



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L30-840-(L25)-XXX-DIM1-UNV-LW-CS-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12326812.07

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 1-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L30-840-(L25)-xxx-DIM1-UNV-LW-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	1901
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	17.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	0.98
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.46 ft (Diameter)
Luminous Width (90-270)	0.46 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	31608	31608	31608
55	26315	26315	26315
65	19992	19992	19992
75	14498	14498	14498
85	9448	9448	9448

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CANDELA TABULATION

	<u>0</u>
0.0	1209.512
0.5	1209.268
1.0	1208.294
1.5	1206.833
2.0	1205.006
2.5	1202.571
3.0	1200.136
3.5	1197.335
4.0	1194.778
4.5	1192.221
5.0	1190.394
5.5	1188.689
6.0	1187.106
6.5	1185.523
7.0	1183.819
7.5	1182.236
8.0	1180.653
8.5	1179.192
9.0	1177.730
9.5	1176.513
10.0	1175.295
10.5	1174.321
11.0	1173.469
11.5	1172.981
12.0	1172.129
12.5	1171.277
13.0	1170.059
13.5	1168.476
14.0	1166.528
14.5	1164.336
15.0	1162.022
15.5	1159.100
16.0	1155.934
16.5	1152.768
17.0	1149.602
17.5	1146.315
18.0	1142.783
18.5	1138.765
19.0	1134.260
19.5	1129.267
20.0	1123.544
20.5	1117.334
21.0	1109.663
21.5	1100.530
22.0	1090.180
22.5	1078.490
23.0	1065.705
23.5	1051.823
24.0	1036.481
24.5	1019.920
25.0	1002.021
25.5	983.390
26.0	963.542
26.5	942.842

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L30-840-(L25)-XXX-DIM1-UNV-LW-CS-XX_.IES****CANDELA TABULATION - (Cont.)**

27.0	920.802
27.5	898.153
28.0	874.287
28.5	849.081
29.0	822.901
29.5	795.382
30.0	767.132
30.5	738.030
31.0	708.927
31.5	679.582
32.0	651.088
32.5	623.812
33.0	597.632
33.5	573.157
34.0	550.630
34.5	530.174
35.0	511.908
35.5	495.105
36.0	480.371
36.5	466.855
37.0	454.800
37.5	443.962
38.0	434.099
38.5	425.089
39.0	416.565
39.5	408.894
40.0	401.466
40.5	394.525
41.0	388.071
41.5	381.740
42.0	375.651
42.5	370.050
43.0	364.327
43.5	358.726
44.0	353.246
44.5	347.888
45.0	342.409
45.5	337.173
46.0	331.815
46.5	326.457
47.0	320.978
47.5	315.620
48.0	310.141
48.5	304.661
49.0	299.182
49.5	293.458
50.0	287.979
50.5	282.378
51.0	276.776
51.5	271.053
52.0	265.330
52.5	259.607
53.0	253.884
53.5	248.161
54.0	242.682
54.5	237.080

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L30-840-(L25)-XXX-DIM1-UNV-LW-CS-XX_.IES****CANDELA TABULATION - (Cont.)**

55.0	231.236
55.5	225.512
56.0	219.789
56.5	214.432
57.0	209.074
57.5	203.473
58.0	197.871
58.5	192.392
59.0	187.034
59.5	181.676
60.0	176.562
60.5	171.448
61.0	166.455
61.5	161.463
62.0	156.714
62.5	151.965
63.0	147.338
63.5	142.711
64.0	138.206
64.5	133.822
65.0	129.438
65.5	125.176
66.0	120.927
66.5	116.750
67.0	112.622
67.5	108.580
68.0	104.610
68.5	100.628
69.0	96.768
69.5	92.945
70.0	89.231
70.5	85.639
71.0	82.120
71.5	78.710
72.0	75.422
72.5	72.232
73.0	69.127
73.5	66.083
74.0	63.161
74.5	60.299
75.0	57.486
75.5	54.771
76.0	52.104
76.5	49.486
77.0	46.941
77.5	44.445
78.0	42.022
78.5	39.647
79.0	37.322
79.5	35.081
80.0	32.853
80.5	30.697
81.0	28.567
81.5	26.448
82.0	24.378
82.5	22.320

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L30-840-(L25)-XXX-DIM1-UNV-LW-CS-XX_.IES****CANDELA TABULATION - (Cont.)**

83.0	20.311
83.5	18.338
84.0	16.390
84.5	14.478
85.0	12.615
85.5	10.813
86.0	9.072
86.5	7.391
87.0	5.760
87.5	4.396
88.0	3.361
88.5	2.460
89.0	1.705
89.5	1.072
90.0	0.682
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**PHOTOMETRIC FILENAME : 8CR-TL-L30-840-(L25)-XXX-DIM1-UNV-LW-CS-XX_.IES****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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L30-840-(L25)-XXX-DIM1-UNV-LW-CS-XX_.IES****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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L30-840-(L25)-XXX-DIM1-UNV-LW-CS-XX_.IES****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	440.59	N.A.	23.20
0-30	890.60	N.A.	46.80
0-40	1224.29	N.A.	64.40
0-60	1695.46	N.A.	89.20
0-80	1886.31	N.A.	99.20
0-90	1901.39	N.A.	100.00
10-90	1788.2	N.A.	94.00
20-40	783.71	N.A.	41.20
20-50	1048.13	N.A.	55.10
40-70	600.19	N.A.	31.60
60-80	190.85	N.A.	10.00
70-80	61.82	N.A.	3.30
80-90	15.08	N.A.	0.80
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	1901.41	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	113.19
10-20	327.40
20-30	450.02
30-40	333.69
40-50	264.42
50-60	206.75
60-70	129.02
70-80	61.82
80-90	15.08
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	80	78
3	96	87	80	75	93	85	79	74	83	77	73	80	75	72	78	74	70	69
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	52	50
7	73	61	53	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38
10	61	49	42	37	60	49	42	37	48	42	37	47	41	37	46	41	37	35

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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	21.2	22.6	21.6	22.9	23.2	21.2	22.6	21.6	22.9	23.2
	3H	22.4	23.7	22.8	24.0	24.3	22.4	23.7	22.8	24.0	24.3
	4H	22.8	24.0	23.2	24.3	24.7	22.8	24.0	23.2	24.3	24.7
	6H	23.1	24.1	23.5	24.5	24.9	23.1	24.1	23.5	24.5	24.9
	8H	23.1	24.2	23.6	24.6	25.0	23.1	24.2	23.6	24.6	25.0
	12H	23.2	24.1	23.6	24.5	25.0	23.2	24.1	23.6	24.5	25.0

UGR Viewed Endwise

4H	2H	21.6	22.8	22.0	23.1	23.5	21.6	22.8	22.0	23.1	23.5
	3H	23.0	24.0	23.4	24.4	24.8	23.0	24.0	23.4	24.4	24.8
	4H	23.5	24.4	23.9	24.8	25.2	23.5	24.4	23.9	24.8	25.2
	6H	23.9	24.6	24.4	25.1	25.5	23.9	24.6	24.4	25.1	25.5
	8H	24.0	24.7	24.4	25.1	25.6	24.0	24.7	24.4	25.1	25.6
	12H	24.1	24.7	24.5	25.2	25.6	24.1	24.7	24.5	25.2	25.6

8H	4H	23.7	24.4	24.1	24.8	25.3	23.7	24.4	24.1	24.8	25.3
	6H	24.1	24.7	24.6	25.2	25.7	24.1	24.7	24.6	25.2	25.7
	8H	24.3	24.8	24.8	25.3	25.8	24.3	24.8	24.8	25.3	25.8
	12H	24.4	24.9	24.9	25.4	25.9	24.4	24.9	24.9	25.4	25.9

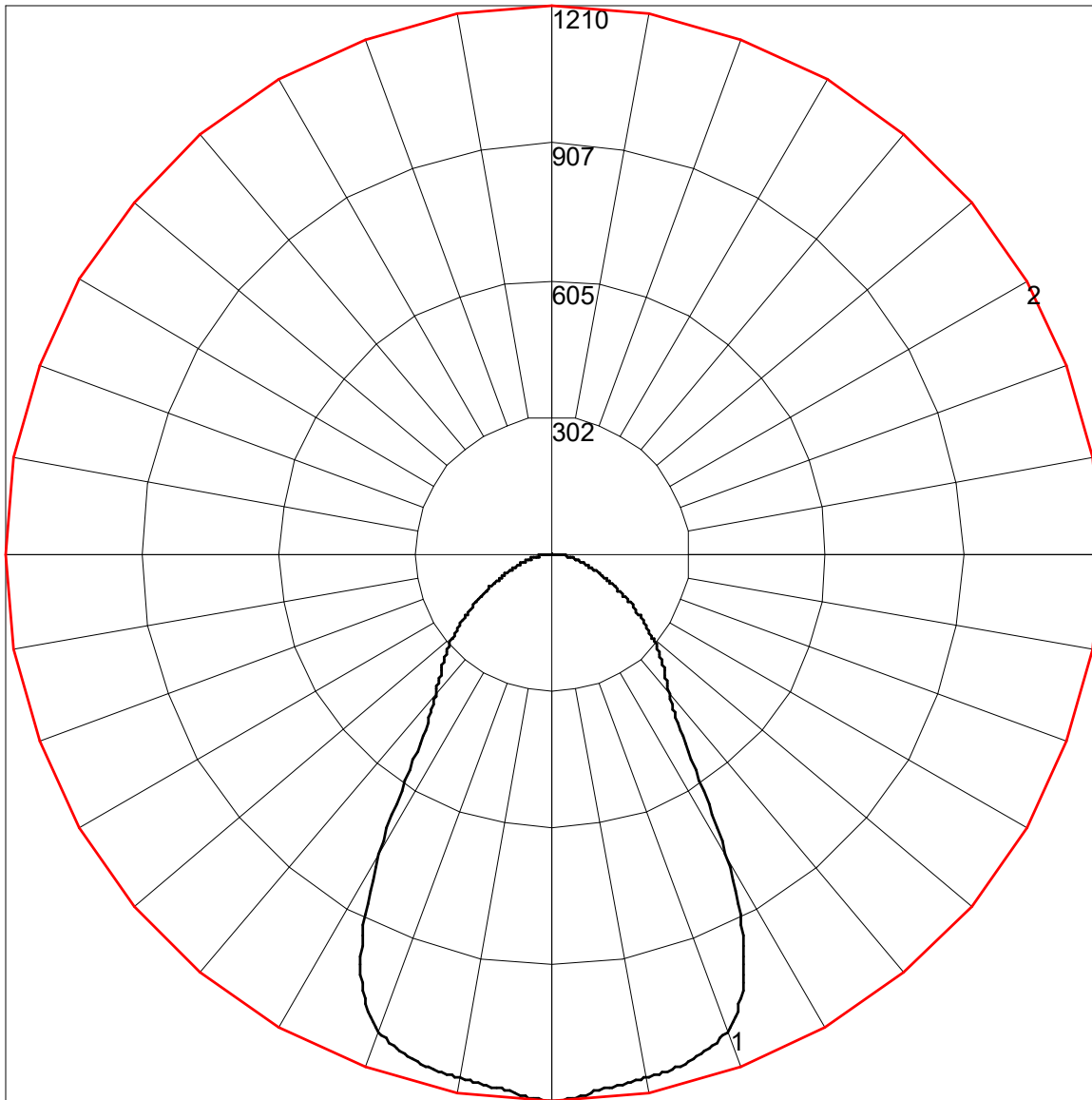
12H	4H	23.7	24.3	24.1	24.8	25.2	23.7	24.3	24.1	24.8	25.2
	6H	24.2	24.7	24.7	25.1	25.7	24.2	24.7	24.7	25.1	25.7
	8H	24.4	24.8	24.9	25.3	25.9	24.4	24.8	24.9	25.3	25.9

Maximum UGR = 25.9

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POLAR GRAPH



Maximum Candela = 1209.512 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.)