



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L60-835-XXX-DIM-UNV-OM-CS-XX\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.27

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 2-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L60-835-xxx-DIM-UNV-OM-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	5948
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	53.9934
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.68
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	10999	10999	10999
55	4106	4106	4106
65	1685	1685	1685
75	846	846	846
85	628	628	628

CANDELA TABULATION

	<u>0</u>
0.0	12370
0.5	12360
1.0	12360
1.5	12330
2.0	12280
2.5	12210
3.0	12140
3.5	12050
4.0	11940
4.5	11800
5.0	11620
5.5	11440
6.0	11240
6.5	11020
7.0	10780
7.5	10540
8.0	10270
8.5	10010
9.0	9747
9.5	9490
10.0	9235
10.5	8986
11.0	8741
11.5	8502
12.0	8269
12.5	8048
13.0	7834
13.5	7635
14.0	7442
14.5	7265
15.0	7095
15.5	6930
16.0	6767
16.5	6608
17.0	6452
17.5	6302
18.0	6155
18.5	6014
19.0	5873
19.5	5732
20.0	5591
20.5	5449
21.0	5308
21.5	5167
22.0	5027
22.5	4887
23.0	4748
23.5	4608
24.0	4469
24.5	4331
25.0	4198
25.5	4069
26.0	3946
26.5	3825

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CANDELA TABULATION - (Cont.)

27.0	3701
27.5	3574
28.0	3443
28.5	3312
29.0	3177
29.5	3036
30.0	2889
30.5	2735
31.0	2572
31.5	2404
32.0	2234
32.5	2063
33.0	1894
33.5	1725
34.0	1559
34.5	1402
35.0	1248
35.5	1102
36.0	966
36.5	842
37.0	732
37.5	635
38.0	551
38.5	479
39.0	416
39.5	363
40.0	321
40.5	291
41.0	272
41.5	255
42.0	239
42.5	221
43.0	202
43.5	184
44.0	167
44.5	153
45.0	142
45.5	133
46.0	125
46.5	118
47.0	112
47.5	106
48.0	100
48.5	95
49.0	90
49.5	85
50.0	80
50.5	76
51.0	71
51.5	67
52.0	64
52.5	60
53.0	56
53.5	52
54.0	49
54.5	46

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CANDELA TABULATION - (Cont.)

55.0	43
55.5	40
56.0	38
56.5	35
57.0	34
57.5	32
58.0	29
58.5	27
59.0	26
59.5	24
60.0	23
60.5	22
61.0	20
61.5	20
62.0	18
62.5	17
63.0	16
63.5	15
64.0	14
64.5	14
65.0	13
65.5	12
66.0	12
66.5	11
67.0	11
67.5	10
68.0	9
68.5	9
69.0	8
69.5	8
70.0	7
70.5	7
71.0	6
71.5	6
72.0	6
72.5	5
73.0	5
73.5	5
74.0	4
74.5	5
75.0	4
75.5	4
76.0	4
76.5	3
77.0	3
77.5	3
78.0	3
78.5	3
79.0	2
79.5	3
80.0	2
80.5	2
81.0	2
81.5	2
82.0	2
82.5	2

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CANDELA TABULATION - (Cont.)

83.0	2
83.5	2
84.0	2
84.5	2
85.0	1
85.5	1
86.0	2
86.5	1
87.0	1
87.5	1
88.0	1
88.5	1
89.0	1
89.5	1
90.0	1
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



**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 8CR-TL-L60-835-XXX-DIM-UNV-OM-CS-XX\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	3016.04	N.A.	50.70
0-30	4933.63	N.A.	82.90
0-40	5762.81	N.A.	96.90
0-60	5928.4	N.A.	99.70
0-80	5946.4	N.A.	100.00
0-90	5948.06	N.A.	100.00
10-90	4919.04	N.A.	82.70
20-40	2746.78	N.A.	46.20
20-50	2871.59	N.A.	48.30
40-70	179.08	N.A.	3.00
60-80	18.00	N.A.	0.30
70-80	4.50	N.A.	0.10
80-90	1.66	N.A.	0.00
90-110	0.03	N.A.	0.00
90-120	0.03	N.A.	0.00
90-130	0.03	N.A.	0.00
90-150	0.03	N.A.	0.00
90-180	0.03	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	5948.09	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	1029.02
10-20	1987.02
20-30	1917.59
30-40	829.18
40-50	124.82
50-60	40.77
60-70	13.50
70-80	4.50
80-90	1.66
90-100	0.03
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	114	112	109	107	112	109	107	106	105	104	102	102	100	99	98	97	96	95
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89
3	104	99	94	91	102	97	93	90	95	91	88	92	90	87	90	88	86	84
4	100	93	88	84	98	92	87	84	90	86	83	88	85	82	86	83	81	80
5	96	88	83	79	94	87	82	79	86	81	78	84	80	77	82	79	77	75
6	92	84	78	74	90	83	78	74	81	77	74	80	76	73	79	75	73	71
7	88	79	74	70	86	79	74	70	78	73	70	76	72	69	75	72	69	68
8	84	76	70	67	83	75	70	67	74	70	66	73	69	66	72	69	66	65
9	81	72	67	63	80	72	67	63	71	66	63	70	66	63	69	65	63	61
10	78	69	64	60	77	69	64	60	68	63	60	67	63	60	66	63	60	59

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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

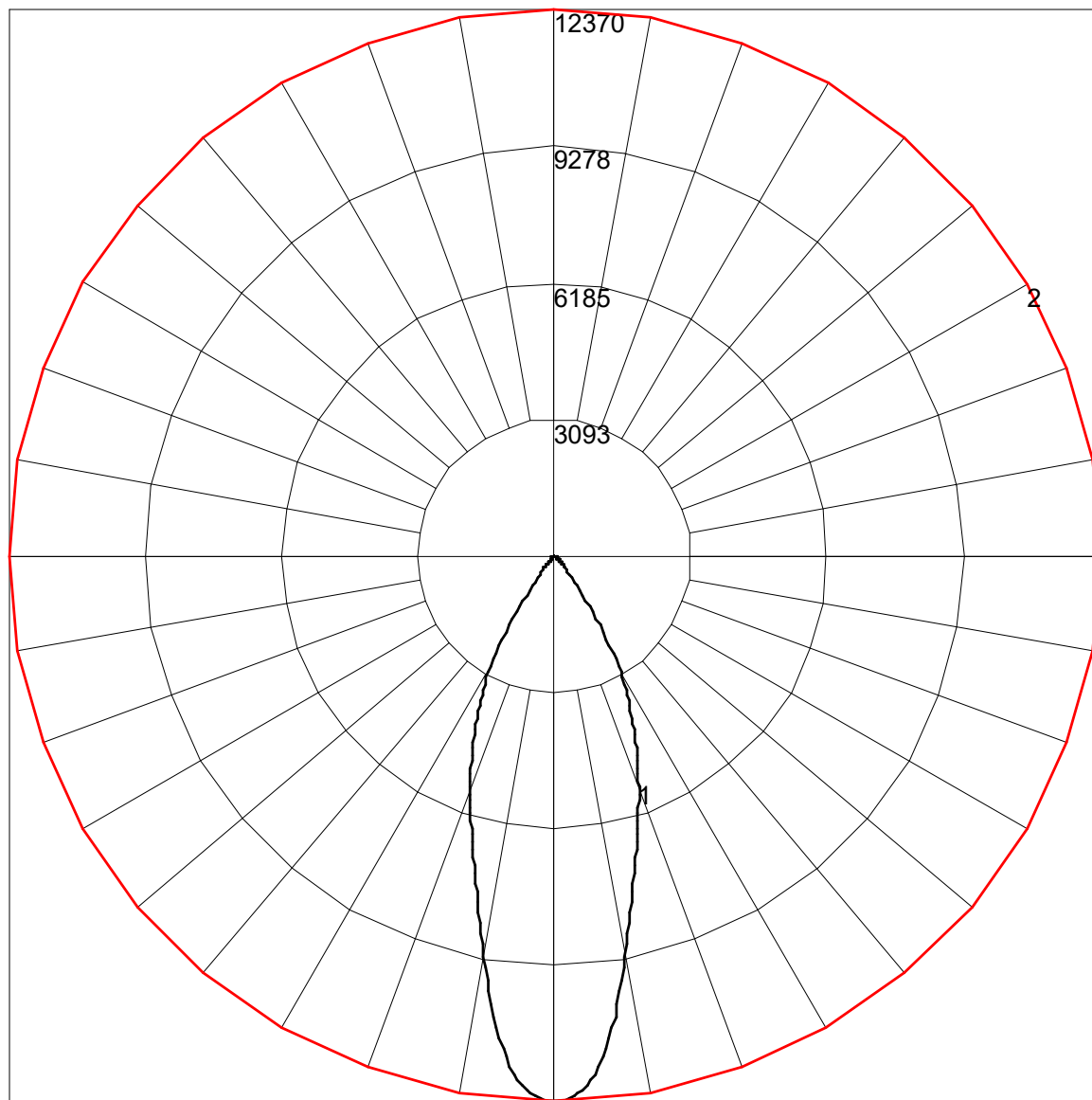
X=2H	Y=2H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	3H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	4H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	6H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	8H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	12H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2

### UGR Viewed Endwise

4H	2H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	3H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	4H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	6H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	8H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	12H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
8H	4H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	6H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	8H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	12H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
12H	4H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	6H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
	8H	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2

Maximum UGR = 6.2

POLAR GRAPH



Maximum Candela = 12370 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.)