



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L8-9DW-XXX-DIM-UNV-LM-WH-XX_3000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from 12326812.09
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 29-JAN-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 8CR-TL-L8-9DW-xxx-DIM-UNV-LM-WH-xx
 [LUMINAIRE] 8" DIA. SURFACE CYLINDER
 [LAMP] One white LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	797
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	57
Total Luminaire Watts	14
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.60
Spacing Criterion (90-270)	0.60
Spacing Criterion (Diagonal)	0.56
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	3560	3560	3560
55	2607	2607	2607
65	2124	2124	2124
75	1729	1729	1729
85	1138	1138	1138

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L8-9DW-XXX-DIM-UNV-LM-WH-XX_3000K.IES

CANDELA TABULATION

	<u>0</u>
0.0	1882.083
0.5	1881.215
1.0	1878.612
1.5	1874.707
2.0	1869.501
2.5	1862.125
3.0	1853.882
3.5	1844.337
4.0	1833.057
4.5	1821.343
5.0	1808.327
5.5	1793.576
6.0	1777.523
6.5	1759.734
7.0	1740.645
7.5	1719.819
8.0	1696.825
8.5	1672.095
9.0	1646.063
9.5	1618.296
10.0	1588.360
10.5	1556.688
11.0	1522.847
11.5	1486.403
12.0	1448.657
12.5	1408.742
13.0	1367.092
13.5	1323.272
14.0	1278.150
14.5	1231.294
15.0	1183.569
15.5	1134.977
16.0	1086.384
16.5	1037.358
17.0	989.634
17.5	941.909
18.0	893.751
18.5	846.460
19.0	799.603
19.5	754.482
20.0	710.662
20.5	668.578
21.0	629.096
21.5	591.351
22.0	553.605
22.5	518.028
23.0	484.187
23.5	452.082
24.0	422.189
24.5	393.901
25.0	367.479
25.5	342.576
26.0	319.494
26.5	297.888

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L8-9DW-XXX-DIM-UNV-LM-WH-XX_3000K.IES****CANDELA TABULATION - (Cont.)**

27.0	277.800
27.5	259.188
28.0	241.833
28.5	225.781
29.0	210.899
29.5	197.016
30.0	184.173
30.5	172.199
31.0	161.092
31.5	150.766
32.0	141.135
32.5	132.197
33.0	123.867
33.5	116.101
34.0	108.942
34.5	102.304
35.0	96.100
35.5	90.416
36.0	85.123
36.5	80.307
37.0	75.839
37.5	71.760
38.0	68.073
38.5	64.645
39.0	61.521
39.5	58.658
40.0	56.055
40.5	53.625
41.0	51.412
41.5	49.373
42.0	47.464
42.5	45.729
43.0	44.080
43.5	42.562
44.0	41.173
44.5	39.828
45.0	38.570
45.5	37.399
46.0	36.314
46.5	35.273
47.0	34.275
47.5	33.320
48.0	32.453
48.5	31.585
49.0	30.761
49.5	29.980
50.0	29.242
50.5	28.505
51.0	27.810
51.5	27.116
52.0	26.465
52.5	25.858
53.0	25.207
53.5	24.600
54.0	24.036
54.5	23.472

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L8-9DW-XXX-DIM-UNV-LM-WH-XX_3000K.IES****CANDELA TABULATION - (Cont.)**

55.0	22.908
55.5	22.344
56.0	21.823
56.5	21.303
57.0	20.782
57.5	20.261
58.0	19.784
58.5	19.307
59.0	18.830
59.5	18.396
60.0	17.962
60.5	17.485
61.0	17.051
61.5	16.617
62.0	16.183
62.5	15.792
63.0	15.359
63.5	14.968
64.0	14.578
64.5	14.187
65.0	13.753
65.5	13.363
66.0	12.972
66.5	12.625
67.0	12.235
67.5	11.844
68.0	11.497
68.5	11.150
69.0	10.760
69.5	10.413
70.0	10.066
70.5	9.718
71.0	9.415
71.5	9.068
72.0	8.721
72.5	8.417
73.0	8.070
73.5	7.766
74.0	7.462
74.5	7.159
75.0	6.855
75.5	6.551
76.0	6.248
76.5	5.944
77.0	5.640
77.5	5.380
78.0	5.076
78.5	4.816
79.0	4.556
79.5	4.252
80.0	3.992
80.5	3.731
81.0	3.471
81.5	3.211
82.0	2.950
82.5	2.690

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L8-9DW-XXX-DIM-UNV-LM-WH-XX_3000K.IES****CANDELA TABULATION - (Cont.)**

83.0	2.473
83.5	2.213
84.0	1.996
84.5	1.735
85.0	1.519
85.5	1.302
86.0	1.085
86.5	0.911
87.0	0.738
87.5	0.607
88.0	0.477
88.5	0.390
89.0	0.304
89.5	0.217
90.0	0.130
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-LM-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-LM-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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L8-9DW-XXX-DIM-UNV-LM-WH-XX_3000K.IES****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 : 8CR-TL-L8-9DW-XXX-DIM-UNV-LM-WH-XX_3000K.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	484.05	N.A.	60.70
0-30	659.35	N.A.	82.70
0-40	723.10	N.A.	90.70
0-60	774.34	N.A.	97.10
0-80	795.31	N.A.	99.80
0-90	797.16	N.A.	100.00
10-90	631.43	N.A.	79.20
20-40	239.05	N.A.	30.00
20-50	269.66	N.A.	33.80
40-70	64.93	N.A.	8.10
60-80	20.97	N.A.	2.60
70-80	7.28	N.A.	0.90
80-90	1.85	N.A.	0.20
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	797.17	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	165.74
10-20	318.31
20-30	175.31
30-40	63.75
40-50	30.60
50-60	20.64
60-70	13.69
70-80	7.28
80-90	1.85
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

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L8-9DW-XXX-DIM-UNV-LM-WH-XX_3000K.IES

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	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	109	104	100	97	107	103	99	96	99	97	94	96	94	92	94	92	90	89
3	104	98	94	90	102	97	93	89	94	91	88	92	89	86	90	87	85	84
4	100	93	88	84	98	92	87	84	90	86	83	88	84	82	86	83	81	79
5	96	88	83	79	94	87	82	79	85	81	78	84	80	77	82	79	77	75
6	92	84	79	75	90	83	78	75	82	77	74	80	77	74	79	76	73	72
7	88	80	75	71	87	79	74	71	78	74	71	77	73	70	76	73	70	69
8	85	77	71	68	84	76	71	68	75	71	67	74	70	67	73	70	67	66
9	82	74	68	65	81	73	68	65	72	68	65	71	67	64	71	67	64	63
10	79	71	66	62	78	70	65	62	69	65	62	69	65	62	68	64	62	61

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L8-9DW-XXX-DIM-UNV-LM-WH-XX_3000K.IES

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	8.8	9.8	9.1	10.1	10.4	8.8	9.8	9.1	10.1	10.4
	3H	10.2	11.1	10.6	11.4	11.8	10.2	11.1	10.6	11.4	11.8
	4H	10.7	11.5	11.1	11.9	12.3	10.7	11.5	11.1	11.9	12.3
	6H	11.0	11.8	11.5	12.2	12.6	11.0	11.8	11.5	12.2	12.6
	8H	11.1	11.8	11.5	12.2	12.6	11.1	11.8	11.5	12.2	12.6
	12H	11.2	11.8	11.6	12.2	12.6	11.2	11.8	11.6	12.2	12.6

UGR Viewed Endwise

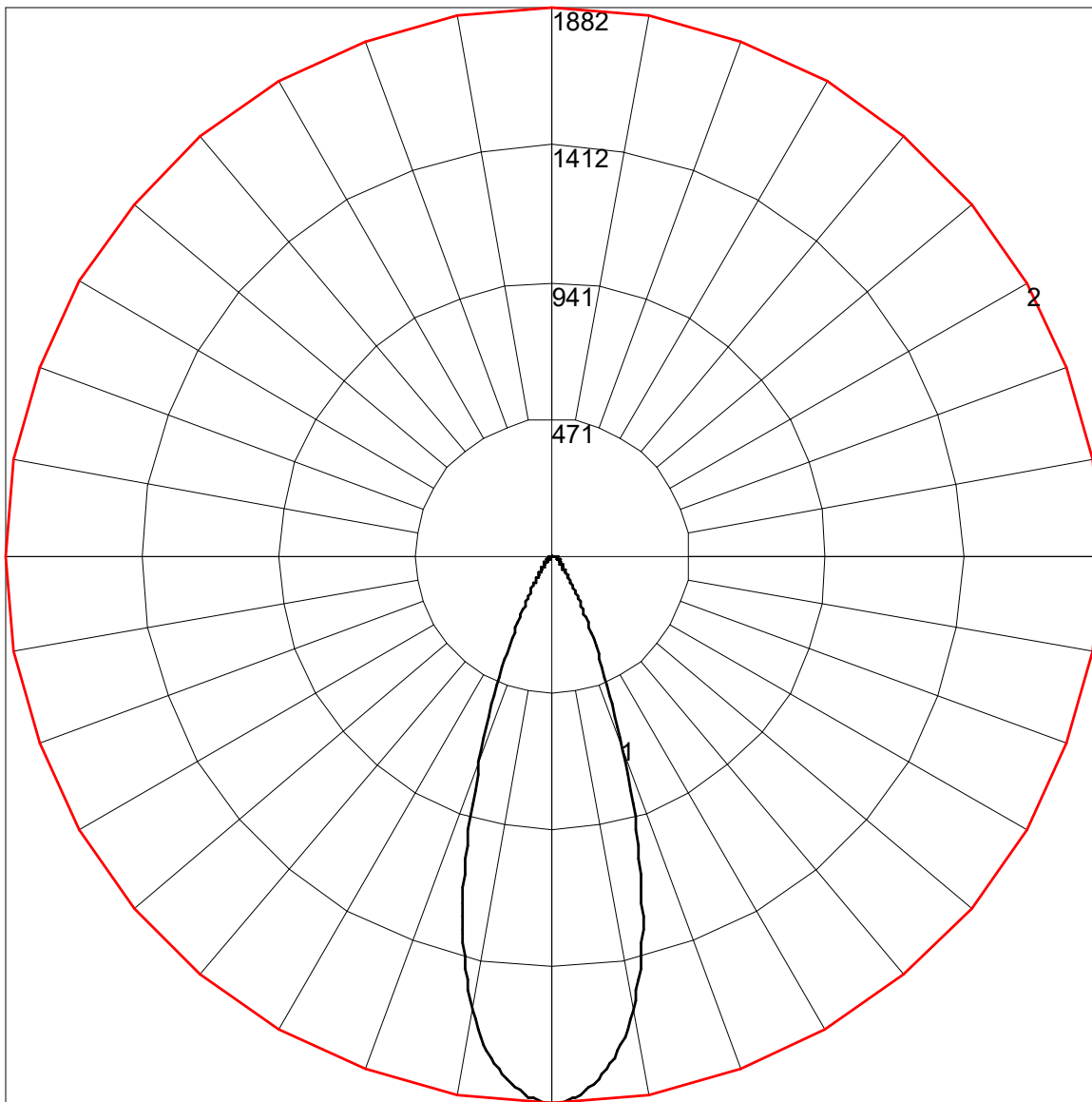
4H	2H	9.2	10.0	9.6	10.4	10.8	9.2	10.0	9.6	10.4	10.8
	3H	10.8	11.5	11.2	11.9	12.3	10.8	11.5	11.2	11.9	12.3
	4H	11.4	12.0	11.8	12.4	12.9	11.4	12.0	11.8	12.4	12.9
	6H	11.9	12.4	12.3	12.8	13.3	11.9	12.4	12.3	12.8	13.3
	8H	12.0	12.5	12.5	12.9	13.4	12.0	12.5	12.5	12.9	13.4
	12H	12.1	12.5	12.5	13.0	13.4	12.1	12.5	12.5	13.0	13.4

8H	4H	11.6	12.1	12.1	12.5	13.0	11.6	12.1	12.1	12.5	13.0
	6H	12.1	12.5	12.7	13.0	13.5	12.1	12.5	12.7	13.0	13.5
	8H	12.3	12.7	12.9	13.2	13.7	12.3	12.7	12.9	13.2	13.7
	12H	12.5	12.8	13.0	13.3	13.8	12.5	12.8	13.0	13.3	13.8

12H	4H	11.6	12.0	12.1	12.5	12.9	11.6	12.0	12.1	12.5	12.9
	6H	12.2	12.5	12.7	13.0	13.5	12.2	12.5	12.7	13.0	13.5
	8H	12.4	12.7	12.9	13.2	13.8	12.4	12.7	12.9	13.2	13.8

Maximum UGR = 13.8

POLAR GRAPH



Maximum Candela = 1882.083 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.)