



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L10-927-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-L10-927-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	695
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	77
Total Luminaire Watts	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	19175	19175	19175
55	15756	15756	15756
65	11527	11527	11527
75	7980	7980	7980
85	4350	4350	4350

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CANDELA TABULATION

	<u>0</u>
0.0	488.094
0.5	487.939
1.0	487.631
1.5	487.220
2.0	486.808
2.5	486.346
3.0	485.729
3.5	485.369
4.0	485.112
4.5	484.958
5.0	484.752
5.5	484.547
6.0	484.392
6.5	484.187
7.0	484.033
7.5	483.930
8.0	483.878
8.5	483.724
9.0	483.570
9.5	483.261
10.0	483.056
10.5	482.696
11.0	482.336
11.5	481.873
12.0	481.359
12.5	480.743
13.0	480.023
13.5	479.200
14.0	478.172
14.5	476.939
15.0	475.448
15.5	473.649
16.0	471.644
16.5	469.279
17.0	466.709
17.5	463.830
18.0	460.437
18.5	456.942
19.0	453.138
19.5	448.871
20.0	444.193
20.5	439.104
21.0	433.604
21.5	427.692
22.0	421.164
22.5	414.224
23.0	406.770
23.5	398.751
24.0	390.115
24.5	380.913
25.0	370.941
25.5	360.506
26.0	349.351
26.5	337.527

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CANDELA TABULATION - (Cont.)

27.0	325.293
27.5	312.544
28.0	299.590
28.5	286.585
29.0	273.836
29.5	261.345
30.0	249.316
30.5	238.007
31.0	227.417
31.5	217.753
32.0	208.963
32.5	201.046
33.0	194.004
33.5	187.732
34.0	182.129
34.5	177.194
35.0	172.722
35.5	168.661
36.0	165.062
36.5	161.670
37.0	158.585
37.5	155.707
38.0	153.034
38.5	150.463
39.0	148.099
39.5	145.785
40.0	143.626
40.5	141.467
41.0	139.411
41.5	137.406
42.0	135.504
42.5	133.602
43.0	131.700
43.5	129.798
44.0	127.896
44.5	125.994
45.0	124.092
45.5	122.190
46.0	120.288
46.5	118.386
47.0	116.382
47.5	114.377
48.0	112.372
48.5	110.316
49.0	108.208
49.5	106.101
50.0	104.044
50.5	101.937
51.0	99.829
51.5	97.722
52.0	95.665
52.5	93.609
53.0	91.501
53.5	89.342
54.0	87.132
54.5	84.922

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CANDELA TABULATION - (Cont.)

55.0	82.711
55.5	80.501
56.0	78.342
56.5	76.234
57.0	74.126
57.5	72.019
58.0	69.963
58.5	67.958
59.0	65.953
59.5	64.000
60.0	62.098
60.5	60.196
61.0	58.345
61.5	56.546
62.0	54.747
62.5	52.947
63.0	51.231
63.5	49.524
64.0	47.848
64.5	46.198
65.0	44.584
65.5	43.011
66.0	41.458
66.5	39.947
67.0	38.472
67.5	37.022
68.0	35.619
68.5	34.246
69.0	32.874
69.5	31.547
70.0	30.257
70.5	28.987
71.0	27.749
71.5	26.541
72.0	25.374
72.5	24.222
73.0	23.102
73.5	22.012
74.0	20.943
74.5	19.909
75.0	18.902
75.5	17.925
76.0	16.969
76.5	16.038
77.0	15.149
77.5	14.265
78.0	13.412
78.5	12.584
79.0	11.772
79.5	10.990
80.0	10.225
80.5	9.479
81.0	8.744
81.5	8.030
82.0	7.330
82.5	6.652

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CANDELA TABULATION - (Cont.)

83.0	5.978
83.5	5.326
84.0	4.688
84.5	4.066
85.0	3.470
85.5	2.894
86.0	2.344
86.5	1.825
87.0	1.367
87.5	0.987
88.0	0.689
88.5	0.437
89.0	0.272
89.5	0.185
90.0	0.129
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
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127.0	0.000
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128.0	0.000
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129.0	0.000
129.5	0.000
130.0	0.000
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131.0	0.000
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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
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151.0	0.000
151.5	0.000
152.0	0.000
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153.5	0.000
154.0	0.000
154.5	0.000
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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	179.29	N.A.	25.80
0-30	343.89	N.A.	49.50
0-40	456.01	N.A.	65.60
0-60	625.50	N.A.	90.00
0-80	690.47	N.A.	99.40
0-90	694.82	N.A.	100.00
10-90	648.59	N.A.	93.30
20-40	276.73	N.A.	39.80
20-50	372.30	N.A.	53.60
40-70	214.07	N.A.	30.80
60-80	64.97	N.A.	9.40
70-80	20.39	N.A.	2.90
80-90	4.35	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	694.82	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	46.23
10-20	133.05
20-30	164.60
30-40	112.12
40-50	95.57
50-60	73.92
60-70	44.58
70-80	20.39
80-90	4.35
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

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	19.4	20.8	19.8	21.1	21.4	19.4	20.8	19.8	21.1	21.4
	3H	20.5	21.7	20.9	22.1	22.4	20.5	21.7	20.9	22.1	22.4
	4H	20.9	22.0	21.3	22.3	22.7	20.9	22.0	21.3	22.3	22.7
	6H	21.1	22.1	21.5	22.5	22.9	21.1	22.1	21.5	22.5	22.9
	8H	21.1	22.1	21.6	22.5	22.9	21.1	22.1	21.6	22.5	22.9
	12H	21.1	22.1	21.6	22.5	22.9	21.1	22.1	21.6	22.5	22.9

UGR Viewed Endwise

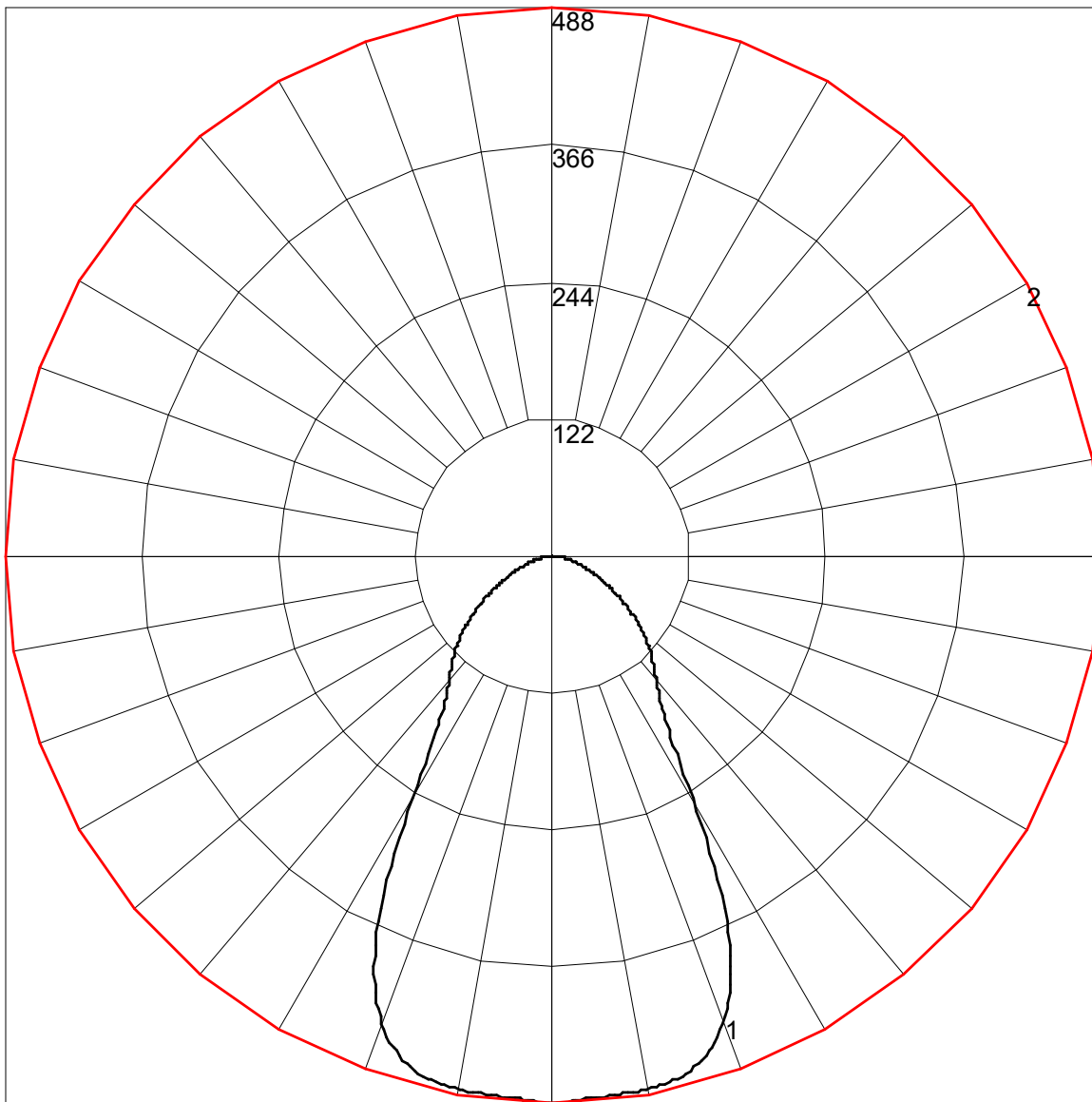
4H	2H	19.8	20.9	20.2	21.3	21.6	19.8	20.9	20.2	21.3	21.6
	3H	21.1	22.0	21.5	22.4	22.8	21.1	22.0	21.5	22.4	22.8
	4H	21.5	22.4	21.9	22.8	23.2	21.5	22.4	21.9	22.8	23.2
	6H	21.8	22.6	22.3	23.0	23.5	21.8	22.6	22.3	23.0	23.5
	8H	21.9	22.6	22.4	23.0	23.5	21.9	22.6	22.4	23.0	23.5
	12H	21.9	22.5	22.4	23.0	23.5	21.9	22.5	22.4	23.0	23.5

8H	4H	21.6	22.3	22.1	22.8	23.2	21.6	22.3	22.1	22.8	23.2
	6H	22.0	22.6	22.5	23.1	23.6	22.0	22.6	22.5	23.1	23.6
	8H	22.1	22.6	22.6	23.2	23.6	22.1	22.6	22.6	23.2	23.6
	12H	22.2	22.6	22.7	23.1	23.7	22.2	22.6	22.7	23.1	23.7

12H	4H	21.6	22.2	22.1	22.7	23.2	21.6	22.2	22.1	22.7	23.2
	6H	22.0	22.5	22.6	23.0	23.5	22.0	22.5	22.6	23.0	23.5
	8H	22.2	22.6	22.7	23.1	23.7	22.2	22.6	22.7	23.1	23.7

Maximum UGR = 23.7

POLAR GRAPH



Maximum Candela = 488.094 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.)