



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L20-835-EM10W-XXX-DIM-UNV-RW-WH-XX_EM MODE ONLY.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12326812.12
 [TESTLAB] UL Verification Services Inc.
 [ISSUE DATE] 1-FEB-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 8CR-TL-L20-835-EM-10W-xxx-DIM-UNV-RW-WH-xx EM MODE ONLY
 [LUMINAIRE] 8" DIA. SURFACE CYLINDER
 [LAMP] One white LED
 [BALLAST] Philips XI025C070V054DSM5
 [OTHER] 24.5 C, 119.971 V, 10W, 0.994058 PF, 59.9693
 [MORE] Hz
 [OTHER] This test was performed using the calibrated photodetector met
 [MORE] hod of absolute photometry.

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	741
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	74
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.04
Spacing Criterion (90-270)	1.04
Spacing Criterion (Diagonal)	0.94
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.48 ft (Diameter)
Luminous Width (90-270)	0.48 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	10006	10006	10006
55	8344	8344	8344
65	5887	5887	5887
75	3606	3606	3606
85	2844	2844	2844

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CANDELA TABULATION

	<u>0</u>
0.0	548.186
0.5	547.673
1.0	547.161
1.5	546.648
2.0	545.622
2.5	544.084
3.0	542.545
3.5	540.494
4.0	538.443
4.5	536.905
5.0	534.853
5.5	532.802
6.0	530.751
6.5	528.700
7.0	526.648
7.5	524.597
8.0	522.033
8.5	519.982
9.0	517.931
9.5	515.367
10.0	513.316
10.5	510.803
11.0	508.341
11.5	505.880
12.0	503.418
12.5	501.008
13.0	498.547
13.5	495.983
14.0	493.470
14.5	491.009
15.0	488.701
15.5	486.342
16.0	484.035
16.5	481.778
17.0	479.676
17.5	477.573
18.0	475.522
18.5	473.573
19.0	471.625
19.5	469.625
20.0	467.574
20.5	465.369
21.0	462.856
21.5	459.984
22.0	456.753
22.5	453.164
23.0	449.267
23.5	444.856
24.0	440.036
24.5	434.754
25.0	428.908
25.5	422.601
26.0	415.575
26.5	407.883

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27.0	399.678
27.5	390.756
28.0	381.269
28.5	370.962
29.0	360.090
29.5	348.296
30.0	335.783
30.5	322.553
31.0	308.810
31.5	294.759
32.0	280.452
32.5	266.247
33.0	252.196
33.5	238.607
34.0	225.582
34.5	213.326
35.0	202.147
35.5	191.891
36.0	182.865
36.5	174.866
37.0	167.840
37.5	161.841
38.0	156.559
38.5	151.892
39.0	147.841
39.5	144.251
40.0	140.969
40.5	137.995
41.0	135.226
41.5	132.713
42.0	130.406
42.5	128.201
43.0	126.098
43.5	124.098
44.0	122.201
44.5	120.406
45.0	118.560
45.5	116.816
46.0	115.022
46.5	113.278
47.0	111.483
47.5	109.689
48.0	107.842
48.5	105.996
49.0	104.253
49.5	102.458
50.0	100.561
50.5	98.612
51.0	96.612
51.5	94.612
52.0	92.612
52.5	90.561
53.0	88.561
53.5	86.612
54.0	84.459
54.5	82.305

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55.0	80.202
55.5	78.049
56.0	75.946
56.5	73.844
57.0	71.741
57.5	69.639
58.0	67.639
58.5	65.587
59.0	63.588
59.5	61.639
60.0	59.690
60.5	57.742
61.0	55.844
61.5	53.998
62.0	52.152
62.5	50.357
63.0	48.562
63.5	46.768
64.0	45.075
64.5	43.332
65.0	41.691
65.5	39.999
66.0	38.409
66.5	36.819
67.0	35.281
67.5	33.742
68.0	32.255
68.5	30.768
69.0	29.384
69.5	27.948
70.0	26.614
70.5	25.281
71.0	23.999
71.5	22.768
72.0	21.538
72.5	20.410
73.0	19.333
73.5	18.358
74.0	17.384
74.5	16.512
75.0	15.640
75.5	14.871
76.0	14.102
76.5	13.435
77.0	12.820
77.5	12.205
78.0	11.589
78.5	10.974
79.0	10.410
79.5	9.846
80.0	9.282
80.5	8.718
81.0	8.154
81.5	7.641
82.0	7.077
82.5	6.564

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83.0	6.051
83.5	5.590
84.0	5.077
84.5	4.615
85.0	4.154
85.5	3.692
86.0	3.231
86.5	2.769
87.0	2.359
87.5	1.897
88.0	1.538
88.5	1.231
89.0	0.974
89.5	0.718
90.0	0.513
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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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

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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
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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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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L20-835-EM10W-XXX-DIM-UNV-RW-WH-XX_EM MODE ONLY.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	188.37	N.A.	25.40
0-30	380.81	N.A.	51.40
0-40	513.95	N.A.	69.40
0-60	677.34	N.A.	91.40
0-80	736.32	N.A.	99.40
0-90	741.05	N.A.	100.00
10-90	690.70	N.A.	93.20
20-40	325.58	N.A.	43.90
20-50	417.44	N.A.	56.30
40-70	205.02	N.A.	27.70
60-80	58.98	N.A.	8.00
70-80	17.35	N.A.	2.30
80-90	4.73	N.A.	0.60
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	741.07	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	50.36
10-20	138.01
20-30	192.44
30-40	133.14
40-50	91.86
50-60	71.53
60-70	41.63
70-80	17.35
80-90	4.73
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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	62	83	73	66	61	71	65	61	69	64	60	68	63	59	58
6	79	68	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38

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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	16.9	18.2	17.3	18.5	18.8	16.9	18.2	17.3	18.5	18.8
	3H	17.9	19.0	18.3	19.4	19.7	17.9	19.0	18.3	19.4	19.7
	4H	18.1	19.2	18.5	19.6	19.9	18.1	19.2	18.5	19.6	19.9
	6H	18.3	19.3	18.7	19.7	20.1	18.3	19.3	18.7	19.7	20.1
	8H	18.3	19.3	18.8	19.7	20.1	18.3	19.3	18.8	19.7	20.1
	12H	18.4	19.3	18.8	19.7	20.1	18.4	19.3	18.8	19.7	20.1

UGR Viewed Endwise

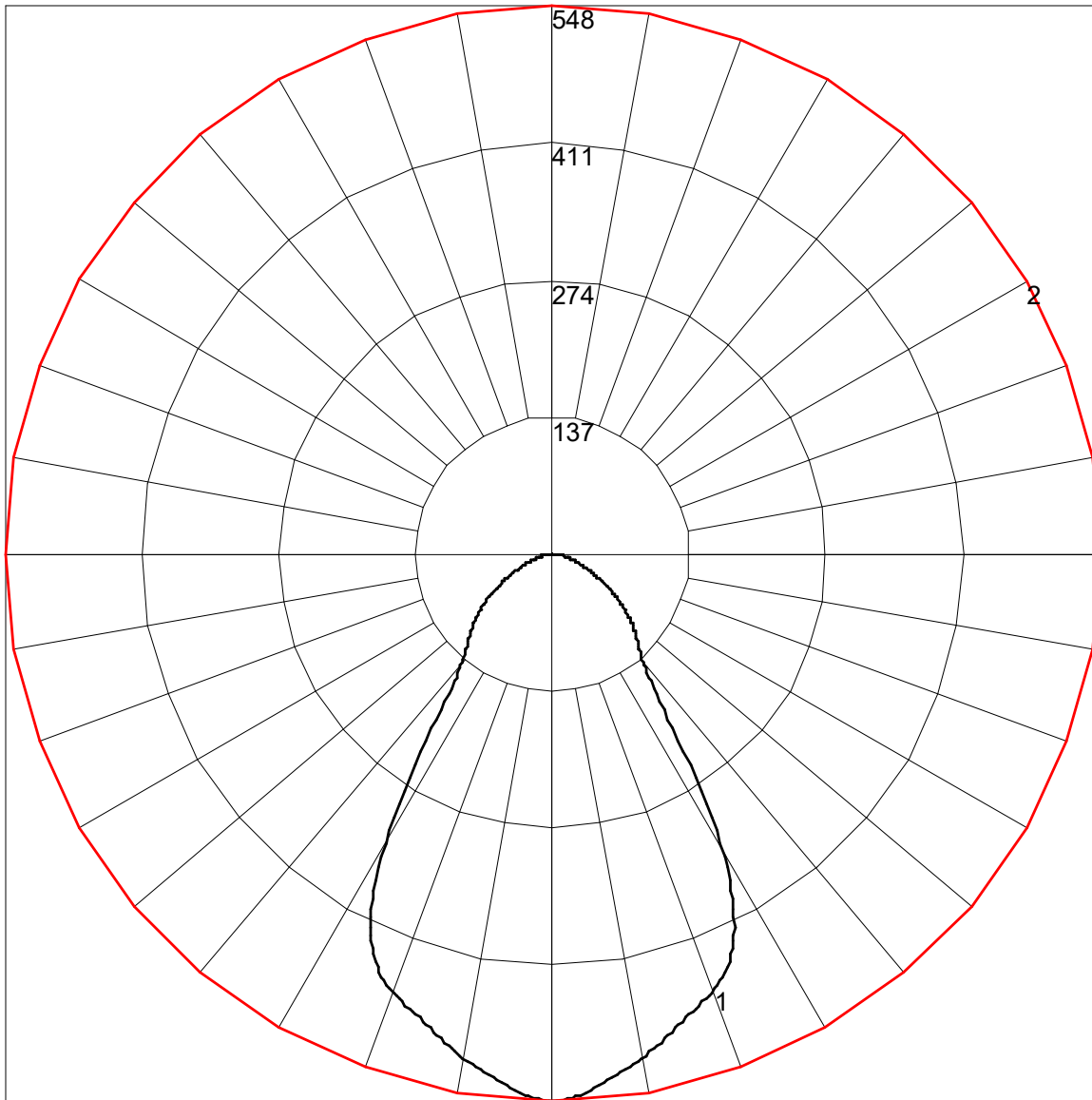
4H	2H	17.2	18.3	17.6	18.7	19.1	17.2	18.3	17.6	18.7	19.1
	3H	18.4	19.3	18.8	19.7	20.1	18.4	19.3	18.8	19.7	20.1
	4H	18.7	19.5	19.1	19.9	20.4	18.7	19.5	19.1	19.9	20.4
	6H	19.0	19.7	19.4	20.1	20.6	19.0	19.7	19.4	20.1	20.6
	8H	19.0	19.7	19.5	20.1	20.6	19.0	19.7	19.5	20.1	20.6
	12H	19.1	19.7	19.6	20.1	20.6	19.1	19.7	19.6	20.1	20.6
8H	4H	18.8	19.4	19.2	19.9	20.3	18.8	19.4	19.2	19.9	20.3
	6H	19.1	19.6	19.6	20.1	20.6	19.1	19.6	19.6	20.1	20.6
	8H	19.3	19.7	19.8	20.2	20.7	19.3	19.7	19.8	20.2	20.7
	12H	19.4	19.8	19.9	20.3	20.8	19.4	19.8	19.9	20.3	20.8
12H	4H	18.8	19.3	19.3	19.8	20.3	18.8	19.3	19.3	19.8	20.3
	6H	19.1	19.6	19.7	20.1	20.6	19.1	19.6	19.7	20.1	20.6
	8H	19.3	19.7	19.8	20.2	20.8	19.3	19.7	19.8	20.2	20.8

Maximum UGR = 20.8

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POLAR GRAPH



Maximum Candela = 548.186 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.)