IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L50-8TW-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-L50-8TW-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	3120
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	74
Total Luminaire Watts	42.1
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	112676	112676	112676
55	96173	96173	96173
65	82033	82033	82033
75	67835	67835	67835
85	41979	41979	41979

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L50-8TW-DIM-UNV-SW-OF-WH_3500K_.IES

CANDELA TABULATION

	0
0.0	1313.687
0.5	1313.453
1.0	1312.750
1.5	1312.048
2.0	1310.643
2.5	1309.238
3.0	1307.364
3.5	1305.491
4.0	1303.618
4.5	1301.744
5.0	1300.105
5.5	1298.232
6.0	1296.358
6.5	1294.485
7.0	1292.378
7.5	1290.036
8.0	1287.694
8.5	1285.352
9.0	1282.777
9.5	1280.201
10.0	1277.391
10.5	1274.581
11.0	1271.537
11.5	1268.258
12.0	1264.980
12.5	1261.467
13.0	1257.721
13.5	1253.740
14.0	1249.525
14.5	1245.075
15.0	1240.392
15.5	1235.709
16.0	1230.791
16.5	1226.108
17.0	1220.956
17.5	1215.804
18.0	1210.653
18.5	1205.501
19.0	1200.349
19.5	1195.198
20.0	1190.046
20.5	1184.894
21.0	1179.508
21.5	1173.888
22.0	1168.034
22.5	1161.477
23.0	1154.920
23.5	1147.661
24.0	1140.402
24.5	1132.674
25.0	1124.713
25.5	1116.751
26.0	1108.321
26.5	1099.891

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L50-8TW-DIM-UNV-SW-OF-WH_3500K_.IES

CANDELA TABULATION - (Cont.)

27.0	1091.227
27.5	1082.328
28.0	1073.430
28.5	1064.765
29.0	1056.101
29.5	1047.203
30.0	1038.539
30.5	1029.406
31.0	1020.039
31.5	1010.907
32.0	1001.540
32.5	992.173
33.0	982.572
33.5	972.737
34.0	963.136
34.5	953.301
35.0	943.466
35.5	933.397
36.0	923.328
36.5	913.024
37.0	902.721
37.5	892.417
38.0	881.880
38.5	871.108
39.0	860.804
39.5	850.033
40.0	839.261
40.5	828.723
41.0	817.717
41.5	807.180
42.0	796.174
42.5	785.402
43.0	774.396
43.5	763.156
44.0	751.916
44.5	740.676
45.0	729.202
45.5	717.962
46.0	706.487
46.5	695.013
47.0	683.539
47.5	671.830
48.0	660.356
48.5	648.648
49.0	637.173
49.5	625.699
50.0	614.225
50.5	602.985
51.0	591.745
51.5	580.504
52.0	569.499
52.5	558.493
53.0	547.721
53.5	536.949
54.0	526.177
54.5	515.640

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

CANDELA TABULATION - (Cont.)

55.0	504.868
55.5	494.330
56.0	484.729
56.5	474.426
57.0	464.591
57.5	454.756
58.0	444.921
58.5	435.086
59.0	425.719
59.5	416.352
60.0	406.985
60.5	398.087
61.0	388.954
61.5	379.588
62.0	370.455
62.5	361.322
63.0	352.424
63.5	343.526
64.0	334.627
64.5	325.963
65.0	317.299
65.5	308.634
66.0	299.970
66.5	291.540
67.0	283.344
67.5	275.148
68.0	266.952
68.5	258.991
69.0	251.029
69.5	243.067
70.0	235.105
70.5	227.378
71.0	219.697
71.5	212.063
72.0	204.523
72.5	197.100
73.0	189.700
73.5	182.371
74.0	175.111
74.5	167.852
75.0	160.687
75.5	153.615
76.0	146.543
76.5	139.541
77.0	132.633
77.5	125.749
78.0	118.958
78.5	112.284
79.0	105.657
79.5	99.100
80.0	92.707
80.5	86.408
81.0	80.179
81.5	73.997
82.0	67.932
82.5	61.961

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

CANDELA TABULATION - (Cont.)

83.0	56.060
83.5	50.229
84.0	44.539
84.5	38.942
85.0	33.486
85.5	28.264
86.0	23.393
86.5	19.132
87.0	15.244
87.5	11.755
88.0	8.758
88.5	6.393
89.0	4.449
89.5	2.880
90.0	1.780
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

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

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

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

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

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.

Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

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

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L50-8TW-DIM-UNV-SW-OF-WH_3500K_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	472.99	N.A.	15.20
0-30	989.69	N.A.	31.70
0-40	1578.76	N.A.	50.60
0-60	2593.3	N.A.	83.10
0-80	3078.89	N.A.	98.70
0-90	3120.28	N.A.	100.00
10-90	2996.88	N.A.	96.00
20-40	1105.77	N.A.	35.40
20-50	1667.33	N.A.	53.40
40-70	1329.62	N.A.	42.60
60-80	485.59	N.A.	15.60
70-80	170.50	N.A.	5.50
80-90	41.39	N.A.	1.30
90-110	0.05	N.A.	0.00
90-120	0.05	N.A.	0.00
90-130	0.05	N.A.	0.00
90-150	0.05	N.A.	0.00
90-180	0.05	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3120.33	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	123.40
10-20	349.59
20-30	516.70
30-40	589.07
40-50	561.57
50-60	452.97
60-70	315.09
70-80	170.50
80-90	41.39
90-100	0.05
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

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L50-8TW-DIM-UNV-SW-OF-WH_3500K_.IES

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	98	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	45	39	50	44	39	49	43	39	37
8	63	50	41	36	61	49	41	35	48	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

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L50-8TW-DIM-UNV-SW-OF-WH_3500K_.IES

UGR TABLE - CORRECTED

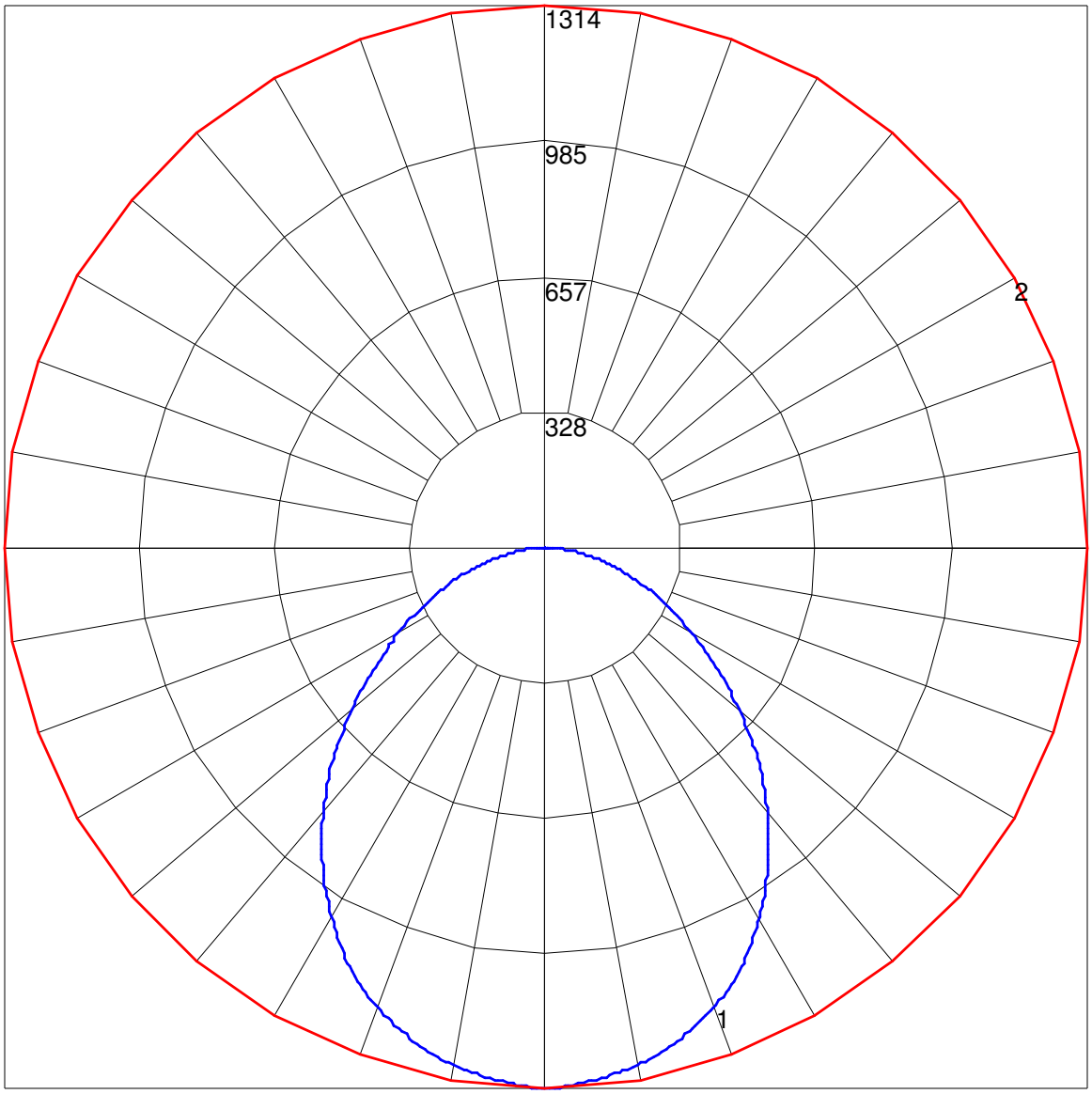
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	26.7	28.3	27.1	28.6	28.9	26.7	28.3	27.1	28.6	28.9
	3H	28.3	29.7	28.7	30.1	30.4	28.3	29.7	28.7	30.1	30.4
	4H	28.9	30.2	29.3	30.6	30.9	28.9	30.2	29.3	30.6	30.9
	6H	29.3	30.5	29.7	30.9	31.3	29.3	30.5	29.7	30.9	31.3
	8H	29.4	30.6	29.8	31.0	31.4	29.4	30.6	29.8	31.0	31.4
	12H	29.5	30.6	29.9	31.0	31.4	29.5	30.6	29.9	31.0	31.4
4H	2H	27.3	28.6	27.7	29.0	29.3	27.3	28.6	27.7	29.0	29.3
	3H	29.1	30.2	29.5	30.6	31.0	29.1	30.2	29.5	30.6	31.0
	4H	29.8	30.8	30.2	31.2	31.6	29.8	30.8	30.2	31.2	31.6
	6H	30.3	31.2	30.7	31.6	32.1	30.3	31.2	30.7	31.6	32.1
	8H	30.4	31.3	30.9	31.7	32.2	30.4	31.3	30.9	31.7	32.2
	12H	30.5	31.3	31.0	31.7	32.2	30.5	31.3	31.0	31.7	32.2
8H	4H	30.0	30.8	30.5	31.3	31.8	30.0	30.8	30.5	31.3	31.8
	6H	30.6	31.3	31.1	31.8	32.3	30.6	31.3	31.1	31.8	32.3
	8H	30.9	31.5	31.4	32.0	32.5	30.9	31.5	31.4	32.0	32.5
	12H	31.0	31.5	31.5	32.0	32.6	31.0	31.5	31.5	32.0	32.6
12H	4H	30.1	30.8	30.5	31.3	31.7	30.1	30.8	30.5	31.3	31.7
	6H	30.7	31.3	31.2	31.8	32.3	30.7	31.3	31.2	31.8	32.3
	8H	30.9	31.5	31.5	32.0	32.5	30.9	31.5	31.5	32.0	32.5

Maximum UGR = 32.6

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L50-8TW-DIM-UNV-SW-OF-WH_3500K_.IES

POLAR GRAPH



Maximum Candela = 1313.687 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.)

Photometric Toolbox (R) Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.