



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L15-835-XXX-DIM-UNV-OM-SG-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-L15-835-xxx-DIM-UNV-OM-SG-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	1375
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	13.8
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	2481	2481	2481
55	914	914	914
65	359	359	359
75	161	161	161
85	131	131	131

CANDELA TABULATION

	<u>0</u>
0.0	2782.589
0.5	2786.750
1.0	2795.071
1.5	2799.924
2.0	2811.712
2.5	2816.566
3.0	2824.886
3.5	2826.967
4.0	2820.726
4.5	2787.443
5.0	2754.160
5.5	2718.797
6.0	2661.939
6.5	2605.081
7.0	2544.755
7.5	2476.803
8.0	2397.756
8.5	2316.629
9.0	2232.728
9.5	2150.908
10.0	2075.328
10.5	2008.762
11.0	1951.210
11.5	1901.979
12.0	1853.442
12.5	1805.598
13.0	1759.834
13.5	1716.843
14.0	1678.013
14.5	1643.343
15.0	1612.141
15.5	1582.325
16.0	1553.202
16.5	1522.693
17.0	1491.490
17.5	1460.287
18.0	1431.858
18.5	1406.896
19.0	1381.241
19.5	1354.892
20.0	1325.769
20.5	1294.566
21.0	1262.670
21.5	1230.081
22.0	1195.411
22.5	1162.128
23.0	1126.765
23.5	1090.708
24.0	1053.265
24.5	1015.822
25.0	979.072
25.5	942.322
26.0	908.346
26.5	875.756

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CANDELA TABULATION - (Cont.)

27.0	845.247
27.5	816.125
28.0	789.776
28.5	766.200
29.0	744.012
29.5	722.516
30.0	695.474
30.5	661.636
31.0	622.806
31.5	580.093
32.0	536.756
32.5	493.142
33.0	449.527
33.5	403.763
34.0	357.306
34.5	314.939
35.0	274.237
35.5	235.823
36.0	198.865
36.5	165.790
37.0	138.679
37.5	119.610
38.0	109.348
38.5	102.414
39.0	95.480
39.5	88.130
40.0	80.295
40.5	71.974
41.0	64.000
41.5	56.581
42.0	50.271
42.5	45.279
43.0	41.396
43.5	38.414
44.0	35.918
44.5	33.907
45.0	32.035
45.5	30.440
46.0	28.915
46.5	27.528
47.0	26.141
47.5	24.823
48.0	23.506
48.5	22.189
49.0	20.871
49.5	19.692
50.0	18.583
50.5	17.474
51.0	16.433
51.5	15.393
52.0	14.353
52.5	13.452
53.0	12.550
53.5	11.718
54.0	10.956
54.5	10.262

CANDELA TABULATION - (Cont.)

55.0	9.569
55.5	9.014
56.0	8.390
56.5	7.905
57.0	7.419
57.5	6.934
58.0	6.518
58.5	6.102
59.0	5.755
59.5	5.408
60.0	5.062
60.5	4.715
61.0	4.438
61.5	4.160
62.0	3.952
62.5	3.744
63.0	3.467
63.5	3.328
64.0	3.120
64.5	2.912
65.0	2.774
65.5	2.566
66.0	2.427
66.5	2.288
67.0	2.150
67.5	2.011
68.0	1.942
68.5	1.803
69.0	1.664
69.5	1.595
70.0	1.525
70.5	1.387
71.0	1.317
71.5	1.248
72.0	1.179
72.5	1.109
73.0	1.040
73.5	0.971
74.0	0.901
74.5	0.832
75.0	0.763
75.5	0.763
76.0	0.693
76.5	0.624
77.0	0.624
77.5	0.555
78.0	0.555
78.5	0.485
79.0	0.485
79.5	0.416
80.0	0.416
80.5	0.347
81.0	0.347
81.5	0.347
82.0	0.277
82.5	0.277

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CANDELA TABULATION - (Cont.)

83.0	0.277
83.5	0.208
84.0	0.208
84.5	0.208
85.0	0.208
85.5	0.139
86.0	0.139
86.5	0.139
87.0	0.139
87.5	0.139
88.0	0.069
88.5	0.069
89.0	0.069
89.5	0.069
90.0	0.069
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

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	693.93	N.A.	50.50
0-30	1143.42	N.A.	83.20
0-40	1333.63	N.A.	97.00
0-60	1371.01	N.A.	99.70
0-80	1374.77	N.A.	100.00
0-90	1374.98	N.A.	100.00
10-90	1135.23	N.A.	82.60
20-40	639.70	N.A.	46.50
20-50	667.90	N.A.	48.60
40-70	40.25	N.A.	2.90
60-80	3.76	N.A.	0.30
70-80	0.89	N.A.	0.10
80-90	0.21	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	1374.99	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	239.75
10-20	454.17
20-30	449.49
30-40	190.21
40-50	28.20
50-60	9.18
60-70	2.87
70-80	0.89
80-90	0.21
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

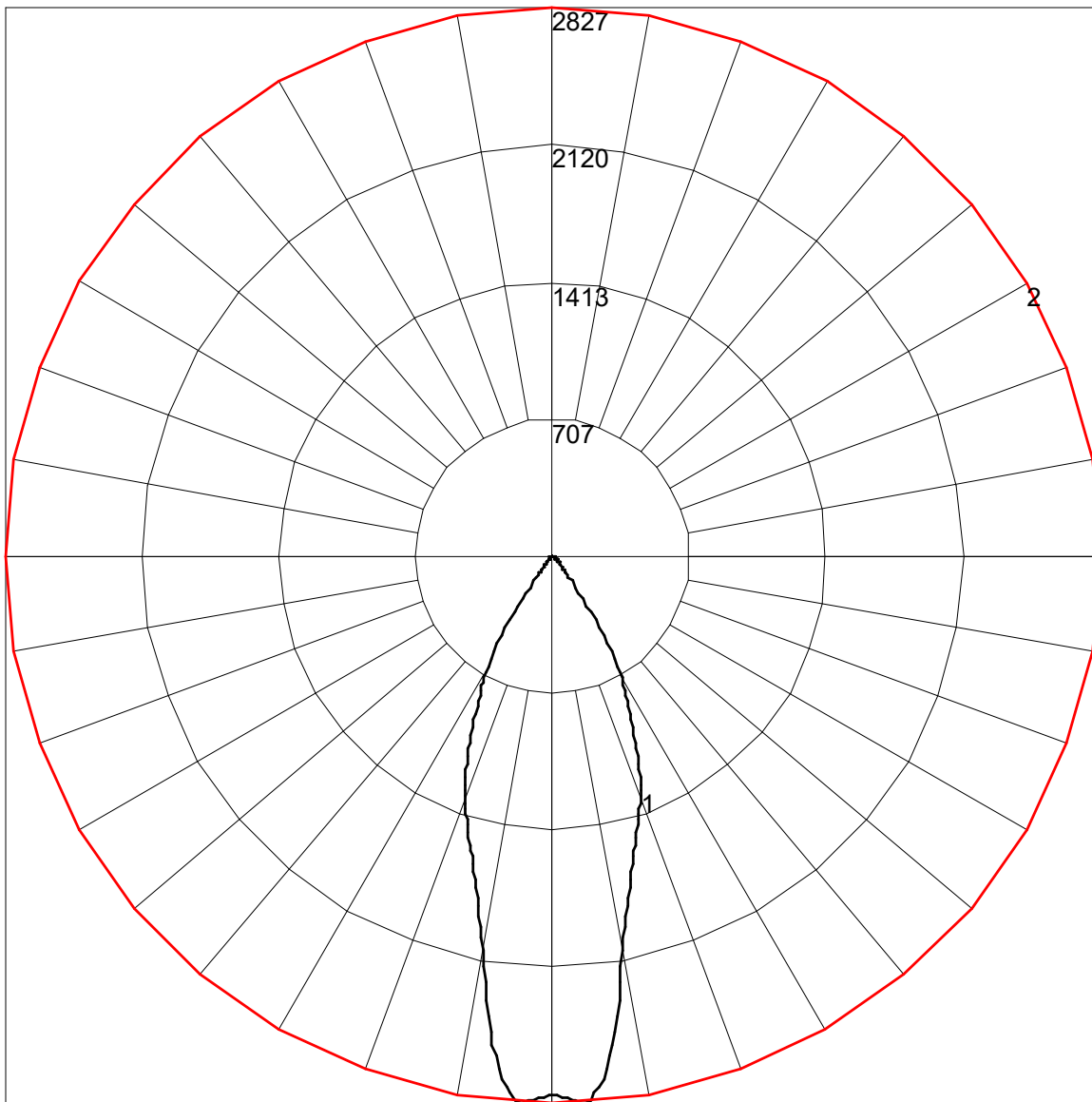
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UGR TABLE - CORRECTED

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					UGR Viewed Endwise				
X=2H	Y=2H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	3H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	4H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	6H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	8H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	12H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
4H	2H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	3H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	4H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	6H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	8H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	12H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
8H	4H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	6H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	8H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	12H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
12H	4H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	6H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	8H	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2

Maximum UGR = 1.2

POLAR GRAPH



Maximum Candela = 2826.967 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.)