

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 2DR-L12-835-DIM-UNV-OW-OF-CS-WETCC_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 13131414.01

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 06-02-2023

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836

[LUMCAT] 2DR-L12-835-DIM-UNV-OW-OF-CS-WET/CC

[LUMINAIRE] Aluminum housing and reflector, no enclosure

[LAMP] One white LED

[BALLAST] Philips Advance XI036C100V054DSM1

[OTHER] 24.8 C, 120.1 V, 0.251684 A, 30.1187 W, 0.996411 PF, 59.9999 H

[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	1077
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	75
Total Luminaire Watts	14.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.04
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	29224	29224	29224
55	8318	8318	8318
65	3773	3773	3773
75	1169	1169	1169
85	316	316	316

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CANDELA TABULATION

	<u>0</u>
0.0	873.637
0.5	873.637
1.0	873.637
1.5	874.072
2.0	874.506
2.5	874.940
3.0	875.375
3.5	876.678
4.0	878.416
4.5	880.588
5.0	883.195
5.5	886.236
6.0	888.842
6.5	892.318
7.0	895.793
7.5	899.268
8.0	903.178
8.5	906.219
9.0	908.826
9.5	910.564
10.0	912.301
10.5	913.605
11.0	914.473
11.5	914.908
12.0	914.473
12.5	914.039
13.0	912.736
13.5	911.432
14.0	909.695
14.5	908.391
15.0	906.654
15.5	904.916
16.0	902.744
16.5	901.441
17.0	899.703
17.5	898.400
18.0	897.531
18.5	896.227
19.0	894.055
19.5	890.145
20.0	886.236
20.5	881.022
21.0	874.940
21.5	868.424
22.0	861.908
22.5	854.088
23.0	845.834
23.5	836.711
24.0	827.588
24.5	818.030
25.0	807.604
25.5	796.309
26.0	784.145
26.5	770.677

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CANDELA TABULATION - (Cont.)

27.0	756.341
27.5	739.833
28.0	724.193
28.5	707.685
29.0	691.611
29.5	675.537
30.0	658.595
30.5	641.217
31.0	623.406
31.5	605.160
32.0	587.783
32.5	569.537
33.0	550.856
33.5	532.176
34.0	512.626
34.5	493.077
35.0	473.093
35.5	452.241
36.0	430.650
36.5	408.016
37.0	383.818
37.5	358.143
38.0	331.600
38.5	304.535
39.0	277.600
39.5	251.491
40.0	226.642
40.5	203.269
41.0	181.461
41.5	161.086
42.0	142.058
42.5	124.594
43.0	108.825
43.5	94.923
44.0	83.193
44.5	73.419
45.0	65.295
45.5	58.561
46.0	52.957
46.5	48.178
47.0	44.138
47.5	40.663
48.0	37.622
48.5	34.928
49.0	32.539
49.5	30.410
50.0	28.412
50.5	26.631
51.0	24.980
51.5	23.459
52.0	22.069
52.5	20.722
53.0	19.462
53.5	18.246
54.0	17.117
54.5	16.030

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CANDELA TABULATION - (Cont.)

55.0	15.075
55.5	14.206
56.0	13.424
56.5	12.685
57.0	12.034
57.5	11.425
58.0	10.861
58.5	10.339
59.0	9.862
59.5	9.340
60.0	8.906
60.5	8.428
61.0	8.037
61.5	7.603
62.0	7.212
62.5	6.821
63.0	6.473
63.5	6.082
64.0	5.734
64.5	5.387
65.0	5.039
65.5	4.735
66.0	4.431
66.5	4.084
67.0	3.823
67.5	3.519
68.0	3.258
68.5	3.041
69.0	2.780
69.5	2.563
70.0	2.346
70.5	2.172
71.0	1.998
71.5	1.825
72.0	1.651
72.5	1.521
73.0	1.390
73.5	1.260
74.0	1.173
74.5	1.043
75.0	0.956
75.5	0.869
76.0	0.782
76.5	0.739
77.0	0.652
77.5	0.565
78.0	0.521
78.5	0.478
79.0	0.434
79.5	0.391
80.0	0.348
80.5	0.304
81.0	0.261
81.5	0.261
82.0	0.217
82.5	0.174

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CANDELA TABULATION - (Cont.)

83.0	0.174
83.5	0.130
84.0	0.130
84.5	0.130
85.0	0.087
85.5	0.087
86.0	0.087
86.5	0.043
87.0	0.043
87.5	0.043
88.0	0.043
88.5	0.043
89.0	0.043
89.5	0.043
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
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123.0	0.000
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124.0	0.000
124.5	0.000
125.0	0.000
125.5	0.000
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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
130.5	0.000
131.0	0.000
131.5	0.000
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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
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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	341.60	N.A.	31.70
0-30	706.18	N.A.	65.60
0-40	990.50	N.A.	92.00
0-60	1070.5	N.A.	99.40
0-80	1076.79	N.A.	100.00
0-90	1076.93	N.A.	100.00
10-90	991.51	N.A.	92.10
20-40	648.90	N.A.	60.30
20-50	714.42	N.A.	66.30
40-70	85.15	N.A.	7.90
60-80	6.29	N.A.	0.60
70-80	1.14	N.A.	0.10
80-90	0.14	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	1076.93	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	85.41
10-20	256.19
20-30	364.58
30-40	284.32
40-50	65.52
50-60	14.48
60-70	5.15
70-80	1.14
80-90	0.14
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	113	110	108	106	111	108	106	104	104	102	101	100	99	98	97	96	95	93
2	107	102	98	95	105	101	97	94	97	94	92	94	92	90	92	90	88	86
3	102	95	90	86	100	94	89	85	91	87	84	88	85	82	86	83	81	79
4	96	88	83	78	94	87	82	78	85	80	77	83	79	76	81	78	75	73
5	91	82	76	72	89	81	76	71	79	74	71	78	73	70	76	72	69	68
6	86	77	71	66	85	76	70	66	74	69	65	73	68	65	72	68	64	63
7	81	72	65	61	80	71	65	61	70	64	61	69	64	60	67	63	60	58
8	77	67	61	57	76	67	61	57	66	60	56	64	60	56	63	59	56	54
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51
10	70	59	53	49	68	59	53	49	58	53	49	57	52	49	57	52	49	47

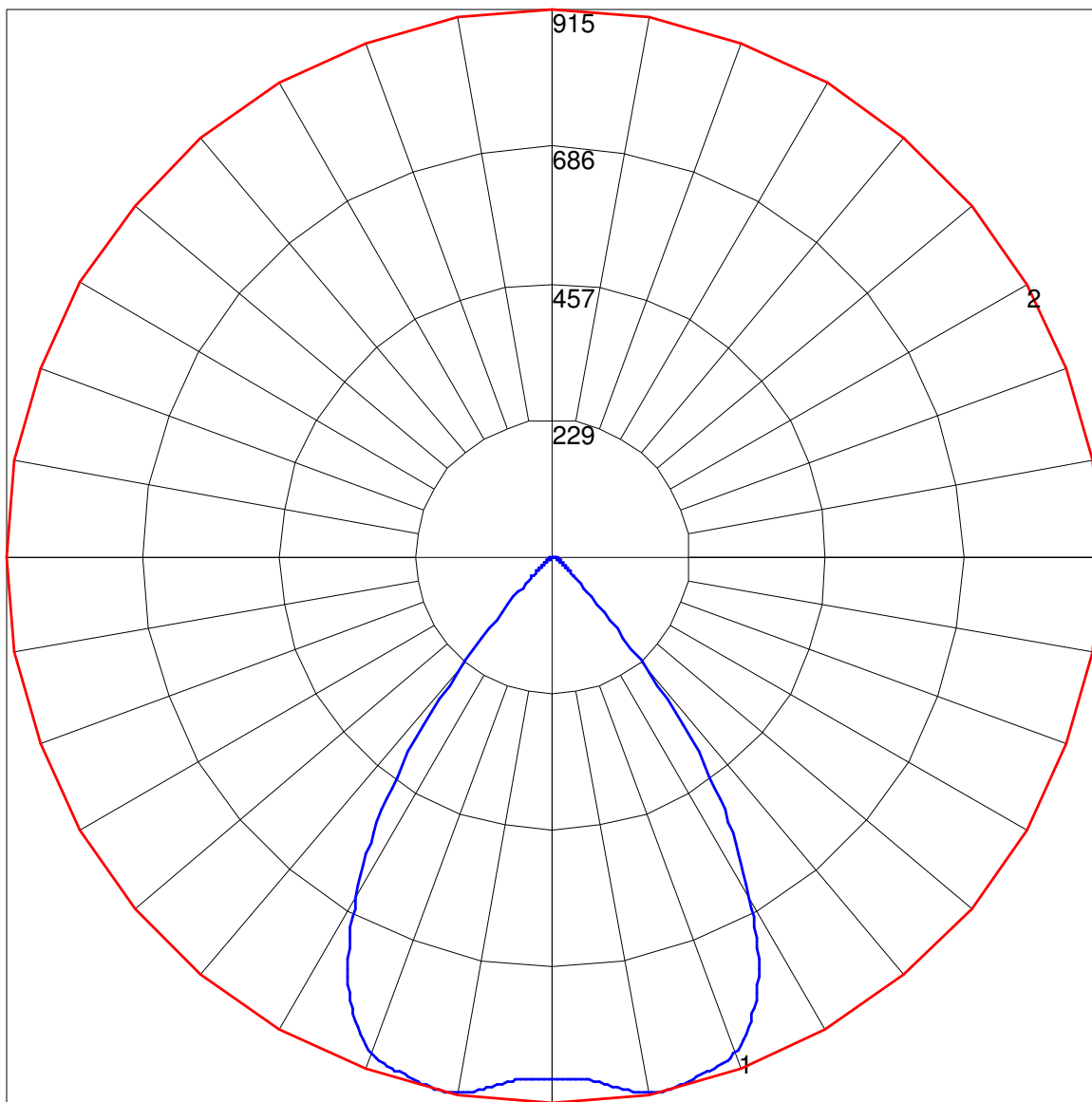
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UGR TABLE - CORRECTED

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	9.1	10.1	9.5	10.5	10.8	9.1	10.1	9.5	10.5	10.8
	3H	9.4	10.3	9.8	10.6	11.0	9.4	10.3	9.8	10.6	11.0
	4H	9.4	10.2	9.8	10.5	10.9	9.4	10.2	9.8	10.5	10.9
	6H	9.3	10.0	9.7	10.4	10.8	9.3	10.0	9.7	10.4	10.8
	8H	9.3	9.9	9.7	10.3	10.7	9.3	9.9	9.7	10.3	10.7
	12H	9.2	9.9	9.6	10.2	10.7	9.2	9.9	9.6	10.2	10.7
4H	2H	9.2	10.0	9.6	10.4	10.7	9.2	10.0	9.6	10.4	10.7
	3H	9.5	10.2	9.9	10.6	11.0	9.5	10.2	9.9	10.6	11.0
	4H	9.5	10.1	9.9	10.5	10.9	9.5	10.1	9.9	10.5	10.9
	6H	9.4	9.9	9.9	10.3	10.8	9.4	9.9	9.9	10.3	10.8
	8H	9.3	9.8	9.8	10.2	10.7	9.3	9.8	9.8	10.2	10.7
	12H	9.3	9.7	9.8	10.2	10.6	9.3	9.7	9.8	10.2	10.6
8H	4H	9.3	9.8	9.8	10.3	10.7	9.3	9.8	9.8	10.3	10.7
	6H	9.2	9.6	9.8	10.1	10.6	9.2	9.6	9.8	10.1	10.6
	8H	9.2	9.5	9.7	10.0	10.5	9.2	9.5	9.7	10.0	10.5
	12H	9.1	9.4	9.6	9.9	10.5	9.1	9.4	9.6	9.9	10.5
12H	4H	9.3	9.7	9.8	10.2	10.6	9.3	9.7	9.8	10.2	10.6
	6H	9.2	9.5	9.7	10.0	10.5	9.2	9.5	9.7	10.0	10.5
	8H	9.1	9.4	9.6	9.9	10.5	9.1	9.4	9.6	9.9	10.5

Maximum UGR = 11.0

POLAR GRAPH



Maximum Candela = 914.908 Located At Horizontal Angle = 0, Vertical Angle = 11.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (11.5) (Through Max. Cd.)