IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L40-8TW-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-L40-8TW-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	2288
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	67
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	82636	82636	82636
55	70533	70533	70533
65	60163	60163	60163
75	49750	49750	49750
85	30788	30788	30788

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CANDELA TABULATION

	0
0.0	963.455
0.5	963.283
1.0	962.768
1.5	962.253
2.0	961.223
2.5	960.192
3.0	958.818
3.5	957.444
4.0	956.070
4.5	954.697
5.0	953.494
5.5	952.120
6.0	950.747
6.5	949.373
7.0	947.827
7.5	946.110
8.0	944.392
8.5	942.675
9.0	940.786
9.5	938.897
10.0	936.836
10.5	934.775
11.0	932.542
11.5	930.138
12.0	927.734
12.5	925.157
13.0	922.410
13.5	919.490
14.0	916.399
14.5	913.136
15.0	909.701
15.5	906.266
16.0	902.660
16.5	899.225
17.0	895.447
17.5	891.668
18.0	887.890
18.5	884.112
19.0	880.334
19.5	876.555
20.0	872.777
20.5	868.999
21.0	865.049
21.5	860.927
22.0	856.634
22.5	851.825
23.0	847.016
23.5	841.692
24.0	836.368
24.5	830.701
25.0	824.862
25.5	819.023
26.0	812.840
26.5	806.658

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CANDELA TABULATION - (Cont.)

27.0	800.303
27.5	793.777
28.0	787.251
28.5	780.897
29.0	774.542
29.5	768.016
30.0	761.662
30.5	754.964
31.0	748.095
31.5	741.397
32.0	734.527
32.5	727.658
33.0	720.616
33.5	713.403
34.0	706.362
34.5	699.149
35.0	691.936
35.5	684.551
36.0	677.166
36.5	669.610
37.0	662.053
37.5	654.497
38.0	646.769
38.5	638.869
39.0	631.312
39.5	623.412
40.0	615.512
40.5	607.784
41.0	599.712
41.5	591.984
42.0	583.912
42.5	576.012
43.0	567.941
43.5	559.697
44.0	551.454
44.5	543.210
45.0	534.795
45.5	526.551
46.0	518.136
46.5	509.721
47.0	501.306
47.5	492.719
48.0	484.304
48.5	475.717
49.0	467.302
49.5	458.886
50.0	450.471
50.5	442.228
51.0	433.984
51.5	425.741
52.0	417.669
52.5	409.597
53.0	401.697
53.5	393.797
54.0	385.897
54.5	378.169

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CANDELA TABULATION - (Cont.)

55.0	370.269
55.5	362.541
56.0	355.500
56.5	347.943
57.0	340.730
57.5	333.517
58.0	326.304
58.5	319.091
59.0	312.221
59.5	305.352
60.0	298.482
60.5	291.956
61.0	285.258
61.5	278.389
62.0	271.691
62.5	264.993
63.0	258.467
63.5	251.941
64.0	245.415
64.5	239.061
65.0	232.706
65.5	226.352
66.0	219.998
66.5	213.815
67.0	207.804
67.5	201.793
68.0	195.782
68.5	189.943
69.0	184.104
69.5	178.265
70.0	172.426
70.5	166.758
71.0	161.125
71.5	155.527
72.0	149.997
72.5	144.553
73.0	139.126
73.5	133.750
74.0	128.426
74.5	123.102
75.0	117.847
75.5	112.661
76.0	107.474
76.5	102.339
77.0	97.273
77.5	92.224
78.0	87.243
78.5	82.349
79.0	77.489
79.5	72.680
80.0	67.991
80.5	63.372
81.0	58.803
81.5	54.269
82.0	49.821
82.5	45.442

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CANDELA TABULATION - (Cont.)

83.0	41.114
83.5	36.838
84.0	32.665
84.5	28.560
85.0	24.559
85.5	20.729
86.0	17.157
86.5	14.031
87.0	11.180
87.5	8.621
88.0	6.423
88.5	4.688
89.0	3.263
89.5	2.112
90.0	1.305
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
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	346.89	N.A.	15.20
0-30	725.84	N.A.	31.70
0-40	1157.86	N.A.	50.60
0-60	1901.92	N.A.	83.10
0-80	2258.05	N.A.	98.70
0-90	2288.4	N.A.	100.00
10-90	2197.9	N.A.	96.00
20-40	810.97	N.A.	35.40
20-50	1222.82	N.A.	53.40
40-70	975.14	N.A.	42.60
60-80	356.13	N.A.	15.60
70-80	125.05	N.A.	5.50
80-90	30.36	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	2288.44	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	90.50
10-20	256.39
20-30	378.95
30-40	432.02
40-50	411.85
50-60	332.21
60-70	231.08
70-80	125.05
80-90	30.36
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

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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	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	61	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	36	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

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UGR TABLE - CORRECTED

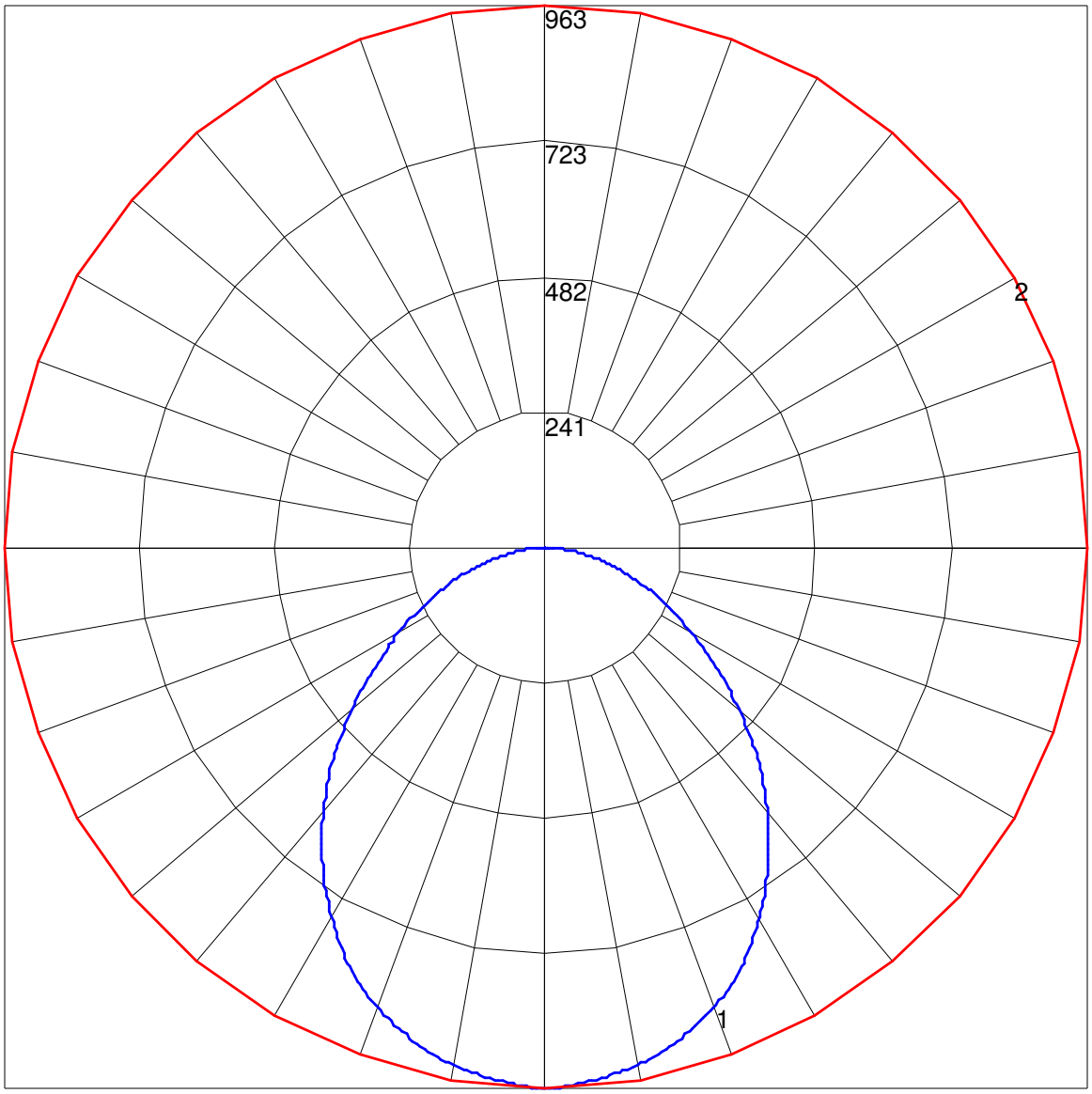
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	25.6	27.2	26.0	27.5	27.8	25.6	27.2	26.0	27.5	27.8
	3H	27.2	28.6	27.6	29.0	29.3	27.2	28.6	27.6	29.0	29.3
	4H	27.8	29.1	28.2	29.5	29.8	27.8	29.1	28.2	29.5	29.8
	6H	28.2	29.4	28.6	29.8	30.2	28.2	29.4	28.6	29.8	30.2
	8H	28.3	29.5	28.7	29.9	30.3	28.3	29.5	28.7	29.9	30.3
	12H	28.4	29.5	28.8	29.9	30.3	28.4	29.5	28.8	29.9	30.3
4H	2H	26.2	27.5	26.6	27.9	28.2	26.2	27.5	26.6	27.9	28.2
	3H	28.0	29.1	28.4	29.5	29.9	28.0	29.1	28.4	29.5	29.9
	4H	28.7	29.7	29.1	30.1	30.5	28.7	29.7	29.1	30.1	30.5
	6H	29.2	30.1	29.7	30.5	31.0	29.2	30.1	29.7	30.5	31.0
	8H	29.3	30.2	29.8	30.6	31.1	29.3	30.2	29.8	30.6	31.1
	12H	29.4	30.2	29.9	30.6	31.1	29.4	30.2	29.9	30.6	31.1
8H	4H	28.9	29.7	29.4	30.2	30.7	28.9	29.7	29.4	30.2	30.7
	6H	29.5	30.2	30.0	30.7	31.2	29.5	30.2	30.0	30.7	31.2
	8H	29.8	30.4	30.3	30.9	31.4	29.8	30.4	30.3	30.9	31.4
	12H	29.9	30.4	30.4	30.9	31.5	29.9	30.4	30.4	30.9	31.5
12H	4H	29.0	29.7	29.4	30.2	30.6	29.0	29.7	29.4	30.2	30.6
	6H	29.6	30.2	30.1	30.7	31.2	29.6	30.2	30.1	30.7	31.2
	8H	29.8	30.4	30.4	30.9	31.4	29.8	30.4	30.4	30.9	31.4

Maximum UGR = 31.5

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POLAR GRAPH



Maximum Candela = 963.455 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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