



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from 12316380.14

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 6/12/2018

[MANUFAC] WILLIAMS INDOOR

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

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

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

[MORE] tic optic, clear glass patterned lens enclosure

[LAMP] One white LED

[BALLAST] Philips XI025C070V054DSM5

[OTHER] 25.1 C, 120.065 V, 0.165575 A, 19.7717 W, 0.994568 PF, 59.9696

[MORE] 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	1997
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)	0.52
Spacing Criterion (90-270)	0.52
Spacing Criterion (Diagonal)	0.52
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	11453	11453	11453
55	7966	7966	7966
65	5687	5687	5687
75	3807	3807	3807
85	3106	3106	3106

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CANDELA TABULATION

	<u>0</u>
0.0	5755.712
0.5	5751.264
1.0	5737.920
1.5	5716.792
2.0	5687.880
2.5	5651.184
3.0	5607.816
3.5	5556.664
4.0	5497.728
4.5	5434.344
5.0	5364.288
5.5	5286.448
6.0	5203.048
6.5	5114.088
7.0	5018.456
7.5	4916.152
8.0	4809.400
8.5	4695.976
9.0	4579.216
9.5	4458.008
10.0	4332.352
10.5	4203.360
11.0	4071.032
11.5	3936.480
12.0	3799.704
12.5	3664.040
13.0	3528.376
13.5	3391.600
14.0	3253.712
14.5	3115.824
15.0	2980.160
15.5	2845.608
16.0	2711.056
16.5	2579.840
17.0	2449.736
17.5	2321.856
18.0	2196.200
18.5	2073.880
19.0	1957.120
19.5	1842.584
20.0	1731.384
20.5	1625.744
21.0	1523.440
21.5	1425.584
22.0	1333.288
22.5	1245.440
23.0	1163.152
23.5	1084.422
24.0	1009.918
24.5	939.751
25.0	874.143
25.5	813.094
26.0	756.160
26.5	702.784

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CANDELA TABULATION - (Cont.)

27.0	653.189
27.5	607.263
28.0	564.562
28.5	524.753
29.0	488.279
29.5	454.252
30.0	422.782
30.5	393.870
31.0	367.182
31.5	342.496
32.0	319.700
32.5	298.794
33.0	279.446
33.5	261.431
34.0	244.974
34.5	229.628
35.0	215.506
35.5	202.495
36.0	190.374
36.5	179.254
37.0	168.913
37.5	159.572
38.0	150.898
38.5	143.114
39.0	135.886
39.5	129.326
40.0	123.432
40.5	117.872
41.0	112.868
41.5	108.198
42.0	103.861
42.5	99.858
43.0	96.077
43.5	92.518
44.0	89.182
44.5	86.069
45.0	83.178
45.5	80.509
46.0	77.951
46.5	75.505
47.0	73.170
47.5	71.057
48.0	69.055
48.5	67.054
49.0	65.163
49.5	63.384
50.0	61.716
50.5	60.048
51.0	58.491
51.5	56.823
52.0	55.378
52.5	53.821
53.0	52.486
53.5	51.041
54.0	49.595
54.5	48.261

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CANDELA TABULATION - (Cont.)

55.0	46.926
55.5	45.592
56.0	44.369
56.5	43.146
57.0	41.922
57.5	40.699
58.0	39.476
58.5	38.364
59.0	37.252
59.5	36.140
60.0	35.028
60.5	33.916
61.0	32.804
61.5	31.803
62.0	30.691
62.5	29.690
63.0	28.578
63.5	27.578
64.0	26.577
64.5	25.576
65.0	24.686
65.5	23.686
66.0	22.796
66.5	21.795
67.0	20.906
67.5	20.016
68.0	19.126
68.5	18.348
69.0	17.458
69.5	16.680
70.0	15.902
70.5	15.234
71.0	14.567
71.5	13.900
72.0	13.233
72.5	12.677
73.0	12.121
73.5	11.565
74.0	11.120
74.5	10.564
75.0	10.119
75.5	9.674
76.0	9.230
76.5	8.896
77.0	8.451
77.5	8.006
78.0	7.673
78.5	7.228
79.0	6.894
79.5	6.561
80.0	6.116
80.5	5.782
81.0	5.449
81.5	5.115
82.0	4.670
82.5	4.337

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CANDELA TABULATION - (Cont.)

83.0	4.003
83.5	3.670
84.0	3.336
84.5	3.002
85.0	2.780
85.5	2.446
86.0	2.113
86.5	1.779
87.0	1.557
87.5	1.334
88.0	1.112
88.5	0.890
89.0	0.778
89.5	0.556
90.0	0.445
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
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	1287.93	N.A.	64.50
0-30	1705.91	N.A.	85.40
0-40	1849.33	N.A.	92.60
0-60	1957.75	N.A.	98.10
0-80	1993.35	N.A.	99.80
0-90	1996.5	N.A.	100.00
10-90	1517.68	N.A.	76.00
20-40	561.40	N.A.	28.10
20-50	627.53	N.A.	31.40
40-70	133.02	N.A.	6.70
60-80	35.60	N.A.	1.80
70-80	11.00	N.A.	0.60
80-90	3.16	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	1996.52	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	478.83
10-20	809.11
20-30	417.98
30-40	143.42
40-50	66.13
50-60	42.29
60-70	24.60
70-80	11.00
80-90	3.16
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

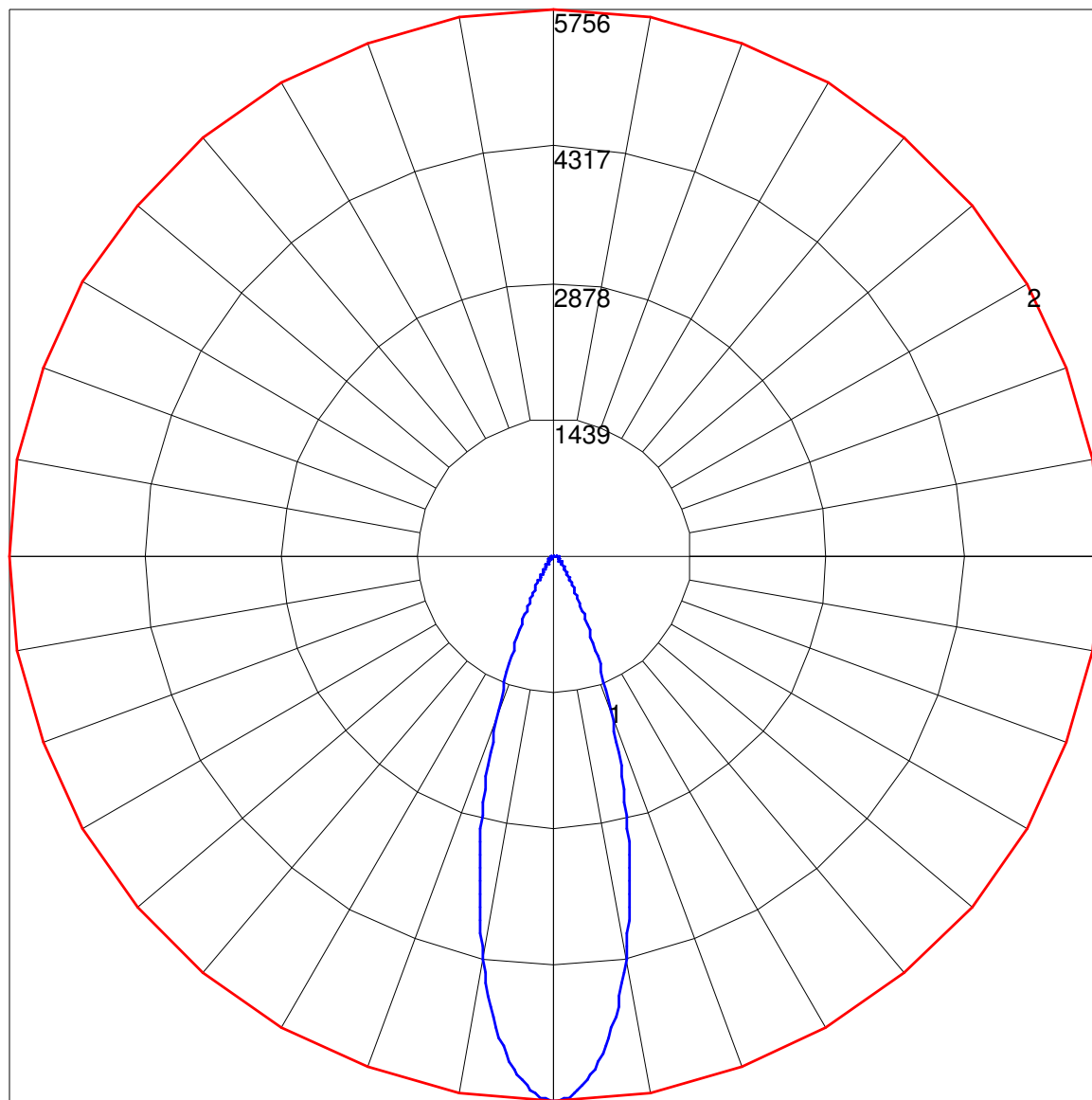
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	122	119	124	122	120	117	117	116	114	113	112	111	109	108	107	105
2	122	117	113	110	119	115	111	108	111	108	106	108	106	104	105	103	102	100
3	117	110	106	102	115	109	105	101	106	102	99	103	100	98	101	99	96	95
4	112	105	100	96	110	104	99	95	101	97	94	99	96	93	97	94	92	90
5	108	100	94	90	106	99	94	90	97	93	89	95	91	88	94	90	88	86
6	104	95	90	86	102	95	89	85	93	88	85	92	87	84	90	87	84	82
7	100	91	86	82	99	91	85	82	89	85	81	88	84	81	87	83	80	79
8	96	88	82	78	95	87	82	78	86	81	78	85	81	78	84	80	77	76
9	93	84	79	75	92	84	79	75	83	78	75	82	78	75	81	77	74	73
10	90	81	76	72	89	81	76	72	80	75	72	79	75	72	78	75	72	71

POLAR GRAPH



Maximum Candela = 5755.712 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.)