



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L13-8TW-XXX-DIM-UNV-RM-WH-XX\_4000K.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN from 12326812.14  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUEDATE] 29-JAN-2021  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] 8CR-TL-L13-8TW-xxx-DIM-UNV-RM-WH-xx  
 [LUMINAIRE] 8" DIA. SURFACE CYLINDER  
 [LAMP] One white LED  
 [BALLAST] Philips XI025C070V054DSM5  
 [OTHER] 24.9 C, 119.97 V, 0.160076 A, 19.0904 W, 0.994063 PF, 59.9701  
 [MORE] Hz  
 [OTHER] This test was performed using the calibrated photodetector met  
 [MORE] hod of absolute photometry.

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1183
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	81
Total Luminaire Watts	14.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.58
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.56
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.48 ft (Diameter)
Luminous Width (90-270)	0.48 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	4253	4253	4253
55	2860	2860	2860
65	2128	2128	2128
75	1470	1470	1470
85	1228	1228	1228

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## CANDELA TABULATION

	<u>0</u>
0.0	2863.832
0.5	2862.504
1.0	2858.520
1.5	2851.880
2.0	2842.584
2.5	2831.296
3.0	2817.352
3.5	2801.416
4.0	2784.152
4.5	2764.232
5.0	2742.984
5.5	2719.744
6.0	2693.848
6.5	2665.296
7.0	2634.752
7.5	2601.552
8.0	2565.696
8.5	2527.184
9.0	2486.016
9.5	2441.528
10.0	2395.048
10.5	2345.248
11.0	2292.128
11.5	2236.352
12.0	2177.920
12.5	2115.504
13.0	2051.760
13.5	1984.696
14.0	1915.640
14.5	1845.256
15.0	1772.216
15.5	1699.176
16.0	1624.808
16.5	1550.440
17.0	1477.400
17.5	1407.680
18.0	1335.968
18.5	1264.920
19.0	1195.200
19.5	1128.800
20.0	1065.720
20.5	1004.632
21.0	944.872
21.5	887.768
22.0	832.656
22.5	780.864
23.0	731.728
23.5	685.248
24.0	641.557
24.5	600.588
25.0	562.010
25.5	525.822
26.0	492.024
26.5	460.285

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 8CR-TL-L13-8TW-XXX-DIM-UNV-RM-WH-XX\_4000K.IES****CANDELA TABULATION - (Cont.)**

27.0	430.737
27.5	403.114
28.0	377.218
28.5	353.182
29.0	330.606
29.5	309.490
30.0	289.637
30.5	271.111
31.0	253.781
31.5	237.513
32.0	222.307
32.5	208.031
33.0	194.618
33.5	182.069
34.0	170.250
34.5	159.294
35.0	149.068
35.5	139.506
36.0	130.609
36.5	122.375
37.0	114.739
37.5	107.701
38.0	101.194
38.5	95.218
39.0	89.706
39.5	84.660
40.0	80.078
40.5	75.895
41.0	72.044
41.5	68.525
42.0	65.271
42.5	62.283
43.0	59.494
43.5	56.971
44.0	54.581
44.5	52.456
45.0	50.398
45.5	48.538
46.0	46.746
46.5	45.086
47.0	43.558
47.5	42.164
48.0	40.836
48.5	39.574
49.0	38.379
49.5	37.184
50.0	36.122
50.5	35.126
51.0	34.130
51.5	33.200
52.0	32.337
52.5	31.407
53.0	30.610
53.5	29.814
54.0	29.017
54.5	28.220

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55.0	27.490
55.5	26.759
56.0	26.095
56.5	25.365
57.0	24.701
57.5	24.037
58.0	23.373
58.5	22.709
59.0	22.111
59.5	21.447
60.0	20.850
60.5	20.252
61.0	19.654
61.5	19.057
62.0	18.459
62.5	17.862
63.0	17.330
63.5	16.733
64.0	16.202
64.5	15.604
65.0	15.073
65.5	14.542
66.0	14.010
66.5	13.479
67.0	12.948
67.5	12.483
68.0	11.952
68.5	11.487
69.0	11.022
69.5	10.491
70.0	10.093
70.5	9.628
71.0	9.230
71.5	8.765
72.0	8.366
72.5	7.968
73.0	7.636
73.5	7.304
74.0	6.972
74.5	6.640
75.0	6.374
75.5	6.042
76.0	5.777
76.5	5.578
77.0	5.312
77.5	5.046
78.0	4.847
78.5	4.582
79.0	4.382
79.5	4.183
80.0	3.918
80.5	3.718
81.0	3.453
81.5	3.254
82.0	3.054
82.5	2.855

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 8CR-TL-L13-8TW-XXX-DIM-UNV-RM-WH-XX\_4000K.IES****CANDELA TABULATION - (Cont.)**

83.0	2.656
83.5	2.390
84.0	2.191
84.5	1.992
85.0	1.793
85.5	1.594
86.0	1.461
86.5	1.262
87.0	1.062
87.5	0.863
88.0	0.664
88.5	0.531
89.0	0.465
89.5	0.332
90.0	0.266
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-L13-8TW-XXX-DIM-UNV-RM-WH-XX\_4000K.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-L13-8TW-XXX-DIM-UNV-RM-WH-XX\_4000K.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

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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-L13-8TW-XXX-DIM-UNV-RM-WH-XX\_4000K.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	728.05	N.A.	61.50
0-30	995.45	N.A.	84.10
0-40	1093.87	N.A.	92.40
0-60	1159.19	N.A.	98.00
0-80	1181.15	N.A.	99.80
0-90	1183.2	N.A.	100.00
10-90	932.24	N.A.	78.80
20-40	365.83	N.A.	30.90
20-50	406.32	N.A.	34.30
40-70	80.34	N.A.	6.80
60-80	21.96	N.A.	1.90
70-80	6.94	N.A.	0.60
80-90	2.05	N.A.	0.20
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	1183.21	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	250.96
10-20	477.09
20-30	267.41
30-40	98.42
40-50	40.50
50-60	24.82
60-70	15.02
70-80	6.94
80-90	2.05
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	111	109	107	112	109	107	105	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	105	99	94	91	103	97	93	90	95	91	89	92	90	87	90	88	86	84
4	100	94	89	85	98	92	88	84	90	87	83	88	85	83	87	84	82	80
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76
6	92	85	80	76	91	84	79	76	83	78	75	81	77	75	80	77	74	73
7	89	81	76	72	88	80	75	72	79	75	72	78	74	71	77	73	71	70
8	86	77	72	69	85	77	72	69	76	72	68	75	71	68	74	71	68	67
9	83	74	69	66	82	74	69	66	73	69	66	72	68	65	71	68	65	64
10	80	71	67	63	79	71	66	63	70	66	63	70	66	63	69	65	63	62

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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	8.2	9.2	8.6	9.5	9.8	8.2	9.2	8.6	9.5	9.8
	3H	9.3	10.2	9.7	10.5	10.9	9.3	10.2	9.7	10.5	10.9
	4H	9.6	10.4	10.0	10.8	11.2	9.6	10.4	10.0	10.8	11.2
	6H	9.9	10.6	10.3	11.0	11.4	9.9	10.6	10.3	11.0	11.4
	8H	9.9	10.6	10.4	11.0	11.4	9.9	10.6	10.4	11.0	11.4
	12H	10.0	10.6	10.4	11.0	11.4	10.0	10.6	10.4	11.0	11.4

### UGR Viewed Endwise

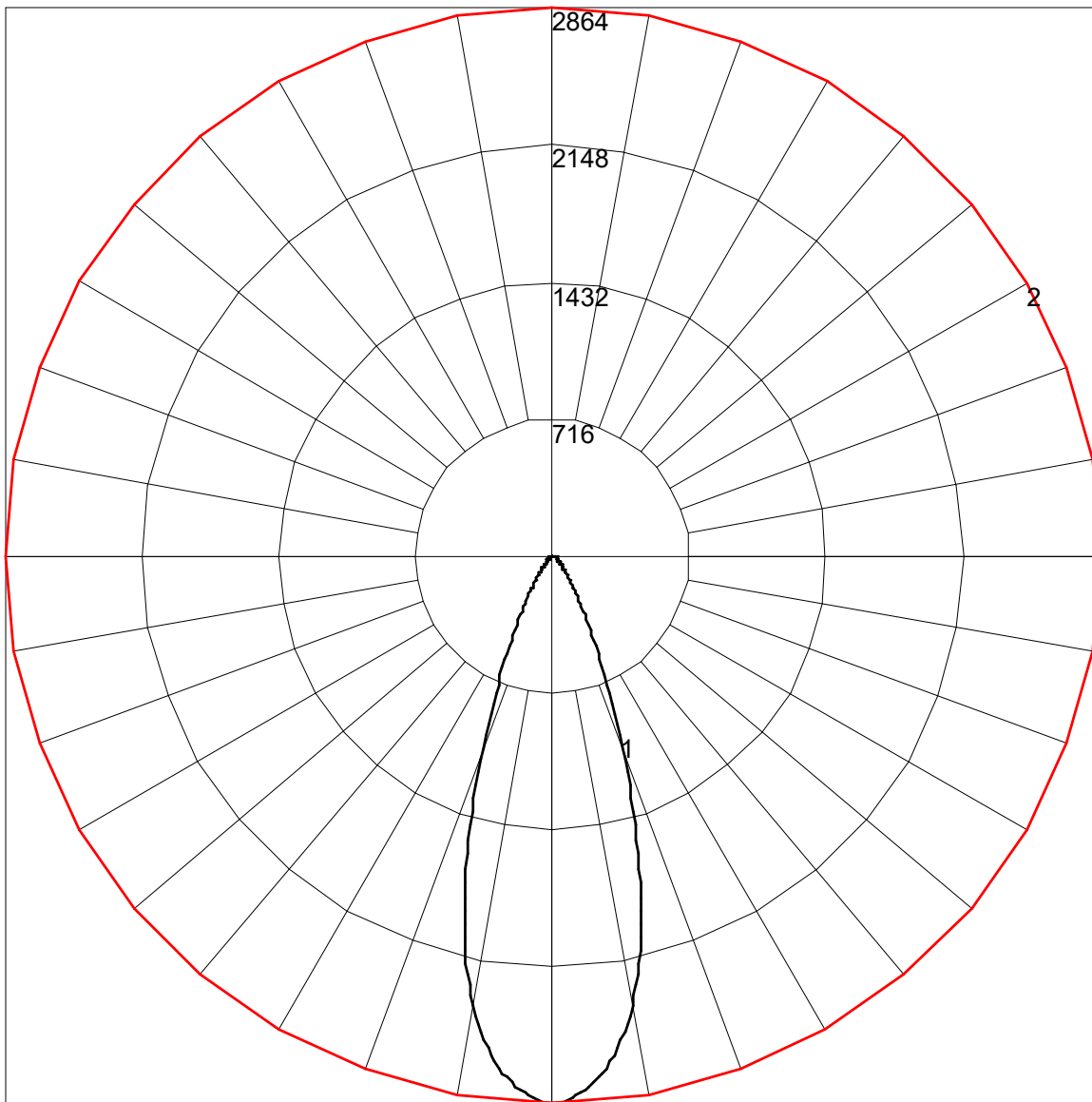
4H	2H	8.5	9.3	8.9	9.7	10.1	8.5	9.3	8.9	9.7	10.1
	3H	9.8	10.4	10.2	10.9	11.3	9.8	10.4	10.2	10.9	11.3
	4H	10.2	10.8	10.6	11.2	11.7	10.2	10.8	10.6	11.2	11.7
	6H	10.5	11.0	11.0	11.5	12.0	10.5	11.0	11.0	11.5	12.0
	8H	10.7	11.1	11.1	11.6	12.0	10.7	11.1	11.1	11.6	12.0
	12H	10.7	11.1	11.2	11.6	12.1	10.7	11.1	11.2	11.6	12.1

8H	4H	10.3	10.7	10.8	11.2	11.7	10.3	10.7	10.8	11.2	11.7
	6H	10.7	11.1	11.3	11.6	12.1	10.7	11.1	11.3	11.6	12.1
	8H	10.9	11.2	11.5	11.8	12.3	10.9	11.2	11.5	11.8	12.3
	12H	11.1	11.3	11.6	11.8	12.4	11.1	11.3	11.6	11.8	12.4

12H	4H	10.3	10.7	10.8	11.1	11.6	10.3	10.7	10.8	11.1	11.6
	6H	10.7	11.1	11.3	11.5	12.1	10.7	11.1	11.3	11.5	12.1
	8H	11.0	11.2	11.5	11.7	12.3	11.0	11.2	11.5	11.7	12.3

Maximum UGR = 12.4

POLAR GRAPH



Maximum Candela = 2863.832 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.)