

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L15-840-DIM-UNV-LW-OF-WH-WET-CC_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]GEN FROM 12316380.07
[TESTLAB] UL Verification Services Inc.
[ISSUE DATE] 11/17/2025
[MANUFAC] WILLIAMS INDOOR - CARTHAGE, MO.
[LUMCAT] 4DR-TL-L15-840-DIM-UNV-L-W-OF-WH-WET/CC
[LUMINAIRE] Black formed aluminum housing, white reflector
[LAMP] One white LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	853
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	61
Total Luminaire Watts	13.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.00
Spacing Criterion (90-270)	1.00
Spacing Criterion (Diagonal)	0.90
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.35 ft (Diameter)
Luminous Width (90-270)	0.35 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	23543	23543	23543
55	19346	19346	19346
65	14153	14153	14153
75	9797	9797	9797
85	5340	5340	5340

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CANDELA TABULATION

	<u>0</u>
0.0	599.301
0.5	599.111
1.0	598.733
1.5	598.228
2.0	597.723
2.5	597.155
3.0	596.397
3.5	595.955
4.0	595.640
4.5	595.450
5.0	595.198
5.5	594.946
6.0	594.756
6.5	594.504
7.0	594.314
7.5	594.188
8.0	594.125
8.5	593.936
9.0	593.746
9.5	593.368
10.0	593.115
10.5	592.673
11.0	592.231
11.5	591.663
12.0	591.032
12.5	590.275
13.0	589.391
13.5	588.381
14.0	587.119
14.5	585.604
15.0	583.774
15.5	581.565
16.0	579.103
16.5	576.200
17.0	573.044
17.5	569.509
18.0	565.343
18.5	561.051
19.0	556.381
19.5	551.142
20.0	545.398
20.5	539.150
21.0	532.396
21.5	525.138
22.0	517.122
22.5	508.601
23.0	499.449
23.5	489.602
24.0	478.999
24.5	467.701
25.0	455.456
25.5	442.643
26.0	428.947
26.5	414.429

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4DR-TL-L15-840-DIM-UNV-LW-OF-WH-WET-CC_.IES****CANDELA TABULATION - (Cont.)**

27.0	399.408
27.5	383.754
28.0	367.849
28.5	351.880
29.0	336.227
29.5	320.889
30.0	306.120
30.5	292.234
31.0	279.232
31.5	267.366
32.0	256.573
32.5	246.853
33.0	238.205
33.5	230.505
34.0	223.625
34.5	217.566
35.0	212.075
35.5	207.089
36.0	202.670
36.5	198.505
37.0	194.717
37.5	191.183
38.0	187.901
38.5	184.745
39.0	181.842
39.5	179.001
40.0	176.350
40.5	173.699
41.0	171.175
41.5	168.713
42.0	166.378
42.5	164.042
43.0	161.707
43.5	159.372
44.0	157.036
44.5	154.701
45.0	152.366
45.5	150.030
46.0	147.695
46.5	145.360
47.0	142.898
47.5	140.436
48.0	137.975
48.5	135.450
49.0	132.862
49.5	130.275
50.0	127.750
50.5	125.162
51.0	122.574
51.5	119.986
52.0	117.462
52.5	114.937
53.0	112.349
53.5	109.698
54.0	106.984
54.5	104.270

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4DR-TL-L15-840-DIM-UNV-LW-OF-WH-WET-CC_.IES****CANDELA TABULATION - (Cont.)**

55.0	101.556
55.5	98.842
56.0	96.191
56.5	93.603
57.0	91.015
57.5	88.428
58.0	85.903
58.5	83.441
59.0	80.980
59.5	78.581
60.0	76.246
60.5	73.911
61.0	71.638
61.5	69.429
62.0	67.220
62.5	65.011
63.0	62.903
63.5	60.807
64.0	58.750
64.5	56.724
65.0	54.742
65.5	52.810
66.0	50.904
66.5	49.049
67.0	47.237
67.5	45.457
68.0	43.734
68.5	42.049
69.0	40.364
69.5	38.735
70.0	37.151
70.5	35.592
71.0	34.071
71.5	32.588
72.0	31.155
72.5	29.741
73.0	28.365
73.5	27.027
74.0	25.714
74.5	24.445
75.0	23.208
75.5	22.009
76.0	20.835
76.5	19.693
77.0	18.601
77.5	17.515
78.0	16.467
78.5	15.451
79.0	14.454
79.5	13.495
80.0	12.554
80.5	11.639
81.0	10.736
81.5	9.859
82.0	9.001
82.5	8.167

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83.0	7.341
83.5	6.539
84.0	5.756
84.5	4.993
85.0	4.260
85.5	3.554
86.0	2.878
86.5	2.241
87.0	1.679
87.5	1.212
88.0	0.846
88.5	0.536
89.0	0.335
89.5	0.227
90.0	0.158
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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4DR-TL-L15-840-DIM-UNV-LW-OF-WH-WET-CC_.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 : 4DR-TL-L15-840-DIM-UNV-LW-OF-WH-WET-CC_.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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4DR-TL-L15-840-DIM-UNV-LW-OF-WH-WET-CC_.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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Zone	Lumens	%Lamp	%Fixt
0-20	220.13	N.A.	25.80
0-30	422.24	N.A.	49.50
0-40	559.91	N.A.	65.60
0-60	768.02	N.A.	90.00
0-80	847.79	N.A.	99.40
0-90	853.13	N.A.	100.00
10-90	796.36	N.A.	93.30
20-40	339.78	N.A.	39.80
20-50	457.12	N.A.	53.60
40-70	262.84	N.A.	30.80
60-80	79.77	N.A.	9.40
70-80	25.04	N.A.	2.90
80-90	5.34	N.A.	0.60
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	853.13	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	56.76
10-20	163.37
20-30	202.11
30-40	137.67
40-50	117.34
50-60	90.76
60-70	54.74
70-80	25.04
80-90	5.34
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	105	102	100	101	99	96	97	95	94	94	92	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56
6	79	67	60	54	77	66	59	54	65	58	54	63	58	53	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47
8	69	58	51	46	68	57	50	45	56	50	45	55	49	45	54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40
10	62	51	44	39	61	50	43	39	49	43	39	48	43	39	47	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	20.1	21.5	20.5	21.8	22.1	20.1	21.5	20.5	21.8	22.1
	3H	21.2	22.4	21.6	22.8	23.1	21.2	22.4	21.6	22.8	23.1
	4H	21.6	22.7	22.0	23.0	23.4	21.6	22.7	22.0	23.0	23.4
	6H	21.8	22.8	22.2	23.2	23.6	21.8	22.8	22.2	23.2	23.6
	8H	21.8	22.8	22.3	23.2	23.6	21.8	22.8	22.3	23.2	23.6
	12H	21.8	22.8	22.3	23.2	23.6	21.8	22.8	22.3	23.2	23.6

UGR Viewed Endwise

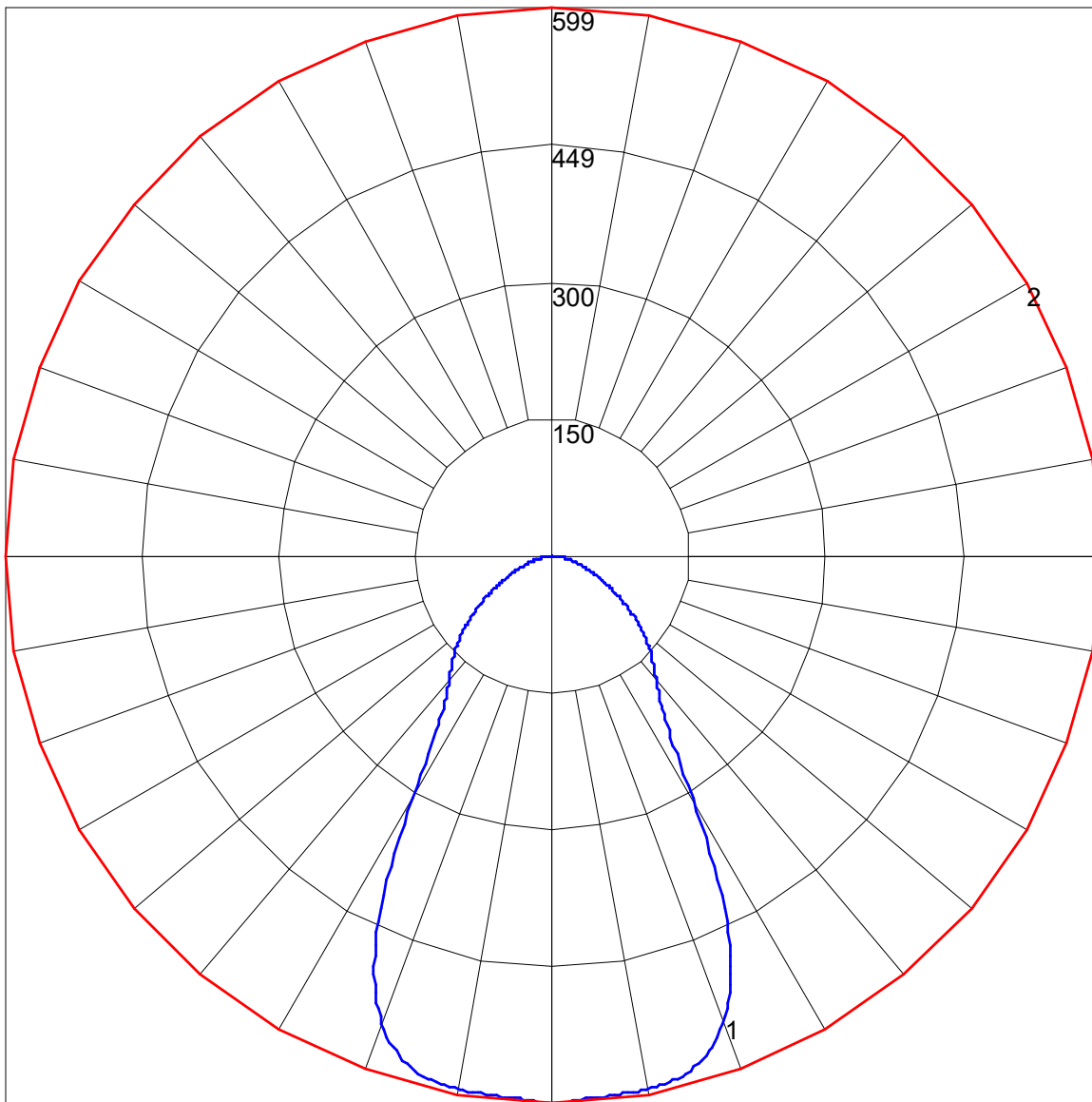
4H	2H	20.5	21.6	20.9	22.0	22.3	20.5	21.6	20.9	22.0	22.3
	3H	21.8	22.7	22.2	23.1	23.5	21.8	22.7	22.2	23.1	23.5
	4H	22.2	23.1	22.6	23.5	23.9	22.2	23.1	22.6	23.5	23.9
	6H	22.5	23.3	23.0	23.7	24.2	22.5	23.3	23.0	23.7	24.2
	8H	22.6	23.3	23.1	23.7	24.2	22.6	23.3	23.1	23.7	24.2
	12H	22.6	23.2	23.1	23.7	24.2	22.6	23.2	23.1	23.7	24.2

8H	4H	22.3	23.0	22.8	23.5	23.9	22.3	23.0	22.8	23.5	23.9
	6H	22.7	23.3	23.2	23.8	24.3	22.7	23.3	23.2	23.8	24.3
	8H	22.8	23.3	23.3	23.9	24.3	22.8	23.3	23.3	23.9	24.3
	12H	22.9	23.3	23.4	23.8	24.4	22.9	23.3	23.4	23.8	24.4

12H	4H	22.3	22.9	22.8	23.4	23.9	22.3	22.9	22.8	23.4	23.9
	6H	22.7	23.2	23.3	23.7	24.2	22.7	23.2	23.3	23.7	24.2
	8H	22.9	23.3	23.4	23.8	24.4	22.9	23.3	23.4	23.8	24.4

Maximum UGR = 24.4

POLAR GRAPH



Maximum Candela = 599.301 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)