



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L10-835-XXX-DIM-UNV-RN-BL-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.15

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 1-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L10-835-xxx-DIM-UNV-RN-BL-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	709
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	81
Total Luminaire Watts	8.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.44
Spacing Criterion (90-270)	0.44
Spacing Criterion (Diagonal)	0.46
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	2320	2320	2320
55	1518	1518	1518
65	1033	1033	1033
75	667	667	667
85	535	535	535

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CANDELA TABULATION

	<u>0</u>
0.0	2631.551
0.5	2629.205
1.0	2621.774
1.5	2608.869
2.0	2590.879
2.5	2567.415
3.0	2539.257
3.5	2506.798
4.0	2470.428
4.5	2429.756
5.0	2385.564
5.5	2337.071
6.0	2284.667
6.5	2229.134
7.0	2170.472
7.5	2108.682
8.0	2044.155
8.5	1977.281
9.0	1907.669
9.5	1836.493
10.0	1763.362
10.5	1689.840
11.0	1615.535
11.5	1540.840
12.0	1466.535
12.5	1392.231
13.0	1319.491
13.5	1246.751
14.0	1176.357
14.5	1107.919
15.0	1041.045
15.5	977.299
16.0	916.682
16.5	859.194
17.0	803.661
17.5	750.866
18.0	700.808
18.5	654.270
19.0	610.079
19.5	570.189
20.0	531.081
20.5	494.320
21.0	460.297
21.5	428.619
22.0	398.507
22.5	370.193
23.0	343.912
23.5	319.470
24.0	296.670
24.5	275.435
25.0	255.686
25.5	237.383
26.0	220.489
26.5	204.807

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CANDELA TABULATION - (Cont.)

27.0	190.337
27.5	177.040
28.0	164.799
28.5	153.536
29.0	143.173
29.5	133.670
30.0	124.871
30.5	116.814
31.0	109.423
31.5	102.579
32.0	96.283
32.5	90.456
33.0	85.098
33.5	80.131
34.0	75.556
34.5	71.293
35.0	67.343
35.5	63.706
36.0	60.343
36.5	57.175
37.0	54.281
37.5	51.544
38.0	49.041
38.5	46.734
39.0	44.583
39.5	42.549
40.0	40.711
40.5	38.951
41.0	37.348
41.5	35.823
42.0	34.415
42.5	33.085
43.0	31.834
43.5	30.660
44.0	29.526
44.5	28.470
45.0	27.493
45.5	26.554
46.0	25.655
46.5	24.794
47.0	23.973
47.5	23.152
48.0	22.409
48.5	21.666
49.0	21.001
49.5	20.336
50.0	19.710
50.5	19.085
51.0	18.498
51.5	17.950
52.0	17.403
52.5	16.894
53.0	16.386
53.5	15.917
54.0	15.448
54.5	15.017

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CANDELA TABULATION - (Cont.)

55.0	14.587
55.5	14.157
56.0	13.766
56.5	13.375
57.0	12.945
57.5	12.554
58.0	12.202
58.5	11.810
59.0	11.459
59.5	11.067
60.0	10.715
60.5	10.324
61.0	9.972
61.5	9.620
62.0	9.269
62.5	8.956
63.0	8.604
63.5	8.291
64.0	7.939
64.5	7.626
65.0	7.313
65.5	7.000
66.0	6.727
66.5	6.453
67.0	6.179
67.5	5.905
68.0	5.631
68.5	5.397
69.0	5.162
69.5	4.928
70.0	4.693
70.5	4.497
71.0	4.263
71.5	4.067
72.0	3.872
72.5	3.676
73.0	3.520
73.5	3.363
74.0	3.207
74.5	3.050
75.0	2.894
75.5	2.738
76.0	2.620
76.5	2.503
77.0	2.386
77.5	2.268
78.0	2.151
78.5	2.073
79.0	1.955
79.5	1.838
80.0	1.760
80.5	1.643
81.0	1.525
81.5	1.447
82.0	1.330
82.5	1.251

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CANDELA TABULATION - (Cont.)

83.0	1.173
83.5	1.056
84.0	0.978
84.5	0.860
85.0	0.782
85.5	0.704
86.0	0.626
86.5	0.548
87.0	0.469
87.5	0.391
88.0	0.313
88.5	0.235
89.0	0.196
89.5	0.156
90.0	0.117
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

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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
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

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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	494.12	N.A.	69.70
0-30	617.93	N.A.	87.20
0-40	662.34	N.A.	93.50
0-60	697.27	N.A.	98.40
0-80	707.79	N.A.	99.90
0-90	708.70	N.A.	100.00
10-90	501.19	N.A.	70.70
20-40	168.22	N.A.	23.70
20-50	189.96	N.A.	26.80
40-70	42.28	N.A.	6.00
60-80	10.52	N.A.	1.50
70-80	3.17	N.A.	0.40
80-90	0.90	N.A.	0.10
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	708.70	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	207.50
10-20	286.62
20-30	123.81
30-40	44.42
40-50	21.74
50-60	13.19
60-70	7.35
70-80	3.17
80-90	0.90
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	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95
2	110	106	102	99	108	104	101	98	101	98	96	98	96	94	95	94	92	91
3	106	100	96	93	104	99	95	92	96	93	91	94	92	89	92	90	88	87
4	102	96	91	88	100	95	90	87	93	89	86	91	88	85	89	86	84	83
5	98	91	87	83	97	91	86	83	89	85	82	87	84	82	86	83	81	80
6	95	88	83	80	93	87	82	79	86	82	79	84	81	78	83	80	78	77
7	92	84	80	76	90	84	79	76	83	79	76	81	78	75	80	77	75	74
8	89	81	77	73	88	81	76	73	80	76	73	79	75	73	78	75	72	71
9	86	78	74	71	85	78	74	71	77	73	70	76	73	70	76	72	70	69
10	83	76	71	68	83	75	71	68	75	71	68	74	70	68	73	70	68	67

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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

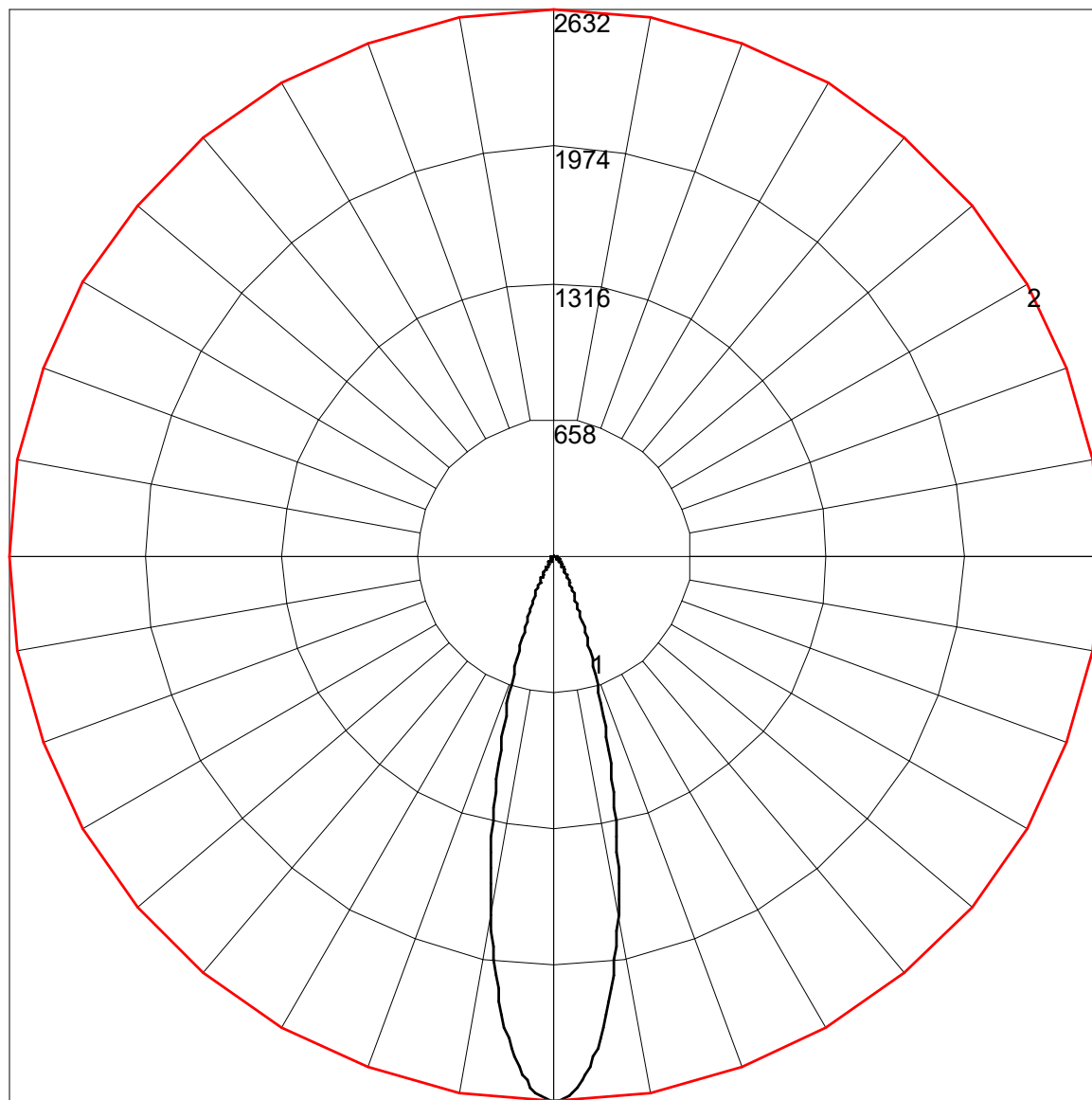
X=2H	Y=2H	5.6	6.5	5.9	6.8	7.2	5.6	6.5	5.9	6.8	7.2
	3H	6.4	7.3	6.8	7.6	8.0	6.4	7.3	6.8	7.6	8.0
	4H	6.7	7.5	7.1	7.8	8.2	6.7	7.5	7.1	7.8	8.2
	6H	6.8	7.6	7.3	7.9	8.3	6.8	7.6	7.3	7.9	8.3
	8H	6.9	7.6	7.3	8.0	8.4	6.9	7.6	7.3	8.0	8.4
	12H	6.9	7.6	7.4	7.9	8.4	6.9	7.6	7.4	7.9	8.4

UGR Viewed Endwise

4H	2H	5.8	6.6	6.2	6.9	7.3	5.8	6.6	6.2	6.9	7.3
	3H	6.8	7.5	7.2	7.9	8.3	6.8	7.5	7.2	7.9	8.3
	4H	7.2	7.7	7.6	8.1	8.6	7.2	7.7	7.6	8.1	8.6
	6H	7.4	7.9	7.9	8.3	8.8	7.4	7.9	7.9	8.3	8.8
	8H	7.5	7.9	8.0	8.4	8.9	7.5	7.9	8.0	8.4	8.9
	12H	7.5	7.9	8.0	8.4	8.9	7.5	7.9	8.0	8.4	8.9
8H	4H	7.2	7.6	7.7	8.1	8.6	7.2	7.6	7.7	8.1	8.6
	6H	7.5	7.9	8.1	8.4	8.9	7.5	7.9	8.1	8.4	8.9
	8H	7.7	8.0	8.2	8.5	9.0	7.7	8.0	8.2	8.5	9.0
	12H	7.8	8.1	8.3	8.6	9.1	7.8	8.1	8.3	8.6	9.1
12H	4H	7.2	7.5	7.6	8.0	8.5	7.2	7.5	7.6	8.0	8.5
	6H	7.5	7.9	8.1	8.3	8.9	7.5	7.9	8.1	8.3	8.9
	8H	7.7	8.0	8.2	8.5	9.1	7.7	8.0	8.2	8.5	9.1

Maximum UGR = 9.1

POLAR GRAPH



Maximum Candela = 2631.551 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.)