



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L50-835-XXX-DIM-UNV-OM-CS-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.27

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 1/25/2021

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.

[LUMCAT] 6CR-TL-L50-835-xxx-DIM-UNV-OM-CS-xx

[LUMINAIRE] SURFACE MOUNTED CYLINDER

[LAMP] One white LED

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Corridor, Hotel, Industrial, Office, Downlight

[_SEARCH_MOUNTING] Surface

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4956
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	45.1031
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.62
Spacing Criterion (90-270)	0.62
Spacing Criterion (Diagonal)	0.74
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.38 ft (Diameter)
Luminous Width (90-270)	0.38 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	12503	12503	12503
55	3531	3531	3531
65	1267	1267	1267
75	564	564	564
85	447	447	447

CANDELA TABULATION

	<u>0</u>
0.0	9888.0
0.5	9889.0
1.0	9857.0
1.5	9834.0
2.0	9776.0
2.5	9720.0
3.0	9637.0
3.5	9558.0
4.0	9464.0
4.5	9365.0
5.0	9265.0
5.5	9154.0
6.0	9026.0
6.5	8888.0
7.0	8727.0
7.5	8543.0
8.0	8346.0
8.5	8138.0
9.0	7925.0
9.5	7711.0
10.0	7499.0
10.5	7295.0
11.0	7099.0
11.5	6915.0
12.0	6748.0
12.5	6595.0
13.0	6447.0
13.5	6310.0
14.0	6184.0
14.5	6068.0
15.0	5960.0
15.5	5859.0
16.0	5761.0
16.5	5669.0
17.0	5582.0
17.5	5498.0
18.0	5418.0
18.5	5338.0
19.0	5261.0
19.5	5183.0
20.0	5105.0
20.5	5027.0
21.0	4949.0
21.5	4871.0
22.0	4792.0
22.5	4710.0
23.0	4627.0
23.5	4540.0
24.0	4449.0
24.5	4353.0
25.0	4242.0
25.5	4114.0
26.0	3971.0
26.5	3812.0

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6CR-TL-L50-835-XXX-DIM-UNV-OM-CS-XX_.IES****CANDELA TABULATION - (Cont.)**

27.0	3642.0
27.5	3462.0
28.0	3273.0
28.5	3074.0
29.0	2864.0
29.5	2644.0
30.0	2416.0
30.5	2187.0
31.0	1961.0
31.5	1744.0
32.0	1537.0
32.5	1341.0
33.0	1157.0
33.5	987.6
34.0	834.6
34.5	701.9
35.0	587.7
35.5	486.8
36.0	402.7
36.5	333.5
37.0	279.6
37.5	238.6
38.0	209.9
38.5	192.3
39.0	179.8
39.5	168.8
40.0	158.9
40.5	149.7
41.0	141.3
41.5	133.5
42.0	126.3
42.5	119.5
43.0	113.1
43.5	107.1
44.0	101.4
44.5	95.9
45.0	90.8
45.5	85.8
46.0	80.9
46.5	75.9
47.0	71.1
47.5	66.6
48.0	62.2
48.5	57.9
49.0	53.7
49.5	49.7
50.0	45.9
50.5	42.2
51.0	38.9
51.5	35.8
52.0	33.0
52.5	30.5
53.0	28.2
53.5	26.1
54.0	24.2
54.5	22.4

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CANDELA TABULATION - (Cont.)

55.0	20.8
55.5	19.3
56.0	18.0
56.5	16.7
57.0	15.6
57.5	14.5
58.0	13.5
58.5	12.7
59.0	11.8
59.5	11.0
60.0	10.4
60.5	9.7
61.0	9.1
61.5	8.5
62.0	8.0
62.5	7.5
63.0	7.0
63.5	6.6
64.0	6.2
64.5	5.8
65.0	5.5
65.5	5.2
66.0	4.8
66.5	4.6
67.0	4.3
67.5	4.0
68.0	3.8
68.5	3.6
69.0	3.3
69.5	3.1
70.0	2.9
70.5	2.7
71.0	2.6
71.5	2.4
72.0	2.2
72.5	2.1
73.0	2.0
73.5	1.8
74.0	1.7
74.5	1.6
75.0	1.5
75.5	1.4
76.0	1.3
76.5	1.2
77.0	1.2
77.5	1.1
78.0	1.0
78.5	0.9
79.0	0.9
79.5	0.8
80.0	0.8
80.5	0.7
81.0	0.7
81.5	0.6
82.0	0.6
82.5	0.5

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CANDELA TABULATION - (Cont.)

83.0	0.5
83.5	0.5
84.0	0.5
84.5	0.4
85.0	0.4
85.5	0.4
86.0	0.3
86.5	0.3
87.0	0.3
87.5	0.3
88.0	0.2
88.5	0.2
89.0	0.2
89.5	0.2
90.0	0.2
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

CANDELA TABULATION - (Cont.)

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	2515.3	N.A.	50.80
0-30	4356.73	N.A.	87.90
0-40	4855.85	N.A.	98.00
0-60	4948.08	N.A.	99.80
0-80	4955.55	N.A.	100.00
0-90	4956.00	N.A.	100.00
10-90	4127.5	N.A.	83.30
20-40	2340.55	N.A.	47.20
20-50	2412.3	N.A.	48.70
40-70	98.00	N.A.	2.00
60-80	7.47	N.A.	0.20
70-80	1.70	N.A.	0.00
80-90	0.45	N.A.	0.00
90-110	0.01	N.A.	0.00
90-120	0.01	N.A.	0.00
90-130	0.01	N.A.	0.00
90-150	0.01	N.A.	0.00
90-180	0.01	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	4956.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	828.50
10-20	1686.8
20-30	1841.43
30-40	499.12
40-50	71.75
50-60	20.48
60-70	5.77
70-80	1.70
80-90	0.45
90-100	0.01
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	109	107	112	110	108	106	106	104	102	102	101	99	98	97	97	95
2	109	105	101	98	107	103	100	97	100	98	95	97	95	93	95	93	91	90
3	105	99	95	91	103	98	94	90	95	92	89	93	90	88	91	88	86	85
4	100	94	89	85	99	93	88	85	91	87	84	89	85	83	87	84	82	80
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76
6	92	84	79	75	91	84	79	75	82	78	75	81	77	74	80	76	74	72
7	88	80	75	71	87	80	75	71	78	74	71	77	73	70	76	73	70	69
8	85	76	71	68	84	76	71	67	75	70	67	74	70	67	73	69	67	65
9	81	73	68	64	80	73	68	64	72	67	64	71	67	64	70	66	64	62
10	78	70	65	61	77	69	64	61	69	64	61	68	64	61	67	63	61	60

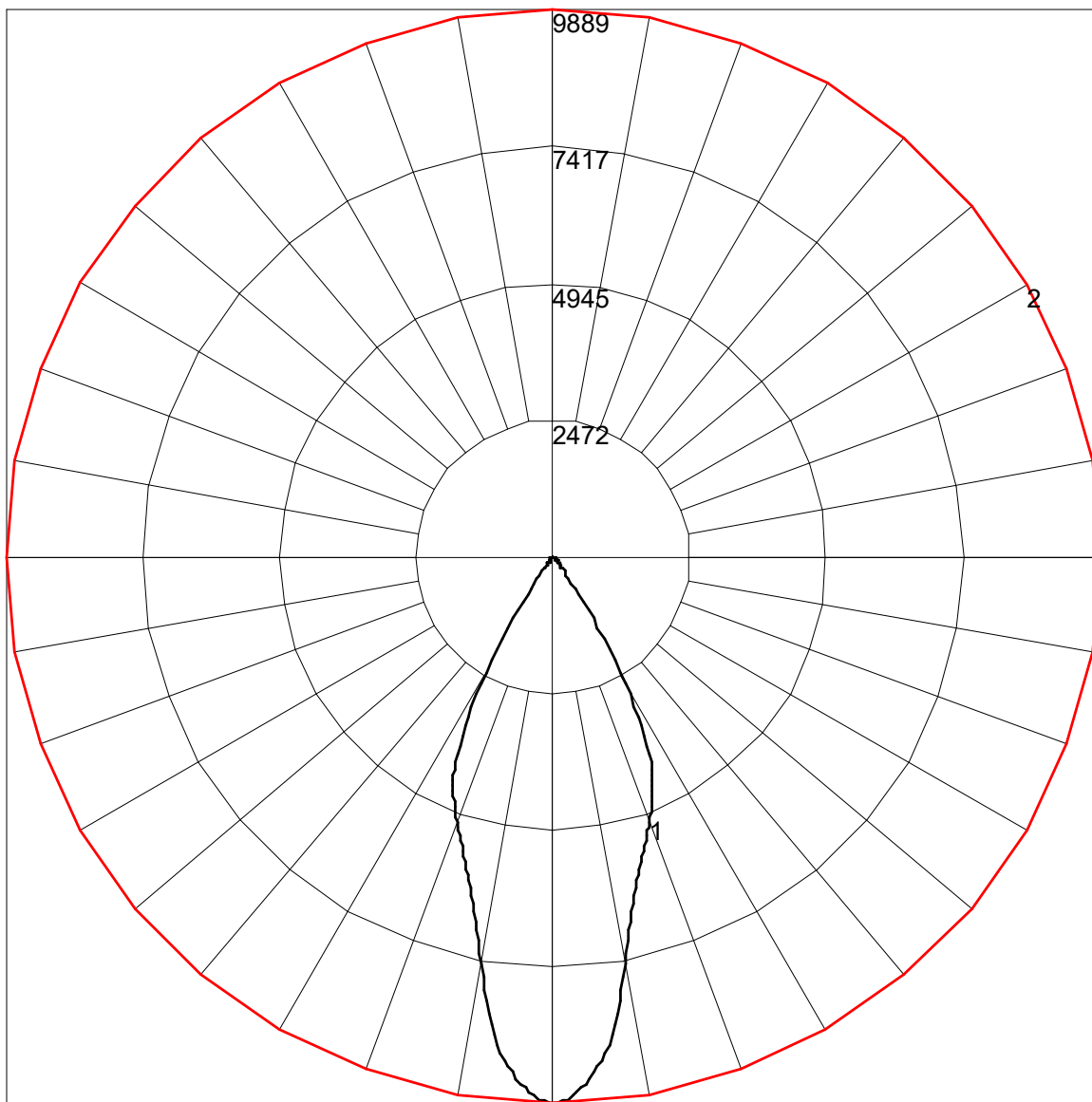
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UGR TABLE - CORRECTED

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					UGR Viewed Endwise				
X=2H	Y=2H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	3H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	4H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	6H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	8H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	12H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
4H	2H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	3H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	4H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	6H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	8H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	12H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
8H	4H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	6H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	8H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	12H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
12H	4H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	6H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	8H	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6

Maximum UGR = 5.6

POLAR GRAPH



Maximum Candela = 9889 Located At Horizontal Angle = 0, Vertical Angle = .5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)