



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L15-835-XXX-DIM-UNV-LW-WH-XX\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM 12316380.07  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUE DATE] 27-JAN-2021  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] 6CR-TL-L15-835-xxx-DIM-UNV-LW-WH-xx  
 [LUMINAIRE] 6" DIA. SURFACE 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	994
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	71
Total Luminaire Watts	13.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.00
Spacing Criterion (90-270)	1.00
Spacing Criterion (Diagonal)	0.90
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.35 ft (Diameter)
Luminous Width (90-270)	0.35 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	27424	27424	27424
55	22534	22534	22534
65	16485	16485	16485
75	11413	11413	11413
85	6222	6222	6222

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CANDELA TABULATION

	<u>0</u>
0.0	698.079
0.5	697.859
1.0	697.417
1.5	696.829
2.0	696.241
2.5	695.579
3.0	694.697
3.5	694.183
4.0	693.815
4.5	693.594
5.0	693.300
5.5	693.006
6.0	692.786
6.5	692.492
7.0	692.271
7.5	692.124
8.0	692.050
8.5	691.830
9.0	691.609
9.5	691.168
10.0	690.874
10.5	690.359
11.0	689.845
11.5	689.183
12.0	688.448
12.5	687.566
13.0	686.536
13.5	685.360
14.0	683.890
14.5	682.125
15.0	679.993
15.5	677.420
16.0	674.552
16.5	671.171
17.0	667.495
17.5	663.377
18.0	658.525
18.5	653.526
19.0	648.085
19.5	641.983
20.0	635.292
20.5	628.014
21.0	620.147
21.5	611.692
22.0	602.355
22.5	592.430
23.0	581.769
23.5	570.300
24.0	557.949
24.5	544.788
25.0	530.525
25.5	515.601
26.0	499.647
26.5	482.737

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CANDELA TABULATION - (Cont.)

27.0	465.239
27.5	447.006
28.0	428.479
28.5	409.878
29.0	391.645
29.5	373.779
30.0	356.575
30.5	340.401
31.0	325.256
31.5	311.434
32.0	298.862
32.5	287.539
33.0	277.467
33.5	268.498
34.0	260.484
34.5	253.426
35.0	247.030
35.5	241.221
36.0	236.075
36.5	231.223
37.0	226.811
37.5	222.694
38.0	218.871
38.5	215.195
39.0	211.813
39.5	208.505
40.0	205.417
40.5	202.329
41.0	199.388
41.5	196.521
42.0	193.801
42.5	191.080
43.0	188.360
43.5	185.640
44.0	182.920
44.5	180.199
45.0	177.479
45.5	174.759
46.0	172.038
46.5	169.318
47.0	166.451
47.5	163.584
48.0	160.716
48.5	157.775
49.0	154.761
49.5	151.747
50.0	148.806
50.5	145.792
51.0	142.777
51.5	139.763
52.0	136.822
52.5	133.881
53.0	130.867
53.5	127.779
54.0	124.618
54.5	121.456

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CANDELA TABULATION - (Cont.)

55.0	118.295
55.5	115.133
56.0	112.046
56.5	109.031
57.0	106.017
57.5	103.003
58.0	100.062
58.5	97.194
59.0	94.327
59.5	91.533
60.0	88.813
60.5	86.093
61.0	83.446
61.5	80.873
62.0	78.300
62.5	75.726
63.0	73.271
63.5	70.830
64.0	68.433
64.5	66.073
65.0	63.765
65.5	61.515
66.0	59.294
66.5	57.133
67.0	55.023
67.5	52.950
68.0	50.942
68.5	48.979
69.0	47.016
69.5	45.120
70.0	43.274
70.5	41.458
71.0	39.686
71.5	37.959
72.0	36.290
72.5	34.643
73.0	33.040
73.5	31.482
74.0	29.952
74.5	28.475
75.0	27.034
75.5	25.637
76.0	24.269
76.5	22.938
77.0	21.667
77.5	20.402
78.0	19.182
78.5	17.998
79.0	16.836
79.5	15.719
80.0	14.623
80.5	13.557
81.0	12.506
81.5	11.484
82.0	10.484
82.5	9.514

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CANDELA TABULATION - (Cont.)

83.0	8.550
83.5	7.617
84.0	6.705
84.5	5.815
85.0	4.963
85.5	4.139
86.0	3.353
86.5	2.610
87.0	1.956
87.5	1.412
88.0	0.985
88.5	0.625
89.0	0.390
89.5	0.265
90.0	0.184
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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6CR-TL-L15-835-XXX-DIM-UNV-LW-WH-XX\_.IES****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
119.5	0.000
120.0	0.000
120.5	0.000
121.0	0.000
121.5	0.000
122.0	0.000
122.5	0.000
123.0	0.000
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124.0	0.000
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125.0	0.000
125.5	0.000
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128.0	0.000
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131.5	0.000
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133.0	0.000
133.5	0.000
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

IES INDOOR REPORT  
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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
148.0	0.000
148.5	0.000
149.0	0.000
149.5	0.000
150.0	0.000
150.5	0.000
151.0	0.000
151.5	0.000
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

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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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	256.42	N.A.	25.80
0-30	491.84	N.A.	49.50
0-40	652.20	N.A.	65.60
0-60	894.60	N.A.	90.00
0-80	987.53	N.A.	99.40
0-90	993.74	N.A.	100.00
10-90	927.62	N.A.	93.30
20-40	395.78	N.A.	39.80
20-50	532.46	N.A.	53.60
40-70	306.16	N.A.	30.80
60-80	92.92	N.A.	9.40
70-80	29.17	N.A.	2.90
80-90	6.22	N.A.	0.60
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	993.75	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	66.12
10-20	190.30
20-30	235.42
30-40	160.36
40-50	136.68
50-60	105.72
60-70	63.76
70-80	29.17
80-90	6.22
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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	103	97	91	87	101	95	90	86	92	87	84	89	85	82	86	83	80	78
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56
6	79	67	60	54	77	66	59	54	65	58	54	63	58	53	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47
8	69	58	51	46	68	57	50	45	56	50	45	55	49	45	54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40
10	62	51	44	39	61	50	43	39	49	43	39	48	43	39	47	42	39	37

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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

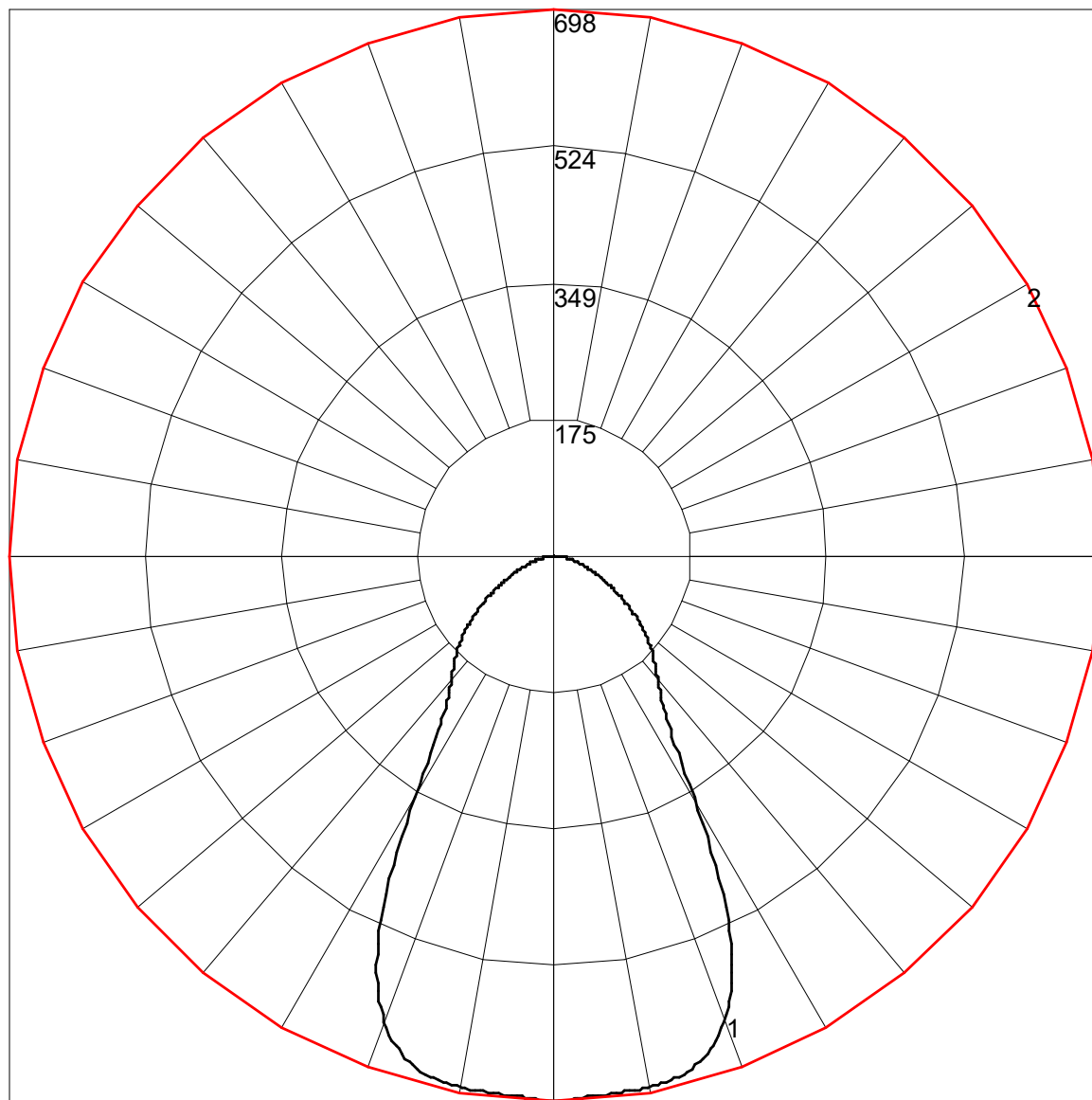
X=2H	Y=2H	20.6	22.0	21.0	22.3	22.6	20.6	22.0	21.0	22.3	22.6
	3H	21.7	22.9	22.1	23.3	23.6	21.7	22.9	22.1	23.3	23.6
	4H	22.1	23.2	22.5	23.6	23.9	22.1	23.2	22.5	23.6	23.9
	6H	22.3	23.3	22.7	23.7	24.1	22.3	23.3	22.7	23.7	24.1
	8H	22.3	23.3	22.8	23.7	24.1	22.3	23.3	22.8	23.7	24.1
	12H	22.3	23.3	22.8	23.7	24.1	22.3	23.3	22.8	23.7	24.1

### UGR Viewed Endwise

4H	2H	21.0	22.1	21.4	22.5	22.8	21.0	22.1	21.4	22.5	22.8
	3H	22.3	23.2	22.7	23.6	24.0	22.3	23.2	22.7	23.6	24.0
	4H	22.7	23.6	23.1	24.0	24.4	22.7	23.6	23.1	24.0	24.4
	6H	23.0	23.8	23.5	24.2	24.7	23.0	23.8	23.5	24.2	24.7
	8H	23.1	23.8	23.6	24.2	24.7	23.1	23.8	23.6	24.2	24.7
	12H	23.1	23.7	23.6	24.2	24.7	23.1	23.7	23.6	24.2	24.7
8H	4H	22.8	23.5	23.3	24.0	24.4	22.8	23.5	23.3	24.0	24.4
	6H	23.2	23.8	23.7	24.3	24.8	23.2	23.8	23.7	24.3	24.8
	8H	23.3	23.8	23.9	24.4	24.8	23.3	23.8	23.9	24.4	24.8
	12H	23.4	23.9	23.9	24.3	24.9	23.4	23.9	23.9	24.3	24.9
12H	4H	22.8	23.4	23.3	23.9	24.4	22.8	23.4	23.3	23.9	24.4
	6H	23.2	23.7	23.8	24.2	24.7	23.2	23.7	23.8	24.2	24.7
	8H	23.4	23.8	23.9	24.3	24.9	23.4	23.8	23.9	24.3	24.9

Maximum UGR = 24.9

POLAR GRAPH



Maximum Candela = 698.079 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)