



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L30-840-XXX-DIM-UNV-OM-CS-XX\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.22

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 2-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L30-840-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	3033
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
Total Luminaire Watts	26.9
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	5475	5475	5475
55	2019	2019	2019
65	803	803	803
75	448	448	448
85	427	427	427

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CANDELA TABULATION

	<u>0</u>
0.0	5644.639
0.5	5661.254
1.0	5705.813
1.5	5779.071
2.0	5844.021
2.5	5907.461
3.0	5967.880
3.5	6015.460
4.0	6049.445
4.5	6039.627
5.0	5988.271
5.5	5915.768
6.0	5816.832
6.5	5698.260
7.0	5566.094
7.5	5425.620
8.0	5270.796
8.5	5103.889
9.0	4930.185
9.5	4761.767
10.0	4606.188
10.5	4460.428
11.0	4321.464
11.5	4193.829
12.0	4080.543
12.5	3978.587
13.0	3883.427
13.5	3793.554
14.0	3709.722
14.5	3632.688
15.0	3556.409
15.5	3484.662
16.0	3415.935
16.5	3349.474
17.0	3284.524
17.5	3218.818
18.0	3153.113
18.5	3085.897
19.0	3018.681
19.5	2951.465
20.0	2885.004
20.5	2818.543
21.0	2749.817
21.5	2678.069
22.0	2605.566
22.5	2533.064
23.0	2459.806
23.5	2385.037
24.0	2310.269
24.5	2236.256
25.0	2164.508
25.5	2092.761
26.0	2021.768
26.5	1953.797

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 8CR-TL-L30-840-XXX-DIM-UNV-OM-CS-XX\_.IES****CANDELA TABULATION - (Cont.)**

27.0	1889.602
27.5	1829.938
28.0	1772.540
28.5	1718.919
29.0	1669.073
29.5	1616.962
30.0	1556.543
30.5	1487.816
31.0	1414.558
31.5	1336.014
32.0	1247.651
32.5	1144.183
33.0	1031.653
33.5	916.102
34.0	801.306
34.5	689.758
35.0	586.668
35.5	495.964
36.0	422.479
36.5	360.928
37.0	307.910
37.5	265.013
38.0	234.425
38.5	215.771
39.0	201.422
39.5	187.223
40.0	172.572
40.5	158.449
41.0	144.552
41.5	131.109
42.0	118.648
42.5	106.942
43.0	96.142
43.5	87.532
44.0	80.735
44.5	75.146
45.0	70.690
45.5	66.687
46.0	63.289
46.5	60.117
47.0	57.171
47.5	54.453
48.0	51.658
48.5	49.090
49.0	46.372
49.5	43.577
50.0	40.858
50.5	38.366
51.0	36.100
51.5	33.684
52.0	31.493
52.5	29.454
53.0	27.415
53.5	25.754
54.0	24.168
54.5	22.431

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CANDELA TABULATION - (Cont.)

55.0	21.147
55.5	19.787
56.0	18.579
56.5	17.521
57.0	16.313
57.5	15.407
58.0	14.576
58.5	13.594
59.0	12.763
59.5	12.008
60.0	11.178
60.5	10.649
61.0	10.045
61.5	9.440
62.0	8.836
62.5	8.383
63.0	7.854
63.5	7.477
64.0	6.948
64.5	6.722
65.0	6.193
65.5	5.891
66.0	5.664
66.5	5.287
67.0	4.985
67.5	4.607
68.0	4.531
68.5	4.229
69.0	3.927
69.5	3.701
70.0	3.625
70.5	3.323
71.0	3.096
71.5	3.248
72.0	2.870
72.5	2.719
73.0	2.492
73.5	2.492
74.0	2.266
74.5	2.039
75.0	2.115
75.5	1.888
76.0	1.737
76.5	1.662
77.0	1.662
77.5	1.510
78.0	1.284
78.5	1.359
79.0	1.359
79.5	1.359
80.0	1.133
80.5	1.057
81.0	0.982
81.5	0.982
82.0	0.906
82.5	0.831

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CANDELA TABULATION - (Cont.)

83.0	0.755
83.5	0.755
84.0	0.906
84.5	0.680
85.0	0.680
85.5	0.680
86.0	0.604
86.5	0.604
87.0	0.604
87.5	0.529
88.0	0.453
88.5	0.529
89.0	0.529
89.5	0.378
90.0	0.453
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

IES INDOOR REPORT  
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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
122.5	0.000
123.0	0.000
123.5	0.000
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

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

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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



**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 8CR-TL-L30-840-XXX-DIM-UNV-OM-CS-XX\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1521.77	N.A.	50.20
0-30	2514.12	N.A.	82.90
0-40	2940.14	N.A.	96.90
0-60	3023.64	N.A.	99.70
0-80	3032.44	N.A.	100.00
0-90	3033.21	N.A.	100.00
10-90	2511.59	N.A.	82.80
20-40	1418.37	N.A.	46.80
20-50	1481.65	N.A.	48.80
40-70	90.04	N.A.	3.00
60-80	8.80	N.A.	0.30
70-80	2.26	N.A.	0.10
80-90	0.78	N.A.	0.00
90-110	0.01	N.A.	0.00
90-120	0.01	N.A.	0.00
90-130	0.01	N.A.	0.00
90-150	0.01	N.A.	0.00
90-180	0.01	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3033.23	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	521.62
10-20	1000.15
20-30	992.35
30-40	426.02
40-50	63.28
50-60	20.22
60-70	6.54
70-80	2.26
80-90	0.78
90-100	0.01
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

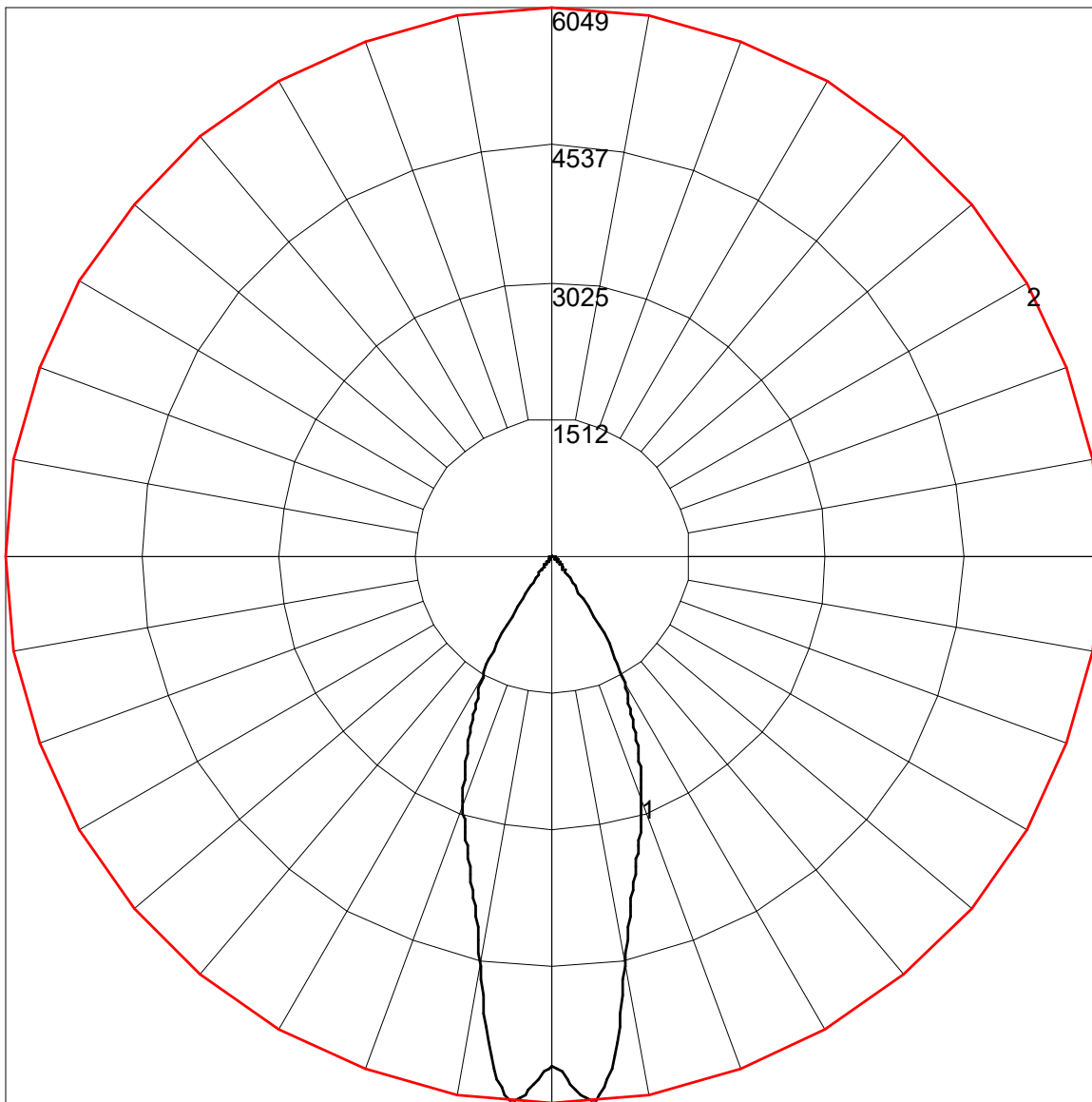
X=2H	Y=2H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	3H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	4H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	6H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	8H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	12H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9

### UGR Viewed Endwise

4H	2H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	3H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	4H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	6H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	8H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	12H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
8H	4H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	6H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	8H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	12H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
12H	4H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	6H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	8H	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9

Maximum UGR = 3.9

POLAR GRAPH



Maximum Candela = 6049.445 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.)