



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-L24-9DW-DIM-UNV-LM-OF-WH.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from 12316380.09

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 6/11/2018

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 4DR-L24-9DW-DIM-UNV-LM-OF-WH

[LUMINAIRE] Black formed aluminum housing, white reflector, clear plas

[MORE] tic optic, clear glass patterned enclosure

[LAMP] One white LED

[BALLAST] Philips XI025C070V054DSM5

[OTHER] 25 C, 120.065 V, 0.165764 A, 19.7946 W, 0.994578 PF, 59.9706 H

[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	1995
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	53
Total Luminaire Watts	37.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.54
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.35 ft (Diameter)
Luminous Width (90-270)	0.35 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	15138	15138	15138
55	11799	11799	11799
65	9861	9861	9861
75	7934	7934	7934
85	4740	4740	4740

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CANDELA TABULATION

	<u>0</u>
0.0	5161.904
0.5	5159.680
1.0	5151.896
1.5	5139.664
2.0	5124.096
2.5	5102.968
3.0	5078.504
3.5	5049.592
4.0	5016.232
4.5	4980.648
5.0	4940.616
5.5	4896.136
6.0	4847.208
6.5	4792.720
7.0	4733.784
7.5	4669.288
8.0	4599.232
8.5	4523.616
9.0	4443.552
9.5	4356.816
10.0	4263.408
10.5	4163.328
11.0	4058.800
11.5	3948.712
12.0	3831.952
12.5	3710.744
13.0	3583.976
13.5	3452.760
14.0	3315.984
14.5	3174.760
15.0	3032.424
15.5	2887.864
16.0	2743.304
16.5	2597.632
17.0	2453.072
17.5	2312.960
18.0	2173.960
18.5	2040.520
19.0	1912.640
19.5	1789.208
20.0	1672.448
20.5	1560.136
21.0	1455.608
21.5	1356.640
22.0	1263.232
22.5	1176.496
23.0	1094.653
23.5	1018.370
24.0	947.535
24.5	881.371
25.0	819.989
25.5	762.943
26.0	709.456
26.5	660.083

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CANDELA TABULATION - (Cont.)

27.0	614.046
27.5	571.902
28.0	532.648
28.5	496.397
29.0	463.148
29.5	432.123
30.0	403.322
30.5	376.746
31.0	352.170
31.5	329.597
32.0	308.691
32.5	289.454
33.0	271.773
33.5	255.426
34.0	240.526
34.5	226.737
35.0	214.282
35.5	202.718
36.0	192.154
36.5	182.479
37.0	173.583
37.5	165.466
38.0	158.126
38.5	151.343
39.0	145.116
39.5	139.445
40.0	134.218
40.5	129.326
41.0	124.766
41.5	120.652
42.0	116.760
42.5	113.090
43.0	109.754
43.5	106.530
44.0	103.527
44.5	100.747
45.0	97.967
45.5	95.410
46.0	93.074
46.5	90.739
47.0	88.515
47.5	86.514
48.0	84.401
48.5	82.510
49.0	80.620
49.5	78.730
50.0	77.062
50.5	75.394
51.0	73.837
51.5	72.169
52.0	70.612
52.5	69.166
53.0	67.610
53.5	66.164
54.0	64.718
54.5	63.273

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CANDELA TABULATION - (Cont.)

55.0	61.938
55.5	60.604
56.0	59.270
56.5	57.935
57.0	56.490
57.5	55.266
58.0	54.043
58.5	52.931
59.0	51.708
59.5	50.485
60.0	49.262
60.5	48.038
61.0	47.038
61.5	45.814
62.0	44.702
62.5	43.590
63.0	42.478
63.5	41.478
64.0	40.366
64.5	39.254
65.0	38.142
65.5	37.141
66.0	36.140
66.5	35.139
67.0	34.027
67.5	33.026
68.0	32.026
68.5	31.025
69.0	30.024
69.5	29.023
70.0	28.022
70.5	27.133
71.0	26.243
71.5	25.131
72.0	24.242
72.5	23.352
73.0	22.462
73.5	21.462
74.0	20.572
74.5	19.682
75.0	18.793
75.5	17.903
76.0	17.014
76.5	16.124
77.0	15.234
77.5	14.567
78.0	13.678
78.5	12.899
79.0	12.121
79.5	11.342
80.0	10.564
80.5	9.786
81.0	9.007
81.5	8.451
82.0	7.562
82.5	7.006

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CANDELA TABULATION - (Cont.)

83.0	6.227
83.5	5.671
84.0	5.004
84.5	4.337
85.0	3.781
85.5	3.114
86.0	2.669
86.5	2.113
87.0	1.779
87.5	1.446
88.0	1.112
88.5	0.890
89.0	0.667
89.5	0.445
90.0	0.334
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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PHOTOMETRIC FILENAME : 4DR-L24-9DW-DIM-UNV-LM-OF-WH.IES

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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PHOTOMETRIC FILENAME : 4DR-L24-9DW-DIM-UNV-LM-OF-WH.IES

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	1261.66	N.A.	63.20
0-30	1657.02	N.A.	83.10
0-40	1799.54	N.A.	90.20
0-60	1932.39	N.A.	96.90
0-80	1990.31	N.A.	99.80
0-90	1995.02	N.A.	100.00
10-90	1544.51	N.A.	77.40
20-40	537.87	N.A.	27.00
20-50	615.05	N.A.	30.80
40-70	170.79	N.A.	8.60
60-80	57.92	N.A.	2.90
70-80	19.99	N.A.	1.00
80-90	4.70	N.A.	0.20
90-110	0.01	N.A.	0.00
90-120	0.01	N.A.	0.00
90-130	0.01	N.A.	0.00
90-150	0.01	N.A.	0.00
90-180	0.01	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1995.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	450.50
10-20	811.16
20-30	395.35
30-40	142.52
40-50	77.18
50-60	55.68
60-70	37.93
70-80	19.99
80-90	4.70
90-100	0.01
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

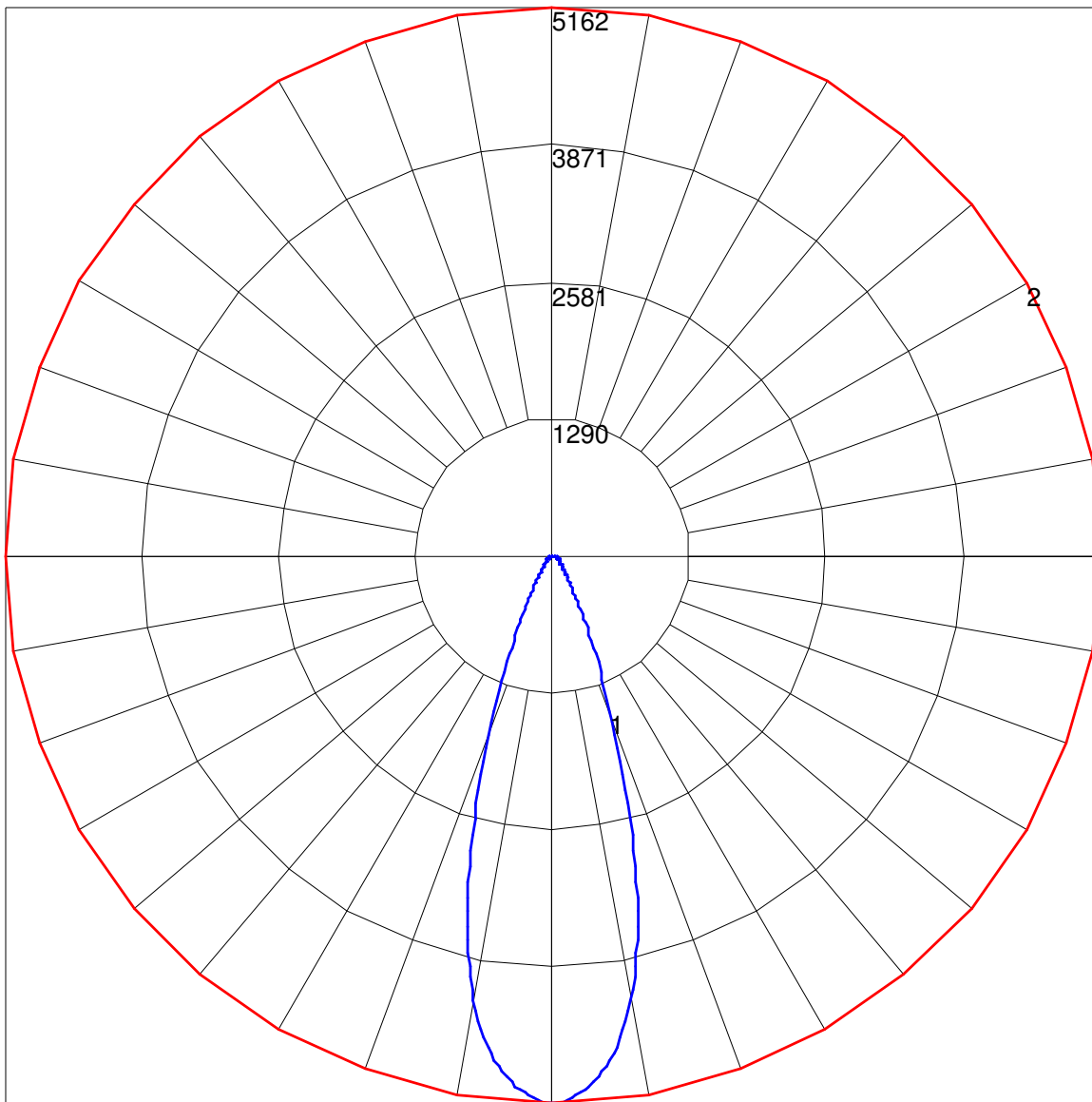
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	132	132	132	132	129	129	129	129	124	124	124	118	118	118	113	113	113	111
1	127	124	121	119	124	121	119	117	117	115	113	113	111	110	109	108	107	105
2	121	116	112	108	119	114	110	107	111	107	105	107	105	103	104	102	100	99
3	116	109	104	100	114	108	103	99	105	101	98	102	99	96	100	97	95	93
4	111	104	98	94	109	102	97	93	100	96	92	98	94	91	96	93	90	89
5	107	98	93	88	105	97	92	88	95	91	87	94	90	87	92	89	86	84
6	102	94	88	84	101	93	88	84	91	87	83	90	86	83	89	85	82	81
7	99	90	84	80	97	89	84	80	88	83	79	86	82	79	85	81	78	77
8	95	86	80	76	94	85	80	76	84	79	76	83	79	76	82	78	75	74
9	92	83	77	73	91	82	77	73	81	76	73	80	76	73	79	75	72	71
10	89	80	74	70	88	79	74	70	78	73	70	77	73	70	77	73	70	69

POLAR GRAPH



Maximum Candela = 5161.904 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.)