



## IES INDOOR REPORT

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

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN from 12316380.14  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUEDATE] 28-JAN-2021  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] 6CR-TL-P28-835-xxx-POE-RMWH-xx  
 [LUMINAIRE] 6" DIA. SURFACE CYLINDER  
 [LAMP] One white LED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2499
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	25
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.52
Spacing Criterion (90-270)	0.52
Spacing Criterion (Diagonal)	0.52
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	14337	14337	14337
55	9972	9972	9972
65	7119	7119	7119
75	4765	4765	4765
85	3888	3888	3888

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CANDELA TABULATION

	<u>0</u>
0.0	7204.992
0.5	7199.424
1.0	7182.720
1.5	7156.272
2.0	7120.080
2.5	7074.144
3.0	7019.856
3.5	6955.824
4.0	6882.048
4.5	6802.704
5.0	6715.008
5.5	6617.568
6.0	6513.168
6.5	6401.808
7.0	6282.096
7.5	6154.032
8.0	6020.400
8.5	5878.416
9.0	5732.256
9.5	5580.528
10.0	5423.232
10.5	5261.760
11.0	5096.112
11.5	4927.680
12.0	4756.464
12.5	4586.640
13.0	4416.816
13.5	4245.600
14.0	4072.992
14.5	3900.384
15.0	3730.560
15.5	3562.128
16.0	3393.696
16.5	3229.440
17.0	3066.576
17.5	2906.496
18.0	2749.200
18.5	2596.080
19.0	2449.920
19.5	2306.544
20.0	2167.344
20.5	2035.104
21.0	1907.040
21.5	1784.544
22.0	1669.008
22.5	1559.040
23.0	1456.032
23.5	1357.478
24.0	1264.214
24.5	1176.379
25.0	1094.251
25.5	1017.830
26.0	946.560
26.5	879.744

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**CANDELA TABULATION - (Cont.)**

27.0	817.661
27.5	760.171
28.0	706.718
28.5	656.885
29.0	611.227
29.5	568.632
30.0	529.238
30.5	493.046
31.0	459.638
31.5	428.736
32.0	400.200
32.5	374.030
33.0	349.810
33.5	327.259
34.0	306.658
34.5	287.448
35.0	269.770
35.5	253.483
36.0	238.310
36.5	224.390
37.0	211.445
37.5	199.752
38.0	188.894
38.5	179.150
39.0	170.102
39.5	161.890
40.0	154.512
40.5	147.552
41.0	141.288
41.5	135.442
42.0	130.013
42.5	125.002
43.0	120.269
43.5	115.814
44.0	111.638
44.5	107.741
45.0	104.122
45.5	100.781
46.0	97.579
46.5	94.517
47.0	91.594
47.5	88.949
48.0	86.443
48.5	83.938
49.0	81.571
49.5	79.344
50.0	77.256
50.5	75.168
51.0	73.219
51.5	71.131
52.0	69.322
52.5	67.373
53.0	65.702
53.5	63.893
54.0	62.083
54.5	60.413

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CANDELA TABULATION - (Cont.)

55.0	58.742
55.5	57.072
56.0	55.541
56.5	54.010
57.0	52.478
57.5	50.947
58.0	49.416
58.5	48.024
59.0	46.632
59.5	45.240
60.0	43.848
60.5	42.456
61.0	41.064
61.5	39.811
62.0	38.419
62.5	37.166
63.0	35.774
63.5	34.522
64.0	33.269
64.5	32.016
65.0	30.902
65.5	29.650
66.0	28.536
66.5	27.283
67.0	26.170
67.5	25.056
68.0	23.942
68.5	22.968
69.0	21.854
69.5	20.880
70.0	19.906
70.5	19.070
71.0	18.235
71.5	17.400
72.0	16.565
72.5	15.869
73.0	15.173
73.5	14.477
74.0	13.920
74.5	13.224
75.0	12.667
75.5	12.110
76.0	11.554
76.5	11.136
77.0	10.579
77.5	10.022
78.0	9.605
78.5	9.048
79.0	8.630
79.5	8.213
80.0	7.656
80.5	7.238
81.0	6.821
81.5	6.403
82.0	5.846
82.5	5.429

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CANDELA TABULATION - (Cont.)

83.0	5.011
83.5	4.594
84.0	4.176
84.5	3.758
85.0	3.480
85.5	3.062
86.0	2.645
86.5	2.227
87.0	1.949
87.5	1.670
88.0	1.392
88.5	1.114
89.0	0.974
89.5	0.696
90.0	0.557
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  
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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
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123.0	0.000
123.5	0.000
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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  
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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	1612.23	N.A.	64.50
0-30	2135.46	N.A.	85.40
0-40	2314.99	N.A.	92.60
0-60	2450.71	N.A.	98.10
0-80	2495.27	N.A.	99.80
0-90	2499.22	N.A.	100.00
10-90	1899.83	N.A.	76.00
20-40	702.76	N.A.	28.10
20-50	785.54	N.A.	31.40
40-70	166.51	N.A.	6.70
60-80	44.56	N.A.	1.80
70-80	13.77	N.A.	0.60
80-90	3.95	N.A.	0.20
90-110	0.02	N.A.	0.00
90-120	0.02	N.A.	0.00
90-130	0.02	N.A.	0.00
90-150	0.02	N.A.	0.00
90-180	0.02	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2499.24	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	599.39
10-20	1012.84
20-30	523.22
30-40	179.53
40-50	82.78
50-60	52.94
60-70	30.79
70-80	13.77
80-90	3.95
90-100	0.02
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	109	107	106	105	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	92	103	98	94	91	95	92	89	93	90	88	91	89	87	85
4	101	94	90	86	99	93	89	85	91	87	84	89	86	83	87	85	83	81
5	97	90	85	81	95	89	84	81	87	83	80	86	82	79	84	81	79	77
6	93	86	81	77	92	85	80	77	84	79	76	82	79	76	81	78	75	74
7	90	82	77	74	89	81	77	73	80	76	73	79	75	73	78	75	72	71
8	87	79	74	70	86	78	74	70	77	73	70	76	73	70	75	72	69	68
9	84	76	71	68	83	75	71	67	74	70	67	74	70	67	73	69	67	66
10	81	73	68	65	80	73	68	65	72	68	65	71	67	65	71	67	64	63

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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

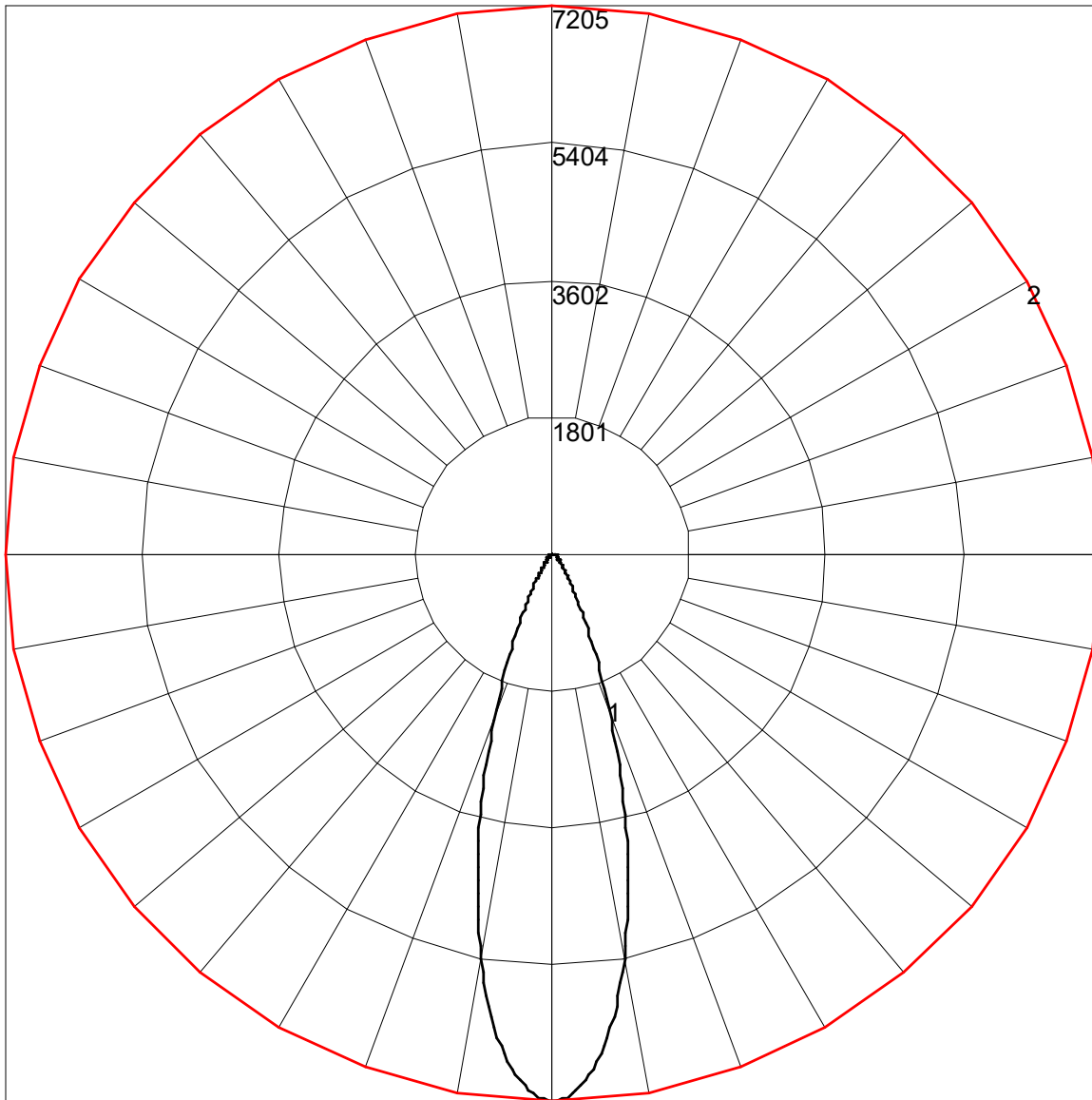
X=2H	Y=2H	12.6	13.6	13.0	13.9	14.2	12.6	13.6	13.0	13.9	14.2
	3H	13.6	14.4	13.9	14.8	15.1	13.6	14.4	13.9	14.8	15.1
	4H	13.9	14.7	14.3	15.0	15.4	13.9	14.7	14.3	15.0	15.4
	6H	14.1	14.8	14.5	15.2	15.6	14.1	14.8	14.5	15.2	15.6
	8H	14.1	14.8	14.6	15.2	15.6	14.1	14.8	14.6	15.2	15.6
	12H	14.2	14.8	14.6	15.2	15.6	14.2	14.8	14.6	15.2	15.6

UGR Viewed Endwise

4H	2H	12.9	13.7	13.3	14.1	14.4	12.9	13.7	13.3	14.1	14.4
	3H	14.0	14.7	14.4	15.1	15.5	14.0	14.7	14.4	15.1	15.5
	4H	14.4	15.0	14.8	15.4	15.8	14.4	15.0	14.8	15.4	15.8
	6H	14.7	15.2	15.2	15.6	16.1	14.7	15.2	15.2	15.6	16.1
	8H	14.8	15.3	15.3	15.7	16.2	14.8	15.3	15.3	15.7	16.2
	12H	14.8	15.2	15.3	15.7	16.2	14.8	15.2	15.3	15.7	16.2
8H	4H	14.5	14.9	14.9	15.4	15.8	14.5	14.9	14.9	15.4	15.8
	6H	14.9	15.2	15.4	15.7	16.2	14.9	15.2	15.4	15.7	16.2
	8H	15.0	15.3	15.6	15.9	16.4	15.0	15.3	15.6	15.9	16.4
	12H	15.2	15.4	15.7	15.9	16.5	15.2	15.4	15.7	15.9	16.5
12H	4H	14.4	14.8	14.9	15.3	15.8	14.4	14.8	14.9	15.3	15.8
	6H	14.9	15.2	15.4	15.7	16.2	14.9	15.2	15.4	15.7	16.2
	8H	15.1	15.3	15.6	15.8	16.4	15.1	15.3	15.6	15.8	16.4

Maximum UGR = 16.5

POLAR GRAPH



Maximum Candela = 7204.992 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.)