



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CR-XX-L25-835-XXX-DIM-UNV-ON-CS-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] 13131414.09
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 01/25/2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836
 [LUMCAT] 4CR-xx-L25-835-xxx-DIM-UNV-ON-CS-xx
 [LUMINAIRE] Aluminum housing and reflector, no lens 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	1957
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	65
Total Luminaire Watts	30.0395
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	8504	8504	8504
55	4414	4414	4414
65	3744	3744	3744
75	4891	4891	4891
85	10894	10894	10894

CANDELA TABULATION

	<u>0</u>
0.0	12930
0.5	12900
1.0	12780
1.5	12610
2.0	12380
2.5	12080
3.0	11720
3.5	11300
4.0	10840
4.5	10360
5.0	9878
5.5	9357
6.0	8806
6.5	8246
7.0	7684
7.5	7123
8.0	6589
8.5	6088
9.0	5617
9.5	5176
10.0	4764
10.5	4385
11.0	4040
11.5	3733
12.0	3465
12.5	3227
13.0	3011
13.5	2816
14.0	2640
14.5	2481
15.0	2338
15.5	2209
16.0	2096
16.5	1993
17.0	1902
17.5	1819
18.0	1743
18.5	1671
19.0	1604
19.5	1543
20.0	1487
20.5	1432
21.0	1379
21.5	1326
22.0	1273
22.5	1218
23.0	1163
23.5	1106
24.0	1048
24.5	988
25.0	926
25.5	864
26.0	801
26.5	739

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CANDELA TABULATION - (Cont.)

27.0	676
27.5	614
28.0	553
28.5	495
29.0	438
29.5	384
30.0	334
30.5	286
31.0	244
31.5	207
32.0	174
32.5	146
33.0	123
33.5	103
34.0	86
34.5	72
35.0	61
35.5	52
36.0	47
36.5	43
37.0	41
37.5	39
38.0	37
38.5	35
39.0	34
39.5	33
40.0	31
40.5	30
41.0	29
41.5	27
42.0	26
42.5	25
43.0	24
43.5	22
44.0	21
44.5	20
45.0	19
45.5	18
46.0	18
46.5	16
47.0	16
47.5	15
48.0	14
48.5	13
49.0	13
49.5	12
50.0	12
50.5	11
51.0	11
51.5	10
52.0	10
52.5	10
53.0	9
53.5	9
54.0	9
54.5	8

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CANDELA TABULATION - (Cont.)

55.0	8
55.5	8
56.0	8
56.5	7
57.0	7
57.5	7
58.0	7
58.5	7
59.0	6
59.5	6
60.0	6
60.5	6
61.0	6
61.5	5
62.0	6
62.5	5
63.0	5
63.5	5
64.0	5
64.5	5
65.0	5
65.5	5
66.0	5
66.5	5
67.0	4
67.5	5
68.0	5
68.5	5
69.0	4
69.5	4
70.0	4
70.5	4
71.0	4
71.5	4
72.0	4
72.5	4
73.0	4
73.5	4
74.0	4
74.5	4
75.0	4
75.5	4
76.0	3
76.5	3
77.0	3
77.5	4
78.0	3
78.5	3
79.0	4
79.5	4
80.0	4
80.5	3
81.0	4
81.5	4
82.0	4
82.5	3

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CANDELA TABULATION - (Cont.)

83.0	3
83.5	4
84.0	3
84.5	4
85.0	3
85.5	3
86.0	3
86.5	3
87.0	3
87.5	4
88.0	4
88.5	3
89.0	4
89.5	3
90.0	3
90.5	0
91.0	0
91.5	0
92.0	0
92.5	0
93.0	0
93.5	0
94.0	0
94.5	0
95.0	0
95.5	0
96.0	0
96.5	0
97.0	0
97.5	0
98.0	0
98.5	0
99.0	0
99.5	0
100.0	0
100.5	0
101.0	0
101.5	0
102.0	0
102.5	0
103.0	0
103.5	0
104.0	0
104.5	0
105.0	0
105.5	0
106.0	0
106.5	0
107.0	0
107.5	0
108.0	0
108.5	0
109.0	0
109.5	0
110.0	0
110.5	0

CANDELA TABULATION - (Cont.)

111.0	0
111.5	0
112.0	0
112.5	0
113.0	0
113.5	0
114.0	0
114.5	0
115.0	0
115.5	0
116.0	0
116.5	0
117.0	0
117.5	0
118.0	0
118.5	0
119.0	0
119.5	0
120.0	0
120.5	0
121.0	0
121.5	0
122.0	0
122.5	0
123.0	0
123.5	0
124.0	0
124.5	0
125.0	0
125.5	0
126.0	0
126.5	0
127.0	0
127.5	0
128.0	0
128.5	0
129.0	0
129.5	0
130.0	0
130.5	0
131.0	0
131.5	0
132.0	0
132.5	0
133.0	0
133.5	0
134.0	0
134.5	0
135.0	0
135.5	0
136.0	0
136.5	0
137.0	0
137.5	0
138.0	0
138.5	0

CANDELA TABULATION - (Cont.)

139.0	0
139.5	0
140.0	0
140.5	0
141.0	0
141.5	0
142.0	0
142.5	0
143.0	0
143.5	0
144.0	0
144.5	0
145.0	0
145.5	0
146.0	0
146.5	0
147.0	0
147.5	0
148.0	0
148.5	0
149.0	0
149.5	0
150.0	0
150.5	0
151.0	0
151.5	0
152.0	0
152.5	0
153.0	0
153.5	0
154.0	0
154.5	0
155.0	0
155.5	0
156.0	0
156.5	0
157.0	0
157.5	0
158.0	0
158.5	0
159.0	0
159.5	0
160.0	0
160.5	0
161.0	0
161.5	0
162.0	0
162.5	0
163.0	0
163.5	0
164.0	0
164.5	0
165.0	0
165.5	0
166.0	0
166.5	0

CANDELA TABULATION - (Cont.)

167.0	0
167.5	0
168.0	0
168.5	0
169.0	0
169.5	0
170.0	0
170.5	0
171.0	0
171.5	0
172.0	0
172.5	0
173.0	0
173.5	0
174.0	0
174.5	0
175.0	0
175.5	0
176.0	0
176.5	0
177.0	0
177.5	0
178.0	0
178.5	0
179.0	0
179.5	0
180.0	0

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Zone	Lumens	%Lamp	%Fixt
0-20	1453.41	N.A.	74.30
0-30	1860.7	N.A.	95.10
0-40	1921.57	N.A.	98.20
0-60	1944.26	N.A.	99.30
0-80	1953.17	N.A.	99.80
0-90	1956.91	N.A.	100.00
10-90	1191.68	N.A.	60.90
20-40	468.16	N.A.	23.90
20-50	483.40	N.A.	24.70
40-70	27.64	N.A.	1.40
60-80	8.92	N.A.	0.50
70-80	3.96	N.A.	0.20
80-90	3.74	N.A.	0.20
90-110	0.08	N.A.	0.00
90-120	0.08	N.A.	0.00
90-130	0.08	N.A.	0.00
90-150	0.08	N.A.	0.00
90-180	0.08	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1956.99	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	765.23
10-20	688.19
20-30	407.29
30-40	60.87
40-50	15.25
50-60	7.44
60-70	4.95
70-80	3.96
80-90	3.74
90-100	0.08
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	113	111	109	107	107	105	104	103	102	101	100	99	98	96
2	111	107	104	102	109	106	103	101	103	100	99	100	98	96	97	96	94	93
3	108	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	83	80	79
8	93	86	82	79	92	86	82	79	85	81	79	84	81	79	83	80	78	77
9	90	84	80	77	90	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

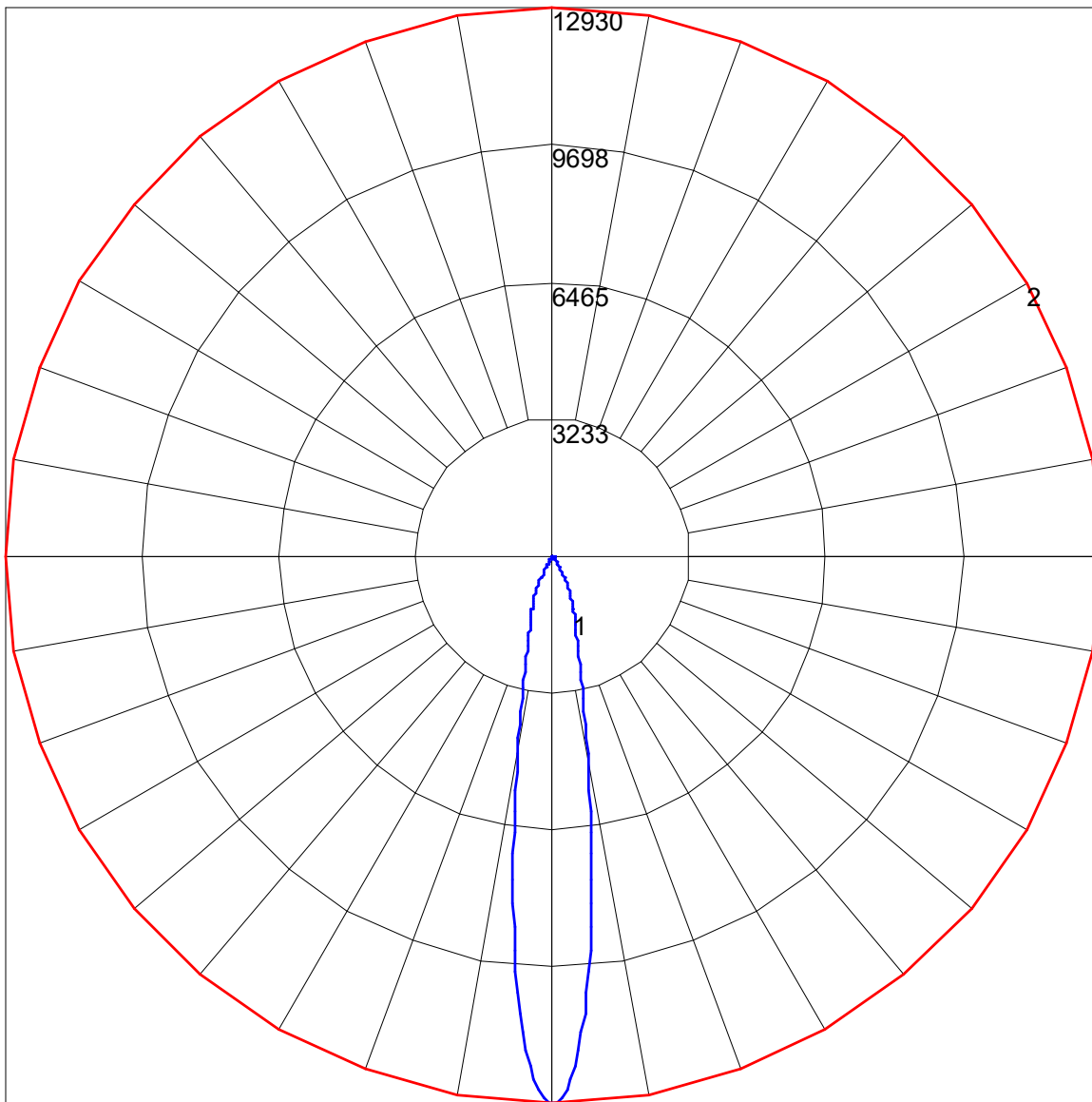
X=2H	Y=2H	3.9	4.8	4.3	5.1	5.4	3.9	4.8	4.3	5.1	5.4
	3H	6.1	6.9	6.5	7.2	7.6	6.1	6.9	6.5	7.2	7.6
	4H	7.1	7.8	7.5	8.2	8.5	7.1	7.8	7.5	8.2	8.5
	6H	8.5	9.1	8.9	9.5	9.9	8.5	9.1	8.9	9.5	9.9
	8H	9.2	9.8	9.6	10.2	10.6	9.2	9.8	9.6	10.2	10.6
	12H	10.0	10.6	10.5	11.0	11.5	10.0	10.6	10.5	11.0	11.5

UGR Viewed Endwise

4H	2H	4.4	5.1	4.8	5.4	5.8	4.4	5.1	4.8	5.4	5.8
	3H	6.7	7.3	7.1	7.7	8.1	6.7	7.3	7.1	7.7	8.1
	4H	8.0	8.5	8.4	8.9	9.4	8.0	8.5	8.4	8.9	9.4
	6H	9.5	10.0	10.0	10.4	10.9	9.5	10.0	10.0	10.4	10.9
	8H	10.4	10.8	10.9	11.3	11.7	10.4	10.8	10.9	11.3	11.7
	12H	11.4	11.8	11.9	12.3	12.8	11.4	11.8	11.9	12.3	12.8
8H	4H	8.3	8.7	8.8	9.1	9.6	8.3	8.7	8.8	9.1	9.6
	6H	10.2	10.5	10.7	11.0	11.5	10.2	10.5	10.7	11.0	11.5
	8H	11.3	11.6	11.8	12.1	12.6	11.3	11.6	11.8	12.1	12.6
	12H	12.6	12.9	13.1	13.4	13.9	12.6	12.9	13.1	13.4	13.9
12H	4H	8.4	8.8	8.9	9.3	9.7	8.4	8.8	8.9	9.3	9.7
	6H	10.5	10.8	11.0	11.2	11.8	10.5	10.8	11.0	11.2	11.8
	8H	11.7	11.9	12.2	12.4	13.0	11.7	11.9	12.2	12.4	13.0

Maximum UGR = 13.9

POLAR GRAPH



Maximum Candela = 12930 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.)