



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] 13131414.06
 [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-OM-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	2395
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	80
Total Luminaire Watts	30.0558
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.66
Spacing Criterion (90-270)	0.66
Spacing Criterion (Diagonal)	0.66
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	16515	16515	16515
55	4966	4966	4966
65	1647	1647	1647
75	734	734	734
85	363	363	363

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CANDELA TABULATION

	<u>0</u>
0.0	5405.0
0.5	5405.0
1.0	5404.0
1.5	5403.0
2.0	5403.0
2.5	5395.0
3.0	5381.0
3.5	5367.0
4.0	5350.0
4.5	5333.0
5.0	5313.0
5.5	5285.0
6.0	5250.0
6.5	5198.0
7.0	5137.0
7.5	5074.0
8.0	5006.0
8.5	4930.0
9.0	4848.0
9.5	4762.0
10.0	4671.0
10.5	4576.0
11.0	4478.0
11.5	4379.0
12.0	4279.0
12.5	4177.0
13.0	4076.0
13.5	3976.0
14.0	3879.0
14.5	3784.0
15.0	3690.0
15.5	3597.0
16.0	3504.0
16.5	3411.0
17.0	3319.0
17.5	3228.0
18.0	3138.0
18.5	3049.0
19.0	2957.0
19.5	2864.0
20.0	2768.0
20.5	2671.0
21.0	2572.0
21.5	2471.0
22.0	2368.0
22.5	2260.0
23.0	2149.0
23.5	2035.0
24.0	1917.0
24.5	1797.0
25.0	1675.0
25.5	1551.0
26.0	1427.0
26.5	1302.0

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CANDELA TABULATION - (Cont.)

27.0	1179.0
27.5	1059.0
28.0	944.9
28.5	835.2
29.0	734.3
29.5	641.4
30.0	557.6
30.5	480.7
31.0	411.5
31.5	349.6
32.0	297.1
32.5	252.5
33.0	215.7
33.5	185.2
34.0	160.3
34.5	139.6
35.0	123.6
35.5	111.6
36.0	102.4
36.5	95.1
37.0	88.5
37.5	82.5
38.0	77.2
38.5	72.7
39.0	68.6
39.5	64.9
40.0	61.5
40.5	58.4
41.0	55.5
41.5	52.7
42.0	50.1
42.5	47.7
43.0	45.4
43.5	43.2
44.0	41.1
44.5	39.1
45.0	36.9
45.5	34.7
46.0	32.7
46.5	30.8
47.0	29.1
47.5	27.3
48.0	25.7
48.5	24.1
49.0	22.6
49.5	21.2
50.0	19.7
50.5	18.3
51.0	16.9
51.5	15.5
52.0	14.2
52.5	13.2
53.0	12.3
53.5	11.4
54.0	10.5
54.5	9.8

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55.0	9.0
55.5	8.3
56.0	7.7
56.5	7.0
57.0	6.4
57.5	6.0
58.0	5.6
58.5	5.2
59.0	4.8
59.5	4.5
60.0	4.2
60.5	4.0
61.0	3.7
61.5	3.5
62.0	3.3
62.5	3.1
63.0	2.9
63.5	2.7
64.0	2.5
64.5	2.4
65.0	2.2
65.5	2.1
66.0	2.0
66.5	1.9
67.0	1.7
67.5	1.6
68.0	1.5
68.5	1.4
69.0	1.4
69.5	1.3
70.0	1.2
70.5	1.1
71.0	1.0
71.5	1.0
72.0	0.9
72.5	0.9
73.0	0.8
73.5	0.7
74.0	0.7
74.5	0.6
75.0	0.6
75.5	0.6
76.0	0.5
76.5	0.5
77.0	0.5
77.5	0.4
78.0	0.4
78.5	0.4
79.0	0.3
79.5	0.3
80.0	0.3
80.5	0.3
81.0	0.2
81.5	0.2
82.0	0.2
82.5	0.2

CANDELA TABULATION - (Cont.)

83.0	0.2
83.5	0.1
84.0	0.1
84.5	0.1
85.0	0.1
85.5	0.1
86.0	0.1
86.5	0.1
87.0	0.1
87.5	0.1
88.0	0.1
88.5	0.1
89.0	0.0
89.5	0.0
90.0	0.0
90.5	0.0
91.0	0.0
91.5	0.0
92.0	0.0
92.5	0.0
93.0	0.0
93.5	0.0
94.0	0.0
94.5	0.0
95.0	0.0
95.5	0.0
96.0	0.0
96.5	0.0
97.0	0.0
97.5	0.0
98.0	0.0
98.5	0.0
99.0	0.0
99.5	0.0
100.0	0.0
100.5	0.0
101.0	0.0
101.5	0.0
102.0	0.0
102.5	0.0
103.0	0.0
103.5	0.0
104.0	0.0
104.5	0.0
105.0	0.0
105.5	0.0
106.0	0.0
106.5	0.0
107.0	0.0
107.5	0.0
108.0	0.0
108.5	0.0
109.0	0.0
109.5	0.0
110.0	0.0
110.5	0.0

CANDELA TABULATION - (Cont.)

111.0	0.0
111.5	0.0
112.0	0.0
112.5	0.0
113.0	0.0
113.5	0.0
114.0	0.0
114.5	0.0
115.0	0.0
115.5	0.0
116.0	0.0
116.5	0.0
117.0	0.0
117.5	0.0
118.0	0.0
118.5	0.0
119.0	0.0
119.5	0.0
120.0	0.0
120.5	0.0
121.0	0.0
121.5	0.0
122.0	0.0
122.5	0.0
123.0	0.0
123.5	0.0
124.0	0.0
124.5	0.0
125.0	0.0
125.5	0.0
126.0	0.0
126.5	0.0
127.0	0.0
127.5	0.0
128.0	0.0
128.5	0.0
129.0	0.0
129.5	0.0
130.0	0.0
130.5	0.0
131.0	0.0
131.5	0.0
132.0	0.0
132.5	0.0
133.0	0.0
133.5	0.0
134.0	0.0
134.5	0.0
135.0	0.0
135.5	0.0
136.0	0.0
136.5	0.0
137.0	0.0
137.5	0.0
138.0	0.0
138.5	0.0

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139.0	0.0
139.5	0.0
140.0	0.0
140.5	0.0
141.0	0.0
141.5	0.0
142.0	0.0
142.5	0.0
143.0	0.0
143.5	0.0
144.0	0.0
144.5	0.0
145.0	0.0
145.5	0.0
146.0	0.0
146.5	0.0
147.0	0.0
147.5	0.0
148.0	0.0
148.5	0.0
149.0	0.0
149.5	0.0
150.0	0.0
150.5	0.0
151.0	0.0
151.5	0.0
152.0	0.0
152.5	0.0
153.0	0.0
153.5	0.0
154.0	0.0
154.5	0.0
155.0	0.0
155.5	0.0
156.0	0.0
156.5	0.0
157.0	0.0
157.5	0.0
158.0	0.0
158.5	0.0
159.0	0.0
159.5	0.0
160.0	0.0
160.5	0.0
161.0	0.0
161.5	0.0
162.0	0.0
162.5	0.0
163.0	0.0
163.5	0.0
164.0	0.0
164.5	0.0
165.0	0.0
165.5	0.0
166.0	0.0
166.5	0.0

CANDELA TABULATION - (Cont.)

167.0	0.0
167.5	0.0
168.0	0.0
168.5	0.0
169.0	0.0
169.5	0.0
170.0	0.0
170.5	0.0
171.0	0.0
171.5	0.0
172.0	0.0
172.5	0.0
173.0	0.0
173.5	0.0
174.0	0.0
174.5	0.0
175.0	0.0
175.5	0.0
176.0	0.0
176.5	0.0
177.0	0.0
177.5	0.0
178.0	0.0
178.5	0.0
179.0	0.0
179.5	0.0
180.0	0.0

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Zone	Lumens	%Lamp	%Fixt
0-20	1507.68	N.A.	62.90
0-30	2243.96	N.A.	93.70
0-40	2354.36	N.A.	98.30
0-60	2392.05	N.A.	99.90
0-80	2395.09	N.A.	100.00
0-90	2395.23	N.A.	100.00
10-90	1908.34	N.A.	79.70
20-40	846.68	N.A.	35.30
20-50	875.60	N.A.	36.60
40-70	40.05	N.A.	1.70
60-80	3.04	N.A.	0.10
70-80	0.68	N.A.	0.00
80-90	0.14	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	2395.23	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	486.89
10-20	1020.79
20-30	736.29
30-40	110.39
40-50	28.92
50-60	8.77
60-70	2.36
70-80	0.68
80-90	0.14
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	114	112	110	108	112	110	108	106	106	105	103	102	101	100	99	98	97	96
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91
3	106	101	97	93	104	99	96	93	97	94	91	94	92	90	92	90	88	87
4	102	96	91	88	100	95	91	87	93	89	86	91	88	85	89	86	84	83
5	98	91	87	83	97	90	86	83	89	85	82	87	84	81	86	83	81	79
6	94	87	82	79	93	87	82	79	85	81	78	84	80	78	83	80	77	76
7	91	84	79	75	90	83	78	75	82	78	75	81	77	74	80	76	74	73
8	88	80	75	72	87	80	75	72	79	75	72	78	74	71	77	74	71	70
9	85	77	72	69	84	77	72	69	76	72	69	75	71	68	74	71	68	67
10	82	74	69	66	81	74	69	66	73	69	66	72	68	66	72	68	66	65

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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

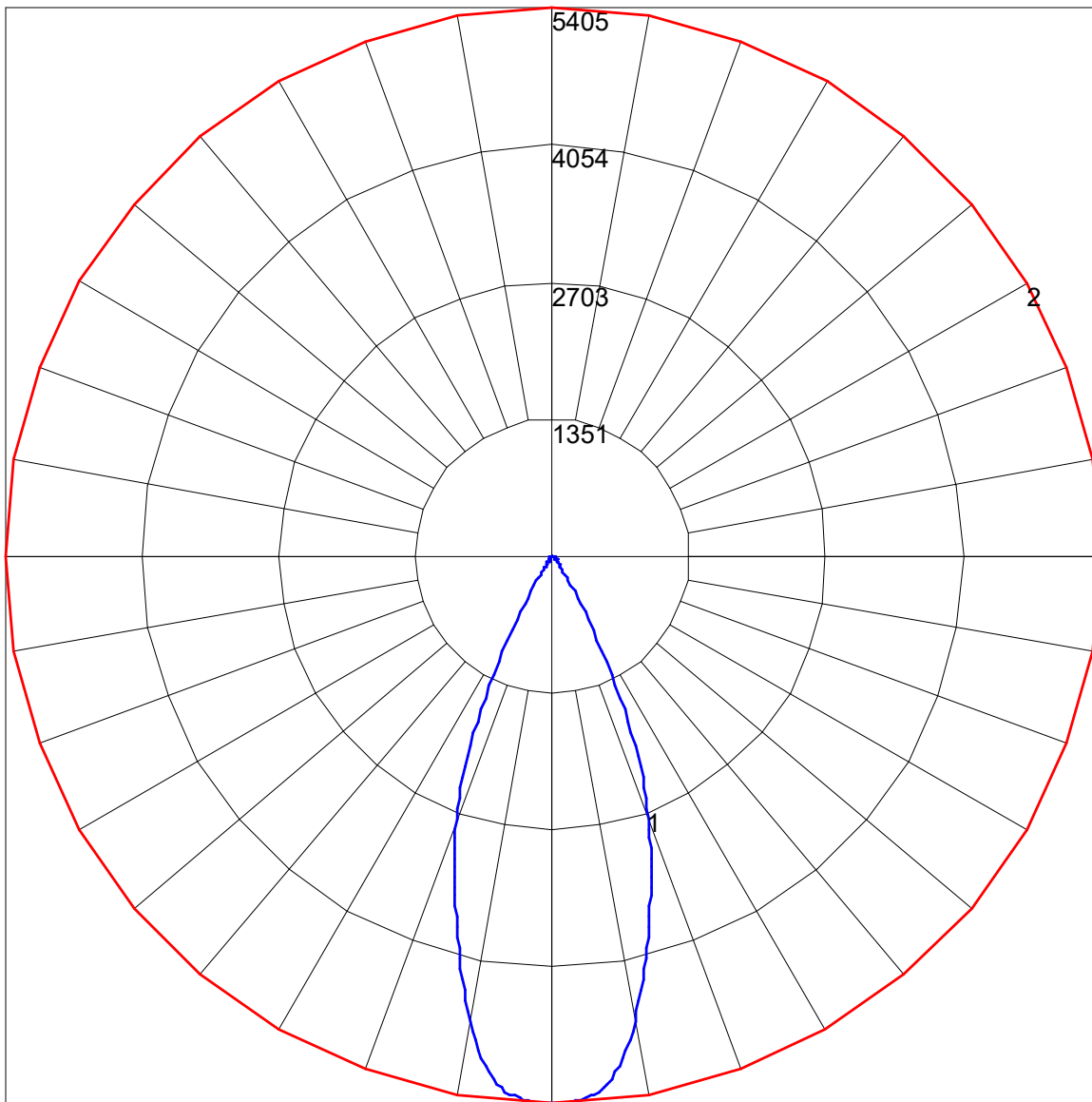
X=2H	Y=2H	3.1	3.1	3.1	3.2	3.5	3.1	3.1	3.1	3.2	3.5
	3H	3.1	3.1	3.1	3.3	3.6	3.1	3.1	3.1	3.3	3.6
	4H	3.1	3.1	3.1	3.2	3.6	3.1	3.1	3.1	3.2	3.6
	6H	3.1	3.1	3.1	3.1	3.5	3.1	3.1	3.1	3.1	3.5
	8H	3.1	3.1	3.1	3.1	3.4	3.1	3.1	3.1	3.1	3.4
	12H	3.1	3.1	3.1	3.1	3.4	3.1	3.1	3.1	3.1	3.4

UGR Viewed Endwise

4H	2H	3.1	3.1	3.1	3.1	3.4	3.1	3.1	3.1	3.1	3.4
	3H	3.1	3.1	3.1	3.1	3.5	3.1	3.1	3.1	3.1	3.5
	4H	3.1	3.1	3.1	3.1	3.5	3.1	3.1	3.1	3.1	3.5
	6H	3.1	3.1	3.1	3.1	3.5	3.1	3.1	3.1	3.1	3.5
	8H	3.1	3.1	3.1	3.1	3.4	3.1	3.1	3.1	3.1	3.4
	12H	3.1	3.1	3.1	3.1	3.3	3.1	3.1	3.1	3.1	3.3
8H	4H	3.1	3.1	3.1	3.1	3.3	3.1	3.1	3.1	3.1	3.3
	6H	3.1	3.1	3.1	3.1	3.3	3.1	3.1	3.1	3.1	3.3
	8H	3.1	3.1	3.1	3.1	3.2	3.1	3.1	3.1	3.1	3.2
	12H	3.1	3.1	3.1	3.1	3.2	3.1	3.1	3.1	3.1	3.2
12H	4H	3.1	3.1	3.1	3.1	3.3	3.1	3.1	3.1	3.1	3.3
	6H	3.1	3.1	3.1	3.1	3.2	3.1	3.1	3.1	3.1	3.2
	8H	3.1	3.1	3.1	3.1	3.2	3.1	3.1	3.1	3.1	3.2

Maximum UGR = 3.6

POLAR GRAPH



Maximum Candela = 5405 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.)