



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L30-835-XXX-DIM-UNV-LW-CS-AD-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12326812.11

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 1-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L30-835-xxx-DIM-UNV-LW-CS-AD-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	2335
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	87
Total Luminaire Watts	26.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.94
Spacing Criterion (90-270)	0.94
Spacing Criterion (Diagonal)	1.02
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.46 ft (Diameter)
Luminous Width (90-270)	0.46 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	41743	41743	41743
55	38044	38044	38044
65	37698	37698	37698
75	39364	39364	39364
85	32151	32151	32151

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CANDELA TABULATION

	<u>0</u>
0.0	1314.297
0.5	1313.944
1.0	1313.063
1.5	1311.477
2.0	1309.186
2.5	1306.366
3.0	1303.018
3.5	1299.317
4.0	1295.088
4.5	1290.682
5.0	1286.277
5.5	1281.342
6.0	1276.055
6.5	1270.592
7.0	1264.601
7.5	1258.433
8.0	1251.912
8.5	1245.040
9.0	1237.990
9.5	1230.589
10.0	1223.011
10.5	1215.081
11.0	1206.798
11.5	1197.987
12.0	1189.000
12.5	1179.483
13.0	1169.791
13.5	1159.570
14.0	1148.996
14.5	1138.246
15.0	1126.968
15.5	1115.513
16.0	1103.882
16.5	1092.075
17.0	1080.268
17.5	1068.284
18.0	1056.301
18.5	1044.141
19.0	1032.158
19.5	1019.998
20.0	1007.663
20.5	995.503
21.0	982.991
21.5	970.303
22.0	957.438
22.5	944.221
23.0	930.828
23.5	917.258
24.0	903.513
24.5	889.591
25.0	875.669
25.5	861.747
26.0	847.825
26.5	834.080

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CANDELA TABULATION - (Cont.)

27.0	820.510
27.5	806.941
28.0	793.724
28.5	780.507
29.0	767.818
29.5	755.130
30.0	742.794
30.5	730.635
31.0	718.475
31.5	706.668
32.0	694.861
32.5	683.230
33.0	671.599
33.5	660.320
34.0	648.866
34.5	637.940
35.0	627.190
35.5	616.440
36.0	605.866
36.5	595.469
37.0	585.424
37.5	575.555
38.0	565.863
38.5	556.347
39.0	547.183
39.5	538.195
40.0	529.384
40.5	520.749
41.0	512.466
41.5	504.360
42.0	496.430
42.5	488.676
43.0	481.098
43.5	473.697
44.0	466.295
44.5	459.246
45.0	452.197
45.5	445.324
46.0	438.628
46.5	431.931
47.0	425.234
47.5	418.890
48.0	412.370
48.5	406.026
49.0	399.858
49.5	393.866
50.0	387.874
50.5	382.059
51.0	376.243
51.5	370.604
52.0	364.965
52.5	359.502
53.0	354.039
53.5	349.105
54.0	344.346
54.5	339.412

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CANDELA TABULATION - (Cont.)

55.0	334.301
55.5	329.191
56.0	324.257
56.5	319.498
57.0	315.445
57.5	310.863
58.0	306.105
58.5	301.523
59.0	296.941
59.5	292.360
60.0	287.778
60.5	283.372
61.0	278.966
61.5	274.561
62.0	270.155
62.5	265.749
63.0	261.344
63.5	257.114
64.0	252.709
64.5	248.303
65.0	244.074
65.5	239.668
66.0	235.262
66.5	230.857
67.0	226.451
67.5	222.221
68.0	217.816
68.5	213.586
69.0	209.181
69.5	204.951
70.0	200.546
70.5	196.316
71.0	192.087
71.5	187.681
72.0	183.452
72.5	179.046
73.0	174.623
73.5	170.111
74.0	165.512
74.5	160.824
75.0	156.084
75.5	151.273
76.0	146.356
76.5	141.351
77.0	136.241
77.5	131.042
78.0	125.720
78.5	120.310
79.0	114.847
79.5	109.260
80.0	103.604
80.5	97.876
81.0	92.061
81.5	86.157
82.0	80.165
82.5	74.086

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CANDELA TABULATION - (Cont.)

83.0	67.935
83.5	61.750
84.0	55.494
84.5	49.220
85.0	42.929
85.5	36.655
86.0	30.434
86.5	24.495
87.0	19.226
87.5	14.944
88.0	11.226
88.5	7.930
89.0	5.005
89.5	2.802
90.0	1.427
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
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117.5	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

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
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147.0	0.000
147.5	0.000
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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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Zone	Lumens	%Lamp	%Fixt
0-20	435.73	N.A.	18.70
0-30	837.10	N.A.	35.80
0-40	1230.15	N.A.	52.70
0-60	1880.42	N.A.	80.50
0-80	2285.34	N.A.	97.90
0-90	2334.98	N.A.	100.00
10-90	2214.22	N.A.	94.80
20-40	794.41	N.A.	34.00
20-50	1144.66	N.A.	49.00
40-70	891.92	N.A.	38.20
60-80	404.91	N.A.	17.30
70-80	163.27	N.A.	7.00
80-90	49.65	N.A.	2.10
90-110	0.04	N.A.	0.00
90-120	0.04	N.A.	0.00
90-130	0.04	N.A.	0.00
90-150	0.04	N.A.	0.00
90-180	0.04	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2335.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	120.76
10-20	314.97
20-30	401.37
30-40	393.04
40-50	350.25
50-60	300.03
60-70	241.64
70-80	163.27
80-90	49.65
90-100	0.04
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	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	77	83	79	76	80	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	48
6	73	60	52	46	71	59	51	46	58	50	45	56	50	45	54	49	44	42
7	68	55	47	41	66	54	47	41	53	46	41	52	45	40	50	45	40	38
8	64	51	43	37	62	50	43	37	49	42	37	48	41	37	47	41	37	35
9	60	47	39	34	59	47	39	34	45	39	34	44	38	34	43	38	33	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

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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

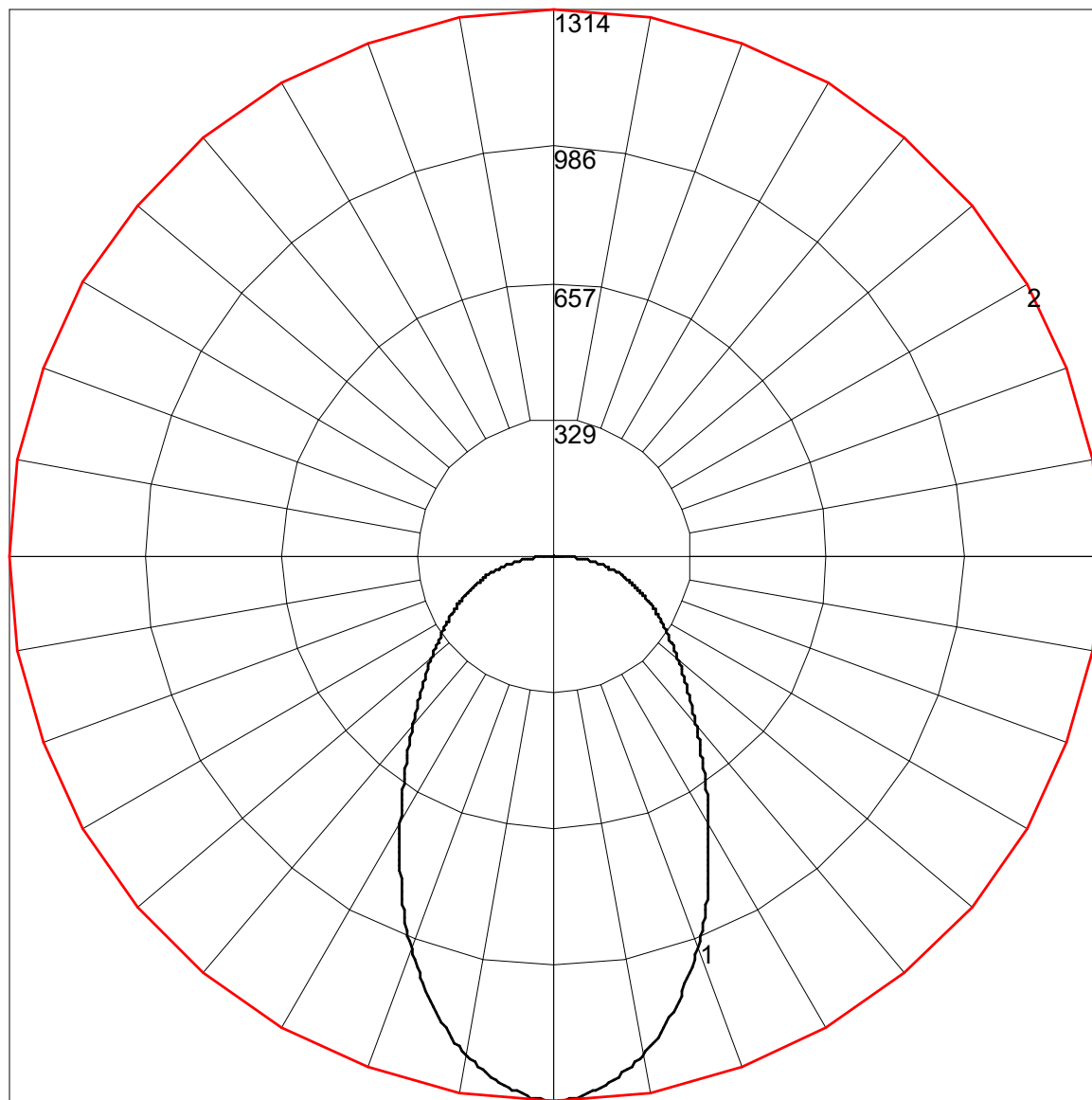
X=2H	Y=2H	23.4	24.9	23.7	25.2	25.5	23.4	24.9	23.7	25.2	25.5
	3H	25.5	26.9	25.9	27.2	27.6	25.5	26.9	25.9	27.2	27.6
	4H	26.4	27.7	26.8	28.1	28.4	26.4	27.7	26.8	28.1	28.4
	6H	27.1	28.4	27.5	28.7	29.1	27.1	28.4	27.5	28.7	29.1
	8H	27.4	28.6	27.8	29.0	29.4	27.4	28.6	27.8	29.0	29.4
	12H	27.6	28.7	28.0	29.1	29.5	27.6	28.7	28.0	29.1	29.5

UGR Viewed Endwise

4H	2H	24.1	25.4	24.4	25.7	26.1	24.1	25.4	24.4	25.7	26.1
	3H	26.4	27.5	26.8	27.9	28.3	26.4	27.5	26.8	27.9	28.3
	4H	27.5	28.5	27.9	28.9	29.3	27.5	28.5	27.9	28.9	29.3
	6H	28.4	29.3	28.8	29.7	30.2	28.4	29.3	28.8	29.7	30.2
	8H	28.7	29.5	29.2	30.0	30.4	28.7	29.5	29.2	30.0	30.4
	12H	28.9	29.7	29.4	30.1	30.6	28.9	29.7	29.4	30.1	30.6
8H	4H	27.9	28.7	28.4	29.2	29.6	27.9	28.7	28.4	29.2	29.6
	6H	29.0	29.6	29.5	30.1	30.6	29.0	29.6	29.5	30.1	30.6
	8H	29.4	30.0	29.9	30.5	31.0	29.4	30.0	29.9	30.5	31.0
	12H	29.7	30.2	30.2	30.7	31.3	29.7	30.2	30.2	30.7	31.3
12H	4H	28.0	28.7	28.4	29.2	29.6	28.0	28.7	28.4	29.2	29.6
	6H	29.1	29.7	29.6	30.1	30.7	29.1	29.7	29.6	30.1	30.7
	8H	29.5	30.1	30.0	30.6	31.1	29.5	30.1	30.0	30.6	31.1

Maximum UGR = 31.3

POLAR GRAPH



Maximum Candela = 1314.297 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.)