



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L30-835-XXX-DIM-UNV-RM-WH-XX\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM 12316380.14  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUE DATE] 27-JAN-2021  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] 6CR-TL-L30-835-xxx-DIM-UNV-RM-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	2686
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	27.8
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	15407	15407	15407
55	10716	10716	10716
65	7651	7651	7651
75	5121	5121	5121
85	4178	4178	4178

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CANDELA TABULATION

	<u>0</u>
0.0	7742.374
0.5	7736.391
1.0	7718.441
1.5	7690.021
2.0	7651.129
2.5	7601.767
3.0	7543.430
3.5	7474.622
4.0	7395.344
4.5	7310.082
5.0	7215.845
5.5	7111.138
6.0	6998.951
6.5	6879.285
7.0	6750.644
7.5	6613.029
8.0	6469.430
8.5	6316.856
9.0	6159.795
9.5	5996.750
10.0	5827.722
10.5	5654.207
11.0	5476.204
11.5	5295.210
12.0	5111.224
12.5	4928.733
13.0	4746.243
13.5	4562.257
14.0	4376.775
14.5	4191.293
15.0	4008.803
15.5	3827.808
16.0	3646.814
16.5	3470.307
17.0	3295.296
17.5	3123.276
18.0	2954.248
18.5	2789.708
19.0	2632.647
19.5	2478.577
20.0	2328.995
20.5	2186.892
21.0	2049.276
21.5	1917.644
22.0	1793.491
22.5	1675.321
23.0	1564.630
23.5	1458.726
24.0	1358.505
24.5	1264.119
25.0	1175.866
25.5	1093.745
26.0	1017.159
26.5	945.359

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CANDELA TABULATION - (Cont.)

27.0	878.646
27.5	816.868
28.0	759.429
28.5	705.878
29.0	656.815
29.5	611.043
30.0	568.712
30.5	529.820
31.0	493.920
31.5	460.713
32.0	430.049
32.5	401.927
33.0	375.900
33.5	351.668
34.0	329.530
34.5	308.887
35.0	289.890
35.5	272.389
36.0	256.085
36.5	241.126
37.0	227.215
37.5	214.650
38.0	202.983
38.5	192.512
39.0	182.789
39.5	173.964
40.0	166.036
40.5	158.557
41.0	151.826
41.5	145.543
42.0	139.710
42.5	134.325
43.0	129.239
43.5	124.452
44.0	119.965
44.5	115.777
45.0	111.887
45.5	108.298
46.0	104.857
46.5	101.566
47.0	98.425
47.5	95.583
48.0	92.891
48.5	90.198
49.0	87.655
49.5	85.262
50.0	83.018
50.5	80.774
51.0	78.680
51.5	76.437
52.0	74.492
52.5	72.398
53.0	70.603
53.5	68.658
54.0	66.714
54.5	64.919

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CANDELA TABULATION - (Cont.)

55.0	63.124
55.5	61.329
56.0	59.683
56.5	58.038
57.0	56.392
57.5	54.747
58.0	53.102
58.5	51.606
59.0	50.110
59.5	48.614
60.0	47.118
60.5	45.623
61.0	44.127
61.5	42.781
62.0	41.285
62.5	39.938
63.0	38.443
63.5	37.096
64.0	35.750
64.5	34.404
65.0	33.207
65.5	31.861
66.0	30.664
66.5	29.318
67.0	28.121
67.5	26.925
68.0	25.728
68.5	24.681
69.0	23.484
69.5	22.437
70.0	21.390
70.5	20.493
71.0	19.595
71.5	18.698
72.0	17.800
72.5	17.052
73.0	16.304
73.5	15.557
74.0	14.958
74.5	14.210
75.0	13.612
75.5	13.014
76.0	12.415
76.5	11.967
77.0	11.368
77.5	10.770
78.0	10.321
78.5	9.723
79.0	9.274
79.5	8.825
80.0	8.227
80.5	7.778
81.0	7.330
81.5	6.881
82.0	6.282
82.5	5.834

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CANDELA TABULATION - (Cont.)

83.0	5.385
83.5	4.936
84.0	4.487
84.5	4.039
85.0	3.740
85.5	3.291
86.0	2.842
86.5	2.393
87.0	2.094
87.5	1.795
88.0	1.496
88.5	1.197
89.0	1.047
89.5	0.748
90.0	0.598
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

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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
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-L30-835-XXX-DIM-UNV-RM-WH-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	1732.48	N.A.	64.50
0-30	2294.73	N.A.	85.40
0-40	2487.65	N.A.	92.60
0-60	2633.5	N.A.	98.10
0-80	2681.38	N.A.	99.80
0-90	2685.62	N.A.	100.00
10-90	2041.53	N.A.	76.00
20-40	755.17	N.A.	28.10
20-50	844.13	N.A.	31.40
40-70	178.93	N.A.	6.70
60-80	47.88	N.A.	1.80
70-80	14.80	N.A.	0.60
80-90	4.24	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	2685.64	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	644.10
10-20	1088.38
20-30	562.25
30-40	192.92
40-50	88.95
50-60	56.89
60-70	33.09
70-80	14.80
80-90	4.24
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	100	99	98	97	96	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	89	86	99	93	89	85	91	87	84	89	86	83	87	85	82	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	72	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

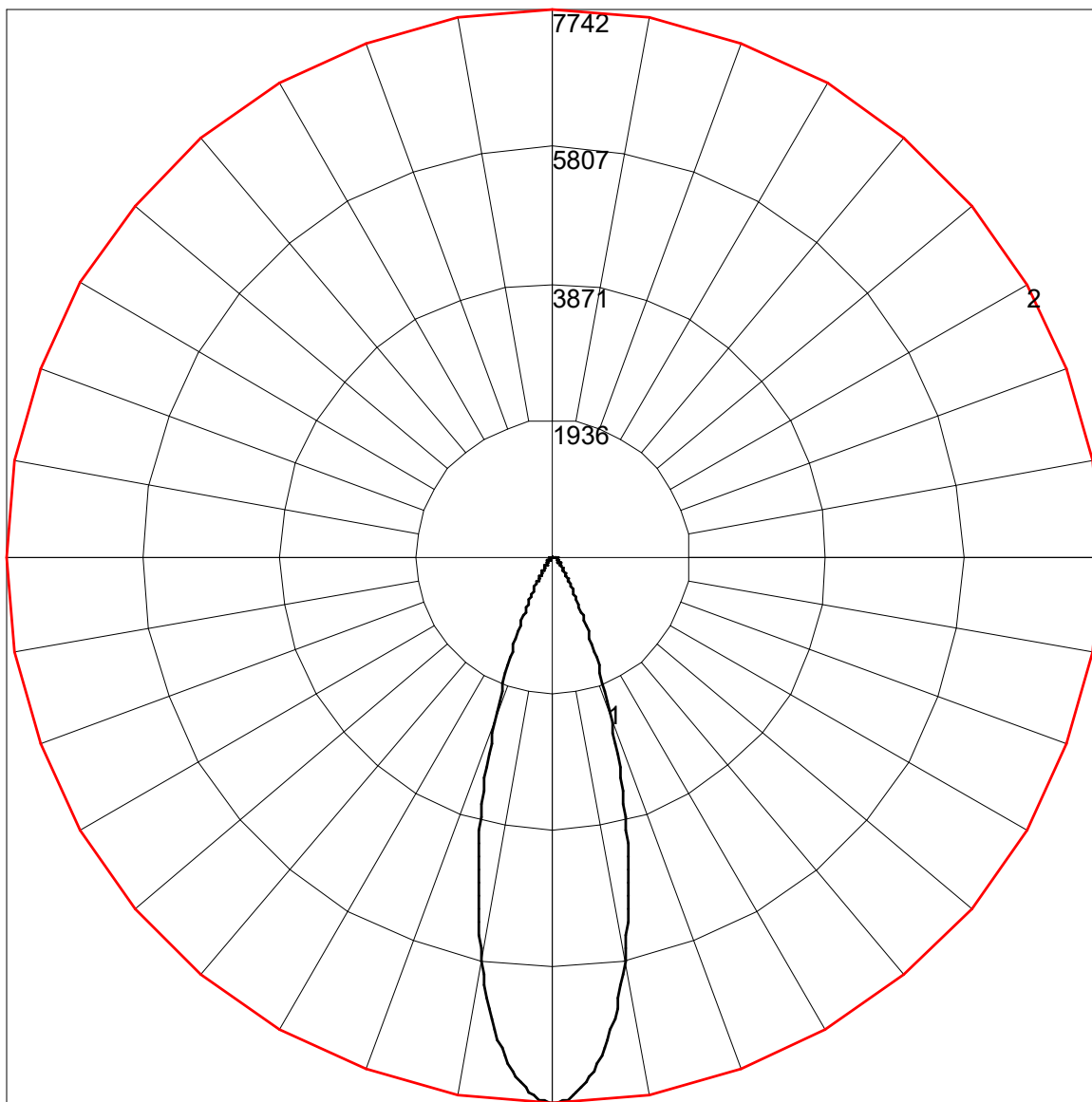
X=2H	Y=2H	12.8	13.8	13.2	14.1	14.4	12.8	13.8	13.2	14.1	14.4
	3H	13.8	14.6	14.1	15.0	15.4	13.8	14.6	14.1	15.0	15.4
	4H	14.1	14.9	14.5	15.2	15.6	14.1	14.9	14.5	15.2	15.6
	6H	14.3	15.0	14.7	15.4	15.8	14.3	15.0	14.7	15.4	15.8
	8H	14.3	15.0	14.8	15.4	15.8	14.3	15.0	14.8	15.4	15.8
	12H	14.4	15.0	14.8	15.4	15.8	14.4	15.0	14.8	15.4	15.8

### UGR Viewed Endwise

4H	2H	13.1	13.9	13.5	14.3	14.6	13.1	13.9	13.5	14.3	14.6
	3H	14.2	14.9	14.6	15.3	15.7	14.2	14.9	14.6	15.3	15.7
	4H	14.6	15.2	15.0	15.6	16.0	14.6	15.2	15.0	15.6	16.0
	6H	14.9	15.4	15.4	15.8	16.3	14.9	15.4	15.4	15.8	16.3
	8H	15.0	15.5	15.5	15.9	16.4	15.0	15.5	15.5	15.9	16.4
	12H	15.0	15.4	15.5	15.9	16.4	15.0	15.4	15.5	15.9	16.4
8H	4H	14.7	15.1	15.1	15.6	16.0	14.7	15.1	15.1	15.6	16.0
	6H	15.1	15.4	15.6	15.9	16.4	15.1	15.4	15.6	15.9	16.4
	8H	15.2	15.5	15.8	16.1	16.6	15.2	15.5	15.8	16.1	16.6
	12H	15.4	15.6	15.9	16.1	16.7	15.4	15.6	15.9	16.1	16.7
12H	4H	14.6	15.0	15.1	15.5	16.0	14.6	15.0	15.1	15.5	16.0
	6H	15.1	15.4	15.6	15.9	16.4	15.1	15.4	15.6	15.9	16.4
	8H	15.3	15.5	15.8	16.0	16.6	15.3	15.5	15.8	16.0	16.6

Maximum UGR = 16.7

POLAR GRAPH



Maximum Candela = 7742.374 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.)