



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CR-XX-L5-830-XXX-DIM-UNV-OS-CS-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM 13255206.01
[TESTLAB] UL Verification Services Inc.
[ISSUEDATE] 02-21-2024
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] 4CR-xx-L5-830-xxx-DIM-UNV-OS-CS-xx
[LUMINAIRE] Aluminum housing and reflector, no enclosure
[LAMP] One white LED
[SEARCH_SOURCETYPE] LED
[SEARCH_APPLICATION] Indoor, Downlight
[SEARCH_MOUNTING] Pendant, Surface, Suspended, Wall

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	442
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	57
Total Luminaire Watts	7.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.14
Spacing Criterion (90-270)	0.14
Spacing Criterion (Diagonal)	0.16
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.21 ft (Diameter)
Luminous Width (90-270)	0.21 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	1847	1847	1847
55	683	683	683
65	309	309	309
75	0	0	0
85	0	0	0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CR-XX-L5-830-XXX-DIM-UNV-OS-CS-XX_.IES

CANDELA TABULATION

	<u>0</u>
0.0	8616.752
0.5	8579.611
1.0	8344.384
1.5	7997.733
2.0	7457.122
2.5	6714.299
3.0	5959.095
3.5	5146.116
4.0	4324.883
4.5	3581.647
5.0	2933.327
5.5	2411.700
6.0	2006.861
6.5	1685.797
7.0	1428.697
7.5	1229.786
8.0	1070.904
8.5	943.798
9.0	843.105
9.5	761.807
10.0	694.540
10.5	639.654
11.0	593.433
11.5	553.403
12.0	519.564
12.5	490.263
13.0	463.852
13.5	440.742
14.0	420.521
14.5	402.363
15.0	386.268
15.5	372.237
16.0	359.444
16.5	348.302
17.0	337.985
17.5	329.318
18.0	321.890
18.5	314.875
19.0	309.097
19.5	304.145
20.0	299.605
20.5	295.891
21.0	292.590
21.5	289.288
22.0	286.400
22.5	283.098
23.0	280.210
23.5	277.733
24.0	273.607
24.5	266.178
25.0	255.036
25.5	240.180
26.0	222.022
26.5	200.975

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CR-XX-L5-830-XXX-DIM-UNV-OS-CS-XX_.IES

CANDELA TABULATION - (Cont.)

27.0	176.214
27.5	147.739
28.0	118.439
28.5	92.028
29.0	70.156
29.5	51.998
30.0	37.141
30.5	25.999
31.0	18.571
31.5	15.269
32.0	13.618
32.5	12.793
33.0	11.968
33.5	11.142
34.0	10.317
34.5	9.904
35.0	9.492
35.5	9.079
36.0	8.666
36.5	8.666
37.0	8.254
37.5	7.841
38.0	7.428
38.5	7.428
39.0	7.016
39.5	6.603
40.0	6.190
40.5	6.190
41.0	5.778
41.5	5.365
42.0	5.365
42.5	4.952
43.0	4.952
43.5	4.539
44.0	4.539
44.5	4.127
45.0	4.127
45.5	3.714
46.0	3.301
46.5	3.301
47.0	2.889
47.5	2.889
48.0	2.476
48.5	2.476
49.0	2.063
49.5	2.063
50.0	2.063
50.5	2.063
51.0	1.651
51.5	1.651
52.0	1.651
52.5	1.651
53.0	1.238
53.5	1.238
54.0	1.238
54.5	1.238

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CR-XX-L5-830-XXX-DIM-UNV-OS-CS-XX_.IES

CANDELA TABULATION - (Cont.)

55.0	1.238
55.5	1.238
56.0	1.238
56.5	0.825
57.0	0.825
57.5	0.825
58.0	0.825
58.5	0.825
59.0	0.825
59.5	0.825
60.0	0.825
60.5	0.825
61.0	0.825
61.5	0.413
62.0	0.413
62.5	0.413
63.0	0.413
63.5	0.413
64.0	0.413
64.5	0.413
65.0	0.413
65.5	0.413
66.0	0.413
66.5	0.413
67.0	0.413
67.5	0.413
68.0	0.413
68.5	0.413
69.0	0.413
69.5	0.413
70.0	0.413
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CR-XX-L5-830-XXX-DIM-UNV-OS-CS-XX_.IES

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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CR-XX-L5-830-XXX-DIM-UNV-OS-CS-XX_.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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CR-XX-L5-830-XXX-DIM-UNV-OS-CS-XX_.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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CR-XX-L5-830-XXX-DIM-UNV-OS-CS-XX_.IES

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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CR-XX-L5-830-XXX-DIM-UNV-OS-CS-XX_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	335.06	N.A.	75.80
0-30	430.39	N.A.	97.40
0-40	437.44	N.A.	99.00
0-60	441.55	N.A.	99.90
0-80	442.02	N.A.	100.00
0-90	442.02	N.A.	100.00
10-90	220.64	N.A.	49.90
20-40	102.39	N.A.	23.20
20-50	105.41	N.A.	23.80
40-70	4.57	N.A.	1.00
60-80	0.47	N.A.	0.10
70-80	0.01	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	442.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	221.38
10-20	113.68
20-30	95.33
30-40	7.06
40-50	3.02
50-60	1.09
60-70	0.46
70-80	0.01
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

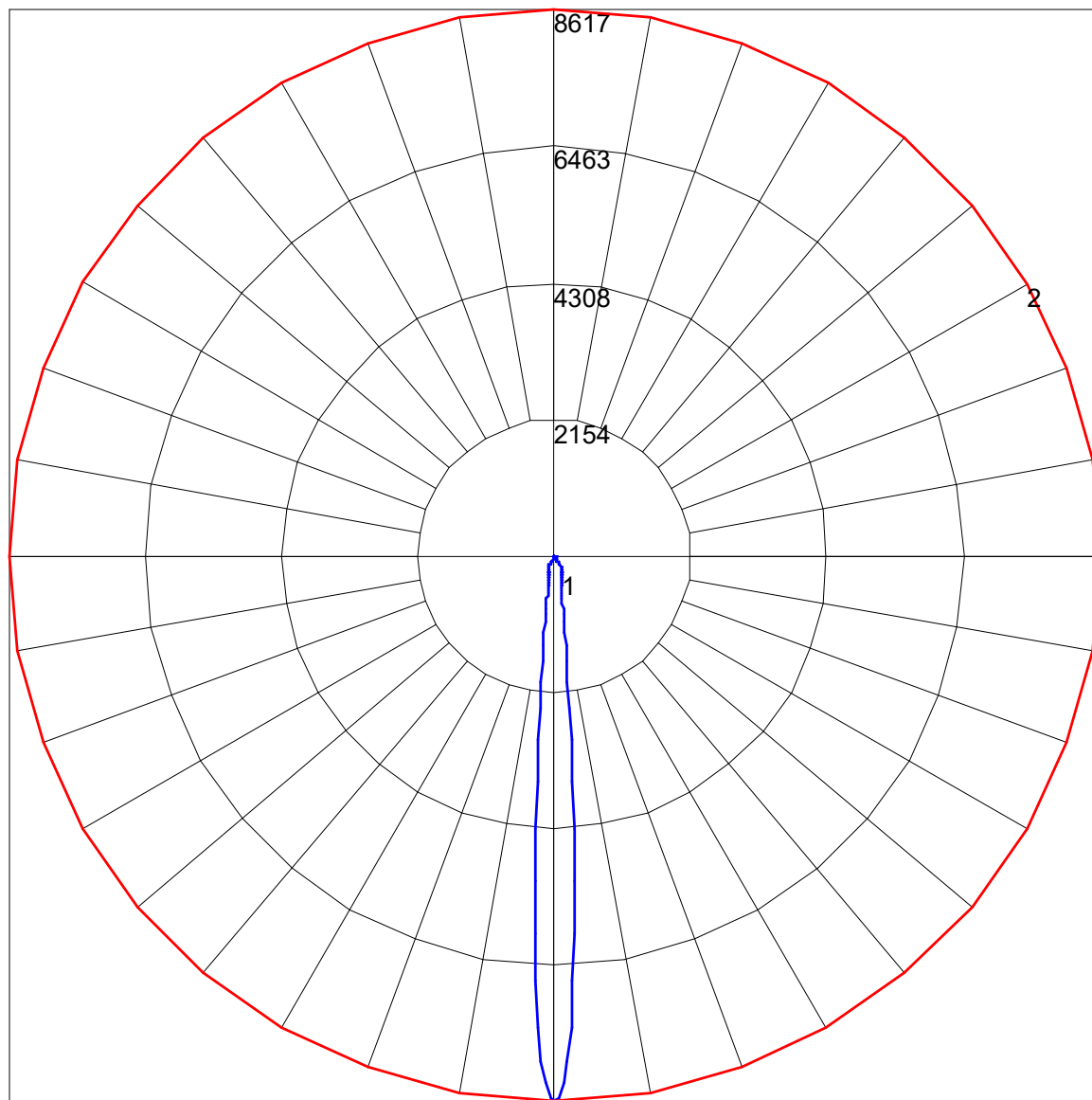
IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CR-XX-L5-830-XXX-DIM-UNV-OS-CS-XX_.IES

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	115	113	112	110	113	111	110	108	107	106	105	104	103	102	100	100	99	97
2	112	108	106	103	110	107	104	102	104	102	100	101	99	98	98	97	96	94
3	109	104	101	98	107	103	100	97	101	98	96	98	96	95	96	95	93	92
4	106	101	97	94	104	100	96	94	98	95	93	96	93	92	94	92	91	89
5	103	97	94	91	102	97	93	90	95	92	90	94	91	89	92	90	88	87
6	100	94	91	88	99	94	90	88	93	89	87	91	89	87	90	88	86	85
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84	83
8	96	90	86	83	95	89	85	83	88	85	83	87	84	82	87	84	82	81
9	93	87	84	81	93	87	83	81	86	83	81	85	83	81	85	82	80	79
10	91	85	82	79	91	85	82	79	84	81	79	84	81	79	83	81	79	78

POLAR GRAPH



Maximum Candela = 8616.752 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.)