



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L15-927-XXX-DIM-UNV-OM-CS-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.04

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 3-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L15-927-xxx-DIM-UNV-OM-CS-xx

[LUMINAIRE] 8" DIA. SURFACE CYLINDER

[LAMP] One white LED

[_SEARCH_SOURCE TYPE] 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	1136
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	82
Total Luminaire Watts	13.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.58
Spacing Criterion (90-270)	0.58
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	2050	2050	2050
55	755	755	755
65	297	297	297
75	133	133	133
85	108	108	108

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CANDELA TABULATION

	<u>0</u>
0.0	2299.330
0.5	2302.768
1.0	2309.643
1.5	2313.654
2.0	2323.394
2.5	2327.405
3.0	2334.281
3.5	2336.000
4.0	2330.843
4.5	2303.340
5.0	2275.838
5.5	2246.616
6.0	2199.633
6.5	2152.649
7.0	2102.801
7.5	2046.650
8.0	1981.331
8.5	1914.294
9.0	1844.964
9.5	1777.354
10.0	1714.900
10.5	1659.895
11.0	1612.338
11.5	1571.657
12.0	1531.550
12.5	1492.015
13.0	1454.199
13.5	1418.674
14.0	1386.588
14.5	1357.940
15.0	1332.156
15.5	1307.518
16.0	1283.453
16.5	1258.243
17.0	1232.459
17.5	1206.675
18.0	1183.184
18.5	1162.557
19.0	1141.357
19.5	1119.584
20.0	1095.519
20.5	1069.735
21.0	1043.379
21.5	1016.449
22.0	987.801
22.5	960.298
23.0	931.077
23.5	901.282
24.0	870.342
24.5	839.401
25.0	809.034
25.5	778.667
26.0	750.591
26.5	723.661

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CANDELA TABULATION - (Cont.)

27.0	698.451
27.5	674.386
28.0	652.613
28.5	633.132
29.0	614.797
29.5	597.035
30.0	574.689
30.5	546.728
31.0	514.642
31.5	479.347
32.0	443.536
32.5	407.496
33.0	371.457
33.5	333.641
34.0	295.252
34.5	260.243
35.0	226.610
35.5	194.867
36.0	164.328
36.5	136.997
37.0	114.594
37.5	98.837
38.0	90.357
38.5	84.628
39.0	78.898
39.5	72.825
40.0	66.350
40.5	59.474
41.0	52.885
41.5	46.754
42.0	41.540
42.5	37.415
43.0	34.206
43.5	31.743
44.0	29.680
44.5	28.018
45.0	26.471
45.5	25.153
46.0	23.893
46.5	22.747
47.0	21.601
47.5	20.512
48.0	19.424
48.5	18.335
49.0	17.246
49.5	16.272
50.0	15.356
50.5	14.439
51.0	13.579
51.5	12.720
52.0	11.860
52.5	11.116
53.0	10.371
53.5	9.683
54.0	9.053
54.5	8.480

CANDELA TABULATION - (Cont.)

55.0	7.907
55.5	7.449
56.0	6.933
56.5	6.532
57.0	6.131
57.5	5.730
58.0	5.386
58.5	5.042
59.0	4.756
59.5	4.469
60.0	4.183
60.5	3.896
61.0	3.667
61.5	3.438
62.0	3.266
62.5	3.094
63.0	2.865
63.5	2.750
64.0	2.578
64.5	2.406
65.0	2.292
65.5	2.120
66.0	2.005
66.5	1.891
67.0	1.776
67.5	1.662
68.0	1.604
68.5	1.490
69.0	1.375
69.5	1.318
70.0	1.261
70.5	1.146
71.0	1.089
71.5	1.031
72.0	0.974
72.5	0.917
73.0	0.859
73.5	0.802
74.0	0.745
74.5	0.688
75.0	0.630
75.5	0.630
76.0	0.573
76.5	0.516
77.0	0.516
77.5	0.458
78.0	0.458
78.5	0.401
79.0	0.401
79.5	0.344
80.0	0.344
80.5	0.286
81.0	0.286
81.5	0.286
82.0	0.229
82.5	0.229

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CANDELA TABULATION - (Cont.)

83.0	0.229
83.5	0.172
84.0	0.172
84.5	0.172
85.0	0.172
85.5	0.115
86.0	0.115
86.5	0.115
87.0	0.115
87.5	0.115
88.0	0.057
88.5	0.057
89.0	0.057
89.5	0.057
90.0	0.057
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
119.5	0.000
120.0	0.000
120.5	0.000
121.0	0.000
121.5	0.000
122.0	0.000
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123.0	0.000
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124.0	0.000
124.5	0.000
125.0	0.000
125.5	0.000
126.0	0.000
126.5	0.000
127.0	0.000
127.5	0.000
128.0	0.000
128.5	0.000
129.0	0.000
129.5	0.000
130.0	0.000
130.5	0.000
131.0	0.000
131.5	0.000
132.0	0.000
132.5	0.000
133.0	0.000
133.5	0.000
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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CANDELA TABULATION - (Cont.)

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

CANDELA TABULATION - (Cont.)

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	573.41	N.A.	50.50
0-30	944.84	N.A.	83.20
0-40	1102.01	N.A.	97.00
0-60	1132.9	N.A.	99.70
0-80	1136.01	N.A.	100.00
0-90	1136.19	N.A.	100.00
10-90	938.07	N.A.	82.60
20-40	528.60	N.A.	46.50
20-50	551.90	N.A.	48.60
40-70	33.26	N.A.	2.90
60-80	3.11	N.A.	0.30
70-80	0.74	N.A.	0.10
80-90	0.18	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	1136.19	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	198.12
10-20	375.29
20-30	371.43
30-40	157.17
40-50	23.30
50-60	7.59
60-70	2.37
70-80	0.74
80-90	0.18
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	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	93	91	89
3	104	99	94	91	103	97	93	90	95	91	89	92	90	87	90	88	86	84
4	100	93	88	84	98	92	88	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	75	90	83	78	74	81	77	74	80	76	73	79	75	73	72
7	88	80	74	70	87	79	74	70	78	73	70	77	73	70	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	62
10	78	69	64	60	77	69	64	60	68	63	60	67	63	60	66	63	60	59

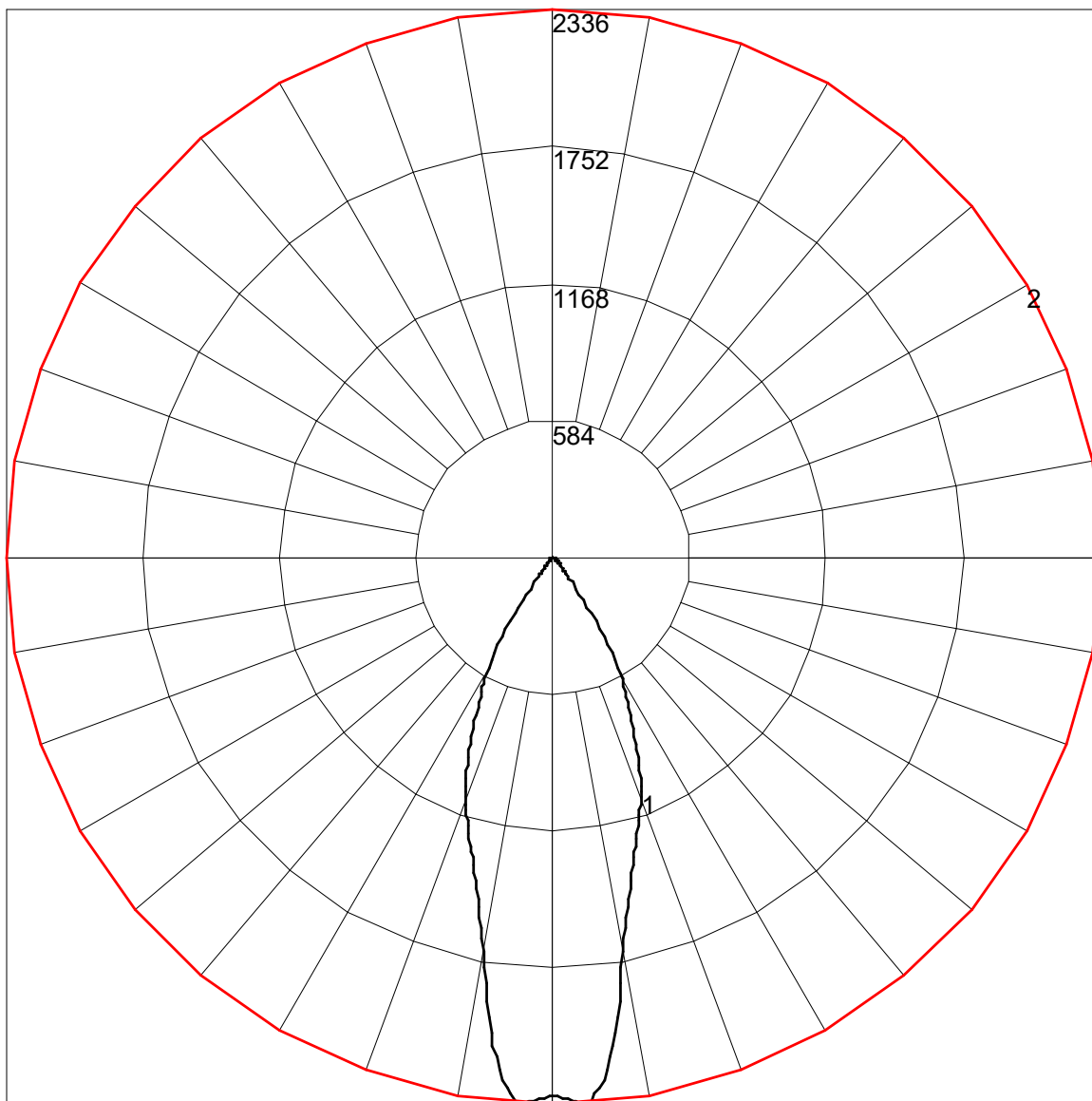
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UGR TABLE - CORRECTED

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					UGR Viewed Endwise				
X=2H	Y=2H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	3H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	4H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	6H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	8H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	12H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
4H	2H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	3H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	4H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	6H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	8H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	12H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
8H	4H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	6H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	8H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	12H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
12H	4H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	6H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	8H	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Maximum UGR = 0.5

POLAR GRAPH



Maximum Candela = 2336 Located At Horizontal Angle = 0, Vertical Angle = 3.5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (3.5) (Through Max. Cd.)