



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L15-927-XXX-DIM-UNV-LW-CS-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-L15-927-xxx-DIM-UNV-LW-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	755
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	54
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	20830	20830	20830
55	17116	17116	17116
65	12522	12522	12522
75	8669	8669	8669
85	4725	4725	4725

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CANDELA TABULATION

	<u>0</u>
0.0	530.231
0.5	530.064
1.0	529.729
1.5	529.282
2.0	528.835
2.5	528.332
3.0	527.662
3.5	527.271
4.0	526.992
4.5	526.825
5.0	526.601
5.5	526.378
6.0	526.210
6.5	525.987
7.0	525.819
7.5	525.708
8.0	525.652
8.5	525.484
9.0	525.317
9.5	524.982
10.0	524.758
10.5	524.368
11.0	523.977
11.5	523.474
12.0	522.916
12.5	522.246
13.0	521.464
13.5	520.570
14.0	519.453
14.5	518.113
15.0	516.494
15.5	514.539
16.0	512.361
16.5	509.793
17.0	507.000
17.5	503.873
18.0	500.187
18.5	496.390
19.0	492.258
19.5	487.623
20.0	482.541
20.5	477.013
21.0	471.037
21.5	464.615
22.0	457.523
22.5	449.984
23.0	441.887
23.5	433.176
24.0	423.794
24.5	413.798
25.0	402.964
25.5	391.628
26.0	379.510
26.5	366.666

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CANDELA TABULATION - (Cont.)

27.0	353.376
27.5	339.527
28.0	325.454
28.5	311.326
29.0	297.477
29.5	283.907
30.0	270.839
30.5	258.554
31.0	247.050
31.5	236.552
32.0	227.003
32.5	218.403
33.0	210.752
33.5	203.939
34.0	197.852
34.5	192.491
35.0	187.633
35.5	183.222
36.0	179.312
36.5	175.627
37.0	172.276
37.5	169.149
38.0	166.245
38.5	163.453
39.0	160.884
39.5	158.371
40.0	156.026
40.5	153.680
41.0	151.447
41.5	149.269
42.0	147.203
42.5	145.136
43.0	143.070
43.5	141.004
44.0	138.938
44.5	136.872
45.0	134.805
45.5	132.739
46.0	130.673
46.5	128.607
47.0	126.429
47.5	124.251
48.0	122.073
48.5	119.839
49.0	117.550
49.5	115.260
50.0	113.027
50.5	110.737
51.0	108.447
51.5	106.158
52.0	103.924
52.5	101.690
53.0	99.401
53.5	97.055
54.0	94.654
54.5	92.253

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CANDELA TABULATION - (Cont.)

55.0	89.852
55.5	87.450
56.0	85.105
56.5	82.815
57.0	80.526
57.5	78.236
58.0	76.003
58.5	73.825
59.0	71.647
59.5	69.525
60.0	67.459
60.5	65.392
61.0	63.382
61.5	61.428
62.0	59.473
62.5	57.518
63.0	55.653
63.5	53.799
64.0	51.979
64.5	50.186
65.0	48.433
65.5	46.724
66.0	45.038
66.5	43.396
67.0	41.793
67.5	40.218
68.0	38.694
68.5	37.203
69.0	35.712
69.5	34.271
70.0	32.869
70.5	31.490
71.0	30.144
71.5	28.832
72.0	27.564
72.5	26.313
73.0	25.096
73.5	23.912
74.0	22.751
74.5	21.628
75.0	20.534
75.5	19.473
76.0	18.434
76.5	17.423
77.0	16.457
77.5	15.496
78.0	14.569
78.5	13.670
79.0	12.788
79.5	11.939
80.0	11.107
80.5	10.297
81.0	9.499
81.5	8.723
82.0	7.963
82.5	7.226

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CANDELA TABULATION - (Cont.)

83.0	6.495
83.5	5.785
84.0	5.093
84.5	4.417
85.0	3.769
85.5	3.144
86.0	2.546
86.5	1.982
87.0	1.485
87.5	1.072
88.0	0.748
88.5	0.475
89.0	0.296
89.5	0.201
90.0	0.140
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

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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
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158.5	0.000
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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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Zone	Lumens	%Lamp	%Fixt
0-20	194.76	N.A.	25.80
0-30	373.58	N.A.	49.50
0-40	495.38	N.A.	65.60
0-60	679.50	N.A.	90.00
0-80	750.08	N.A.	99.40
0-90	754.80	N.A.	100.00
10-90	704.58	N.A.	93.30
20-40	300.62	N.A.	39.80
20-50	404.44	N.A.	53.60
40-70	232.55	N.A.	30.80
60-80	70.58	N.A.	9.40
70-80	22.15	N.A.	2.90
80-90	4.72	N.A.	0.60
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	754.81	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	50.22
10-20	144.54
20-30	178.82
30-40	121.80
40-50	103.82
50-60	80.30
60-70	48.43
70-80	22.15
80-90	4.72
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	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	19.6	21.0	20.0	21.3	21.6	19.6	21.0	20.0	21.3	21.6
	3H	20.7	21.9	21.1	22.3	22.6	20.7	21.9	21.1	22.3	22.6
	4H	21.1	22.2	21.5	22.6	22.9	21.1	22.2	21.5	22.6	22.9
	6H	21.3	22.3	21.7	22.7	23.1	21.3	22.3	21.7	22.7	23.1
	8H	21.3	22.3	21.8	22.7	23.1	21.3	22.3	21.8	22.7	23.1
	12H	21.3	22.3	21.8	22.7	23.1	21.3	22.3	21.8	22.7	23.1

UGR Viewed Endwise

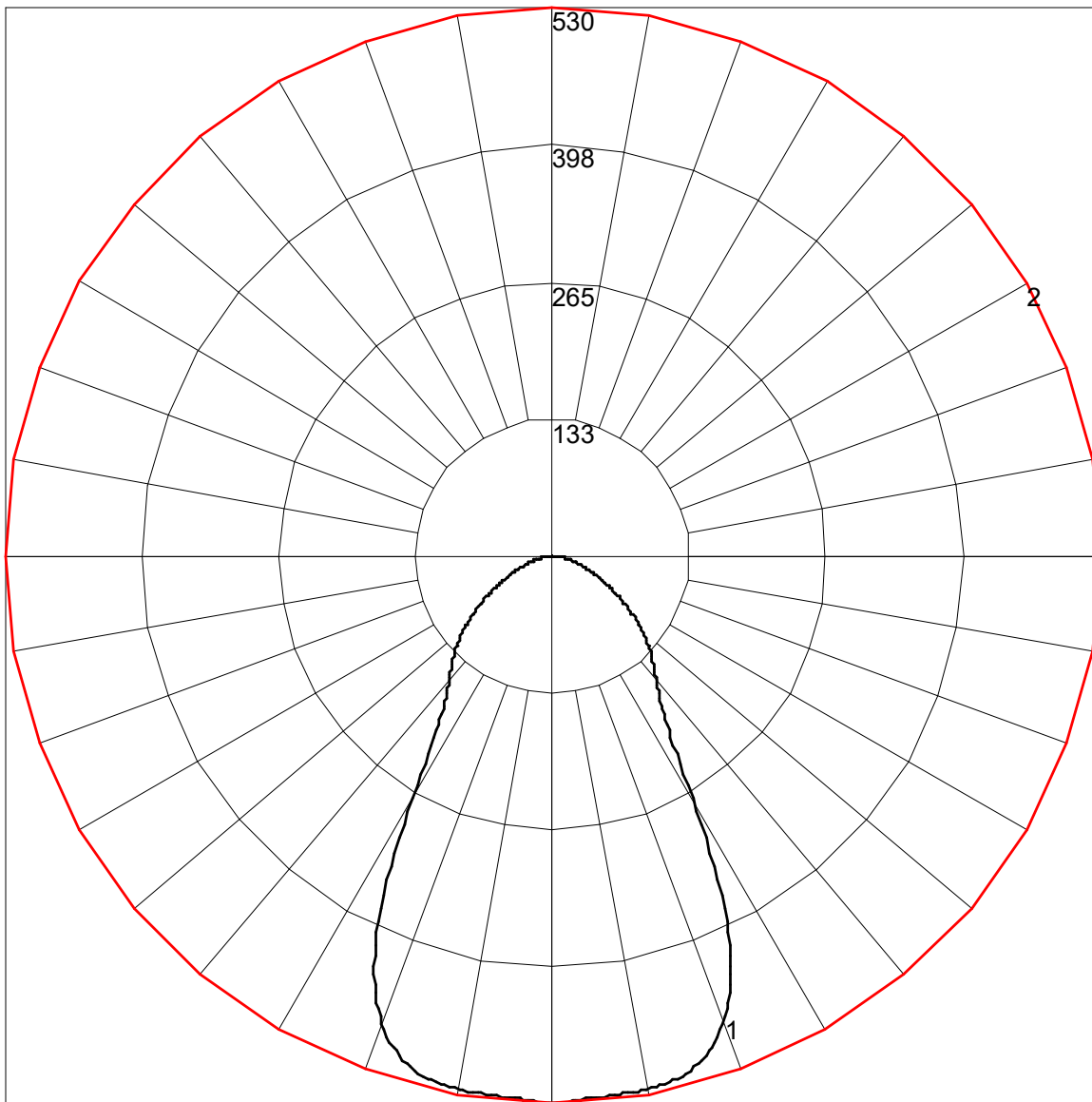
4H	2H	20.0	21.1	20.4	21.5	21.8	20.0	21.1	20.4	21.5	21.8
	3H	21.3	22.2	21.7	22.6	23.0	21.3	22.2	21.7	22.6	23.0
	4H	21.7	22.6	22.1	23.0	23.4	21.7	22.6	22.1	23.0	23.4
	6H	22.0	22.8	22.5	23.2	23.7	22.0	22.8	22.5	23.2	23.7
	8H	22.1	22.8	22.6	23.2	23.7	22.1	22.8	22.6	23.2	23.7
	12H	22.1	22.7	22.6	23.2	23.7	22.1	22.7	22.6	23.2	23.7

8H	4H	21.8	22.5	22.3	23.0	23.4	21.8	22.5	22.3	23.0	23.4
	6H	22.2	22.8	22.7	23.3	23.8	22.2	22.8	22.7	23.3	23.8
	8H	22.3	22.8	22.9	23.4	23.8	22.3	22.8	22.9	23.4	23.8
	12H	22.4	22.9	22.9	23.3	23.9	22.4	22.9	22.9	23.3	23.9

12H	4H	21.8	22.4	22.3	22.9	23.4	21.8	22.4	22.3	22.9	23.4
	6H	22.2	22.7	22.8	23.2	23.7	22.2	22.7	22.8	23.2	23.7
	8H	22.4	22.8	22.9	23.3	23.9	22.4	22.8	22.9	23.3	23.9

Maximum UGR = 23.9

POLAR GRAPH



Maximum Candela = 530.231 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.)