



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM12326812.11

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 1-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L30-835-xxx-DIM-UNV-LW-WH-AD-xx

[LUMINAIRE] 8" DIA. SURFACE CYLINDER

[LAMP] One white LED

[_SEARCH_SOURCE TYPE] 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	1985
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	74
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	35486	35486	35486
55	32342	32342	32342
65	32047	32047	32047
75	33464	33464	33464
85	27332	27332	27332

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CANDELA TABULATION

	<u>0</u>
0.0	1117.293
0.5	1116.993
1.0	1116.244
1.5	1114.896
2.0	1112.948
2.5	1110.551
3.0	1107.705
3.5	1104.559
4.0	1100.963
4.5	1097.218
5.0	1093.473
5.5	1089.278
6.0	1084.784
6.5	1080.139
7.0	1075.046
7.5	1069.803
8.0	1064.260
8.5	1058.417
9.0	1052.424
9.5	1046.132
10.0	1039.690
10.5	1032.949
11.0	1025.908
11.5	1018.417
12.0	1010.777
12.5	1002.687
13.0	994.447
13.5	985.758
14.0	976.770
14.5	967.631
15.0	958.043
15.5	948.306
16.0	938.418
16.5	928.381
17.0	918.343
17.5	908.156
18.0	897.969
18.5	887.632
19.0	877.445
19.5	867.108
20.0	856.621
20.5	846.284
21.0	835.647
21.5	824.861
22.0	813.925
22.5	802.689
23.0	791.303
23.5	779.768
24.0	768.083
24.5	756.247
25.0	744.412
25.5	732.577
26.0	720.742
26.5	709.057

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CANDELA TABULATION - (Cont.)

27.0	697.521
27.5	685.986
28.0	674.750
28.5	663.514
29.0	652.728
29.5	641.941
30.0	631.455
30.5	621.118
31.0	610.781
31.5	600.743
32.0	590.706
32.5	580.818
33.0	570.931
33.5	561.343
34.0	551.605
34.5	542.317
35.0	533.178
35.5	524.040
36.0	515.051
36.5	506.212
37.0	497.673
37.5	489.284
38.0	481.044
38.5	472.954
39.0	465.164
39.5	457.524
40.0	450.033
40.5	442.692
41.0	435.651
41.5	428.760
42.0	422.018
42.5	415.427
43.0	408.985
43.5	402.693
44.0	396.401
44.5	390.408
45.0	384.416
45.5	378.573
46.0	372.880
46.5	367.188
47.0	361.495
47.5	356.101
48.0	350.558
48.5	345.165
49.0	339.922
49.5	334.828
50.0	329.735
50.5	324.791
51.0	319.847
51.5	315.053
52.0	310.259
52.5	305.615
53.0	300.971
53.5	296.776
54.0	292.731
54.5	288.537

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L30-835-XXX-DIM-UNV-LW-WH-AD-XX_.IES****CANDELA TABULATION - (Cont.)**

55.0	284.192
55.5	279.848
56.0	275.653
56.5	271.608
57.0	268.162
57.5	264.267
58.0	260.222
58.5	256.327
59.0	252.432
59.5	248.537
60.0	244.642
60.5	240.897
61.0	237.151
61.5	233.406
62.0	229.661
62.5	225.915
63.0	222.170
63.5	218.575
64.0	214.829
64.5	211.084
65.0	207.489
65.5	203.743
66.0	199.998
66.5	196.253
67.0	192.508
67.5	188.912
68.0	185.167
68.5	181.571
69.0	177.826
69.5	174.231
70.0	170.485
70.5	166.890
71.0	163.294
71.5	159.549
72.0	155.954
72.5	152.208
73.0	148.448
73.5	144.613
74.0	140.703
74.5	136.718
75.0	132.688
75.5	128.598
76.0	124.418
76.5	120.164
77.0	115.819
77.5	111.400
78.0	106.875
78.5	102.276
79.0	97.632
79.5	92.883
80.0	88.074
80.5	83.205
81.0	78.261
81.5	73.243
82.0	68.149
82.5	62.981

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L30-835-XXX-DIM-UNV-LW-WH-AD-XX_.IES****CANDELA TABULATION - (Cont.)**

83.0	57.752
83.5	52.494
84.0	47.176
84.5	41.842
85.0	36.494
85.5	31.161
86.0	25.872
86.5	20.824
87.0	16.344
87.5	12.704
88.0	9.543
88.5	6.742
89.0	4.255
89.5	2.382
90.0	1.213
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
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125.5	0.000
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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
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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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Zone	Lumens	%Lamp	%Fixt
0-20	370.42	N.A.	18.70
0-30	711.63	N.A.	35.90
0-40	1045.76	N.A.	52.70
0-60	1598.56	N.A.	80.50
0-80	1942.78	N.A.	97.90
0-90	1984.98	N.A.	100.00
10-90	1882.32	N.A.	94.80
20-40	675.33	N.A.	34.00
20-50	973.08	N.A.	49.00
40-70	758.22	N.A.	38.20
60-80	344.22	N.A.	17.30
70-80	138.80	N.A.	7.00
80-90	42.20	N.A.	2.10
90-110	0.03	N.A.	0.00
90-120	0.03	N.A.	0.00
90-130	0.03	N.A.	0.00
90-150	0.03	N.A.	0.00
90-180	0.03	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1985.02	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	102.66
10-20	267.76
20-30	341.21
30-40	334.13
40-50	297.75
50-60	255.06
60-70	205.42
70-80	138.80
80-90	42.20
90-100	0.03
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	22.8	24.3	23.1	24.6	24.9	22.8	24.3	23.1	24.6	24.9
	3H	24.9	26.3	25.3	26.6	27.0	24.9	26.3	25.3	26.6	27.0
	4H	25.8	27.1	26.2	27.5	27.8	25.8	27.1	26.2	27.5	27.8
	6H	26.5	27.8	26.9	28.1	28.5	26.5	27.8	26.9	28.1	28.5
	8H	26.8	28.0	27.2	28.4	28.8	26.8	28.0	27.2	28.4	28.8
	12H	27.0	28.1	27.4	28.5	28.9	27.0	28.1	27.4	28.5	28.9

UGR Viewed Endwise

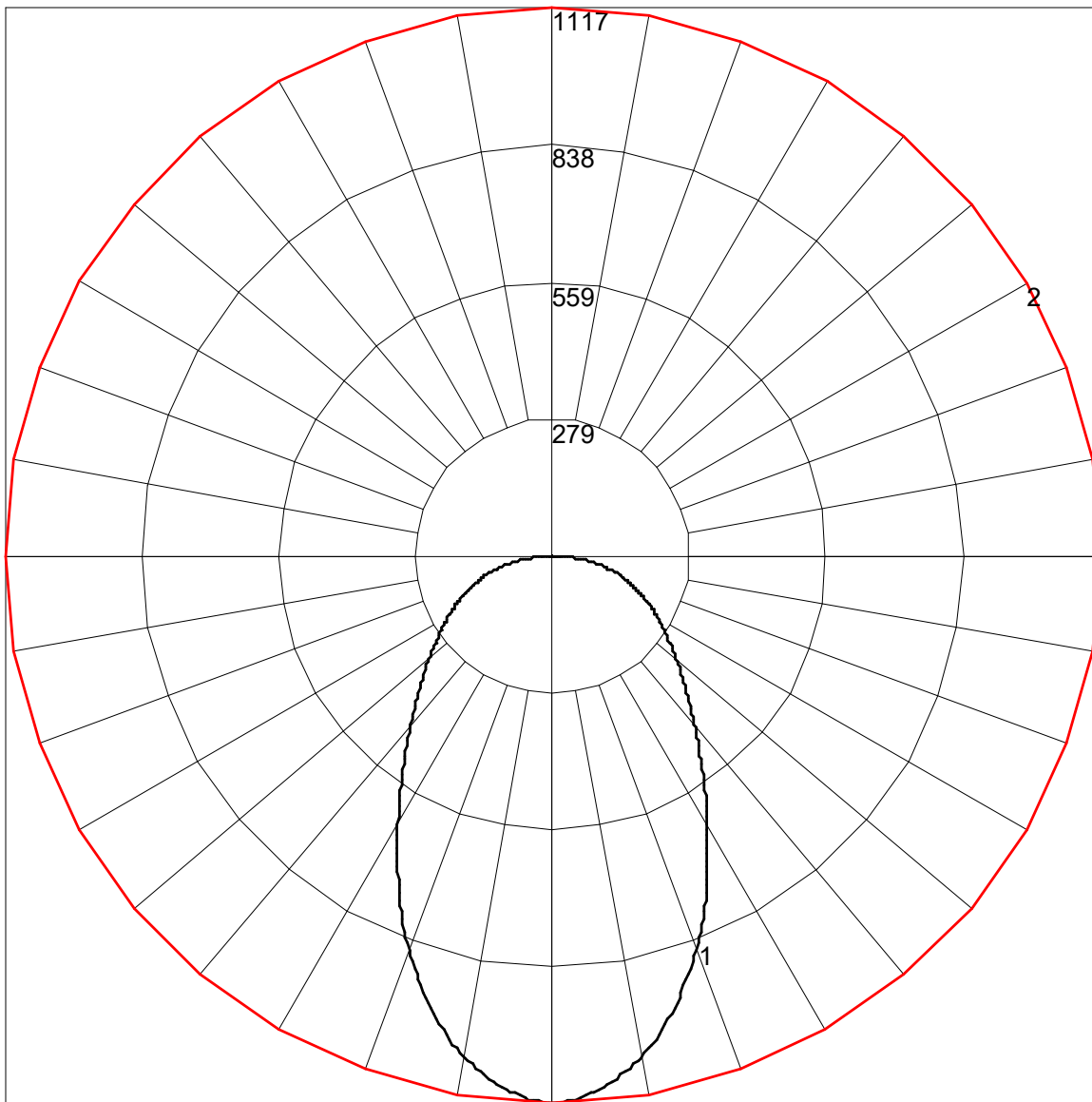
4H	2H	23.5	24.8	23.8	25.1	25.5	23.5	24.8	23.8	25.1	25.5
	3H	25.8	26.9	26.2	27.3	27.7	25.8	26.9	26.2	27.3	27.7
	4H	26.9	27.9	27.3	28.3	28.7	26.9	27.9	27.3	28.3	28.7
	6H	27.8	28.7	28.2	29.1	29.6	27.8	28.7	28.2	29.1	29.6
	8H	28.1	28.9	28.6	29.4	29.8	28.1	28.9	28.6	29.4	29.8
	12H	28.3	29.1	28.8	29.5	30.0	28.3	29.1	28.8	29.5	30.0

8H	4H	27.3	28.1	27.8	28.6	29.0	27.3	28.1	27.8	28.6	29.0
	6H	28.4	29.0	28.9	29.5	30.0	28.4	29.0	28.9	29.5	30.0
	8H	28.8	29.4	29.3	29.9	30.4	28.8	29.4	29.3	29.9	30.4
	12H	29.1	29.6	29.6	30.1	30.7	29.1	29.6	29.6	30.1	30.7

12H	4H	27.4	28.1	27.8	28.6	29.0	27.4	28.1	27.8	28.6	29.0
	6H	28.5	29.1	29.0	29.5	30.1	28.5	29.1	29.0	29.5	30.1
	8H	28.9	29.5	29.4	30.0	30.5	28.9	29.5	29.4	30.0	30.5

Maximum UGR = 30.7

POLAR GRAPH



Maximum Candela = 1117.293 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.)