



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L15-840-XXX-DIM-UNV-LW-WH-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12326812.07

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 29-JAN-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L15-840-xxx-DIM-UNV-LW-WH-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	1189
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	13.8
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	19759	19759	19759
55	16450	16450	16450
65	12498	12498	12498
75	9063	9063	9063
85	5906	5906	5906

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 8CR-TL-L15-840-XXX-DIM-UNV-LW-WH-XX_.IES

CANDELA TABULATION

	<u>0</u>
0.0	756.104
0.5	755.951
1.0	755.342
1.5	754.429
2.0	753.287
2.5	751.765
3.0	750.242
3.5	748.491
4.0	746.893
4.5	745.294
5.0	744.153
5.5	743.087
6.0	742.097
6.5	741.108
7.0	740.042
7.5	739.053
8.0	738.063
8.5	737.150
9.0	736.236
9.5	735.475
10.0	734.714
10.5	734.105
11.0	733.572
11.5	733.267
12.0	732.735
12.5	732.202
13.0	731.441
13.5	730.451
14.0	729.233
14.5	727.863
15.0	726.417
15.5	724.590
16.0	722.611
16.5	720.631
17.0	718.652
17.5	716.597
18.0	714.390
18.5	711.878
19.0	709.061
19.5	705.940
20.0	702.363
20.5	698.480
21.0	693.685
21.5	687.976
22.0	681.506
22.5	674.198
23.0	666.205
23.5	657.528
24.0	647.936
24.5	637.584
25.0	626.394
25.5	614.748
26.0	602.340
26.5	589.400

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 8CR-TL-L15-840-XXX-DIM-UNV-LW-WH-XX_.IES

CANDELA TABULATION - (Cont.)

27.0	575.622
27.5	561.464
28.0	546.544
28.5	530.787
29.0	514.421
29.5	497.218
30.0	479.558
30.5	461.365
31.0	443.173
31.5	424.828
32.0	407.016
32.5	389.965
33.0	373.599
33.5	358.299
34.0	344.216
34.5	331.428
35.0	320.010
35.5	309.505
36.0	300.295
36.5	291.845
37.0	284.310
37.5	277.535
38.0	271.369
38.5	265.736
39.0	260.408
39.5	255.612
40.0	250.969
40.5	246.630
41.0	242.596
41.5	238.637
42.0	234.831
42.5	231.330
43.0	227.752
43.5	224.251
44.0	220.825
44.5	217.476
45.0	214.050
45.5	210.777
46.0	207.428
46.5	204.079
47.0	200.653
47.5	197.304
48.0	193.879
48.5	190.453
49.0	187.028
49.5	183.450
50.0	180.025
50.5	176.523
51.0	173.022
51.5	169.444
52.0	165.866
52.5	162.289
53.0	158.711
53.5	155.133
54.0	151.708
54.5	148.206

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 8CR-TL-L15-840-XXX-DIM-UNV-LW-WH-XX_.IES

CANDELA TABULATION - (Cont.)

55.0	144.553
55.5	140.975
56.0	137.397
56.5	134.048
57.0	130.699
57.5	127.197
58.0	123.696
58.5	120.270
59.0	116.921
59.5	113.572
60.0	110.375
60.5	107.177
61.0	104.057
61.5	100.936
62.0	97.967
62.5	94.998
63.0	92.106
63.5	89.213
64.0	86.397
64.5	83.656
65.0	80.916
65.5	78.252
66.0	75.595
66.5	72.984
67.0	70.404
67.5	67.877
68.0	65.395
68.5	62.906
69.0	60.493
69.5	58.103
70.0	55.781
70.5	53.535
71.0	51.336
71.5	49.204
72.0	47.149
72.5	45.155
73.0	43.214
73.5	41.311
74.0	39.484
74.5	37.695
75.0	35.936
75.5	34.239
76.0	32.572
76.5	30.935
77.0	29.344
77.5	27.784
78.0	26.269
78.5	24.785
79.0	23.331
79.5	21.930
80.0	20.537
80.5	19.190
81.0	17.858
81.5	16.533
82.0	15.239
82.5	13.953

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 8CR-TL-L15-840-XXX-DIM-UNV-LW-WH-XX_.IES

CANDELA TABULATION - (Cont.)

83.0	12.697
83.5	11.464
84.0	10.246
84.5	9.051
85.0	7.886
85.5	6.759
86.0	5.671
86.5	4.621
87.0	3.600
87.5	2.748
88.0	2.101
88.5	1.538
89.0	1.066
89.5	0.670
90.0	0.426
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-L15-840-XXX-DIM-UNV-LW-WH-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-L15-840-XXX-DIM-UNV-LW-WH-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

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-L15-840-XXX-DIM-UNV-LW-WH-XX_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	275.42	N.A.	23.20
0-30	556.74	N.A.	46.80
0-40	765.35	N.A.	64.40
0-60	1059.89	N.A.	89.20
0-80	1179.19	N.A.	99.20
0-90	1188.62	N.A.	100.00
10-90	1117.86	N.A.	94.00
20-40	489.92	N.A.	41.20
20-50	655.22	N.A.	55.10
40-70	375.20	N.A.	31.60
60-80	119.30	N.A.	10.00
70-80	38.65	N.A.	3.30
80-90	9.43	N.A.	0.80
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	1188.63	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	70.76
10-20	204.67
20-30	281.32
30-40	208.60
40-50	165.30
50-60	129.24
60-70	80.66
70-80	38.65
80-90	9.43
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

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L15-840-XXX-DIM-UNV-LW-WH-XX_.IES

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	100	94	89	85	91	87	83	88	84	81	85	82	79	78
3	96	87	80	75	93	85	79	74	83	77	73	80	75	72	77	74	70	69
4	89	79	71	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	51	50
7	73	61	53	48	71	60	53	48	59	52	48	57	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

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L15-840-XXX-DIM-UNV-LW-WH-XX_.IES

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	19.6	21.0	20.0	21.3	21.6	19.6	21.0	20.0	21.3	21.6
	3H	20.8	22.1	21.2	22.4	22.7	20.8	22.1	21.2	22.4	22.7
	4H	21.2	22.4	21.6	22.7	23.1	21.2	22.4	21.6	22.7	23.1
	6H	21.5	22.5	21.9	22.9	23.3	21.5	22.5	21.9	22.9	23.3
	8H	21.6	22.6	22.0	23.0	23.4	21.6	22.6	22.0	23.0	23.4
	12H	21.6	22.6	22.0	22.9	23.4	21.6	22.6	22.0	22.9	23.4

UGR Viewed Endwise

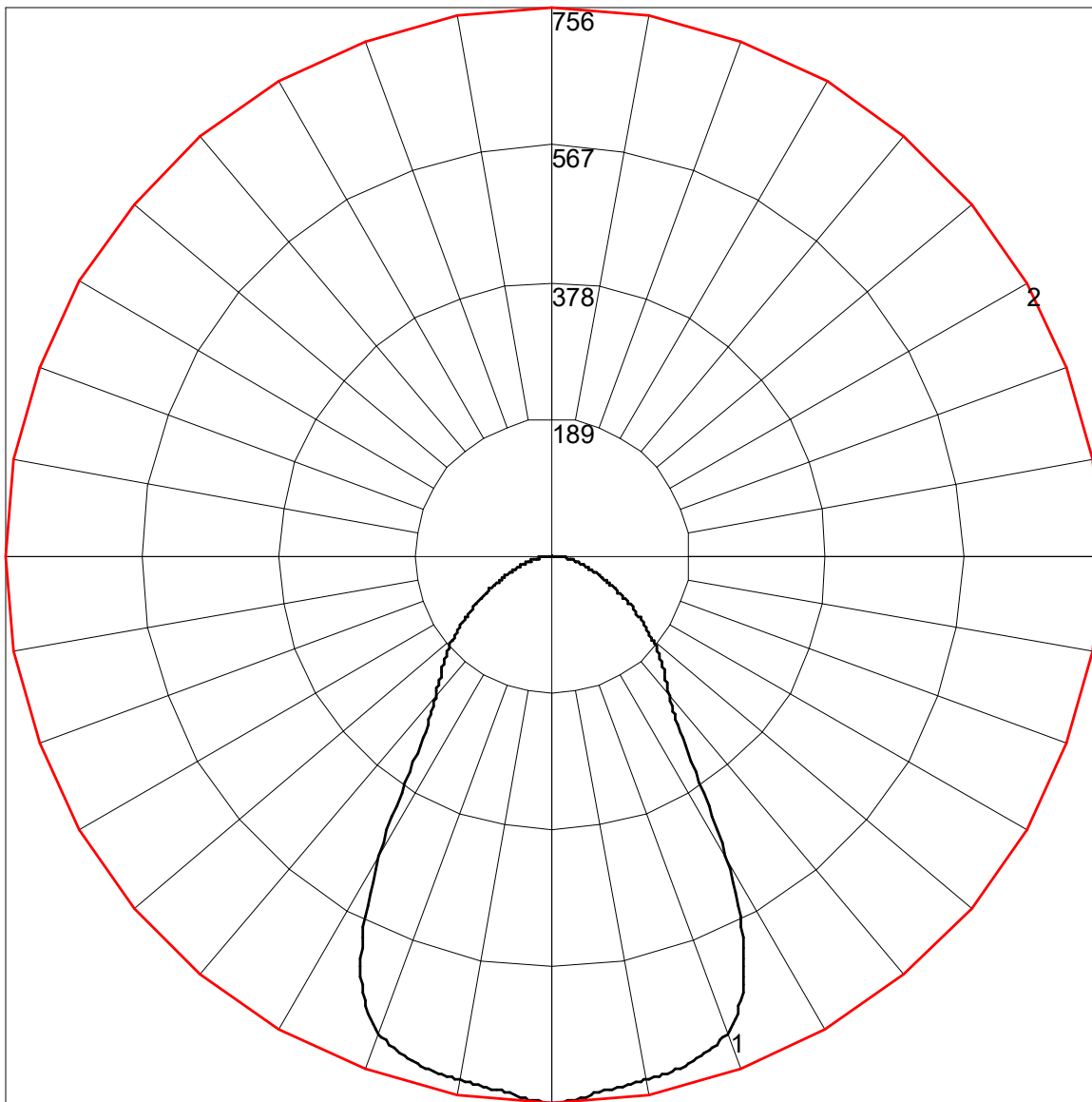
4H	2H	20.0	21.2	20.4	21.5	21.9	20.0	21.2	20.4	21.5	21.9
	3H	21.4	22.4	21.8	22.8	23.2	21.4	22.4	21.8	22.8	23.2
	4H	21.9	22.8	22.4	23.2	23.6	21.9	22.8	22.4	23.2	23.6
	6H	22.3	23.0	22.8	23.5	23.9	22.3	23.0	22.8	23.5	23.9
	8H	22.4	23.1	22.8	23.5	24.0	22.4	23.1	22.8	23.5	24.0
	12H	22.5	23.1	22.9	23.6	24.0	22.5	23.1	22.9	23.6	24.0

8H	4H	22.1	22.8	22.5	23.2	23.7	22.1	22.8	22.5	23.2	23.7
	6H	22.5	23.1	23.0	23.6	24.1	22.5	23.1	23.0	23.6	24.1
	8H	22.7	23.2	23.2	23.7	24.2	22.7	23.2	23.2	23.7	24.2
	12H	22.8	23.3	23.3	23.8	24.3	22.8	23.3	23.3	23.8	24.3

12H	4H	22.1	22.7	22.6	23.2	23.6	22.1	22.7	22.6	23.2	23.6
	6H	22.6	23.1	23.1	23.5	24.1	22.6	23.1	23.1	23.5	24.1
	8H	22.8	23.2	23.3	23.7	24.3	22.8	23.2	23.3	23.7	24.3

Maximum UGR = 24.3

POLAR GRAPH



Maximum Candela = 756.104 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.)