



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L13-8TW-XXX-DIM-UNV-OM-CS-XX_4000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from 12326812.04
 [TESTLAB] UL Verification Services Inc.
 [ISSUE DATE] 29-JAN-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 8CR-TL-L13-8TW-xxx-DIM-UNV-OM-CS-xx
 [LUMINAIRE] 8" DIA. SURFACE CYLINDER
 [LAMP] One white LED
 [BALLAST] Philips XI025C070V054DSM5
 [OTHER] 25.5 C, 120.067 V, 0.160092 A, 19.1077 W, 0.994065 PF, 59.9709
 [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	1317
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	90
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)	0.68
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	2376	2376	2376
55	875	875	875
65	344	344	344
75	154	154	154
85	125	125	125

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CANDELA TABULATION

	<u>0</u>
0.0	2664.632
0.5	2668.616
1.0	2676.584
1.5	2681.232
2.0	2692.520
2.5	2697.168
3.0	2705.136
3.5	2707.128
4.0	2701.152
4.5	2669.280
5.0	2637.408
5.5	2603.544
6.0	2549.096
6.5	2494.648
7.0	2436.880
7.5	2371.808
8.0	2296.112
8.5	2218.424
9.0	2138.080
9.5	2059.728
10.0	1987.352
10.5	1923.608
11.0	1868.496
11.5	1821.352
12.0	1774.872
12.5	1729.056
13.0	1685.232
13.5	1644.064
14.0	1606.880
14.5	1573.680
15.0	1543.800
15.5	1515.248
16.0	1487.360
16.5	1458.144
17.0	1428.264
17.5	1398.384
18.0	1371.160
18.5	1347.256
19.0	1322.688
19.5	1297.456
20.0	1269.568
20.5	1239.688
21.0	1209.144
21.5	1177.936
22.0	1144.736
22.5	1112.864
23.0	1079.000
23.5	1044.472
24.0	1008.616
24.5	972.760
25.0	937.568
25.5	902.376
26.0	869.840
26.5	838.632

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L13-8TW-XXX-DIM-UNV-OM-CS-XX_4000K.IES****CANDELA TABULATION - (Cont.)**

27.0	809.416
27.5	781.528
28.0	756.296
28.5	733.720
29.0	712.472
29.5	691.888
30.0	665.992
30.5	633.589
31.0	596.405
31.5	555.502
32.0	514.002
32.5	472.237
33.0	430.471
33.5	386.647
34.0	342.159
34.5	301.589
35.0	262.612
35.5	225.826
36.0	190.435
36.5	158.762
37.0	132.800
37.5	114.540
38.0	104.713
38.5	98.073
39.0	91.433
39.5	84.394
40.0	76.891
40.5	68.923
41.0	61.287
41.5	54.182
42.0	48.140
42.5	43.359
43.0	39.641
43.5	36.786
44.0	34.395
44.5	32.470
45.0	30.677
45.5	29.150
46.0	27.689
46.5	26.361
47.0	25.033
47.5	23.771
48.0	22.510
48.5	21.248
49.0	19.986
49.5	18.858
50.0	17.795
50.5	16.733
51.0	15.737
51.5	14.741
52.0	13.745
52.5	12.882
53.0	12.018
53.5	11.222
54.0	10.491
54.5	9.827

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55.0	9.163
55.5	8.632
56.0	8.034
56.5	7.570
57.0	7.105
57.5	6.640
58.0	6.242
58.5	5.843
59.0	5.511
59.5	5.179
60.0	4.847
60.5	4.515
61.0	4.250
61.5	3.984
62.0	3.785
62.5	3.586
63.0	3.320
63.5	3.187
64.0	2.988
64.5	2.789
65.0	2.656
65.5	2.457
66.0	2.324
66.5	2.191
67.0	2.058
67.5	1.926
68.0	1.859
68.5	1.726
69.0	1.594
69.5	1.527
70.0	1.461
70.5	1.328
71.0	1.262
71.5	1.195
72.0	1.129
72.5	1.062
73.0	0.996
73.5	0.930
74.0	0.863
74.5	0.797
75.0	0.730
75.5	0.730
76.0	0.664
76.5	0.598
77.0	0.598
77.5	0.531
78.0	0.531
78.5	0.465
79.0	0.465
79.5	0.398
80.0	0.398
80.5	0.332
81.0	0.332
81.5	0.332
82.0	0.266
82.5	0.266

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83.0	0.266
83.5	0.199
84.0	0.199
84.5	0.199
85.0	0.199
85.5	0.133
86.0	0.133
86.5	0.133
87.0	0.133
87.5	0.133
88.0	0.066
88.5	0.066
89.0	0.066
89.5	0.066
90.0	0.066
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-OM-CS-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-OM-CS-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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L13-8TW-XXX-DIM-UNV-OM-CS-XX_4000K.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	664.51	N.A.	50.50
0-30	1094.95	N.A.	83.20
0-40	1277.09	N.A.	97.00
0-60	1312.89	N.A.	99.70
0-80	1316.49	N.A.	100.00
0-90	1316.7	N.A.	100.00
10-90	1087.11	N.A.	82.60
20-40	612.59	N.A.	46.50
20-50	639.59	N.A.	48.60
40-70	38.55	N.A.	2.90
60-80	3.60	N.A.	0.30
70-80	0.85	N.A.	0.10
80-90	0.20	N.A.	0.00
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1316.7	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	229.59
10-20	434.92
20-30	430.44
30-40	182.15
40-50	27.00
50-60	8.79
60-70	2.75
70-80	0.85
80-90	0.20
90-100	0.00
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	89	92	90	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	86	81	78	84	80	77	82	79	77	75
6	92	84	78	75	90	83	78	74	81	77	74	80	76	73	79	75	73	72
7	88	79	74	70	86	79	74	70	78	73	70	77	72	70	75	72	69	68
8	84	76	70	67	83	75	70	67	74	70	66	73	69	66	72	69	66	65
9	81	72	67	63	80	72	67	63	71	66	63	70	66	63	69	65	63	61
10	78	69	64	60	77	69	64	60	68	63	60	67	63	60	66	63	60	59

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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

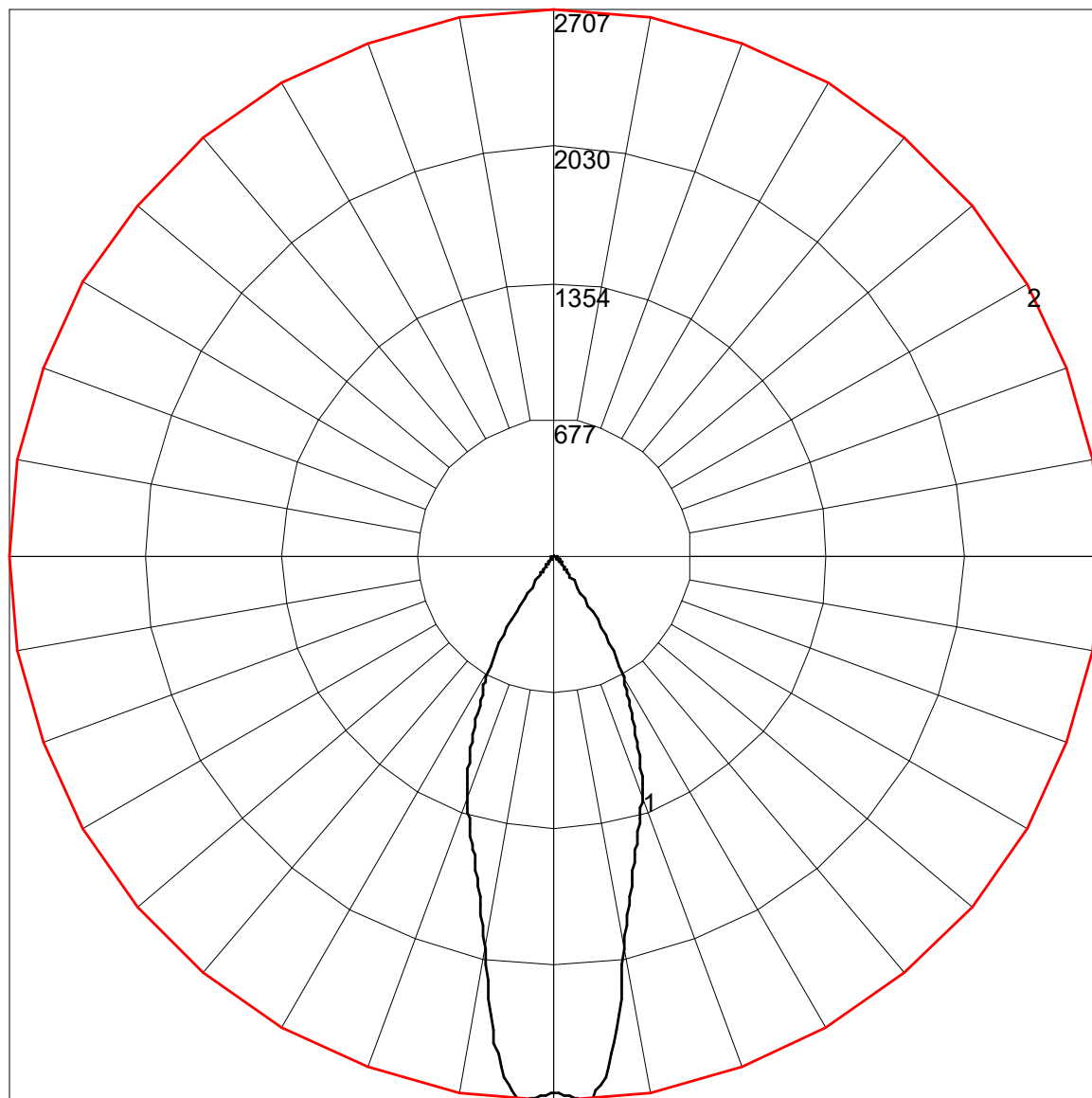
X=2H	Y=2H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	3H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	4H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	6H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	8H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	12H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

UGR Viewed Endwise

4H	2H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	3H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	4H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	6H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	8H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	12H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
8H	4H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	6H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	8H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	12H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
12H	4H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	6H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	8H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Maximum UGR = 1.0

POLAR GRAPH



Maximum Candela = 2707.128 Located At Horizontal Angle = 0, Vertical Angle = 3.5

1 - Vertical Plane Through Horizontal Angles (90 - 270)

2 - Horizontal Cone Through Vertical Angle (3.5) (Through Max. Cd.)