

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 2DR-L12-835-DIM-UNV-OW-OF-SG-WETCC.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]GEN FROM 13131414.04
[TESTLAB] UL Verification Services Inc.
[ISSUE DATE] 06-05-2023
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836
[LUMCAT] 2DR-L12-835-DIM-UNV-OW-OF-SG-WETCC
[LUMINAIRE] Aluminum housing and reflector, no enclosure
[LAMP] One white LED
[BALLAST] Philips Advance XI036C100V054DSM1
[OTHER] 25.1 C, 120.023 V, 0.251417 A, 30.0672 W, 0.996403 PF, 59.9702
[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	991
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	69
Total Luminaire Watts	14.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.02
Spacing Criterion (90-270)	1.02
Spacing Criterion (Diagonal)	0.88
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	61605	61605	61605
55	23739	23739	23739
65	8601	8601	8601
75	3133	3133	3133
85	962	962	962

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CANDELA TABULATION

	<u>0</u>
0.0	899.353
0.5	899.353
1.0	898.911
1.5	898.028
2.0	897.144
2.5	895.819
3.0	894.494
3.5	893.169
4.0	891.402
4.5	890.518
5.0	889.193
5.5	888.752
6.0	887.868
6.5	887.426
7.0	886.985
7.5	886.543
8.0	886.543
8.5	886.101
9.0	885.659
9.5	885.659
10.0	885.659
10.5	885.218
11.0	885.218
11.5	885.218
12.0	885.218
12.5	885.218
13.0	884.334
13.5	883.451
14.0	881.684
14.5	879.917
15.0	877.267
15.5	874.616
16.0	871.966
16.5	869.316
17.0	866.665
17.5	864.015
18.0	860.923
18.5	857.389
19.0	853.855
19.5	849.880
20.0	845.904
20.5	840.162
21.0	834.419
21.5	825.143
22.0	813.216
22.5	799.081
23.0	784.063
23.5	767.719
24.0	750.491
24.5	731.056
25.0	710.294
25.5	685.558
26.0	659.496
26.5	630.784

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CANDELA TABULATION - (Cont.)

27.0	601.188
27.5	571.151
28.0	541.114
28.5	511.960
29.0	484.131
29.5	458.511
30.0	435.276
30.5	414.162
31.0	394.593
31.5	376.350
32.0	358.990
32.5	342.602
33.0	327.716
33.5	314.906
34.0	303.951
34.5	295.073
35.0	287.563
35.5	280.761
36.0	273.781
36.5	266.405
37.0	258.895
37.5	251.342
38.0	243.656
38.5	235.749
39.0	227.798
39.5	219.758
40.0	211.719
40.5	203.680
41.0	195.684
41.5	187.866
42.0	180.180
42.5	172.670
43.0	165.249
43.5	158.049
44.0	151.026
44.5	144.223
45.0	137.642
45.5	131.325
46.0	125.185
46.5	119.222
47.0	113.568
47.5	108.046
48.0	102.745
48.5	97.577
49.0	92.497
49.5	87.462
50.0	82.603
50.5	77.920
51.0	73.415
51.5	69.130
52.0	64.978
52.5	60.958
53.0	57.027
53.5	53.228
54.0	49.650
54.5	46.249

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CANDELA TABULATION - (Cont.)

55.0	43.024
55.5	39.976
56.0	37.193
56.5	34.587
57.0	32.202
57.5	30.037
58.0	28.050
58.5	26.194
59.0	24.472
59.5	22.926
60.0	21.468
60.5	20.143
61.0	18.906
61.5	17.757
62.0	16.697
62.5	15.681
63.0	14.709
63.5	13.826
64.0	13.031
64.5	12.236
65.0	11.485
65.5	10.778
66.0	10.071
66.5	9.453
67.0	8.835
67.5	8.260
68.0	7.686
68.5	7.156
69.0	6.670
69.5	6.184
70.0	5.742
70.5	5.345
71.0	4.947
71.5	4.594
72.0	4.241
72.5	3.887
73.0	3.578
73.5	3.313
74.0	3.048
74.5	2.783
75.0	2.562
75.5	2.341
76.0	2.120
76.5	1.944
77.0	1.767
77.5	1.590
78.0	1.458
78.5	1.325
79.0	1.193
79.5	1.060
80.0	0.928
80.5	0.839
81.0	0.751
81.5	0.663
82.0	0.618
82.5	0.530

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CANDELA TABULATION - (Cont.)

83.0	0.486
83.5	0.398
84.0	0.353
84.5	0.309
85.0	0.265
85.5	0.221
86.0	0.177
86.5	0.177
87.0	0.133
87.5	0.088
88.0	0.088
88.5	0.088
89.0	0.044
89.5	0.044
90.0	0.044
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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128.0	0.000
128.5	0.000
129.0	0.000
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130.0	0.000
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131.0	0.000
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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	331.75	N.A.	33.50
0-30	641.15	N.A.	64.70
0-40	826.87	N.A.	83.50
0-60	975.50	N.A.	98.50
0-80	990.44	N.A.	100.00
0-90	990.80	N.A.	100.00
10-90	906.00	N.A.	91.40
20-40	495.12	N.A.	50.00
20-50	602.90	N.A.	60.80
40-70	160.60	N.A.	16.20
60-80	14.93	N.A.	1.50
70-80	2.97	N.A.	0.30
80-90	0.37	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	990.80	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	84.80
10-20	246.95
20-30	309.39
30-40	185.72
40-50	107.78
50-60	40.85
60-70	11.97
70-80	2.97
80-90	0.37
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

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	113	110	107	105	111	108	105	103	104	102	100	100	99	97	97	95	94	92
2	107	102	97	94	105	100	96	92	97	93	90	94	91	88	91	89	87	85
3	101	94	89	84	99	92	88	84	90	86	82	87	84	81	85	82	80	78
4	95	87	81	77	93	86	80	76	84	79	75	82	78	74	80	76	73	72
5	90	81	75	70	88	80	74	70	78	73	69	76	72	68	75	71	68	66
6	85	75	69	64	83	75	69	64	73	68	64	72	67	63	70	66	63	61
7	80	70	64	60	79	70	64	59	68	63	59	67	62	59	66	62	58	57
8	76	66	60	55	75	65	59	55	64	59	55	63	58	55	62	58	54	53
9	72	62	56	52	71	62	56	51	61	55	51	60	55	51	59	54	51	49
10	69	58	52	48	68	58	52	48	57	52	48	56	51	48	56	51	48	46

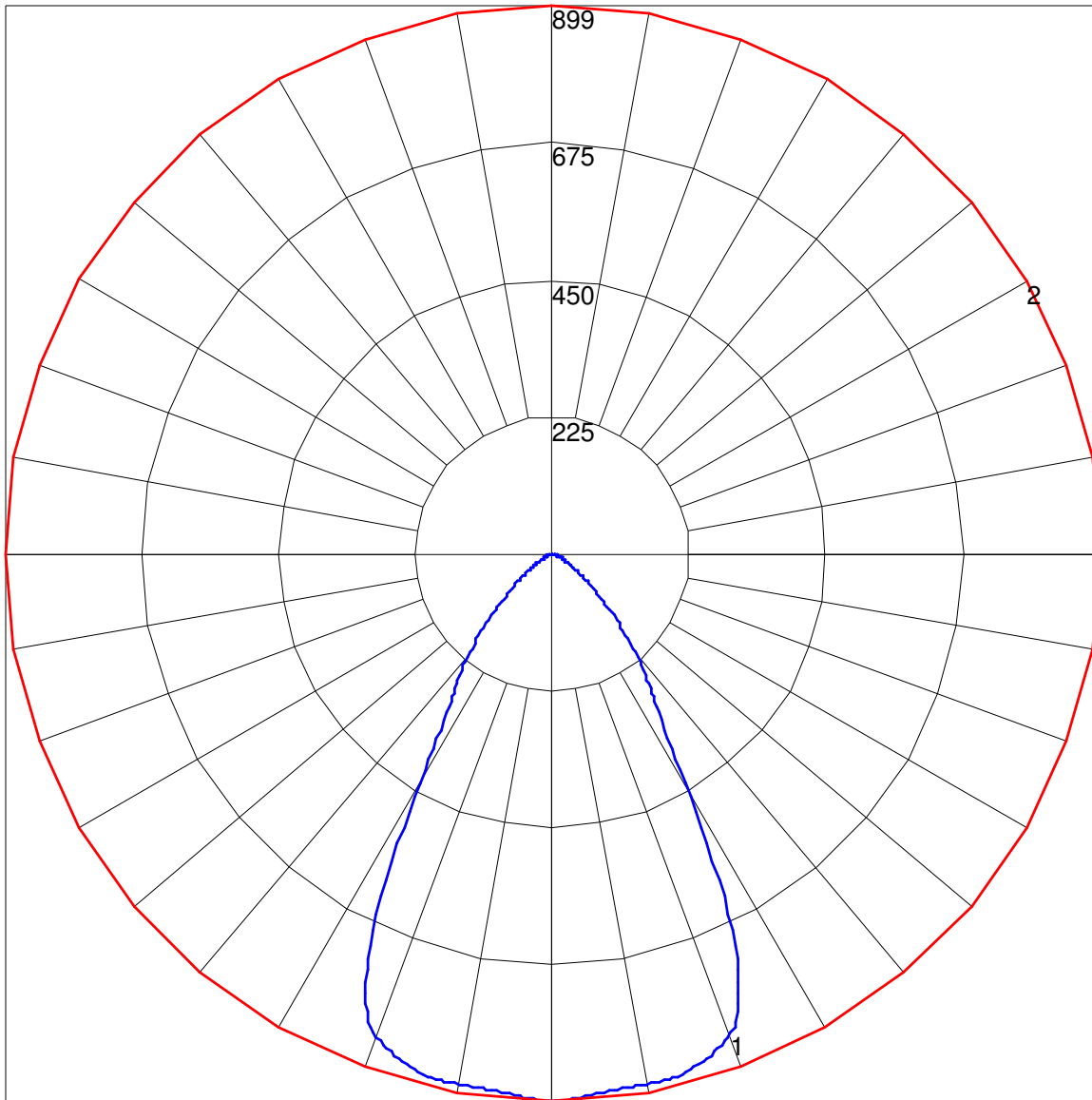
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UGR TABLE - CORRECTED

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	16.0	17.1	16.4	17.4	17.7	16.0	17.1	16.4	17.4	17.7
	3H	16.2	17.2	16.6	17.5	17.9	16.2	17.2	16.6	17.5	17.9
	4H	16.2	17.1	16.6	17.4	17.8	16.2	17.1	16.6	17.4	17.8
	6H	16.1	16.9	16.5	17.3	17.7	16.1	16.9	16.5	17.3	17.7
	8H	16.1	16.8	16.5	17.2	17.6	16.1	16.8	16.5	17.2	17.6
	12H	16.0	16.7	16.5	17.1	17.6	16.0	16.7	16.5	17.1	17.6
4H	2H	16.0	16.9	16.4	17.2	17.6	16.0	16.9	16.4	17.2	17.6
	3H	16.3	17.0	16.7	17.4	17.8	16.3	17.0	16.7	17.4	17.8
	4H	16.2	16.9	16.7	17.3	17.7	16.2	16.9	16.7	17.3	17.7
	6H	16.2	16.7	16.7	17.2	17.6	16.2	16.7	16.7	17.2	17.6
	8H	16.1	16.6	16.6	17.1	17.6	16.1	16.6	16.6	17.1	17.6
	12H	16.1	16.5	16.6	17.0	17.5	16.1	16.5	16.6	17.0	17.5
8H	4H	16.1	16.6	16.6	17.1	17.6	16.1	16.6	16.6	17.1	17.6
	6H	16.1	16.5	16.6	17.0	17.4	16.1	16.5	16.6	17.0	17.4
	8H	16.0	16.4	16.5	16.9	17.4	16.0	16.4	16.5	16.9	17.4
	12H	16.0	16.3	16.5	16.8	17.3	16.0	16.3	16.5	16.8	17.3
12H	4H	16.1	16.5	16.6	17.0	17.5	16.1	16.5	16.6	17.0	17.5
	6H	16.0	16.4	16.5	16.8	17.4	16.0	16.4	16.5	16.8	17.4
	8H	16.0	16.3	16.5	16.8	17.3	16.0	16.3	16.5	16.8	17.3

Maximum UGR = 17.9

POLAR GRAPH



Maximum Candela = 899.353 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.)