IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L60-8TW-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-L60-8TW-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	3746
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	73
Total Luminaire Watts	51.1
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	135274	135274	135274
55	115462	115462	115462
65	98485	98485	98485
75	81439	81439	81439
85	50399	50399	50399

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CANDELA TABULATION

	0
0.0	1577.163
0.5	1576.882
1.0	1576.039
1.5	1575.195
2.0	1573.509
2.5	1571.822
3.0	1569.573
3.5	1567.324
4.0	1565.075
4.5	1562.826
5.0	1560.858
5.5	1558.609
6.0	1556.359
6.5	1554.110
7.0	1551.580
7.5	1548.769
8.0	1545.957
8.5	1543.146
9.0	1540.054
9.5	1536.961
10.0	1533.588
10.5	1530.214
11.0	1526.559
11.5	1522.623
12.0	1518.687
12.5	1514.470
13.0	1509.972
13.5	1505.193
14.0	1500.133
14.5	1494.791
15.0	1489.168
15.5	1483.546
16.0	1477.642
16.5	1472.019
17.0	1465.834
17.5	1459.649
18.0	1453.464
18.5	1447.279
19.0	1441.094
19.5	1434.909
20.0	1428.724
20.5	1422.540
21.0	1416.073
21.5	1409.326
22.0	1402.298
22.5	1394.426
23.0	1386.554
23.5	1377.839
24.0	1369.124
24.5	1359.847
25.0	1350.288
25.5	1340.729
26.0	1330.609
26.5	1320.488

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CANDELA TABULATION - (Cont.)

27.0	1310.086
27.5	1299.403
28.0	1288.720
28.5	1278.318
29.0	1267.916
29.5	1257.233
30.0	1246.831
30.5	1235.866
31.0	1224.621
31.5	1213.657
32.0	1202.411
32.5	1191.166
33.0	1179.640
33.5	1167.832
34.0	1156.305
34.5	1144.498
35.0	1132.690
35.5	1120.601
36.0	1108.513
36.5	1096.143
37.0	1083.773
37.5	1071.403
38.0	1058.752
38.5	1045.820
39.0	1033.450
39.5	1020.517
40.0	1007.585
40.5	994.934
41.0	981.721
41.5	969.070
42.0	955.857
42.5	942.924
43.0	929.711
43.5	916.217
44.0	902.722
44.5	889.228
45.0	875.452
45.5	861.958
46.0	848.182
46.5	834.407
47.0	820.631
47.5	806.574
48.0	792.799
48.5	778.742
49.0	764.966
49.5	751.191
50.0	737.415
50.5	723.921
51.0	710.426
51.5	696.932
52.0	683.719
52.5	670.505
53.0	657.573
53.5	644.641
54.0	631.709
54.5	619.058

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CANDELA TABULATION - (Cont.)

55.0	606.126
55.5	593.474
56.0	581.948
56.5	569.578
57.0	557.770
57.5	545.963
58.0	534.155
58.5	522.348
59.0	511.102
59.5	499.857
60.0	488.611
60.5	477.928
61.0	466.964
61.5	455.719
62.0	444.754
62.5	433.790
63.0	423.107
63.5	412.424
64.0	401.741
64.5	391.339
65.0	380.937
65.5	370.535
66.0	360.133
66.5	350.012
67.0	340.172
67.5	330.333
68.0	320.493
68.5	310.935
69.0	301.376
69.5	291.817
70.0	282.259
70.5	272.981
71.0	263.760
71.5	254.595
72.0	245.543
72.5	236.631
73.0	227.747
73.5	218.947
74.0	210.232
74.5	201.517
75.0	192.914
75.5	184.424
76.0	175.934
76.5	167.528
77.0	159.234
77.5	150.969
78.0	142.816
78.5	134.804
79.0	126.848
79.5	118.976
80.0	111.301
80.5	103.739
81.0	96.260
81.5	88.838
82.0	81.557
82.5	74.388

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CANDELA TABULATION - (Cont.)

83.0	67.304
83.5	60.303
84.0	53.472
84.5	46.753
85.0	40.202
85.5	33.933
86.0	28.085
86.5	22.969
87.0	18.302
87.5	14.113
88.0	10.514
88.5	7.675
89.0	5.342
89.5	3.458
90.0	2.137
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
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120.0	0.000
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123.5	0.000
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124.5	0.000
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125.5	0.000
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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
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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
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158.0	0.000
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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	567.86	N.A.	15.20
0-30	1188.19	N.A.	31.70
0-40	1895.4	N.A.	50.60
0-60	3113.42	N.A.	83.10
0-80	3696.4	N.A.	98.70
0-90	3746.09	N.A.	100.00
10-90	3597.94	N.A.	96.00
20-40	1327.54	N.A.	35.40
20-50	2001.74	N.A.	53.40
40-70	1596.3	N.A.	42.60
60-80	582.98	N.A.	15.60
70-80	204.70	N.A.	5.50
80-90	49.69	N.A.	1.30
90-110	0.06	N.A.	0.00
90-120	0.06	N.A.	0.00
90-130	0.06	N.A.	0.00
90-150	0.06	N.A.	0.00
90-180	0.06	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3746.15	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	148.15
10-20	419.71
20-30	620.33
30-40	707.22
40-50	674.20
50-60	543.82
60-70	378.28
70-80	204.70
80-90	49.69
90-100	0.06
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

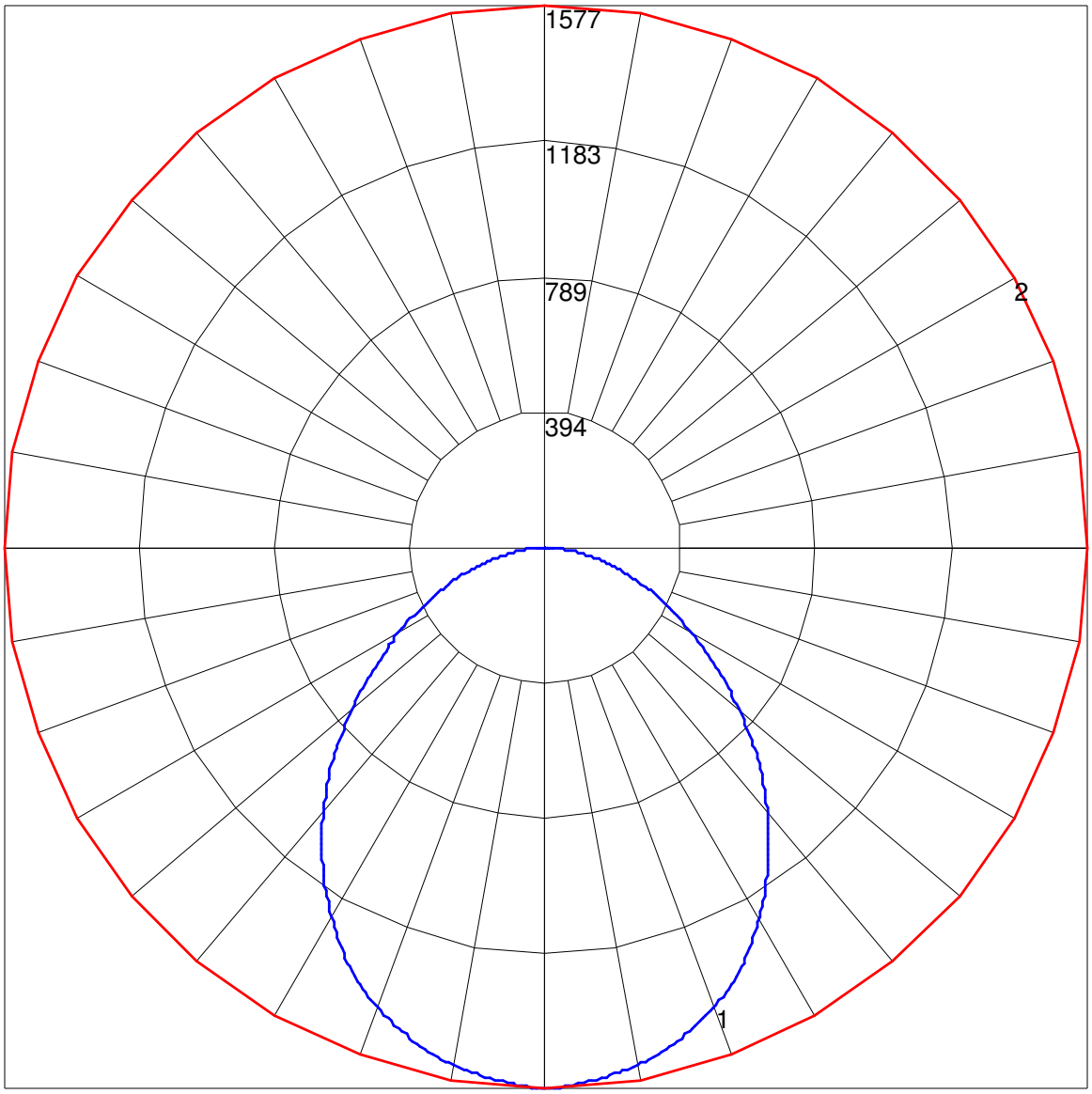
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	27.3	28.9	27.7	29.2	29.5	27.3	28.9	27.7	29.2	29.5
	3H	28.9	30.3	29.3	30.7	31.0	28.9	30.3	29.3	30.7	31.0
	4H	29.5	30.8	29.9	31.2	31.5	29.5	30.8	29.9	31.2	31.5
	6H	29.9	31.1	30.3	31.5	31.9	29.9	31.1	30.3	31.5	31.9
	8H	30.0	31.2	30.4	31.6	32.0	30.0	31.2	30.4	31.6	32.0
	12H	30.1	31.2	30.5	31.6	32.0	30.1	31.2	30.5	31.6	32.0
4H	2H	27.9	29.2	28.3	29.6	29.9	27.9	29.2	28.3	29.6	29.9
	3H	29.7	30.8	30.1	31.2	31.6	29.7	30.8	30.1	31.2	31.6
	4H	30.4	31.4	30.8	31.8	32.2	30.4	31.4	30.8	31.8	32.2
	6H	30.9	31.8	31.3	32.2	32.7	30.9	31.8	31.3	32.2	32.7
	8H	31.0	31.9	31.5	32.3	32.8	31.0	31.9	31.5	32.3	32.8
	12H	31.1	31.9	31.6	32.3	32.8	31.1	31.9	31.6	32.3	32.8
8H	4H	30.6	31.4	31.1	31.9	32.4	30.6	31.4	31.1	31.9	32.4
	6H	31.2	31.9	31.7	32.4	32.9	31.2	31.9	31.7	32.4	32.9
	8H	31.5	32.1	32.0	32.6	33.1	31.5	32.1	32.0	32.6	33.1
	12H	31.6	32.1	32.1	32.6	33.2	31.6	32.1	32.1	32.6	33.2
12H	4H	30.7	31.4	31.1	31.9	32.3	30.7	31.4	31.1	31.9	32.3
	6H	31.3	31.9	31.8	32.4	32.9	31.3	31.9	31.8	32.4	32.9
	8H	31.5	32.1	32.1	32.6	33.1	31.5	32.1	32.1	32.6	33.1

Maximum UGR = 33.2

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POLAR GRAPH



Maximum Candela = 1577.163 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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