



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L20-835-XXX-DIM-UNV-ON-CS-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12316380.05

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 26-JAN-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 6CR-TL-L20-835-xxx-DIM-UNV-ON-CS-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	2004
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	19.8214
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	1377	1377	1377
55	340	340	340
65	230	230	230
75	0	0	0
85	0	0	0

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CANDELA TABULATION

	<u>0</u>
0.0	21310
0.5	21160
1.0	20600
1.5	19790
2.0	18650
2.5	17320
3.0	16010
3.5	14700
4.0	13420
4.5	12130
5.0	10690
5.5	9206
6.0	7938
6.5	7013
7.0	6272
7.5	5674
8.0	5171
8.5	4742
9.0	4377
9.5	4055
10.0	3779
10.5	3538
11.0	3332
11.5	3151
12.0	2993
12.5	2856
13.0	2738
13.5	2633
14.0	2540
14.5	2453
15.0	2372
15.5	2293
16.0	2212
16.5	2132
17.0	2051
17.5	1971
18.0	1891
18.5	1808
19.0	1724
19.5	1640
20.0	1555
20.5	1470
21.0	1385
21.5	1302
22.0	1229
22.5	1162
23.0	1101
23.5	1046
24.0	996
24.5	950
25.0	912
25.5	882
26.0	861
26.5	845

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CANDELA TABULATION - (Cont.)

27.0	830
27.5	811
28.0	783
28.5	749
29.0	710
29.5	667
30.0	620
30.5	570
31.0	510
31.5	445
32.0	378
32.5	313
33.0	254
33.5	206
34.0	162
34.5	124
35.0	89
35.5	61
36.0	40
36.5	27
37.0	23
37.5	22
38.0	21
38.5	20
39.0	19
39.5	18
40.0	17
40.5	16
41.0	16
41.5	15
42.0	14
42.5	14
43.0	13
43.5	12
44.0	11
44.5	11
45.0	10
45.5	10
46.0	9
46.5	8
47.0	8
47.5	7
48.0	7
48.5	6
49.0	6
49.5	6
50.0	5
50.5	5
51.0	4
51.5	4
52.0	4
52.5	3
53.0	3
53.5	3
54.0	3
54.5	3

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CANDELA TABULATION - (Cont.)

55.0	2
55.5	2
56.0	2
56.5	2
57.0	2
57.5	2
58.0	2
58.5	2
59.0	1
59.5	1
60.0	1
60.5	1
61.0	1
61.5	1
62.0	1
62.5	1
63.0	1
63.5	1
64.0	1
64.5	1
65.0	1
65.5	1
66.0	1
66.5	1
67.0	1
67.5	1
68.0	0
68.5	1
69.0	0
69.5	0
70.0	0
70.5	0
71.0	0
71.5	0
72.0	0
72.5	0
73.0	0
73.5	0
74.0	0
74.5	0
75.0	0
75.5	0
76.0	0
76.5	0
77.0	0
77.5	0
78.0	0
78.5	0
79.0	0
79.5	0
80.0	0
80.5	0
81.0	0
81.5	0
82.0	0
82.5	0

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CANDELA TABULATION - (Cont.)

83.0	0
83.5	0
84.0	0
84.5	0
85.0	0
85.5	0
86.0	0
86.5	0
87.0	0
87.5	0
88.0	0
88.5	0
89.0	0
89.5	0
90.0	0
90.5	0
91.0	0
91.5	0
92.0	0
92.5	0
93.0	0
93.5	0
94.0	0
94.5	0
95.0	0
95.5	0
96.0	0
96.5	0
97.0	0
97.5	0
98.0	0
98.5	0
99.0	0
99.5	0
100.0	0
100.5	0
101.0	0
101.5	0
102.0	0
102.5	0
103.0	0
103.5	0
104.0	0
104.5	0
105.0	0
105.5	0
106.0	0
106.5	0
107.0	0
107.5	0
108.0	0
108.5	0
109.0	0
109.5	0
110.0	0
110.5	0

CANDELA TABULATION - (Cont.)

111.0	0
111.5	0
112.0	0
112.5	0
113.0	0
113.5	0
114.0	0
114.5	0
115.0	0
115.5	0
116.0	0
116.5	0
117.0	0
117.5	0
118.0	0
118.5	0
119.0	0
119.5	0
120.0	0
120.5	0
121.0	0
121.5	0
122.0	0
122.5	0
123.0	0
123.5	0
124.0	0
124.5	0
125.0	0
125.5	0
126.0	0
126.5	0
127.0	0
127.5	0
128.0	0
128.5	0
129.0	0
129.5	0
130.0	0
130.5	0
131.0	0
131.5	0
132.0	0
132.5	0
133.0	0
133.5	0
134.0	0
134.5	0
135.0	0
135.5	0
136.0	0
136.5	0
137.0	0
137.5	0
138.0	0
138.5	0

CANDELA TABULATION - (Cont.)

139.0	0
139.5	0
140.0	0
140.5	0
141.0	0
141.5	0
142.0	0
142.5	0
143.0	0
143.5	0
144.0	0
144.5	0
145.0	0
145.5	0
146.0	0
146.5	0
147.0	0
147.5	0
148.0	0
148.5	0
149.0	0
149.5	0
150.0	0
150.5	0
151.0	0
151.5	0
152.0	0
152.5	0
153.0	0
153.5	0
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154.5	0
155.0	0
155.5	0
156.0	0
156.5	0
157.0	0
157.5	0
158.0	0
158.5	0
159.0	0
159.5	0
160.0	0
160.5	0
161.0	0
161.5	0
162.0	0
162.5	0
163.0	0
163.5	0
164.0	0
164.5	0
165.0	0
165.5	0
166.0	0
166.5	0

CANDELA TABULATION - (Cont.)

167.0	0
167.5	0
168.0	0
168.5	0
169.0	0
169.5	0
170.0	0
170.5	0
171.0	0
171.5	0
172.0	0
172.5	0
173.0	0
173.5	0
174.0	0
174.5	0
175.0	0
175.5	0
176.0	0
176.5	0
177.0	0
177.5	0
178.0	0
178.5	0
179.0	0
179.5	0
180.0	0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1441.15	N.A.	71.90
0-30	1886.99	N.A.	94.20
0-40	1992.79	N.A.	99.40
0-60	2003.13	N.A.	100.00
0-80	2003.94	N.A.	100.00
0-90	2003.94	N.A.	100.00
10-90	1226.7	N.A.	61.20
20-40	551.63	N.A.	27.50
20-50	559.63	N.A.	27.90
40-70	11.15	N.A.	0.60
60-80	0.81	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	2003.94	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	777.25
10-20	663.91
20-30	445.84
30-40	105.79
40-50	7.99
50-60	2.34
60-70	0.81
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

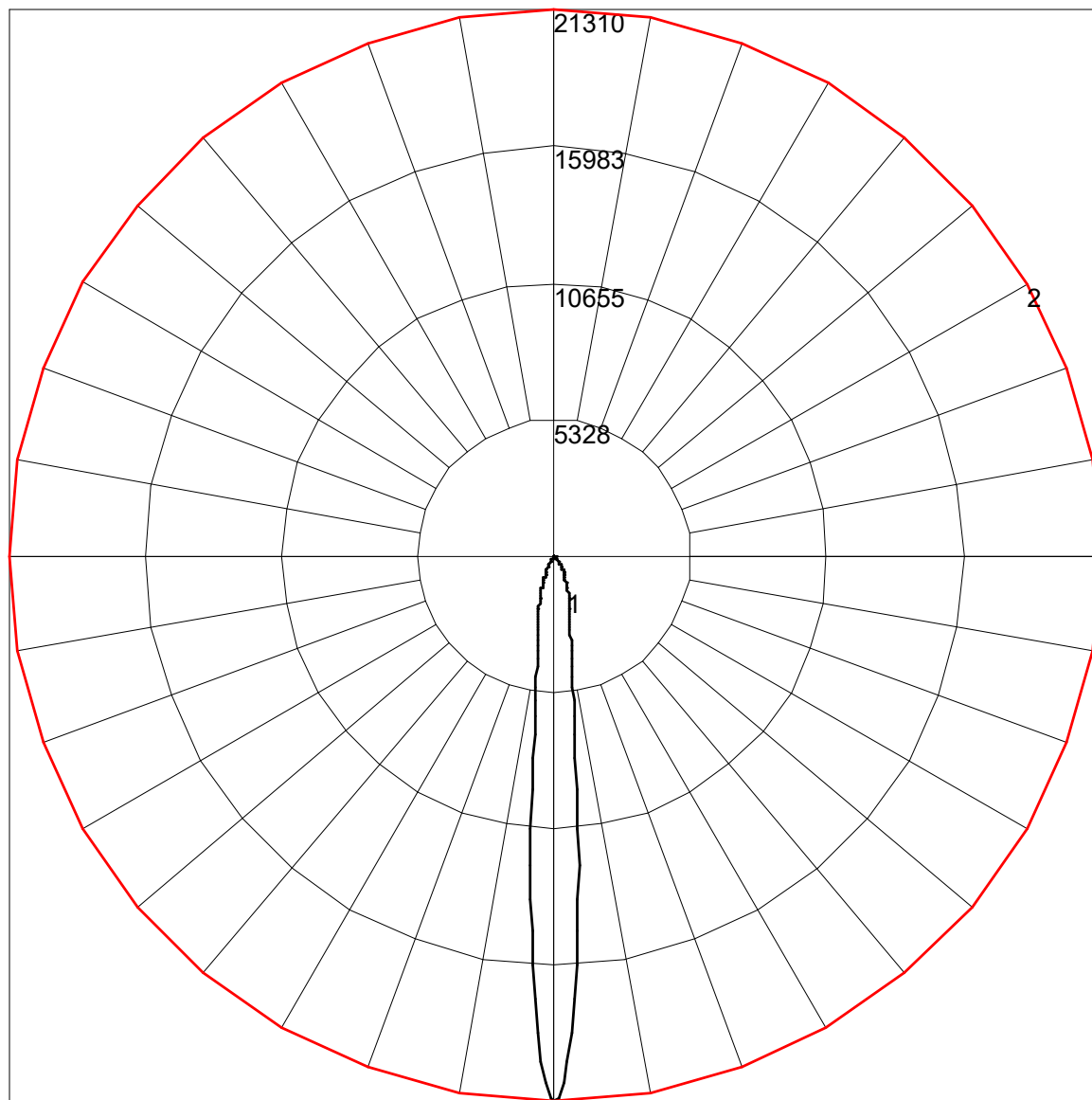
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UGR TABLE - CORRECTED

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					UGR Viewed Endwise				
X=2H	Y=2H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	3H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	4H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	6H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	8H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	12H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
4H	2H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	3H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	4H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	6H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	8H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	12H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
8H	4H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	6H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	8H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	12H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
12H	4H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	6H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	8H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7

Maximum UGR = 2.7

POLAR GRAPH



Maximum Candela = 21310 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.)