IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L10-8TW-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-L10-8TW-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	596
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	63
Total Luminaire Watts	9.5
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	21513	21513	21513
55	18362	18362	18362
65	15663	15663	15663
75	12952	12952	12952
85	8014	8014	8014

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CANDELA TABULATION

	0
0.0	250.821
0.5	250.777
1.0	250.642
1.5	250.508
2.0	250.240
2.5	249.972
3.0	249.614
3.5	249.256
4.0	248.899
4.5	248.541
5.0	248.228
5.5	247.870
6.0	247.513
6.5	247.155
7.0	246.753
7.5	246.306
8.0	245.859
8.5	245.411
9.0	244.920
9.5	244.428
10.0	243.891
10.5	243.355
11.0	242.774
11.5	242.148
12.0	241.522
12.5	240.851
13.0	240.136
13.5	239.376
14.0	238.571
14.5	237.721
15.0	236.827
15.5	235.933
16.0	234.994
16.5	234.100
17.0	233.116
17.5	232.133
18.0	231.149
18.5	230.165
19.0	229.182
19.5	228.198
20.0	227.215
20.5	226.231
21.0	225.203
21.5	224.130
22.0	223.012
22.5	221.760
23.0	220.508
23.5	219.122
24.0	217.736
24.5	216.261
25.0	214.741
25.5	213.220
26.0	211.611
26.5	210.001

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CANDELA TABULATION - (Cont.)

27.0	208.347
27.5	206.648
28.0	204.949
28.5	203.295
29.0	201.641
29.5	199.942
30.0	198.287
30.5	196.544
31.0	194.755
31.5	193.012
32.0	191.223
32.5	189.435
33.0	187.602
33.5	185.724
34.0	183.891
34.5	182.013
35.0	180.135
35.5	178.213
36.0	176.290
36.5	174.323
37.0	172.356
37.5	170.389
38.0	168.377
38.5	166.320
39.0	164.353
39.5	162.296
40.0	160.239
40.5	158.228
41.0	156.126
41.5	154.114
42.0	152.013
42.5	149.956
43.0	147.855
43.5	145.709
44.0	143.563
44.5	141.417
45.0	139.226
45.5	137.080
46.0	134.889
46.5	132.698
47.0	130.508
47.5	128.272
48.0	126.081
48.5	123.846
49.0	121.655
49.5	119.464
50.0	117.273
50.5	115.127
51.0	112.981
51.5	110.835
52.0	108.734
52.5	106.633
53.0	104.576
53.5	102.519
54.0	100.463
54.5	98.451

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CANDELA TABULATION - (Cont.)

55.0	96.394
55.5	94.382
56.0	92.549
56.5	90.582
57.0	88.704
57.5	86.826
58.0	84.948
58.5	83.071
59.0	81.282
59.5	79.494
60.0	77.705
60.5	76.006
61.0	74.263
61.5	72.474
62.0	70.731
62.5	68.987
63.0	67.288
63.5	65.589
64.0	63.890
64.5	62.236
65.0	60.582
65.5	58.927
66.0	57.273
66.5	55.664
67.0	54.099
67.5	52.534
68.0	50.969
68.5	49.449
69.0	47.929
69.5	46.409
70.0	44.889
70.5	43.413
71.0	41.947
71.5	40.489
72.0	39.049
72.5	37.632
73.0	36.219
73.5	34.820
74.0	33.434
74.5	32.048
75.0	30.680
75.5	29.330
76.0	27.979
76.5	26.642
77.0	25.324
77.5	24.009
78.0	22.713
78.5	21.438
79.0	20.173
79.5	18.921
80.0	17.701
80.5	16.498
81.0	15.309
81.5	14.128
82.0	12.970
82.5	11.830

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CANDELA TABULATION - (Cont.)

83.0	10.703
83.5	9.590
84.0	8.504
84.5	7.435
85.0	6.393
85.5	5.396
86.0	4.466
86.5	3.653
87.0	2.911
87.5	2.244
88.0	1.672
88.5	1.221
89.0	0.849
89.5	0.550
90.0	0.340
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
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120.5	0.000
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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
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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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	90.31	N.A.	15.20
0-30	188.96	N.A.	31.70
0-40	301.43	N.A.	50.60
0-60	495.14	N.A.	83.10
0-80	587.85	N.A.	98.70
0-90	595.75	N.A.	100.00
10-90	572.19	N.A.	96.00
20-40	211.12	N.A.	35.40
20-50	318.34	N.A.	53.40
40-70	253.86	N.A.	42.60
60-80	92.71	N.A.	15.60
70-80	32.55	N.A.	5.50
80-90	7.90	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	595.76	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	23.56
10-20	66.75
20-30	98.65
30-40	112.47
40-50	107.22
50-60	86.49
60-70	60.16
70-80	32.55
80-90	7.90
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	64	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

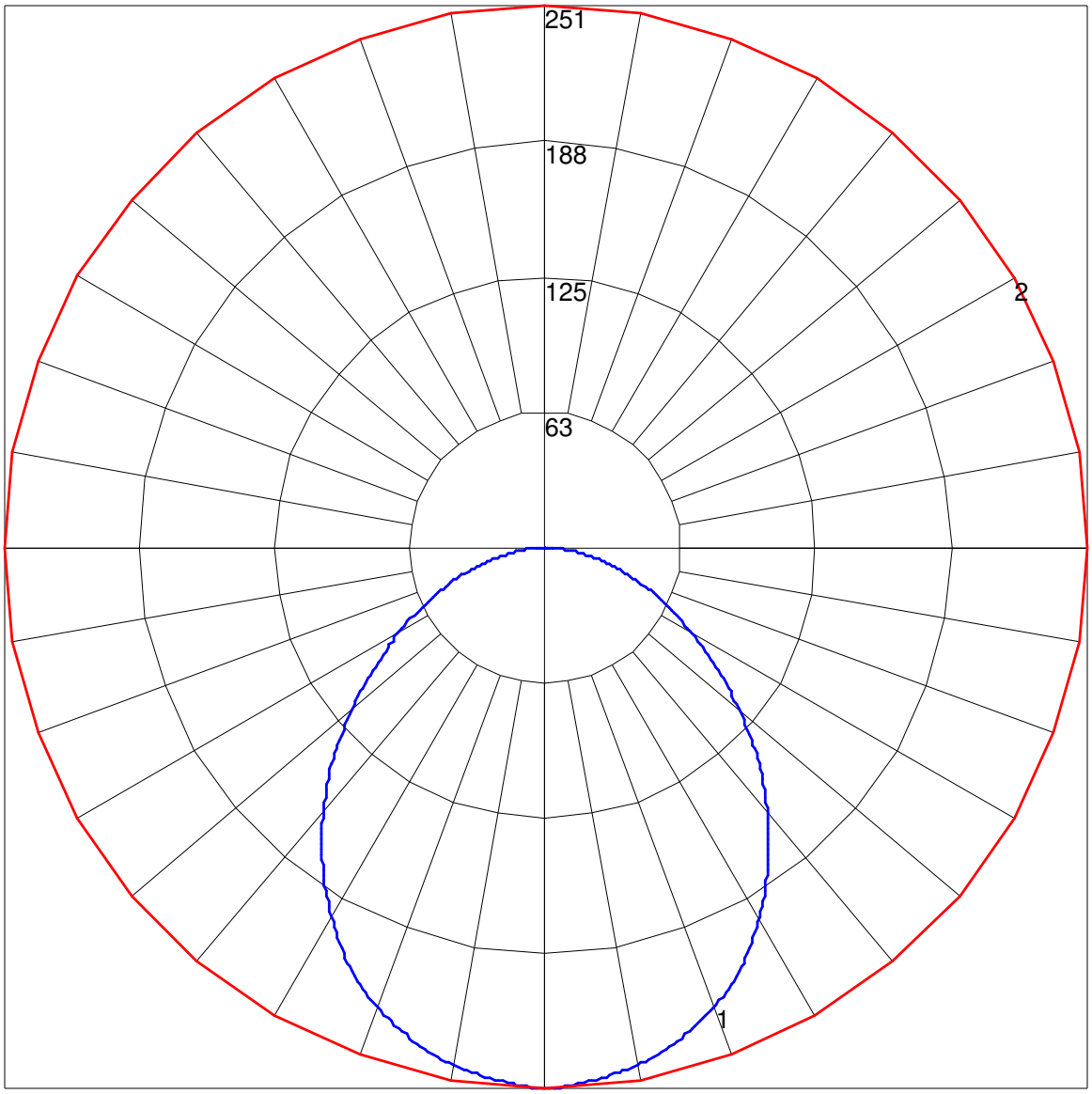
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	20.9	22.5	21.3	22.8	23.1	20.9	22.5	21.3	22.8	23.1
	3H	22.5	23.9	22.9	24.3	24.6	22.5	23.9	22.9	24.3	24.6
	4H	23.1	24.4	23.5	24.8	25.1	23.1	24.4	23.5	24.8	25.1
	6H	23.5	24.7	23.9	25.1	25.5	23.5	24.7	23.9	25.1	25.5
	8H	23.6	24.8	24.0	25.2	25.6	23.6	24.8	24.0	25.2	25.6
	12H	23.7	24.8	24.1	25.2	25.6	23.7	24.8	24.1	25.2	25.6
4H	2H	21.5	22.8	21.9	23.2	23.5	21.5	22.8	21.9	23.2	23.5
	3H	23.3	24.4	23.7	24.8	25.2	23.3	24.4	23.7	24.8	25.2
	4H	24.0	25.0	24.4	25.4	25.8	24.0	25.0	24.4	25.4	25.8
	6H	24.5	25.4	25.0	25.8	26.3	24.5	25.4	25.0	25.8	26.3
	8H	24.6	25.5	25.1	25.9	26.4	24.6	25.5	25.1	25.9	26.4
	12H	24.7	25.5	25.2	25.9	26.4	24.7	25.5	25.2	25.9	26.4
8H	4H	24.2	25.0	24.7	25.5	26.0	24.2	25.0	24.7	25.5	26.0
	6H	24.8	25.5	25.3	26.0	26.5	24.8	25.5	25.3	26.0	26.5
	8H	25.1	25.7	25.6	26.2	26.7	25.1	25.7	25.6	26.2	26.7
	12H	25.2	25.7	25.7	26.2	26.8	25.2	25.7	25.7	26.2	26.8
12H	4H	24.3	25.0	24.7	25.5	25.9	24.3	25.0	24.7	25.5	25.9
	6H	24.9	25.5	25.4	26.0	26.5	24.9	25.5	25.4	26.0	26.5
	8H	25.1	25.7	25.7	26.2	26.7	25.1	25.7	25.7	26.2	26.7

Maximum UGR = 26.8

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POLAR GRAPH



Maximum Candela = 250.821 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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