



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L30-835-XXX-DIM-UNV-OM-SG-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL#12326812.22

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 2-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L30-835-xxx-DIM-UNV-OM-SG-xx

[LUMINAIRE] 8" DIA. SURFACE CYLINDER

[LAMP] One white LED

[_SEARCH_SOURCE] 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	2763
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	26.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.64
Spacing Criterion (90-270)	0.64
Spacing Criterion (Diagonal)	0.72
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	4987	4987	4987
55	1839	1839	1839
65	731	731	731
75	408	408	408
85	389	389	389

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CANDELA TABULATION

	<u>0</u>
0.0	5141.651
0.5	5156.785
1.0	5197.374
1.5	5264.104
2.0	5323.266
2.5	5381.053
3.0	5436.088
3.5	5479.428
4.0	5510.386
4.5	5501.442
5.0	5454.663
5.5	5388.620
6.0	5298.501
6.5	5190.494
7.0	5070.105
7.5	4942.149
8.0	4801.121
8.5	4649.087
9.0	4490.861
9.5	4337.451
10.0	4195.736
10.5	4062.963
11.0	3936.383
11.5	3820.121
12.0	3716.930
12.5	3624.059
13.0	3537.379
13.5	3455.514
14.0	3379.153
14.5	3308.983
15.0	3239.501
15.5	3174.147
16.0	3111.545
16.5	3051.006
17.0	2991.844
17.5	2931.993
18.0	2872.142
18.5	2810.916
19.0	2749.689
19.5	2688.463
20.0	2627.924
20.5	2567.386
21.0	2504.783
21.5	2439.429
22.0	2373.387
22.5	2307.345
23.0	2240.615
23.5	2172.509
24.0	2104.403
24.5	2036.985
25.0	1971.631
25.5	1906.277
26.0	1841.611
26.5	1779.696

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CANDELA TABULATION - (Cont.)

27.0	1721.222
27.5	1666.874
28.0	1614.591
28.5	1565.748
29.0	1520.344
29.5	1472.876
30.0	1417.841
30.5	1355.238
31.0	1288.508
31.5	1216.963
32.0	1136.474
32.5	1042.226
33.0	939.724
33.5	834.469
34.0	729.903
34.5	628.294
35.0	534.390
35.5	451.769
36.0	384.833
36.5	328.766
37.0	280.472
37.5	241.398
38.0	213.536
38.5	196.544
39.0	183.473
39.5	170.540
40.0	157.194
40.5	144.329
41.0	131.671
41.5	119.426
42.0	108.075
42.5	97.412
43.0	87.575
43.5	79.732
44.0	73.541
44.5	68.450
45.0	64.391
45.5	60.745
46.0	57.649
46.5	54.760
47.0	52.077
47.5	49.600
48.0	47.055
48.5	44.716
49.0	42.239
49.5	39.694
50.0	37.217
50.5	34.947
51.0	32.883
51.5	30.682
52.0	28.687
52.5	26.830
53.0	24.972
53.5	23.459
54.0	22.014
54.5	20.432

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CANDELA TABULATION - (Cont.)

55.0	19.262
55.5	18.024
56.0	16.923
56.5	15.960
57.0	14.859
57.5	14.034
58.0	13.277
58.5	12.383
59.0	11.626
59.5	10.938
60.0	10.181
60.5	9.700
61.0	9.150
61.5	8.599
62.0	8.049
62.5	7.636
63.0	7.155
63.5	6.811
64.0	6.329
64.5	6.123
65.0	5.641
65.5	5.366
66.0	5.160
66.5	4.816
67.0	4.540
67.5	4.196
68.0	4.128
68.5	3.852
69.0	3.577
69.5	3.371
70.0	3.302
70.5	3.027
71.0	2.821
71.5	2.958
72.0	2.614
72.5	2.477
73.0	2.270
73.5	2.270
74.0	2.064
74.5	1.857
75.0	1.926
75.5	1.720
76.0	1.582
76.5	1.513
77.0	1.513
77.5	1.376
78.0	1.169
78.5	1.238
79.0	1.238
79.5	1.238
80.0	1.032
80.5	0.963
81.0	0.894
81.5	0.894
82.0	0.826
82.5	0.757

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CANDELA TABULATION - (Cont.)

83.0	0.688
83.5	0.688
84.0	0.826
84.5	0.619
85.0	0.619
85.5	0.619
86.0	0.550
86.5	0.550
87.0	0.550
87.5	0.482
88.0	0.413
88.5	0.482
89.0	0.482
89.5	0.344
90.0	0.413
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
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130.0	0.000
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131.5	0.000
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133.0	0.000
133.5	0.000
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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	1386.17	N.A.	50.20
0-30	2290.09	N.A.	82.90
0-40	2678.15	N.A.	96.90
0-60	2754.21	N.A.	99.70
0-80	2762.22	N.A.	100.00
0-90	2762.93	N.A.	100.00
10-90	2287.79	N.A.	82.80
20-40	1291.98	N.A.	46.80
20-50	1349.62	N.A.	48.80
40-70	82.01	N.A.	3.00
60-80	8.01	N.A.	0.30
70-80	2.06	N.A.	0.10
80-90	0.71	N.A.	0.00
90-110	0.01	N.A.	0.00
90-120	0.01	N.A.	0.00
90-130	0.01	N.A.	0.00
90-150	0.01	N.A.	0.00
90-180	0.01	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2762.94	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	475.14
10-20	911.03
20-30	903.92
30-40	388.06
40-50	57.64
50-60	18.41
60-70	5.96
70-80	2.06
80-90	0.71
90-100	0.01
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	102	97	93	90	95	91	88	92	89	87	90	88	86	84
4	100	93	88	84	98	92	87	84	90	86	83	88	85	82	86	83	81	80
5	96	88	83	79	94	87	82	79	85	81	78	84	80	77	82	79	77	75
6	91	84	78	74	90	83	78	74	81	77	74	80	76	73	79	75	73	71
7	88	79	74	70	86	79	74	70	78	73	70	76	72	69	75	72	69	68
8	84	76	70	67	83	75	70	66	74	69	66	73	69	66	72	68	66	64
9	81	72	67	63	80	72	67	63	71	66	63	70	66	63	69	65	63	61
10	77	69	64	60	77	68	63	60	68	63	60	67	63	60	66	62	60	58

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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

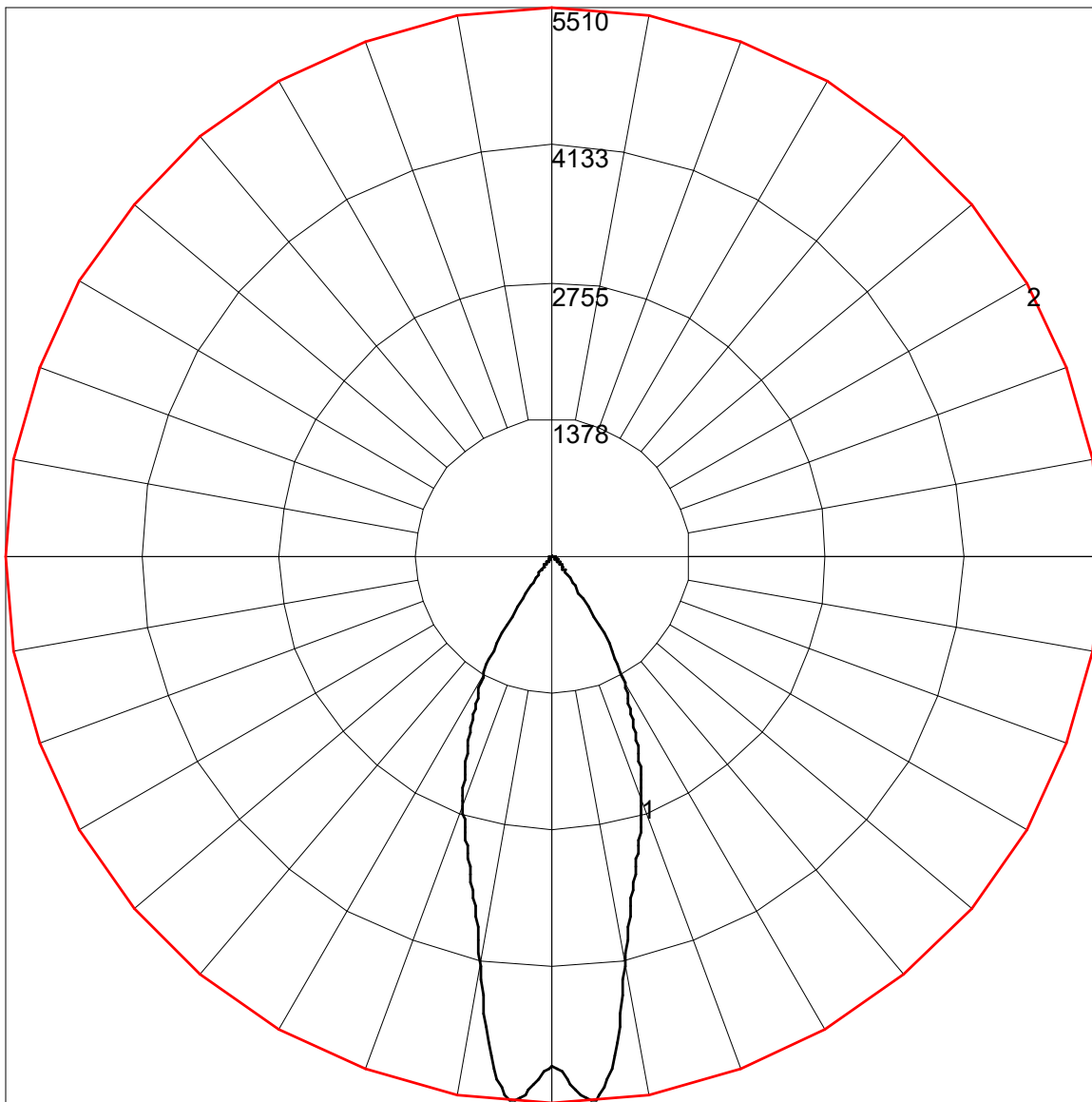
X=2H	Y=2H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	3H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	4H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	6H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	8H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	12H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6

UGR Viewed Endwise

4H	2H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	3H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	4H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	6H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	8H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	12H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
8H	4H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	6H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	8H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	12H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
12H	4H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	6H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	8H	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6

Maximum UGR = 3.6

POLAR GRAPH



Maximum Candela = 5510.386 Located At Horizontal Angle = 0, Vertical Angle = 4
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (4) (Through Max. Cd.)