

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CR-XX-L25-930-XXX-DIM-UNV-RW-WH-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]GEN FROM 13257153.03
[TESTLAB] UL Verification Services Inc.
[ISSUE DATE] 04/16/2025
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] 4CR-xx-L25-930-xxx-DIM-UNV-RW-WH-xx
[LUMINAIRE] Aluminum housing, optics, and trim 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	2029
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	67
Total Luminaire Watts	30.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.88
Spacing Criterion (90-270)	0.88
Spacing Criterion (Diagonal)	0.80
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	72757	72757	72757
55	57573	57573	57573
65	43037	43037	43037
75	22408	22408	22408
85	13581	13581	13581

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CANDELA TABULATION

	<u>0</u>
0.0	2418.458
0.5	2418.458
1.0	2417.212
1.5	2415.965
2.0	2415.965
2.5	2413.472
3.0	2409.732
3.5	2404.746
4.0	2399.759
4.5	2394.772
5.0	2387.293
5.5	2381.060
6.0	2373.580
6.5	2364.853
7.0	2356.127
7.5	2347.401
8.0	2338.674
8.5	2328.701
9.0	2317.482
9.5	2307.509
10.0	2296.289
10.5	2283.823
11.0	2270.110
11.5	2256.397
12.0	2241.437
12.5	2226.478
13.0	2210.272
13.5	2192.819
14.0	2174.119
14.5	2155.420
15.0	2134.227
15.5	2113.035
16.0	2089.349
16.5	2065.663
17.0	2040.730
17.5	2014.551
18.0	1987.125
18.5	1957.206
19.0	1926.040
19.5	1892.381
20.0	1857.476
20.5	1821.324
21.0	1782.678
21.5	1742.786
22.0	1699.154
22.5	1655.522
23.0	1609.397
23.5	1562.025
24.0	1512.160
24.5	1462.295
25.0	1411.183
25.5	1357.578
26.0	1302.726
26.5	1247.875

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CANDELA TABULATION - (Cont.)

27.0	1193.397
27.5	1138.670
28.0	1083.444
28.5	1028.468
29.0	972.245
29.5	915.648
30.0	859.550
30.5	804.324
31.0	749.847
31.5	697.239
32.0	646.626
32.5	598.755
33.0	554.375
33.5	513.237
34.0	474.965
34.5	439.935
35.0	408.146
35.5	378.975
36.0	352.546
36.5	328.860
37.0	307.792
37.5	288.968
38.0	271.890
38.5	256.681
39.0	243.342
39.5	231.623
40.0	221.152
40.5	212.051
41.0	203.948
41.5	196.718
42.0	190.235
42.5	184.501
43.0	179.265
43.5	174.653
44.0	170.289
44.5	166.300
45.0	162.560
45.5	158.945
46.0	155.579
46.5	152.213
47.0	149.097
47.5	145.980
48.0	142.864
48.5	139.872
49.0	136.880
49.5	133.888
50.0	131.021
50.5	128.278
51.0	125.411
51.5	122.668
52.0	120.050
52.5	117.308
53.0	114.690
53.5	112.072
54.0	109.454
54.5	106.836

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CANDELA TABULATION - (Cont.)

55.0	104.343
55.5	101.850
56.0	99.356
56.5	96.863
57.0	94.370
57.5	92.001
58.0	89.508
58.5	87.139
59.0	84.771
59.5	82.527
60.0	80.158
60.5	77.790
61.0	75.421
61.5	73.177
62.0	70.808
62.5	68.565
63.0	66.321
63.5	64.077
64.0	61.833
64.5	59.589
65.0	57.470
65.5	55.350
66.0	53.231
66.5	50.987
67.0	48.992
67.5	46.998
68.0	44.879
68.5	42.884
69.0	40.889
69.5	38.895
70.0	37.025
70.5	35.030
71.0	33.160
71.5	31.166
72.0	29.296
72.5	27.426
73.0	25.556
73.5	23.686
74.0	21.941
74.5	20.071
75.0	18.325
75.5	16.705
76.0	15.084
76.5	13.838
77.0	12.716
77.5	11.718
78.0	10.970
78.5	10.347
79.0	9.848
79.5	9.350
80.0	8.726
80.5	8.228
81.0	7.729
81.5	7.230
82.0	6.607
82.5	6.108

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CANDELA TABULATION - (Cont.)

83.0	5.734
83.5	5.236
84.0	4.737
84.5	4.239
85.0	3.740
85.5	3.366
86.0	2.867
86.5	2.493
87.0	1.995
87.5	1.621
88.0	1.247
88.5	0.873
89.0	0.499
89.5	0.374
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
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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	818.00	N.A.	40.30
0-30	1448.07	N.A.	71.40
0-40	1725.3	N.A.	85.00
0-60	1946.9	N.A.	95.90
0-80	2025.00	N.A.	99.80
0-90	2029.32	N.A.	100.00
10-90	1804.36	N.A.	88.90
20-40	907.30	N.A.	44.70
20-50	1035.38	N.A.	51.00
40-70	278.72	N.A.	13.70
60-80	78.11	N.A.	3.80
70-80	20.99	N.A.	1.00
80-90	4.31	N.A.	0.20
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	2029.32	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	224.96
10-20	593.04
20-30	630.07
30-40	277.23
40-50	128.08
50-60	93.52
60-70	57.12
70-80	20.99
80-90	4.31
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92
2	107	102	97	94	105	100	96	93	97	93	91	94	91	89	91	89	87	85
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	86	83	80	79
4	96	88	82	78	94	87	81	77	85	80	76	82	78	75	81	77	74	73
5	91	82	76	72	89	81	75	71	79	74	71	78	73	70	76	72	69	68
6	86	77	71	66	85	76	70	66	75	70	66	73	69	65	72	68	65	63
7	82	73	66	62	81	72	66	62	71	65	61	69	65	61	68	64	61	59
8	78	68	62	58	77	68	62	58	67	61	58	66	61	57	65	60	57	56
9	75	65	59	55	73	64	58	55	63	58	54	62	58	54	62	57	54	53
10	71	61	55	52	70	61	55	51	60	55	51	59	55	51	59	54	51	50

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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

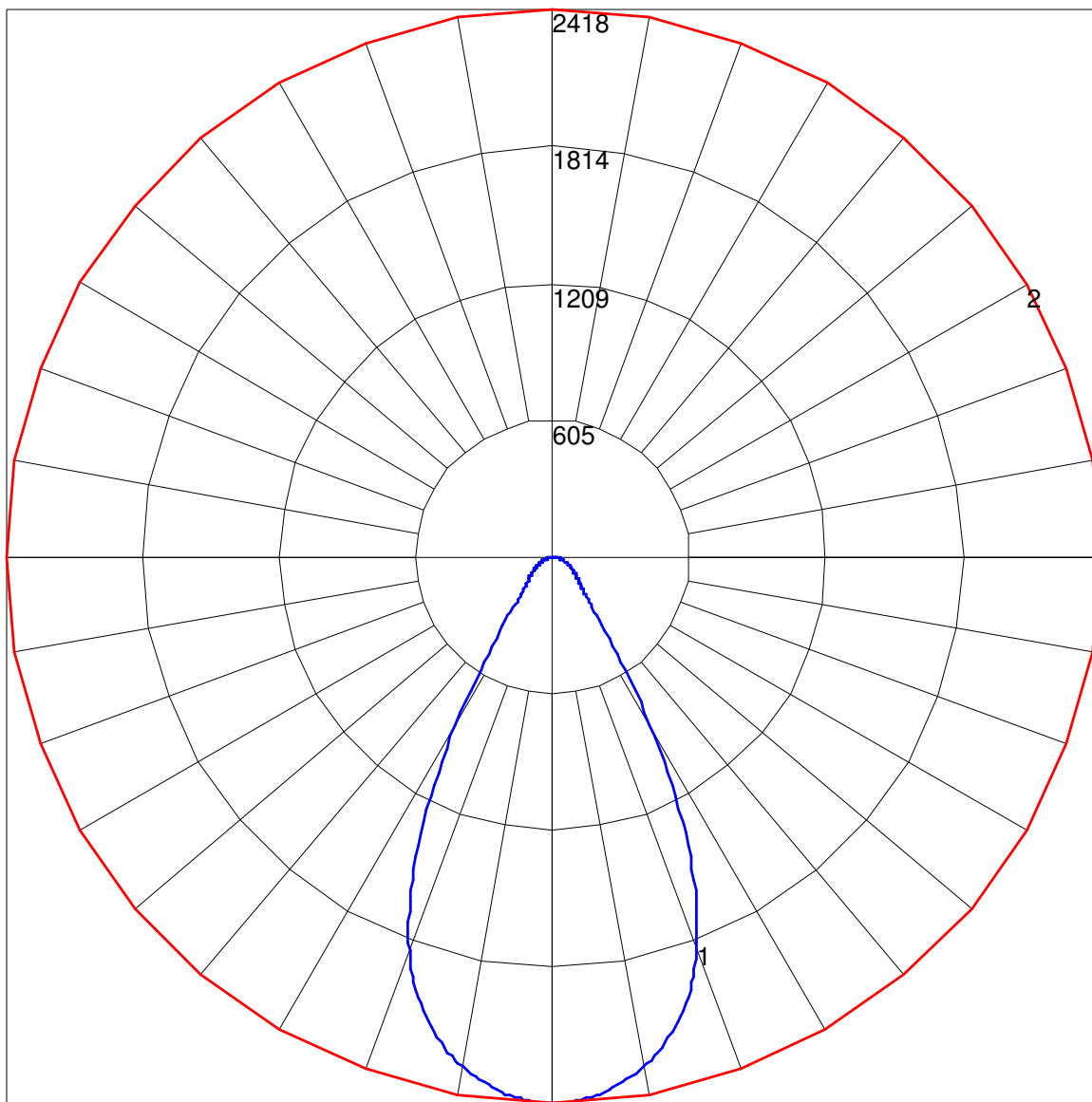
X=2H	Y=2H	21.4	22.5	21.8	22.8	23.1	21.4	22.5	21.8	22.8	23.1
	3H	22.4	23.4	22.8	23.7	24.1	22.4	23.4	22.8	23.7	24.1
	4H	22.6	23.5	23.0	23.9	24.3	22.6	23.5	23.0	23.9	24.3
	6H	22.6	23.5	23.1	23.9	24.3	22.6	23.5	23.1	23.9	24.3
	8H	22.6	23.4	23.1	23.8	24.2	22.6	23.4	23.1	23.8	24.2
	12H	22.6	23.4	23.1	23.8	24.2	22.6	23.4	23.1	23.8	24.2

UGR Viewed Endwise

4H	2H	21.7	22.6	22.1	23.0	23.4	21.7	22.6	22.1	23.0	23.4
	3H	22.9	23.6	23.3	24.1	24.5	22.9	23.6	23.3	24.1	24.5
	4H	23.1	23.8	23.6	24.2	24.7	23.1	23.8	23.6	24.2	24.7
	6H	23.2	23.8	23.7	24.2	24.7	23.2	23.8	23.7	24.2	24.7
	8H	23.2	23.7	23.7	24.2	24.7	23.2	23.7	23.7	24.2	24.7
	12H	23.2	23.7	23.7	24.2	24.6	23.2	23.7	23.7	24.2	24.6
8H	4H	23.1	23.7	23.6	24.1	24.6	23.1	23.7	23.6	24.1	24.6
	6H	23.3	23.7	23.8	24.2	24.7	23.3	23.7	23.8	24.2	24.7
	8H	23.3	23.7	23.8	24.2	24.7	23.3	23.7	23.8	24.2	24.7
	12H	23.3	23.6	23.8	24.1	24.7	23.3	23.6	23.8	24.1	24.7
12H	4H	23.1	23.6	23.6	24.0	24.5	23.1	23.6	23.6	24.0	24.5
	6H	23.2	23.6	23.8	24.1	24.6	23.2	23.6	23.8	24.1	24.6
	8H	23.3	23.6	23.8	24.1	24.7	23.3	23.6	23.8	24.1	24.7

Maximum UGR = 24.7

POLAR GRAPH



Maximum Candela = 2418.458 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.)