



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CR-XX-L7-830-XXX-DIM-UNV-ON-CS-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM 13131414.09
[TESTLAB] UL Verification Services Inc.
[ISSUEDATE] 02-21-2024
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836
[LUMCAT] 4CR-xx-L7-830-xxx-DIM-UNV-ON-CS-xx
[LUMINAIRE] Aluminum cylinder housing and reflector, no lens enclosure
[LAMP] One white LED
[SEARCH_SOURCETYPE] LED
[SEARCH_APPLICATION] Indoor, Downlight
[SEARCH_MOUNTING] Surface, Suspended, Wall

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	561
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	64
Total Luminaire Watts	8.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.28
Spacing Criterion (90-270)	0.28
Spacing Criterion (Diagonal)	0.32
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	2436	2436	2436
55	1265	1265	1265
65	1072	1072	1072
75	1401	1401	1401
85	3119	3119	3119

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CANDELA TABULATION

	<u>0</u>
0.0	3703.649
0.5	3695.055
1.0	3660.683
1.5	3611.988
2.0	3546.107
2.5	3460.176
3.0	3357.058
3.5	3236.754
4.0	3104.992
4.5	2967.502
5.0	2829.439
5.5	2680.204
6.0	2522.377
6.5	2361.971
7.0	2200.993
7.5	2040.301
8.0	1887.343
8.5	1743.837
9.0	1608.925
9.5	1482.605
10.0	1364.593
10.5	1256.032
11.0	1157.211
11.5	1069.275
12.0	992.509
12.5	924.337
13.0	862.466
13.5	806.611
14.0	756.197
14.5	710.654
15.0	669.693
15.5	632.742
16.0	600.375
16.5	570.872
17.0	544.806
17.5	521.031
18.0	499.262
18.5	478.639
19.0	459.447
19.5	441.974
20.0	425.934
20.5	410.180
21.0	394.999
21.5	379.817
22.0	364.636
22.5	348.882
23.0	333.128
23.5	316.801
24.0	300.187
24.5	283.001
25.0	265.242
25.5	247.483
26.0	229.437
26.5	211.678

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CANDELA TABULATION - (Cont.)

27.0	193.632
27.5	175.873
28.0	158.400
28.5	141.787
29.0	125.460
29.5	109.992
30.0	95.670
30.5	81.921
31.0	69.891
31.5	59.293
32.0	49.840
32.5	41.820
33.0	35.232
33.5	29.503
34.0	24.634
34.5	20.624
35.0	17.473
35.5	14.895
36.0	13.463
36.5	12.317
37.0	11.744
37.5	11.171
38.0	10.598
38.5	10.025
39.0	9.739
39.5	9.452
40.0	8.880
40.5	8.593
41.0	8.307
41.5	7.734
42.0	7.447
42.5	7.161
43.0	6.875
43.5	6.302
44.0	6.015
44.5	5.729
45.0	5.442
45.5	5.156
46.0	5.156
46.5	4.583
47.0	4.583
47.5	4.297
48.0	4.010
48.5	3.724
49.0	3.724
49.5	3.437
50.0	3.437
50.5	3.151
51.0	3.151
51.5	2.864
52.0	2.864
52.5	2.864
53.0	2.578
53.5	2.578
54.0	2.578
54.5	2.292

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CANDELA TABULATION - (Cont.)

55.0	2.292
55.5	2.292
56.0	2.292
56.5	2.005
57.0	2.005
57.5	2.005
58.0	2.005
58.5	2.005
59.0	1.719
59.5	1.719
60.0	1.719
60.5	1.719
61.0	1.719
61.5	1.432
62.0	1.719
62.5	1.432
63.0	1.432
63.5	1.432
64.0	1.432
64.5	1.432
65.0	1.432
65.5	1.432
66.0	1.432
66.5	1.432
67.0	1.146
67.5	1.432
68.0	1.432
68.5	1.432
69.0	1.146
69.5	1.146
70.0	1.146
70.5	1.146
71.0	1.146
71.5	1.146
72.0	1.146
72.5	1.146
73.0	1.146
73.5	1.146
74.0	1.146
74.5	1.146
75.0	1.146
75.5	1.146
76.0	0.859
76.5	0.859
77.0	0.859
77.5	1.146
78.0	0.859
78.5	0.859
79.0	1.146
79.5	1.146
80.0	1.146
80.5	0.859
81.0	1.146
81.5	1.146
82.0	1.146
82.5	0.859

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CANDELA TABULATION - (Cont.)

83.0	0.859
83.5	1.146
84.0	0.859
84.5	1.146
85.0	0.859
85.5	0.859
86.0	0.859
86.5	0.859
87.0	0.859
87.5	1.146
88.0	1.146
88.5	0.859
89.0	1.146
89.5	0.859
90.0	0.859
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
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130.0	0.000
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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
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148.5	0.000
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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
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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	416.31	N.A.	74.30
0-30	532.98	N.A.	95.10
0-40	550.41	N.A.	98.20
0-60	556.91	N.A.	99.30
0-80	559.46	N.A.	99.80
0-90	560.53	N.A.	100.00
10-90	341.34	N.A.	60.90
20-40	134.10	N.A.	23.90
20-50	138.47	N.A.	24.70
40-70	7.92	N.A.	1.40
60-80	2.55	N.A.	0.50
70-80	1.14	N.A.	0.20
80-90	1.07	N.A.	0.20
90-110	0.02	N.A.	0.00
90-120	0.02	N.A.	0.00
90-130	0.02	N.A.	0.00
90-150	0.02	N.A.	0.00
90-180	0.02	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	560.56	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	219.19
10-20	197.12
20-30	116.66
30-40	17.44
40-50	4.37
50-60	2.13
60-70	1.42
70-80	1.14
80-90	1.07
90-100	0.02
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	115	113	111	109	112	111	109	107	107	105	104	103	102	101	100	99	98	96
2	111	107	104	102	109	106	103	101	103	100	98	100	98	96	97	96	94	93
3	107	103	99	96	106	101	98	95	99	96	94	97	94	93	95	93	91	90
4	104	99	95	92	103	98	94	91	96	93	90	94	91	89	92	90	88	87
5	101	95	91	88	100	94	90	88	93	89	87	91	88	86	90	87	85	84
6	98	92	88	85	97	91	87	84	90	86	84	89	86	83	87	85	83	82
7	95	89	85	82	94	88	84	82	87	84	81	86	83	81	85	82	80	79
8	93	86	82	79	92	86	82	79	85	81	79	84	81	78	83	80	78	77
9	90	84	80	77	89	83	79	77	83	79	77	82	79	76	81	78	76	75
10	88	81	77	75	87	81	77	75	80	77	75	80	77	74	79	76	74	73

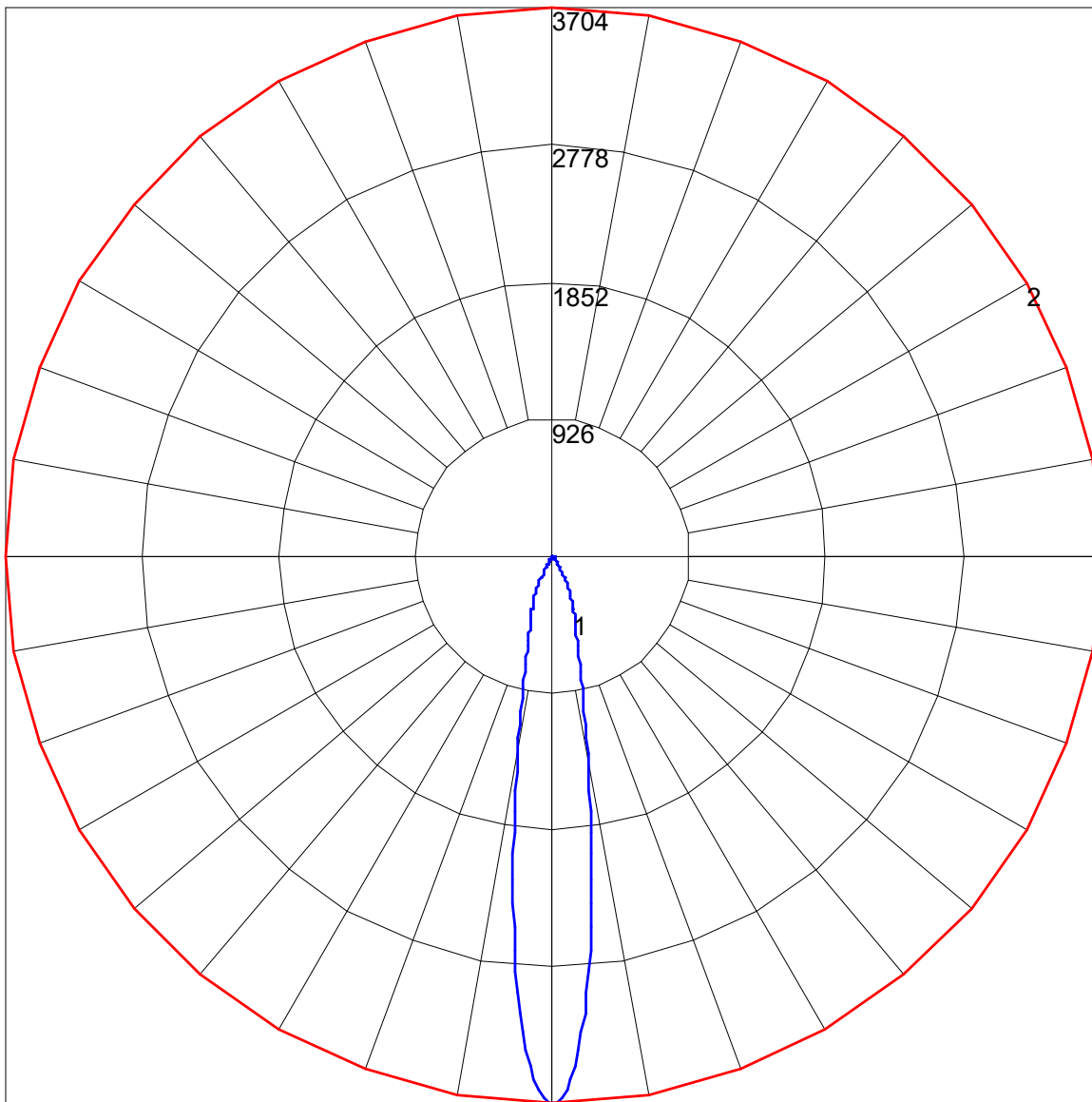
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UGR TABLE - CORRECTED

Reflectances											
Ceiling Cavity	70	70	50	50	30	70	70	50	50	30	
Walls	50	30	50	30	30	50	30	50	30	30	
Floor Cavity	20	20	20	20	20	20	20	20	20	20	
Room Size											
		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	0.0	0.5	0.0	0.8	1.1	0.0	0.5	0.0	0.8	1.1
	3H	1.8	2.6	2.1	2.9	3.3	1.8	2.6	2.1	2.9	3.3
	4H	2.8	3.5	3.2	3.9	4.2	2.8	3.5	3.2	3.9	4.2
	6H	4.2	4.8	4.6	5.2	5.6	4.2	4.8	4.6	5.2	5.6
	8H	4.9	5.5	5.3	5.9	6.3	4.9	5.5	5.3	5.9	6.3
	12H	5.7	6.3	6.2	6.7	7.2	5.7	6.3	6.2	6.7	7.2
4H	2H	0.1	0.8	0.5	1.1	1.5	0.1	0.8	0.5	1.1	1.5
	3H	2.4	3.0	2.8	3.4	3.8	2.4	3.0	2.8	3.4	3.8
	4H	3.7	4.2	4.1	4.6	5.1	3.7	4.2	4.1	4.6	5.1
	6H	5.2	5.7	5.7	6.1	6.6	5.2	5.7	5.7	6.1	6.6
	8H	6.1	6.5	6.6	7.0	7.4	6.1	6.5	6.6	7.0	7.4
	12H	7.1	7.5	7.6	8.0	8.5	7.1	7.5	7.6	8.0	8.5
8H	4H	4.0	4.4	4.5	4.8	5.3	4.0	4.4	4.5	4.8	5.3
	6H	5.9	6.2	6.4	6.7	7.2	5.9	6.2	6.4	6.7	7.2
	8H	7.0	7.3	7.5	7.8	8.3	7.0	7.3	7.5	7.8	8.3
	12H	8.3	8.6	8.8	9.1	9.6	8.3	8.6	8.8	9.1	9.6
12H	4H	4.1	4.5	4.6	5.0	5.4	4.1	4.5	4.6	5.0	5.4
	6H	6.2	6.5	6.7	6.9	7.5	6.2	6.5	6.7	6.9	7.5
	8H	7.4	7.6	7.9	8.1	8.7	7.4	7.6	7.9	8.1	8.7

Maximum UGR = 9.6

POLAR GRAPH



Maximum Candela = 3703.649 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.)