



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L30-835-XXX-DIM-UNV-RM-WH-XX\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.14

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 1-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L30-835-xxx-DIM-UNV-RM-WH-xx

[LUMINAIRE] 8" DIA. SURFACE REFLECTOR

[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	2699
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	26.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.58
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.56
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.48 ft (Diameter)
Luminous Width (90-270)	0.48 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	9702	9702	9702
55	6524	6524	6524
65	4855	4855	4855
75	3353	3353	3353
85	2800	2800	2800

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CANDELA TABULATION

	<u>0</u>
0.0	6532.427
0.5	6529.398
1.0	6520.310
1.5	6505.164
2.0	6483.960
2.5	6458.212
3.0	6426.405
3.5	6390.055
4.0	6350.676
4.5	6305.238
5.0	6256.771
5.5	6203.761
6.0	6144.692
6.5	6079.564
7.0	6009.893
7.5	5934.164
8.0	5852.376
8.5	5764.530
9.0	5670.625
9.5	5569.148
10.0	5463.126
10.5	5349.532
11.0	5228.365
11.5	5101.139
12.0	4967.855
12.5	4825.484
13.0	4680.083
13.5	4527.110
14.0	4369.592
14.5	4209.046
15.0	4042.441
15.5	3875.836
16.0	3706.202
16.5	3536.568
17.0	3369.963
17.5	3210.931
18.0	3047.355
18.5	2885.294
19.0	2726.262
19.5	2574.803
20.0	2430.917
20.5	2291.575
21.0	2155.262
21.5	2025.007
22.0	1899.296
22.5	1781.158
23.0	1669.078
23.5	1563.057
24.0	1463.397
24.5	1369.947
25.0	1281.949
25.5	1199.404
26.0	1122.311
26.5	1049.914

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 8CR-TL-L30-835-XXX-DIM-UNV-RM-WH-XX\_.IES****CANDELA TABULATION - (Cont.)**

27.0	982.515
27.5	919.508
28.0	860.439
28.5	805.610
29.0	754.114
29.5	705.950
30.0	660.664
30.5	618.407
31.0	578.876
31.5	541.769
32.0	507.085
32.5	474.521
33.0	443.926
33.5	415.301
34.0	388.341
34.5	363.350
35.0	340.025
35.5	318.215
36.0	297.920
36.5	279.139
37.0	261.721
37.5	245.667
38.0	230.824
38.5	217.192
39.0	204.621
39.5	193.110
40.0	182.660
40.5	173.118
41.0	164.333
41.5	156.306
42.0	148.884
42.5	142.069
43.0	135.707
43.5	129.952
44.0	124.499
44.5	119.653
45.0	114.957
45.5	110.717
46.0	106.627
46.5	102.841
47.0	99.357
47.5	96.176
48.0	93.147
48.5	90.270
49.0	87.543
49.5	84.817
50.0	82.394
50.5	80.122
51.0	77.850
51.5	75.730
52.0	73.761
52.5	71.640
53.0	69.823
53.5	68.005
54.0	66.188
54.5	64.370

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CANDELA TABULATION - (Cont.)

55.0	62.704
55.5	61.038
56.0	59.523
56.5	57.857
57.0	56.343
57.5	54.828
58.0	53.314
58.5	51.799
59.0	50.436
59.5	48.921
60.0	47.558
60.5	46.195
61.0	44.832
61.5	43.469
62.0	42.106
62.5	40.742
63.0	39.531
63.5	38.168
64.0	36.956
64.5	35.593
65.0	34.381
65.5	33.170
66.0	31.958
66.5	30.746
67.0	29.535
67.5	28.474
68.0	27.263
68.5	26.202
69.0	25.142
69.5	23.931
70.0	23.022
70.5	21.962
71.0	21.053
71.5	19.993
72.0	19.084
72.5	18.175
73.0	17.418
73.5	16.660
74.0	15.903
74.5	15.146
75.0	14.540
75.5	13.783
76.0	13.177
76.5	12.723
77.0	12.117
77.5	11.511
78.0	11.057
78.5	10.451
79.0	9.996
79.5	9.542
80.0	8.936
80.5	8.482
81.0	7.876
81.5	7.421
82.0	6.967
82.5	6.513

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CANDELA TABULATION - (Cont.)

83.0	6.058
83.5	5.453
84.0	4.998
84.5	4.544
85.0	4.089
85.5	3.635
86.0	3.332
86.5	2.878
87.0	2.423
87.5	1.969
88.0	1.515
88.5	1.212
89.0	1.060
89.5	0.757
90.0	0.606
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  
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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
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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  
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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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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1660.68	N.A.	61.50
0-30	2270.63	N.A.	84.10
0-40	2495.14	N.A.	92.40
0-60	2644.13	N.A.	98.00
0-80	2694.22	N.A.	99.80
0-90	2698.9	N.A.	100.00
10-90	2126.45	N.A.	78.80
20-40	834.46	N.A.	30.90
20-50	926.83	N.A.	34.30
40-70	183.26	N.A.	6.80
60-80	50.09	N.A.	1.90
70-80	15.83	N.A.	0.60
80-90	4.68	N.A.	0.20
90-110	0.02	N.A.	0.00
90-120	0.02	N.A.	0.00
90-130	0.02	N.A.	0.00
90-150	0.02	N.A.	0.00
90-180	0.02	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2698.92	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	572.44
10-20	1088.24
20-30	609.95
30-40	224.50
40-50	92.38
50-60	56.62
60-70	34.26
70-80	15.83
80-90	4.68
90-100	0.02
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	111	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	94
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	94	89	85	98	92	88	84	90	86	83	88	85	83	87	84	82	80
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76
6	92	85	80	76	91	84	79	76	83	78	75	81	77	75	80	77	74	73
7	89	81	76	72	88	80	75	72	79	75	72	78	74	71	77	73	71	70
8	86	77	72	69	85	77	72	69	76	72	68	75	71	68	74	71	68	67
9	83	74	69	66	82	74	69	66	73	69	66	72	68	65	71	68	65	64
10	80	71	67	63	79	71	66	63	70	66	63	70	66	63	69	65	63	62

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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	11.1	12.1	11.5	12.4	12.7	11.1	12.1	11.5	12.4	12.7
	3H	12.2	13.1	12.6	13.4	13.8	12.2	13.1	12.6	13.4	13.8
	4H	12.5	13.3	12.9	13.7	14.1	12.5	13.3	12.9	13.7	14.1
	6H	12.7	13.5	13.2	13.9	14.3	12.7	13.5	13.2	13.9	14.3
	8H	12.8	13.5	13.3	13.9	14.3	12.8	13.5	13.3	13.9	14.3
	12H	12.9	13.5	13.3	13.9	14.3	12.9	13.5	13.3	13.9	14.3

### UGR Viewed Endwise

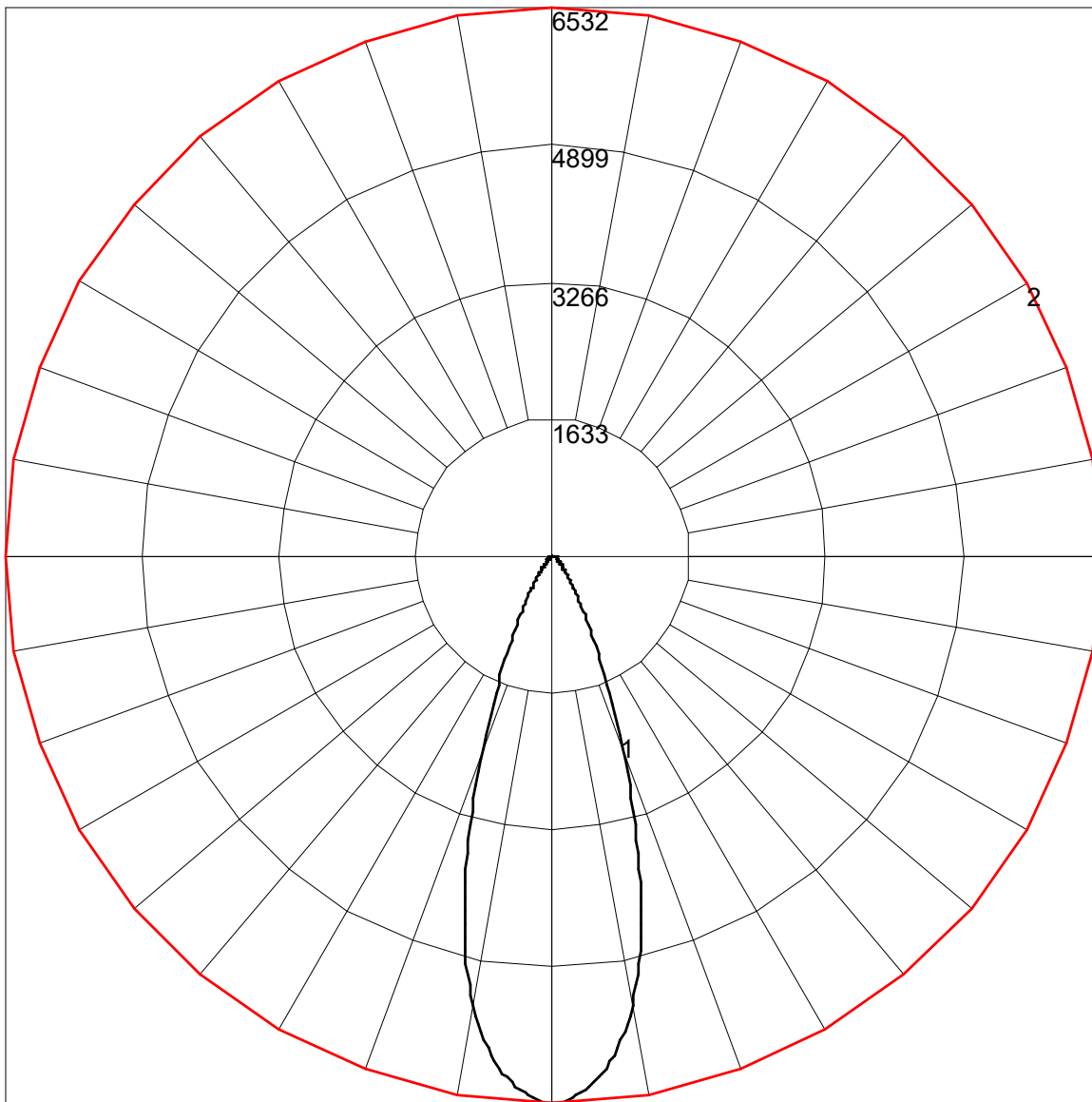
4H	2H	11.4	12.2	11.8	12.6	13.0	11.4	12.2	11.8	12.6	13.0
	3H	12.7	13.3	13.1	13.8	14.2	12.7	13.3	13.1	13.8	14.2
	4H	13.1	13.7	13.5	14.1	14.5	13.1	13.7	13.5	14.1	14.5
	6H	13.4	13.9	13.9	14.4	14.9	13.4	13.9	13.9	14.4	14.9
	8H	13.6	14.0	14.0	14.5	14.9	13.6	14.0	14.0	14.5	14.9
	12H	13.6	14.0	14.1	14.5	15.0	13.6	14.0	14.1	14.5	15.0

8H	4H	13.2	13.6	13.7	14.1	14.6	13.2	13.6	13.7	14.1	14.6
	6H	13.6	14.0	14.2	14.5	15.0	13.6	14.0	14.2	14.5	15.0
	8H	13.8	14.1	14.4	14.7	15.2	13.8	14.1	14.4	14.7	15.2
	12H	14.0	14.2	14.5	14.7	15.3	14.0	14.2	14.5	14.7	15.3

12H	4H	13.2	13.6	13.7	14.0	14.5	13.2	13.6	13.7	14.0	14.5
	6H	13.6	14.0	14.2	14.4	15.0	13.6	14.0	14.2	14.4	15.0
	8H	13.9	14.1	14.4	14.6	15.2	13.9	14.1	14.4	14.6	15.2

Maximum UGR = 15.3

POLAR GRAPH



Maximum Candela = 6532.427 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.)