



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CR-L25-835-XXX-DIM-UNV-OW-OF-SG-AD-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] 13131414.05
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 01/25/2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836
 [LUMCAT] 4CR-L25-835-xxx-DIM-UNV-OW-OF-SG-AD-xx
 [LUMINAIRE] Aluminum housing and reflector, frosted 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	1515
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	50
Total Luminaire Watts	30.0338
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.86
Spacing Criterion (90-270)	0.86
Spacing Criterion (Diagonal)	0.78
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	114981	114981	114981
55	77413	77413	77413
65	21717	21717	21717
75	6358	6358	6358
85	1816	1816	1816

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CANDELA TABULATION

	<u>0</u>
0.0	1580.0
0.5	1580.0
1.0	1580.0
1.5	1578.0
2.0	1577.0
2.5	1575.0
3.0	1573.0
3.5	1570.0
4.0	1568.0
4.5	1565.0
5.0	1563.0
5.5	1561.0
6.0	1558.0
6.5	1555.0
7.0	1553.0
7.5	1550.0
8.0	1547.0
8.5	1543.0
9.0	1539.0
9.5	1535.0
10.0	1530.0
10.5	1524.0
11.0	1517.0
11.5	1509.0
12.0	1501.0
12.5	1492.0
13.0	1482.0
13.5	1471.0
14.0	1459.0
14.5	1446.0
15.0	1433.0
15.5	1418.0
16.0	1401.0
16.5	1383.0
17.0	1363.0
17.5	1341.0
18.0	1316.0
18.5	1290.0
19.0	1262.0
19.5	1233.0
20.0	1203.0
20.5	1171.0
21.0	1138.0
21.5	1103.0
22.0	1068.0
22.5	1031.0
23.0	994.4
23.5	956.8
24.0	919.1
24.5	881.3
25.0	843.6
25.5	806.2
26.0	769.2
26.5	733.3

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4CR-L25-835-XXX-DIM-UNV-OW-OF-SG-AD-XX_.IES****CANDELA TABULATION - (Cont.)**

27.0	698.4
27.5	664.5
28.0	632.0
28.5	601.1
29.0	571.7
29.5	543.9
30.0	517.9
30.5	493.5
31.0	470.9
31.5	450.3
32.0	431.4
32.5	414.1
33.0	398.4
33.5	384.4
34.0	371.7
34.5	360.4
35.0	350.3
35.5	341.4
36.0	333.3
36.5	326.2
37.0	319.8
37.5	313.9
38.0	308.6
38.5	303.7
39.0	299.2
39.5	295.0
40.0	291.0
40.5	287.2
41.0	283.6
41.5	280.1
42.0	276.7
42.5	273.4
43.0	270.1
43.5	266.8
44.0	263.5
44.5	260.2
45.0	256.9
45.5	253.4
46.0	250.0
46.5	246.4
47.0	242.7
47.5	238.9
48.0	234.9
48.5	230.7
49.0	226.1
49.5	221.1
50.0	216.0
50.5	210.5
51.0	204.4
51.5	197.8
52.0	190.8
52.5	183.1
53.0	175.1
53.5	166.7
54.0	158.0
54.5	149.2

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55.0	140.3
55.5	131.6
56.0	122.7
56.5	114.0
57.0	105.6
57.5	97.6
58.0	90.0
58.5	83.0
59.0	76.3
59.5	70.2
60.0	64.6
60.5	59.4
61.0	54.8
61.5	50.5
62.0	46.6
62.5	43.0
63.0	39.7
63.5	36.7
64.0	34.0
64.5	31.4
65.0	29.0
65.5	26.8
66.0	24.8
66.5	22.9
67.0	21.1
67.5	19.4
68.0	17.9
68.5	16.5
69.0	15.1
69.5	13.9
70.0	12.7
70.5	11.7
71.0	10.7
71.5	9.8
72.0	9.0
72.5	8.2
73.0	7.5
73.5	6.9
74.0	6.3
74.5	5.7
75.0	5.2
75.5	4.7
76.0	4.3
76.5	3.9
77.0	3.5
77.5	3.2
78.0	2.8
78.5	2.6
79.0	2.3
79.5	2.1
80.0	1.8
80.5	1.6
81.0	1.5
81.5	1.3
82.0	1.1
82.5	1.0

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CANDELA TABULATION - (Cont.)

83.0	0.9
83.5	0.8
84.0	0.7
84.5	0.6
85.0	0.5
85.5	0.4
86.0	0.3
86.5	0.3
87.0	0.2
87.5	0.2
88.0	0.2
88.5	0.1
89.0	0.1
89.5	0.1
90.0	0.1
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

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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

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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	543.19	N.A.	35.90
0-30	926.08	N.A.	61.10
0-40	1154.82	N.A.	76.20
0-60	1476.58	N.A.	97.50
0-80	1514.29	N.A.	100.00
0-90	1514.99	N.A.	100.00
10-90	1366.76	N.A.	90.20
20-40	611.63	N.A.	40.40
20-50	808.93	N.A.	53.40
40-70	353.29	N.A.	23.30
60-80	37.72	N.A.	2.50
70-80	6.18	N.A.	0.40
80-90	0.70	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	1514.99	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	148.24
10-20	394.95
20-30	382.90
30-40	228.73
40-50	197.31
50-60	124.45
60-70	31.54
70-80	6.18
80-90	0.70
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	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	88	85	84
3	100	93	87	83	98	91	86	82	89	84	81	86	82	79	84	81	78	76
4	94	86	79	75	92	84	79	74	82	77	73	80	76	72	78	75	72	70
5	89	79	73	68	87	78	72	68	77	71	67	75	70	66	73	69	66	64
6	84	74	67	63	82	73	67	62	71	66	62	70	65	61	69	64	61	59
7	79	69	62	58	78	68	62	58	67	61	57	66	61	57	65	60	57	55
8	75	65	58	54	74	64	58	54	63	57	53	62	57	53	61	56	53	51
9	71	61	54	50	70	60	54	50	59	54	50	58	53	50	58	53	49	48
10	68	57	51	47	67	57	51	47	56	51	47	55	50	47	55	50	46	45

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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

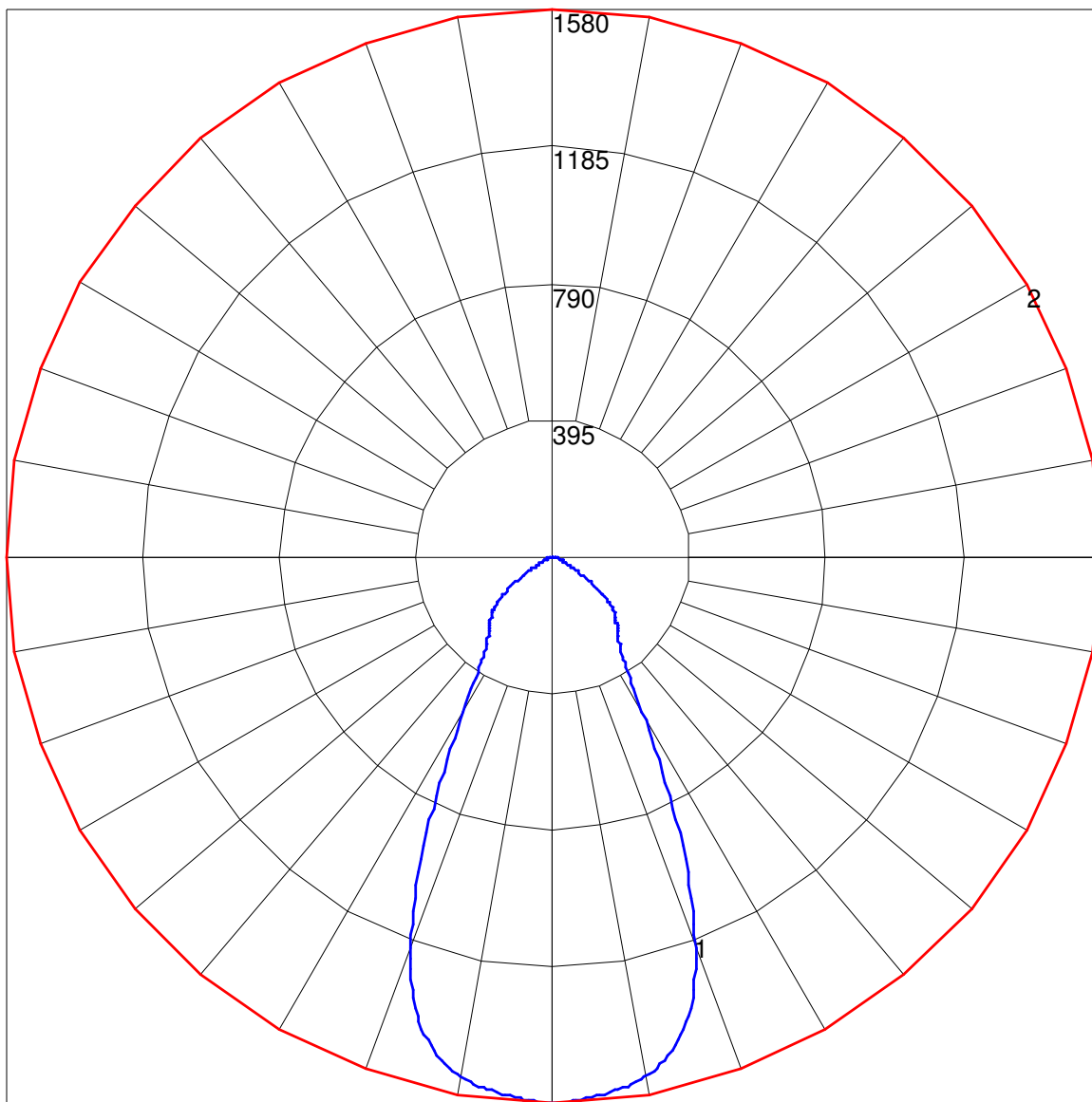
X=2H	Y=2H	22.6	23.8	22.9	24.1	24.4	22.6	23.8	22.9	24.1	24.4
	3H	22.6	23.7	23.0	24.0	24.4	22.6	23.7	23.0	24.0	24.4
	4H	22.5	23.5	23.0	23.9	24.3	22.5	23.5	23.0	23.9	24.3
	6H	22.5	23.4	22.9	23.7	24.1	22.5	23.4	22.9	23.7	24.1
	8H	22.4	23.3	22.9	23.7	24.1	22.4	23.3	22.9	23.7	24.1
	12H	22.4	23.2	22.8	23.6	24.0	22.4	23.2	22.8	23.6	24.0

UGR Viewed Endwise

4H	2H	22.5	23.5	22.9	23.8	24.2	22.5	23.5	22.9	23.8	24.2
	3H	22.6	23.4	23.0	23.8	24.2	22.6	23.4	23.0	23.8	24.2
	4H	22.5	23.2	22.9	23.6	24.1	22.5	23.2	22.9	23.6	24.1
	6H	22.4	23.0	22.9	23.5	23.9	22.4	23.0	22.9	23.5	23.9
	8H	22.4	22.9	22.8	23.4	23.8	22.4	22.9	22.8	23.4	23.8
	12H	22.3	22.8	22.8	23.3	23.8	22.3	22.8	22.8	23.3	23.8
8H	4H	22.4	22.9	22.9	23.4	23.9	22.4	22.9	22.9	23.4	23.9
	6H	22.3	22.7	22.8	23.2	23.7	22.3	22.7	22.8	23.2	23.7
	8H	22.2	22.6	22.7	23.1	23.6	22.2	22.6	22.7	23.1	23.6
	12H	22.2	22.5	22.7	23.0	23.6	22.2	22.5	22.7	23.0	23.6
12H	4H	22.3	22.8	22.8	23.3	23.8	22.3	22.8	22.8	23.3	23.8
	6H	22.2	22.6	22.7	23.1	23.6	22.2	22.6	22.7	23.1	23.6
	8H	22.2	22.5	22.7	23.0	23.6	22.2	22.5	22.7	23.0	23.6

Maximum UGR = 24.4

POLAR GRAPH



Maximum Candela = 1580 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.)