



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L10-840-XXX-DIM-UNV-LW-CS-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12326812.07

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 1-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L10-840-xxx-DIM-UNV-LW-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	781
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	90
Total Luminaire Watts	8.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	0.98
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	12991	12991	12991
55	10816	10816	10816
65	8217	8217	8217
75	5959	5959	5959
85	3883	3883	3883

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CANDELA TABULATION

	<u>0</u>
0.0	497.121
0.5	497.020
1.0	496.620
1.5	496.019
2.0	495.269
2.5	494.268
3.0	493.267
3.5	492.116
4.0	491.065
4.5	490.014
5.0	489.263
5.5	488.562
6.0	487.912
6.5	487.261
7.0	486.561
7.5	485.910
8.0	485.259
8.5	484.659
9.0	484.058
9.5	483.558
10.0	483.057
10.5	482.657
11.0	482.306
11.5	482.106
12.0	481.756
12.5	481.406
13.0	480.905
13.5	480.255
14.0	479.454
14.5	478.553
15.0	477.602
15.5	476.401
16.0	475.100
16.5	473.798
17.0	472.497
17.5	471.146
18.0	469.695
18.5	468.043
19.0	466.191
19.5	464.139
20.0	461.787
20.5	459.235
21.0	456.082
21.5	452.328
22.0	448.074
22.5	443.270
23.0	438.015
23.5	432.309
24.0	426.003
24.5	419.197
25.0	411.840
25.5	404.183
26.0	396.025
26.5	387.517

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CANDELA TABULATION - (Cont.)

27.0	378.458
27.5	369.149
28.0	359.340
28.5	348.980
29.0	338.220
29.5	326.909
30.0	315.298
30.5	303.337
31.0	291.376
31.5	279.314
32.0	267.603
32.5	256.393
33.0	245.632
33.5	235.573
34.0	226.314
34.5	217.906
35.0	210.399
35.5	203.493
36.0	197.437
36.5	191.882
37.0	186.927
37.5	182.473
38.0	178.419
38.5	174.715
39.0	171.212
39.5	168.059
40.0	165.006
40.5	162.153
41.0	159.501
41.5	156.898
42.0	154.396
42.5	152.094
43.0	149.742
43.5	147.440
44.0	145.187
44.5	142.985
45.0	140.733
45.5	138.581
46.0	136.379
46.5	134.177
47.0	131.925
47.5	129.723
48.0	127.471
48.5	125.219
49.0	122.966
49.5	120.614
50.0	118.362
50.5	116.060
51.0	113.758
51.5	111.405
52.0	109.053
52.5	106.701
53.0	104.349
53.5	101.997
54.0	99.744
54.5	97.442

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CANDELA TABULATION - (Cont.)

55.0	95.040
55.5	92.688
56.0	90.335
56.5	88.133
57.0	85.931
57.5	83.629
58.0	81.327
58.5	79.075
59.0	76.873
59.5	74.671
60.0	72.569
60.5	70.467
61.0	68.415
61.5	66.363
62.0	64.411
62.5	62.459
63.0	60.557
63.5	58.656
64.0	56.804
64.5	55.002
65.0	53.200
65.5	51.449
66.0	49.702
66.5	47.985
67.0	46.289
67.5	44.627
68.0	42.996
68.5	41.359
69.0	39.773
69.5	38.201
70.0	36.675
70.5	35.198
71.0	33.752
71.5	32.351
72.0	30.999
72.5	29.688
73.0	28.412
73.5	27.161
74.0	25.960
74.5	24.783
75.0	23.627
75.5	22.511
76.0	21.415
76.5	20.339
77.0	19.293
77.5	18.267
78.0	17.271
78.5	16.295
79.0	15.340
79.5	14.419
80.0	13.503
80.5	12.617
81.0	11.741
81.5	10.870
82.0	10.019
82.5	9.174

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CANDELA TABULATION - (Cont.)

83.0	8.348
83.5	7.537
84.0	6.736
84.5	5.951
85.0	5.185
85.5	4.444
86.0	3.729
86.5	3.038
87.0	2.367
87.5	1.807
88.0	1.381
88.5	1.011
89.0	0.701
89.5	0.440
90.0	0.280
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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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
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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

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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	181.08	N.A.	23.20
0-30	366.05	N.A.	46.80
0-40	503.20	N.A.	64.40
0-60	696.85	N.A.	89.20
0-80	775.29	N.A.	99.20
0-90	781.49	N.A.	100.00
10-90	734.97	N.A.	94.00
20-40	322.11	N.A.	41.20
20-50	430.79	N.A.	55.10
40-70	246.68	N.A.	31.60
60-80	78.44	N.A.	10.00
70-80	25.41	N.A.	3.30
80-90	6.20	N.A.	0.80
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	781.50	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	46.52
10-20	134.56
20-30	184.96
30-40	137.15
40-50	108.68
50-60	84.97
60-70	53.03
70-80	25.41
80-90	6.20
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	80	78
3	96	87	80	75	93	85	79	74	83	77	73	80	75	72	78	74	71	69
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	59	69	63	58	67	62	57	65	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	52	50
7	73	61	53	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42
9	65	53	45	41	63	52	45	40	51	45	40	50	44	40	49	44	40	38
10	61	49	42	37	60	49	42	37	48	42	37	47	41	37	46	41	37	35

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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	18.2	19.6	18.6	19.9	20.2	18.2	19.6	18.6	19.9	20.2
	3H	19.4	20.7	19.8	21.0	21.3	19.4	20.7	19.8	21.0	21.3
	4H	19.8	21.0	20.2	21.3	21.7	19.8	21.0	20.2	21.3	21.7
	6H	20.1	21.1	20.5	21.5	21.9	20.1	21.1	20.5	21.5	21.9
	8H	20.2	21.2	20.6	21.6	22.0	20.2	21.2	20.6	21.6	22.0
	12H	20.2	21.2	20.6	21.5	22.0	20.2	21.2	20.6	21.5	22.0

UGR Viewed Endwise

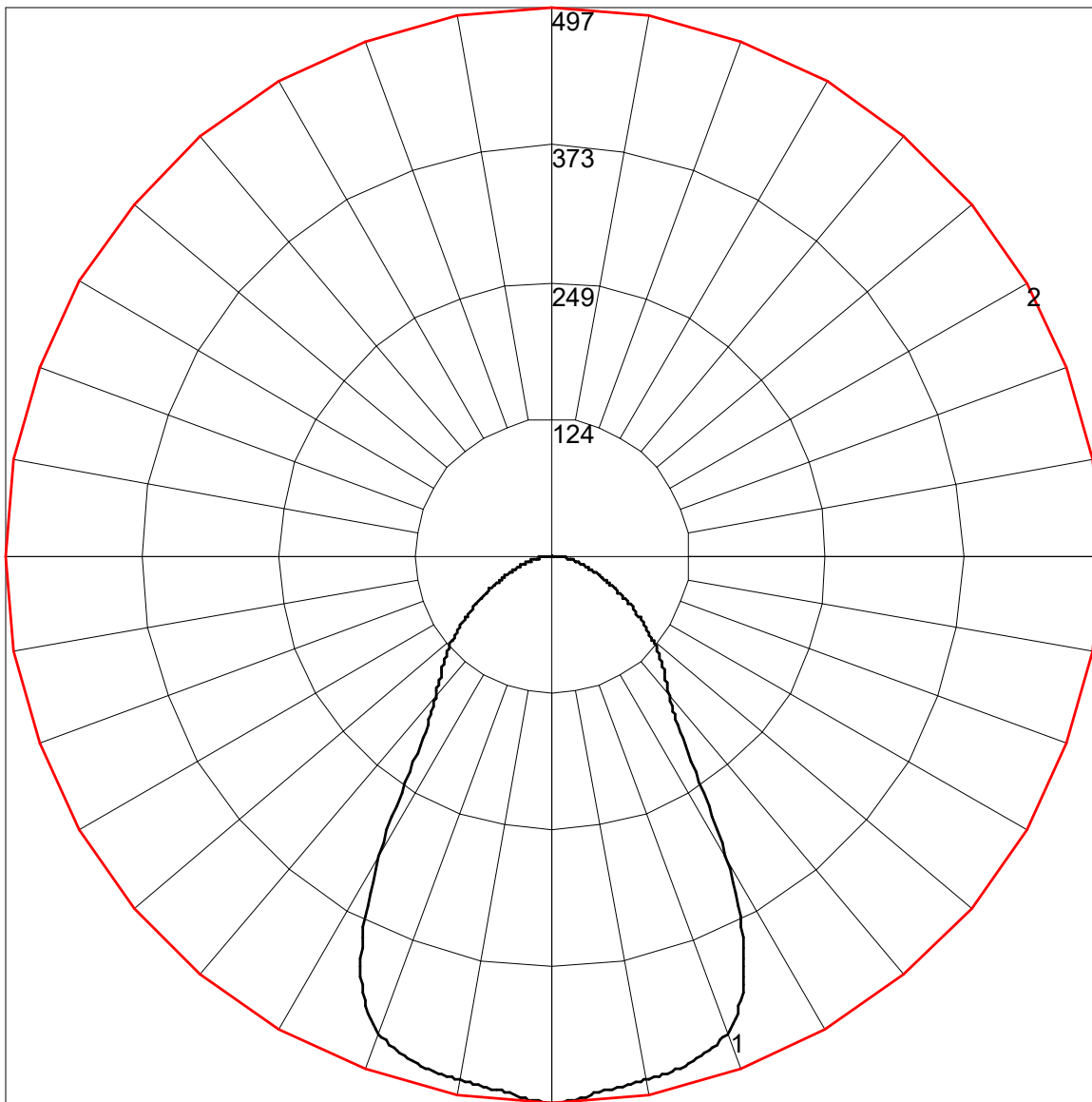
4H	2H	18.6	19.8	19.0	20.1	20.5	18.6	19.8	19.0	20.1	20.5
	3H	20.0	21.0	20.4	21.4	21.8	20.0	21.0	20.4	21.4	21.8
	4H	20.5	21.4	21.0	21.8	22.2	20.5	21.4	21.0	21.8	22.2
	6H	20.9	21.6	21.4	22.1	22.5	20.9	21.6	21.4	22.1	22.5
	8H	21.0	21.7	21.5	22.1	22.6	21.0	21.7	21.5	22.1	22.6
	12H	21.1	21.7	21.5	22.2	22.6	21.1	21.7	21.5	22.2	22.6

8H	4H	20.7	21.4	21.1	21.8	22.3	20.7	21.4	21.1	21.8	22.3
	6H	21.1	21.7	21.6	22.2	22.7	21.1	21.7	21.6	22.2	22.7
	8H	21.3	21.8	21.8	22.3	22.8	21.3	21.8	21.8	22.3	22.8
	12H	21.4	21.9	21.9	22.4	22.9	21.4	21.9	21.9	22.4	22.9

12H	4H	20.7	21.3	21.2	21.8	22.2	20.7	21.3	21.2	21.8	22.2
	6H	21.2	21.7	21.7	22.1	22.7	21.2	21.7	21.7	22.1	22.7
	8H	21.4	21.8	21.9	22.3	22.9	21.4	21.8	21.9	22.3	22.9

Maximum UGR = 22.9

POLAR GRAPH



Maximum Candela = 497.121 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.)