



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L25-9DW-XXX-DIM-UNV-OM-CS-XX_3000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from 12326812.04
 [TESTLAB] UL Verification Services Inc.
 [ISSUE DATE] 29-JAN-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 8CR-TL-L25-9DW-xxx-DIM-UNV-OM-CS-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	2465
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	65
Total Luminaire Watts	37.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.58
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.68
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.50 ft (Diameter)
Luminous Width (90-270)	0.50 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	4448	4448	4448
55	1638	1638	1638
65	644	644	644
75	289	289	289
85	234	234	234

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CANDELA TABULATION

	<u>0</u>
0.0	4988.159
0.5	4995.617
1.0	5010.533
1.5	5019.234
2.0	5040.365
2.5	5049.066
3.0	5063.982
3.5	5067.711
4.0	5056.524
4.5	4996.860
5.0	4937.196
5.5	4873.803
6.0	4771.877
6.5	4669.951
7.0	4561.810
7.5	4439.996
8.0	4298.294
8.5	4152.863
9.0	4002.460
9.5	3855.786
10.0	3720.299
10.5	3600.971
11.0	3497.802
11.5	3409.549
12.0	3322.539
12.5	3236.772
13.0	3154.734
13.5	3077.668
14.0	3008.060
14.5	2945.910
15.0	2889.975
15.5	2836.526
16.0	2784.320
16.5	2729.628
17.0	2673.693
17.5	2617.758
18.0	2566.795
18.5	2522.047
19.0	2476.056
19.5	2428.822
20.0	2376.616
20.5	2320.681
21.0	2263.503
21.5	2205.082
22.0	2142.932
22.5	2083.268
23.0	2019.875
23.5	1955.239
24.0	1888.117
24.5	1820.995
25.0	1755.116
25.5	1689.237
26.0	1628.330
26.5	1569.909

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L25-9DW-XXX-DIM-UNV-OM-CS-XX_3000K.IES****CANDELA TABULATION - (Cont.)**

27.0	1515.217
27.5	1463.011
28.0	1415.777
28.5	1373.515
29.0	1333.739
29.5	1295.206
30.0	1246.729
30.5	1186.071
31.0	1116.463
31.5	1039.894
32.0	962.206
32.5	884.022
33.0	805.837
33.5	723.799
34.0	640.518
34.5	564.571
35.0	491.607
35.5	422.744
36.0	356.492
36.5	297.201
37.0	248.600
37.5	214.418
38.0	196.021
38.5	183.591
39.0	171.161
39.5	157.985
40.0	143.939
40.5	129.023
41.0	114.729
41.5	101.429
42.0	90.118
42.5	81.168
43.0	74.207
43.5	68.862
44.0	64.387
44.5	60.783
45.0	57.427
45.5	54.568
46.0	51.833
46.5	49.347
47.0	46.861
47.5	44.499
48.0	42.138
48.5	39.776
49.0	37.414
49.5	35.301
50.0	33.312
50.5	31.324
51.0	29.459
51.5	27.595
52.0	25.730
52.5	24.114
53.0	22.498
53.5	21.007
54.0	19.639
54.5	18.396

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55.0	17.153
55.5	16.159
56.0	15.040
56.5	14.170
57.0	13.300
57.5	12.430
58.0	11.684
58.5	10.938
59.0	10.317
59.5	9.695
60.0	9.074
60.5	8.452
61.0	7.955
61.5	7.458
62.0	7.085
62.5	6.712
63.0	6.215
63.5	5.966
64.0	5.594
64.5	5.221
65.0	4.972
65.5	4.599
66.0	4.351
66.5	4.102
67.0	3.853
67.5	3.605
68.0	3.480
68.5	3.232
69.0	2.983
69.5	2.859
70.0	2.735
70.5	2.486
71.0	2.362
71.5	2.237
72.0	2.113
72.5	1.989
73.0	1.865
73.5	1.740
74.0	1.616
74.5	1.492
75.0	1.367
75.5	1.367
76.0	1.243
76.5	1.119
77.0	1.119
77.5	0.994
78.0	0.994
78.5	0.870
79.0	0.870
79.5	0.746
80.0	0.746
80.5	0.622
81.0	0.622
81.5	0.622
82.0	0.497
82.5	0.497

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L25-9DW-XXX-DIM-UNV-OM-CS-XX_3000K.IES****CANDELA TABULATION - (Cont.)**

83.0	0.497
83.5	0.373
84.0	0.373
84.5	0.373
85.0	0.373
85.5	0.249
86.0	0.249
86.5	0.249
87.0	0.249
87.5	0.249
88.0	0.124
88.5	0.124
89.0	0.124
89.5	0.124
90.0	0.124
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-L25-9DW-XXX-DIM-UNV-OM-CS-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-L25-9DW-XXX-DIM-UNV-OM-CS-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	1243.95	N.A.	50.50
0-30	2049.73	N.A.	83.20
0-40	2390.71	N.A.	97.00
0-60	2457.71	N.A.	99.70
0-80	2464.46	N.A.	100.00
0-90	2464.84	N.A.	100.00
10-90	2035.05	N.A.	82.60
20-40	1146.75	N.A.	46.50
20-50	1197.3	N.A.	48.60
40-70	72.16	N.A.	2.90
60-80	6.75	N.A.	0.30
70-80	1.60	N.A.	0.10
80-90	0.38	N.A.	0.00
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	2464.84	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	429.79
10-20	814.16
20-30	805.78
30-40	340.97
40-50	50.54
50-60	16.46
60-70	5.15
70-80	1.60
80-90	0.38
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	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	112	109	107	112	109	107	106	105	104	102	102	100	99	98	97	96	95
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89
3	104	99	94	91	103	97	93	90	95	91	89	92	90	87	90	88	86	84
4	100	93	88	84	98	92	88	84	90	86	83	88	85	82	86	83	81	80
5	96	88	83	79	94	87	82	79	86	81	78	84	80	77	82	79	77	75
6	92	84	78	75	90	83	78	74	81	77	74	80	76	73	79	75	73	72
7	88	80	74	70	87	79	74	70	78	73	70	77	73	70	75	72	69	68
8	84	76	70	67	83	75	70	67	74	70	66	73	69	66	72	69	66	65
9	81	72	67	63	80	72	67	63	71	66	63	70	66	63	69	65	63	62
10	78	69	64	60	77	69	64	60	68	63	60	67	63	60	66	63	60	59

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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	3.2	3.2	3.2	3.2	3.2	UGR Viewed Endwise				
	3H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	4H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	6H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	8H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	12H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2

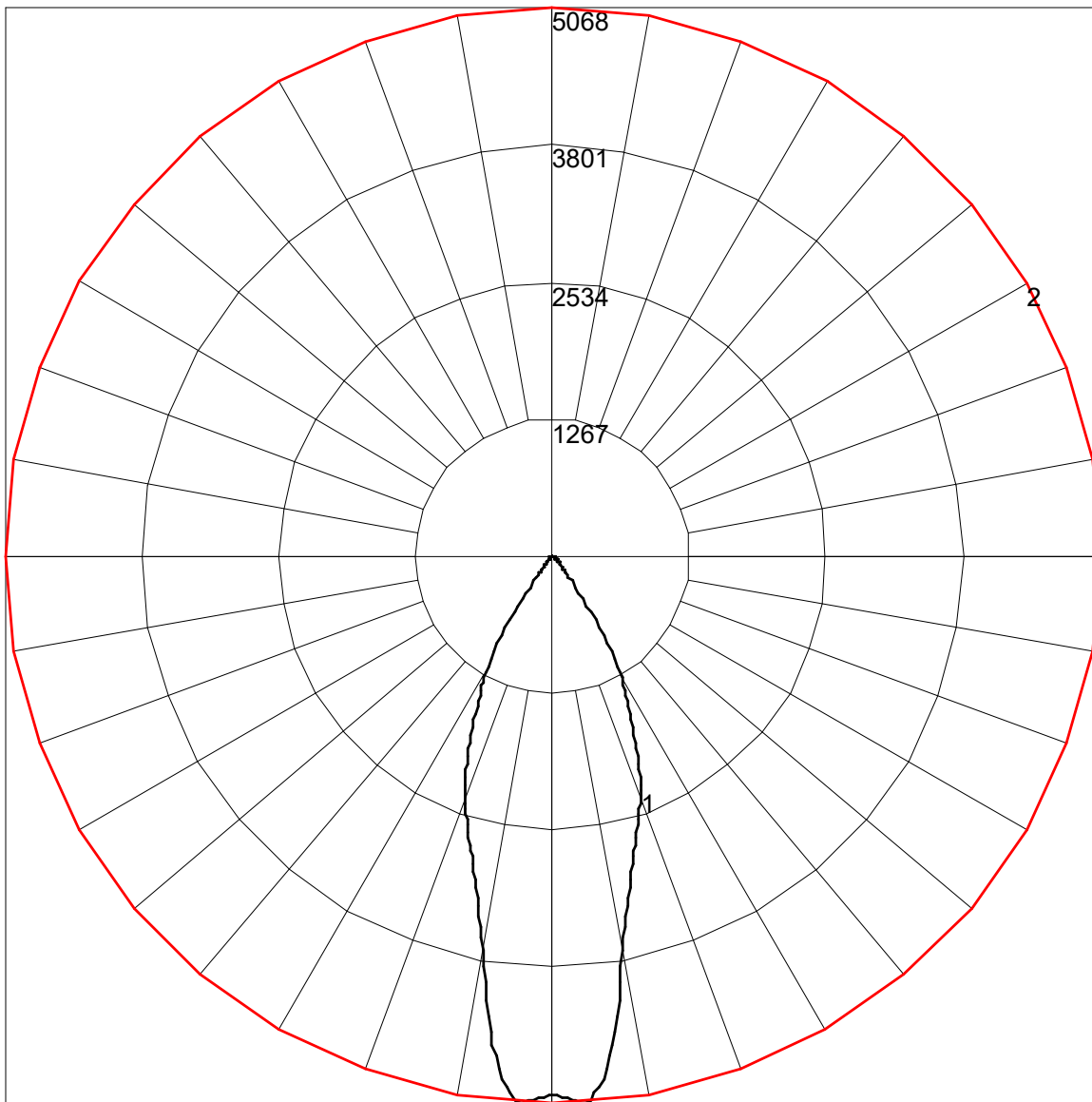
4H	2H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	3H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	4H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	6H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	8H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	12H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2

8H	4H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	6H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	8H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	12H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2

12H	4H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	6H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	8H	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2

Maximum UGR = 3.2

POLAR GRAPH



Maximum Candela = 5067.711 Located At Horizontal Angle = 0, Vertical Angle = 3.5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (3.5) (Through Max. Cd.)