



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-P15-8TW-XXX-POE-SW-WH-XX\_4000K.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 - CARTHAGE, MO.

[LUMCAT] 6CR-TL-P15-8TW-xxx-POE-SW-WH-xx\_4000k

[LUMINAIRE] 6" DIA. SURFACE CYLINDER

[LAMP] One white LED

[OTHER] This test was performed using the calibrated photodetector met

[MORE] hod of absolute photometry.

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1020
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	83
Total Luminaire Watts	12.3
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	28141	28141	28141
55	23124	23124	23124
65	16916	16916	16916
75	11711	11711	11711
85	6384	6384	6384

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CANDELA TABULATION

	<u>0</u>
0.0	716.339
0.5	716.112
1.0	715.660
1.5	715.056
2.0	714.453
2.5	713.774
3.0	712.868
3.5	712.340
4.0	711.963
4.5	711.737
5.0	711.435
5.5	711.133
6.0	710.907
6.5	710.605
7.0	710.379
7.5	710.228
8.0	710.152
8.5	709.926
9.0	709.700
9.5	709.247
10.0	708.945
10.5	708.417
11.0	707.889
11.5	707.210
12.0	706.456
12.5	705.550
13.0	704.494
13.5	703.287
14.0	701.778
14.5	699.968
15.0	697.780
15.5	695.139
16.0	692.197
16.5	688.726
17.0	684.954
17.5	680.729
18.0	675.750
18.5	670.620
19.0	665.037
19.5	658.775
20.0	651.910
20.5	644.441
21.0	636.368
21.5	627.692
22.0	618.111
22.5	607.926
23.0	596.987
23.5	585.217
24.0	572.543
24.5	559.039
25.0	544.402
25.5	529.087
26.0	512.716
26.5	495.364

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6CR-TL-P15-8TW-XXX-POE-SW-WH-XX\_4000K.IES****CANDELA TABULATION - (Cont.)**

27.0	477.408
27.5	458.698
28.0	439.686
28.5	420.599
29.0	401.889
29.5	383.556
30.0	365.902
30.5	349.305
31.0	333.763
31.5	319.580
32.0	306.679
32.5	295.061
33.0	284.725
33.5	275.521
34.0	267.297
34.5	260.055
35.0	253.491
35.5	247.531
36.0	242.250
36.5	237.271
37.0	232.744
37.5	228.519
38.0	224.596
38.5	220.824
39.0	217.354
39.5	213.959
40.0	210.790
40.5	207.621
41.0	204.604
41.5	201.661
42.0	198.870
42.5	196.078
43.0	193.287
43.5	190.496
44.0	187.704
44.5	184.913
45.0	182.121
45.5	179.330
46.0	176.538
46.5	173.747
47.0	170.805
47.5	167.862
48.0	164.920
48.5	161.902
49.0	158.809
49.5	155.716
50.0	152.698
50.5	149.605
51.0	146.512
51.5	143.419
52.0	140.401
52.5	137.383
53.0	134.290
53.5	131.121
54.0	127.877
54.5	124.633

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55.0	121.389
55.5	118.145
56.0	114.976
56.5	111.883
57.0	108.790
57.5	105.697
58.0	102.679
58.5	99.737
59.0	96.794
59.5	93.928
60.0	91.136
60.5	88.345
61.0	85.629
61.5	82.988
62.0	80.348
62.5	77.707
63.0	75.187
63.5	72.683
64.0	70.223
64.5	67.801
65.0	65.432
65.5	63.124
66.0	60.845
66.5	58.627
67.0	56.462
67.5	54.335
68.0	52.275
68.5	50.261
69.0	48.246
69.5	46.300
70.0	44.406
70.5	42.543
71.0	40.725
71.5	38.952
72.0	37.239
72.5	35.549
73.0	33.904
73.5	32.305
74.0	30.736
74.5	29.219
75.0	27.741
75.5	26.307
76.0	24.904
76.5	23.538
77.0	22.233
77.5	20.936
78.0	19.683
78.5	18.469
79.0	17.277
79.5	16.130
80.0	15.006
80.5	13.912
81.0	12.833
81.5	11.784
82.0	10.758
82.5	9.762

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CANDELA TABULATION - (Cont.)

83.0	8.774
83.5	7.816
84.0	6.880
84.5	5.968
85.0	5.092
85.5	4.247
86.0	3.440
86.5	2.678
87.0	2.007
87.5	1.449
88.0	1.011
88.5	0.641
89.0	0.400
89.5	0.272
90.0	0.189
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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6CR-TL-P15-8TW-XXX-POE-SW-WH-XX\_4000K.IES****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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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

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



**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6CR-TL-P15-8TW-XXX-POE-SW-WH-XX\_4000K.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	263.13	N.A.	25.80
0-30	504.70	N.A.	49.50
0-40	669.26	N.A.	65.60
0-60	918.00	N.A.	90.00
0-80	1013.36	N.A.	99.40
0-90	1019.74	N.A.	100.00
10-90	951.89	N.A.	93.30
20-40	406.13	N.A.	39.80
20-50	546.39	N.A.	53.60
40-70	314.17	N.A.	30.80
60-80	95.35	N.A.	9.40
70-80	29.93	N.A.	2.90
80-90	6.38	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	1019.74	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	67.85
10-20	195.27
20-30	241.58
30-40	164.55
40-50	140.26
50-60	108.49
60-70	65.43
70-80	29.93
80-90	6.38
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	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	103	97	91	87	101	95	90	86	92	87	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

X=2H	Y=2H	20.7	22.1	21.1	22.4	22.7	20.7	22.1	21.1	22.4	22.7
	3H	21.8	23.0	22.2	23.4	23.7	21.8	23.0	22.2	23.4	23.7
	4H	22.2	23.3	22.6	23.7	24.0	22.2	23.3	22.6	23.7	24.0
	6H	22.4	23.4	22.8	23.8	24.2	22.4	23.4	22.8	23.8	24.2
	8H	22.4	23.4	22.9	23.8	24.2	22.4	23.4	22.9	23.8	24.2
	12H	22.4	23.4	22.9	23.8	24.2	22.4	23.4	22.9	23.8	24.2

### UGR Viewed Endwise

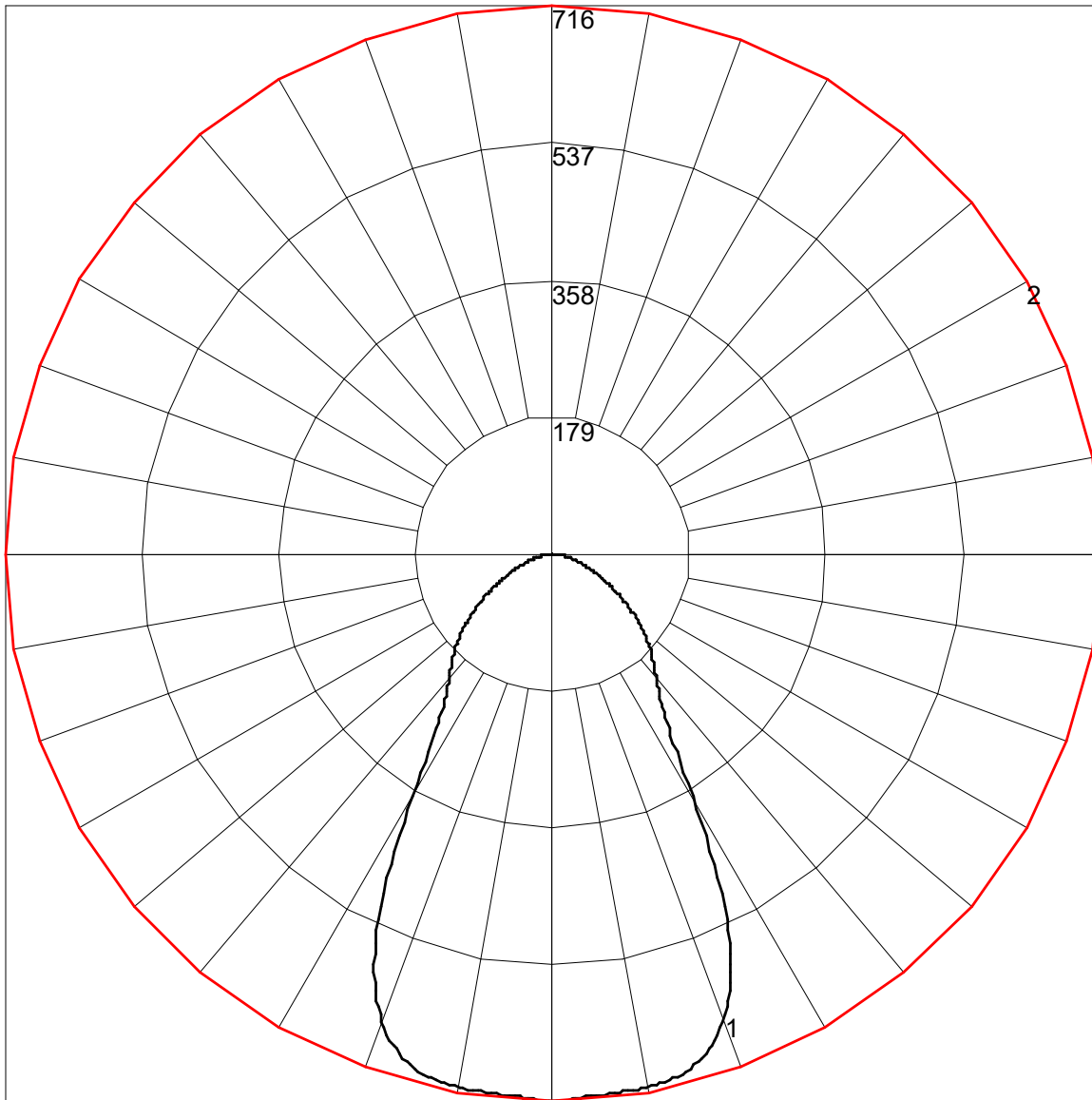
4H	2H	21.1	22.2	21.5	22.6	22.9	21.1	22.2	21.5	22.6	22.9
	3H	22.4	23.3	22.8	23.7	24.1	22.4	23.3	22.8	23.7	24.1
	4H	22.8	23.7	23.2	24.1	24.5	22.8	23.7	23.2	24.1	24.5
	6H	23.1	23.9	23.6	24.3	24.8	23.1	23.9	23.6	24.3	24.8
	8H	23.2	23.9	23.7	24.3	24.8	23.2	23.9	23.7	24.3	24.8
	12H	23.2	23.8	23.7	24.3	24.8	23.2	23.8	23.7	24.3	24.8

8H	4H	22.9	23.6	23.4	24.1	24.5	22.9	23.6	23.4	24.1	24.5
	6H	23.3	23.9	23.8	24.4	24.9	23.3	23.9	23.8	24.4	24.9
	8H	23.4	23.9	24.0	24.5	24.9	23.4	23.9	24.0	24.5	24.9
	12H	23.5	24.0	24.0	24.4	25.0	23.5	24.0	24.0	24.4	25.0

12H	4H	22.9	23.5	23.4	24.0	24.5	22.9	23.5	23.4	24.0	24.5
	6H	23.3	23.8	23.9	24.3	24.8	23.3	23.8	23.9	24.3	24.8
	8H	23.5	23.9	24.0	24.4	25.0	23.5	23.9	24.0	24.4	25.0

Maximum UGR = 25.0

POLAR GRAPH



Maximum Candela = 716.339 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.)