



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L15-940-XXX-DIM-UNV-OM-CS-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12316380.04
 [TESTLAB] UL Verification Services Inc.
 [ISSUE DATE] 26-JAN-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 6CR-TL-L15-940-xxx-DIM-UNV-OM-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	1339
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	96
Total Luminaire Watts	13.9
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	3324	3324	3324
55	965	965	965
65	339	339	339
75	151	151	151
85	75	75	75

CANDELA TABULATION

	<u>0</u>
0.0	2708.646
0.5	2710.652
1.0	2718.676
1.5	2726.031
2.0	2742.746
2.5	2753.445
3.0	2755.451
3.5	2756.119
4.0	2740.741
4.5	2720.013
5.0	2680.563
5.5	2630.416
6.0	2574.250
6.5	2511.398
7.0	2443.197
7.5	2372.322
8.0	2299.441
8.5	2227.228
9.0	2156.352
9.5	2087.483
10.0	2021.956
10.5	1960.442
11.0	1902.939
11.5	1848.780
12.0	1797.295
12.5	1749.153
13.0	1703.686
13.5	1660.224
14.0	1618.769
14.5	1580.656
15.0	1545.887
15.5	1515.130
16.0	1489.722
16.5	1466.988
17.0	1445.592
17.5	1426.870
18.0	1410.154
18.5	1396.113
19.0	1386.083
19.5	1377.391
20.0	1370.036
20.5	1361.344
21.0	1352.651
21.5	1343.290
22.0	1333.261
22.5	1320.557
23.0	1305.178
23.5	1286.456
24.0	1263.054
24.5	1232.297
25.0	1196.859
25.5	1159.415
26.0	1122.640
26.5	1081.854

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CANDELA TABULATION - (Cont.)

27.0	1039.061
27.5	990.250
28.0	934.754
28.5	873.908
29.0	810.387
29.5	745.530
30.0	676.660
30.5	605.317
31.0	530.630
31.5	456.211
32.0	384.667
32.5	317.736
33.0	259.498
33.5	209.818
34.0	167.961
34.5	133.192
35.0	104.976
35.5	83.713
36.0	70.073
36.5	62.919
37.0	58.639
37.5	54.895
38.0	51.619
38.5	48.610
39.0	45.868
39.5	43.395
40.0	41.054
40.5	38.848
41.0	36.775
41.5	34.903
42.0	33.098
42.5	31.426
43.0	29.754
43.5	28.283
44.0	26.812
44.5	25.408
45.0	24.138
45.5	22.867
46.0	21.597
46.5	20.393
47.0	19.123
47.5	17.919
48.0	16.783
48.5	15.713
49.0	14.643
49.5	13.573
50.0	12.504
50.5	11.501
51.0	10.631
51.5	9.829
52.0	9.027
52.5	8.358
53.0	7.689
53.5	7.154
54.0	6.620
54.5	6.085

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CANDELA TABULATION - (Cont.)

55.0	5.683
55.5	5.282
56.0	4.881
56.5	4.547
57.0	4.212
57.5	3.945
58.0	3.678
58.5	3.410
59.0	3.209
59.5	3.009
60.0	2.808
60.5	2.608
61.0	2.474
61.5	2.273
62.0	2.140
62.5	2.006
63.0	1.872
63.5	1.805
64.0	1.672
64.5	1.538
65.0	1.471
65.5	1.404
66.0	1.270
66.5	1.204
67.0	1.137
67.5	1.070
68.0	1.003
68.5	0.936
69.0	0.869
69.5	0.802
70.0	0.736
70.5	0.736
71.0	0.669
71.5	0.602
72.0	0.535
72.5	0.535
73.0	0.468
73.5	0.468
74.0	0.401
74.5	0.401
75.0	0.401
75.5	0.334
76.0	0.334
76.5	0.267
77.0	0.267
77.5	0.267
78.0	0.201
78.5	0.201
79.0	0.201
79.5	0.201
80.0	0.134
80.5	0.134
81.0	0.134
81.5	0.134
82.0	0.134
82.5	0.134

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CANDELA TABULATION - (Cont.)

83.0	0.134
83.5	0.067
84.0	0.067
84.5	0.067
85.0	0.067
85.5	0.067
86.0	0.067
86.5	0.067
87.0	0.067
87.5	0.067
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
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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

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
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154.5	0.000
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157.5	0.000
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159.0	0.000
159.5	0.000
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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

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	675.22	N.A.	50.40
0-30	1192.59	N.A.	89.10
0-40	1312.02	N.A.	98.00
0-60	1336.61	N.A.	99.80
0-80	1338.57	N.A.	100.00
0-90	1338.65	N.A.	100.00
10-90	1106.72	N.A.	82.70
20-40	636.81	N.A.	47.60
20-50	655.81	N.A.	49.00
40-70	26.13	N.A.	2.00
60-80	1.96	N.A.	0.10
70-80	0.42	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	1338.65	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	231.94
10-20	443.28
20-30	517.38
30-40	119.43
40-50	19.00
50-60	5.59
60-70	1.54
70-80	0.42
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	97	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

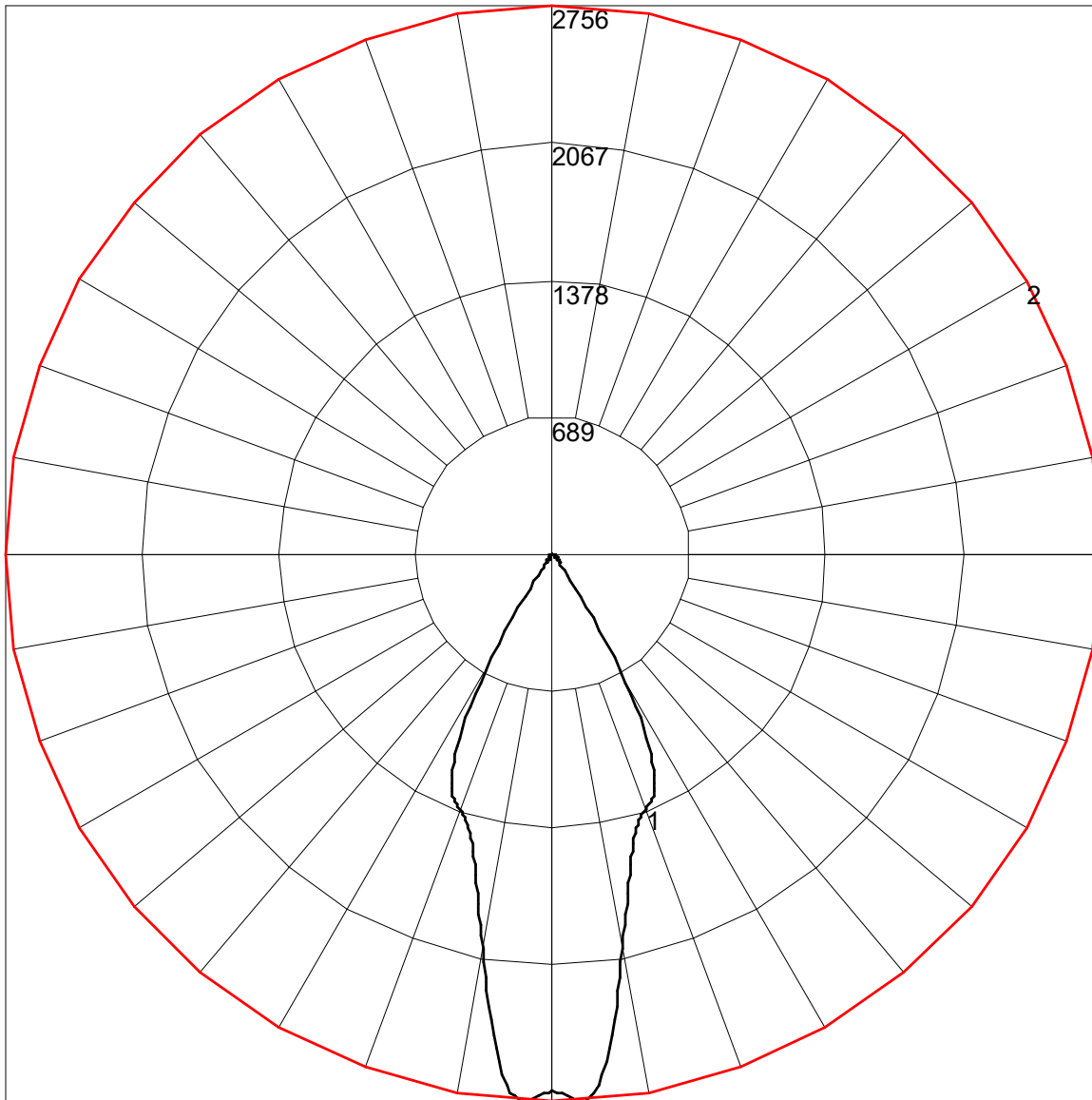
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UGR TABLE - CORRECTED

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	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	3H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	4H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	6H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	8H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	12H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
4H	2H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	3H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	4H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	6H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	8H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	12H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
8H	4H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	6H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	8H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	12H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
12H	4H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	6H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	8H	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1

Maximum UGR = 1.1

POLAR GRAPH



Maximum Candela = 2756.119 Located At Horizontal Angle = 0, Vertical Angle = 3.5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (3.5) (Through Max. Cd.)