

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L15-835-DIM-UNV-FM-OF-CS_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN FROM 12316380.04

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 09/12/2025

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.

[LUMCAT] 4DR-TL-L15-835-DIM-UNV-FM-OF-CS

[LUMINAIRE] Black formed aluminum housing, specular reflector, with lens

[MORE] enclosure

[LAMP] One white LED

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Corridor, Hotel, Industrial, Office, Downlight

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1103
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	79
Total Luminaire Watts	13.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.76
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	2739	2739	2739
55	795	795	795
65	279	279	279
75	125	125	125
85	61	61	61

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CANDELA TABULATION

	<u>0</u>
0.0	2232.400
0.5	2234.054
1.0	2240.667
1.5	2246.728
2.0	2260.505
2.5	2269.322
3.0	2270.976
3.5	2271.527
4.0	2258.852
4.5	2241.769
5.0	2209.255
5.5	2167.925
6.0	2121.635
6.5	2069.834
7.0	2013.624
7.5	1955.210
8.0	1895.143
8.5	1835.627
9.0	1777.213
9.5	1720.453
10.0	1666.448
10.5	1615.749
11.0	1568.356
11.5	1523.719
12.0	1481.287
12.5	1441.609
13.0	1404.136
13.5	1368.317
14.0	1334.150
14.5	1302.739
15.0	1274.083
15.5	1248.733
16.0	1227.793
16.5	1209.056
17.0	1191.422
17.5	1175.992
18.0	1162.215
18.5	1150.642
19.0	1142.376
19.5	1135.212
20.0	1129.150
20.5	1121.986
21.0	1114.823
21.5	1107.107
22.0	1098.841
22.5	1088.371
23.0	1075.696
23.5	1060.266
24.0	1040.979
24.5	1015.629
25.0	986.422
25.5	955.562
26.0	925.253
26.5	891.638

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CANDELA TABULATION - (Cont.)

27.0	856.369
27.5	816.140
28.0	770.401
28.5	720.254
29.0	667.902
29.5	614.447
30.0	557.687
30.5	498.887
31.0	437.332
31.5	375.998
32.0	317.033
32.5	261.870
33.0	213.872
33.5	172.927
34.0	138.430
34.5	109.774
35.0	86.519
35.5	68.994
36.0	57.753
36.5	51.856
37.0	48.329
37.5	45.243
38.0	42.543
38.5	40.063
39.0	37.804
39.5	35.765
40.0	33.836
40.5	32.017
41.0	30.309
41.5	28.766
42.0	27.278
42.5	25.900
43.0	24.523
43.5	23.310
44.0	22.098
44.5	20.941
45.0	19.894
45.5	18.847
46.0	17.800
46.5	16.808
47.0	15.761
47.5	14.769
48.0	13.832
48.5	12.950
49.0	12.069
49.5	11.187
50.0	10.305
50.5	9.478
51.0	8.762
51.5	8.101
52.0	7.439
52.5	6.888
53.0	6.337
53.5	5.896
54.0	5.456
54.5	5.015

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CANDELA TABULATION - (Cont.)

55.0	4.684
55.5	4.353
56.0	4.023
56.5	3.747
57.0	3.472
57.5	3.251
58.0	3.031
58.5	2.810
59.0	2.645
59.5	2.480
60.0	2.315
60.5	2.149
61.0	2.039
61.5	1.874
62.0	1.763
62.5	1.653
63.0	1.543
63.5	1.488
64.0	1.378
64.5	1.267
65.0	1.212
65.5	1.157
66.0	1.047
66.5	0.992
67.0	0.937
67.5	0.882
68.0	0.827
68.5	0.772
69.0	0.716
69.5	0.661
70.0	0.606
70.5	0.606
71.0	0.551
71.5	0.496
72.0	0.441
72.5	0.441
73.0	0.386
73.5	0.386
74.0	0.331
74.5	0.331
75.0	0.331
75.5	0.276
76.0	0.276
76.5	0.220
77.0	0.220
77.5	0.220
78.0	0.165
78.5	0.165
79.0	0.165
79.5	0.165
80.0	0.110
80.5	0.110
81.0	0.110
81.5	0.110
82.0	0.110
82.5	0.110

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CANDELA TABULATION - (Cont.)

83.0	0.110
83.5	0.055
84.0	0.055
84.5	0.055
85.0	0.055
85.5	0.055
86.0	0.055
86.5	0.055
87.0	0.055
87.5	0.055
88.0	0.000
88.5	0.000
89.0	0.000
89.5	0.000
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
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125.5	0.000
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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
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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
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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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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	556.50	N.A.	50.40
0-30	982.91	N.A.	89.10
0-40	1081.34	N.A.	98.00
0-60	1101.61	N.A.	99.80
0-80	1103.22	N.A.	100.00
0-90	1103.28	N.A.	100.00
10-90	912.13	N.A.	82.70
20-40	524.84	N.A.	47.60
20-50	540.50	N.A.	49.00
40-70	21.54	N.A.	2.00
60-80	1.61	N.A.	0.10
70-80	0.34	N.A.	0.00
80-90	0.07	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	1103.28	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	191.16
10-20	365.34
20-30	426.41
30-40	98.43
40-50	15.66
50-60	4.60
60-70	1.27
70-80	0.34
80-90	0.07
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

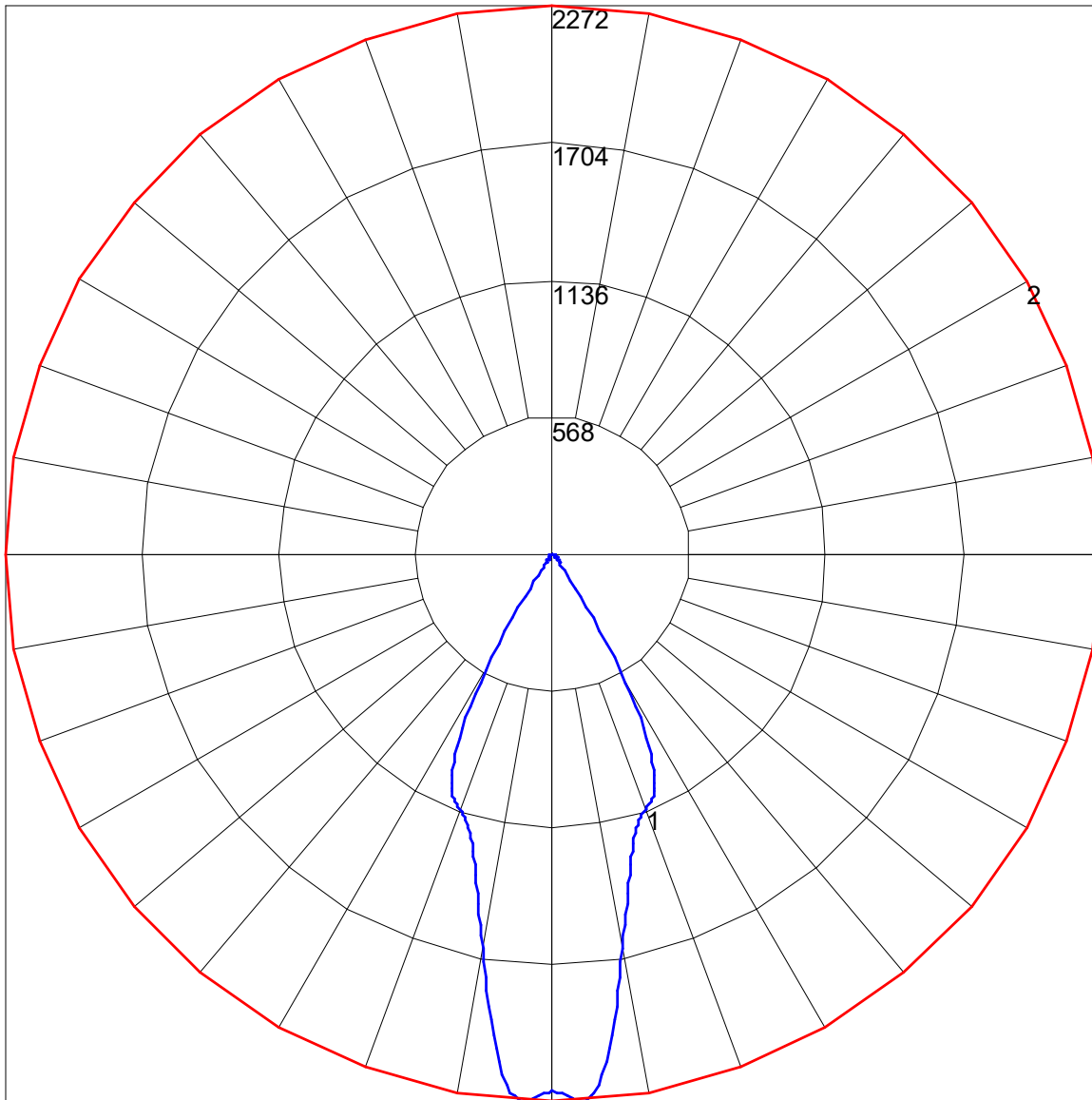
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	98	98	97	95
2	109	105	102	99	107	103	100	98	100	98	95	97	95	93	95	93	91	90
3	105	99	95	91	103	98	94	91	95	92	89	93	90	88	91	89	87	85
4	100	94	89	85	99	93	88	85	91	87	84	89	86	83	87	84	82	81
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	77
6	92	85	79	76	91	84	79	75	82	78	75	81	77	74	80	77	74	73
7	89	81	75	72	87	80	75	71	79	74	71	78	74	71	76	73	70	69
8	85	77	72	68	84	76	71	68	75	71	68	74	70	67	73	70	67	66
9	82	73	68	65	81	73	68	65	72	67	64	71	67	64	70	67	64	63
10	79	70	65	62	78	70	65	62	69	64	61	68	64	61	68	64	61	60

POLAR GRAPH



Maximum Candela = 2271.527 Located At Horizontal Angle = 0, Vertical Angle = 3.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (3.5) (Through Max. Cd.)