



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-L30-935-XXX-DIM-UNV-RW-WH-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12316380.12

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 27-JAN-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 6CR-TL-L30-935-xxx-DIM-UNV-RW-WH-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	1585
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	57
Total Luminaire Watts	27.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.98
Spacing Criterion (90-270)	0.98
Spacing Criterion (Diagonal)	0.88
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	36672	36672	36672
55	29611	29611	29611
65	19156	19156	19156
75	10681	10681	10681
85	5487	5487	5487

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CANDELA TABULATION

	<u>0</u>
0.0	1273.511
0.5	1273.511
1.0	1272.313
1.5	1269.917
2.0	1267.521
2.5	1265.125
3.0	1261.531
3.5	1257.937
4.0	1254.343
4.5	1249.551
5.0	1245.956
5.5	1241.164
6.0	1236.372
6.5	1231.580
7.0	1226.788
7.5	1221.996
8.0	1217.204
8.5	1211.213
9.0	1206.421
9.5	1201.629
10.0	1197.077
10.5	1192.165
11.0	1187.133
11.5	1182.221
12.0	1177.549
12.5	1172.876
13.0	1168.204
13.5	1163.412
14.0	1158.620
14.5	1153.828
15.0	1148.916
15.5	1143.884
16.0	1138.612
16.5	1133.341
17.0	1127.950
17.5	1122.199
18.0	1116.089
18.5	1109.500
19.0	1103.151
19.5	1096.322
20.0	1088.894
20.5	1080.388
21.0	1070.564
21.5	1059.902
22.0	1047.682
22.5	1034.144
23.0	1018.809
23.5	1001.557
24.0	982.628
24.5	961.183
25.0	937.223
25.5	910.746
26.0	882.113
26.5	851.683

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CANDELA TABULATION - (Cont.)

27.0	819.696
27.5	787.229
28.0	753.205
28.5	719.540
29.0	685.995
29.5	652.450
30.0	619.504
30.5	587.157
31.0	556.607
31.5	527.016
32.0	499.101
32.5	473.104
33.0	449.024
33.5	427.339
34.0	407.811
34.5	390.799
35.0	375.824
35.5	363.124
36.0	351.983
36.5	342.638
37.0	334.372
37.5	327.303
38.0	320.834
38.5	315.083
39.0	309.932
39.5	305.259
40.0	301.066
40.5	297.113
41.0	293.279
41.5	289.805
42.0	286.330
42.5	283.096
43.0	279.861
43.5	276.506
44.0	273.152
44.5	269.797
45.0	266.323
45.5	262.729
46.0	259.015
46.5	255.181
47.0	251.228
47.5	247.155
48.0	243.081
48.5	238.768
49.0	234.336
49.5	229.663
50.0	224.991
50.5	220.199
51.0	215.167
51.5	210.255
52.0	205.223
52.5	200.192
53.0	195.400
53.5	190.128
54.0	184.857
54.5	179.585

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CANDELA TABULATION - (Cont.)

55.0	174.434
55.5	169.163
56.0	164.011
56.5	158.979
57.0	153.947
57.5	148.916
58.0	144.004
58.5	139.212
59.0	134.420
59.5	129.747
60.0	125.075
60.5	120.522
61.0	116.090
61.5	111.657
62.0	107.464
62.5	103.151
63.0	99.077
63.5	94.884
64.0	90.931
64.5	86.977
65.0	83.144
65.5	79.310
66.0	75.596
66.5	72.002
67.0	68.528
67.5	65.053
68.0	61.699
68.5	58.344
69.0	55.110
69.5	51.995
70.0	49.119
70.5	46.364
71.0	43.848
71.5	41.452
72.0	39.176
72.5	37.019
73.0	34.983
73.5	33.186
74.0	31.389
74.5	29.831
75.0	28.393
75.5	27.076
76.0	25.638
76.5	24.320
77.0	23.002
77.5	21.684
78.0	20.486
78.5	19.169
79.0	17.971
79.5	16.772
80.0	15.574
80.5	14.376
81.0	13.298
81.5	12.220
82.0	11.022
82.5	10.063

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CANDELA TABULATION - (Cont.)

83.0	8.985
83.5	7.907
84.0	6.949
84.5	5.870
85.0	4.912
85.5	4.073
86.0	3.235
86.5	2.636
87.0	2.037
87.5	1.557
88.0	1.078
88.5	0.719
89.0	0.359
89.5	0.120
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
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127.0	0.000
127.5	0.000
128.0	0.000
128.5	0.000
129.0	0.000
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130.0	0.000
130.5	0.000
131.0	0.000
131.5	0.000
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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
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157.5	0.000
158.0	0.000
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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

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	440.81	N.A.	27.80
0-30	853.02	N.A.	53.80
0-40	1104.21	N.A.	69.60
0-60	1464.35	N.A.	92.40
0-80	1578.94	N.A.	99.60
0-90	1585.42	N.A.	100.00
10-90	1468.13	N.A.	92.60
20-40	663.41	N.A.	41.80
20-50	867.78	N.A.	54.70
40-70	443.43	N.A.	28.00
60-80	114.59	N.A.	7.20
70-80	31.29	N.A.	2.00
80-90	6.48	N.A.	0.40
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	1585.42	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	117.29
10-20	323.51
20-30	412.21
30-40	251.20
40-50	204.38
50-60	155.76
60-70	83.30
70-80	31.29
80-90	6.48
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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72
4	91	82	75	70	89	80	74	69	78	73	68	76	71	67	74	70	67	65
5	85	75	68	63	84	74	67	62	72	66	62	70	65	61	69	64	61	59
6	80	69	62	57	79	69	62	57	67	61	56	65	60	56	64	59	55	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39

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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

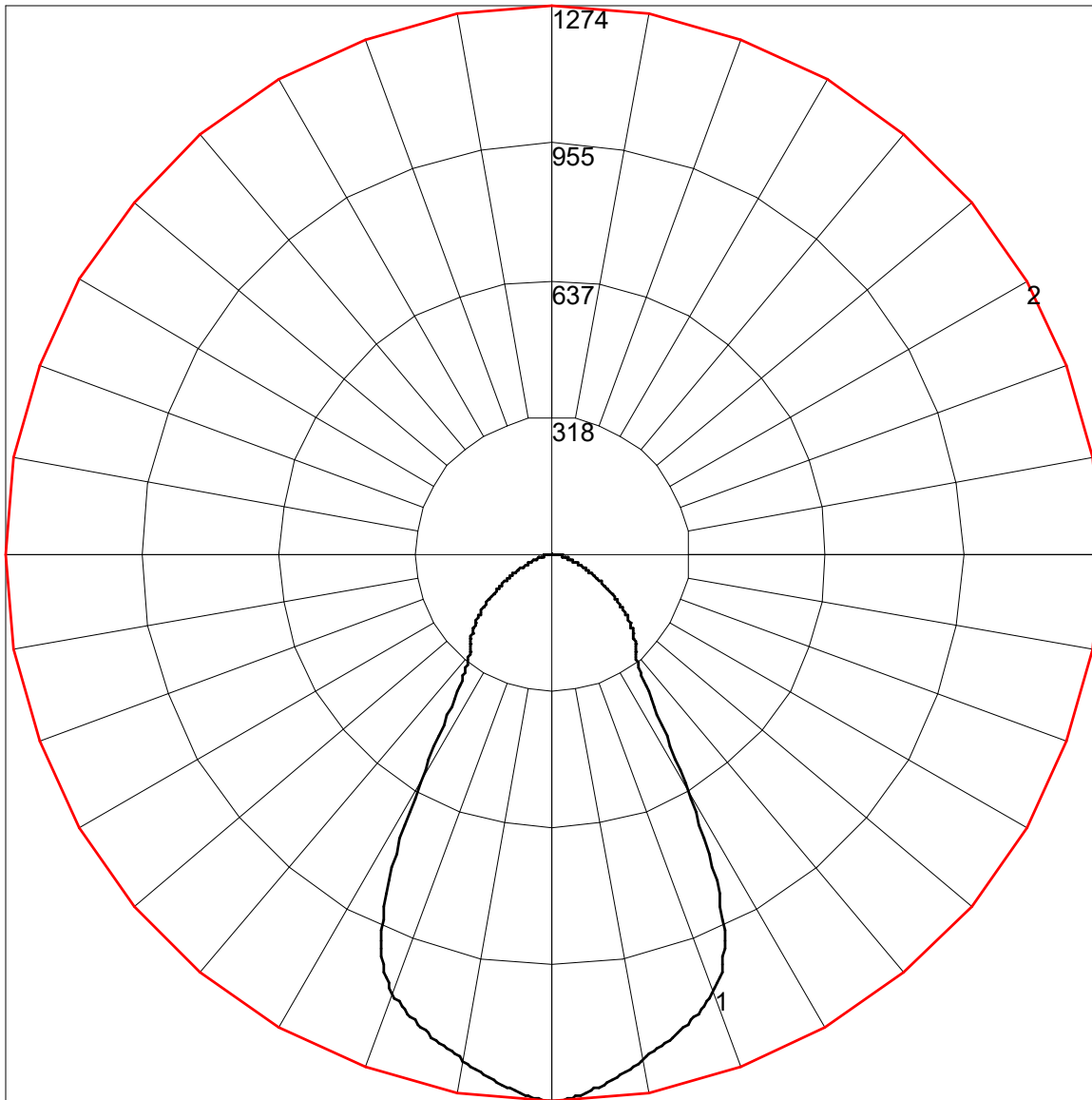
X=2H	Y=2H	21.2	22.5	21.6	22.8	23.1	21.2	22.5	21.6	22.8	23.1
	3H	22.0	23.1	22.3	23.5	23.8	22.0	23.1	22.3	23.5	23.8
	4H	22.1	23.2	22.5	23.6	23.9	22.1	23.2	22.5	23.6	23.9
	6H	22.2	23.2	22.7	23.6	24.0	22.2	23.2	22.7	23.6	24.0
	8H	22.3	23.2	22.7	23.6	24.0	22.3	23.2	22.7	23.6	24.0
	12H	22.2	23.1	22.7	23.5	24.0	22.2	23.1	22.7	23.5	24.0

UGR Viewed Endwise

4H	2H	21.5	22.6	21.9	22.9	23.3	21.5	22.6	21.9	22.9	23.3
	3H	22.4	23.3	22.8	23.7	24.1	22.4	23.3	22.8	23.7	24.1
	4H	22.6	23.4	23.0	23.8	24.3	22.6	23.4	23.0	23.8	24.3
	6H	22.8	23.5	23.2	23.9	24.4	22.8	23.5	23.2	23.9	24.4
	8H	22.8	23.4	23.3	23.9	24.4	22.8	23.4	23.3	23.9	24.4
	12H	22.8	23.4	23.3	23.9	24.3	22.8	23.4	23.3	23.9	24.3
8H	4H	22.7	23.3	23.1	23.7	24.2	22.7	23.3	23.1	23.7	24.2
	6H	22.9	23.4	23.4	23.9	24.4	22.9	23.4	23.4	23.9	24.4
	8H	22.9	23.4	23.5	23.9	24.4	22.9	23.4	23.5	23.9	24.4
	12H	23.0	23.4	23.5	23.9	24.4	23.0	23.4	23.5	23.9	24.4
12H	4H	22.6	23.2	23.1	23.7	24.1	22.6	23.2	23.1	23.7	24.1
	6H	22.9	23.3	23.4	23.8	24.3	22.9	23.3	23.4	23.8	24.3
	8H	22.9	23.3	23.5	23.8	24.4	22.9	23.3	23.5	23.8	24.4

Maximum UGR = 24.4

POLAR GRAPH



Maximum Candela = 1273.511 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.)