



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-P28-835-XXX-POE-ON-CS-XX\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN from 12316380.05  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUE DATE] 28-JAN-2021  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] 6CR-TL-P28-835-xxx-POE-ON-CS-xx  
 [LAMP] One white LED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2619
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	105
Total Luminaire Watts	25
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.18
Spacing Criterion (90-270)	0.18
Spacing Criterion (Diagonal)	0.20
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	1800	1800	1800
55	444	444	444
65	301	301	301
75	0	0	0
85	0	0	0

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CANDELA TABULATION

	<u>0</u>
0.0	27849.740
0.5	27653.707
1.0	26921.851
1.5	25863.273
2.0	24373.423
2.5	22635.265
3.0	20923.244
3.5	19211.224
4.0	17538.410
4.5	15852.527
5.0	13970.611
5.5	12031.192
6.0	10374.061
6.5	9165.191
7.0	8196.789
7.5	7415.271
8.0	6757.907
8.5	6197.253
9.0	5720.240
9.5	5299.423
10.0	4938.722
10.5	4623.763
11.0	4354.544
11.5	4117.998
12.0	3911.510
12.5	3732.466
13.0	3578.254
13.5	3441.031
14.0	3319.490
14.5	3205.791
15.0	3099.933
15.5	2996.690
16.0	2890.832
16.5	2786.281
17.0	2680.423
17.5	2575.872
18.0	2471.321
18.5	2362.850
19.0	2253.071
19.5	2143.293
20.0	2032.208
20.5	1921.122
21.0	1810.037
21.5	1701.566
22.0	1606.163
22.5	1518.601
23.0	1438.881
23.5	1367.003
24.0	1301.658
24.5	1241.542
25.0	1191.880
25.5	1152.673
26.0	1125.229
26.5	1104.319

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**CANDELA TABULATION - (Cont.)**

27.0	1084.715
27.5	1059.885
28.0	1023.292
28.5	978.858
29.0	927.889
29.5	871.693
30.0	810.269
30.5	744.925
31.0	666.512
31.5	581.564
32.0	494.003
32.5	409.055
33.0	331.949
33.5	269.219
34.0	211.716
34.5	162.054
35.0	116.313
35.5	79.720
36.0	52.275
36.5	35.286
37.0	30.058
37.5	28.751
38.0	27.445
38.5	26.138
39.0	24.831
39.5	23.524
40.0	22.217
40.5	20.910
41.0	20.910
41.5	19.603
42.0	18.296
42.5	18.296
43.0	16.990
43.5	15.683
44.0	14.376
44.5	14.376
45.0	13.069
45.5	13.069
46.0	11.762
46.5	10.455
47.0	10.455
47.5	9.148
48.0	9.148
48.5	7.841
49.0	7.841
49.5	7.841
50.0	6.534
50.5	6.534
51.0	5.228
51.5	5.228
52.0	5.228
52.5	3.921
53.0	3.921
53.5	3.921
54.0	3.921
54.5	3.921

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6CR-TL-P28-835-XXX-POE-ON-CS-XX\_.IES****CANDELA TABULATION - (Cont.)**

55.0	2.614
55.5	2.614
56.0	2.614
56.5	2.614
57.0	2.614
57.5	2.614
58.0	2.614
58.5	2.614
59.0	1.307
59.5	1.307
60.0	1.307
60.5	1.307
61.0	1.307
61.5	1.307
62.0	1.307
62.5	1.307
63.0	1.307
63.5	1.307
64.0	1.307
64.5	1.307
65.0	1.307
65.5	1.307
66.0	1.307
66.5	1.307
67.0	1.307
67.5	1.307
68.0	0.000
68.5	1.307
69.0	0.000
69.5	0.000
70.0	0.000
70.5	0.000
71.0	0.000
71.5	0.000
72.0	0.000
72.5	0.000
73.0	0.000
73.5	0.000
74.0	0.000
74.5	0.000
75.0	0.000
75.5	0.000
76.0	0.000
76.5	0.000
77.0	0.000
77.5	0.000
78.0	0.000
78.5	0.000
79.0	0.000
79.5	0.000
80.0	0.000
80.5	0.000
81.0	0.000
81.5	0.000
82.0	0.000
82.5	0.000

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CANDELA TABULATION - (Cont.)

83.0	0.000
83.5	0.000
84.0	0.000
84.5	0.000
85.0	0.000
85.5	0.000
86.0	0.000
86.5	0.000
87.0	0.000
87.5	0.000
88.0	0.000
88.5	0.000
89.0	0.000
89.5	0.000
90.0	0.000
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-P28-835-XXX-POE-ON-CS-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
123.5	0.000
124.0	0.000
124.5	0.000
125.0	0.000
125.5	0.000
126.0	0.000
126.5	0.000
127.0	0.000
127.5	0.000
128.0	0.000
128.5	0.000
129.0	0.000
129.5	0.000
130.0	0.000
130.5	0.000
131.0	0.000
131.5	0.000
132.0	0.000
132.5	0.000
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****PHOTOMETRIC FILENAME : 6CR-TL-P28-835-XXX-POE-ON-CS-XX\_.IES****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

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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	1883.42	N.A.	71.90
0-30	2466.09	N.A.	94.20
0-40	2604.35	N.A.	99.40
0-60	2617.86	N.A.	100.00
0-80	2618.92	N.A.	100.00
0-90	2618.92	N.A.	100.00
10-90	1603.15	N.A.	61.20
20-40	720.92	N.A.	27.50
20-50	731.37	N.A.	27.90
40-70	14.58	N.A.	0.60
60-80	1.06	N.A.	0.00
70-80	0.00	N.A.	0.00
80-90	0.00	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	2618.92	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	1015.77
10-20	867.65
20-30	582.66
30-40	138.26
40-50	10.45
50-60	3.06
60-70	1.06
70-80	0.00
80-90	0.00
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	115	113	111	109	113	111	109	108	107	105	104	103	102	101	100	99	98	97
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	97	96	95	93
3	108	103	99	96	106	102	98	96	99	96	94	97	95	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	81	87	84	81	86	83	81	85	82	80	79
8	93	86	82	79	92	85	82	79	85	81	78	84	80	78	83	80	78	77
9	90	83	79	77	89	83	79	76	82	79	76	81	78	76	81	78	76	75
10	88	81	77	74	87	81	77	74	80	76	74	79	76	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

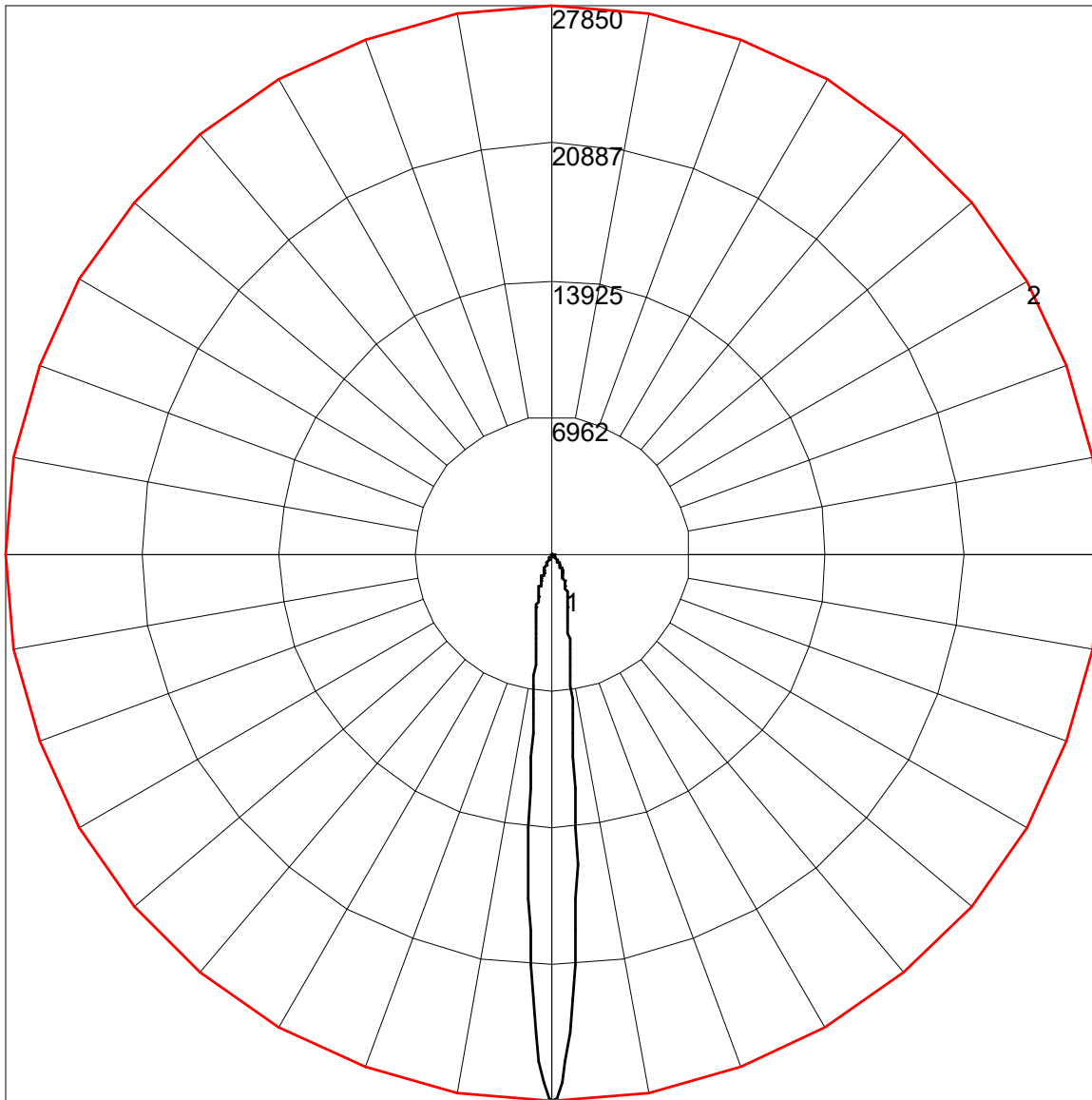
X=2H	Y=2H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	3H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	4H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	6H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	8H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	12H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6

### UGR Viewed Endwise

4H	2H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	3H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	4H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	6H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	8H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	12H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
8H	4H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	6H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	8H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	12H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
12H	4H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	6H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	8H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6

Maximum UGR = 3.6

POLAR GRAPH



Maximum Candela = 27849.74 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.)