

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L40-835-DIM-UNV-FM-OF-SG_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN FROM 12316380.22

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 01-10-2025

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.

[LUMCAT] 4DR-TL-L40-835-DIM-UNV-FM-OF-SG

[LUMINAIRE] Black formed aluminum housing, sg reflector, no lens

[MORE] enclosure

[LAMP] One white LED

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Corridor, Hotel, Industrial, Office, Downlight

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2667
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	70
Total Luminaire Watts	38
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.74
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.38 ft (Diameter)
Luminous Width (90-270)	0.38 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	6537	6537	6537
55	1909	1909	1909
65	684	684	684
75	311	311	311
85	231	231	231

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CANDELA TABULATION

	<u>0</u>
0.0	5593.140
0.5	5602.800
1.0	5606.940
1.5	5604.180
2.0	5594.520
2.5	5580.720
3.0	5551.050
3.5	5516.550
4.0	5468.250
4.5	5404.770
5.0	5324.040
5.5	5226.060
6.0	5126.010
6.5	5008.020
7.0	4883.130
7.5	4751.340
8.0	4615.410
8.5	4479.480
9.0	4344.240
9.5	4211.070
10.0	4082.730
10.5	3961.290
11.0	3845.370
11.5	3737.730
12.0	3639.060
12.5	3545.910
13.0	3461.040
13.5	3383.070
14.0	3312.000
14.5	3244.380
15.0	3181.590
15.5	3122.250
16.0	3069.120
16.5	3022.200
17.0	2978.730
17.5	2938.020
18.0	2899.380
18.5	2860.740
19.0	2824.860
19.5	2790.360
20.0	2758.620
20.5	2727.570
21.0	2695.830
21.5	2663.400
22.0	2627.520
22.5	2588.880
23.0	2546.790
23.5	2501.250
24.0	2450.880
24.5	2394.300
25.0	2332.200
25.5	2263.200
26.0	2185.920
26.5	2098.980

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CANDELA TABULATION - (Cont.)

27.0	2003.760
27.5	1900.260
28.0	1789.860
28.5	1671.180
29.0	1542.840
29.5	1410.360
30.0	1274.430
30.5	1137.810
31.0	1003.260
31.5	874.230
32.0	750.030
32.5	635.559
33.0	531.024
33.5	435.873
34.0	354.522
34.5	286.281
35.0	231.564
35.5	189.405
36.0	157.389
36.5	134.136
37.0	119.025
37.5	109.434
38.0	102.603
38.5	96.531
39.0	91.080
39.5	86.112
40.0	81.420
40.5	77.073
41.0	73.002
41.5	69.138
42.0	65.619
42.5	62.169
43.0	58.926
43.5	55.821
44.0	52.854
44.5	50.094
45.0	47.472
45.5	44.919
46.0	42.435
46.5	39.951
47.0	37.536
47.5	35.121
48.0	32.775
48.5	30.636
49.0	28.566
49.5	26.496
50.0	24.495
50.5	22.494
51.0	20.838
51.5	19.251
52.0	17.802
52.5	16.491
53.0	15.249
53.5	14.145
54.0	13.041
54.5	12.144

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CANDELA TABULATION - (Cont.)

55.0	11.247
55.5	10.419
56.0	9.798
56.5	9.039
57.0	8.418
57.5	7.866
58.0	7.383
58.5	6.900
59.0	6.417
59.5	6.072
60.0	5.658
60.5	5.313
61.0	4.968
61.5	4.623
62.0	4.416
62.5	4.071
63.0	3.864
63.5	3.588
64.0	3.381
64.5	3.174
65.0	2.967
65.5	2.829
66.0	2.622
66.5	2.553
67.0	2.346
67.5	2.208
68.0	2.070
68.5	1.932
69.0	1.794
69.5	1.725
70.0	1.656
70.5	1.518
71.0	1.380
71.5	1.380
72.0	1.242
72.5	1.173
73.0	1.035
73.5	0.966
74.0	0.897
74.5	0.897
75.0	0.828
75.5	0.759
76.0	0.759
76.5	0.690
77.0	0.621
77.5	0.621
78.0	0.552
78.5	0.483
79.0	0.483
79.5	0.483
80.0	0.414
80.5	0.345
81.0	0.414
81.5	0.345
82.0	0.345
82.5	0.345

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CANDELA TABULATION - (Cont.)

83.0	0.276
83.5	0.276
84.0	0.207
84.5	0.207
85.0	0.207
85.5	0.207
86.0	0.207
86.5	0.138
87.0	0.138
87.5	0.138
88.0	0.138
88.5	0.138
89.0	0.138
89.5	0.138
90.0	0.069
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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121.0	0.000
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127.0	0.000
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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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148.5	0.000
149.0	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
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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	1370.34	N.A.	51.40
0-30	2377.6	N.A.	89.10
0-40	2614.24	N.A.	98.00
0-60	2662.75	N.A.	99.80
0-80	2666.84	N.A.	100.00
0-90	2667.09	N.A.	100.00
10-90	2201.87	N.A.	82.60
20-40	1243.9	N.A.	46.60
20-50	1281.36	N.A.	48.00
40-70	51.67	N.A.	1.90
60-80	4.09	N.A.	0.20
70-80	0.94	N.A.	0.00
80-90	0.25	N.A.	0.00
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2667.1	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	465.23
10-20	905.11
20-30	1007.26
30-40	236.64
40-50	37.46
50-60	11.05
60-70	3.15
70-80	0.94
80-90	0.25
90-100	0.00
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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	98	98	97	95
2	109	105	102	99	107	103	100	98	100	98	95	97	95	93	95	93	91	90
3	105	99	95	91	103	98	94	91	95	92	89	93	90	88	91	89	87	85
4	101	94	89	85	99	93	88	85	91	87	84	89	86	83	87	84	82	81
5	96	89	84	80	95	88	84	80	87	82	79	85	81	79	83	80	78	77
6	92	85	80	76	91	84	79	76	83	78	75	81	77	75	80	77	74	73
7	89	81	75	72	87	80	75	72	79	74	71	78	74	71	77	73	71	69
8	85	77	72	68	84	76	71	68	75	71	68	74	70	67	73	70	67	66
9	82	73	68	65	81	73	68	65	72	68	65	71	67	64	71	67	64	63
10	79	70	65	62	78	70	65	62	69	65	62	68	64	61	68	64	61	60

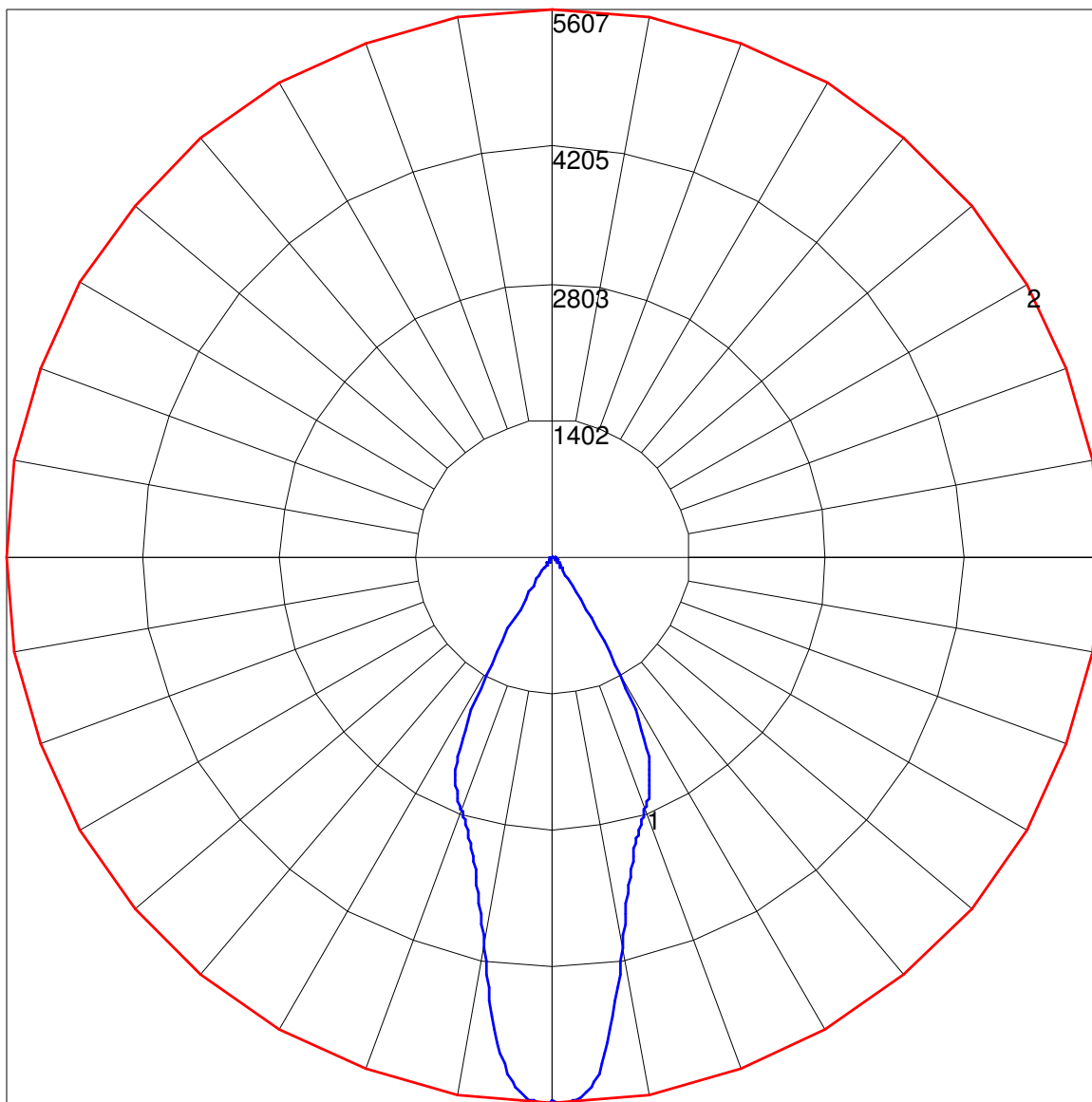
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UGR TABLE - CORRECTED

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	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	3H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	4H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	6H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	8H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	12H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
4H	2H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	3H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	4H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	6H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	8H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	12H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
8H	4H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	6H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	8H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	12H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
12H	4H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	6H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	8H	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5

Maximum UGR = 3.5

POLAR GRAPH



Maximum Candela = 5606.94 Located At Horizontal Angle = 0, Vertical Angle = 1
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (1) (Through Max. Cd.)