



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CR-TL-P15-8TW-XXX-POE-RW-WH-XX_4000K.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-P15-8TW-xxx-POE-RW-WH-xx_4000k
 [LUMINAIRE] 6" DIA. SURFACE CYLINDER
 [MORE] s patterned lens enclosure
 [LAMP] One white LED
 [OTHER] 25.1 C, 120.068 V, 0.165573 A, 19.772 W, 0.994569 PF, 59.97 Hz
 [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	1031
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	84
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	23854	23854	23854
55	19261	19261	19261
65	12460	12460	12460
75	6948	6948	6948
85	3569	3569	3569

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CANDELA TABULATION

	<u>0</u>
0.0	828.396
0.5	828.396
1.0	827.617
1.5	826.058
2.0	824.499
2.5	822.941
3.0	820.603
3.5	818.265
4.0	815.927
4.5	812.810
5.0	810.472
5.5	807.355
6.0	804.238
6.5	801.120
7.0	798.003
7.5	794.886
8.0	791.769
8.5	787.872
9.0	784.755
9.5	781.638
10.0	778.677
10.5	775.481
11.0	772.208
11.5	769.013
12.0	765.974
12.5	762.935
13.0	759.895
13.5	756.778
14.0	753.661
14.5	750.544
15.0	747.349
15.5	744.076
16.0	740.647
16.5	737.218
17.0	733.711
17.5	729.970
18.0	725.996
18.5	721.710
19.0	717.579
19.5	713.137
20.0	708.306
20.5	702.773
21.0	696.382
21.5	689.447
22.0	681.498
22.5	672.692
23.0	662.717
23.5	651.495
24.0	639.182
24.5	625.232
25.0	609.646
25.5	592.424
26.0	573.799
26.5	554.004

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CANDELA TABULATION - (Cont.)

27.0	533.197
27.5	512.078
28.0	489.946
28.5	468.048
29.0	446.227
29.5	424.407
30.0	402.976
30.5	381.935
31.0	362.063
31.5	342.814
32.0	324.656
32.5	307.746
33.0	292.082
33.5	277.976
34.0	265.274
34.5	254.208
35.0	244.466
35.5	236.206
36.0	228.958
36.5	222.880
37.0	217.503
37.5	212.905
38.0	208.697
38.5	204.956
39.0	201.605
39.5	198.566
40.0	195.838
40.5	193.266
41.0	190.773
41.5	188.513
42.0	186.253
42.5	184.149
43.0	182.044
43.5	179.862
44.0	177.680
44.5	175.498
45.0	173.238
45.5	170.900
46.0	168.485
46.5	165.991
47.0	163.419
47.5	160.770
48.0	158.120
48.5	155.314
49.0	152.431
49.5	149.392
50.0	146.353
50.5	143.235
51.0	139.962
51.5	136.767
52.0	133.494
52.5	130.221
53.0	127.104
53.5	123.675
54.0	120.246
54.5	116.817

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6CR-TL-P15-8TW-XXX-POE-RW-WH-XX_4000K.IES****CANDELA TABULATION - (Cont.)**

55.0	113.466
55.5	110.037
56.0	106.686
56.5	103.413
57.0	100.140
57.5	96.867
58.0	93.672
58.5	90.555
59.0	87.437
59.5	84.398
60.0	81.359
60.5	78.398
61.0	75.514
61.5	72.631
62.0	69.903
62.5	67.098
63.0	64.448
63.5	61.721
64.0	59.149
64.5	56.577
65.0	54.083
65.5	51.590
66.0	49.174
66.5	46.836
67.0	44.576
67.5	42.316
68.0	40.134
68.5	37.952
69.0	35.848
69.5	33.822
70.0	31.951
70.5	30.159
71.0	28.522
71.5	26.964
72.0	25.483
72.5	24.080
73.0	22.756
73.5	21.587
74.0	20.418
74.5	19.405
75.0	18.469
75.5	17.612
76.0	16.677
76.5	15.820
77.0	14.963
77.5	14.105
78.0	13.326
78.5	12.469
79.0	11.689
79.5	10.910
80.0	10.131
80.5	9.352
81.0	8.650
81.5	7.949
82.0	7.170
82.5	6.546

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CANDELA TABULATION - (Cont.)

83.0	5.845
83.5	5.143
84.0	4.520
84.5	3.819
85.0	3.195
85.5	2.650
86.0	2.104
86.5	1.714
87.0	1.325
87.5	1.013
88.0	0.701
88.5	0.468
89.0	0.234
89.5	0.078
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
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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
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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	286.74	N.A.	27.80
0-30	554.87	N.A.	53.80
0-40	718.27	N.A.	69.60
0-60	952.53	N.A.	92.40
0-80	1027.07	N.A.	99.60
0-90	1031.29	N.A.	100.00
10-90	954.99	N.A.	92.60
20-40	431.53	N.A.	41.80
20-50	564.48	N.A.	54.70
40-70	288.45	N.A.	28.00
60-80	74.54	N.A.	7.20
70-80	20.36	N.A.	2.00
80-90	4.21	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	1031.29	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	76.30
10-20	210.44
20-30	268.13
30-40	163.40
40-50	132.94
50-60	101.32
60-70	54.18
70-80	20.36
80-90	4.21
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	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90	90	90	90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80	80	80	80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72	72	72	72
4	91	82	75	70	89	80	74	69	78	73	68	76	71	67	74	70	67	65	65	65	65
5	85	75	68	63	84	74	67	62	72	66	62	70	65	61	69	64	61	59	59	59	59
6	80	69	62	57	79	69	62	57	67	61	56	65	60	56	64	59	55	54	54	54	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49	49	49	49
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46	46	46	46
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42	42	42	42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39	39	39	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	19.7	21.0	20.1	21.3	21.6	19.7	21.0	20.1	21.3	21.6
	3H	20.5	21.6	20.8	22.0	22.3	20.5	21.6	20.8	22.0	22.3
	4H	20.6	21.7	21.0	22.1	22.4	20.6	21.7	21.0	22.1	22.4
	6H	20.7	21.7	21.2	22.1	22.5	20.7	21.7	21.2	22.1	22.5
	8H	20.8	21.7	21.2	22.1	22.5	20.8	21.7	21.2	22.1	22.5
	12H	20.7	21.6	21.2	22.0	22.5	20.7	21.6	21.2	22.0	22.5

UGR Viewed Endwise

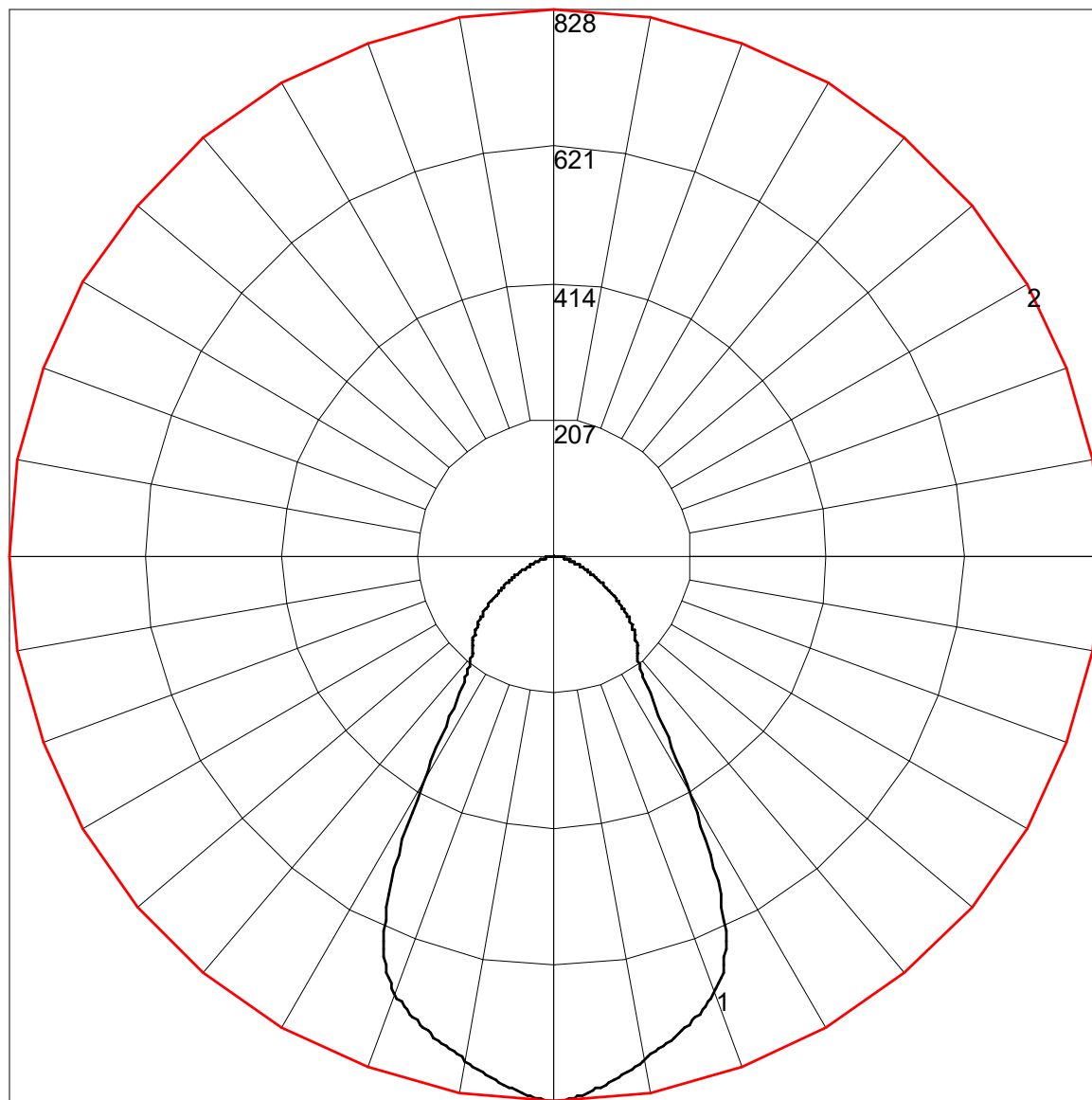
4H	2H	20.0	21.0	20.4	21.4	21.8	20.0	21.0	20.4	21.4	21.8
	3H	20.9	21.8	21.3	22.2	22.6	20.9	21.8	21.3	22.2	22.6
	4H	21.1	21.9	21.5	22.3	22.8	21.1	21.9	21.5	22.3	22.8
	6H	21.3	22.0	21.7	22.4	22.9	21.3	22.0	21.7	22.4	22.9
	8H	21.3	21.9	21.8	22.4	22.9	21.3	21.9	21.8	22.4	22.9
	12H	21.3	21.9	21.8	22.4	22.8	21.3	21.9	21.8	22.4	22.8

8H	4H	21.2	21.8	21.6	22.2	22.7	21.2	21.8	21.6	22.2	22.7
	6H	21.4	21.9	21.9	22.4	22.9	21.4	21.9	21.9	22.4	22.9
	8H	21.4	21.9	22.0	22.4	22.9	21.4	21.9	22.0	22.4	22.9
	12H	21.5	21.9	22.0	22.4	22.9	21.5	21.9	22.0	22.4	22.9

12H	4H	21.1	21.7	21.6	22.2	22.6	21.1	21.7	21.6	22.2	22.6
	6H	21.4	21.8	21.9	22.3	22.8	21.4	21.8	21.9	22.3	22.8
	8H	21.4	21.8	22.0	22.3	22.9	21.4	21.8	22.0	22.3	22.9

Maximum UGR = 22.9

POLAR GRAPH



Maximum Candela = 828.396 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.)