
	8H	22.3	22.8	22.8	23.3	23.8	22.3	22.8	22.8	23.3	23.8
	12H	22.5	22.9	23.0	23.4	23.9	22.5	22.9	23.0	23.4	23.9
12H	4H	21.6	22.2	22.1	22.7	23.1	21.6	22.2	22.1	22.7	23.1
	6H	22.1	22.6	22.7	23.1	23.6	22.1	22.6	22.7	23.1	23.6
	8H	22.4	22.8	22.9	23.3	23.9	22.4	22.8	22.9	23.3	23.9

Maximum UGR = 23.9

POLAR GRAPH



Maximum Candela = 763.959 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.)