

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L15-940-DIM-UNV-L-M-OF-CS-WETCC_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12316380.09

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 6/25/2025

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.

[LUMCAT] 4DR-TL-L15-940-DIM-UNV-L-M-OF-CS-WETCC

[LUMINAIRE] Black formed aluminum housing, white reflector, clear plas

[MORE] tic optic, clear glass patterned enclosure

[LAMP] One white LED

[OTHER] This test was performed using the calibrated photodetector met

[MORE] hod of absolute photometry.

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	942
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	68
Total Luminaire Watts	13.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.54
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	7146	7146	7146
55	5570	5570	5570
65	4655	4655	4655
75	3745	3745	3745
85	2238	2238	2238

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CANDELA TABULATION

	<u>0</u>
0.0	2436.833
0.5	2435.783
1.0	2432.108
1.5	2426.334
2.0	2418.984
2.5	2409.010
3.0	2397.461
3.5	2383.812
4.0	2368.064
4.5	2351.265
5.0	2332.367
5.5	2311.369
6.0	2288.271
6.5	2262.548
7.0	2234.726
7.5	2204.278
8.0	2171.206
8.5	2135.510
9.0	2097.713
9.5	2056.767
10.0	2012.671
10.5	1965.425
11.0	1916.079
11.5	1864.109
12.0	1808.989
12.5	1751.769
13.0	1691.924
13.5	1629.980
14.0	1565.410
14.5	1498.741
15.0	1431.547
15.5	1363.303
16.0	1295.060
16.5	1226.291
17.0	1158.047
17.5	1091.903
18.0	1026.283
18.5	963.289
19.0	902.919
19.5	844.650
20.0	789.530
20.5	736.509
21.0	687.164
21.5	640.443
22.0	596.347
22.5	555.400
23.0	516.764
23.5	480.752
24.0	447.313
24.5	416.078
25.0	387.100
25.5	360.170
26.0	334.920
26.5	311.612

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CANDELA TABULATION - (Cont.)

27.0	289.879
27.5	269.983
28.0	251.453
28.5	234.339
29.0	218.643
29.5	203.997
30.0	190.401
30.5	177.854
31.0	166.253
31.5	155.596
32.0	145.727
32.5	136.645
33.0	128.299
33.5	120.582
34.0	113.547
34.5	107.038
35.0	101.158
35.5	95.699
36.0	90.712
36.5	86.145
37.0	81.945
37.5	78.113
38.0	74.648
38.5	71.446
39.0	68.506
39.5	65.829
40.0	63.362
40.5	61.052
41.0	58.900
41.5	56.957
42.0	55.120
42.5	53.388
43.0	51.813
43.5	50.291
44.0	48.873
44.5	47.561
45.0	46.248
45.5	45.041
46.0	43.939
46.5	42.836
47.0	41.786
47.5	40.841
48.0	39.844
48.5	38.952
49.0	38.059
49.5	37.167
50.0	36.379
50.5	35.592
51.0	34.857
51.5	34.069
52.0	33.335
52.5	32.652
53.0	31.917
53.5	31.235
54.0	30.552
54.5	29.870

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CANDELA TABULATION - (Cont.)

55.0	29.240
55.5	28.610
56.0	27.980
56.5	27.350
57.0	26.668
57.5	26.090
58.0	25.513
58.5	24.988
59.0	24.410
59.5	23.833
60.0	23.255
60.5	22.678
61.0	22.206
61.5	21.628
62.0	21.103
62.5	20.578
63.0	20.053
63.5	19.581
64.0	19.056
64.5	18.531
65.0	18.006
65.5	17.533
66.0	17.061
66.5	16.589
67.0	16.064
67.5	15.591
68.0	15.119
68.5	14.646
69.0	14.174
69.5	13.701
70.0	13.229
70.5	12.809
71.0	12.389
71.5	11.864
72.0	11.444
72.5	11.024
73.0	10.604
73.5	10.132
74.0	9.712
74.5	9.292
75.0	8.872
75.5	8.452
76.0	8.032
76.5	7.612
77.0	7.192
77.5	6.877
78.0	6.457
78.5	6.089
79.0	5.722
79.5	5.355
80.0	4.987
80.5	4.620
81.0	4.252
81.5	3.990
82.0	3.570
82.5	3.307

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CANDELA TABULATION - (Cont.)

83.0	2.940
83.5	2.677
84.0	2.362
84.5	2.047
85.0	1.785
85.5	1.470
86.0	1.260
86.5	0.997
87.0	0.840
87.5	0.682
88.0	0.525
88.5	0.420
89.0	0.315
89.5	0.210
90.0	0.157
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

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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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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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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Zone	Lumens	%Lamp	%Fixt
0-20	595.61	N.A.	63.20
0-30	782.25	N.A.	83.10
0-40	849.52	N.A.	90.20
0-60	912.24	N.A.	96.90
0-80	939.59	N.A.	99.80
0-90	941.81	N.A.	100.00
10-90	729.13	N.A.	77.40
20-40	253.92	N.A.	27.00
20-50	290.35	N.A.	30.80
40-70	80.63	N.A.	8.60
60-80	27.34	N.A.	2.90
70-80	9.44	N.A.	1.00
80-90	2.22	N.A.	0.20
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	941.81	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	212.67
10-20	382.93
20-30	186.64
30-40	67.28
40-50	36.44
50-60	26.28
60-70	17.91
70-80	9.44
80-90	2.22
90-100	0.00
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	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	109	104	101	97	107	103	99	96	99	97	94	96	94	92	94	92	90	89
3	104	98	94	90	102	97	93	89	94	91	88	92	89	87	90	87	85	84
4	100	93	88	84	98	92	87	84	90	86	83	88	85	82	86	83	81	80
5	96	88	83	80	94	88	83	79	86	82	78	84	81	78	83	80	77	76
6	92	84	79	75	91	84	79	75	82	78	75	81	77	74	80	76	74	72
7	89	81	75	72	87	80	75	72	79	74	71	78	74	71	77	73	71	69
8	86	77	72	69	84	77	72	69	76	71	68	75	71	68	74	70	68	67
9	83	74	69	66	82	74	69	66	73	69	66	72	68	65	71	68	65	64
10	80	72	67	63	79	71	66	63	70	66	63	70	66	63	69	65	63	62

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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

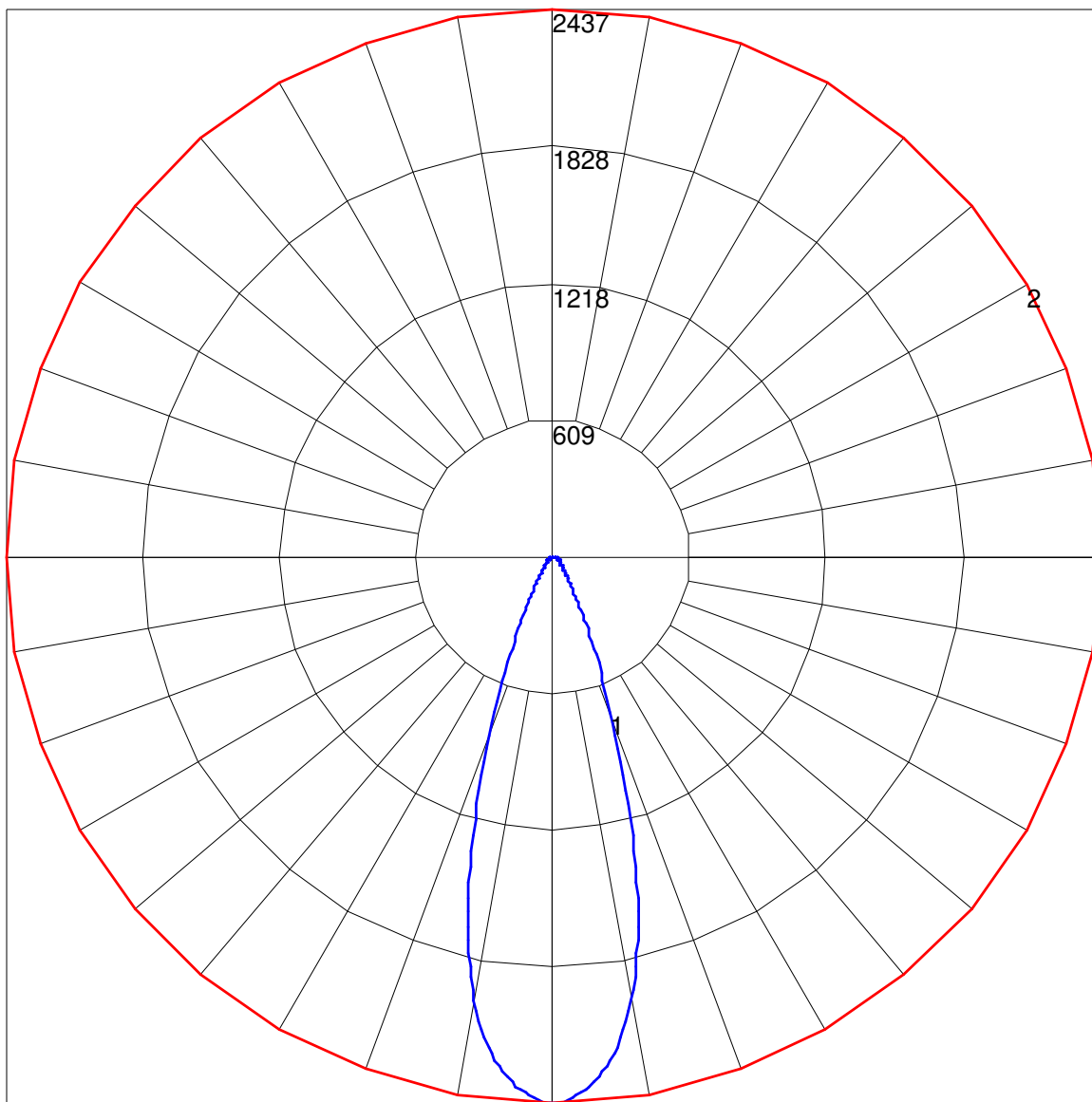
X=2H	Y=2H	11.7	12.8	12.1	13.1	13.4	11.7	12.8	12.1	13.1	13.4
	3H	13.2	14.1	13.6	14.4	14.8	13.2	14.1	13.6	14.4	14.8
	4H	13.7	14.5	14.1	14.9	15.3	13.7	14.5	14.1	14.9	15.3
	6H	14.0	14.8	14.4	15.2	15.6	14.0	14.8	14.4	15.2	15.6
	8H	14.1	14.8	14.5	15.2	15.6	14.1	14.8	14.5	15.2	15.6
	12H	14.1	14.8	14.6	15.2	15.6	14.1	14.8	14.6	15.2	15.6

UGR Viewed Endwise

4H	2H	12.2	13.0	12.6	13.4	13.8	12.2	13.0	12.6	13.4	13.8
	3H	13.8	14.5	14.2	14.9	15.3	13.8	14.5	14.2	14.9	15.3
	4H	14.4	15.1	14.9	15.5	15.9	14.4	15.1	14.9	15.5	15.9
	6H	14.9	15.4	15.4	15.9	16.3	14.9	15.4	15.4	15.9	16.3
	8H	15.0	15.5	15.5	15.9	16.4	15.0	15.5	15.5	15.9	16.4
	12H	15.0	15.5	15.5	15.9	16.4	15.0	15.5	15.5	15.9	16.4
8H	4H	14.6	15.1	15.1	15.5	16.0	14.6	15.1	15.1	15.5	16.0
	6H	15.1	15.5	15.7	16.0	16.5	15.1	15.5	15.7	16.0	16.5
	8H	15.3	15.6	15.8	16.2	16.7	15.3	15.6	15.8	16.2	16.7
	12H	15.4	15.7	15.9	16.2	16.8	15.4	15.7	15.9	16.2	16.8
12H	4H	14.6	15.0	15.1	15.5	16.0	14.6	15.0	15.1	15.5	16.0
	6H	15.2	15.5	15.7	16.0	16.5	15.2	15.5	15.7	16.0	16.5
	8H	15.3	15.6	15.9	16.1	16.7	15.3	15.6	15.9	16.1	16.7

Maximum UGR = 16.8

POLAR GRAPH



Maximum Candela = 2436.833 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.)