



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 2DR-L12-835-DIM-UNV-OM-OF-CS_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]GEN FROM 13131414.06
[TESTLAB] UL Verification Services Inc.
[ISSUE DATE] 04-28-2022
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836
[LUMCAT] 2DR-L12-835-DIM-UNV-OM-OF-CS
[LUMINAIRE] Aluminum housing and reflector, no lens enclosure
[LAMP] One white LED
[BALLAST] Philips Advance XI036C100V054DSM1
[OTHER] 24.5 C, 120.025 V, 0.251315 A, 30.0558 W, 0.996408 PF, 59.9699
[MORE] Hz
[OTHER] This test was performed using the calibrated photodetector met
[MORE] hod of absolute photometry.
[_SEARCH_SOURCE TYPE] LED
[_SEARCH_APPLICATION] Indoor, Downlight
[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1224
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	14.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.66
Spacing Criterion (90-270)	0.66
Spacing Criterion (Diagonal)	0.66
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.21 ft (Diameter)
Luminous Width (90-270)	0.21 ft (Diameter)
Luminous Height	0.00 ft

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LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8440	8440	8440
55	2538	2538	2538
65	842	842	842
75	375	375	375
85	185	185	185

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CANDELA TABULATION

	<u>0</u>
0.0	2762.305
0.5	2762.305
1.0	2761.794
1.5	2761.283
2.0	2761.283
2.5	2757.194
3.0	2750.039
3.5	2742.884
4.0	2734.196
4.5	2725.508
5.0	2715.287
5.5	2700.977
6.0	2683.090
6.5	2656.514
7.0	2625.339
7.5	2593.142
8.0	2558.390
8.5	2519.549
9.0	2477.642
9.5	2433.690
10.0	2387.183
10.5	2338.632
11.0	2288.548
11.5	2237.952
12.0	2186.846
12.5	2134.717
13.0	2083.100
13.5	2031.993
14.0	1982.420
14.5	1933.869
15.0	1885.829
15.5	1838.300
16.0	1790.771
16.5	1743.242
17.0	1696.224
17.5	1649.717
18.0	1603.721
18.5	1558.236
19.0	1511.218
19.5	1463.689
20.0	1414.627
20.5	1365.054
21.0	1314.458
21.5	1262.841
22.0	1210.201
22.5	1155.006
23.0	1098.278
23.5	1040.017
24.0	979.711
24.5	918.383
25.0	856.033
25.5	792.661
26.0	729.289
26.5	665.406

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CANDELA TABULATION - (Cont.)

27.0	602.545
27.5	541.218
28.0	482.905
28.5	426.841
29.0	375.275
29.5	327.797
30.0	284.970
30.5	245.669
31.0	210.303
31.5	178.668
32.0	151.837
32.5	129.044
33.0	110.237
33.5	94.649
34.0	81.924
34.5	71.345
35.0	63.168
35.5	57.035
36.0	52.333
36.5	48.602
37.0	45.229
37.5	42.163
38.0	39.454
38.5	37.154
39.0	35.059
39.5	33.168
40.0	31.430
40.5	29.846
41.0	28.364
41.5	26.933
42.0	25.604
42.5	24.378
43.0	23.202
43.5	22.078
44.0	21.005
44.5	19.983
45.0	18.858
45.5	17.734
46.0	16.712
46.5	15.741
47.0	14.872
47.5	13.952
48.0	13.134
48.5	12.317
49.0	11.550
49.5	10.835
50.0	10.068
50.5	9.352
51.0	8.637
51.5	7.922
52.0	7.257
52.5	6.746
53.0	6.286
53.5	5.826
54.0	5.366
54.5	5.008

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CANDELA TABULATION - (Cont.)

55.0	4.600
55.5	4.242
56.0	3.935
56.5	3.577
57.0	3.271
57.5	3.066
58.0	2.862
58.5	2.658
59.0	2.453
59.5	2.300
60.0	2.146
60.5	2.044
61.0	1.891
61.5	1.789
62.0	1.687
62.5	1.584
63.0	1.482
63.5	1.380
64.0	1.278
64.5	1.227
65.0	1.124
65.5	1.073
66.0	1.022
66.5	0.971
67.0	0.869
67.5	0.818
68.0	0.767
68.5	0.715
69.0	0.715
69.5	0.664
70.0	0.613
70.5	0.562
71.0	0.511
71.5	0.511
72.0	0.460
72.5	0.460
73.0	0.409
73.5	0.358
74.0	0.358
74.5	0.307
75.0	0.307
75.5	0.307
76.0	0.256
76.5	0.256
77.0	0.256
77.5	0.204
78.0	0.204
78.5	0.204
79.0	0.153
79.5	0.153
80.0	0.153
80.5	0.153
81.0	0.102
81.5	0.102
82.0	0.102
82.5	0.102

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CANDELA TABULATION - (Cont.)

83.0	0.102
83.5	0.051
84.0	0.051
84.5	0.051
85.0	0.051
85.5	0.051
86.0	0.051
86.5	0.051
87.0	0.051
87.5	0.051
88.0	0.051
88.5	0.051
89.0	0.000
89.5	0.000
90.0	0.000
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
129.0	0.000
129.5	0.000
130.0	0.000
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131.0	0.000
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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	770.52	N.A.	62.90
0-30	1146.81	N.A.	93.70
0-40	1203.23	N.A.	98.30
0-60	1222.49	N.A.	99.90
0-80	1224.04	N.A.	100.00
0-90	1224.12	N.A.	100.00
10-90	975.28	N.A.	79.70
20-40	432.71	N.A.	35.30
20-50	447.49	N.A.	36.60
40-70	20.47	N.A.	1.70
60-80	1.55	N.A.	0.10
70-80	0.35	N.A.	0.00
80-90	0.07	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	1224.12	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	248.83
10-20	521.69
20-30	376.29
30-40	56.42
40-50	14.78
50-60	4.48
60-70	1.20
70-80	0.35
80-90	0.07
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	105	103	102	101	100	99	98	97	96
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91
3	106	101	97	93	104	99	96	93	97	94	91	94	92	90	92	90	88	87
4	102	96	91	88	100	95	91	87	93	89	86	91	88	85	89	86	84	83
5	98	91	87	83	97	90	86	83	89	85	82	87	84	81	86	83	81	79
6	94	87	82	79	93	87	82	79	85	81	78	84	80	78	83	80	77	76
7	91	84	79	75	90	83	78	75	82	78	75	81	77	74	80	76	74	73
8	88	80	75	72	87	80	75	72	79	75	72	78	74	71	77	74	71	70
9	85	77	72	69	84	77	72	69	76	72	69	75	71	68	74	71	68	67
10	82	74	69	66	81	74	69	66	73	69	66	72	68	66	72	68	66	65

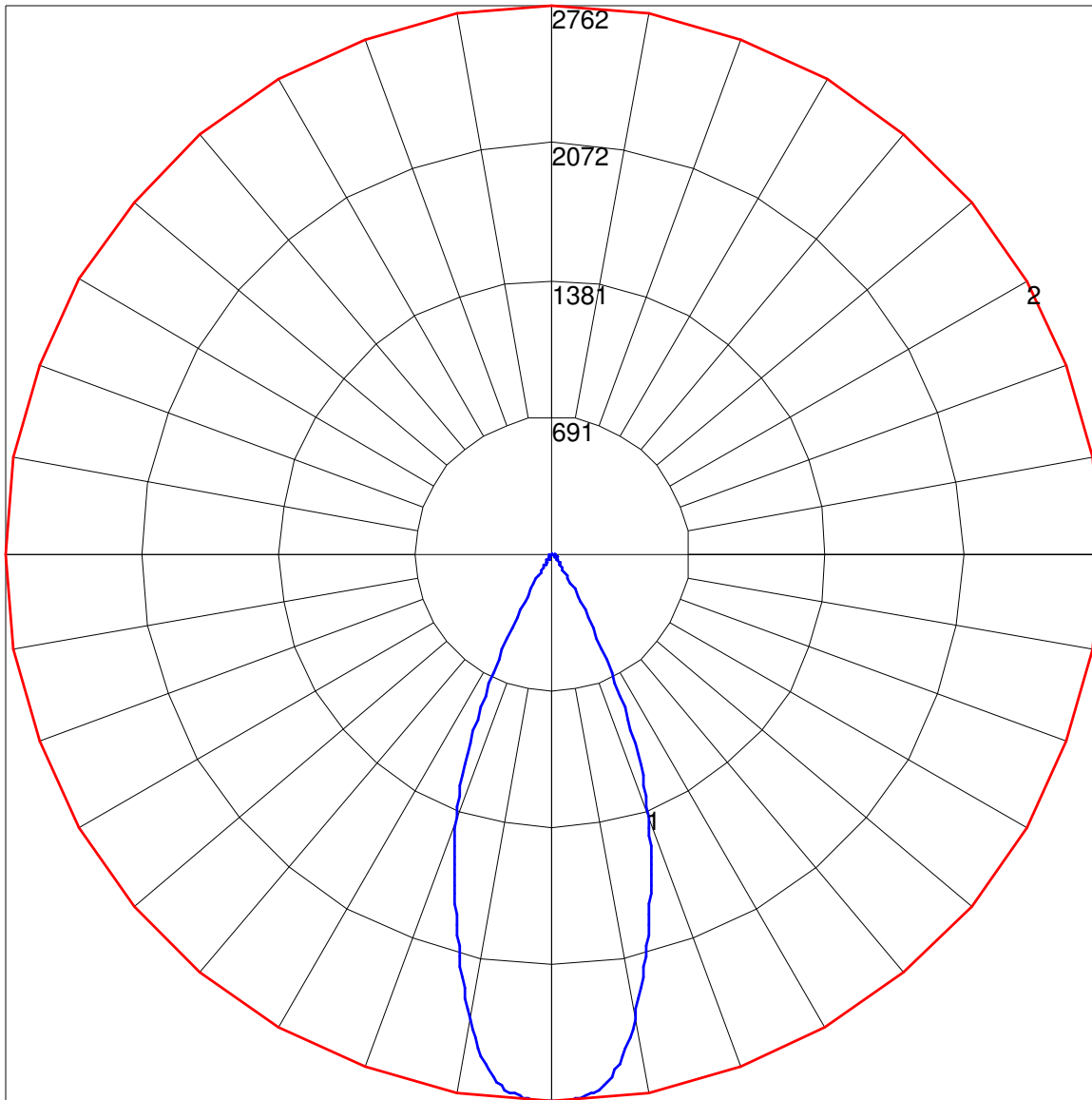
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UGR TABLE - CORRECTED

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	0.8	0.8	0.8	0.9	1.2	0.8	0.8	0.8	0.9	1.2
	3H	0.8	0.8	0.8	1.0	1.3	0.8	0.8	0.8	1.0	1.3
	4H	0.8	0.8	0.8	0.9	1.3	0.8	0.8	0.8	0.9	1.3
	6H	0.8	0.8	0.8	0.8	1.2	0.8	0.8	0.8	0.8	1.2
	8H	0.8	0.8	0.8	0.8	1.1	0.8	0.8	0.8	0.8	1.1
	12H	0.8	0.8	0.8	0.8	1.0	0.8	0.8	0.8	0.8	1.0
4H	2H	0.8	0.8	0.8	0.8	1.1	0.8	0.8	0.8	0.8	1.1
	3H	0.8	0.8	0.8	0.8	1.2	0.8	0.8	0.8	0.8	1.2
	4H	0.8	0.8	0.8	0.8	1.2	0.8	0.8	0.8	0.8	1.2
	6H	0.8	0.8	0.8	0.8	1.2	0.8	0.8	0.8	0.8	1.2
	8H	0.8	0.8	0.8	0.8	1.1	0.8	0.8	0.8	0.8	1.1
	12H	0.8	0.8	0.8	0.8	1.0	0.8	0.8	0.8	0.8	1.0
8H	4H	0.8	0.8	0.8	0.8	1.0	0.8	0.8	0.8	0.8	1.0
	6H	0.8	0.8	0.8	0.8	1.0	0.8	0.8	0.8	0.8	1.0
	8H	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.9
	12H	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.9
12H	4H	0.8	0.8	0.8	0.8	1.0	0.8	0.8	0.8	0.8	1.0
	6H	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.9
	8H	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.9

Maximum UGR = 1.3

POLAR GRAPH



Maximum Candela = 2762.305 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.)