



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L20-835-XXX-DIM-UNV-ON-CS-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.05

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 2-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L20-835-xxx-DIM-UNV-ON-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	2026
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	19.0907
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.18
Spacing Criterion (90-270)	0.18
Spacing Criterion (Diagonal)	0.20
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.50 ft (Diameter)
Luminous Width (90-270)	0.50 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	1007	1007	1007
55	382	382	382
65	130	130	130
75	0	0	0
85	0	0	0

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CANDELA TABULATION

	<u>0</u>
0.0	22000
0.5	21760
1.0	20980
1.5	19880
2.0	18630
2.5	17330
3.0	15940
3.5	14470
4.0	12910
4.5	11340
5.0	9830
5.5	8599
6.0	7612
6.5	6804
7.0	6119
7.5	5531
8.0	5017
8.5	4566
9.0	4170
9.5	3824
10.0	3526
10.5	3268
11.0	3041
11.5	2846
12.0	2676
12.5	2528
13.0	2400
13.5	2289
14.0	2192
14.5	2107
15.0	2032
15.5	1965
16.0	1904
16.5	1849
17.0	1799
17.5	1752
18.0	1711
18.5	1673
19.0	1635
19.5	1597
20.0	1558
20.5	1517
21.0	1474
21.5	1428
22.0	1376
22.5	1319
23.0	1256
23.5	1192
24.0	1131
24.5	1074
25.0	1021
25.5	970
26.0	924
26.5	882

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CANDELA TABULATION - (Cont.)

27.0	849
27.5	823
28.0	805
28.5	791
29.0	779
29.5	768
30.0	755
30.5	728
31.0	691
31.5	645
32.0	595
32.5	542
33.0	488
33.5	428
34.0	362
34.5	299
35.0	242
35.5	191
36.0	142
36.5	99
37.0	62
37.5	38
38.0	27
38.5	25
39.0	24
39.5	23
40.0	21
40.5	21
41.0	20
41.5	19
42.0	18
42.5	17
43.0	16
43.5	15
44.0	15
44.5	14
45.0	13
45.5	13
46.0	12
46.5	12
47.0	11
47.5	10
48.0	10
48.5	9
49.0	9
49.5	8
50.0	8
50.5	7
51.0	7
51.5	6
52.0	6
52.5	5
53.0	5
53.5	5
54.0	4
54.5	4

CANDELA TABULATION - (Cont.)

55.0	4
55.5	4
56.0	4
56.5	3
57.0	3
57.5	3
58.0	3
58.5	3
59.0	2
59.5	2
60.0	2
60.5	2
61.0	2
61.5	2
62.0	2
62.5	2
63.0	2
63.5	1
64.0	1
64.5	1
65.0	1
65.5	1
66.0	1
66.5	1
67.0	1
67.5	1
68.0	1
68.5	1
69.0	1
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70.0	1
70.5	1
71.0	1
71.5	1
72.0	1
72.5	1
73.0	1
73.5	1
74.0	0
74.5	0
75.0	0
75.5	0
76.0	0
76.5	0
77.0	0
77.5	0
78.0	0
78.5	0
79.0	0
79.5	0
80.0	0
80.5	0
81.0	0
81.5	0
82.0	0
82.5	0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 8CR-TL-L20-835-XXX-DIM-UNV-ON-CS-XX_.IES

CANDELA TABULATION - (Cont.)

83.0	0
83.5	0
84.0	0
84.5	0
85.0	0
85.5	0
86.0	0
86.5	0
87.0	0
87.5	0
88.0	0
88.5	0
89.0	0
89.5	0
90.0	0
90.5	0
91.0	0
91.5	0
92.0	0
92.5	0
93.0	0
93.5	0
94.0	0
94.5	0
95.0	0
95.5	0
96.0	0
96.5	0
97.0	0
97.5	0
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98.5	0
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102.5	0
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105.5	0
106.0	0
106.5	0
107.0	0
107.5	0
108.0	0
108.5	0
109.0	0
109.5	0
110.0	0
110.5	0

CANDELA TABULATION - (Cont.)

111.0	0
111.5	0
112.0	0
112.5	0
113.0	0
113.5	0
114.0	0
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115.0	0
115.5	0
116.0	0
116.5	0
117.0	0
117.5	0
118.0	0
118.5	0
119.0	0
119.5	0
120.0	0
120.5	0
121.0	0
121.5	0
122.0	0
122.5	0
123.0	0
123.5	0
124.0	0
124.5	0
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125.5	0
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126.5	0
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129.5	0
130.0	0
130.5	0
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133.0	0
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134.0	0
134.5	0
135.0	0
135.5	0
136.0	0
136.5	0
137.0	0
137.5	0
138.0	0
138.5	0

CANDELA TABULATION - (Cont.)

139.0	0
139.5	0
140.0	0
140.5	0
141.0	0
141.5	0
142.0	0
142.5	0
143.0	0
143.5	0
144.0	0
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161.0	0
161.5	0
162.0	0
162.5	0
163.0	0
163.5	0
164.0	0
164.5	0
165.0	0
165.5	0
166.0	0
166.5	0

CANDELA TABULATION - (Cont.)

167.0	0
167.5	0
168.0	0
168.5	0
169.0	0
169.5	0
170.0	0
170.5	0
171.0	0
171.5	0
172.0	0
172.5	0
173.0	0
173.5	0
174.0	0
174.5	0
175.0	0
175.5	0
176.0	0
176.5	0
177.0	0
177.5	0
178.0	0
178.5	0
179.0	0
179.5	0
180.0	0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1345.68	N.A.	66.40
0-30	1831.25	N.A.	90.40
0-40	2009.67	N.A.	99.20
0-60	2023.99	N.A.	99.90
0-80	2025.69	N.A.	100.00
0-90	2025.69	N.A.	100.00
10-90	1274.07	N.A.	62.90
20-40	663.99	N.A.	32.80
20-50	674.54	N.A.	33.30
40-70	15.62	N.A.	0.80
60-80	1.70	N.A.	0.10
70-80	0.39	N.A.	0.00
80-90	0.00	N.A.	0.00
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2025.69	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	751.62
10-20	594.06
20-30	485.57
30-40	178.42
40-50	10.55
50-60	3.76
60-70	1.31
70-80	0.39
80-90	0.00
90-100	0.00
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	115	113	111	109	112	110	109	107	107	105	104	103	102	101	99	99	98	96
2	111	107	104	101	109	105	103	100	102	100	98	99	98	96	97	95	94	92
3	107	102	98	95	105	101	97	95	98	95	93	96	94	92	94	92	90	89
4	103	98	94	90	102	97	93	90	95	91	89	93	90	88	91	89	87	86
5	100	94	89	86	99	93	89	86	91	88	85	90	87	84	88	86	84	83
6	97	90	86	83	96	90	85	82	88	85	82	87	84	81	86	83	81	80
7	94	87	83	80	93	86	82	79	85	82	79	84	81	79	83	80	78	77
8	91	84	80	77	90	84	79	77	83	79	76	82	78	76	81	78	76	75
9	88	81	77	74	88	81	77	74	80	76	74	79	76	74	79	76	73	72
10	86	79	75	72	85	79	74	72	78	74	72	77	74	71	77	73	71	70

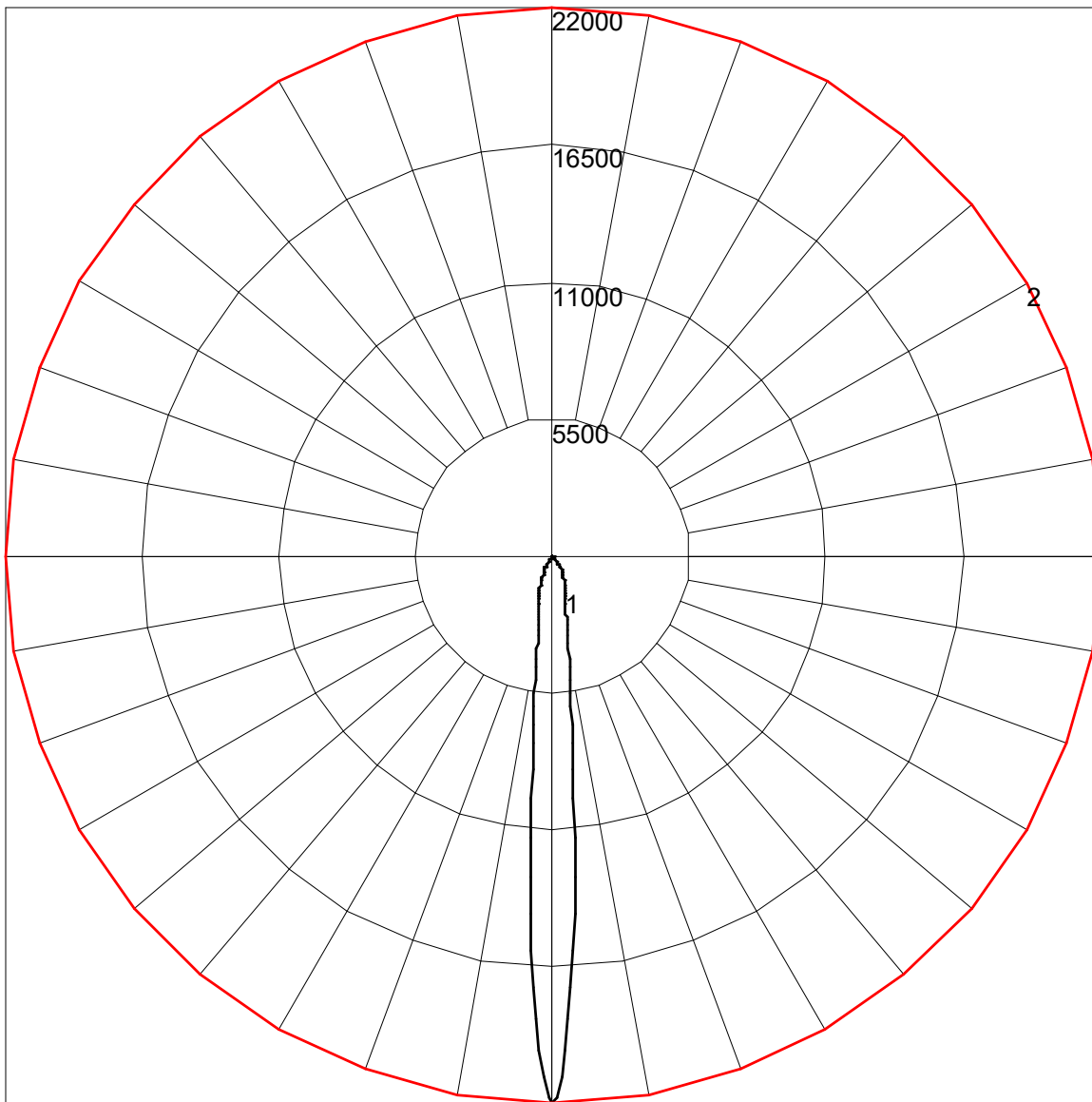
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UGR TABLE - CORRECTED

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					UGR Viewed Endwise				
X=2H	Y=2H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	3H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	4H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	6H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	8H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	12H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
4H	2H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	3H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	4H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	6H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	8H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	12H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
8H	4H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	6H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	8H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	12H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
12H	4H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	6H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	8H	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7

Maximum UGR = 2.7

POLAR GRAPH



Maximum Candela = 22000 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.)