



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-L21-9TC-DIM-UNV-RW-OF-WH.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN from 12316380.12  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUE DATE] 6/12/2018  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] 4DR-L21-9TC-DIM-UNV-RW-OF-WH  
 [LUMINAIRE] Black formed aluminum housing, white reflector, clear glass  
 [MORE] s patterned lens enclosure  
 [LAMP] One white LED  
 [BALLAST] Philips XI025C070V054DSM5  
 [OTHER] 25.1 C, 120.068 V, 0.165573 A, 19.772 W, 0.994569 PF, 59.97 Hz  
 [OTHER] This test was performed using the calibrated photodetector met  
 [MORE] hod of absolute photometry.

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1372
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	34
Total Luminaire Watts	40.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.98
Spacing Criterion (90-270)	0.98
Spacing Criterion (Diagonal)	0.88
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	31743	31743	31743
55	25631	25631	25631
65	16581	16581	16581
75	9246	9246	9246
85	4750	4750	4750

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CANDELA TABULATION

	<u>0</u>
0.0	1102.331
0.5	1102.331
1.0	1101.294
1.5	1099.220
2.0	1097.146
2.5	1095.072
3.0	1091.961
3.5	1088.850
4.0	1085.739
4.5	1081.591
5.0	1078.480
5.5	1074.332
6.0	1070.184
6.5	1066.036
7.0	1061.888
7.5	1057.740
8.0	1053.592
8.5	1048.407
9.0	1044.259
9.5	1040.111
10.0	1036.170
10.5	1031.919
11.0	1027.563
11.5	1023.312
12.0	1019.267
12.5	1015.223
13.0	1011.179
13.5	1007.031
14.0	1002.883
14.5	998.735
15.0	994.483
15.5	990.128
16.0	985.565
16.5	981.002
17.0	976.335
17.5	971.358
18.0	966.069
18.5	960.366
19.0	954.870
19.5	948.959
20.0	942.529
20.5	935.167
21.0	926.663
21.5	917.434
22.0	906.856
22.5	895.138
23.0	881.865
23.5	866.932
24.0	850.547
24.5	831.985
25.0	811.245
25.5	788.327
26.0	763.543
26.5	737.203

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**CANDELA TABULATION - (Cont.)**

27.0	709.515
27.5	681.413
28.0	651.962
28.5	622.822
29.0	593.786
29.5	564.750
30.0	536.233
30.5	508.234
31.0	481.790
31.5	456.176
32.0	432.014
32.5	409.511
33.0	388.668
33.5	369.898
34.0	352.995
34.5	338.269
35.0	325.307
35.5	314.315
36.0	304.671
36.5	296.582
37.0	289.427
37.5	283.308
38.0	277.709
38.5	272.731
39.0	268.272
39.5	264.228
40.0	260.598
40.5	257.176
41.0	253.858
41.5	250.850
42.0	247.843
42.5	245.043
43.0	242.243
43.5	239.340
44.0	236.436
44.5	233.532
45.0	230.525
45.5	227.414
46.0	224.199
46.5	220.881
47.0	217.459
47.5	213.933
48.0	210.407
48.5	206.674
49.0	202.837
49.5	198.793
50.0	194.749
50.5	190.601
51.0	186.245
51.5	181.993
52.0	177.638
52.5	173.283
53.0	169.135
53.5	164.572
54.0	160.009
54.5	155.446

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**CANDELA TABULATION - (Cont.)**

55.0	150.987
55.5	146.424
56.0	141.965
56.5	137.610
57.0	133.254
57.5	128.899
58.0	124.647
58.5	120.499
59.0	116.351
59.5	112.307
60.0	108.263
60.5	104.322
61.0	100.485
61.5	96.648
62.0	93.019
62.5	89.286
63.0	85.760
63.5	82.130
64.0	78.708
64.5	75.286
65.0	71.968
65.5	68.649
66.0	65.435
66.5	62.324
67.0	59.316
67.5	56.309
68.0	53.405
68.5	50.502
69.0	47.702
69.5	45.006
70.0	42.517
70.5	40.132
71.0	37.954
71.5	35.880
72.0	33.910
72.5	32.043
73.0	30.280
73.5	28.725
74.0	27.169
74.5	25.821
75.0	24.577
75.5	23.436
76.0	22.192
76.5	21.051
77.0	19.910
77.5	18.770
78.0	17.733
78.5	16.592
79.0	15.555
79.5	14.518
80.0	13.481
80.5	12.444
81.0	11.511
81.5	10.577
82.0	9.540
82.5	8.711

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CANDELA TABULATION - (Cont.)

83.0	7.777
83.5	6.844
84.0	6.015
84.5	5.081
85.0	4.252
85.5	3.526
86.0	2.800
86.5	2.281
87.0	1.763
87.5	1.348
88.0	0.933
88.5	0.622
89.0	0.311
89.5	0.104
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

**IES INDOOR REPORT**  
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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
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
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	381.56	N.A.	27.80
0-30	738.36	N.A.	53.80
0-40	955.79	N.A.	69.60
0-60	1267.52	N.A.	92.40
0-80	1366.7	N.A.	99.60
0-90	1372.31	N.A.	100.00
10-90	1270.79	N.A.	92.60
20-40	574.23	N.A.	41.80
20-50	751.14	N.A.	54.70
40-70	383.83	N.A.	28.00
60-80	99.18	N.A.	7.20
70-80	27.09	N.A.	2.00
80-90	5.61	N.A.	0.40
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	1372.31	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	101.53
10-20	280.03
20-30	356.80
30-40	217.43
40-50	176.91
50-60	134.82
60-70	72.10
70-80	27.09
80-90	5.61
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

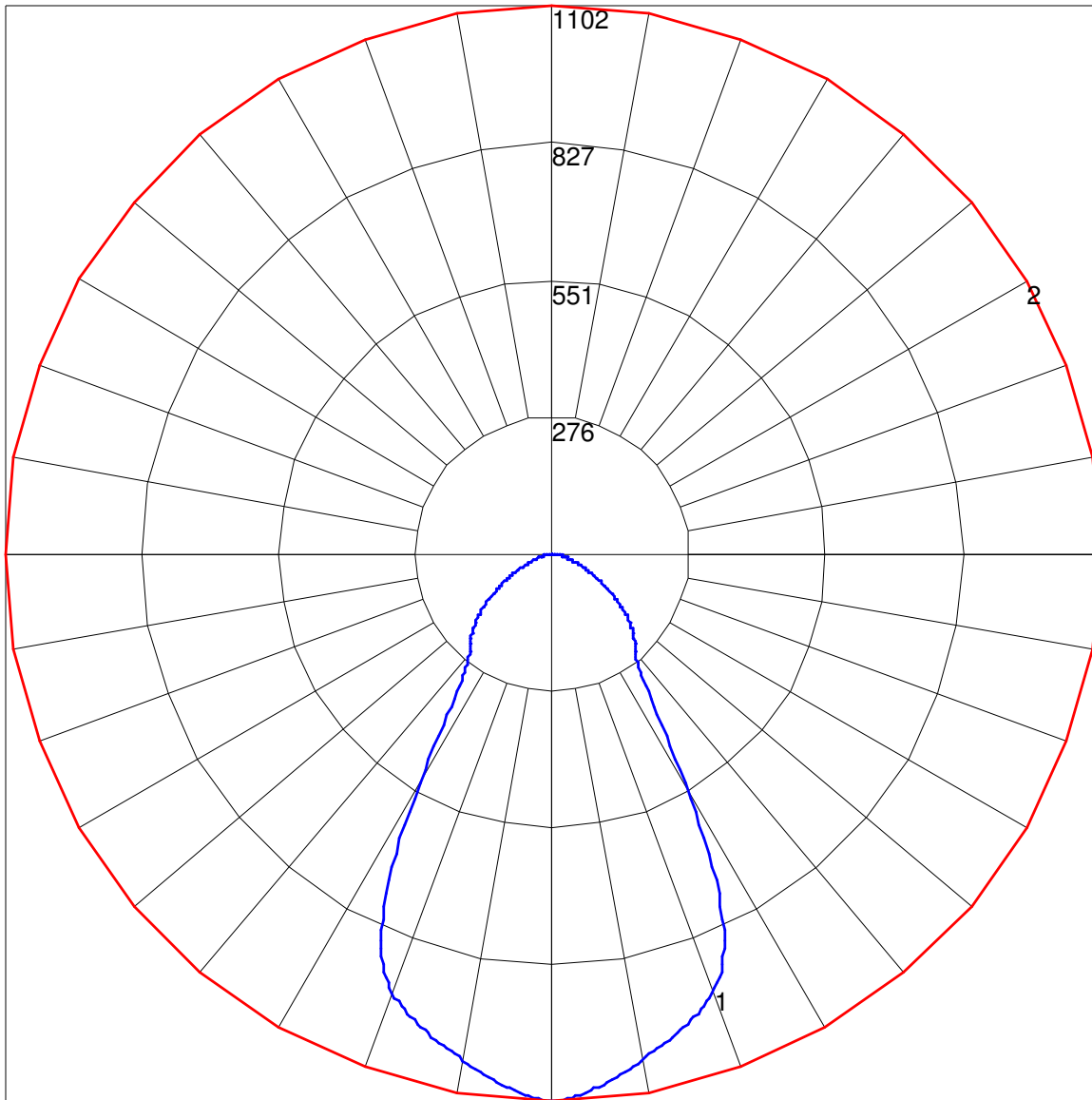
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	123	123	123	123	121	121	121	121	115	115	115	110	110	110	106	106	106	104
1	116	112	109	106	113	110	107	104	106	103	101	102	100	98	98	97	95	93
2	108	102	96	92	106	100	95	91	96	92	89	93	90	87	90	88	85	83
3	101	93	86	81	99	91	85	80	88	83	79	86	81	78	83	79	76	74
4	95	85	78	72	92	83	77	72	81	75	71	79	74	70	77	73	69	67
5	89	78	70	65	87	77	70	65	75	69	64	73	68	63	71	67	63	61
6	83	72	64	59	81	71	64	59	69	63	58	68	62	58	66	61	57	56
7	78	67	59	54	77	66	59	54	65	58	54	63	57	53	62	57	53	51
8	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47
9	70	58	51	46	69	58	51	46	57	50	46	56	50	46	55	49	46	44
10	66	55	48	43	65	54	47	43	53	47	43	52	47	43	51	46	42	41

POLAR GRAPH



Maximum Candela = 1102.331 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.)