IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L70-8TW-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-L70-8TW-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	4515
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	77
Total Luminaire Watts	58.4
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	163050	163050	163050
55	139170	139170	139170
65	118707	118707	118707
75	98162	98162	98162
85	60747	60747	60747

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CANDELA TABULATION

	0
0.0	1901.003
0.5	1900.664
1.0	1899.647
1.5	1898.631
2.0	1896.598
2.5	1894.565
3.0	1891.854
3.5	1889.143
4.0	1886.432
4.5	1883.721
5.0	1881.349
5.5	1878.638
6.0	1875.927
6.5	1873.216
7.0	1870.167
7.5	1866.778
8.0	1863.389
8.5	1860.001
9.0	1856.273
9.5	1852.546
10.0	1848.480
10.5	1844.413
11.0	1840.008
11.5	1835.264
12.0	1830.520
12.5	1825.437
13.0	1820.015
13.5	1814.255
14.0	1808.155
14.5	1801.717
15.0	1794.940
15.5	1788.163
16.0	1781.047
16.5	1774.269
17.0	1766.814
17.5	1759.360
18.0	1751.905
18.5	1744.450
19.0	1736.995
19.5	1729.540
20.0	1722.085
20.5	1714.630
21.0	1706.836
21.5	1698.704
22.0	1690.232
22.5	1680.744
23.0	1671.256
23.5	1660.751
24.0	1650.247
24.5	1639.064
25.0	1627.543
25.5	1616.022
26.0	1603.823
26.5	1591.624

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CANDELA TABULATION - (Cont.)

27.0	1579.086
27.5	1566.210
28.0	1553.333
28.5	1540.795
29.0	1528.257
29.5	1515.381
30.0	1502.843
30.5	1489.627
31.0	1476.073
31.5	1462.857
32.0	1449.303
32.5	1435.749
33.0	1421.855
33.5	1407.623
34.0	1393.730
34.5	1379.498
35.0	1365.266
35.5	1350.695
36.0	1336.124
36.5	1321.214
37.0	1306.304
37.5	1291.394
38.0	1276.146
38.5	1260.558
39.0	1245.648
39.5	1230.061
40.0	1214.473
40.5	1199.224
41.0	1183.298
41.5	1168.049
42.0	1152.123
42.5	1136.535
43.0	1120.609
43.5	1104.344
44.0	1088.079
44.5	1071.813
45.0	1055.209
45.5	1038.944
46.0	1022.340
46.5	1005.736
47.0	989.131
47.5	972.188
48.0	955.584
48.5	938.641
49.0	922.037
49.5	905.433
50.0	888.829
50.5	872.564
51.0	856.298
51.5	840.033
52.0	824.107
52.5	808.180
53.0	792.593
53.5	777.005
54.0	761.418
54.5	746.169

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CANDELA TABULATION - (Cont.)

55.0	730.582
55.5	715.333
56.0	701.440
56.5	686.530
57.0	672.298
57.5	658.066
58.0	643.833
58.5	629.601
59.0	616.047
59.5	602.493
60.0	588.938
60.5	576.061
61.0	562.846
61.5	549.292
62.0	536.076
62.5	522.861
63.0	509.984
63.5	497.107
64.0	484.231
64.5	471.693
65.0	459.155
65.5	446.617
66.0	434.079
66.5	421.880
67.0	410.020
67.5	398.160
68.0	386.300
68.5	374.779
69.0	363.258
69.5	351.736
70.0	340.215
70.5	329.033
71.0	317.918
71.5	306.871
72.0	295.960
72.5	285.218
73.0	274.510
73.5	263.904
74.0	253.399
74.5	242.895
75.0	232.526
75.5	222.292
76.0	212.058
76.5	201.926
77.0	191.930
77.5	181.968
78.0	172.141
78.5	162.483
79.0	152.893
79.5	143.405
80.0	134.155
80.5	125.039
81.0	116.026
81.5	107.080
82.0	98.303
82.5	89.662

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CANDELA TABULATION - (Cont.)

83.0	81.123
83.5	72.685
84.0	64.451
84.5	56.352
85.0	48.457
85.5	40.900
86.0	33.852
86.5	27.685
87.0	22.060
87.5	17.011
88.0	12.673
88.5	9.251
89.0	6.438
89.5	4.168
90.0	2.575
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	684.46	N.A.	15.20
0-30	1432.16	N.A.	31.70
0-40	2284.59	N.A.	50.60
0-60	3752.7	N.A.	83.10
0-80	4455.38	N.A.	98.70
0-90	4515.27	N.A.	100.00
10-90	4336.7	N.A.	96.00
20-40	1600.13	N.A.	35.40
20-50	2412.76	N.A.	53.40
40-70	1924.06	N.A.	42.60
60-80	702.68	N.A.	15.60
70-80	246.73	N.A.	5.50
80-90	59.90	N.A.	1.30
90-110	0.07	N.A.	0.00
90-120	0.07	N.A.	0.00
90-130	0.07	N.A.	0.00
90-150	0.07	N.A.	0.00
90-180	0.07	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	4515.34	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	178.57
10-20	505.88
20-30	747.70
30-40	852.43
40-50	812.63
50-60	655.48
60-70	455.95
70-80	246.73
80-90	59.90
90-100	0.07
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	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

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UGR TABLE - CORRECTED

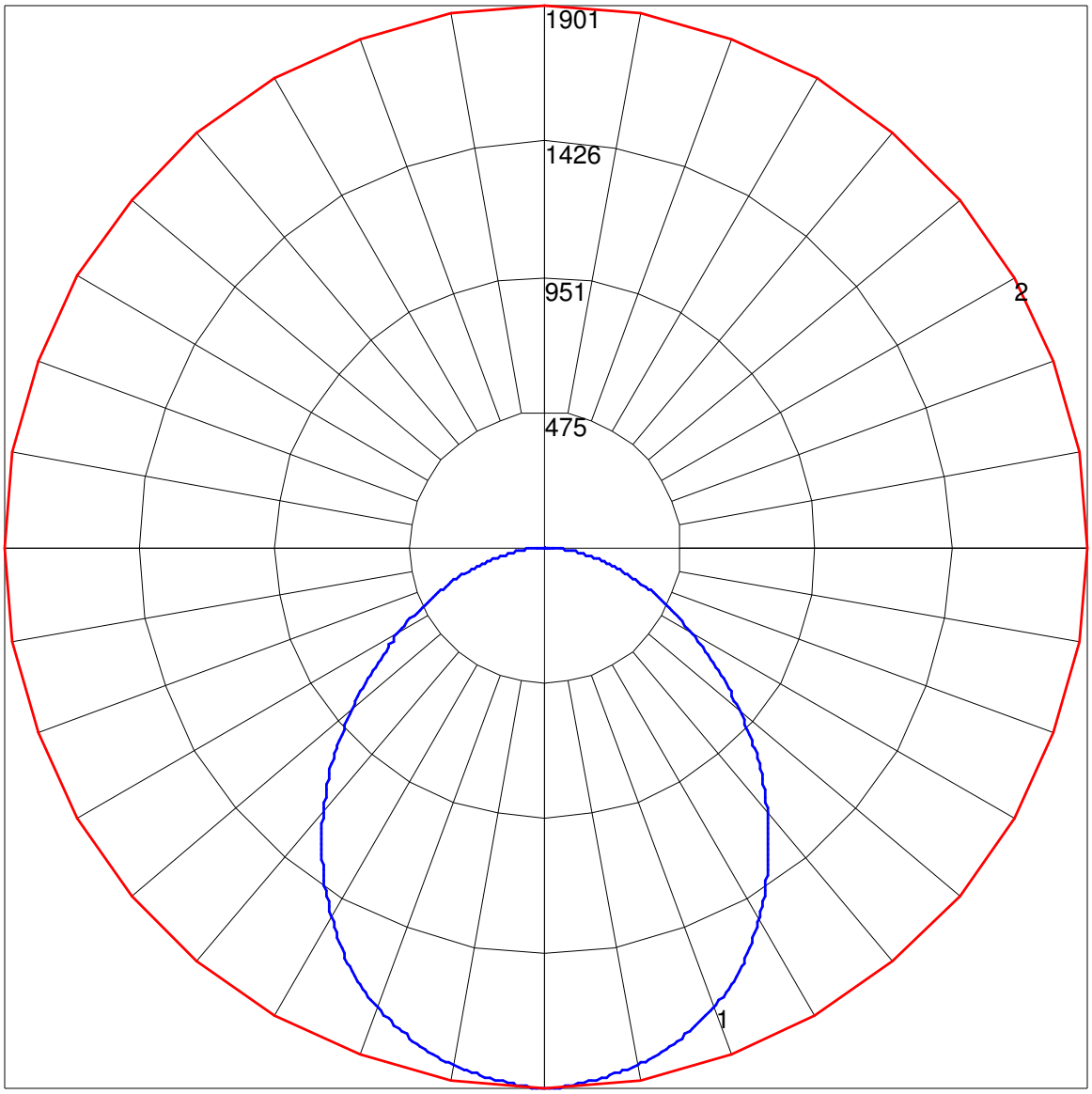
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	27.9	29.5	28.3	29.8	30.1	27.9	29.5	28.3	29.8	30.1
	3H	29.5	30.9	29.9	31.3	31.6	29.5	30.9	29.9	31.3	31.6
	4H	30.1	31.4	30.5	31.8	32.1	30.1	31.4	30.5	31.8	32.1
	6H	30.5	31.7	30.9	32.1	32.5	30.5	31.7	30.9	32.1	32.5
	8H	30.6	31.8	31.0	32.2	32.6	30.6	31.8	31.0	32.2	32.6
	12H	30.7	31.8	31.1	32.2	32.6	30.7	31.8	31.1	32.2	32.6
4H	2H	28.5	29.8	28.9	30.2	30.5	28.5	29.8	28.9	30.2	30.5
	3H	30.3	31.4	30.7	31.8	32.2	30.3	31.4	30.7	31.8	32.2
	4H	31.0	32.0	31.4	32.4	32.8	31.0	32.0	31.4	32.4	32.8
	6H	31.5	32.4	32.0	32.8	33.3	31.5	32.4	32.0	32.8	33.3
	8H	31.6	32.5	32.1	32.9	33.4	31.6	32.5	32.1	32.9	33.4
	12H	31.7	32.5	32.2	32.9	33.4	31.7	32.5	32.2	32.9	33.4
8H	4H	31.2	32.0	31.7	32.5	33.0	31.2	32.0	31.7	32.5	33.0
	6H	31.8	32.5	32.3	33.0	33.5	31.8	32.5	32.3	33.0	33.5
	8H	32.1	32.7	32.6	33.2	33.7	32.1	32.7	32.6	33.2	33.7
	12H	32.2	32.7	32.7	33.2	33.8	32.2	32.7	32.7	33.2	33.8
12H	4H	31.3	32.0	31.7	32.5	32.9	31.3	32.0	31.7	32.5	32.9
	6H	31.9	32.5	32.4	33.0	33.5	31.9	32.5	32.4	33.0	33.5
	8H	32.1	32.7	32.7	33.2	33.7	32.1	32.7	32.7	33.2	33.7

Maximum UGR = 33.8

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POLAR GRAPH



Maximum Candela = 1901.003 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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