



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-L24-9DW-DIM-UNV-ON-OF-CS.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from 12316380.05
 [TESTLAB] UL Verification Services Inc.
 [ISSUE DATE] 6/7/2018
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 4DR-L24-9DW-DIM-UNV-ON-OF-CS
 [LUMINAIRE] Black formed aluminum housing, specular reflector, no lens
 [MORE] enclosure
 [LAMP] One white LED
 [BALLAST] Philips XI025C070V054DSM5
 [OTHER] 25.5 C, 119.971 V, 0.166115 A, 19.8214 W, 0.9946 PF, 59.9699 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	2228
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	59
Total Luminaire Watts	37.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.18
Spacing Criterion (90-270)	0.18
Spacing Criterion (Diagonal)	0.20
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	1531	1531	1531
55	378	378	378
65	256	256	256
75	0	0	0
85	0	0	0

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CANDELA TABULATION

	<u>0</u>
0.0	23696.720
0.5	23529.920
1.0	22907.200
1.5	22006.480
2.0	20738.800
2.5	19259.840
3.0	17803.120
3.5	16346.400
4.0	14923.040
4.5	13488.560
5.0	11887.280
5.5	10237.072
6.0	8827.056
6.5	7798.456
7.0	6974.464
7.5	6309.488
8.0	5750.152
8.5	5273.104
9.0	4867.224
9.5	4509.160
10.0	4202.248
10.5	3934.256
11.0	3705.184
11.5	3503.912
12.0	3328.216
12.5	3175.872
13.0	3044.656
13.5	2927.896
14.0	2824.480
14.5	2727.736
15.0	2637.664
15.5	2549.816
16.0	2459.744
16.5	2370.784
17.0	2280.712
17.5	2191.752
18.0	2102.792
18.5	2010.496
19.0	1917.088
19.5	1823.680
20.0	1729.160
20.5	1634.640
21.0	1540.120
21.5	1447.824
22.0	1366.648
22.5	1292.144
23.0	1224.312
23.5	1163.152
24.0	1107.552
24.5	1056.400
25.0	1014.144
25.5	980.784
26.0	957.432
26.5	939.640

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CANDELA TABULATION - (Cont.)

27.0	922.960
27.5	901.832
28.0	870.696
28.5	832.888
29.0	789.520
29.5	741.704
30.0	689.440
30.5	633.840
31.0	567.120
31.5	494.840
32.0	420.336
32.5	348.056
33.0	282.448
33.5	229.072
34.0	180.144
34.5	137.888
35.0	98.968
35.5	67.832
36.0	44.480
36.5	30.024
37.0	25.576
37.5	24.464
38.0	23.352
38.5	22.240
39.0	21.128
39.5	20.016
40.0	18.904
40.5	17.792
41.0	17.792
41.5	16.680
42.0	15.568
42.5	15.568
43.0	14.456
43.5	13.344
44.0	12.232
44.5	12.232
45.0	11.120
45.5	11.120
46.0	10.008
46.5	8.896
47.0	8.896
47.5	7.784
48.0	7.784
48.5	6.672
49.0	6.672
49.5	6.672
50.0	5.560
50.5	5.560
51.0	4.448
51.5	4.448
52.0	4.448
52.5	3.336
53.0	3.336
53.5	3.336
54.0	3.336
54.5	3.336

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CANDELA TABULATION - (Cont.)

55.0	2.224
55.5	2.224
56.0	2.224
56.5	2.224
57.0	2.224
57.5	2.224
58.0	2.224
58.5	2.224
59.0	1.112
59.5	1.112
60.0	1.112
60.5	1.112
61.0	1.112
61.5	1.112
62.0	1.112
62.5	1.112
63.0	1.112
63.5	1.112
64.0	1.112
64.5	1.112
65.0	1.112
65.5	1.112
66.0	1.112
66.5	1.112
67.0	1.112
67.5	1.112
68.0	0.000
68.5	1.112
69.0	0.000
69.5	0.000
70.0	0.000
70.5	0.000
71.0	0.000
71.5	0.000
72.0	0.000
72.5	0.000
73.0	0.000
73.5	0.000
74.0	0.000
74.5	0.000
75.0	0.000
75.5	0.000
76.0	0.000
76.5	0.000
77.0	0.000
77.5	0.000
78.0	0.000
78.5	0.000
79.0	0.000
79.5	0.000
80.0	0.000
80.5	0.000
81.0	0.000
81.5	0.000
82.0	0.000
82.5	0.000

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CANDELA TABULATION - (Cont.)

83.0	0.000
83.5	0.000
84.0	0.000
84.5	0.000
85.0	0.000
85.5	0.000
86.0	0.000
86.5	0.000
87.0	0.000
87.5	0.000
88.0	0.000
88.5	0.000
89.0	0.000
89.5	0.000
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
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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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	1602.56	N.A.	71.90
0-30	2098.34	N.A.	94.20
0-40	2215.98	N.A.	99.40
0-60	2227.48	N.A.	100.00
0-80	2228.38	N.A.	100.00
0-90	2228.38	N.A.	100.00
10-90	1364.09	N.A.	61.20
20-40	613.42	N.A.	27.50
20-50	622.31	N.A.	27.90
40-70	12.40	N.A.	0.60
60-80	0.90	N.A.	0.00
70-80	0.00	N.A.	0.00
80-90	0.00	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	2228.38	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	864.30
10-20	738.27
20-30	495.77
30-40	117.64
40-50	8.89
50-60	2.61
60-70	0.90
70-80	0.00
80-90	0.00
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

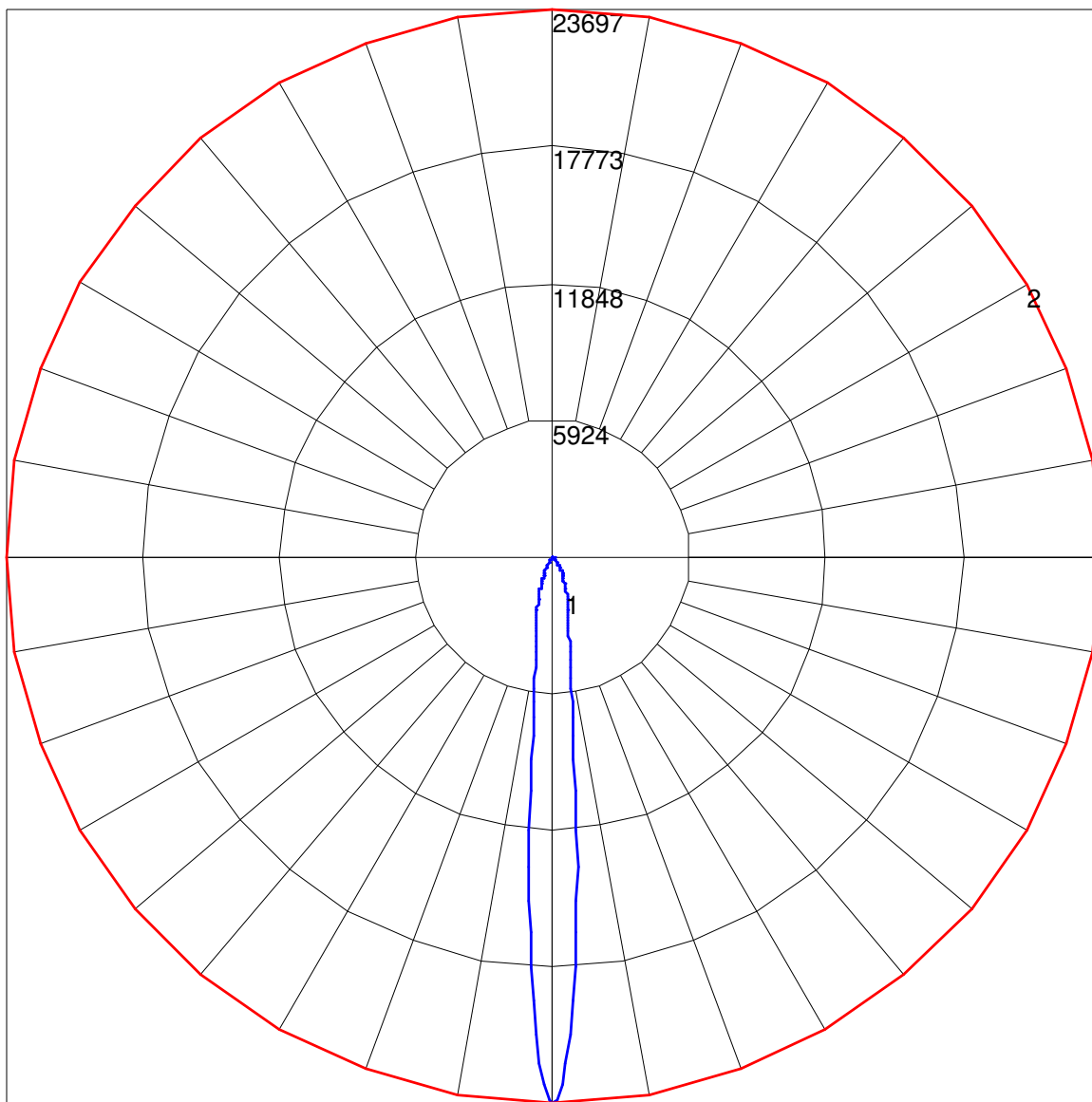
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	132	132	132	132	129	129	129	129	124	124	124	118	118	118	113	113	113	111
1	128	126	123	121	125	123	121	120	119	117	116	115	114	112	111	110	109	107
2	124	120	116	113	121	118	115	112	114	112	110	111	109	107	108	107	105	104
3	120	114	110	107	118	113	109	106	110	107	105	108	105	103	105	103	102	100
4	116	110	105	102	114	109	105	101	106	103	100	104	102	99	103	100	98	97
5	112	106	101	98	111	105	101	97	103	99	97	101	98	96	100	97	95	94
6	109	102	97	94	108	101	97	94	100	96	93	98	95	93	97	94	92	91
7	106	99	94	91	105	98	94	90	97	93	90	96	92	90	95	92	89	88
8	103	96	91	88	102	95	91	88	94	90	87	93	90	87	92	89	87	86
9	100	93	88	85	99	92	88	85	91	87	85	91	87	84	90	87	84	83
10	98	90	86	83	97	90	85	83	89	85	82	88	85	82	88	84	82	81

POLAR GRAPH



Maximum Candela = 23696.72 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.)