



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L60-940-XXX-DIM-UNV-OM-CS-TD-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.22

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 4-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L60-940-xxx-DIM-UNV-OM-CS-TD-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	4060
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	75
Total Luminaire Watts	54
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.64
Spacing Criterion (90-270)	0.64
Spacing Criterion (Diagonal)	0.72
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	7329	7329	7329
55	2703	2703	2703
65	1074	1074	1074
75	599	599	599
85	572	572	572

CANDELA TABULATION

	<u>0</u>
0.0	7555.886
0.5	7578.127
1.0	7637.773
1.5	7735.836
2.0	7822.778
2.5	7907.698
3.0	7988.575
3.5	8052.265
4.0	8097.758
4.5	8084.616
5.0	8015.871
5.5	7918.819
6.0	7786.383
6.5	7627.663
7.0	7450.746
7.5	7262.708
8.0	7055.462
8.5	6832.041
9.0	6599.521
9.5	6374.078
10.0	6165.821
10.5	5970.706
11.0	5784.691
11.5	5613.839
12.0	5462.196
12.5	5325.716
13.0	5198.336
13.5	5078.032
14.0	4965.816
14.5	4862.699
15.0	4760.592
15.5	4664.551
16.0	4572.554
16.5	4483.590
17.0	4396.648
17.5	4308.695
18.0	4220.742
18.5	4130.766
19.0	4040.791
19.5	3950.816
20.0	3861.852
20.5	3772.888
21.0	3680.891
21.5	3584.850
22.0	3487.798
22.5	3390.747
23.0	3292.684
23.5	3192.599
24.0	3092.515
24.5	2993.441
25.0	2897.400
25.5	2801.359
26.0	2706.329
26.5	2615.343

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CANDELA TABULATION - (Cont.)

27.0	2529.412
27.5	2449.547
28.0	2372.714
28.5	2300.936
29.0	2234.213
29.5	2164.457
30.0	2083.580
30.5	1991.583
31.0	1893.521
31.5	1788.381
32.0	1670.099
32.5	1531.598
33.0	1380.966
33.5	1226.290
34.0	1072.624
34.5	923.306
35.0	785.311
35.5	663.895
36.0	565.529
36.5	483.136
37.0	412.167
37.5	354.744
38.0	313.801
38.5	288.830
39.0	269.622
39.5	250.616
40.0	231.003
40.5	212.099
41.0	193.497
41.5	175.502
42.0	158.821
42.5	143.151
43.0	128.695
43.5	117.170
44.0	108.071
44.5	100.590
45.0	94.625
45.5	89.267
46.0	84.718
46.5	80.472
47.0	76.529
47.5	72.890
48.0	69.149
48.5	65.712
49.0	62.073
49.5	58.332
50.0	54.693
50.5	51.357
51.0	48.324
51.5	45.089
52.0	42.157
52.5	39.427
53.0	36.698
53.5	34.474
54.0	32.351
54.5	30.025

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CANDELA TABULATION - (Cont.)

55.0	28.307
55.5	26.487
56.0	24.870
56.5	23.454
57.0	21.837
57.5	20.624
58.0	19.511
58.5	18.197
59.0	17.085
59.5	16.074
60.0	14.962
60.5	14.254
61.0	13.446
61.5	12.637
62.0	11.828
62.5	11.222
63.0	10.514
63.5	10.008
64.0	9.301
64.5	8.998
65.0	8.290
65.5	7.885
66.0	7.582
66.5	7.077
67.0	6.672
67.5	6.167
68.0	6.066
68.5	5.661
69.0	5.257
69.5	4.954
70.0	4.853
70.5	4.448
71.0	4.145
71.5	4.347
72.0	3.842
72.5	3.639
73.0	3.336
73.5	3.336
74.0	3.033
74.5	2.730
75.0	2.831
75.5	2.527
76.0	2.325
76.5	2.224
77.0	2.224
77.5	2.022
78.0	1.719
78.5	1.820
79.0	1.820
79.5	1.820
80.0	1.516
80.5	1.415
81.0	1.314
81.5	1.314
82.0	1.213
82.5	1.112

CANDELA TABULATION - (Cont.)

83.0	1.011
83.5	1.011
84.0	1.213
84.5	0.910
85.0	0.910
85.5	0.910
86.0	0.809
86.5	0.809
87.0	0.809
87.5	0.708
88.0	0.607
88.5	0.708
89.0	0.708
89.5	0.505
90.0	0.607
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
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101.0	0.000
101.5	0.000
102.0	0.000
102.5	0.000
103.0	0.000
103.5	0.000
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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

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
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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

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
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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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Zone	Lumens	%Lamp	%Fixt
0-20	2037.04	N.A.	50.20
0-30	3365.39	N.A.	82.90
0-40	3935.66	N.A.	96.90
0-60	4047.43	N.A.	99.70
0-80	4059.21	N.A.	100.00
0-90	4060.24	N.A.	100.00
10-90	3362.01	N.A.	82.80
20-40	1898.63	N.A.	46.80
20-50	1983.33	N.A.	48.80
40-70	120.52	N.A.	3.00
60-80	11.77	N.A.	0.30
70-80	3.02	N.A.	0.10
80-90	1.04	N.A.	0.00
90-110	0.02	N.A.	0.00
90-120	0.02	N.A.	0.00
90-130	0.02	N.A.	0.00
90-150	0.02	N.A.	0.00
90-180	0.02	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	4060.26	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	698.24
10-20	1338.8
20-30	1328.35
30-40	570.27
40-50	84.71
50-60	27.06
60-70	8.75
70-80	3.02
80-90	1.04
90-100	0.02
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	89	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	85	81	78	84	80	77	82	79	77	75
6	91	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	66	74	69	66	73	69	66	72	68	66	64
9	81	72	67	63	80	72	67	63	71	66	63	70	66	63	69	65	63	61
10	77	69	64	60	77	68	63	60	68	63	60	67	63	60	66	62	60	58

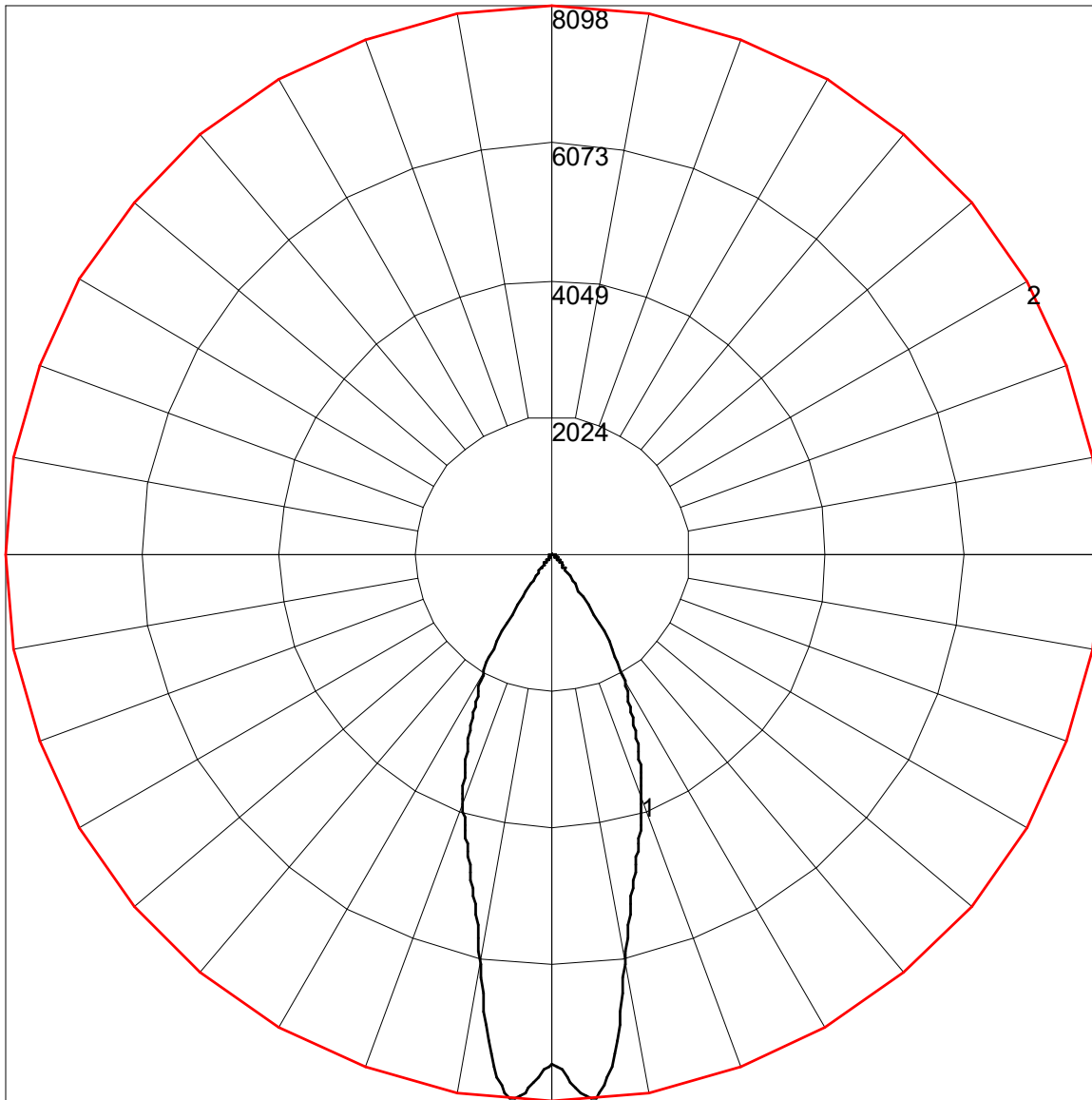
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UGR TABLE - CORRECTED

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	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	3H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	4H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	6H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	8H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	12H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
4H	2H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	3H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	4H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	6H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	8H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	12H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
8H	4H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	6H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	8H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	12H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
12H	4H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	6H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	8H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9

Maximum UGR = 4.9

POLAR GRAPH



Maximum Candela = 8097.758 Located At Horizontal Angle = 0, Vertical Angle = 4
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (4) (Through Max. Cd.)