



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L13-8TW-XXX-DIM-UNV-LM-WH-XX_4000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from 12326812.09
 [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-LM-WH-xx
 [LUMINAIRE] 8" DIA. SURFACE CYLINDER
 [LAMP] One white LED
 [BALLAST] Philips XI025C070V054DSM5
 [OTHER] 24.9 C, 119.972 V, 0.160241 A, 19.1105 W, 0.994073 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	1220
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	84
Total Luminaire Watts	14.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.60
Spacing Criterion (90-270)	0.60
Spacing Criterion (Diagonal)	0.56
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	5449	5449	5449
55	3990	3990	3990
65	3251	3251	3251
75	2646	2646	2646
85	1741	1741	1741

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CANDELA TABULATION

	<u>0</u>
0.0	2880.432
0.5	2879.104
1.0	2875.120
1.5	2869.144
2.0	2861.176
2.5	2849.888
3.0	2837.272
3.5	2822.664
4.0	2805.400
4.5	2787.472
5.0	2767.552
5.5	2744.976
6.0	2720.408
6.5	2693.184
7.0	2663.968
7.5	2632.096
8.0	2596.904
8.5	2559.056
9.0	2519.216
9.5	2476.720
10.0	2430.904
10.5	2382.432
11.0	2330.640
11.5	2274.864
12.0	2217.096
12.5	2156.008
13.0	2092.264
13.5	2025.200
14.0	1956.144
14.5	1884.432
15.0	1811.392
15.5	1737.024
16.0	1662.656
16.5	1587.624
17.0	1514.584
17.5	1441.544
18.0	1367.840
18.5	1295.464
19.0	1223.752
19.5	1154.696
20.0	1087.632
20.5	1023.224
21.0	962.800
21.5	905.032
22.0	847.264
22.5	792.816
23.0	741.024
23.5	691.888
24.0	646.138
24.5	602.846
25.0	562.408
25.5	524.294
26.0	488.970
26.5	455.902

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

27.0	425.159
27.5	396.674
28.0	370.114
28.5	345.546
29.0	322.770
29.5	301.522
30.0	281.868
30.5	263.542
31.0	246.543
31.5	230.740
32.0	215.999
32.5	202.321
33.0	189.572
33.5	177.686
34.0	166.730
34.5	156.571
35.0	147.076
35.5	138.378
36.0	130.277
36.5	122.906
37.0	116.067
37.5	109.826
38.0	104.182
38.5	98.936
39.0	94.155
39.5	89.773
40.0	85.789
40.5	82.070
41.0	78.684
41.5	75.563
42.0	72.642
42.5	69.986
43.0	67.462
43.5	65.138
44.0	63.014
44.5	60.955
45.0	59.030
45.5	57.237
46.0	55.577
46.5	53.983
47.0	52.456
47.5	50.995
48.0	49.667
48.5	48.339
49.0	47.078
49.5	45.882
50.0	44.754
50.5	43.625
51.0	42.562
51.5	41.500
52.0	40.504
52.5	39.574
53.0	38.578
53.5	37.649
54.0	36.786
54.5	35.922

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55.0	35.059
55.5	34.196
56.0	33.399
56.5	32.602
57.0	31.806
57.5	31.009
58.0	30.278
58.5	29.548
59.0	28.818
59.5	28.154
60.0	27.490
60.5	26.759
61.0	26.095
61.5	25.431
62.0	24.767
62.5	24.170
63.0	23.506
63.5	22.908
64.0	22.310
64.5	21.713
65.0	21.049
65.5	20.451
66.0	19.854
66.5	19.322
67.0	18.725
67.5	18.127
68.0	17.596
68.5	17.065
69.0	16.467
69.5	15.936
70.0	15.405
70.5	14.874
71.0	14.409
71.5	13.878
72.0	13.346
72.5	12.882
73.0	12.350
73.5	11.886
74.0	11.421
74.5	10.956
75.0	10.491
75.5	10.026
76.0	9.562
76.5	9.097
77.0	8.632
77.5	8.234
78.0	7.769
78.5	7.370
79.0	6.972
79.5	6.507
80.0	6.109
80.5	5.710
81.0	5.312
81.5	4.914
82.0	4.515
82.5	4.117

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83.0	3.785
83.5	3.386
84.0	3.054
84.5	2.656
85.0	2.324
85.5	1.992
86.0	1.660
86.5	1.394
87.0	1.129
87.5	0.930
88.0	0.730
88.5	0.598
89.0	0.465
89.5	0.332
90.0	0.199
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-LM-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-LM-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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CR-TL-L13-8TW-XXX-DIM-UNV-LM-WH-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	740.81	N.A.	60.70
0-30	1009.1	N.A.	82.70
0-40	1106.66	N.A.	90.70
0-60	1185.09	N.A.	97.10
0-80	1217.18	N.A.	99.80
0-90	1220.02	N.A.	100.00
10-90	966.36	N.A.	79.20
20-40	365.86	N.A.	30.00
20-50	412.69	N.A.	33.80
40-70	99.37	N.A.	8.10
60-80	32.09	N.A.	2.60
70-80	11.14	N.A.	0.90
80-90	2.84	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	1220.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	253.66
10-20	487.15
20-30	268.30
30-40	97.56
40-50	46.84
50-60	31.59
60-70	20.95
70-80	11.14
80-90	2.84
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	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	109	104	100	97	107	102	99	96	99	96	94	96	94	92	94	92	90	89
3	104	98	94	90	102	97	93	89	94	91	88	92	89	86	90	87	85	84
4	100	93	88	84	98	92	87	83	90	86	83	88	84	82	86	83	81	79
5	96	88	83	79	94	87	82	79	85	81	78	84	80	77	82	79	77	75
6	92	84	79	75	90	83	78	75	82	77	74	80	77	74	79	76	73	72
7	88	80	75	71	87	79	74	71	78	74	71	77	73	70	76	73	70	69
8	85	77	71	68	84	76	71	68	75	71	67	74	70	67	73	70	67	66
9	82	73	68	65	81	73	68	65	72	68	65	71	67	64	71	67	64	63
10	79	71	66	62	78	70	65	62	69	65	62	69	65	62	68	64	62	61

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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	10.3	11.3	10.6	11.6	11.9	UGR Viewed Endwise	10.3	11.3	10.6	11.6	11.9
	3H	11.7	12.6	12.1	12.9	13.3		11.7	12.6	12.1	12.9	13.3
	4H	12.2	13.0	12.6	13.4	13.8		12.2	13.0	12.6	13.4	13.8
	6H	12.5	13.3	13.0	13.7	14.1		12.5	13.3	13.0	13.7	14.1
	8H	12.6	13.3	13.1	13.7	14.1		12.6	13.3	13.1	13.7	14.1
	12H	12.7	13.3	13.1	13.7	14.2		12.7	13.3	13.1	13.7	14.2

4H	2H	10.7	11.5	11.1	11.9	12.3	10.7	11.5	11.1	11.9	12.3
	3H	12.3	13.0	12.7	13.4	13.8	12.3	13.0	12.7	13.4	13.8
	4H	12.9	13.5	13.3	13.9	14.4	12.9	13.5	13.3	13.9	14.4
	6H	13.4	13.9	13.8	14.3	14.8	13.4	13.9	13.8	14.3	14.8
	8H	13.5	14.0	14.0	14.4	14.9	13.5	14.0	14.0	14.4	14.9
	12H	13.6	14.0	14.0	14.5	14.9	13.6	14.0	14.0	14.5	14.9

8H	4H	13.1	13.6	13.6	14.0	14.5	13.1	13.6	13.6	14.0	14.5
	6H	13.6	14.0	14.2	14.5	15.0	13.6	14.0	14.2	14.5	15.0
	8H	13.8	14.2	14.4	14.7	15.2	13.8	14.2	14.4	14.7	15.2
	12H	14.0	14.3	14.5	14.8	15.3	14.0	14.3	14.5	14.8	15.3

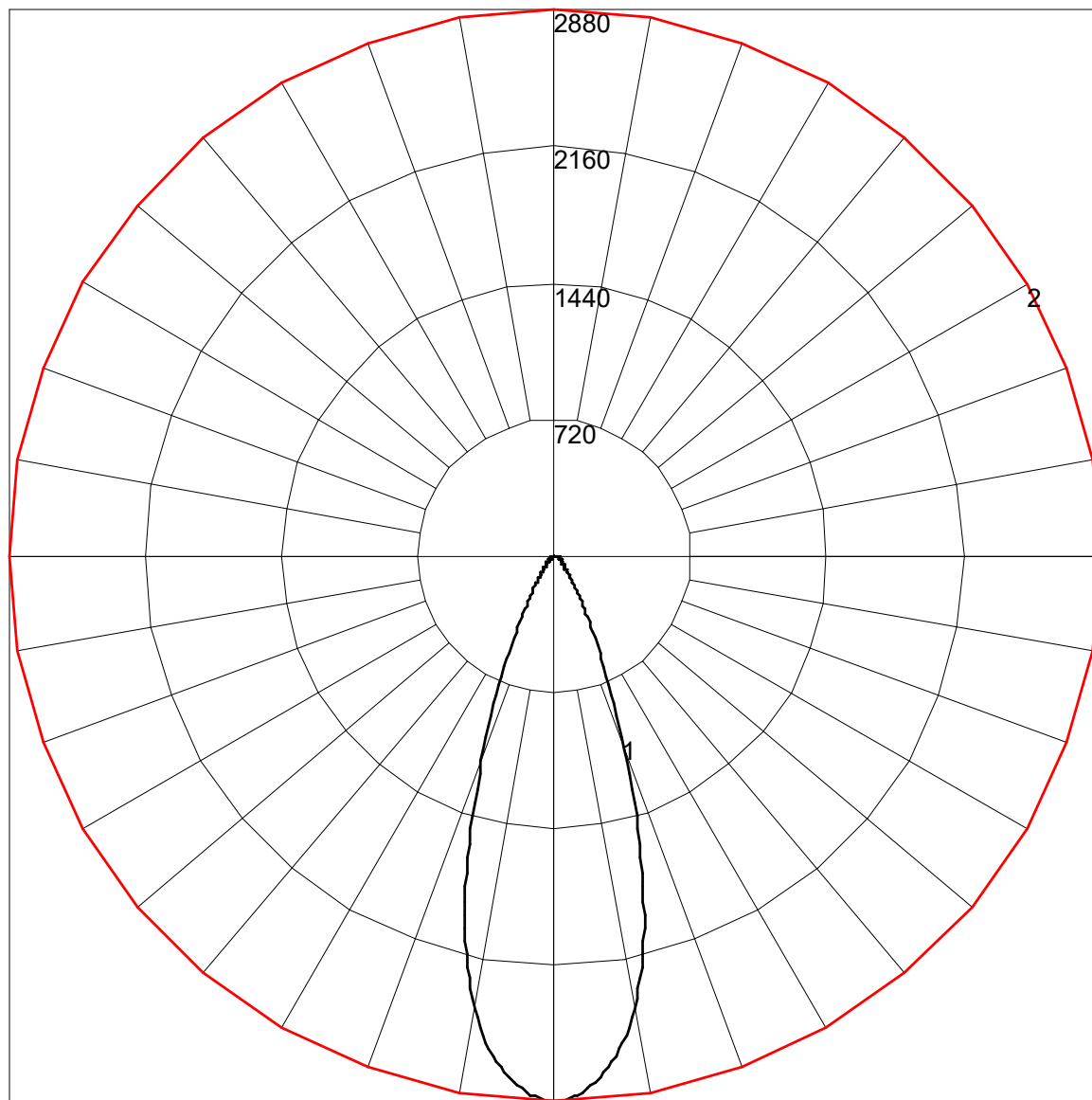
12H	4H	13.1	13.5	13.6	14.0	14.4	13.1	13.5	13.6	14.0	14.4
	6H	13.7	14.0	14.2	14.5	15.0	13.7	14.0	14.2	14.5	15.0
	8H	13.9	14.2	14.4	14.7	15.3	13.9	14.2	14.4	14.7	15.3

Maximum UGR = 15.3

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POLAR GRAPH



Maximum Candela = 2880.432 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.)