



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from 12326812.05
 [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-ON-CS-xx
 [LUMINAIRE] 8" DIA. SURFACE CYLINDER
 [LAMP] One white LED
 [BALLAST] Philips XI025C070V054DSM5
 [OTHER] 25 C, 119.973 V, 0.160074 A, 19.0907 W, 0.994073 PF, 59.9705 H
 [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	1345
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	92
Total Luminaire Watts	14.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.18
Spacing Criterion (90-270)	0.18
Spacing Criterion (Diagonal)	0.20
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	669	669	669
55	254	254	254
65	86	86	86
75	0	0	0
85	0	0	0

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CANDELA TABULATION

	<u>0</u>
0.0	14607.999
0.5	14448.639
1.0	13930.719
1.5	13200.319
2.0	12370.320
2.5	11507.120
3.0	10584.160
3.5	9608.080
4.0	8572.240
4.5	7529.760
5.0	6527.120
5.5	5709.736
6.0	5054.368
6.5	4517.856
7.0	4063.016
7.5	3672.584
8.0	3331.288
8.5	3031.824
9.0	2768.880
9.5	2539.136
10.0	2341.264
10.5	2169.952
11.0	2019.224
11.5	1889.744
12.0	1776.864
12.5	1678.592
13.0	1593.600
13.5	1519.896
14.0	1455.488
14.5	1399.048
15.0	1349.248
15.5	1304.760
16.0	1264.256
16.5	1227.736
17.0	1194.536
17.5	1163.328
18.0	1136.104
18.5	1110.872
19.0	1085.640
19.5	1060.408
20.0	1034.512
20.5	1007.288
21.0	978.736
21.5	948.192
22.0	913.664
22.5	875.816
23.0	833.984
23.5	791.488
24.0	750.984
24.5	713.136
25.0	677.944
25.5	644.080
26.0	613.536
26.5	585.648

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

27.0	563.736
27.5	546.472
28.0	534.520
28.5	525.224
29.0	517.256
29.5	509.952
30.0	501.320
30.5	483.392
31.0	458.824
31.5	428.280
32.0	395.080
32.5	359.888
33.0	324.032
33.5	284.192
34.0	240.368
34.5	198.536
35.0	160.688
35.5	126.824
36.0	94.288
36.5	65.736
37.0	41.168
37.5	25.232
38.0	17.928
38.5	16.600
39.0	15.936
39.5	15.272
40.0	13.944
40.5	13.944
41.0	13.280
41.5	12.616
42.0	11.952
42.5	11.288
43.0	10.624
43.5	9.960
44.0	9.960
44.5	9.296
45.0	8.632
45.5	8.632
46.0	7.968
46.5	7.968
47.0	7.304
47.5	6.640
48.0	6.640
48.5	5.976
49.0	5.976
49.5	5.312
50.0	5.312
50.5	4.648
51.0	4.648
51.5	3.984
52.0	3.984
52.5	3.320
53.0	3.320
53.5	3.320
54.0	2.656
54.5	2.656

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55.0	2.656
55.5	2.656
56.0	2.656
56.5	1.992
57.0	1.992
57.5	1.992
58.0	1.992
58.5	1.992
59.0	1.328
59.5	1.328
60.0	1.328
60.5	1.328
61.0	1.328
61.5	1.328
62.0	1.328
62.5	1.328
63.0	1.328
63.5	0.664
64.0	0.664
64.5	0.664
65.0	0.664
65.5	0.664
66.0	0.664
66.5	0.664
67.0	0.664
67.5	0.664
68.0	0.664
68.5	0.664
69.0	0.664
69.5	0.664
70.0	0.664
70.5	0.664
71.0	0.664
71.5	0.664
72.0	0.664
72.5	0.664
73.0	0.664
73.5	0.664
74.0	0.000
74.5	0.000
75.0	0.000
75.5	0.000
76.0	0.000
76.5	0.000
77.0	0.000
77.5	0.000
78.0	0.000
78.5	0.000
79.0	0.000
79.5	0.000
80.0	0.000
80.5	0.000
81.0	0.000
81.5	0.000
82.0	0.000
82.5	0.000

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

83.0	0.000
83.5	0.000
84.0	0.000
84.5	0.000
85.0	0.000
85.5	0.000
86.0	0.000
86.5	0.000
87.0	0.000
87.5	0.000
88.0	0.000
88.5	0.000
89.0	0.000
89.5	0.000
90.0	0.000
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-ON-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-ON-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-ON-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	893.53	N.A.	66.40
0-30	1215.95	N.A.	90.40
0-40	1334.42	N.A.	99.20
0-60	1343.93	N.A.	99.90
0-80	1345.06	N.A.	100.00
0-90	1345.06	N.A.	100.00
10-90	845.98	N.A.	62.90
20-40	440.89	N.A.	32.80
20-50	447.90	N.A.	33.30
40-70	10.37	N.A.	0.80
60-80	1.13	N.A.	0.10
70-80	0.26	N.A.	0.00
80-90	0.00	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	1345.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	499.08
10-20	394.46
20-30	322.42
30-40	118.47
40-50	7.01
50-60	2.50
60-70	0.87
70-80	0.26
80-90	0.00
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	115	113	111	109	112	111	109	107	107	105	104	103	102	101	99	99	98	96
2	111	107	104	101	109	105	103	100	102	100	98	99	98	96	97	95	94	93
3	107	102	98	95	105	101	97	95	98	95	93	96	94	92	94	92	90	89
4	103	98	94	90	102	97	93	90	95	91	89	93	90	88	91	89	87	86
5	100	94	89	86	99	93	89	86	91	88	85	90	87	84	88	86	84	83
6	97	90	86	83	96	90	85	82	88	85	82	87	84	81	86	83	81	80
7	94	87	83	80	93	86	82	79	85	82	79	84	81	79	83	80	78	77
8	91	84	80	77	90	84	79	77	83	79	76	82	78	76	81	78	76	75
9	88	81	77	74	88	81	77	74	80	76	74	79	76	74	79	76	73	72
10	86	79	75	72	85	79	74	72	78	74	72	77	74	71	77	73	71	70

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UGR TABLE - CORRECTED

Reflectances

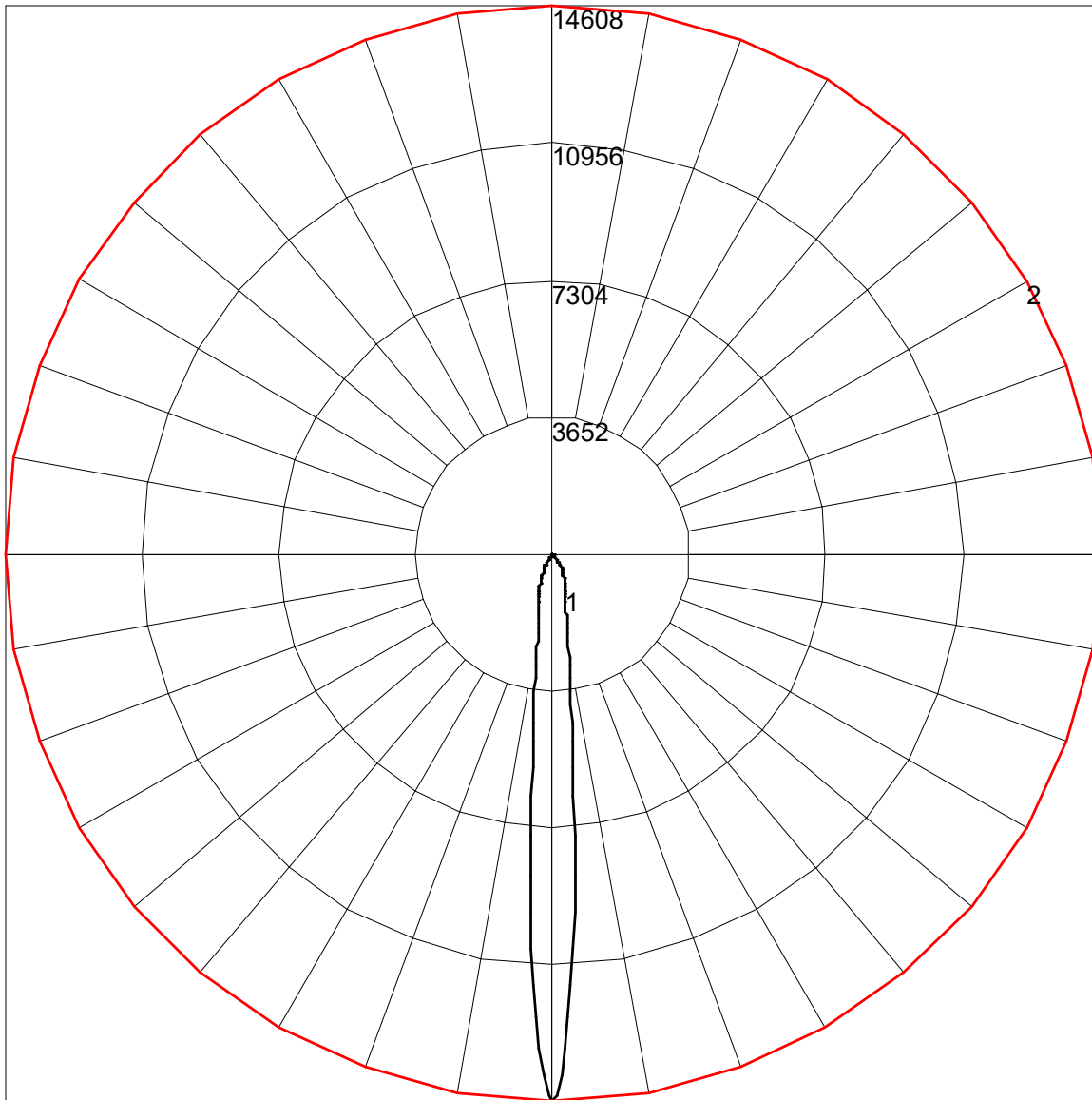
Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size UGR Viewed Crosswise

X=2H	Y=2H	1.3	1.3	1.3	1.3	1.3	UGR Viewed Endwise				
	3H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	4H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	6H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	8H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	12H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
4H	2H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	3H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	4H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	6H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	8H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	12H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
8H	4H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	6H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	8H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	12H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
12H	4H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	6H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	8H	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3

Maximum UGR = 1.3

POLAR GRAPH



Maximum Candela = 14607.999 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.)