IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L15-8TW-DIM-UNV-SW-OF-WH_4000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN from UL #12316380.11
[TESTLAB] UL Verification Services Inc.
[ISSUEDATE] 2026-10-14
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] 4DR-TL-L15-8TW-DIM-UNV-SW-OF-WH_4000K_
[LUMINAIRE] Black formed aluminum housing, white reflector, frosted plastic
[MORE] lens enclosure
[LAMP] One LED
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Commercial, Corridor, Hotel, Office, Downlight
[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	893
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	65
Total Luminaire Watts	13.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.28
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	32235	32235	32235
55	27513	27513	27513
65	23468	23468	23468
75	19406	19406	19406
85	12010	12010	12010

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CANDELA TABULATION

	0
0.0	375.824
0.5	375.757
1.0	375.556
1.5	375.355
2.0	374.953
2.5	374.551
3.0	374.015
3.5	373.479
4.0	372.943
4.5	372.407
5.0	371.938
5.5	371.402
6.0	370.866
6.5	370.330
7.0	369.727
7.5	369.058
8.0	368.388
8.5	367.718
9.0	366.981
9.5	366.244
10.0	365.440
10.5	364.636
11.0	363.765
11.5	362.827
12.0	361.889
12.5	360.885
13.0	359.813
13.5	358.674
14.0	357.468
14.5	356.195
15.0	354.855
15.5	353.515
16.0	352.109
16.5	350.769
17.0	349.295
17.5	347.821
18.0	346.347
18.5	344.874
19.0	343.400
19.5	341.926
20.0	340.452
20.5	338.978
21.0	337.437
21.5	335.830
22.0	334.155
22.5	332.279
23.0	330.403
23.5	328.327
24.0	326.250
24.5	324.039
25.0	321.761
25.5	319.484
26.0	317.072
26.5	314.660

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CANDELA TABULATION - (Cont.)

27.0	312.182
27.5	309.636
28.0	307.090
28.5	304.611
29.0	302.133
29.5	299.587
30.0	297.108
30.5	294.496
31.0	291.816
31.5	289.203
32.0	286.524
32.5	283.844
33.0	281.097
33.5	278.284
34.0	275.537
34.5	272.723
35.0	269.910
35.5	267.029
36.0	264.148
36.5	261.201
37.0	258.253
37.5	255.306
38.0	252.291
38.5	249.209
39.0	246.262
39.5	243.180
40.0	240.098
40.5	237.084
41.0	233.935
41.5	230.921
42.0	227.772
42.5	224.690
43.0	221.542
43.5	218.326
44.0	215.111
44.5	211.895
45.0	208.612
45.5	205.397
46.0	202.114
46.5	198.832
47.0	195.549
47.5	192.199
48.0	188.917
48.5	185.567
49.0	182.285
49.5	179.002
50.0	175.719
50.5	172.504
51.0	169.288
51.5	166.073
52.0	162.924
52.5	159.775
53.0	156.694
53.5	153.612
54.0	150.530
54.5	147.516

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CANDELA TABULATION - (Cont.)

55.0	144.434
55.5	141.420
56.0	138.673
56.5	135.725
57.0	132.912
57.5	130.098
58.0	127.284
58.5	124.471
59.0	121.791
59.5	119.111
60.0	116.432
60.5	113.886
61.0	111.273
61.5	108.594
62.0	105.981
62.5	103.368
63.0	100.823
63.5	98.277
64.0	95.731
64.5	93.253
65.0	90.774
65.5	88.295
66.0	85.816
66.5	83.405
67.0	81.060
67.5	78.715
68.0	76.371
68.5	74.093
69.0	71.815
69.5	69.537
70.0	67.260
70.5	65.049
71.0	62.852
71.5	60.668
72.0	58.511
72.5	56.387
73.0	54.270
73.5	52.173
74.0	50.096
74.5	48.020
75.0	45.970
75.5	43.947
76.0	41.923
76.5	39.920
77.0	37.944
77.5	35.975
78.0	34.032
78.5	32.123
79.0	30.227
79.5	28.351
80.0	26.522
80.5	24.720
81.0	22.938
81.5	21.169
82.0	19.434
82.5	17.726

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CANDELA TABULATION - (Cont.)

83.0	16.038
83.5	14.370
84.0	12.742
84.5	11.141
85.0	9.580
85.5	8.086
86.0	6.692
86.5	5.473
87.0	4.361
87.5	3.363
88.0	2.505
88.5	1.829
89.0	1.273
89.5	0.824
90.0	0.509
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
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121.5	0.000
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124.0	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
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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
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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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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	135.32	N.A.	15.20
0-30	283.13	N.A.	31.70
0-40	451.66	N.A.	50.60
0-60	741.90	N.A.	83.10
0-80	880.82	N.A.	98.70
0-90	892.66	N.A.	100.00
10-90	857.36	N.A.	96.00
20-40	316.34	N.A.	35.40
20-50	477.00	N.A.	53.40
40-70	380.38	N.A.	42.60
60-80	138.92	N.A.	15.60
70-80	48.78	N.A.	5.50
80-90	11.84	N.A.	1.30
90-110	0.01	N.A.	0.00
90-120	0.01	N.A.	0.00
90-130	0.01	N.A.	0.00
90-150	0.01	N.A.	0.00
90-180	0.01	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	892.67	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	35.30
10-20	100.01
20-30	147.82
30-40	168.52
40-50	160.65
50-60	129.59
60-70	90.14
70-80	48.78
80-90	11.84
90-100	0.01
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	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56	53
5	78	66	57	51	76	65	56	50	62	55	50	60	54	49	59	53	49	47
6	72	59	51	45	70	58	50	44	57	49	44	55	49	44	53	48	43	41
7	67	54	46	40	65	53	45	40	52	44	39	50	44	39	49	43	39	37
8	63	49	41	36	61	49	41	35	47	40	35	46	40	35	45	39	35	33
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30
10	55	42	34	29	54	42	34	29	41	34	29	40	33	29	39	33	29	27

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UGR TABLE - CORRECTED

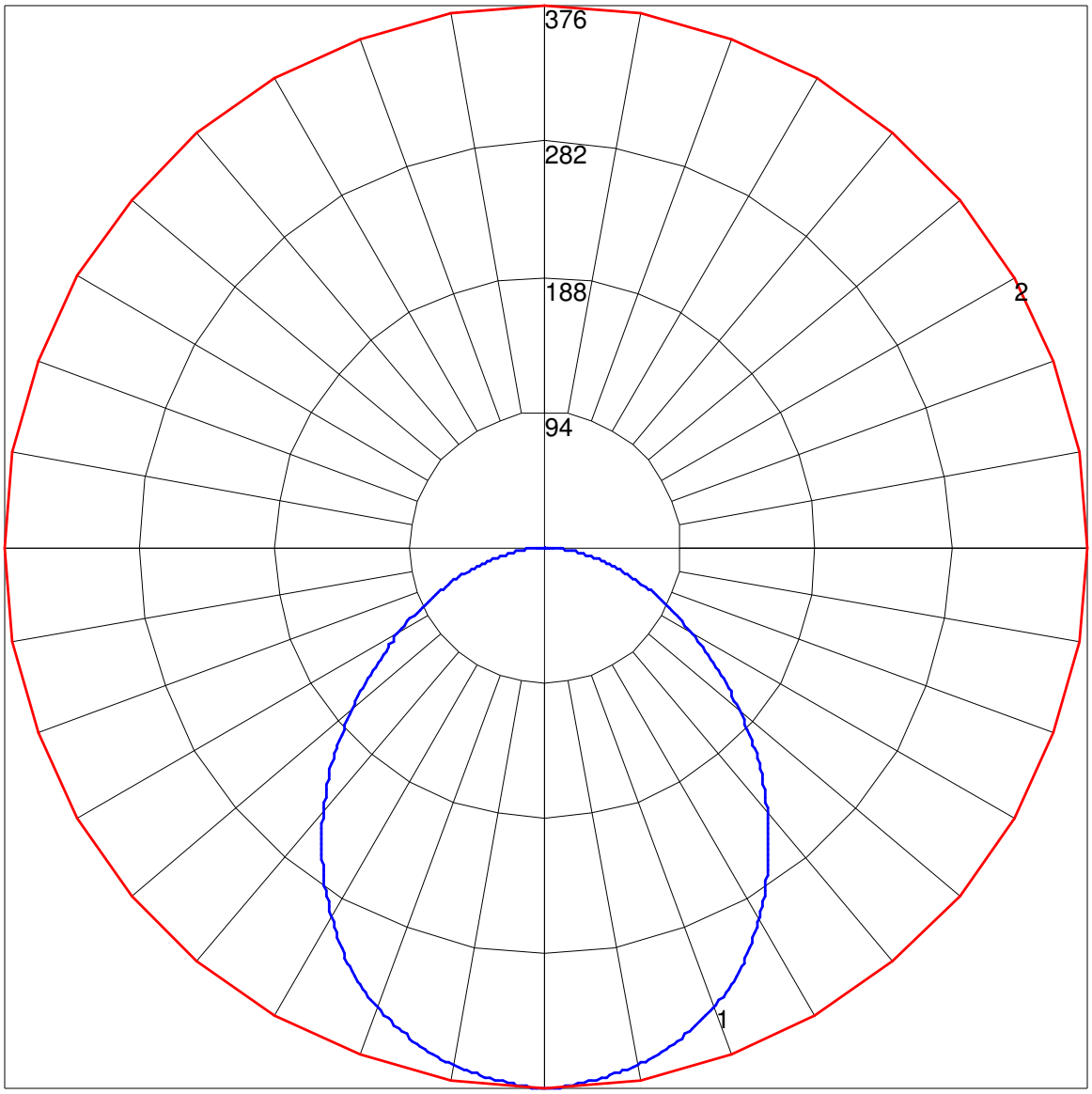
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	22.3	23.9	22.7	24.2	24.5	22.3	23.9	22.7	24.2	24.5
	3H	23.9	25.3	24.3	25.7	26.0	23.9	25.3	24.3	25.7	26.0
	4H	24.5	25.8	24.9	26.2	26.5	24.5	25.8	24.9	26.2	26.5
	6H	24.9	26.1	25.3	26.5	26.9	24.9	26.1	25.3	26.5	26.9
	8H	25.0	26.2	25.4	26.6	27.0	25.0	26.2	25.4	26.6	27.0
	12H	25.1	26.2	25.5	26.6	27.0	25.1	26.2	25.5	26.6	27.0
4H	2H	22.9	24.2	23.3	24.6	24.9	22.9	24.2	23.3	24.6	24.9
	3H	24.7	25.8	25.1	26.2	26.6	24.7	25.8	25.1	26.2	26.6
	4H	25.4	26.4	25.8	26.8	27.2	25.4	26.4	25.8	26.8	27.2
	6H	25.9	26.8	26.4	27.2	27.7	25.9	26.8	26.4	27.2	27.7
	8H	26.0	26.9	26.5	27.3	27.8	26.0	26.9	26.5	27.3	27.8
	12H	26.1	26.9	26.6	27.3	27.8	26.1	26.9	26.6	27.3	27.8
8H	4H	25.6	26.4	26.1	26.9	27.4	25.6	26.4	26.1	26.9	27.4
	6H	26.3	26.9	26.7	27.4	27.9	26.3	26.9	26.7	27.4	27.9
	8H	26.5	27.1	27.0	27.6	28.1	26.5	27.1	27.0	27.6	28.1
	12H	26.6	27.1	27.1	27.6	28.2	26.6	27.1	27.1	27.6	28.2
12H	4H	25.7	26.4	26.1	26.9	27.3	25.7	26.4	26.1	26.9	27.3
	6H	26.3	26.9	26.8	27.4	27.9	26.3	26.9	26.8	27.4	27.9
	8H	26.6	27.1	27.1	27.6	28.1	26.6	27.1	27.1	27.6	28.1

Maximum UGR = 28.2

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POLAR GRAPH



Maximum Candela = 375.824 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.)

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