



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L40-835-XXX-DIM-UNV-LW-WH-XX\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM 12326812.07  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUE DATE] 1-FEB-2021  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] 8CR-TL-L40-835-xxx-DIM-UNV-LW-WH-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	3121
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	36.5
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	51883	51883	51883
55	43194	43194	43194
65	32816	32816	32816
75	23798	23798	23798
85	15508	15508	15508

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 8CR-TL-L40-835-XXX-DIM-UNV-LW-WH-XX\_.IES

CANDELA TABULATION

	<u>0</u>
0.0	1985.329
0.5	1984.929
1.0	1983.330
1.5	1980.931
2.0	1977.933
2.5	1973.936
3.0	1969.938
3.5	1965.341
4.0	1961.144
4.5	1956.947
5.0	1953.949
5.5	1951.151
6.0	1948.552
6.5	1945.954
7.0	1943.156
7.5	1940.557
8.0	1937.959
8.5	1935.560
9.0	1933.162
9.5	1931.163
10.0	1929.165
10.5	1927.566
11.0	1926.167
11.5	1925.367
12.0	1923.968
12.5	1922.569
13.0	1920.570
13.5	1917.972
14.0	1914.774
14.5	1911.176
15.0	1907.379
15.5	1902.582
16.0	1897.385
16.5	1892.188
17.0	1886.992
17.5	1881.595
18.0	1875.799
18.5	1869.203
19.0	1861.808
19.5	1853.613
20.0	1844.219
20.5	1834.026
21.0	1821.434
21.5	1806.443
22.0	1789.454
22.5	1770.266
23.0	1749.280
23.5	1726.494
24.0	1701.311
24.5	1674.128
25.0	1644.747
25.5	1614.166
26.0	1581.587
26.5	1547.609

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 8CR-TL-L40-835-XXX-DIM-UNV-LW-WH-XX\_.IES

CANDELA TABULATION - (Cont.)

27.0	1511.432
27.5	1474.256
28.0	1435.081
28.5	1393.707
29.0	1350.735
29.5	1305.564
30.0	1259.194
30.5	1211.424
31.0	1163.655
31.5	1115.486
32.0	1068.716
32.5	1023.944
33.0	980.972
33.5	940.798
34.0	903.821
34.5	870.243
35.0	840.262
35.5	812.680
36.0	788.495
36.5	766.309
37.0	746.522
37.5	728.733
38.0	712.544
38.5	697.753
39.0	683.762
39.5	671.170
40.0	658.978
40.5	647.585
41.0	636.992
41.5	626.599
42.0	616.605
42.5	607.411
43.0	598.017
43.5	588.823
44.0	579.829
44.5	571.034
45.0	562.040
45.5	553.446
46.0	544.651
46.5	535.857
47.0	526.863
47.5	518.068
48.0	509.074
48.5	500.080
49.0	491.086
49.5	481.692
50.0	472.697
50.5	463.503
51.0	454.309
51.5	444.915
52.0	435.521
52.5	426.127
53.0	416.733
53.5	407.339
54.0	398.345
54.5	389.151

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 8CR-TL-L40-835-XXX-DIM-UNV-LW-WH-XX\_.IES

CANDELA TABULATION - (Cont.)

55.0	379.557
55.5	370.163
56.0	360.769
56.5	351.975
57.0	343.180
57.5	333.986
58.0	324.792
58.5	315.798
59.0	307.003
59.5	298.209
60.0	289.814
60.5	281.420
61.0	273.225
61.5	265.030
62.0	257.235
62.5	249.440
63.0	241.845
63.5	234.250
64.0	226.855
64.5	219.659
65.0	212.464
65.5	205.468
66.0	198.493
66.5	191.637
67.0	184.862
67.5	178.226
68.0	171.710
68.5	165.174
69.0	158.838
69.5	152.562
70.0	146.466
70.5	140.570
71.0	134.794
71.5	129.197
72.0	123.801
72.5	118.564
73.0	113.467
73.5	108.471
74.0	103.674
74.5	98.977
75.0	94.360
75.5	89.902
76.0	85.525
76.5	81.228
77.0	77.051
77.5	72.953
78.0	68.976
78.5	65.078
79.0	61.261
79.5	57.583
80.0	53.925
80.5	50.388
81.0	46.890
81.5	43.412
82.0	40.014
82.5	36.637

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 8CR-TL-L40-835-XXX-DIM-UNV-LW-WH-XX\_.IES

CANDELA TABULATION - (Cont.)

83.0	33.339
83.5	30.101
84.0	26.903
84.5	23.765
85.0	20.707
85.5	17.749
86.0	14.890
86.5	12.132
87.0	9.454
87.5	7.215
88.0	5.516
88.5	4.037
89.0	2.798
89.5	1.759
90.0	1.119
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-L40-835-XXX-DIM-UNV-LW-WH-XX\_.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-L40-835-XXX-DIM-UNV-LW-WH-XX\_.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

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-L40-835-XXX-DIM-UNV-LW-WH-XX\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	723.19	N.A.	23.20
0-30	1461.86	N.A.	46.80
0-40	2009.59	N.A.	64.40
0-60	2782.98	N.A.	89.20
0-80	3096.24	N.A.	99.20
0-90	3121.00	N.A.	100.00
10-90	2935.21	N.A.	94.00
20-40	1286.4	N.A.	41.20
20-50	1720.43	N.A.	55.10
40-70	985.17	N.A.	31.60
60-80	313.26	N.A.	10.00
70-80	101.48	N.A.	3.30
80-90	24.75	N.A.	0.80
90-110	0.03	N.A.	0.00
90-120	0.03	N.A.	0.00
90-130	0.03	N.A.	0.00
90-150	0.03	N.A.	0.00
90-180	0.03	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3121.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	185.79
10-20	537.41
20-30	738.67
30-40	547.73
40-50	434.03
50-60	339.36
60-70	211.78
70-80	101.48
80-90	24.75
90-100	0.03
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-L40-835-XXX-DIM-UNV-LW-WH-XX\_.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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	101	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	78	74	70	69
4	89	79	72	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	52	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

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L40-835-XXX-DIM-UNV-LW-WH-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	23.0	24.4	23.4	24.7	25.0	23.0	24.4	23.4	24.7	25.0
	3H	24.2	25.5	24.6	25.8	26.1	24.2	25.5	24.6	25.8	26.1
	4H	24.6	25.8	25.0	26.1	26.5	24.6	25.8	25.0	26.1	26.5
	6H	24.9	25.9	25.3	26.3	26.7	24.9	25.9	25.3	26.3	26.7
	8H	24.9	26.0	25.4	26.4	26.8	24.9	26.0	25.4	26.4	26.8
	12H	25.0	26.0	25.4	26.3	26.8	25.0	26.0	25.4	26.3	26.8

### UGR Viewed Endwise

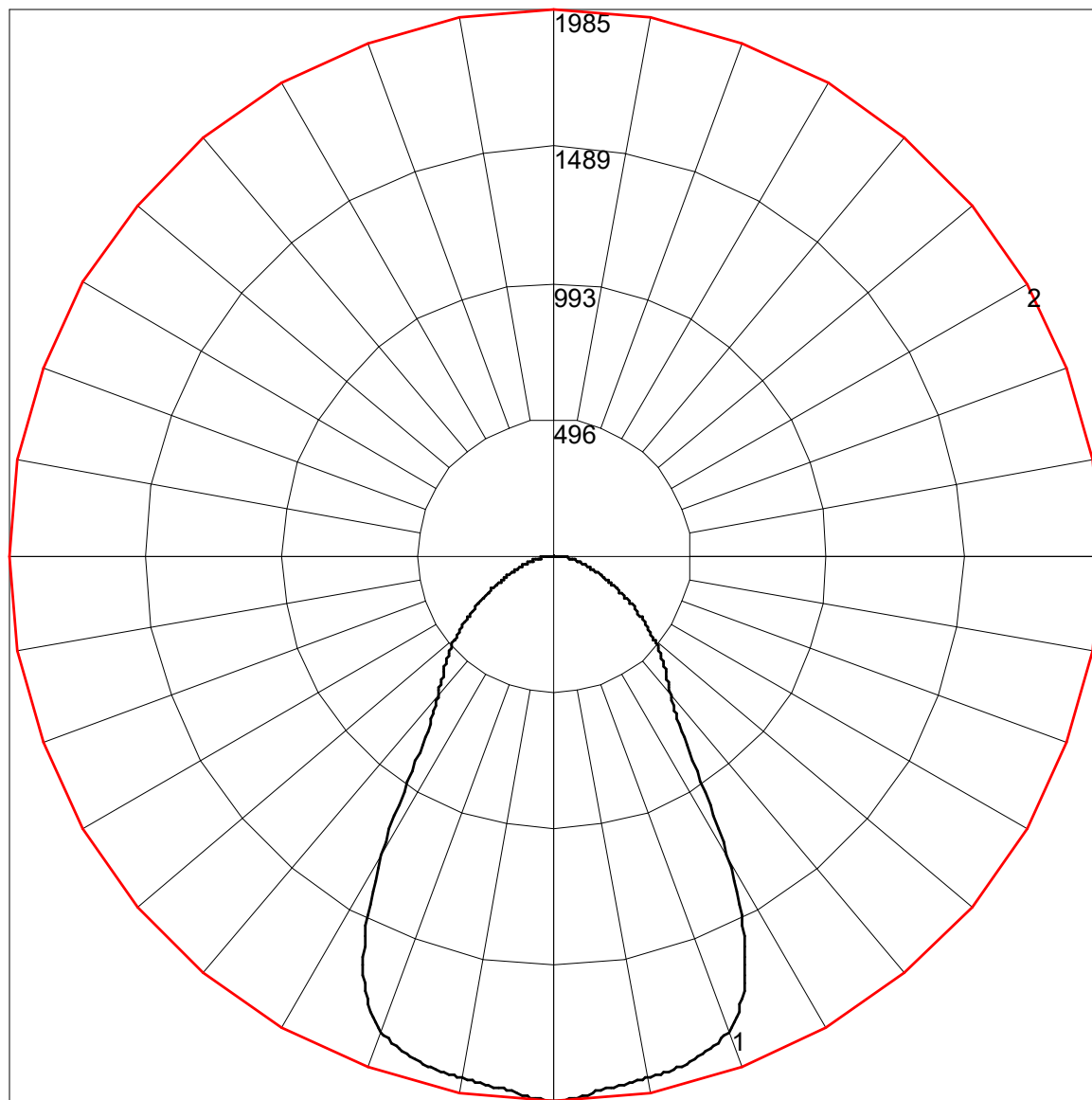
4H	2H	23.4	24.6	23.8	24.9	25.3	23.4	24.6	23.8	24.9	25.3
	3H	24.8	25.8	25.2	26.2	26.6	24.8	25.8	25.2	26.2	26.6
	4H	25.3	26.2	25.7	26.6	27.0	25.3	26.2	25.7	26.6	27.0
	6H	25.7	26.4	26.2	26.9	27.3	25.7	26.4	26.2	26.9	27.3
	8H	25.8	26.5	26.2	26.9	27.4	25.8	26.5	26.2	26.9	27.4
	12H	25.9	26.5	26.3	27.0	27.4	25.9	26.5	26.3	27.0	27.4

8H	4H	25.5	26.2	25.9	26.6	27.1	25.5	26.2	25.9	26.6	27.1
	6H	25.9	26.5	26.4	27.0	27.5	25.9	26.5	26.4	27.0	27.5
	8H	26.1	26.6	26.6	27.1	27.6	26.1	26.6	26.6	27.1	27.6
	12H	26.2	26.7	26.7	27.2	27.7	26.2	26.7	26.7	27.2	27.7

12H	4H	25.5	26.1	25.9	26.6	27.0	25.5	26.1	25.9	26.6	27.0
	6H	26.0	26.5	26.5	26.9	27.5	26.0	26.5	26.5	26.9	27.5
	8H	26.2	26.6	26.7	27.1	27.7	26.2	26.6	26.7	27.1	27.7

Maximum UGR = 27.7

POLAR GRAPH



Maximum Candela = 1985.329 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.)