



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L8-9DW-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-L8-9DW-xxx-DIM-UNV-LW-WH-xx

[LAMP] One white LED

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

[MORE] of absolute photometry.

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	739
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	53
Total Luminaire Watts	14
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	12281	12281	12281
55	10224	10224	10224
65	7768	7768	7768
75	5633	5633	5633
85	3671	3671	3671

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CANDELA TABULATION

	<u>0</u>
0.0	469.942
0.5	469.847
1.0	469.468
1.5	468.901
2.0	468.191
2.5	467.245
3.0	466.299
3.5	465.210
4.0	464.217
4.5	463.223
5.0	462.514
5.5	461.851
6.0	461.236
6.5	460.621
7.0	459.959
7.5	459.344
8.0	458.729
8.5	458.161
9.0	457.593
9.5	457.120
10.0	456.647
10.5	456.269
11.0	455.937
11.5	455.748
12.0	455.417
12.5	455.086
13.0	454.613
13.5	453.998
14.0	453.241
14.5	452.389
15.0	451.490
15.5	450.355
16.0	449.125
16.5	447.895
17.0	446.664
17.5	445.387
18.0	444.015
18.5	442.454
19.0	440.703
19.5	438.764
20.0	436.540
20.5	434.127
21.0	431.146
21.5	427.598
22.0	423.577
22.5	419.035
23.0	414.067
23.5	408.674
24.0	402.712
24.5	396.278
25.0	389.323
25.5	382.085
26.0	374.373
26.5	366.330

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27.0	357.767
27.5	348.967
28.0	339.694
28.5	329.901
29.0	319.729
29.5	309.036
30.0	298.060
30.5	286.753
31.0	275.445
31.5	264.043
32.0	252.973
32.5	242.375
33.0	232.203
33.5	222.694
34.0	213.941
34.5	205.993
35.0	198.896
35.5	192.367
36.0	186.642
36.5	181.391
37.0	176.707
37.5	172.496
38.0	168.664
38.5	165.163
39.0	161.851
39.5	158.871
40.0	155.985
40.5	153.288
41.0	150.781
41.5	148.320
42.0	145.955
42.5	143.779
43.0	141.555
43.5	139.379
44.0	137.250
44.5	135.168
45.0	133.039
45.5	131.005
46.0	128.923
46.5	126.841
47.0	124.712
47.5	122.630
48.0	120.501
48.5	118.372
49.0	116.243
49.5	114.020
50.0	111.891
50.5	109.715
51.0	107.538
51.5	105.315
52.0	103.091
52.5	100.867
53.0	98.644
53.5	96.420
54.0	94.291
54.5	92.115

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55.0	89.844
55.5	87.620
56.0	85.397
56.5	83.315
57.0	81.233
57.5	79.057
58.0	76.881
58.5	74.752
59.0	72.670
59.5	70.588
60.0	68.601
60.5	66.614
61.0	64.674
61.5	62.735
62.0	60.889
62.5	59.044
63.0	57.246
63.5	55.449
64.0	53.698
64.5	51.995
65.0	50.292
65.5	48.636
66.0	46.985
66.5	45.362
67.0	43.758
67.5	42.187
68.0	40.645
68.5	39.098
69.0	37.598
69.5	36.113
70.0	34.670
70.5	33.274
71.0	31.907
71.5	30.582
72.0	29.305
72.5	28.065
73.0	26.859
73.5	25.676
74.0	24.540
74.5	23.428
75.0	22.336
75.5	21.281
76.0	20.244
76.5	19.227
77.0	18.238
77.5	17.269
78.0	16.327
78.5	15.405
79.0	14.501
79.5	13.630
80.0	12.765
80.5	11.927
81.0	11.099
81.5	10.276
82.0	9.472
82.5	8.672

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83.0	7.891
83.5	7.125
84.0	6.368
84.5	5.625
85.0	4.901
85.5	4.201
86.0	3.525
86.5	2.872
87.0	2.238
87.5	1.708
88.0	1.306
88.5	0.956
89.0	0.662
89.5	0.416
90.0	0.265
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-L8-9DW-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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L8-9DW-XXX-DIM-UNV-LW-WH-XX_3000K.IES****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
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	171.18	N.A.	23.20
0-30	346.03	N.A.	46.80
0-40	475.69	N.A.	64.40
0-60	658.75	N.A.	89.20
0-80	732.90	N.A.	99.20
0-90	738.76	N.A.	100.00
10-90	694.79	N.A.	94.00
20-40	304.50	N.A.	41.20
20-50	407.24	N.A.	55.10
40-70	233.20	N.A.	31.60
60-80	74.15	N.A.	10.00
70-80	24.02	N.A.	3.30
80-90	5.86	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	738.77	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	43.98
10-20	127.21
20-30	174.85
30-40	129.65
40-50	102.74
50-60	80.33
60-70	50.13
70-80	24.02
80-90	5.86
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	18.0	19.4	18.4	19.7	20.0	18.0	19.4	18.4	19.7	20.0
	3H	19.2	20.4	19.6	20.8	21.1	19.2	20.4	19.6	20.8	21.1
	4H	19.6	20.8	20.0	21.1	21.5	19.6	20.8	20.0	21.1	21.5
	6H	19.9	20.9	20.3	21.3	21.7	19.9	20.9	20.3	21.3	21.7
	8H	19.9	21.0	20.4	21.3	21.8	19.9	21.0	20.4	21.3	21.8
	12H	20.0	20.9	20.4	21.3	21.8	20.0	20.9	20.4	21.3	21.8

UGR Viewed Endwise

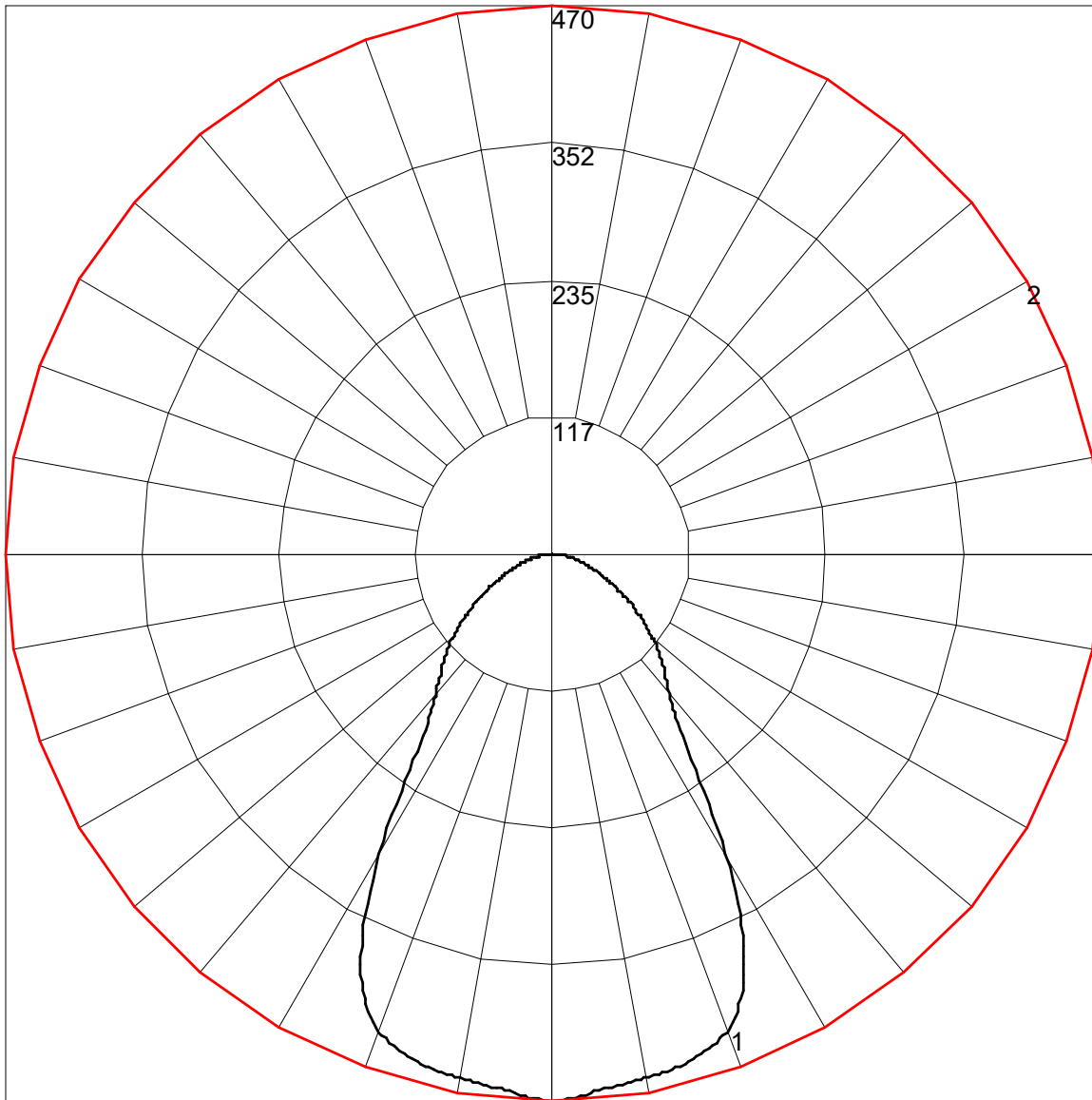
4H	2H	18.4	19.6	18.8	19.9	20.3	18.4	19.6	18.8	19.9	20.3
	3H	19.8	20.8	20.2	21.2	21.6	19.8	20.8	20.2	21.2	21.6
	4H	20.3	21.2	20.7	21.6	22.0	20.3	21.2	20.7	21.6	22.0
	6H	20.7	21.4	21.1	21.9	22.3	20.7	21.4	21.1	21.9	22.3
	8H	20.8	21.5	21.2	21.9	22.4	20.8	21.5	21.2	21.9	22.4
	12H	20.8	21.5	21.3	21.9	22.4	20.8	21.5	21.3	21.9	22.4

8H	4H	20.5	21.2	20.9	21.6	22.1	20.5	21.2	20.9	21.6	22.1
	6H	20.9	21.5	21.4	22.0	22.5	20.9	21.5	21.4	22.0	22.5
	8H	21.1	21.6	21.6	22.1	22.6	21.1	21.6	21.6	22.1	22.6
	12H	21.2	21.7	21.7	22.2	22.7	21.2	21.7	21.7	22.2	22.7

12H	4H	20.5	21.1	20.9	21.6	22.0	20.5	21.1	20.9	21.6	22.0
	6H	21.0	21.5	21.5	21.9	22.5	21.0	21.5	21.5	21.9	22.5
	8H	21.2	21.6	21.7	22.1	22.7	21.2	21.6	21.7	22.1	22.7

Maximum UGR = 22.7

POLAR GRAPH



Maximum Candela = 469.942 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.)