

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L20-927-XXX-DIM-UNV-OM-SG-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from 12316380.04

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 08-11-2023

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 6CR-TL-L20-927-xxx-DIM-UNV-OM-SG-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	1400
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	71
Total Luminaire Watts	19.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.76
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	3476	3476	3476
55	1009	1009	1009
65	354	354	354
75	158	158	158
85	78	78	78

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CANDELA TABULATION

	<u>0</u>
0.0	2832.459
0.5	2834.557
1.0	2842.947
1.5	2850.638
2.0	2868.118
2.5	2879.305
3.0	2881.403
3.5	2882.102
4.0	2866.021
4.5	2844.345
5.0	2803.093
5.5	2750.653
6.0	2691.920
6.5	2626.195
7.0	2554.877
7.5	2480.762
8.0	2404.549
8.5	2329.035
9.0	2254.920
9.5	2182.902
10.0	2114.381
10.5	2050.054
11.0	1989.923
11.5	1933.288
12.0	1879.450
12.5	1829.107
13.0	1781.562
13.5	1736.114
14.0	1692.763
14.5	1652.909
15.0	1616.550
15.5	1584.387
16.0	1557.818
16.5	1534.045
17.0	1511.670
17.5	1492.093
18.0	1474.613
18.5	1459.930
19.0	1449.442
19.5	1440.352
20.0	1432.661
20.5	1423.571
21.0	1414.482
21.5	1404.693
22.0	1394.205
22.5	1380.920
23.0	1364.838
23.5	1345.261
24.0	1320.789
24.5	1288.626
25.0	1251.568
25.5	1212.413
26.0	1173.957
26.5	1131.306

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CANDELA TABULATION - (Cont.)

27.0	1086.557
27.5	1035.515
28.0	977.482
28.5	913.854
29.0	847.430
29.5	779.608
30.0	707.590
30.5	632.986
31.0	554.885
31.5	477.064
32.0	402.250
32.5	332.260
33.0	271.360
33.5	219.409
34.0	175.639
34.5	139.281
35.0	109.774
35.5	87.540
36.0	73.276
36.5	65.795
37.0	61.320
37.5	57.404
38.0	53.978
38.5	50.832
39.0	47.965
39.5	45.378
40.0	42.931
40.5	40.624
41.0	38.456
41.5	36.498
42.0	34.610
42.5	32.862
43.0	31.114
43.5	29.576
44.0	28.038
44.5	26.570
45.0	25.241
45.5	23.913
46.0	22.584
46.5	21.326
47.0	19.997
47.5	18.739
48.0	17.550
48.5	16.431
49.0	15.312
49.5	14.194
50.0	13.075
50.5	12.026
51.0	11.117
51.5	10.278
52.0	9.439
52.5	8.740
53.0	8.041
53.5	7.481
54.0	6.922
54.5	6.363

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CANDELA TABULATION - (Cont.)

55.0	5.943
55.5	5.524
56.0	5.104
56.5	4.755
57.0	4.405
57.5	4.125
58.0	3.846
58.5	3.566
59.0	3.356
59.5	3.146
60.0	2.937
60.5	2.727
61.0	2.587
61.5	2.377
62.0	2.237
62.5	2.098
63.0	1.958
63.5	1.888
64.0	1.748
64.5	1.608
65.0	1.538
65.5	1.468
66.0	1.328
66.5	1.259
67.0	1.189
67.5	1.119
68.0	1.049
68.5	0.979
69.0	0.909
69.5	0.839
70.0	0.769
70.5	0.769
71.0	0.699
71.5	0.629
72.0	0.559
72.5	0.559
73.0	0.489
73.5	0.489
74.0	0.420
74.5	0.420
75.0	0.420
75.5	0.350
76.0	0.350
76.5	0.280
77.0	0.280
77.5	0.280
78.0	0.210
78.5	0.210
79.0	0.210
79.5	0.210
80.0	0.140
80.5	0.140
81.0	0.140
81.5	0.140
82.0	0.140
82.5	0.140

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CANDELA TABULATION - (Cont.)

83.0	0.140
83.5	0.070
84.0	0.070
84.5	0.070
85.0	0.070
85.5	0.070
86.0	0.070
86.5	0.070
87.0	0.070
87.5	0.070
88.0	0.000
88.5	0.000
89.0	0.000
89.5	0.000
90.0	0.000
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
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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Zone	Lumens	%Lamp	%Fixt
0-20	706.08	N.A.	50.40
0-30	1247.11	N.A.	89.10
0-40	1372.00	N.A.	98.00
0-60	1397.71	N.A.	99.80
0-80	1399.76	N.A.	100.00
0-90	1399.84	N.A.	100.00
10-90	1157.3	N.A.	82.70
20-40	665.91	N.A.	47.60
20-50	685.79	N.A.	49.00
40-70	27.33	N.A.	2.00
60-80	2.05	N.A.	0.10
70-80	0.44	N.A.	0.00
80-90	0.08	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	1399.84	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	242.54
10-20	463.54
20-30	541.03
30-40	124.89
40-50	19.87
50-60	5.84
60-70	1.61
70-80	0.44
80-90	0.08
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	114	112	109	107	112	110	108	106	106	104	103	102	101	99	98	98	97	95
2	109	105	102	99	107	103	100	97	100	98	95	97	95	93	95	93	91	90
3	105	99	95	91	103	98	94	91	95	92	89	93	90	88	91	88	87	85
4	100	94	89	85	99	93	88	85	91	87	84	89	86	83	87	84	82	81
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76
6	92	85	79	76	91	84	79	75	82	78	75	81	77	74	80	76	74	73
7	89	80	75	72	87	80	75	71	79	74	71	78	74	71	76	73	70	69
8	85	77	72	68	84	76	71	68	75	71	68	74	70	67	73	70	67	66
9	82	73	68	65	81	73	68	65	72	67	64	71	67	64	70	67	64	63
10	79	70	65	62	78	70	65	62	69	64	61	68	64	61	67	64	61	60

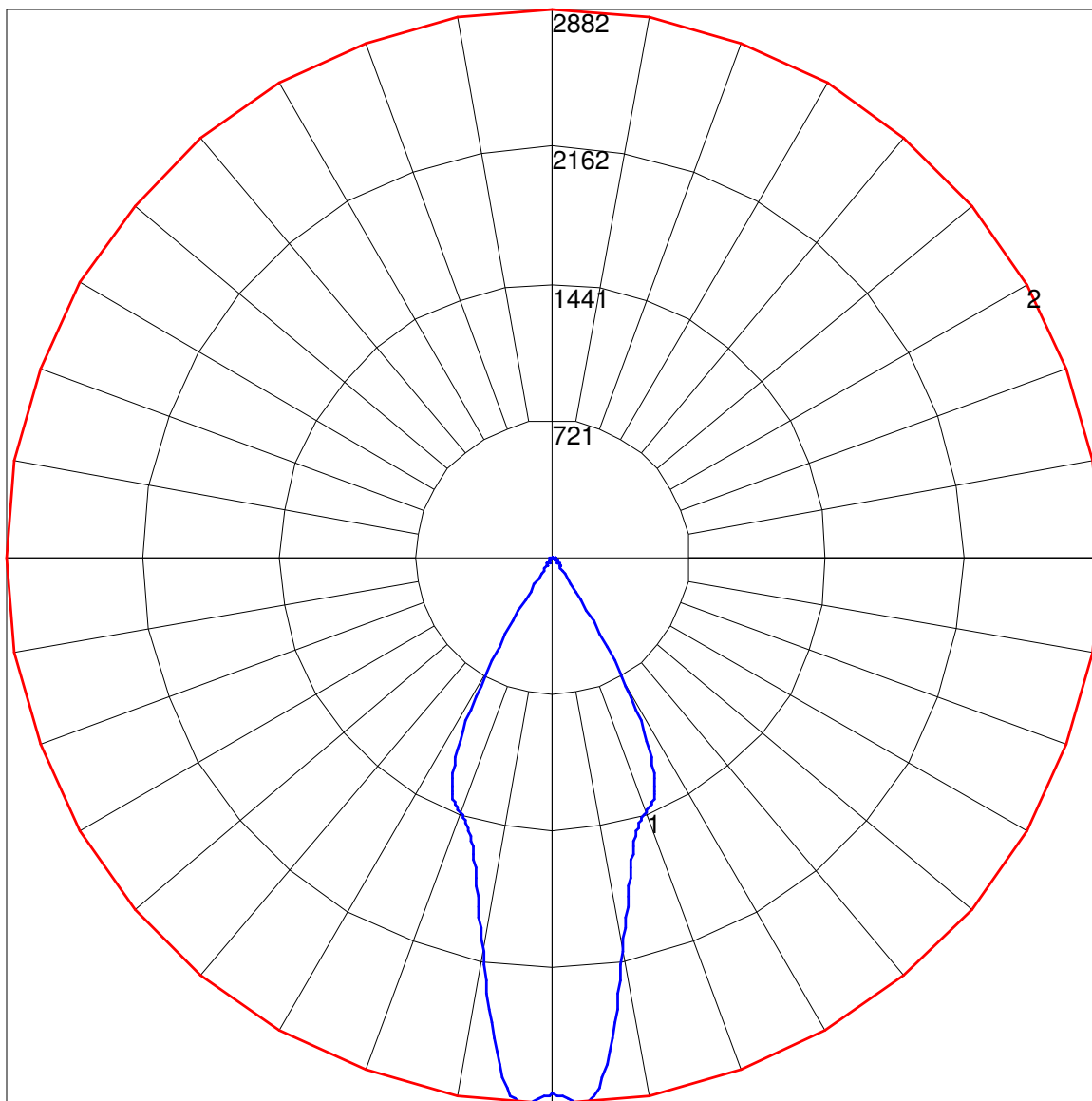
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UGR TABLE - CORRECTED

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	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	3H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	4H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	6H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	8H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	12H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
4H	2H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	3H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	4H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	6H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	8H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	12H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
8H	4H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	6H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	8H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	12H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
12H	4H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	6H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	8H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2

Maximum UGR = 1.2

POLAR GRAPH



Maximum Candela = 2882.102 Located At Horizontal Angle = 0, Vertical Angle = 3.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (3.5) (Through Max. Cd.)