IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L15-8TW-DIM-UNV-SW-OF-WH_3500K_.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_3500K_
[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	884
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	31912	31912	31912
55	27238	27238	27238
65	23233	23233	23233
75	19212	19212	19212
85	11889	11889	11889

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CANDELA TABULATION

	0
0.0	372.065
0.5	371.999
1.0	371.800
1.5	371.601
2.0	371.203
2.5	370.805
3.0	370.275
3.5	369.744
4.0	369.214
4.5	368.683
5.0	368.219
5.5	367.688
6.0	367.158
6.5	366.627
7.0	366.030
7.5	365.367
8.0	364.704
8.5	364.041
9.0	363.311
9.5	362.581
10.0	361.786
10.5	360.990
11.0	360.128
11.5	359.199
12.0	358.271
12.5	357.276
13.0	356.215
13.5	355.087
14.0	353.893
14.5	352.633
15.0	351.307
15.5	349.980
16.0	348.588
16.5	347.261
17.0	345.802
17.5	344.343
18.0	342.884
18.5	341.425
19.0	339.966
19.5	338.507
20.0	337.048
20.5	335.588
21.0	334.063
21.5	332.471
22.0	330.813
22.5	328.956
23.0	327.099
23.5	325.043
24.0	322.987
24.5	320.799
25.0	318.544
25.5	316.289
26.0	313.901
26.5	311.514

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CANDELA TABULATION - (Cont.)

27.0	309.060
27.5	306.540
28.0	304.019
28.5	301.565
29.0	299.111
29.5	296.591
30.0	294.137
30.5	291.551
31.0	288.898
31.5	286.311
32.0	283.658
32.5	281.006
33.0	278.286
33.5	275.501
34.0	272.782
34.5	269.996
35.0	267.211
35.5	264.359
36.0	261.507
36.5	258.589
37.0	255.671
37.5	252.753
38.0	249.768
38.5	246.717
39.0	243.799
39.5	240.748
40.0	237.697
40.5	234.713
41.0	231.596
41.5	228.611
42.0	225.494
42.5	222.443
43.0	219.326
43.5	216.143
44.0	212.959
44.5	209.776
45.0	206.526
45.5	203.343
46.0	200.093
46.5	196.843
47.0	193.593
47.5	190.277
48.0	187.028
48.5	183.711
49.0	180.462
49.5	177.212
50.0	173.962
50.5	170.779
51.0	167.595
51.5	164.412
52.0	161.295
52.5	158.178
53.0	155.127
53.5	152.076
54.0	149.025
54.5	146.041

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CANDELA TABULATION - (Cont.)

55.0	142.990
55.5	140.005
56.0	137.286
56.5	134.368
57.0	131.583
57.5	128.797
58.0	126.011
58.5	123.226
59.0	120.573
59.5	117.920
60.0	115.267
60.5	112.747
61.0	110.161
61.5	107.508
62.0	104.921
62.5	102.335
63.0	99.814
63.5	97.294
64.0	94.774
64.5	92.320
65.0	89.866
65.5	87.412
66.0	84.958
66.5	82.571
67.0	80.249
67.5	77.928
68.0	75.607
68.5	73.352
69.0	71.097
69.5	68.842
70.0	66.587
70.5	64.398
71.0	62.223
71.5	60.061
72.0	57.925
72.5	55.823
73.0	53.727
73.5	51.651
74.0	49.595
74.5	47.539
75.0	45.510
75.5	43.507
76.0	41.504
76.5	39.521
77.0	37.565
77.5	35.615
78.0	33.691
78.5	31.801
79.0	29.924
79.5	28.067
80.0	26.257
80.5	24.473
81.0	22.709
81.5	20.958
82.0	19.240
82.5	17.549

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CANDELA TABULATION - (Cont.)

83.0	15.877
83.5	14.226
84.0	12.614
84.5	11.029
85.0	9.484
85.5	8.005
86.0	6.626
86.5	5.418
87.0	4.318
87.5	3.329
88.0	2.480
88.5	1.811
89.0	1.260
89.5	0.816
90.0	0.504
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
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

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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
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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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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	133.96	N.A.	15.20
0-30	280.30	N.A.	31.70
0-40	447.14	N.A.	50.60
0-60	734.48	N.A.	83.10
0-80	872.01	N.A.	98.70
0-90	883.73	N.A.	100.00
10-90	848.78	N.A.	96.00
20-40	313.18	N.A.	35.40
20-50	472.23	N.A.	53.40
40-70	376.58	N.A.	42.60
60-80	137.53	N.A.	15.60
70-80	48.29	N.A.	5.50
80-90	11.72	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	883.75	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	34.95
10-20	99.01
20-30	146.34
30-40	166.84
40-50	159.05
50-60	128.29
60-70	89.24
70-80	48.29
80-90	11.72
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	110	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

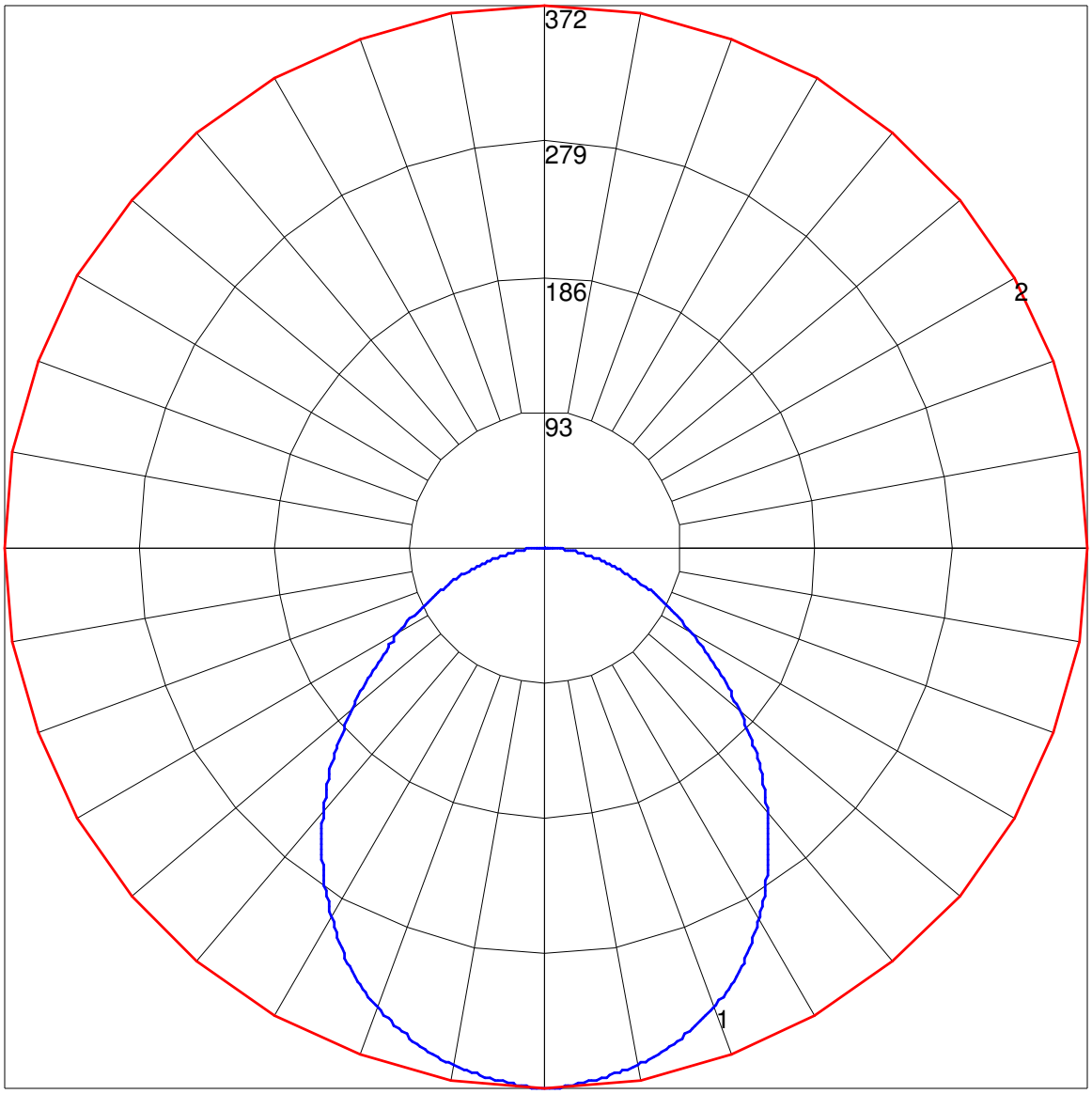
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	22.3	23.9	22.7	24.2	24.5	22.3	23.9	22.7	24.2	24.5
	3H	23.9	25.3	24.3	25.6	26.0	23.9	25.3	24.3	25.6	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	26.5	26.9	25.0	26.2	25.4	26.5	26.9
	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	26.3	27.2	27.7	25.9	26.8	26.3	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	27.3	25.6	26.4	26.1	26.9	27.3
	6H	26.2	26.9	26.7	27.4	27.9	26.2	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	25.6	26.4	26.1	26.9	27.3	25.6	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	26.5	27.1	27.1	27.6	28.1	26.5	27.1	27.1	27.6	28.1

Maximum UGR = 28.2

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POLAR GRAPH



Maximum Candela = 372.065 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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