IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L50-8TW-DIM-UNV-SW-OF-WH_5000K_.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_5000K_
[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	3089
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	73
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	111537	111537	111537
55	95202	95202	95202
65	81204	81204	81204
75	67149	67149	67149
85	41555	41555	41555

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_5000K_.IES

CANDELA TABULATION

	0
0.0	1300.417
0.5	1300.185
1.0	1299.490
1.5	1298.794
2.0	1297.404
2.5	1296.013
3.0	1294.158
3.5	1292.304
4.0	1290.449
4.5	1288.595
5.0	1286.972
5.5	1285.118
6.0	1283.264
6.5	1281.409
7.0	1279.323
7.5	1277.005
8.0	1274.687
8.5	1272.369
9.0	1269.819
9.5	1267.269
10.0	1264.488
10.5	1261.706
11.0	1258.692
11.5	1255.447
12.0	1252.202
12.5	1248.725
13.0	1245.016
13.5	1241.075
14.0	1236.903
14.5	1232.499
15.0	1227.863
15.5	1223.227
16.0	1218.359
16.5	1213.723
17.0	1208.623
17.5	1203.523
18.0	1198.424
18.5	1193.324
19.0	1188.224
19.5	1183.125
20.0	1178.025
20.5	1172.925
21.0	1167.594
21.5	1162.030
22.0	1156.235
22.5	1149.745
23.0	1143.254
23.5	1136.068
24.0	1128.883
24.5	1121.233
25.0	1113.352
25.5	1105.470
26.0	1097.125
26.5	1088.781

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_5000K_.IES

CANDELA TABULATION - (Cont.)

27.0	1080.204
27.5	1071.395
28.0	1062.587
28.5	1054.010
29.0	1045.433
29.5	1036.625
30.0	1028.048
30.5	1019.008
31.0	1009.736
31.5	1000.695
32.0	991.423
32.5	982.151
33.0	972.647
33.5	962.911
34.0	953.407
34.5	943.672
35.0	933.936
35.5	923.968
36.0	914.001
36.5	903.801
37.0	893.602
37.5	883.403
38.0	872.972
38.5	862.309
39.0	852.109
39.5	841.446
40.0	830.783
40.5	820.352
41.0	809.457
41.5	799.026
42.0	788.132
42.5	777.469
43.0	766.574
43.5	755.447
44.0	744.321
44.5	733.194
45.0	721.836
45.5	710.709
46.0	699.351
46.5	687.992
47.0	676.634
47.5	665.044
48.0	653.686
48.5	642.095
49.0	630.737
49.5	619.379
50.0	608.020
50.5	596.894
51.0	585.767
51.5	574.641
52.0	563.746
52.5	552.851
53.0	542.188
53.5	531.525
54.0	520.862
54.5	510.431

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	499.768
55.5	489.337
56.0	479.833
56.5	469.634
57.0	459.898
57.5	450.162
58.0	440.426
58.5	430.691
59.0	421.419
59.5	412.146
60.0	402.874
60.5	394.066
61.0	385.025
61.5	375.753
62.0	366.713
62.5	357.673
63.0	348.864
63.5	340.056
64.0	331.247
64.5	322.670
65.0	314.094
65.5	305.517
66.0	296.940
66.5	288.595
67.0	280.482
67.5	272.369
68.0	264.256
68.5	256.375
69.0	248.493
69.5	240.612
70.0	232.731
70.5	225.081
71.0	217.478
71.5	209.921
72.0	202.457
72.5	195.109
73.0	187.784
73.5	180.528
74.0	173.343
74.5	166.157
75.0	159.063
75.5	152.063
76.0	145.063
76.5	138.132
77.0	131.293
77.5	124.478
78.0	117.756
78.5	111.150
79.0	104.590
79.5	98.099
80.0	91.771
80.5	85.535
81.0	79.369
81.5	73.250
82.0	67.246
82.5	61.335

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	55.494
83.5	49.722
84.0	44.089
84.5	38.549
85.0	33.148
85.5	27.979
86.0	23.157
86.5	18.938
87.0	15.090
87.5	11.637
88.0	8.669
88.5	6.328
89.0	4.404
89.5	2.851
90.0	1.762
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_5000K_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	468.22	N.A.	15.20
0-30	979.69	N.A.	31.70
0-40	1562.81	N.A.	50.60
0-60	2567.1	N.A.	83.10
0-80	3047.79	N.A.	98.70
0-90	3088.76	N.A.	100.00
10-90	2966.6	N.A.	96.00
20-40	1094.6	N.A.	35.40
20-50	1650.49	N.A.	53.40
40-70	1316.19	N.A.	42.60
60-80	480.68	N.A.	15.60
70-80	168.78	N.A.	5.50
80-90	40.97	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	3088.81	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	122.16
10-20	346.06
20-30	511.48
30-40	583.12
40-50	555.89
50-60	448.40
60-70	311.90
70-80	168.78
80-90	40.97
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_5000K_.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	49	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_5000K_.IES

UGR TABLE - CORRECTED

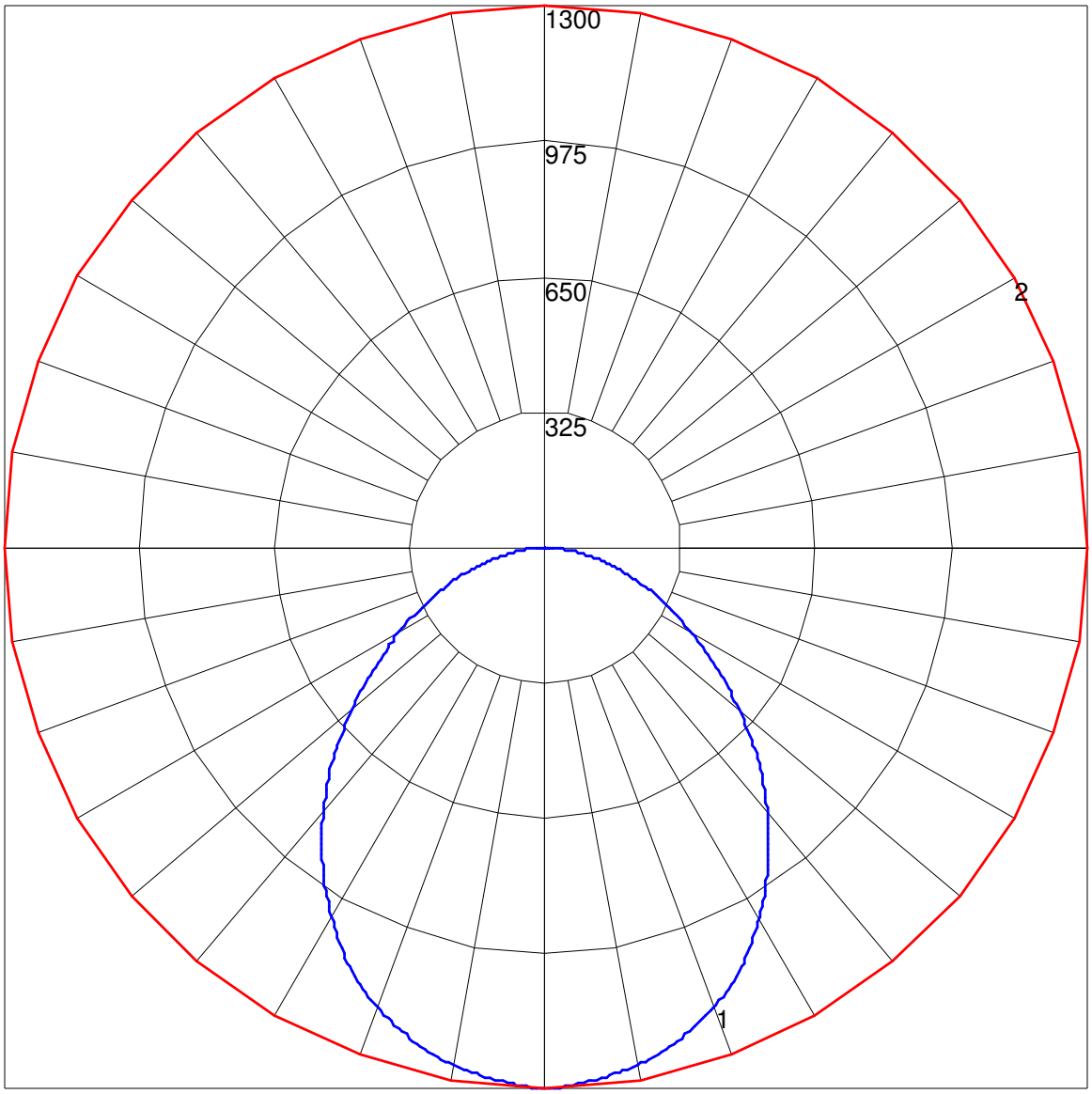
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	26.6	28.2	27.0	28.5	28.8	26.6	28.2	27.0	28.5	28.8
	3H	28.2	29.6	28.6	30.0	30.3	28.2	29.6	28.6	30.0	30.3
	4H	28.8	30.1	29.2	30.5	30.8	28.8	30.1	29.2	30.5	30.8
	6H	29.2	30.4	29.6	30.8	31.2	29.2	30.4	29.6	30.8	31.2
	8H	29.3	30.5	29.7	30.9	31.3	29.3	30.5	29.7	30.9	31.3
	12H	29.4	30.5	29.8	30.9	31.3	29.4	30.5	29.8	30.9	31.3
4H	2H	27.2	28.5	27.6	28.9	29.2	27.2	28.5	27.6	28.9	29.2
	3H	29.0	30.1	29.4	30.5	30.9	29.0	30.1	29.4	30.5	30.9
	4H	29.7	30.7	30.1	31.1	31.5	29.7	30.7	30.1	31.1	31.5
	6H	30.2	31.1	30.7	31.5	32.0	30.2	31.1	30.7	31.5	32.0
	8H	30.3	31.2	30.8	31.6	32.1	30.3	31.2	30.8	31.6	32.1
	12H	30.4	31.2	30.9	31.6	32.1	30.4	31.2	30.9	31.6	32.1
8H	4H	29.9	30.7	30.4	31.2	31.7	29.9	30.7	30.4	31.2	31.7
	6H	30.5	31.2	31.0	31.7	32.2	30.5	31.2	31.0	31.7	32.2
	8H	30.8	31.4	31.3	31.9	32.4	30.8	31.4	31.3	31.9	32.4
	12H	30.9	31.4	31.4	31.9	32.5	30.9	31.4	31.4	31.9	32.5
12H	4H	30.0	30.7	30.4	31.2	31.6	30.0	30.7	30.4	31.2	31.6
	6H	30.6	31.2	31.1	31.7	32.2	30.6	31.2	31.1	31.7	32.2
	8H	30.8	31.4	31.4	31.9	32.4	30.8	31.4	31.4	31.9	32.4

Maximum UGR = 32.5

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_5000K_.IES

POLAR GRAPH



Maximum Candela = 1300.417 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.