



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L15-9DW-XXX-DIM-UNV-LW-WH-XX_3000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12326812.07
 [TESTLAB] UL Verification Services Inc.
 [ISSUE DATE] 29-JAN-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 8CR-TL-L15-9DW-xxx-DIM-UNV-LW-WH-xx
 [LUMINAIRE] 8" 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	1296
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	55
Total Luminaire Watts	23.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	0.98
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.46 ft (Diameter)
Luminous Width (90-270)	0.46 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	21538	21538	21538
55	17931	17931	17931
65	13622	13622	13622
75	9879	9879	9879
85	6438	6438	6438

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CANDELA TABULATION

	<u>0</u>
0.0	824.146
0.5	823.981
1.0	823.317
1.5	822.321
2.0	821.077
2.5	819.417
3.0	817.758
3.5	815.849
4.0	814.107
4.5	812.365
5.0	811.120
5.5	809.958
6.0	808.880
6.5	807.801
7.0	806.640
7.5	805.561
8.0	804.482
8.5	803.487
9.0	802.491
9.5	801.661
10.0	800.832
10.5	800.168
11.0	799.587
11.5	799.255
12.0	798.674
12.5	798.094
13.0	797.264
13.5	796.185
14.0	794.858
14.5	793.364
15.0	791.788
15.5	789.797
16.0	787.639
16.5	785.482
17.0	783.325
17.5	781.085
18.0	778.679
18.5	775.941
19.0	772.871
19.5	769.469
20.0	765.569
20.5	761.338
21.0	756.111
21.5	749.888
22.0	742.835
22.5	734.870
23.0	726.158
23.5	716.700
24.0	706.245
24.5	694.961
25.0	682.765
25.5	670.070
26.0	656.546
26.5	642.441

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L15-9DW-XXX-DIM-UNV-LW-WH-XX_3000K.IES****CANDELA TABULATION - (Cont.)**

27.0	627.423
27.5	611.991
28.0	595.729
28.5	578.554
29.0	560.715
29.5	541.964
30.0	522.714
30.5	502.884
31.0	483.055
31.5	463.059
32.0	443.644
32.5	425.058
33.0	407.219
33.5	390.542
34.0	375.193
34.5	361.254
35.0	348.808
35.5	337.358
36.0	327.319
36.5	318.109
37.0	309.895
37.5	302.511
38.0	295.790
38.5	289.650
39.0	283.842
39.5	278.615
40.0	273.554
40.5	268.825
41.0	264.427
41.5	260.113
42.0	255.964
42.5	252.147
43.0	248.248
43.5	244.431
44.0	240.698
44.5	237.047
45.0	233.313
45.5	229.745
46.0	226.095
46.5	222.444
47.0	218.710
47.5	215.060
48.0	211.326
48.5	207.592
49.0	203.859
49.5	199.959
50.0	196.225
50.5	192.409
51.0	188.592
51.5	184.692
52.0	180.793
52.5	176.893
53.0	172.994
53.5	169.094
54.0	165.360
54.5	161.544

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55.0	157.561
55.5	153.661
56.0	149.762
56.5	146.111
57.0	142.460
57.5	138.644
58.0	134.827
58.5	131.093
59.0	127.443
59.5	123.792
60.0	120.307
60.5	116.823
61.0	113.421
61.5	110.019
62.0	106.783
62.5	103.547
63.0	100.394
63.5	97.241
64.0	94.172
64.5	91.185
65.0	88.198
65.5	85.294
66.0	82.398
66.5	79.552
67.0	76.739
67.5	73.985
68.0	71.280
68.5	68.567
69.0	65.937
69.5	63.331
70.0	60.801
70.5	58.353
71.0	55.955
71.5	53.632
72.0	51.392
72.5	49.218
73.0	47.102
73.5	45.028
74.0	43.037
74.5	41.087
75.0	39.170
75.5	37.320
76.0	35.503
76.5	33.719
77.0	31.985
77.5	30.284
78.0	28.633
78.5	27.015
79.0	25.430
79.5	23.904
80.0	22.385
80.5	20.917
81.0	19.465
81.5	18.021
82.0	16.611
82.5	15.209

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83.0	13.839
83.5	12.495
84.0	11.168
84.5	9.865
85.0	8.596
85.5	7.368
86.0	6.181
86.5	5.036
87.0	3.925
87.5	2.995
88.0	2.290
88.5	1.676
89.0	1.162
89.5	0.730
90.0	0.465
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 : 8CR-TL-L15-9DW-XXX-DIM-UNV-LW-WH-XX_3000K.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

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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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Zone	Lumens	%Lamp	%Fixt
0-20	300.21	N.A.	23.20
0-30	606.85	N.A.	46.80
0-40	834.22	N.A.	64.40
0-60	1155.27	N.A.	89.20
0-80	1285.31	N.A.	99.20
0-90	1295.58	N.A.	100.00
10-90	1218.46	N.A.	94.00
20-40	534.01	N.A.	41.20
20-50	714.18	N.A.	55.10
40-70	408.96	N.A.	31.60
60-80	130.04	N.A.	10.00
70-80	42.12	N.A.	3.30
80-90	10.28	N.A.	0.80
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	1295.6	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	77.12
10-20	223.09
20-30	306.64
30-40	227.37
40-50	180.17
50-60	140.87
60-70	87.91
70-80	42.12
80-90	10.28
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	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	78
3	96	87	80	75	93	85	79	74	83	77	73	80	75	72	77	74	70	69
4	89	79	71	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38
10	61	49	42	37	60	49	42	37	48	42	37	47	41	37	46	41	37	35

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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	19.9	21.3	20.3	21.6	21.9	19.9	21.3	20.3	21.6	21.9
	3H	21.1	22.4	21.5	22.7	23.0	21.1	22.4	21.5	22.7	23.0
	4H	21.5	22.7	21.9	23.0	23.4	21.5	22.7	21.9	23.0	23.4
	6H	21.8	22.8	22.2	23.2	23.6	21.8	22.8	22.2	23.2	23.6
	8H	21.8	22.9	22.3	23.2	23.7	21.8	22.9	22.3	23.2	23.7
	12H	21.9	22.8	22.3	23.2	23.7	21.9	22.8	22.3	23.2	23.7

UGR Viewed Endwise

4H	2H	20.3	21.5	20.7	21.8	22.2	20.3	21.5	20.7	21.8	22.2
	3H	21.7	22.7	22.1	23.1	23.5	21.7	22.7	22.1	23.1	23.5
	4H	22.2	23.1	22.6	23.5	23.9	22.2	23.1	22.6	23.5	23.9
	6H	22.6	23.3	23.0	23.8	24.2	22.6	23.3	23.0	23.8	24.2
	8H	22.7	23.4	23.1	23.8	24.3	22.7	23.4	23.1	23.8	24.3
	12H	22.8	23.4	23.2	23.9	24.3	22.8	23.4	23.2	23.9	24.3

8H	4H	22.4	23.1	22.8	23.5	24.0	22.4	23.1	22.8	23.5	24.0
	6H	22.8	23.4	23.3	23.9	24.4	22.8	23.4	23.3	23.9	24.4
	8H	23.0	23.5	23.5	24.0	24.5	23.0	23.5	23.5	24.0	24.5
	12H	23.1	23.6	23.6	24.1	24.6	23.1	23.6	23.6	24.1	24.6

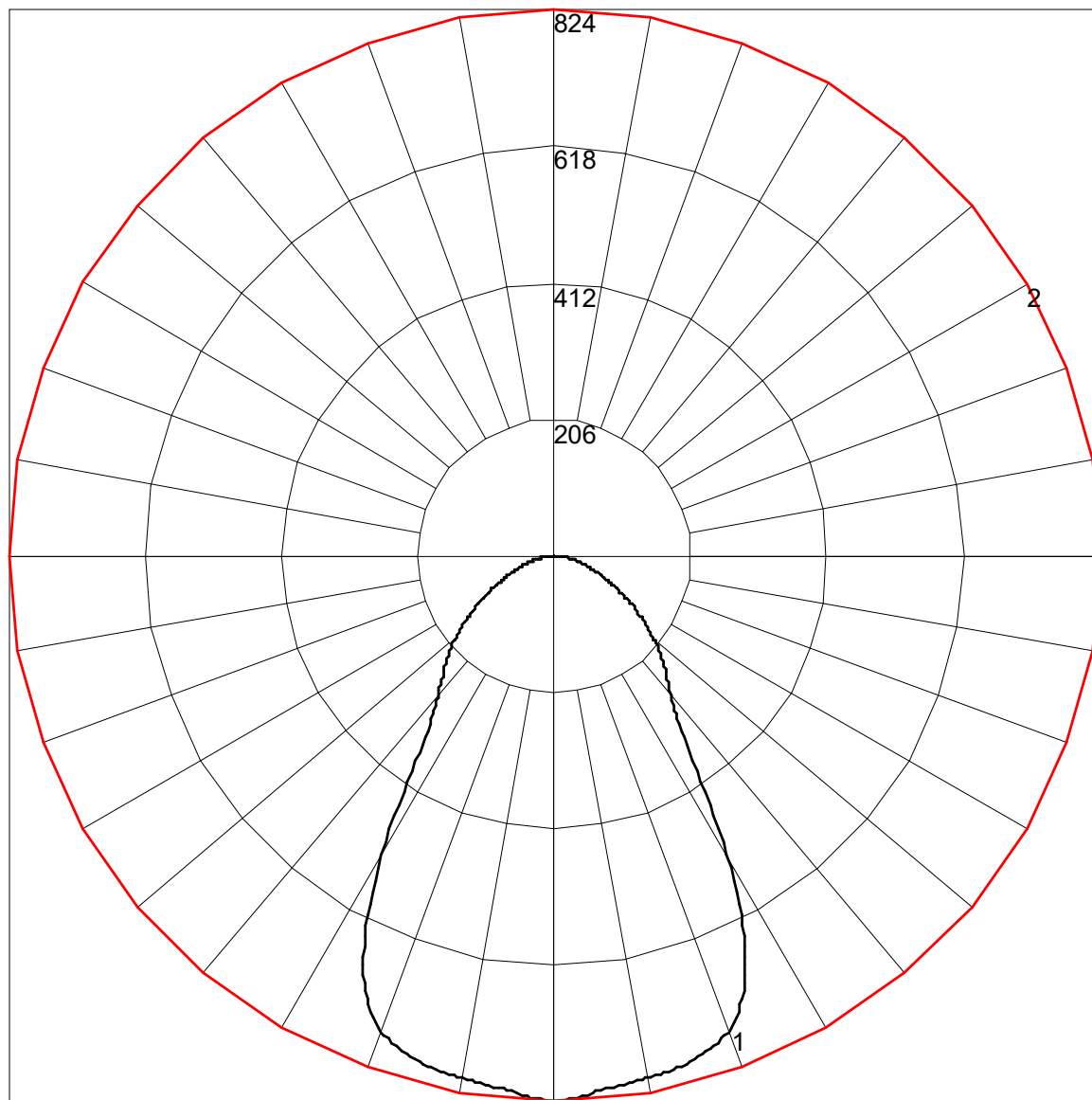
12H	4H	22.4	23.0	22.8	23.5	23.9	22.4	23.0	22.8	23.5	23.9
	6H	22.9	23.4	23.4	23.8	24.4	22.9	23.4	23.4	23.8	24.4
	8H	23.1	23.5	23.6	24.0	24.6	23.1	23.5	23.6	24.0	24.6

Maximum UGR = 24.6

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POLAR GRAPH



Maximum Candela = 824.146 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.)