



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L10-835-XXX-DIM-UNV-OM-CS-XX\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.04

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 3-FEB-2021

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.

[LUMCAT] 8CR-TL-L10-835-xxx-DIM-UNV-OM-CS-xx

[LUMINAIRE] 8" DIA. SURFACE CYLINDER

[LAMP] One white LED

[\_SEARCH\_SOURCETYPE] LED

[\_SEARCH\_APPLICATION] Indoor, Architectural, Classroom, Commercial, Healthcare, Office, Downlight

[\_SEARCH\_MOUNTING] Surface

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	997
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	9.7
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	1799	1799	1799
55	662	662	662
65	261	261	261
75	117	117	117
85	95	95	95

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 8CR-TL-L10-835-XXX-DIM-UNV-OM-CS-XX\_.IES

CANDELA TABULATION

	<u>0</u>
0.0	2017.630
0.5	2020.647
1.0	2026.680
1.5	2030.200
2.0	2038.747
2.5	2042.266
3.0	2048.300
3.5	2049.808
4.0	2045.283
4.5	2021.150
5.0	1997.017
5.5	1971.375
6.0	1930.148
6.5	1888.920
7.0	1845.179
7.5	1795.907
8.0	1738.591
8.5	1679.767
9.0	1618.931
9.5	1559.604
10.0	1504.801
10.5	1456.535
11.0	1414.805
11.5	1379.108
12.0	1343.914
12.5	1309.222
13.0	1276.039
13.5	1244.867
14.0	1216.712
14.5	1191.573
15.0	1168.949
15.5	1147.329
16.0	1126.213
16.5	1104.091
17.0	1081.466
17.5	1058.841
18.0	1038.227
18.5	1020.128
19.0	1001.525
19.5	982.420
20.0	961.303
20.5	938.678
21.0	915.551
21.5	891.920
22.0	866.782
22.5	842.649
23.0	817.007
23.5	790.863
24.0	763.713
24.5	736.563
25.0	709.916
25.5	683.269
26.0	658.633
26.5	635.003

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 8CR-TL-L10-835-XXX-DIM-UNV-OM-CS-XX\_.IES**

**CANDELA TABULATION - (Cont.)**

27.0	612.881
27.5	591.765
28.0	572.659
28.5	555.565
29.0	539.476
29.5	523.890
30.0	504.282
30.5	479.747
31.0	451.591
31.5	420.620
32.0	389.197
32.5	357.573
33.0	325.948
33.5	292.765
34.0	259.079
34.5	228.360
35.0	198.847
35.5	170.993
36.0	144.195
36.5	120.213
37.0	100.555
37.5	86.728
38.0	79.287
38.5	74.260
39.0	69.232
39.5	63.903
40.0	58.221
40.5	52.188
41.0	46.406
41.5	41.026
42.0	36.451
42.5	32.831
43.0	30.016
43.5	27.854
44.0	26.044
44.5	24.586
45.0	23.228
45.5	22.072
46.0	20.966
46.5	19.960
47.0	18.955
47.5	17.999
48.0	17.044
48.5	16.089
49.0	15.133
49.5	14.279
50.0	13.474
50.5	12.670
51.0	11.916
51.5	11.162
52.0	10.407
52.5	9.754
53.0	9.100
53.5	8.497
54.0	7.944
54.5	7.441

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 8CR-TL-L10-835-XXX-DIM-UNV-OM-CS-XX\_.IES

CANDELA TABULATION - (Cont.)

55.0	6.938
55.5	6.536
56.0	6.084
56.5	5.732
57.0	5.380
57.5	5.028
58.0	4.726
58.5	4.424
59.0	4.173
59.5	3.922
60.0	3.670
60.5	3.419
61.0	3.218
61.5	3.017
62.0	2.866
62.5	2.715
63.0	2.514
63.5	2.413
64.0	2.262
64.5	2.112
65.0	2.011
65.5	1.860
66.0	1.760
66.5	1.659
67.0	1.559
67.5	1.458
68.0	1.408
68.5	1.307
69.0	1.207
69.5	1.156
70.0	1.106
70.5	1.006
71.0	0.955
71.5	0.905
72.0	0.855
72.5	0.804
73.0	0.754
73.5	0.704
74.0	0.654
74.5	0.603
75.0	0.553
75.5	0.553
76.0	0.503
76.5	0.452
77.0	0.452
77.5	0.402
78.0	0.402
78.5	0.352
79.0	0.352
79.5	0.302
80.0	0.302
80.5	0.251
81.0	0.251
81.5	0.251
82.0	0.201
82.5	0.201

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 8CR-TL-L10-835-XXX-DIM-UNV-OM-CS-XX\_.IES

CANDELA TABULATION - (Cont.)

83.0	0.201
83.5	0.151
84.0	0.151
84.5	0.151
85.0	0.151
85.5	0.101
86.0	0.101
86.5	0.101
87.0	0.101
87.5	0.101
88.0	0.050
88.5	0.050
89.0	0.050
89.5	0.050
90.0	0.050
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

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

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-L10-835-XXX-DIM-UNV-OM-CS-XX\_.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-L10-835-XXX-DIM-UNV-OM-CS-XX\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	503.16	N.A.	50.50
0-30	829.08	N.A.	83.20
0-40	967.00	N.A.	97.00
0-60	994.11	N.A.	99.70
0-80	996.83	N.A.	100.00
0-90	996.99	N.A.	100.00
10-90	823.14	N.A.	82.60
20-40	463.84	N.A.	46.50
20-50	484.29	N.A.	48.60
40-70	29.19	N.A.	2.90
60-80	2.73	N.A.	0.30
70-80	0.65	N.A.	0.10
80-90	0.15	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	996.99	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	173.84
10-20	329.31
20-30	325.92
30-40	137.92
40-50	20.44
50-60	6.66
60-70	2.08
70-80	0.65
80-90	0.15
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

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

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L10-835-XXX-DIM-UNV-OM-CS-XX\_.IES

## UGR TABLE - CORRECTED

### Reflectances

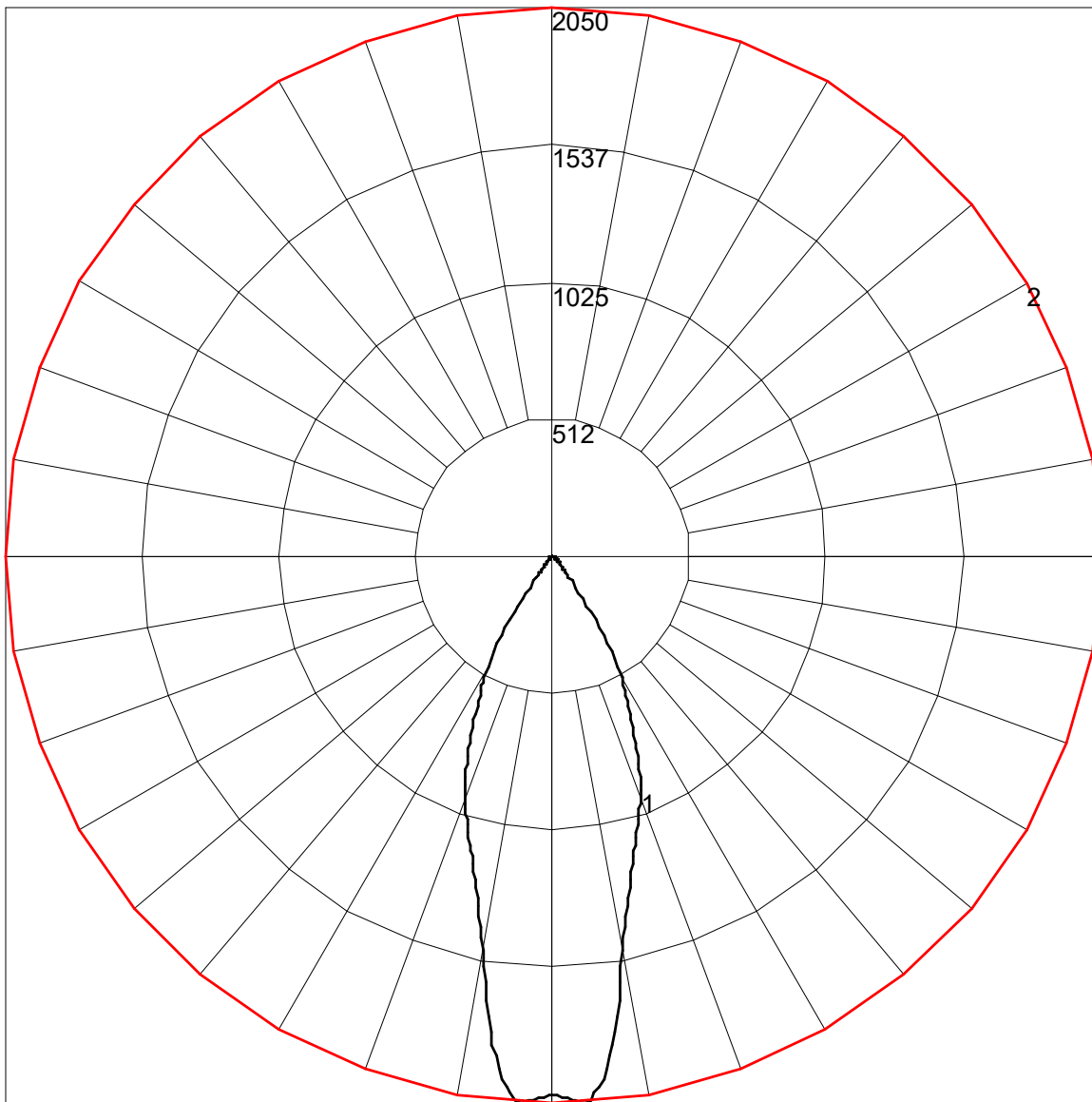
Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

### Room Size UGR Viewed Crosswise

X=2H	Y=2H	0.1	0.1	0.1	0.1	0.1	UGR Viewed Endwise				
	3H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	4H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	6H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	8H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	12H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4H	2H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	3H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	4H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	6H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	8H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	12H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8H	4H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	6H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	8H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	12H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
12H	4H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	6H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	8H	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Maximum UGR = 0.1

POLAR GRAPH



Maximum Candela = 2049.808 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.)