



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-L13-8TW-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-L13-8TW-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	1283
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	88
Total Luminaire Watts	14.6
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	881	881	881
55	217	217	217
65	147	147	147
75	0	0	0
85	0	0	0

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CANDELA TABULATION

	<u>0</u>
0.0	13638.40
0.5	13542.40
1.0	13184.00
1.5	12665.60
2.0	11936.00
2.5	11084.80
3.0	10246.40
3.5	9408.00
4.0	8588.80
4.5	7763.20
5.0	6841.60
5.5	5891.84
6.0	5080.32
6.5	4488.32
7.0	4014.08
7.5	3631.36
8.0	3309.44
8.5	3034.88
9.0	2801.28
9.5	2595.20
10.0	2418.56
10.5	2264.32
11.0	2132.48
11.5	2016.64
12.0	1915.52
12.5	1827.84
13.0	1752.32
13.5	1685.12
14.0	1625.60
14.5	1569.92
15.0	1518.08
15.5	1467.52
16.0	1415.68
16.5	1364.48
17.0	1312.64
17.5	1261.44
18.0	1210.24
18.5	1157.12
19.0	1103.36
19.5	1049.60
20.0	995.20
20.5	940.80
21.0	886.40
21.5	833.28
22.0	786.56
22.5	743.68
23.0	704.64
23.5	669.44
24.0	637.44
24.5	608.00
25.0	583.68
25.5	564.48
26.0	551.04
26.5	540.80

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CANDELA TABULATION - (Cont.)

27.0	531.20
27.5	519.04
28.0	501.12
28.5	479.36
29.0	454.40
29.5	426.88
30.0	396.80
30.5	364.80
31.0	326.40
31.5	284.80
32.0	241.92
32.5	200.32
33.0	162.56
33.5	131.84
34.0	103.68
34.5	79.36
35.0	56.96
35.5	39.04
36.0	25.60
36.5	17.28
37.0	14.72
37.5	14.08
38.0	13.44
38.5	12.80
39.0	12.16
39.5	11.52
40.0	10.88
40.5	10.24
41.0	10.24
41.5	9.60
42.0	8.96
42.5	8.96
43.0	8.32
43.5	7.68
44.0	7.04
44.5	7.04
45.0	6.40
45.5	6.40
46.0	5.76
46.5	5.12
47.0	5.12
47.5	4.48
48.0	4.48
48.5	3.84
49.0	3.84
49.5	3.84
50.0	3.20
50.5	3.20
51.0	2.56
51.5	2.56
52.0	2.56
52.5	1.92
53.0	1.92
53.5	1.92
54.0	1.92
54.5	1.92

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CANDELA TABULATION - (Cont.)

55.0	1.28
55.5	1.28
56.0	1.28
56.5	1.28
57.0	1.28
57.5	1.28
58.0	1.28
58.5	1.28
59.0	0.64
59.5	0.64
60.0	0.64
60.5	0.64
61.0	0.64
61.5	0.64
62.0	0.64
62.5	0.64
63.0	0.64
63.5	0.64
64.0	0.64
64.5	0.64
65.0	0.64
65.5	0.64
66.0	0.64
66.5	0.64
67.0	0.64
67.5	0.64
68.0	0.00
68.5	0.64
69.0	0.00
69.5	0.00
70.0	0.00
70.5	0.00
71.0	0.00
71.5	0.00
72.0	0.00
72.5	0.00
73.0	0.00
73.5	0.00
74.0	0.00
74.5	0.00
75.0	0.00
75.5	0.00
76.0	0.00
76.5	0.00
77.0	0.00
77.5	0.00
78.0	0.00
78.5	0.00
79.0	0.00
79.5	0.00
80.0	0.00
80.5	0.00
81.0	0.00
81.5	0.00
82.0	0.00
82.5	0.00

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CANDELA TABULATION - (Cont.)

83.0	0.00
83.5	0.00
84.0	0.00
84.5	0.00
85.0	0.00
85.5	0.00
86.0	0.00
86.5	0.00
87.0	0.00
87.5	0.00
88.0	0.00
88.5	0.00
89.0	0.00
89.5	0.00
90.0	0.00
90.5	0.00
91.0	0.00
91.5	0.00
92.0	0.00
92.5	0.00
93.0	0.00
93.5	0.00
94.0	0.00
94.5	0.00
95.0	0.00
95.5	0.00
96.0	0.00
96.5	0.00
97.0	0.00
97.5	0.00
98.0	0.00
98.5	0.00
99.0	0.00
99.5	0.00
100.0	0.00
100.5	0.00
101.0	0.00
101.5	0.00
102.0	0.00
102.5	0.00
103.0	0.00
103.5	0.00
104.0	0.00
104.5	0.00
105.0	0.00
105.5	0.00
106.0	0.00
106.5	0.00
107.0	0.00
107.5	0.00
108.0	0.00
108.5	0.00
109.0	0.00
109.5	0.00
110.0	0.00
110.5	0.00

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CANDELA TABULATION - (Cont.)

111.0	0.00
111.5	0.00
112.0	0.00
112.5	0.00
113.0	0.00
113.5	0.00
114.0	0.00
114.5	0.00
115.0	0.00
115.5	0.00
116.0	0.00
116.5	0.00
117.0	0.00
117.5	0.00
118.0	0.00
118.5	0.00
119.0	0.00
119.5	0.00
120.0	0.00
120.5	0.00
121.0	0.00
121.5	0.00
122.0	0.00
122.5	0.00
123.0	0.00
123.5	0.00
124.0	0.00
124.5	0.00
125.0	0.00
125.5	0.00
126.0	0.00
126.5	0.00
127.0	0.00
127.5	0.00
128.0	0.00
128.5	0.00
129.0	0.00
129.5	0.00
130.0	0.00
130.5	0.00
131.0	0.00
131.5	0.00
132.0	0.00
132.5	0.00
133.0	0.00
133.5	0.00
134.0	0.00
134.5	0.00
135.0	0.00
135.5	0.00
136.0	0.00
136.5	0.00
137.0	0.00
137.5	0.00
138.0	0.00
138.5	0.00

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CANDELA TABULATION - (Cont.)

139.0	0.00
139.5	0.00
140.0	0.00
140.5	0.00
141.0	0.00
141.5	0.00
142.0	0.00
142.5	0.00
143.0	0.00
143.5	0.00
144.0	0.00
144.5	0.00
145.0	0.00
145.5	0.00
146.0	0.00
146.5	0.00
147.0	0.00
147.5	0.00
148.0	0.00
148.5	0.00
149.0	0.00
149.5	0.00
150.0	0.00
150.5	0.00
151.0	0.00
151.5	0.00
152.0	0.00
152.5	0.00
153.0	0.00
153.5	0.00
154.0	0.00
154.5	0.00
155.0	0.00
155.5	0.00
156.0	0.00
156.5	0.00
157.0	0.00
157.5	0.00
158.0	0.00
158.5	0.00
159.0	0.00
159.5	0.00
160.0	0.00
160.5	0.00
161.0	0.00
161.5	0.00
162.0	0.00
162.5	0.00
163.0	0.00
163.5	0.00
164.0	0.00
164.5	0.00
165.0	0.00
165.5	0.00
166.0	0.00
166.5	0.00

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CANDELA TABULATION - (Cont.)

167.0	0.00
167.5	0.00
168.0	0.00
168.5	0.00
169.0	0.00
169.5	0.00
170.0	0.00
170.5	0.00
171.0	0.00
171.5	0.00
172.0	0.00
172.5	0.00
173.0	0.00
173.5	0.00
174.0	0.00
174.5	0.00
175.0	0.00
175.5	0.00
176.0	0.00
176.5	0.00
177.0	0.00
177.5	0.00
178.0	0.00
178.5	0.00
179.0	0.00
179.5	0.00
180.0	0.00

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	922.34	N.A.	71.90
0-30	1207.68	N.A.	94.20
0-40	1275.38	N.A.	99.40
0-60	1282.00	N.A.	100.00
0-80	1282.52	N.A.	100.00
0-90	1282.52	N.A.	100.00
10-90	785.09	N.A.	61.20
20-40	353.05	N.A.	27.50
20-50	358.16	N.A.	27.90
40-70	7.14	N.A.	0.60
60-80	0.52	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	1282.52	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	497.44
10-20	424.90
20-30	285.34
30-40	67.71
40-50	5.12
50-60	1.50
60-70	0.52
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

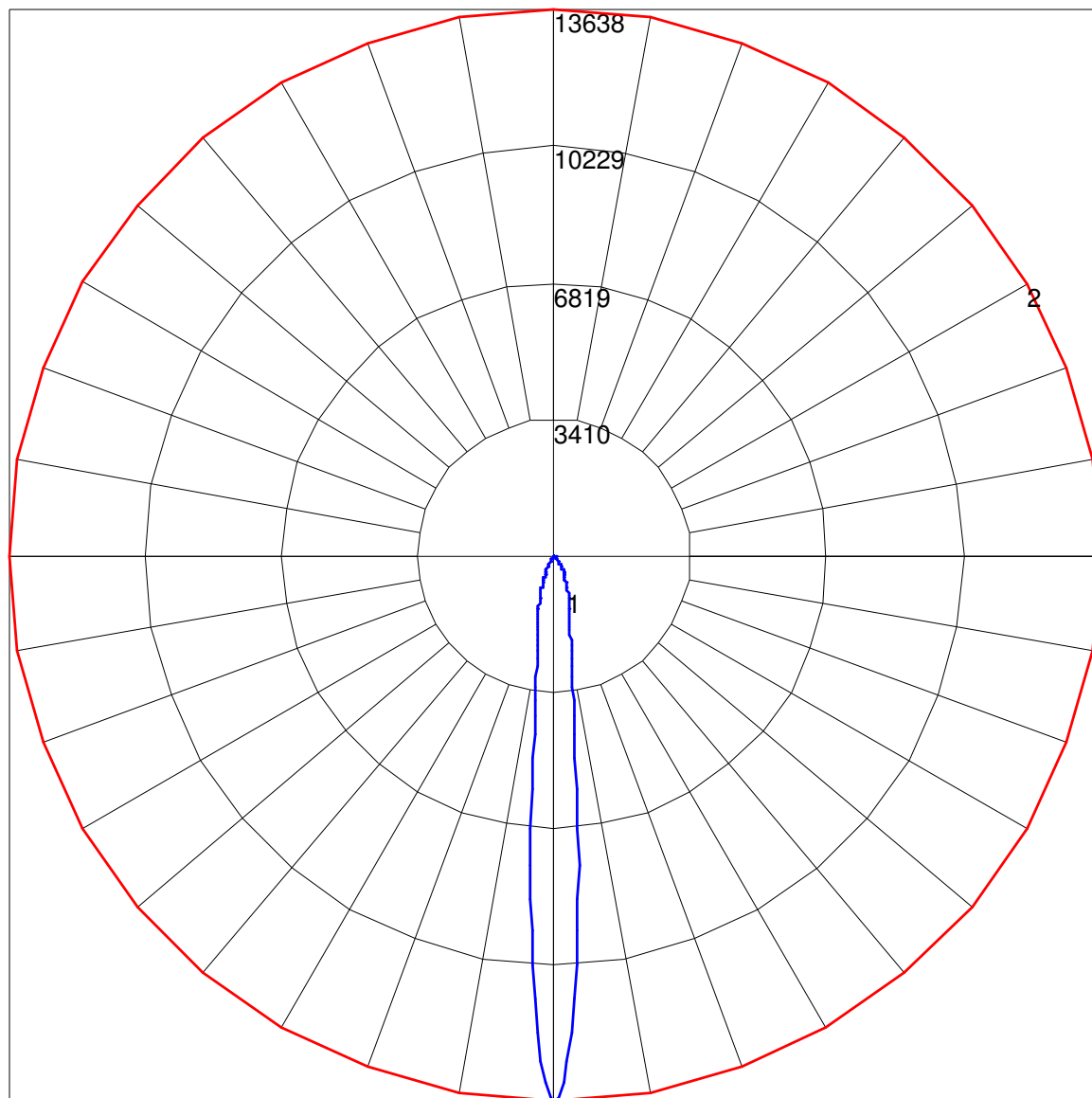
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	124	124	124	124	122	122	122	122	116	116	116	111	111	111	107	107	107	105
1	120	118	116	114	118	116	114	112	112	110	109	108	107	106	104	103	103	101
2	116	112	109	107	114	111	108	105	107	105	103	104	103	101	102	100	99	97
3	112	108	104	101	111	106	103	100	104	101	98	101	99	97	99	97	95	94
4	109	103	99	96	107	102	98	95	100	97	94	98	95	93	96	94	92	91
5	106	99	95	92	104	99	94	91	97	93	91	95	92	90	94	91	89	88
6	102	96	92	88	101	95	91	88	94	90	88	93	89	87	91	89	86	85
7	100	93	88	85	98	92	88	85	91	87	85	90	87	84	89	86	84	83
8	97	90	85	82	96	89	85	82	88	85	82	87	84	82	87	84	81	80
9	94	87	83	80	93	87	83	80	86	82	80	85	82	79	84	81	79	78
10	92	85	80	78	91	84	80	78	84	80	77	83	80	77	82	79	77	76

POLAR GRAPH



Maximum Candela = 13638.4 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.)