



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L10-835-XXX-DIM-UNV-LW-WH-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-L10-835-xxx-DIM-UNV-LW-WH-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	774
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	89
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	12863	12863	12863
55	10709	10709	10709
65	8136	8136	8136
75	5900	5900	5900
85	3845	3845	3845

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CANDELA TABULATION

	<u>0</u>
0.0	492.199
0.5	492.100
1.0	491.703
1.5	491.108
2.0	490.365
2.5	489.374
3.0	488.383
3.5	487.243
4.0	486.203
4.5	485.162
5.0	484.419
5.5	483.725
6.0	483.081
6.5	482.437
7.0	481.743
7.5	481.099
8.0	480.455
8.5	479.860
9.0	479.266
9.5	478.770
10.0	478.275
10.5	477.878
11.0	477.531
11.5	477.333
12.0	476.986
12.5	476.639
13.0	476.144
13.5	475.500
14.0	474.707
14.5	473.815
15.0	472.873
15.5	471.684
16.0	470.396
16.5	469.107
17.0	467.819
17.5	466.481
18.0	465.044
18.5	463.409
19.0	461.576
19.5	459.544
20.0	457.215
20.5	454.688
21.0	451.566
21.5	447.850
22.0	443.638
22.5	438.881
23.0	433.678
23.5	428.029
24.0	421.785
24.5	415.046
25.0	407.762
25.5	400.181
26.0	392.104
26.5	383.680

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CANDELA TABULATION - (Cont.)

27.0	374.711
27.5	365.495
28.0	355.782
28.5	345.525
29.0	334.871
29.5	323.673
30.0	312.177
30.5	300.334
31.0	288.491
31.5	276.549
32.0	264.954
32.5	253.854
33.0	243.201
33.5	233.241
34.0	224.074
34.5	215.749
35.0	208.316
35.5	201.478
36.0	195.482
36.5	189.982
37.0	185.076
37.5	180.666
38.0	176.652
38.5	172.986
39.0	169.517
39.5	166.395
40.0	163.372
40.5	160.548
41.0	157.922
41.5	155.345
42.0	152.867
42.5	150.588
43.0	148.259
43.5	145.980
44.0	143.750
44.5	141.570
45.0	139.340
45.5	137.209
46.0	135.029
46.5	132.849
47.0	130.619
47.5	128.438
48.0	126.209
48.5	123.979
49.0	121.749
49.5	119.420
50.0	117.190
50.5	114.911
51.0	112.631
51.5	110.302
52.0	107.974
52.5	105.645
53.0	103.316
53.5	100.987
54.0	98.757
54.5	96.477

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CANDELA TABULATION - (Cont.)

55.0	94.099
55.5	91.770
56.0	89.441
56.5	87.261
57.0	85.081
57.5	82.801
58.0	80.522
58.5	78.292
59.0	76.112
59.5	73.931
60.0	71.850
60.5	69.769
61.0	67.737
61.5	65.706
62.0	63.773
62.5	61.841
63.0	59.958
63.5	58.075
64.0	56.241
64.5	54.457
65.0	52.674
65.5	50.939
66.0	49.210
66.5	47.510
67.0	45.831
67.5	44.185
68.0	42.570
68.5	40.950
69.0	39.379
69.5	37.823
70.0	36.312
70.5	34.850
71.0	33.418
71.5	32.030
72.0	30.692
72.5	29.394
73.0	28.131
73.5	26.892
74.0	25.703
74.5	24.538
75.0	23.393
75.5	22.288
76.0	21.203
76.5	20.138
77.0	19.102
77.5	18.086
78.0	17.100
78.5	16.134
79.0	15.188
79.5	14.276
80.0	13.369
80.5	12.492
81.0	11.625
81.5	10.763
82.0	9.920
82.5	9.083

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CANDELA TABULATION - (Cont.)

83.0	8.265
83.5	7.463
84.0	6.670
84.5	5.892
85.0	5.134
85.5	4.400
86.0	3.692
86.5	3.008
87.0	2.344
87.5	1.789
88.0	1.368
88.5	1.001
89.0	0.694
89.5	0.436
90.0	0.277
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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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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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
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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	179.29	N.A.	23.20
0-30	362.42	N.A.	46.80
0-40	498.21	N.A.	64.40
0-60	689.95	N.A.	89.20
0-80	767.61	N.A.	99.20
0-90	773.75	N.A.	100.00
10-90	727.69	N.A.	94.00
20-40	318.92	N.A.	41.20
20-50	426.53	N.A.	55.10
40-70	244.24	N.A.	31.60
60-80	77.66	N.A.	10.00
70-80	25.16	N.A.	3.30
80-90	6.14	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	773.76	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	46.06
10-20	133.23
20-30	183.13
30-40	135.79
40-50	107.60
50-60	84.13
60-70	52.50
70-80	25.16
80-90	6.14
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	100	94	89	85	91	87	83	88	84	81	85	82	79	78
3	96	87	80	75	93	85	79	74	83	77	73	80	75	72	77	74	70	69
4	89	79	71	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	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	51	50
7	73	61	53	48	71	60	53	48	59	52	48	57	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	64	53	45	40	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	18.1	19.5	18.5	19.8	20.1	18.1	19.5	18.5	19.8	20.1
	3H	19.3	20.6	19.7	20.9	21.2	19.3	20.6	19.7	20.9	21.2
	4H	19.7	20.9	20.1	21.2	21.6	19.7	20.9	20.1	21.2	21.6
	6H	20.0	21.0	20.4	21.4	21.8	20.0	21.0	20.4	21.4	21.8
	8H	20.0	21.1	20.5	21.4	21.9	20.0	21.1	20.5	21.4	21.9
	12H	20.1	21.0	20.5	21.4	21.9	20.1	21.0	20.5	21.4	21.9

UGR Viewed Endwise

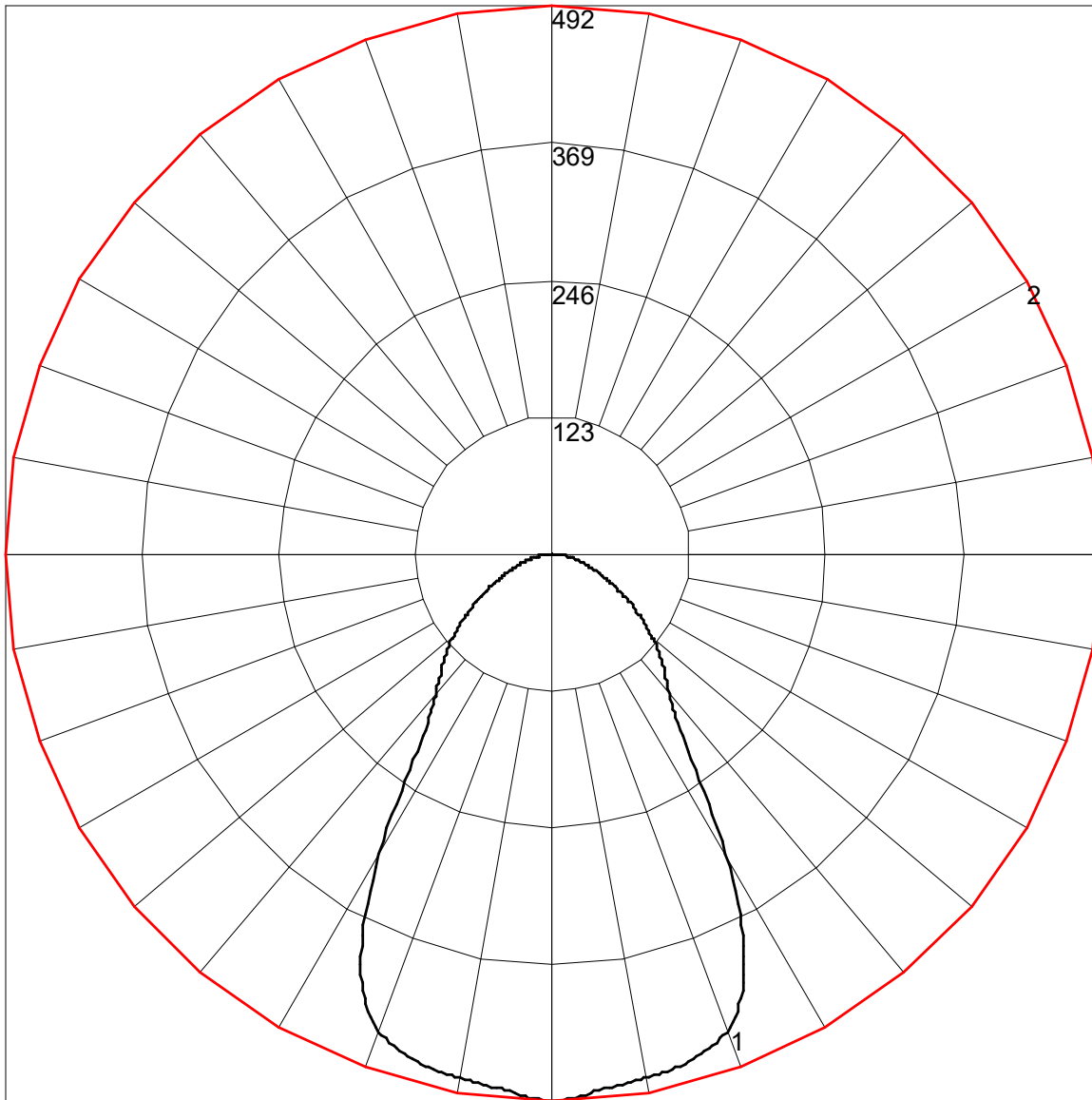
4H	2H	18.5	19.7	18.9	20.0	20.4	18.5	19.7	18.9	20.0	20.4
	3H	19.9	20.9	20.3	21.3	21.7	19.9	20.9	20.3	21.3	21.7
	4H	20.4	21.3	20.8	21.7	22.1	20.4	21.3	20.8	21.7	22.1
	6H	20.8	21.5	21.2	22.0	22.4	20.8	21.5	21.2	22.0	22.4
	8H	20.9	21.6	21.3	22.0	22.5	20.9	21.6	21.3	22.0	22.5
	12H	21.0	21.6	21.4	22.1	22.5	21.0	21.6	21.4	22.1	22.5

8H	4H	20.6	21.3	21.0	21.7	22.2	20.6	21.3	21.0	21.7	22.2
	6H	21.0	21.6	21.5	22.1	22.6	21.0	21.6	21.5	22.1	22.6
	8H	21.2	21.7	21.7	22.2	22.7	21.2	21.7	21.7	22.2	22.7
	12H	21.3	21.8	21.8	22.3	22.8	21.3	21.8	21.8	22.3	22.8

12H	4H	20.6	21.2	21.0	21.7	22.1	20.6	21.2	21.0	21.7	22.1
	6H	21.1	21.6	21.6	22.0	22.6	21.1	21.6	21.6	22.0	22.6
	8H	21.3	21.7	21.8	22.2	22.8	21.3	21.7	21.8	22.2	22.8

Maximum UGR = 22.8

POLAR GRAPH



Maximum Candela = 492.199 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.)