



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L50-840-XXX-DIM-UNV-RW-WH-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #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-L50-840-xxx-DIM-UNV-RW-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	3572
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	81
Total Luminaire Watts	43.9
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	48234	48234	48234
55	40225	40225	40225
65	28378	28378	28378
75	17384	17384	17384
85	13710	13710	13710

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CANDELA TABULATION

	<u>0</u>
0.0	2642.538
0.5	2640.066
1.0	2637.594
1.5	2635.122
2.0	2630.178
2.5	2622.762
3.0	2615.346
3.5	2605.458
4.0	2595.571
4.5	2588.155
5.0	2578.267
5.5	2568.379
6.0	2558.491
6.5	2548.603
7.0	2538.715
7.5	2528.827
8.0	2516.467
8.5	2506.580
9.0	2496.692
9.5	2484.332
10.0	2474.444
10.5	2462.331
11.0	2450.466
11.5	2438.600
12.0	2426.735
12.5	2415.117
13.0	2403.251
13.5	2390.891
14.0	2378.779
14.5	2366.913
15.0	2355.789
15.5	2344.418
16.0	2333.294
16.5	2322.418
17.0	2312.283
17.5	2302.148
18.0	2292.260
18.5	2282.866
19.0	2273.473
19.5	2263.832
20.0	2253.944
20.5	2243.315
21.0	2231.202
21.5	2217.359
22.0	2201.785
22.5	2184.482
23.0	2165.695
23.5	2144.436
24.0	2121.199
24.5	2095.738
25.0	2067.557
25.5	2037.152
26.0	2003.286
26.5	1966.207

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CANDELA TABULATION - (Cont.)

27.0	1926.655
27.5	1883.643
28.0	1837.911
28.5	1788.225
29.0	1735.819
29.5	1678.963
30.0	1618.647
30.5	1554.870
31.0	1488.622
31.5	1420.889
32.0	1351.921
32.5	1283.448
33.0	1215.716
33.5	1150.209
34.0	1087.420
34.5	1028.340
35.0	974.451
35.5	925.012
36.0	881.505
36.5	842.942
37.0	809.076
37.5	780.154
38.0	754.693
38.5	732.198
39.0	712.670
39.5	695.366
40.0	679.545
40.5	665.208
41.0	651.859
41.5	639.746
42.0	628.622
42.5	617.993
43.0	607.858
43.5	598.217
44.0	589.071
44.5	580.419
45.0	571.520
45.5	563.115
46.0	554.463
46.5	546.059
47.0	537.407
47.5	528.755
48.0	519.856
48.5	510.957
49.0	502.552
49.5	493.900
50.0	484.754
50.5	475.360
51.0	465.720
51.5	456.079
52.0	446.438
52.5	436.550
53.0	426.910
53.5	417.516
54.0	407.134
54.5	396.752

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CANDELA TABULATION - (Cont.)

55.0	386.616
55.5	376.234
56.0	366.099
56.5	355.964
57.0	345.829
57.5	335.694
58.0	326.053
58.5	316.165
59.0	306.525
59.5	297.131
60.0	287.738
60.5	278.344
61.0	269.198
61.5	260.299
62.0	251.400
62.5	242.748
63.0	234.096
63.5	225.444
64.0	217.286
64.5	208.882
65.0	200.971
65.5	192.814
66.0	185.151
66.5	177.488
67.0	170.072
67.5	162.656
68.0	155.487
68.5	148.318
69.0	141.644
69.5	134.722
70.0	128.295
70.5	121.868
71.0	115.688
71.5	109.756
72.0	103.823
72.5	98.384
73.0	93.193
73.5	88.497
74.0	83.800
74.5	79.597
75.0	75.395
75.5	71.687
76.0	67.979
76.5	64.766
77.0	61.799
77.5	58.833
78.0	55.867
78.5	52.900
79.0	50.181
79.5	47.462
80.0	44.743
80.5	42.024
81.0	39.304
81.5	36.832
82.0	34.113
82.5	31.641

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CANDELA TABULATION - (Cont.)

83.0	29.169
83.5	26.944
84.0	24.473
84.5	22.248
85.0	20.023
85.5	17.798
86.0	15.573
86.5	13.349
87.0	11.371
87.5	9.146
88.0	7.416
88.5	5.933
89.0	4.697
89.5	3.461
90.0	2.472
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
117.0	0.000
117.5	0.000
118.0	0.000
118.5	0.000
119.0	0.000
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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
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152.0	0.000
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153.0	0.000
153.5	0.000
154.0	0.000
154.5	0.000
155.0	0.000
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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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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	908.03	N.A.	25.40
0-30	1835.69	N.A.	51.40
0-40	2477.5	N.A.	69.40
0-60	3265.12	N.A.	91.40
0-80	3549.45	N.A.	99.40
0-90	3572.25	N.A.	100.00
10-90	3329.51	N.A.	93.20
20-40	1569.47	N.A.	43.90
20-50	2012.29	N.A.	56.30
40-70	988.29	N.A.	27.70
60-80	284.33	N.A.	8.00
70-80	83.66	N.A.	2.30
80-90	22.80	N.A.	0.60
90-110	0.07	N.A.	0.00
90-120	0.07	N.A.	0.00
90-130	0.07	N.A.	0.00
90-150	0.07	N.A.	0.00
90-180	0.07	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3572.32	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	242.75
10-20	665.28
20-30	927.66
30-40	641.82
40-50	442.81
50-60	344.80
60-70	200.68
70-80	83.66
80-90	22.80
90-100	0.07
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	22.2	23.6	22.6	23.9	24.2	22.2	23.6	22.6	23.9	24.2
	3H	23.2	24.4	23.6	24.7	25.1	23.2	24.4	23.6	24.7	25.1
	4H	23.5	24.6	23.9	24.9	25.3	23.5	24.6	23.9	24.9	25.3
	6H	23.6	24.7	24.1	25.0	25.4	23.6	24.7	24.1	25.0	25.4
	8H	23.7	24.7	24.1	25.1	25.5	23.7	24.7	24.1	25.1	25.5
	12H	23.7	24.6	24.2	25.0	25.5	23.7	24.6	24.2	25.0	25.5

UGR Viewed Endwise

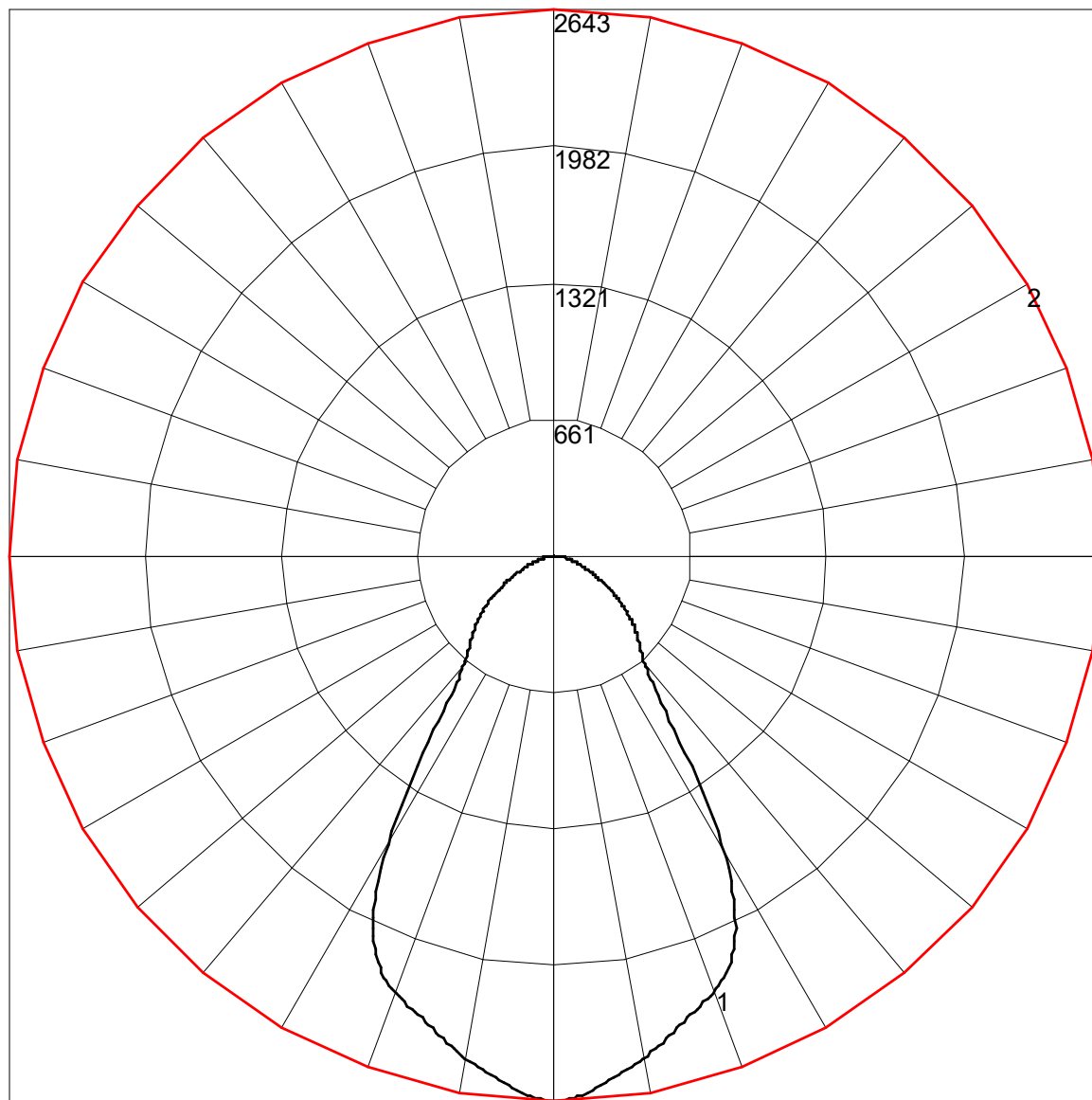
4H	2H	22.6	23.7	23.0	24.0	24.4	22.6	23.7	23.0	24.0	24.4
	3H	23.7	24.6	24.1	25.0	25.4	23.7	24.6	24.1	25.0	25.4
	4H	24.1	24.9	24.5	25.3	25.7	24.1	24.9	24.5	25.3	25.7
	6H	24.3	25.0	24.8	25.5	25.9	24.3	25.0	24.8	25.5	25.9
	8H	24.4	25.0	24.9	25.5	26.0	24.4	25.0	24.9	25.5	26.0
	12H	24.5	25.0	24.9	25.5	26.0	24.5	25.0	24.9	25.5	26.0

8H	4H	24.1	24.8	24.6	25.2	25.7	24.1	24.8	24.6	25.2	25.7
	6H	24.5	25.0	25.0	25.5	26.0	24.5	25.0	25.0	25.5	26.0
	8H	24.6	25.1	25.1	25.6	26.1	24.6	25.1	25.1	25.6	26.1
	12H	24.7	25.1	25.2	25.6	26.2	24.7	25.1	25.2	25.6	26.2

12H	4H	24.1	24.7	24.6	25.2	25.7	24.1	24.7	24.6	25.2	25.7
	6H	24.5	25.0	25.0	25.4	26.0	24.5	25.0	25.0	25.4	26.0
	8H	24.6	25.1	25.2	25.6	26.1	24.6	25.1	25.2	25.6	26.1

Maximum UGR = 26.2

POLAR GRAPH



Maximum Candela = 2642.538 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.)