IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L60-8TW-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-L60-8TW-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	3823
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	75
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	138035	138035	138035
55	117818	117818	117818
65	100495	100495	100495
75	83101	83101	83101
85	51428	51428	51428

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CANDELA TABULATION

	0
0.0	1609.350
0.5	1609.063
1.0	1608.203
1.5	1607.342
2.0	1605.621
2.5	1603.900
3.0	1601.605
3.5	1599.310
4.0	1597.015
4.5	1594.720
5.0	1592.712
5.5	1590.417
6.0	1588.122
6.5	1585.827
7.0	1583.245
7.5	1580.376
8.0	1577.507
8.5	1574.639
9.0	1571.483
9.5	1568.328
10.0	1564.885
10.5	1561.443
11.0	1557.713
11.5	1553.697
12.0	1549.681
12.5	1545.378
13.0	1540.788
13.5	1535.911
14.0	1530.747
14.5	1525.297
15.0	1519.559
15.5	1513.822
16.0	1507.798
16.5	1502.060
17.0	1495.749
17.5	1489.438
18.0	1483.127
18.5	1476.815
19.0	1470.504
19.5	1464.193
20.0	1457.882
20.5	1451.571
21.0	1444.973
21.5	1438.088
22.0	1430.916
22.5	1422.884
23.0	1414.851
23.5	1405.958
24.0	1397.065
24.5	1387.598
25.0	1377.845
25.5	1368.091
26.0	1357.764
26.5	1347.436

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CANDELA TABULATION - (Cont.)

27.0	1336.822
27.5	1325.921
28.0	1315.020
28.5	1304.406
29.0	1293.791
29.5	1282.890
30.0	1272.276
30.5	1261.088
31.0	1249.613
31.5	1238.425
32.0	1226.950
32.5	1215.475
33.0	1203.714
33.5	1191.665
34.0	1179.903
34.5	1167.855
35.0	1155.806
35.5	1143.471
36.0	1131.135
36.5	1118.513
37.0	1105.890
37.5	1093.268
38.0	1080.359
38.5	1067.163
39.0	1054.540
39.5	1041.344
40.0	1028.148
40.5	1015.239
41.0	1001.756
41.5	988.847
42.0	975.364
42.5	962.168
43.0	948.685
43.5	934.915
44.0	921.145
44.5	907.375
45.0	893.318
45.5	879.549
46.0	865.492
46.5	851.435
47.0	837.378
47.5	823.035
48.0	808.978
48.5	794.635
49.0	780.578
49.5	766.521
50.0	752.464
50.5	738.695
51.0	724.925
51.5	711.155
52.0	697.672
52.5	684.189
53.0	670.993
53.5	657.797
54.0	644.601
54.5	631.691

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CANDELA TABULATION - (Cont.)

55.0	618.495
55.5	605.586
56.0	593.824
56.5	581.202
57.0	569.153
57.5	557.105
58.0	545.056
58.5	533.008
59.0	521.533
59.5	510.058
60.0	498.583
60.5	487.682
61.0	476.494
61.5	465.019
62.0	453.831
62.5	442.643
63.0	431.742
63.5	420.841
64.0	409.940
64.5	399.325
65.0	388.711
65.5	378.097
66.0	367.483
66.5	357.155
67.0	347.115
67.5	337.074
68.0	327.034
68.5	317.280
69.0	307.526
69.5	297.773
70.0	288.019
70.5	278.552
71.0	269.143
71.5	259.791
72.0	250.554
72.5	241.460
73.0	232.395
73.5	223.416
74.0	214.523
74.5	205.630
75.0	196.851
75.5	188.188
76.0	179.524
76.5	170.947
77.0	162.484
77.5	154.050
78.0	145.731
78.5	137.555
79.0	129.437
79.5	121.404
80.0	113.573
80.5	105.856
81.0	98.225
81.5	90.651
82.0	83.221
82.5	75.906

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CANDELA TABULATION - (Cont.)

83.0	68.677
83.5	61.534
84.0	54.563
84.5	47.707
85.0	41.023
85.5	34.625
86.0	28.658
86.5	23.437
87.0	18.675
87.5	14.401
88.0	10.729
88.5	7.832
89.0	5.451
89.5	3.529
90.0	2.180
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
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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	579.45	N.A.	15.20
0-30	1212.43	N.A.	31.70
0-40	1934.08	N.A.	50.60
0-60	3176.96	N.A.	83.10
0-80	3771.83	N.A.	98.70
0-90	3822.54	N.A.	100.00
10-90	3671.36	N.A.	96.00
20-40	1354.64	N.A.	35.40
20-50	2042.59	N.A.	53.40
40-70	1628.87	N.A.	42.60
60-80	594.88	N.A.	15.60
70-80	208.88	N.A.	5.50
80-90	50.71	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	3822.6	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	151.18
10-20	428.27
20-30	632.99
30-40	721.65
40-50	687.95
50-60	554.92
60-70	386.00
70-80	208.88
80-90	50.71
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	49	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

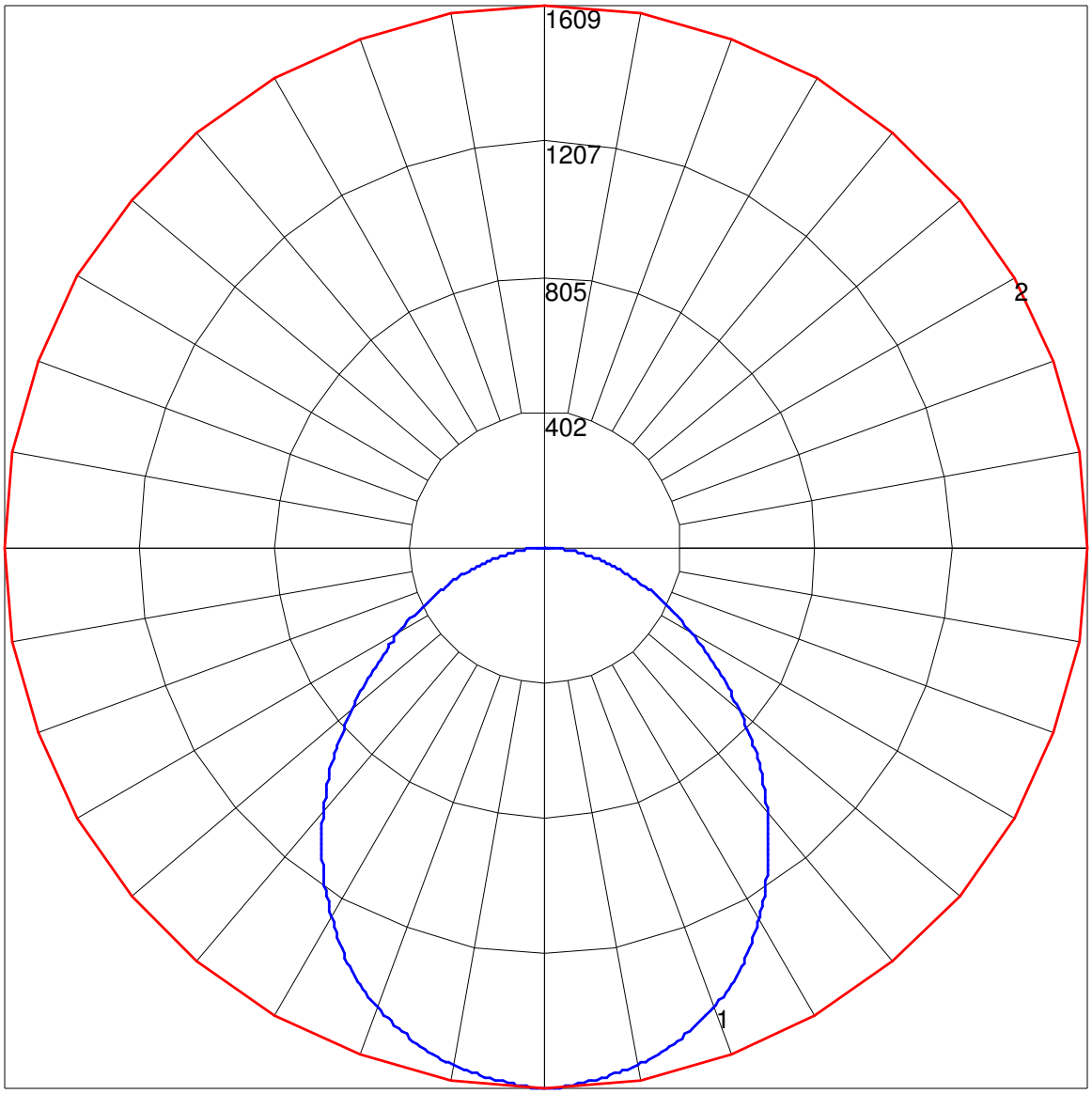
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	27.4	29.0	27.8	29.3	29.6	27.4	29.0	27.8	29.3	29.6
	3H	29.0	30.4	29.4	30.8	31.1	29.0	30.4	29.4	30.8	31.1
	4H	29.6	30.9	30.0	31.3	31.6	29.6	30.9	30.0	31.3	31.6
	6H	30.0	31.2	30.4	31.6	32.0	30.0	31.2	30.4	31.6	32.0
	8H	30.1	31.3	30.5	31.7	32.1	30.1	31.3	30.5	31.7	32.1
	12H	30.2	31.3	30.6	31.7	32.1	30.2	31.3	30.6	31.7	32.1
4H	2H	28.0	29.3	28.4	29.7	30.0	28.0	29.3	28.4	29.7	30.0
	3H	29.8	30.9	30.2	31.3	31.7	29.8	30.9	30.2	31.3	31.7
	4H	30.5	31.5	30.9	31.9	32.3	30.5	31.5	30.9	31.9	32.3
	6H	31.0	31.9	31.5	32.3	32.8	31.0	31.9	31.5	32.3	32.8
	8H	31.1	32.0	31.6	32.4	32.9	31.1	32.0	31.6	32.4	32.9
	12H	31.2	32.0	31.7	32.4	32.9	31.2	32.0	31.7	32.4	32.9
8H	4H	30.7	31.5	31.2	32.0	32.5	30.7	31.5	31.2	32.0	32.5
	6H	31.3	32.0	31.8	32.5	33.0	31.3	32.0	31.8	32.5	33.0
	8H	31.6	32.2	32.1	32.7	33.2	31.6	32.2	32.1	32.7	33.2
	12H	31.7	32.2	32.2	32.7	33.3	31.7	32.2	32.2	32.7	33.3
12H	4H	30.8	31.5	31.2	32.0	32.4	30.8	31.5	31.2	32.0	32.4
	6H	31.4	32.0	31.9	32.5	33.0	31.4	32.0	31.9	32.5	33.0
	8H	31.6	32.2	32.2	32.7	33.2	31.6	32.2	32.2	32.7	33.2

Maximum UGR = 33.3

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POLAR GRAPH



Maximum Candela = 1609.35 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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