IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L70-8TW-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-L70-8TW-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	4425
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	76
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	159789	159789	159789
55	136386	136386	136386
65	116333	116333	116333
75	96198	96198	96198
85	59533	59533	59533

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CANDELA TABULATION

	0
0.0	1862.983
0.5	1862.651
1.0	1861.655
1.5	1860.658
2.0	1858.666
2.5	1856.673
3.0	1854.017
3.5	1851.360
4.0	1848.703
4.5	1846.047
5.0	1843.722
5.5	1841.065
6.0	1838.409
6.5	1835.752
7.0	1832.763
7.5	1829.443
8.0	1826.122
8.5	1822.801
9.0	1819.148
9.5	1815.495
10.0	1811.510
10.5	1807.525
11.0	1803.208
11.5	1798.559
12.0	1793.910
12.5	1788.928
13.0	1783.615
13.5	1777.970
14.0	1771.992
14.5	1765.683
15.0	1759.041
15.5	1752.399
16.0	1745.426
16.5	1738.784
17.0	1731.478
17.5	1724.172
18.0	1716.867
18.5	1709.561
19.0	1702.255
19.5	1694.949
20.0	1687.643
20.5	1680.338
21.0	1672.700
21.5	1664.730
22.0	1656.428
22.5	1647.129
23.0	1637.831
23.5	1627.536
24.0	1617.242
24.5	1606.283
25.0	1594.992
25.5	1583.701
26.0	1571.747
26.5	1559.792

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CANDELA TABULATION - (Cont.)

27.0	1547.504
27.5	1534.885
28.0	1522.266
28.5	1509.979
29.0	1497.692
29.5	1485.073
30.0	1472.786
30.5	1459.835
31.0	1446.551
31.5	1433.600
32.0	1420.317
32.5	1407.034
33.0	1393.418
33.5	1379.471
34.0	1365.855
34.5	1351.908
35.0	1337.960
35.5	1323.681
36.0	1309.401
36.5	1294.790
37.0	1280.178
37.5	1265.566
38.0	1250.623
38.5	1235.347
39.0	1220.735
39.5	1205.460
40.0	1190.184
40.5	1175.240
41.0	1159.632
41.5	1144.688
42.0	1129.081
42.5	1113.805
43.0	1098.197
43.5	1082.257
44.0	1066.317
44.5	1050.377
45.0	1034.105
45.5	1018.165
46.0	1001.893
46.5	985.621
47.0	969.349
47.5	952.745
48.0	936.473
48.5	919.869
49.0	903.597
49.5	887.324
50.0	871.052
50.5	855.112
51.0	839.173
51.5	823.233
52.0	807.625
52.5	792.017
53.0	776.741
53.5	761.465
54.0	746.189
54.5	731.246

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CANDELA TABULATION - (Cont.)

55.0	715.970
55.5	701.026
56.0	687.411
56.5	672.799
57.0	658.852
57.5	644.904
58.0	630.957
58.5	617.009
59.0	603.726
59.5	590.443
60.0	577.159
60.5	564.540
61.0	551.589
61.5	538.306
62.0	525.355
62.5	512.403
63.0	499.784
63.5	487.165
64.0	474.546
64.5	462.259
65.0	449.972
65.5	437.685
66.0	425.398
66.5	413.443
67.0	401.820
67.5	390.197
68.0	378.574
68.5	367.283
69.0	355.992
69.5	344.702
70.0	333.411
70.5	322.452
71.0	311.560
71.5	300.734
72.0	290.041
72.5	279.514
73.0	269.020
73.5	258.626
74.0	248.331
74.5	238.037
75.0	227.875
75.5	217.846
76.0	207.817
76.5	197.888
77.0	188.092
77.5	178.328
78.0	168.698
78.5	159.234
79.0	149.836
79.5	140.537
80.0	131.471
80.5	122.538
81.0	113.705
81.5	104.938
82.0	96.337
82.5	87.869

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CANDELA TABULATION - (Cont.)

83.0	79.501
83.5	71.232
84.0	63.162
84.5	55.225
85.0	47.488
85.5	40.082
86.0	33.175
86.5	27.131
87.0	21.619
87.5	16.671
88.0	12.420
88.5	9.066
89.0	6.310
89.5	4.085
90.0	2.524
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
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123.5	0.000
124.0	0.000
124.5	0.000
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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
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147.5	0.000
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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	670.77	N.A.	15.20
0-30	1403.51	N.A.	31.70
0-40	2238.89	N.A.	50.60
0-60	3677.64	N.A.	83.10
0-80	4366.27	N.A.	98.70
0-90	4424.97	N.A.	100.00
10-90	4249.97	N.A.	96.00
20-40	1568.13	N.A.	35.40
20-50	2364.5	N.A.	53.40
40-70	1885.58	N.A.	42.60
60-80	688.63	N.A.	15.60
70-80	241.79	N.A.	5.50
80-90	58.70	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	4425.04	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	175.00
10-20	495.77
20-30	732.75
30-40	835.38
40-50	796.38
50-60	642.37
60-70	446.84
70-80	241.79
80-90	58.70
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

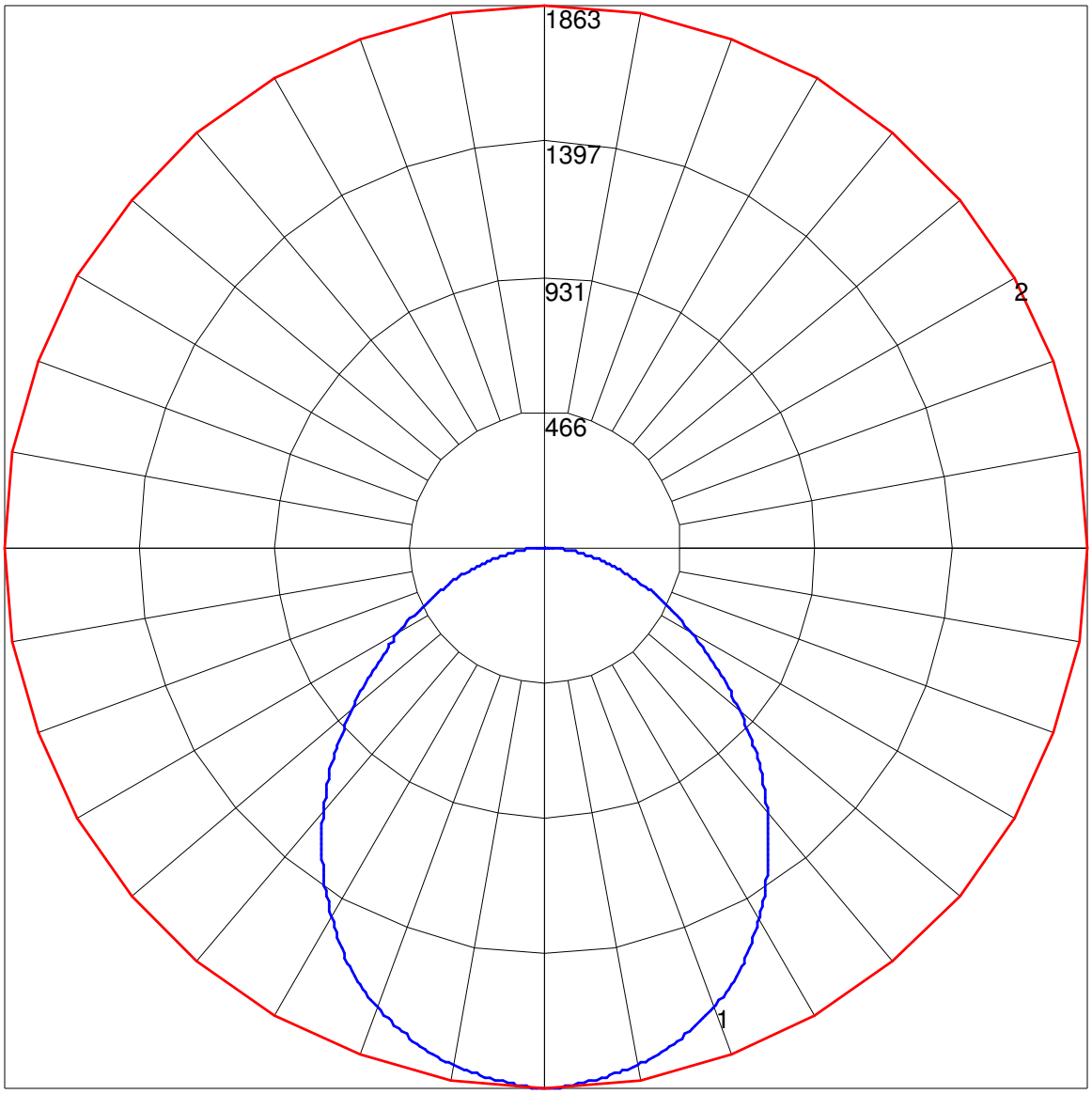
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	27.9	29.5	28.3	29.8	30.1	27.9	29.5	28.3	29.8	30.1
	3H	29.5	30.9	29.9	31.3	31.6	29.5	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 = 1862.983 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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