IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-L60-8TW-DIM-UNV-SW-OF-WH_2700K_.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_2700K_
[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	3173
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	62
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	114569	114569	114569
55	97789	97789	97789
65	83411	83411	83411
75	68974	68974	68974
85	42685	42685	42685

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CANDELA TABULATION

	0
0.0	1335.761
0.5	1335.523
1.0	1334.808
1.5	1334.094
2.0	1332.665
2.5	1331.237
3.0	1329.332
3.5	1327.427
4.0	1325.522
4.5	1323.617
5.0	1321.951
5.5	1320.046
6.0	1318.141
6.5	1316.236
7.0	1314.093
7.5	1311.712
8.0	1309.331
8.5	1306.950
9.0	1304.331
9.5	1301.712
10.0	1298.855
10.5	1295.997
11.0	1292.902
11.5	1289.569
12.0	1286.235
12.5	1282.664
13.0	1278.854
13.5	1274.806
14.0	1270.520
14.5	1265.996
15.0	1261.234
15.5	1256.472
16.0	1251.472
16.5	1246.710
17.0	1241.472
17.5	1236.233
18.0	1230.995
18.5	1225.757
19.0	1220.519
19.5	1215.280
20.0	1210.042
20.5	1204.804
21.0	1199.327
21.5	1193.613
22.0	1187.660
22.5	1180.993
23.0	1174.327
23.5	1166.945
24.0	1159.564
24.5	1151.707
25.0	1143.611
25.5	1135.516
26.0	1126.944
26.5	1118.372

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CANDELA TABULATION - (Cont.)

27.0	1109.562
27.5	1100.514
28.0	1091.466
28.5	1082.657
29.0	1073.847
29.5	1064.799
30.0	1055.989
30.5	1046.703
31.0	1037.179
31.5	1027.893
32.0	1018.369
32.5	1008.845
33.0	999.082
33.5	989.082
34.0	979.320
34.5	969.319
35.0	959.319
35.5	949.081
36.0	938.842
36.5	928.366
37.0	917.889
37.5	907.412
38.0	896.698
38.5	885.745
39.0	875.268
39.5	864.316
40.0	853.363
40.5	842.648
41.0	831.457
41.5	820.743
42.0	809.552
42.5	798.599
43.0	787.408
43.5	775.979
44.0	764.550
44.5	753.121
45.0	741.454
45.5	730.025
46.0	718.358
46.5	706.691
47.0	695.024
47.5	683.119
48.0	671.452
48.5	659.547
49.0	647.880
49.5	636.213
50.0	624.546
50.5	613.117
51.0	601.688
51.5	590.259
52.0	579.068
52.5	567.877
53.0	556.924
53.5	545.971
54.0	535.019
54.5	524.304

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CANDELA TABULATION - (Cont.)

55.0	513.351
55.5	502.637
56.0	492.874
56.5	482.398
57.0	472.397
57.5	462.397
58.0	452.397
58.5	442.396
59.0	432.872
59.5	423.348
60.0	413.824
60.5	404.776
61.0	395.490
61.5	385.966
62.0	376.680
62.5	367.394
63.0	358.346
63.5	349.298
64.0	340.250
64.5	331.440
65.0	322.630
65.5	313.820
66.0	305.011
66.5	296.439
67.0	288.105
67.5	279.772
68.0	271.438
68.5	263.342
69.0	255.247
69.5	247.151
70.0	239.056
70.5	231.199
71.0	223.389
71.5	215.627
72.0	207.960
72.5	200.412
73.0	192.888
73.5	185.435
74.0	178.054
74.5	170.673
75.0	163.387
75.5	156.196
76.0	149.005
76.5	141.886
77.0	134.862
77.5	127.862
78.0	120.957
78.5	114.171
79.0	107.432
79.5	100.765
80.0	94.265
80.5	87.860
81.0	81.527
81.5	75.241
82.0	69.074
82.5	63.002

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CANDELA TABULATION - (Cont.)

83.0	57.002
83.5	51.073
84.0	45.287
84.5	39.597
85.0	34.049
85.5	28.739
86.0	23.787
86.5	19.453
87.0	15.501
87.5	11.953
88.0	8.905
88.5	6.500
89.0	4.524
89.5	2.929
90.0	1.810
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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126.5	0.000
127.0	0.000
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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
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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	480.94	N.A.	15.20
0-30	1006.32	N.A.	31.70
0-40	1605.29	N.A.	50.60
0-60	2636.87	N.A.	83.10
0-80	3130.62	N.A.	98.70
0-90	3172.71	N.A.	100.00
10-90	3047.23	N.A.	96.00
20-40	1124.35	N.A.	35.40
20-50	1695.35	N.A.	53.40
40-70	1351.97	N.A.	42.60
60-80	493.75	N.A.	15.60
70-80	173.37	N.A.	5.50
80-90	42.09	N.A.	1.30
90-110	0.05	N.A.	0.00
90-120	0.05	N.A.	0.00
90-130	0.05	N.A.	0.00
90-150	0.05	N.A.	0.00
90-180	0.05	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3172.76	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	125.48
10-20	355.46
20-30	525.38
30-40	598.97
40-50	571.00
50-60	460.58
60-70	320.38
70-80	173.37
80-90	42.09
90-100	0.05
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

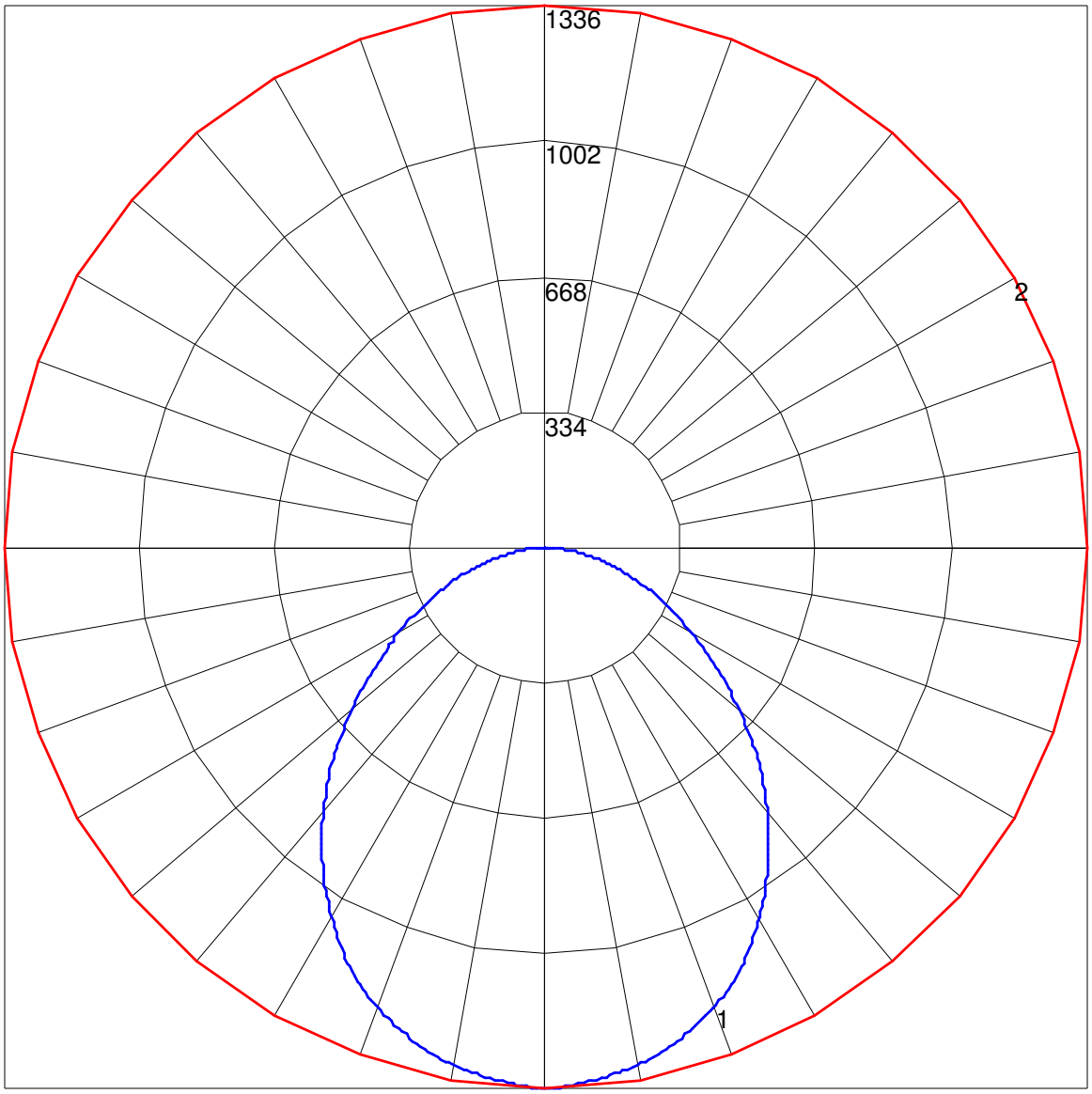
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	26.7	28.3	27.1	28.6	28.9	26.7	28.3	27.1	28.6	28.9
	3H	28.3	29.7	28.7	30.1	30.4	28.3	29.7	28.7	30.1	30.4
	4H	28.9	30.2	29.3	30.6	30.9	28.9	30.2	29.3	30.6	30.9
	6H	29.3	30.5	29.7	30.9	31.3	29.3	30.5	29.7	30.9	31.3
	8H	29.4	30.6	29.8	31.0	31.4	29.4	30.6	29.8	31.0	31.4
	12H	29.5	30.6	29.9	31.0	31.4	29.5	30.6	29.9	31.0	31.4
4H	2H	27.3	28.6	27.7	29.0	29.3	27.3	28.6	27.7	29.0	29.3
	3H	29.1	30.2	29.5	30.6	31.0	29.1	30.2	29.5	30.6	31.0
	4H	29.8	30.8	30.2	31.2	31.6	29.8	30.8	30.2	31.2	31.6
	6H	30.3	31.2	30.8	31.6	32.1	30.3	31.2	30.8	31.6	32.1
	8H	30.4	31.3	30.9	31.7	32.2	30.4	31.3	30.9	31.7	32.2
	12H	30.5	31.3	31.0	31.7	32.2	30.5	31.3	31.0	31.7	32.2
8H	4H	30.0	30.8	30.5	31.3	31.8	30.0	30.8	30.5	31.3	31.8
	6H	30.6	31.3	31.1	31.8	32.3	30.6	31.3	31.1	31.8	32.3
	8H	30.9	31.5	31.4	32.0	32.5	30.9	31.5	31.4	32.0	32.5
	12H	31.0	31.5	31.5	32.0	32.6	31.0	31.5	31.5	32.0	32.6
12H	4H	30.1	30.8	30.5	31.3	31.7	30.1	30.8	30.5	31.3	31.7
	6H	30.7	31.3	31.2	31.8	32.3	30.7	31.3	31.2	31.8	32.3
	8H	30.9	31.5	31.5	32.0	32.5	30.9	31.5	31.5	32.0	32.5

Maximum UGR = 32.6

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POLAR GRAPH



Maximum Candela = 1335.761 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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