IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L40-8TW-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-L40-8TW-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	2335
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	68
Total Luminaire Watts	34.4
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	84322	84322	84322
55	71973	71973	71973
65	61390	61390	61390
75	50765	50765	50765
85	31416	31416	31416

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-L40-8TW-DIM-UNV-SW-OF-WH_4000K_.IES

CANDELA TABULATION

	0
0.0	983.118
0.5	982.942
1.0	982.417
1.5	981.891
2.0	980.840
2.5	979.788
3.0	978.386
3.5	976.984
4.0	975.582
4.5	974.180
5.0	972.954
5.5	971.552
6.0	970.150
6.5	968.748
7.0	967.171
7.5	965.418
8.0	963.666
8.5	961.913
9.0	959.986
9.5	958.058
10.0	955.955
10.5	953.852
11.0	951.574
11.5	949.120
12.0	946.667
12.5	944.038
13.0	941.234
13.5	938.255
14.0	935.101
14.5	931.771
15.0	928.266
15.5	924.762
16.0	921.081
16.5	917.577
17.0	913.721
17.5	909.866
18.0	906.010
18.5	902.155
19.0	898.300
19.5	894.444
20.0	890.589
20.5	886.734
21.0	882.703
21.5	878.497
22.0	874.116
22.5	869.209
23.0	864.302
23.5	858.870
24.0	853.437
24.5	847.654
25.0	841.696
25.5	835.738
26.0	829.429
26.5	823.120

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.)

27.0	816.636
27.5	809.977
28.0	803.318
28.5	796.834
29.0	790.350
29.5	783.690
30.0	777.206
30.5	770.372
31.0	763.362
31.5	756.527
32.0	749.518
32.5	742.508
33.0	735.323
33.5	727.963
34.0	720.778
34.5	713.417
35.0	706.057
35.5	698.522
36.0	690.986
36.5	683.276
37.0	675.565
37.5	667.854
38.0	659.968
38.5	651.907
39.0	644.196
39.5	636.135
40.0	628.074
40.5	620.188
41.0	611.951
41.5	604.065
42.0	595.829
42.5	587.768
43.0	579.531
43.5	571.120
44.0	562.708
44.5	554.296
45.0	545.709
45.5	537.297
46.0	528.711
46.5	520.124
47.0	511.537
47.5	502.774
48.0	494.188
48.5	485.425
49.0	476.838
49.5	468.251
50.0	459.664
50.5	451.253
51.0	442.841
51.5	434.429
52.0	426.193
52.5	417.956
53.0	409.895
53.5	401.834
54.0	393.773
54.5	385.887

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-L40-8TW-DIM-UNV-SW-OF-WH_4000K_.IES

CANDELA TABULATION - (Cont.)

55.0	377.826
55.5	369.940
56.0	362.755
56.5	355.044
57.0	347.684
57.5	340.323
58.0	332.963
58.5	325.603
59.0	318.593
59.5	311.583
60.0	304.574
60.5	297.914
61.0	291.080
61.5	284.070
62.0	277.236
62.5	270.401
63.0	263.742
63.5	257.083
64.0	250.423
64.5	243.939
65.0	237.455
65.5	230.971
66.0	224.487
66.5	218.179
67.0	212.045
67.5	205.911
68.0	199.778
68.5	193.820
69.0	187.861
69.5	181.903
70.0	175.945
70.5	170.162
71.0	164.414
71.5	158.701
72.0	153.058
72.5	147.503
73.0	141.965
73.5	136.480
74.0	131.047
74.5	125.615
75.0	120.252
75.5	114.960
76.0	109.668
76.5	104.428
77.0	99.258
77.5	94.106
78.0	89.024
78.5	84.029
79.0	79.070
79.5	74.163
80.0	69.379
80.5	64.665
81.0	60.003
81.5	55.377
82.0	50.838
82.5	46.370

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	41.953
83.5	37.590
84.0	33.331
84.5	29.143
85.0	25.060
85.5	21.152
86.0	17.507
86.5	14.317
87.0	11.408
87.5	8.797
88.0	6.554
88.5	4.784
89.0	3.330
89.5	2.155
90.0	1.332
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-L40-8TW-DIM-UNV-SW-OF-WH_4000K_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	353.97	N.A.	15.20
0-30	740.65	N.A.	31.70
0-40	1181.49	N.A.	50.60
0-60	1940.73	N.A.	83.10
0-80	2304.13	N.A.	98.70
0-90	2335.11	N.A.	100.00
10-90	2242.76	N.A.	96.00
20-40	827.52	N.A.	35.40
20-50	1247.78	N.A.	53.40
40-70	995.04	N.A.	42.60
60-80	363.40	N.A.	15.60
70-80	127.60	N.A.	5.50
80-90	30.98	N.A.	1.30
90-110	0.04	N.A.	0.00
90-120	0.04	N.A.	0.00
90-130	0.04	N.A.	0.00
90-150	0.04	N.A.	0.00
90-180	0.04	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2335.14	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	92.35
10-20	261.62
20-30	386.68
30-40	440.84
40-50	420.26
50-60	338.99
60-70	235.80
70-80	127.60
80-90	30.98
90-100	0.04
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-L40-8TW-DIM-UNV-SW-OF-WH_4000K_.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-L40-8TW-DIM-UNV-SW-OF-WH_4000K_.IES

UGR TABLE - CORRECTED

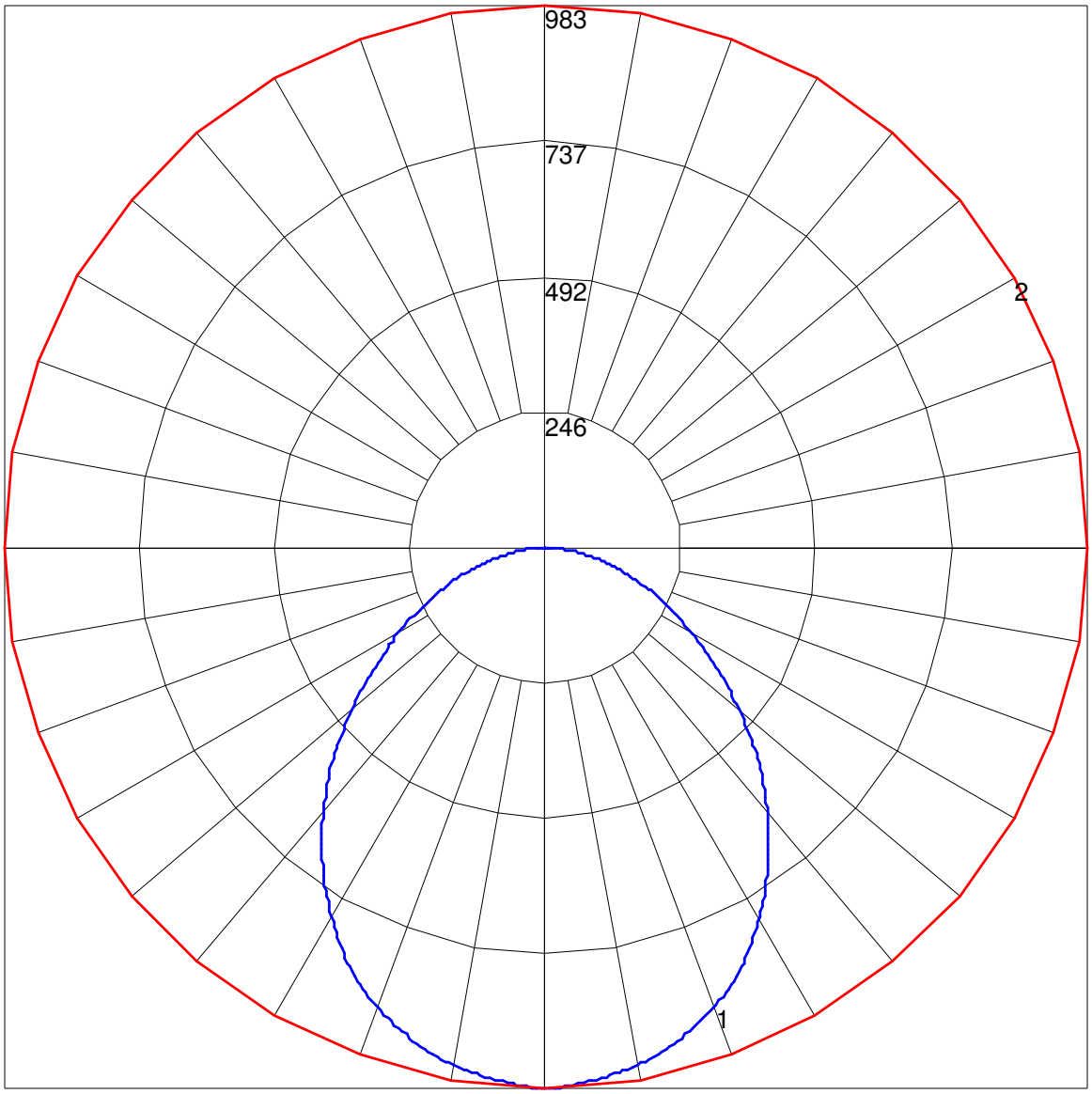
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	25.7	27.3	26.1	27.6	27.9	25.7	27.3	26.1	27.6	27.9
	3H	27.3	28.7	27.7	29.1	29.4	27.3	28.7	27.7	29.1	29.4
	4H	27.9	29.2	28.3	29.6	29.9	27.9	29.2	28.3	29.6	29.9
	6H	28.3	29.5	28.7	29.9	30.3	28.3	29.5	28.7	29.9	30.3
	8H	28.4	29.6	28.8	30.0	30.4	28.4	29.6	28.8	30.0	30.4
	12H	28.5	29.6	28.9	30.0	30.4	28.5	29.6	28.9	30.0	30.4
4H	2H	26.3	27.6	26.7	28.0	28.3	26.3	27.6	26.7	28.0	28.3
	3H	28.1	29.2	28.5	29.6	30.0	28.1	29.2	28.5	29.6	30.0
	4H	28.8	29.8	29.2	30.2	30.6	28.8	29.8	29.2	30.2	30.6
	6H	29.3	30.2	29.8	30.6	31.1	29.3	30.2	29.8	30.6	31.1
	8H	29.4	30.3	29.9	30.7	31.2	29.4	30.3	29.9	30.7	31.2
	12H	29.5	30.3	30.0	30.7	31.2	29.5	30.3	30.0	30.7	31.2
8H	4H	29.0	29.8	29.5	30.3	30.8	29.0	29.8	29.5	30.3	30.8
	6H	29.6	30.3	30.1	30.8	31.3	29.6	30.3	30.1	30.8	31.3
	8H	29.9	30.5	30.4	31.0	31.5	29.9	30.5	30.4	31.0	31.5
	12H	30.0	30.5	30.5	31.0	31.6	30.0	30.5	30.5	31.0	31.6
12H	4H	29.1	29.8	29.5	30.3	30.7	29.1	29.8	29.5	30.3	30.7
	6H	29.7	30.3	30.2	30.8	31.3	29.7	30.3	30.2	30.8	31.3
	8H	29.9	30.5	30.5	31.0	31.5	29.9	30.5	30.5	31.0	31.5

Maximum UGR = 31.6

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-L40-8TW-DIM-UNV-SW-OF-WH_4000K_.IES

POLAR GRAPH



Maximum Candela = 983.118 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.