



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L40-927-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] 28-JAN-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 6CR-TL-L40-927-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	2047
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	54
Total Luminaire Watts	38
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	56503	56503	56503
55	46428	46428	46428
65	33966	33966	33966
75	23514	23514	23514
85	12818	12818	12818

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CANDELA TABULATION

	<u>0</u>
0.0	1438.296
0.5	1437.842
1.0	1436.933
1.5	1435.721
2.0	1434.509
2.5	1433.146
3.0	1431.328
3.5	1430.268
4.0	1429.510
4.5	1429.056
5.0	1428.450
5.5	1427.844
6.0	1427.389
6.5	1426.784
7.0	1426.329
7.5	1426.026
8.0	1425.875
8.5	1425.420
9.0	1424.966
9.5	1424.057
10.0	1423.451
10.5	1422.391
11.0	1421.330
11.5	1419.967
12.0	1418.452
12.5	1416.634
13.0	1414.514
13.5	1412.090
14.0	1409.060
14.5	1405.425
15.0	1401.032
15.5	1395.730
16.0	1389.823
16.5	1382.855
17.0	1375.281
17.5	1366.798
18.0	1356.800
18.5	1346.500
19.0	1335.290
19.5	1322.717
20.0	1308.933
20.5	1293.936
21.0	1277.728
21.5	1260.308
22.0	1241.070
22.5	1220.620
23.0	1198.656
23.5	1175.025
24.0	1149.576
24.5	1122.462
25.0	1093.075
25.5	1062.324
26.0	1029.453
26.5	994.613

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CANDELA TABULATION - (Cont.)

27.0	958.561
27.5	920.994
28.0	882.821
28.5	844.497
29.0	806.930
29.5	770.121
30.0	734.675
30.5	701.349
31.0	670.144
31.5	641.666
32.0	615.763
32.5	592.436
33.0	571.683
33.5	553.202
34.0	536.691
34.5	522.149
35.0	508.970
35.5	497.004
36.0	486.400
36.5	476.402
37.0	467.314
37.5	458.831
38.0	450.954
38.5	443.380
39.0	436.412
39.5	429.595
40.0	423.233
40.5	416.871
41.0	410.812
41.5	404.904
42.0	399.299
42.5	393.695
43.0	388.090
43.5	382.485
44.0	376.881
44.5	371.276
45.0	365.671
45.5	360.066
46.0	354.462
46.5	348.857
47.0	342.949
47.5	337.041
48.0	331.134
48.5	325.075
49.0	318.864
49.5	312.653
50.0	306.594
50.5	300.383
51.0	294.173
51.5	287.962
52.0	281.903
52.5	275.844
53.0	269.633
53.5	263.271
54.0	256.757
54.5	250.244

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CANDELA TABULATION - (Cont.)

55.0	243.730
55.5	237.217
56.0	230.854
56.5	224.644
57.0	218.433
57.5	212.223
58.0	206.163
58.5	200.256
59.0	194.348
59.5	188.592
60.0	182.987
60.5	177.382
61.0	171.929
61.5	166.627
62.0	161.325
62.5	156.024
63.0	150.964
63.5	145.935
64.0	140.997
64.5	136.134
65.0	131.378
65.5	126.743
66.0	122.168
66.5	117.715
67.0	113.367
67.5	109.095
68.0	104.960
68.5	100.916
69.0	96.871
69.5	92.963
70.0	89.161
70.5	85.419
71.0	81.769
71.5	78.209
72.0	74.770
72.5	71.377
73.0	68.075
73.5	64.863
74.0	61.713
74.5	58.668
75.0	55.699
75.5	52.821
76.0	50.003
76.5	47.262
77.0	44.641
77.5	42.036
78.0	39.521
78.5	37.082
79.0	34.689
79.5	32.386
80.0	30.129
80.5	27.933
81.0	25.767
81.5	23.661
82.0	21.601
82.5	19.601

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CANDELA TABULATION - (Cont.)

83.0	17.617
83.5	15.693
84.0	13.815
84.5	11.982
85.0	10.225
85.5	8.528
86.0	6.907
86.5	5.378
87.0	4.029
87.5	2.908
88.0	2.030
88.5	1.288
89.0	0.803
89.5	0.545
90.0	0.379
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
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102.5	0.000
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103.5	0.000
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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
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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
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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	528.31	N.A.	25.80
0-30	1013.37	N.A.	49.50
0-40	1343.77	N.A.	65.60
0-60	1843.21	N.A.	90.00
0-80	2034.67	N.A.	99.40
0-90	2047.47	N.A.	100.00
10-90	1911.24	N.A.	93.30
20-40	815.45	N.A.	39.80
20-50	1097.07	N.A.	53.60
40-70	630.81	N.A.	30.80
60-80	191.46	N.A.	9.40
70-80	60.09	N.A.	2.90
80-90	12.81	N.A.	0.60
90-110	0.01	N.A.	0.00
90-120	0.01	N.A.	0.00
90-130	0.01	N.A.	0.00
90-150	0.01	N.A.	0.00
90-180	0.01	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2047.48	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	136.23
10-20	392.08
20-30	485.05
30-40	330.40
40-50	281.62
50-60	217.83
60-70	131.36
70-80	60.09
80-90	12.81
90-100	0.01
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	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89
2	103	97	91	87	101	95	90	86	92	88	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

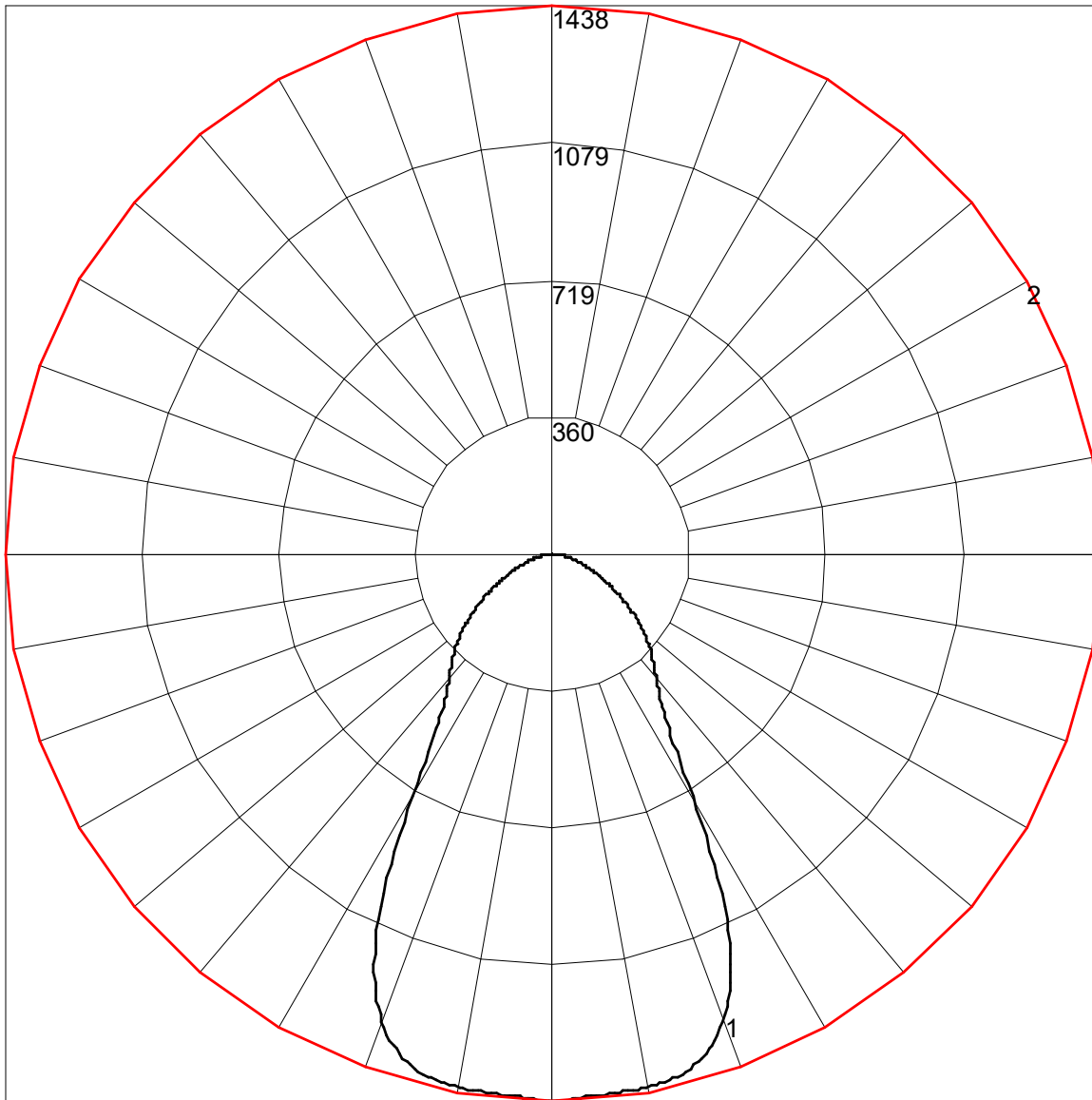
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UGR TABLE - CORRECTED

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					UGR Viewed Endwise				
X=2H	Y=2H	23.1	24.5	23.5	24.8	25.1	23.1	24.5	23.5	24.8	25.1
	3H	24.2	25.4	24.6	25.8	26.1	24.2	25.4	24.6	25.8	26.1
	4H	24.6	25.7	25.0	26.1	26.4	24.6	25.7	25.0	26.1	26.4
	6H	24.8	25.8	25.2	26.2	26.6	24.8	25.8	25.2	26.2	26.6
	8H	24.8	25.8	25.3	26.2	26.6	24.8	25.8	25.3	26.2	26.6
	12H	24.8	25.8	25.3	26.2	26.6	24.8	25.8	25.3	26.2	26.6
4H	2H	23.5	24.6	23.9	25.0	25.3	23.5	24.6	23.9	25.0	25.3
	3H	24.8	25.7	25.2	26.1	26.5	24.8	25.7	25.2	26.1	26.5
	4H	25.2	26.1	25.6	26.5	26.9	25.2	26.1	25.6	26.5	26.9
	6H	25.5	26.3	26.0	26.7	27.2	25.5	26.3	26.0	26.7	27.2
	8H	25.6	26.3	26.1	26.7	27.2	25.6	26.3	26.1	26.7	27.2
	12H	25.6	26.2	26.1	26.7	27.2	25.6	26.2	26.1	26.7	27.2
8H	4H	25.3	26.0	25.8	26.5	26.9	25.3	26.0	25.8	26.5	26.9
	6H	25.7	26.3	26.2	26.8	27.3	25.7	26.3	26.2	26.8	27.3
	8H	25.8	26.3	26.4	26.9	27.3	25.8	26.3	26.4	26.9	27.3
	12H	25.9	26.4	26.4	26.8	27.4	25.9	26.4	26.4	26.8	27.4
12H	4H	25.3	25.9	25.8	26.4	26.9	25.3	25.9	25.8	26.4	26.9
	6H	25.7	26.2	26.3	26.7	27.2	25.7	26.2	26.3	26.7	27.2
	8H	25.9	26.3	26.4	26.8	27.4	25.9	26.3	26.4	26.8	27.4

Maximum UGR = 27.4

POLAR GRAPH



Maximum Candela = 1438.296 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.)