



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-P15-835-XXX-POE-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] 28-JAN-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 6CR-TL-P15-835-xxx-POE-RW-WH
 [LUMINAIRE] 6" DIA. SURFACE CYLINDER
 [LAMP] One white LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1208
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	12.3
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	27949	27949	27949
55	22568	22568	22568
65	14599	14599	14599
75	8141	8141	8141
85	4183	4183	4183

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CANDELA TABULATION

	<u>0</u>
0.0	970.600
0.5	970.600
1.0	969.687
1.5	967.861
2.0	966.035
2.5	964.209
3.0	961.469
3.5	958.730
4.0	955.991
4.5	952.339
5.0	949.599
5.5	945.947
6.0	942.295
6.5	938.642
7.0	934.990
7.5	931.338
8.0	927.686
8.5	923.120
9.0	919.468
9.5	915.816
10.0	912.346
10.5	908.602
11.0	904.767
11.5	901.024
12.0	897.463
12.5	893.902
13.0	890.341
13.5	886.688
14.0	883.036
14.5	879.384
15.0	875.640
15.5	871.805
16.0	867.788
16.5	863.770
17.0	859.661
17.5	855.279
18.0	850.622
18.5	845.600
19.0	840.761
19.5	835.556
20.0	829.895
20.5	823.412
21.0	815.925
21.5	807.799
22.0	798.485
22.5	788.167
23.0	776.480
23.5	763.332
24.0	748.905
24.5	732.561
25.0	714.300
25.5	694.121
26.0	672.298
26.5	649.106

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CANDELA TABULATION - (Cont.)

27.0	624.727
27.5	599.982
28.0	574.051
28.5	548.394
29.0	522.827
29.5	497.261
30.0	472.152
30.5	447.499
31.0	424.215
31.5	401.662
32.0	380.388
32.5	360.574
33.0	342.221
33.5	325.694
34.0	310.811
34.5	297.845
35.0	286.432
35.5	276.753
36.0	268.262
36.5	261.140
37.0	254.840
37.5	249.452
38.0	244.522
38.5	240.139
39.0	236.213
39.5	232.652
40.0	229.456
40.5	226.443
41.0	223.521
41.5	220.873
42.0	218.225
42.5	215.760
43.0	213.295
43.5	210.738
44.0	208.181
44.5	205.625
45.0	202.977
45.5	200.238
46.0	197.407
46.5	194.485
47.0	191.472
47.5	188.368
48.0	185.263
48.5	181.976
49.0	178.598
49.5	175.037
50.0	171.476
50.5	167.823
51.0	163.989
51.5	160.245
52.0	156.410
52.5	152.575
53.0	148.923
53.5	144.905
54.0	140.888
54.5	136.870

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CANDELA TABULATION - (Cont.)

55.0	132.944
55.5	128.926
56.0	125.000
56.5	121.165
57.0	117.330
57.5	113.495
58.0	109.752
58.5	106.099
59.0	102.447
59.5	98.886
60.0	95.325
60.5	91.855
61.0	88.477
61.5	85.099
62.0	81.903
62.5	78.616
63.0	75.511
63.5	72.316
64.0	69.302
64.5	66.289
65.0	63.367
65.5	60.446
66.0	57.615
66.5	54.876
67.0	52.228
67.5	49.580
68.0	47.023
68.5	44.467
69.0	42.002
69.5	39.628
70.0	37.436
70.5	35.336
71.0	33.419
71.5	31.592
72.0	29.858
72.5	28.214
73.0	26.662
73.5	25.292
74.0	23.923
74.5	22.736
75.0	21.640
75.5	20.636
76.0	19.540
76.5	18.535
77.0	17.531
77.5	16.527
78.0	15.614
78.5	14.609
79.0	13.696
79.5	12.783
80.0	11.870
80.5	10.957
81.0	10.135
81.5	9.313
82.0	8.400
82.5	7.670

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CANDELA TABULATION - (Cont.)

83.0	6.848
83.5	6.026
84.0	5.296
84.5	4.474
85.0	3.744
85.5	3.104
86.0	2.465
86.5	2.009
87.0	1.552
87.5	1.187
88.0	0.822
88.5	0.548
89.0	0.274
89.5	0.091
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
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151.5	0.000
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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	335.96	N.A.	27.80
0-30	650.12	N.A.	53.80
0-40	841.57	N.A.	69.60
0-60	1116.05	N.A.	92.40
0-80	1203.38	N.A.	99.60
0-90	1208.32	N.A.	100.00
10-90	1118.92	N.A.	92.60
20-40	505.61	N.A.	41.80
20-50	661.38	N.A.	54.70
40-70	337.96	N.A.	28.00
60-80	87.33	N.A.	7.20
70-80	23.85	N.A.	2.00
80-90	4.94	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	1208.32	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	89.39
10-20	246.57
20-30	314.16
30-40	191.45
40-50	155.77
50-60	118.71
60-70	63.48
70-80	23.85
80-90	4.94
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	20.3	21.6	20.7	21.9	22.2	20.3	21.6	20.7	21.9	22.2
	3H	21.1	22.2	21.4	22.6	22.9	21.1	22.2	21.4	22.6	22.9
	4H	21.2	22.3	21.6	22.7	23.0	21.2	22.3	21.6	22.7	23.0
	6H	21.3	22.3	21.8	22.7	23.1	21.3	22.3	21.8	22.7	23.1
	8H	21.4	22.3	21.8	22.7	23.1	21.4	22.3	21.8	22.7	23.1
	12H	21.3	22.2	21.8	22.6	23.1	21.3	22.2	21.8	22.6	23.1

UGR Viewed Endwise

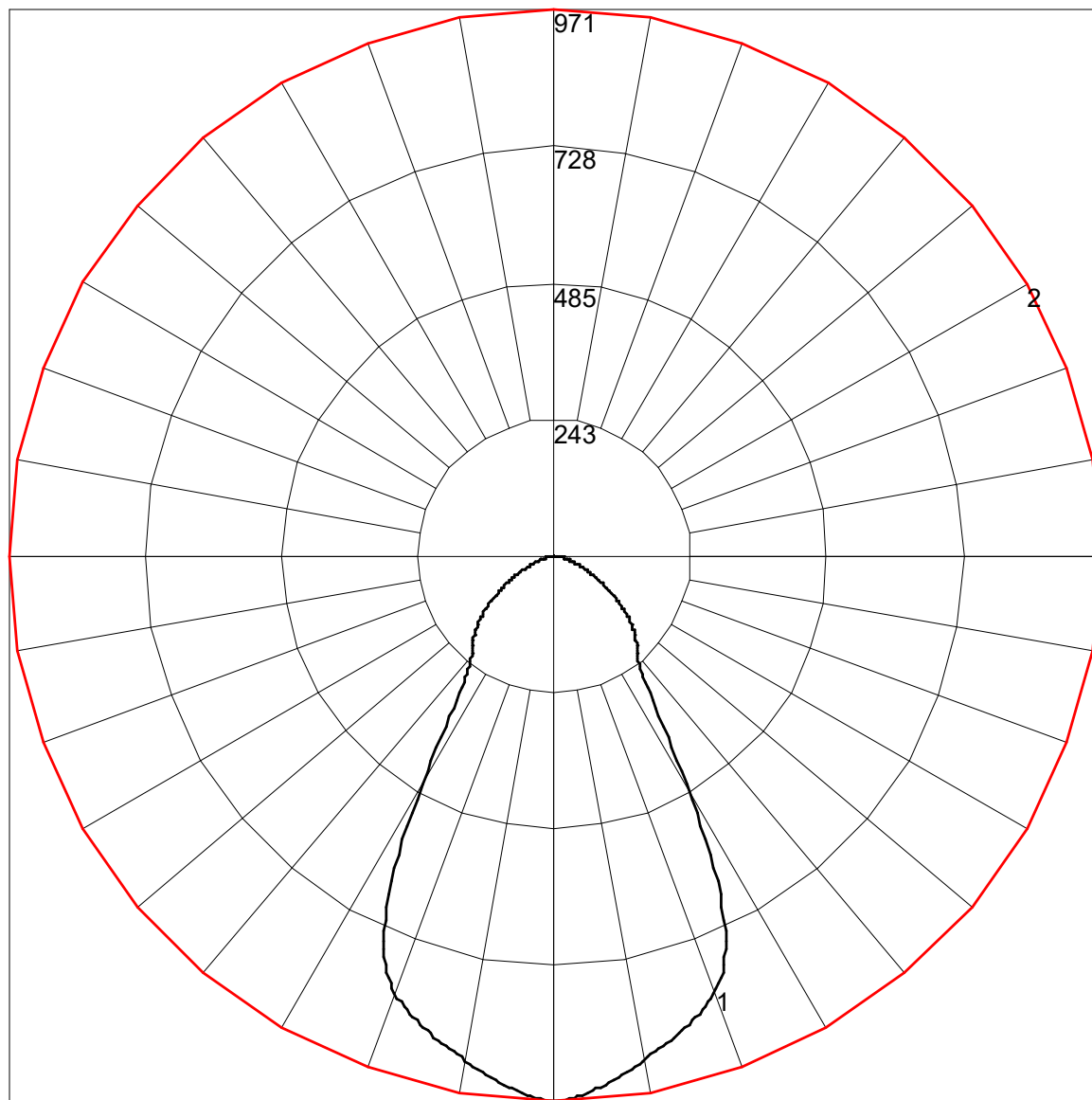
4H	2H	20.6	21.6	21.0	22.0	22.4	20.6	21.6	21.0	22.0	22.4
	3H	21.5	22.4	21.9	22.8	23.2	21.5	22.4	21.9	22.8	23.2
	4H	21.7	22.5	22.1	22.9	23.4	21.7	22.5	22.1	22.9	23.4
	6H	21.9	22.6	22.3	23.0	23.5	21.9	22.6	22.3	23.0	23.5
	8H	21.9	22.5	22.4	23.0	23.5	21.9	22.5	22.4	23.0	23.5
	12H	21.9	22.5	22.4	23.0	23.4	21.9	22.5	22.4	23.0	23.4

8H	4H	21.8	22.4	22.2	22.8	23.3	21.8	22.4	22.2	22.8	23.3
	6H	22.0	22.5	22.5	23.0	23.5	22.0	22.5	22.5	23.0	23.5
	8H	22.0	22.5	22.6	23.0	23.5	22.0	22.5	22.6	23.0	23.5
	12H	22.1	22.5	22.6	23.0	23.5	22.1	22.5	22.6	23.0	23.5

12H	4H	21.7	22.3	22.2	22.8	23.2	21.7	22.3	22.2	22.8	23.2
	6H	22.0	22.4	22.5	22.9	23.4	22.0	22.4	22.5	22.9	23.4
	8H	22.0	22.4	22.6	22.9	23.5	22.0	22.4	22.6	22.9	23.5

Maximum UGR = 23.5

POLAR GRAPH



Maximum Candela = 970.6 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.)