

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L10-840-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] 01-10-2025

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 4DR-TL-L10-840-DIM-UNV-FM-OF-CS

[LUMINAIRE] Black formed aluminum housing, specular reflector, no 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	757
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	84
Total Luminaire Watts	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	1879	1879	1879
55	545	545	545
65	192	192	192
75	85	85	85
85	42	42	42

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CANDELA TABULATION

	<u>0</u>
0.0	1531.165
0.5	1532.299
1.0	1536.834
1.5	1540.992
2.0	1550.441
2.5	1556.489
3.0	1557.623
3.5	1558.001
4.0	1549.307
4.5	1537.590
5.0	1515.290
5.5	1486.942
6.0	1455.192
6.5	1419.663
7.0	1381.110
7.5	1341.045
8.0	1299.846
8.5	1259.025
9.0	1218.960
9.5	1180.029
10.0	1142.987
10.5	1108.214
11.0	1075.708
11.5	1045.093
12.0	1015.989
12.5	988.775
13.0	963.073
13.5	938.504
14.0	915.070
14.5	893.526
15.0	873.871
15.5	856.485
16.0	842.122
16.5	829.271
17.0	817.175
17.5	806.592
18.0	797.143
18.5	789.206
19.0	783.536
19.5	778.622
20.0	774.465
20.5	769.551
21.0	764.637
21.5	759.346
22.0	753.676
22.5	746.495
23.0	737.801
23.5	727.218
24.0	713.989
24.5	696.602
25.0	676.570
25.5	655.403
26.0	634.615
26.5	611.559

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CANDELA TABULATION - (Cont.)

27.0	587.368
27.5	559.777
28.0	528.405
28.5	494.009
29.0	458.102
29.5	421.439
30.0	382.508
30.5	342.178
31.0	299.959
31.5	257.890
32.0	217.447
32.5	179.612
33.0	146.691
33.5	118.608
34.0	94.947
34.5	75.292
35.0	59.342
35.5	47.322
36.0	39.611
36.5	35.567
37.0	33.148
37.5	31.032
38.0	29.179
38.5	27.479
39.0	25.929
39.5	24.530
40.0	23.207
40.5	21.960
41.0	20.788
41.5	19.730
42.0	18.710
42.5	17.765
43.0	16.820
43.5	15.988
44.0	15.157
44.5	14.363
45.0	13.645
45.5	12.927
46.0	12.208
46.5	11.528
47.0	10.810
47.5	10.130
48.0	9.487
48.5	8.882
49.0	8.278
49.5	7.673
50.0	7.068
50.5	6.501
51.0	6.010
51.5	5.556
52.0	5.103
52.5	4.725
53.0	4.347
53.5	4.044
54.0	3.742
54.5	3.440

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CANDELA TABULATION - (Cont.)

55.0	3.213
55.5	2.986
56.0	2.759
56.5	2.570
57.0	2.381
57.5	2.230
58.0	2.079
58.5	1.928
59.0	1.814
59.5	1.701
60.0	1.587
60.5	1.474
61.0	1.398
61.5	1.285
62.0	1.210
62.5	1.134
63.0	1.058
63.5	1.021
64.0	0.945
64.5	0.869
65.0	0.832
65.5	0.794
66.0	0.718
66.5	0.680
67.0	0.643
67.5	0.605
68.0	0.567
68.5	0.529
69.0	0.491
69.5	0.454
70.0	0.416
70.5	0.416
71.0	0.378
71.5	0.340
72.0	0.302
72.5	0.302
73.0	0.265
73.5	0.265
74.0	0.227
74.5	0.227
75.0	0.227
75.5	0.189
76.0	0.189
76.5	0.151
77.0	0.151
77.5	0.151
78.0	0.113
78.5	0.113
79.0	0.113
79.5	0.113
80.0	0.076
80.5	0.076
81.0	0.076
81.5	0.076
82.0	0.076
82.5	0.076

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CANDELA TABULATION - (Cont.)

83.0	0.076
83.5	0.038
84.0	0.038
84.5	0.038
85.0	0.038
85.5	0.038
86.0	0.038
86.5	0.038
87.0	0.038
87.5	0.038
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
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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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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	381.69	N.A.	50.40
0-30	674.16	N.A.	89.10
0-40	741.67	N.A.	98.00
0-60	755.57	N.A.	99.80
0-80	756.68	N.A.	100.00
0-90	756.72	N.A.	100.00
10-90	625.61	N.A.	82.70
20-40	359.98	N.A.	47.60
20-50	370.72	N.A.	49.00
40-70	14.77	N.A.	2.00
60-80	1.11	N.A.	0.10
70-80	0.24	N.A.	0.00
80-90	0.05	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	756.72	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	131.11
10-20	250.58
20-30	292.47
30-40	67.51
40-50	10.74
50-60	3.16
60-70	0.87
70-80	0.24
80-90	0.05
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

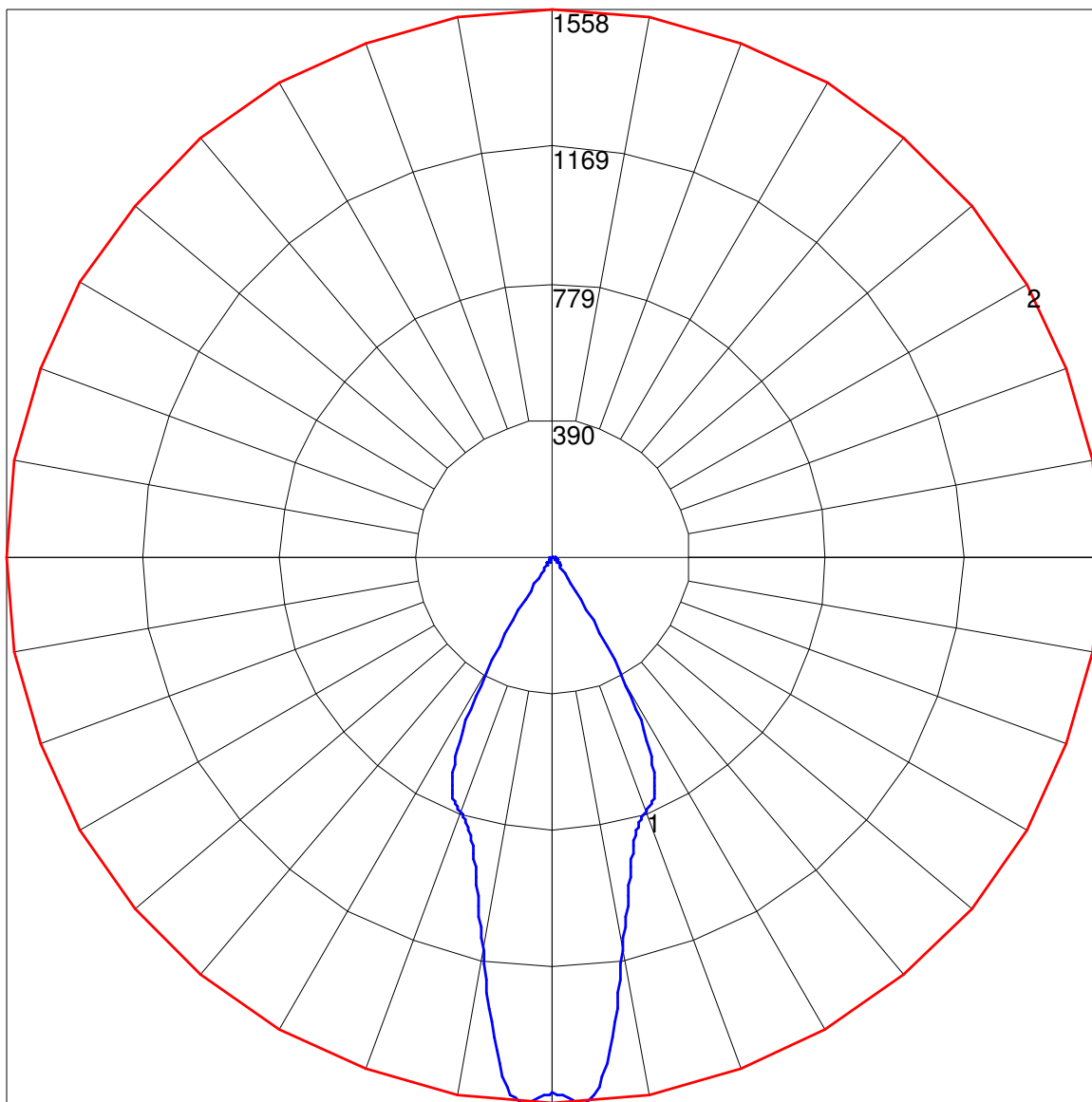
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	109	107	112	110	108	106	106	104	103	102	101	99	98	97	97	95
2	109	105	102	99	107	103	100	97	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	88	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	76
6	92	85	79	76	91	84	79	75	82	78	75	81	77	74	80	76	74	73
7	89	80	75	72	87	80	75	71	79	74	71	77	74	71	76	73	70	69
8	85	77	71	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	78	70	65	62	78	70	65	62	69	64	61	68	64	61	67	64	61	60

POLAR GRAPH



Maximum Candela = 1558.001 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.)