



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L30-830-XXX-DIM-UNV-OM-CS-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-L30-830-xxx-DIM-UNV-OM-CS-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	2943
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
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	5313	5313	5313
55	1959	1959	1959
65	779	779	779
75	434	434	434
85	415	415	415

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CANDELA TABULATION

	<u>0</u>
0.0	5477.087
0.5	5493.209
1.0	5536.445
1.5	5607.529
2.0	5670.551
2.5	5732.108
3.0	5790.734
3.5	5836.901
4.0	5869.878
4.5	5860.351
5.0	5810.520
5.5	5740.169
6.0	5644.170
6.5	5529.117
7.0	5400.874
7.5	5264.570
8.0	5114.342
8.5	4952.389
9.0	4783.841
9.5	4620.422
10.0	4469.461
10.5	4328.027
11.0	4193.189
11.5	4069.342
12.0	3959.420
12.5	3860.489
13.0	3768.154
13.5	3680.948
14.0	3599.606
14.5	3524.858
15.0	3450.843
15.5	3381.226
16.0	3314.539
16.5	3250.051
17.0	3187.029
17.5	3123.273
18.0	3059.518
18.5	2994.297
19.0	2929.076
19.5	2863.856
20.0	2799.368
20.5	2734.879
21.0	2668.193
21.5	2598.575
22.0	2528.225
22.5	2457.874
23.0	2386.791
23.5	2314.242
24.0	2241.692
24.5	2169.876
25.0	2100.258
25.5	2030.641
26.0	1961.756
26.5	1895.802

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CANDELA TABULATION - (Cont.)

27.0	1833.512
27.5	1775.620
28.0	1719.926
28.5	1667.895
29.0	1619.529
29.5	1568.965
30.0	1510.339
30.5	1443.653
31.0	1372.569
31.5	1296.356
32.0	1210.617
32.5	1110.220
33.0	1001.030
33.5	888.909
34.0	777.521
34.5	669.283
35.0	569.254
35.5	481.242
36.0	409.939
36.5	350.214
37.0	298.770
37.5	257.146
38.0	227.467
38.5	209.366
39.0	195.443
39.5	181.666
40.0	167.449
40.5	153.745
41.0	140.262
41.5	127.217
42.0	115.126
42.5	103.767
43.0	93.288
43.5	84.934
44.0	78.338
44.5	72.915
45.0	68.592
45.5	64.708
46.0	61.410
46.5	58.332
47.0	55.474
47.5	52.836
48.0	50.125
48.5	47.633
49.0	44.995
49.5	42.284
50.0	39.645
50.5	37.227
51.0	35.029
51.5	32.684
52.0	30.559
52.5	28.580
53.0	26.601
53.5	24.989
54.0	23.450
54.5	21.765

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CANDELA TABULATION - (Cont.)

55.0	20.519
55.5	19.200
56.0	18.027
56.5	17.001
57.0	15.829
57.5	14.950
58.0	14.143
58.5	13.191
59.0	12.385
59.5	11.652
60.0	10.846
60.5	10.333
61.0	9.746
61.5	9.160
62.0	8.574
62.5	8.134
63.0	7.621
63.5	7.255
64.0	6.742
64.5	6.522
65.0	6.009
65.5	5.716
66.0	5.496
66.5	5.130
67.0	4.837
67.5	4.470
68.0	4.397
68.5	4.104
69.0	3.811
69.5	3.591
70.0	3.518
70.5	3.224
71.0	3.005
71.5	3.151
72.0	2.785
72.5	2.638
73.0	2.418
73.5	2.418
74.0	2.198
74.5	1.979
75.0	2.052
75.5	1.832
76.0	1.685
76.5	1.612
77.0	1.612
77.5	1.466
78.0	1.246
78.5	1.319
79.0	1.319
79.5	1.319
80.0	1.099
80.5	1.026
81.0	0.953
81.5	0.953
82.0	0.879
82.5	0.806

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CANDELA TABULATION - (Cont.)

83.0	0.733
83.5	0.733
84.0	0.879
84.5	0.660
85.0	0.660
85.5	0.660
86.0	0.586
86.5	0.586
87.0	0.586
87.5	0.513
88.0	0.440
88.5	0.513
89.0	0.513
89.5	0.366
90.0	0.440
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

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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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	1476.6	N.A.	50.20
0-30	2439.49	N.A.	82.90
0-40	2852.87	N.A.	96.90
0-60	2933.89	N.A.	99.70
0-80	2942.42	N.A.	100.00
0-90	2943.18	N.A.	100.00
10-90	2437.04	N.A.	82.80
20-40	1376.27	N.A.	46.80
20-50	1437.67	N.A.	48.80
40-70	87.36	N.A.	3.00
60-80	8.53	N.A.	0.30
70-80	2.19	N.A.	0.10
80-90	0.75	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	2943.19	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	506.14
10-20	970.47
20-30	962.89
30-40	413.38
40-50	61.40
50-60	19.62
60-70	6.34
70-80	2.19
80-90	0.75
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

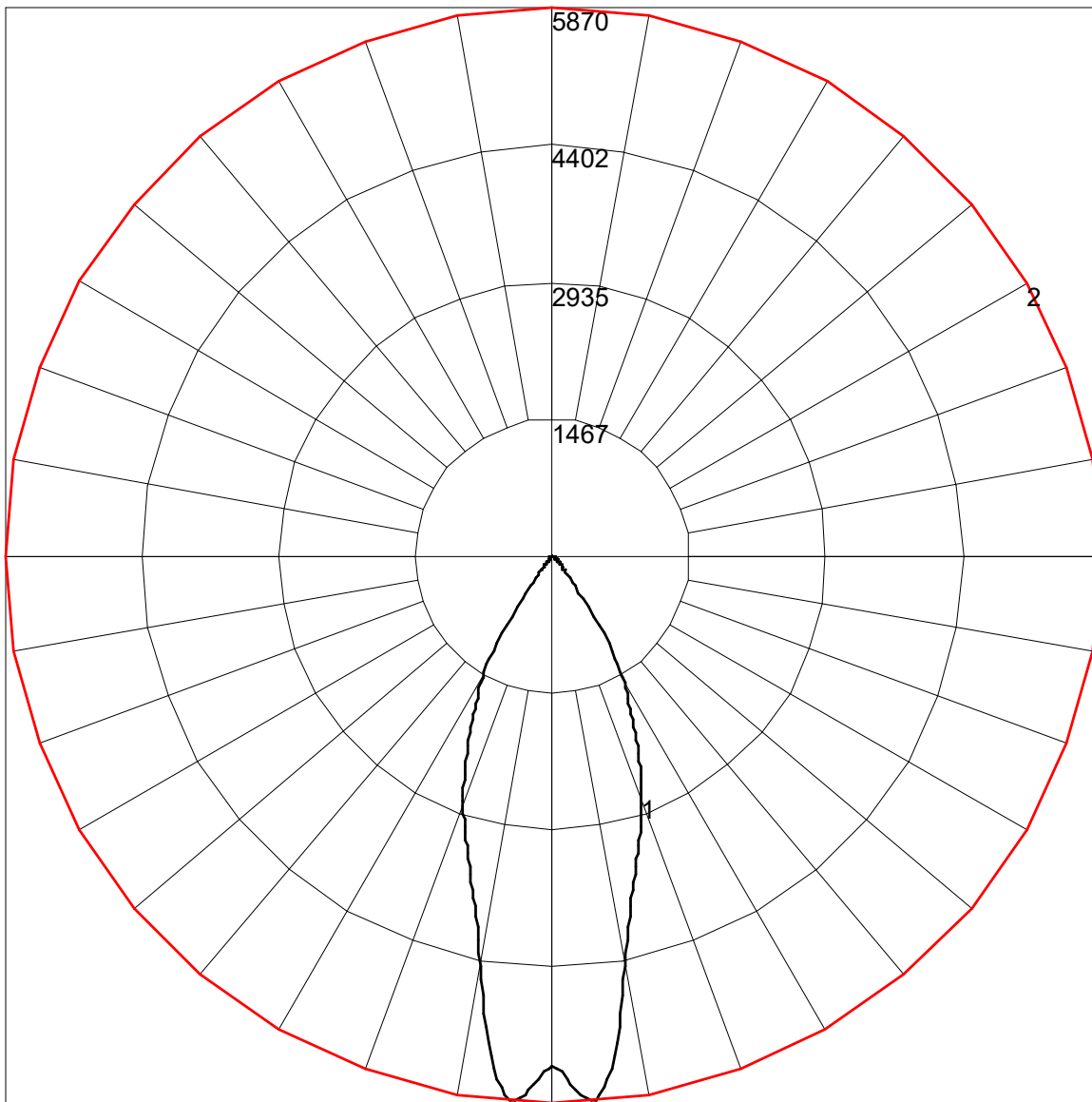
X=2H	Y=2H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	3H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	4H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	6H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	8H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	12H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8

UGR Viewed Endwise

4H	2H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	3H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	4H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	6H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	8H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	12H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
8H	4H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	6H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	8H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	12H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
12H	4H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	6H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	8H	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8

Maximum UGR = 3.8

POLAR GRAPH



Maximum Candela = 5869.878 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.)