



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L40-835-XXX-DIM-UNV-ON-CS-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.23

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 2-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L40-835-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	4011
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	36.4145
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.20
Spacing Criterion (90-270)	0.20
Spacing Criterion (Diagonal)	0.22
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	2014	2014	2014
55	764	764	764
65	259	259	259
75	212	212	212
85	0	0	0

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CANDELA TABULATION

	<u>0</u>
0.0	36940
0.5	36740
1.0	36120
1.5	35090
2.0	33580
2.5	31660
3.0	29430
3.5	27110
4.0	24700
4.5	22240
5.0	19870
5.5	17620
6.0	15560
6.5	13840
7.0	12440
7.5	11240
8.0	10220
8.5	9329
9.0	8545
9.5	7855
10.0	7245
10.5	6717
11.0	6250
11.5	5849
12.0	5492
12.5	5180
13.0	4910
13.5	4675
14.0	4471
14.5	4293
15.0	4139
15.5	4004
16.0	3881
16.5	3768
17.0	3663
17.5	3561
18.0	3463
18.5	3367
19.0	3272
19.5	3175
20.0	3074
20.5	2970
21.0	2862
21.5	2753
22.0	2641
22.5	2529
23.0	2417
23.5	2306
24.0	2199
24.5	2096
25.0	2001
25.5	1913
26.0	1832
26.5	1760

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CANDELA TABULATION - (Cont.)

27.0	1697
27.5	1645
28.0	1604
28.5	1573
29.0	1548
29.5	1519
30.0	1478
30.5	1425
31.0	1361
31.5	1283
32.0	1191
32.5	1084
33.0	960
33.5	831
34.0	699
34.5	570
35.0	450
35.5	345
36.0	257
36.5	186
37.0	130
37.5	89
38.0	63
38.5	50
39.0	47
39.5	44
40.0	42
40.5	40
41.0	38
41.5	36
42.0	35
42.5	33
43.0	32
43.5	30
44.0	29
44.5	27
45.0	26
45.5	25
46.0	24
46.5	22
47.0	21
47.5	20
48.0	19
48.5	18
49.0	17
49.5	16
50.0	15
50.5	14
51.0	13
51.5	12
52.0	11
52.5	11
53.0	10
53.5	9
54.0	9
54.5	8

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CANDELA TABULATION - (Cont.)

55.0	8
55.5	7
56.0	7
56.5	6
57.0	6
57.5	6
58.0	5
58.5	5
59.0	5
59.5	5
60.0	4
60.5	4
61.0	4
61.5	4
62.0	3
62.5	3
63.0	3
63.5	3
64.0	3
64.5	3
65.0	2
65.5	2
66.0	2
66.5	2
67.0	2
67.5	2
68.0	2
68.5	2
69.0	2
69.5	2
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	1
74.5	1
75.0	1
75.5	1
76.0	1
76.5	1
77.0	1
77.5	1
78.0	1
78.5	1
79.0	1
79.5	1
80.0	0
80.5	0
81.0	0
81.5	0
82.0	0
82.5	0

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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
98.0	0
98.5	0
99.0	0
99.5	0
100.0	0
100.5	0
101.0	0
101.5	0
102.0	0
102.5	0
103.0	0
103.5	0
104.0	0
104.5	0
105.0	0
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
114.5	0
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
125.0	0
125.5	0
126.0	0
126.5	0
127.0	0
127.5	0
128.0	0
128.5	0
129.0	0
129.5	0
130.0	0
130.5	0
131.0	0
131.5	0
132.0	0
132.5	0
133.0	0
133.5	0
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
144.5	0
145.0	0
145.5	0
146.0	0
146.5	0
147.0	0
147.5	0
148.0	0
148.5	0
149.0	0
149.5	0
150.0	0
150.5	0
151.0	0
151.5	0
152.0	0
152.5	0
153.0	0
153.5	0
154.0	0
154.5	0
155.0	0
155.5	0
156.0	0
156.5	0
157.0	0
157.5	0
158.0	0
158.5	0
159.0	0
159.5	0
160.0	0
160.5	0
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	2679.00	N.A.	66.80
0-30	3630.19	N.A.	90.50
0-40	3979.41	N.A.	99.20
0-60	4007.27	N.A.	99.90
0-80	4010.89	N.A.	100.00
0-90	4010.89	N.A.	100.00
10-90	2540.82	N.A.	63.30
20-40	1300.41	N.A.	32.40
20-50	1320.89	N.A.	32.90
40-70	30.44	N.A.	0.80
60-80	3.62	N.A.	0.10
70-80	1.03	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	4010.89	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1470.06
10-20	1208.94
20-30	951.19
30-40	349.22
40-50	20.48
50-60	7.38
60-70	2.59
70-80	1.03
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	111	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	93
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	79	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	78	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

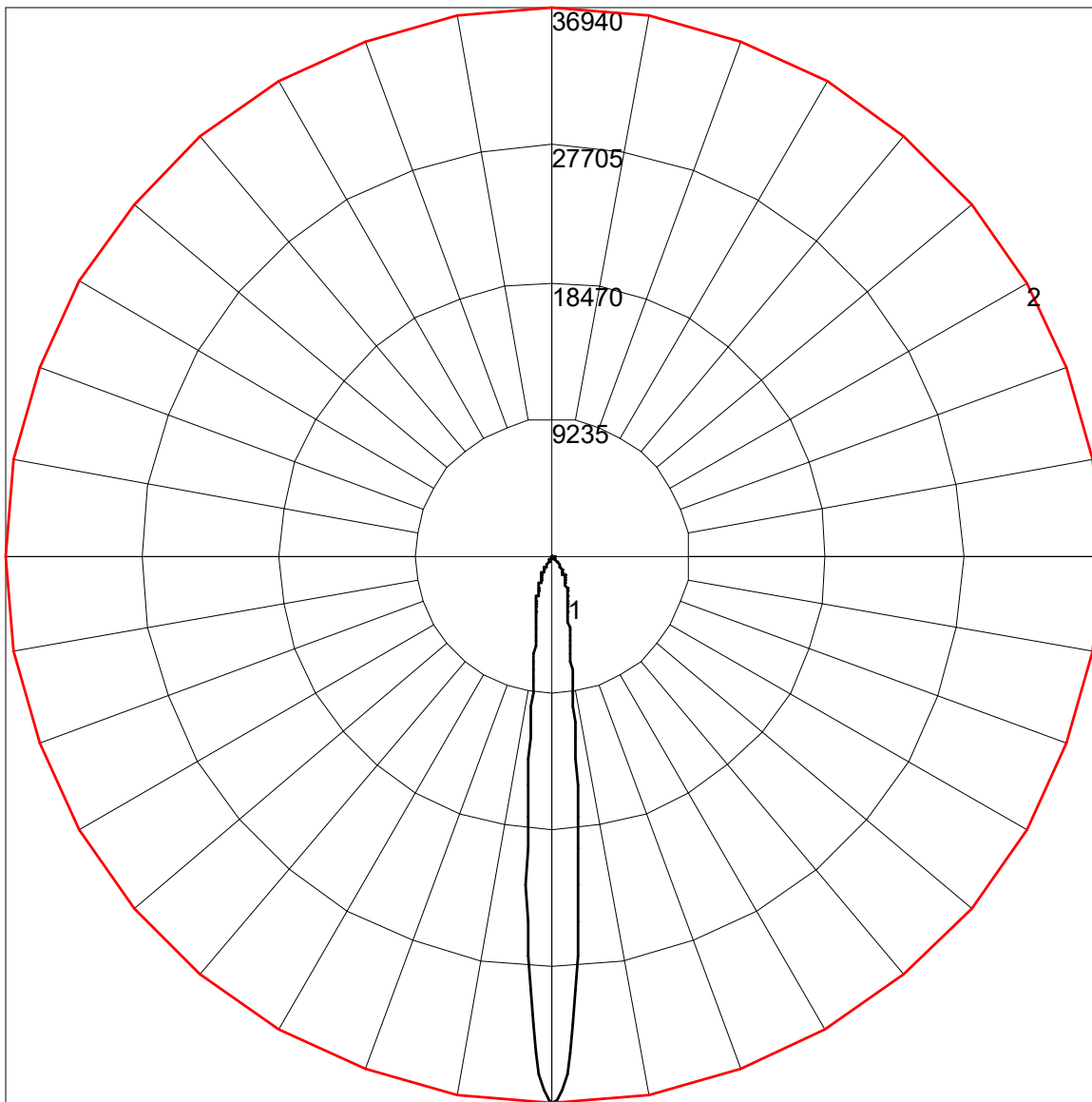
X=2H	Y=2H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	3H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	4H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	6H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	8H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	12H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1

UGR Viewed Endwise

4H	2H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	3H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	4H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	6H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	8H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	12H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
8H	4H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	6H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	8H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	12H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
12H	4H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	6H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	8H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1

Maximum UGR = 5.1

POLAR GRAPH



Maximum Candela = 36940 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.)