



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L42-8TW-XXX-DIM-UNV-RW-WH-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12326812.12

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 29-JAN-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L42-8TW-xxx-DIM-UNV-RW-WH-xx_4000k

[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	3480
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	78
Total Luminaire Watts	44.9
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	46991	46991	46991
55	39189	39189	39189
65	27647	27647	27647
75	16936	16936	16936
85	13357	13357	13357

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CANDELA TABULATION

	<u>0</u>
0.0	2574.477
0.5	2572.069
1.0	2569.660
1.5	2567.252
2.0	2562.435
2.5	2555.211
3.0	2547.986
3.5	2538.352
4.0	2528.719
4.5	2521.494
5.0	2511.861
5.5	2502.228
6.0	2492.595
6.5	2482.961
7.0	2473.328
7.5	2463.695
8.0	2451.653
8.5	2442.020
9.0	2432.387
9.5	2420.345
10.0	2410.712
10.5	2398.912
11.0	2387.352
11.5	2375.792
12.0	2364.232
12.5	2352.913
13.0	2341.353
13.5	2329.312
14.0	2317.511
14.5	2305.951
15.0	2295.114
15.5	2284.035
16.0	2273.198
16.5	2262.602
17.0	2252.728
17.5	2242.853
18.0	2233.220
18.5	2224.069
19.0	2214.917
19.5	2205.525
20.0	2195.892
20.5	2185.536
21.0	2173.735
21.5	2160.249
22.0	2145.076
22.5	2128.218
23.0	2109.915
23.5	2089.204
24.0	2066.566
24.5	2041.760
25.0	2014.305
25.5	1984.683
26.0	1951.690
26.5	1915.565

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CANDELA TABULATION - (Cont.)

27.0	1877.032
27.5	1835.128
28.0	1790.574
28.5	1742.167
29.0	1691.111
29.5	1635.720
30.0	1576.957
30.5	1514.823
31.0	1450.281
31.5	1384.293
32.0	1317.101
32.5	1250.391
33.0	1184.404
33.5	1120.584
34.0	1059.413
34.5	1001.854
35.0	949.353
35.5	901.187
36.0	858.801
36.5	821.232
37.0	788.238
37.5	760.061
38.0	735.255
38.5	713.340
39.0	694.314
39.5	677.456
40.0	662.043
40.5	648.075
41.0	635.070
41.5	623.269
42.0	612.432
42.5	602.076
43.0	592.202
43.5	582.810
44.0	573.899
44.5	565.470
45.0	556.800
45.5	548.612
46.0	540.183
46.5	531.994
47.0	523.565
47.5	515.136
48.0	506.466
48.5	497.796
49.0	489.608
49.5	481.179
50.0	472.268
50.5	463.117
51.0	453.724
51.5	444.332
52.0	434.940
52.5	425.306
53.0	415.914
53.5	406.763
54.0	396.648
54.5	386.533

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CANDELA TABULATION - (Cont.)

55.0	376.659
55.5	366.544
56.0	356.670
56.5	346.796
57.0	336.922
57.5	327.048
58.0	317.655
58.5	308.022
59.0	298.630
59.5	289.478
60.0	280.327
60.5	271.175
61.0	262.264
61.5	253.594
62.0	244.925
62.5	236.495
63.0	228.066
63.5	219.637
64.0	211.690
64.5	203.502
65.0	195.795
65.5	187.848
66.0	180.382
66.5	172.916
67.0	165.691
67.5	158.466
68.0	151.482
68.5	144.498
69.0	137.996
69.5	131.253
70.0	124.991
70.5	118.729
71.0	112.709
71.5	106.929
72.0	101.149
72.5	95.850
73.0	90.793
73.5	86.217
74.0	81.642
74.5	77.547
75.0	73.453
75.5	69.841
76.0	66.228
76.5	63.098
77.0	60.208
77.5	57.318
78.0	54.428
78.5	51.538
79.0	48.889
79.5	46.239
80.0	43.590
80.5	40.941
81.0	38.292
81.5	35.884
82.0	33.235
82.5	30.826

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CANDELA TABULATION - (Cont.)

83.0	28.418
83.5	26.251
84.0	23.842
84.5	21.675
85.0	19.507
85.5	17.340
86.0	15.172
86.5	13.005
87.0	11.078
87.5	8.911
88.0	7.225
88.5	5.780
89.0	4.576
89.5	3.372
90.0	2.408
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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120.0	0.000
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121.0	0.000
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132.5	0.000
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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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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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Zone	Lumens	%Lamp	%Fixt
0-20	884.64	N.A.	25.40
0-30	1788.41	N.A.	51.40
0-40	2413.69	N.A.	69.40
0-60	3181.02	N.A.	91.40
0-80	3458.03	N.A.	99.40
0-90	3480.25	N.A.	100.00
10-90	3243.75	N.A.	93.20
20-40	1529.05	N.A.	43.90
20-50	1960.46	N.A.	56.30
40-70	962.84	N.A.	27.70
60-80	277.01	N.A.	8.00
70-80	81.50	N.A.	2.30
80-90	22.22	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	3480.31	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	236.49
10-20	648.15
20-30	903.76
30-40	625.29
40-50	431.41
50-60	335.92
60-70	195.51
70-80	81.50
80-90	22.22
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

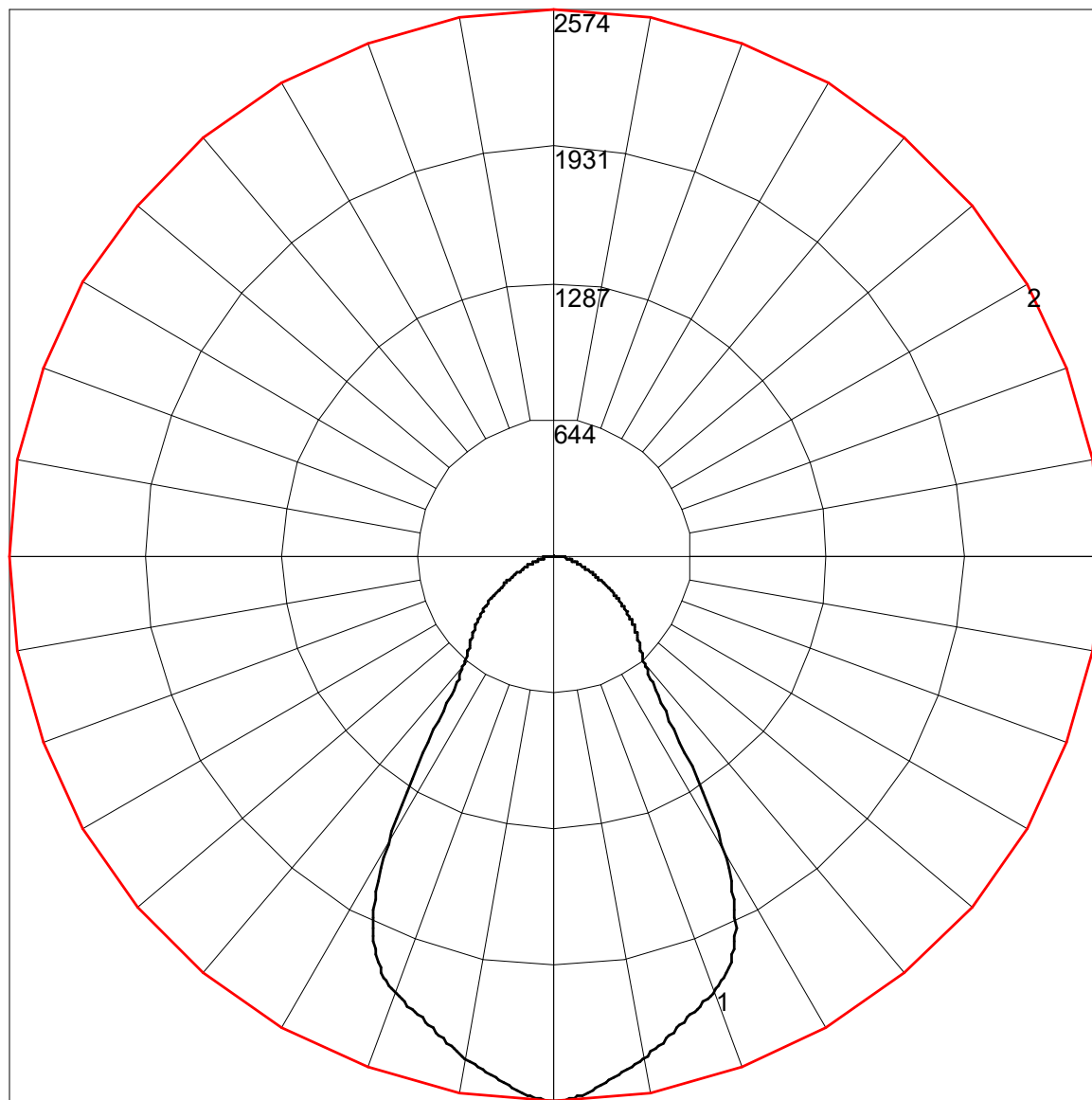
X=2H	Y=2H	22.1	23.5	22.5	23.8	24.1	22.1	23.5	22.5	23.8	24.1
	3H	23.1	24.3	23.5	24.6	25.0	23.1	24.3	23.5	24.6	25.0
	4H	23.4	24.5	23.8	24.8	25.2	23.4	24.5	23.8	24.8	25.2
	6H	23.5	24.6	24.0	24.9	25.3	23.5	24.6	24.0	24.9	25.3
	8H	23.6	24.6	24.0	25.0	25.4	23.6	24.6	24.0	25.0	25.4
	12H	23.6	24.5	24.1	24.9	25.4	23.6	24.5	24.1	24.9	25.4

UGR Viewed Endwise

4H	2H	22.5	23.6	22.9	23.9	24.3	22.5	23.6	22.9	23.9	24.3
	3H	23.6	24.5	24.0	24.9	25.3	23.6	24.5	24.0	24.9	25.3
	4H	24.0	24.8	24.4	25.2	25.6	24.0	24.8	24.4	25.2	25.6
	6H	24.2	24.9	24.7	25.4	25.8	24.2	24.9	24.7	25.4	25.8
	8H	24.3	24.9	24.8	25.4	25.9	24.3	24.9	24.8	25.4	25.9
	12H	24.4	24.9	24.8	25.4	25.9	24.4	24.9	24.8	25.4	25.9
8H	4H	24.0	24.7	24.5	25.1	25.6	24.0	24.7	24.5	25.1	25.6
	6H	24.4	24.9	24.9	25.4	25.9	24.4	24.9	24.9	25.4	25.9
	8H	24.5	25.0	25.0	25.5	26.0	24.5	25.0	25.0	25.5	26.0
	12H	24.6	25.0	25.1	25.5	26.1	24.6	25.0	25.1	25.5	26.1
12H	4H	24.0	24.6	24.5	25.1	25.6	24.0	24.6	24.5	25.1	25.6
	6H	24.4	24.9	24.9	25.3	25.9	24.4	24.9	24.9	25.3	25.9
	8H	24.5	25.0	25.1	25.5	26.0	24.5	25.0	25.1	25.5	26.0

Maximum UGR = 26.1

POLAR GRAPH



Maximum Candela = 2574.477 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.)