



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CR-13-L25-830-XXX-DIM-UNV-RM-CS-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 13257153.07
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 07/16/2025
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 4CR-13-L25-830-xxx-DIM-UNV-RM-CS-xx
 [LUMINAIRE] 4 INCH ROUND LED CYLINDER
 [MORE] WITH REGRESSED LENS TRIM & MED DISTRIBUTION
 [LAMP] LED
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] Indoor, Downlight
 [_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2349
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	78
Total Luminaire Watts	30.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.50
Spacing Criterion (90-270)	0.50
Spacing Criterion (Diagonal)	0.48
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	108526	108526	108526
55	79522	79522	79522
65	58219	58219	58219
75	28723	28723	28723
85	17059	17059	17059

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CANDELA TABULATION

	<u>0</u>
0.0	5948.275
0.5	5943.728
1.0	5930.089
1.5	5910.388
2.0	5881.593
2.5	5845.222
3.0	5799.757
3.5	5749.746
4.0	5692.158
4.5	5626.992
5.0	5554.249
5.5	5475.444
6.0	5389.061
6.5	5296.616
7.0	5196.595
7.5	5092.026
8.0	4979.880
8.5	4860.157
9.0	4731.341
9.5	4594.947
10.0	4452.492
10.5	4303.974
11.0	4147.880
11.5	3985.723
12.0	3817.504
12.5	3644.739
13.0	3468.943
13.5	3291.631
14.0	3114.320
14.5	2938.523
15.0	2764.243
15.5	2592.993
16.0	2427.805
16.5	2270.195
17.0	2120.162
17.5	1979.222
18.0	1848.890
18.5	1726.136
19.0	1613.990
19.5	1510.938
20.0	1418.796
20.5	1336.202
21.0	1261.792
21.5	1194.656
22.0	1134.794
22.5	1080.237
23.0	1031.287
23.5	987.035
24.0	947.632
24.5	911.109
25.0	875.950
25.5	843.064
26.0	811.996
26.5	781.838

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CANDELA TABULATION - (Cont.)

27.0	753.196
27.5	725.462
28.0	698.335
28.5	671.662
29.0	645.142
29.5	618.924
30.0	593.464
30.5	568.610
31.0	544.362
31.5	521.478
32.0	500.413
32.5	480.712
33.0	462.526
33.5	446.158
34.0	431.307
34.5	417.516
35.0	404.786
35.5	393.117
36.0	382.357
36.5	372.203
37.0	362.807
37.5	353.714
38.0	344.924
38.5	336.589
39.0	328.254
39.5	320.222
40.0	312.493
40.5	304.764
41.0	297.186
41.5	289.761
42.0	282.486
42.5	275.515
43.0	268.544
43.5	261.876
44.0	255.208
44.5	248.842
45.0	242.477
45.5	236.264
46.0	230.354
46.5	224.292
47.0	218.533
47.5	212.774
48.0	207.167
48.5	201.711
49.0	196.407
49.5	191.254
50.0	186.405
50.5	181.555
51.0	176.857
51.5	172.462
52.0	168.067
52.5	163.824
53.0	159.732
53.5	155.640
54.0	151.700
54.5	147.911

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CANDELA TABULATION - (Cont.)

55.0	144.123
55.5	140.334
56.0	136.848
56.5	133.211
57.0	129.725
57.5	126.240
58.0	122.754
58.5	119.420
59.0	115.935
59.5	112.752
60.0	109.418
60.5	106.084
61.0	102.901
61.5	99.567
62.0	96.385
62.5	93.202
63.0	90.020
63.5	86.989
64.0	83.806
64.5	80.775
65.0	77.744
65.5	74.713
66.0	71.834
66.5	68.803
67.0	65.924
67.5	63.196
68.0	60.316
68.5	57.588
69.0	54.709
69.5	51.981
70.0	49.253
70.5	46.525
71.0	43.949
71.5	41.221
72.0	38.645
72.5	36.069
73.0	33.492
73.5	30.916
74.0	28.340
74.5	25.915
75.0	23.490
75.5	21.217
76.0	19.095
76.5	17.428
77.0	15.913
77.5	14.700
78.0	13.639
78.5	12.882
79.0	12.275
79.5	11.518
80.0	10.911
80.5	10.154
81.0	9.548
81.5	8.941
82.0	8.335
82.5	7.577

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CANDELA TABULATION - (Cont.)

83.0	6.971
83.5	6.517
84.0	5.910
84.5	5.304
85.0	4.698
85.5	4.092
86.0	3.637
86.5	3.031
87.0	2.576
87.5	1.970
88.0	1.515
88.5	1.061
89.0	0.758
89.5	0.455
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
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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
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150.5	0.000
151.0	0.000
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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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Zone	Lumens	%Lamp	%Fixt
0-20	1247.18	N.A.	53.10
0-30	1660.04	N.A.	70.70
0-40	1921.18	N.A.	81.80
0-60	2239.01	N.A.	95.30
0-80	2343.52	N.A.	99.80
0-90	2348.87	N.A.	100.00
10-90	1853.58	N.A.	78.90
20-40	673.99	N.A.	28.70
20-50	862.12	N.A.	36.70
40-70	395.14	N.A.	16.80
60-80	104.51	N.A.	4.40
70-80	27.20	N.A.	1.20
80-90	5.36	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	2348.87	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	495.29
10-20	751.89
20-30	412.86
30-40	261.13
40-50	188.12
50-60	129.71
60-70	77.31
70-80	27.20
80-90	5.36
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	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93
2	107	102	98	95	105	101	97	94	97	94	92	94	92	90	92	90	88	86
3	102	95	90	86	100	94	89	86	91	87	84	89	86	83	87	84	82	80
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75
5	93	84	78	74	91	83	78	74	81	77	73	80	76	72	78	75	72	70
6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	67
7	85	76	70	66	83	75	69	66	74	69	65	72	68	65	71	67	64	63
8	81	72	66	62	80	71	66	62	70	65	62	69	65	62	68	64	61	60
9	78	69	63	59	77	68	63	59	67	63	59	67	62	59	66	62	59	57
10	75	66	60	57	74	65	60	57	65	60	57	64	60	56	63	59	56	55

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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	23.0	24.1	23.3	24.4	24.7	23.0	24.1	23.3	24.4	24.7
	3H	24.0	25.0	24.4	25.3	25.7	24.0	25.0	24.4	25.3	25.7
	4H	24.1	25.1	24.6	25.4	25.8	24.1	25.1	24.6	25.4	25.8
	6H	24.2	25.0	24.6	25.4	25.8	24.2	25.0	24.6	25.4	25.8
	8H	24.2	25.0	24.6	25.4	25.8	24.2	25.0	24.6	25.4	25.8
	12H	24.1	24.9	24.6	25.3	25.7	24.1	24.9	24.6	25.3	25.7

UGR Viewed Endwise

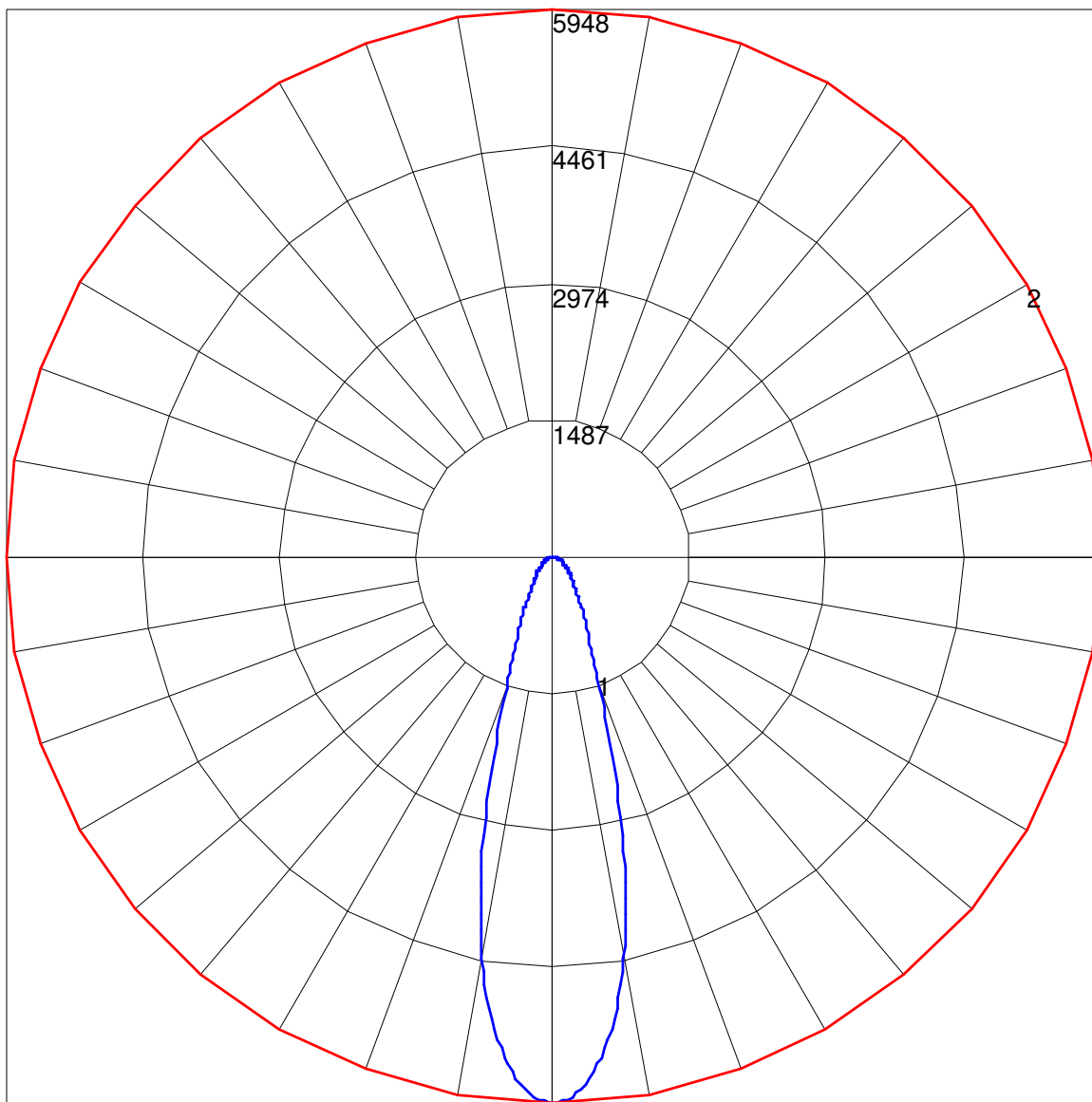
4H	2H	23.3	24.2	23.7	24.6	25.0	23.3	24.2	23.7	24.6	25.0
	3H	24.5	25.2	24.9	25.6	26.0	24.5	25.2	24.9	25.6	26.0
	4H	24.7	25.3	25.1	25.8	26.2	24.7	25.3	25.1	25.8	26.2
	6H	24.7	25.3	25.2	25.7	26.2	24.7	25.3	25.2	25.7	26.2
	8H	24.7	25.3	25.2	25.7	26.2	24.7	25.3	25.2	25.7	26.2
	12H	24.7	25.2	25.2	25.7	26.1	24.7	25.2	25.2	25.7	26.1

8H	4H	24.6	25.2	25.1	25.6	26.1	24.6	25.2	25.1	25.6	26.1
	6H	24.7	25.2	25.2	25.7	26.2	24.7	25.2	25.2	25.7	26.2
	8H	24.7	25.1	25.3	25.7	26.2	24.7	25.1	25.3	25.7	26.2
	12H	24.8	25.1	25.3	25.6	26.2	24.8	25.1	25.3	25.6	26.2

12H	4H	24.6	25.1	25.1	25.6	26.0	24.6	25.1	25.1	25.6	26.0
	6H	24.7	25.1	25.2	25.6	26.1	24.7	25.1	25.2	25.6	26.1
	8H	24.8	25.1	25.3	25.6	26.2	24.8	25.1	25.3	25.6	26.2

Maximum UGR = 26.2

POLAR GRAPH



Maximum Candela = 5948.275 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.)