



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-14-L12-RED-L45-835-SAF125-DIM-UNV RED ONLY\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TESTLAB] GEN from Photopia 2017.0.4 see: [www.ltiopics.com/ies](http://www.ltiopics.com/ies)  
 [ISSUEDATE] 13 MAY 2020  
 [TESTDATE] Wed Jan 24 15:50:54 2018  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] MCTG-14-L12/RED-L40/835-SAF125-DIM-UNV RED ONLY  
 [LUMINAIRE] 1x4 LED CLEANROOM LUMINAIRE

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1181
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	39
Total Luminaire Watts	30.46
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.04
Spacing Criterion (Diagonal)	1.16
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.98 ft
Luminous Width (90-270)	0.98 ft
Luminous Height	0.38 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1048	773	679
55	852	571	481
65	639	381	315
75	417	210	176
85	214	79	70

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MCTG-14-L12-RED-L45-835-SAF125-DIM-UNV RED ONLY\_.IES****CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0</b>	593.180	593.180	593.180	593.180	593.180
<b>10</b>	569.786	569.404	566.836	560.446	561.274
<b>20</b>	511.964	507.581	500.992	494.694	487.050
<b>30</b>	434.281	429.323	412.952	400.484	393.601
<b>40</b>	343.650	337.048	314.102	297.095	290.548
<b>50</b>	247.670	238.670	218.488	200.916	193.118
<b>60</b>	156.760	150.202	134.862	121.958	117.320
<b>70</b>	79.864	76.229	67.329	61.611	59.244
<b>80</b>	26.441	23.870	21.958	20.980	21.267
<b>90</b>	1.754	2.062	2.296	2.388	2.470
<b>100</b>	0.480	0.685	0.795	0.791	0.698
<b>110</b>	0.236	0.336	0.362	0.398	0.409
<b>120</b>	0.100	0.121	0.144	0.183	0.174
<b>130</b>	0.155	0.091	0.095	0.117	0.099
<b>140</b>	0.091	0.086	0.102	0.110	0.119
<b>150</b>	0.142	0.106	0.117	0.099	0.077
<b>160</b>	0.068	0.088	0.082	0.100	0.104
<b>170</b>	0.046	0.073	0.115	0.126	0.110
<b>180</b>	0.139	0.139	0.139	0.139	0.139

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MCTG-14-L12-RED-L45-835-SAF125-DIM-UNV RED ONLY\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	206.43	N.A.	17.50
0-30	418.16	N.A.	35.40
0-40	647.61	N.A.	54.80
0-60	1014.67	N.A.	85.90
0-80	1164.58	N.A.	98.60
0-90	1178.16	N.A.	99.80
10-90	1122.85	N.A.	95.10
20-40	441.18	N.A.	37.40
20-50	648.72	N.A.	54.90
40-70	468.66	N.A.	39.70
60-80	149.91	N.A.	12.70
70-80	48.32	N.A.	4.10
80-90	13.57	N.A.	1.10
90-110	2.16	N.A.	0.20
90-120	2.41	N.A.	0.20
90-130	2.53	N.A.	0.20
90-150	2.67	N.A.	0.20
90-180	2.76	N.A.	0.20
110-180	0.59	N.A.	0.00
0-180	1180.91	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	55.30
10-20	151.12
20-30	211.73
30-40	229.45
40-50	207.53
50-60	159.53
60-70	101.59
70-80	48.32
80-90	13.57
90-100	1.60
100-110	0.57
110-120	0.25
120-130	0.11
130-140	0.08
140-150	0.07
150-160	0.05
160-170	0.03
170-180	0.01

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-14-L12-RED-L45-835-SAF125-DIM-UNV RED ONLY\_.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	25	25	25	25	24	24	24	24	23	23	23	22	22	22	21	21	21	21
1	23	22	21	20	22	21	21	20	20	20	19	20	19	19	19	19	18	18
2	21	19	18	17	20	19	18	17	18	17	16	18	17	16	17	16	16	15
3	19	17	16	15	19	17	16	14	16	15	14	16	15	14	15	14	14	13
4	18	15	14	13	17	15	14	12	15	13	12	14	13	12	14	13	12	12
5	16	14	12	11	16	14	12	11	13	12	11	13	12	11	13	11	11	10
6	15	13	11	10	15	13	11	10	12	11	10	12	11	10	11	10	9	9
7	14	12	10	9	14	11	10	9	11	10	9	11	10	9	11	9	9	8
8	13	11	9	8	13	11	9	8	10	9	8	10	9	8	10	9	8	7
9	12	10	8	7	12	10	8	7	9	8	7	9	8	7	9	8	7	7
10	12	9	8	7	11	9	8	7	9	7	7	9	7	6	8	7	6	6

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-14-L12-RED-L45-835-SAF125-DIM-UNV RED ONLY\_.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	15.3	16.8	15.6	17.1	17.4	UGR Viewed Endwise	14.5	16.0	14.9	16.3	16.6
	3H	16.3	17.7	16.7	18.0	18.4		15.6	17.0	16.0	17.3	17.7
	4H	16.7	17.9	17.1	18.3	18.6		16.0	17.3	16.4	17.6	18.0
	6H	16.8	18.0	17.2	18.3	18.7		16.2	17.4	16.6	17.7	18.1
	8H	16.8	17.9	17.2	18.3	18.7		16.3	17.4	16.7	17.8	18.2
	12H	16.8	17.9	17.3	18.3	18.7		16.3	17.4	16.7	17.7	18.2

4H	2H	15.6	16.8	16.0	17.2	17.6	14.9	16.2	15.3	16.5	16.9
	3H	16.8	17.9	17.2	18.3	18.7	16.2	17.2	16.6	17.6	18.0
	4H	17.2	18.2	17.7	18.6	19.0	16.6	17.6	17.1	18.0	18.4
	6H	17.4	18.2	17.9	18.7	19.1	16.9	17.7	17.4	18.2	18.6
	8H	17.4	18.2	17.9	18.7	19.1	17.0	17.8	17.4	18.2	18.7
	12H	17.5	18.2	18.0	18.6	19.1	17.1	17.7	17.5	18.2	18.7

8H	4H	17.3	18.1	17.7	18.5	19.0	16.7	17.5	17.2	18.0	18.4
	6H	17.5	18.2	18.0	18.6	19.1	17.1	17.7	17.6	18.2	18.7
	8H	17.6	18.2	18.1	18.7	19.2	17.2	17.7	17.7	18.3	18.7
	12H	17.7	18.1	18.2	18.6	19.2	17.3	17.8	17.8	18.3	18.8

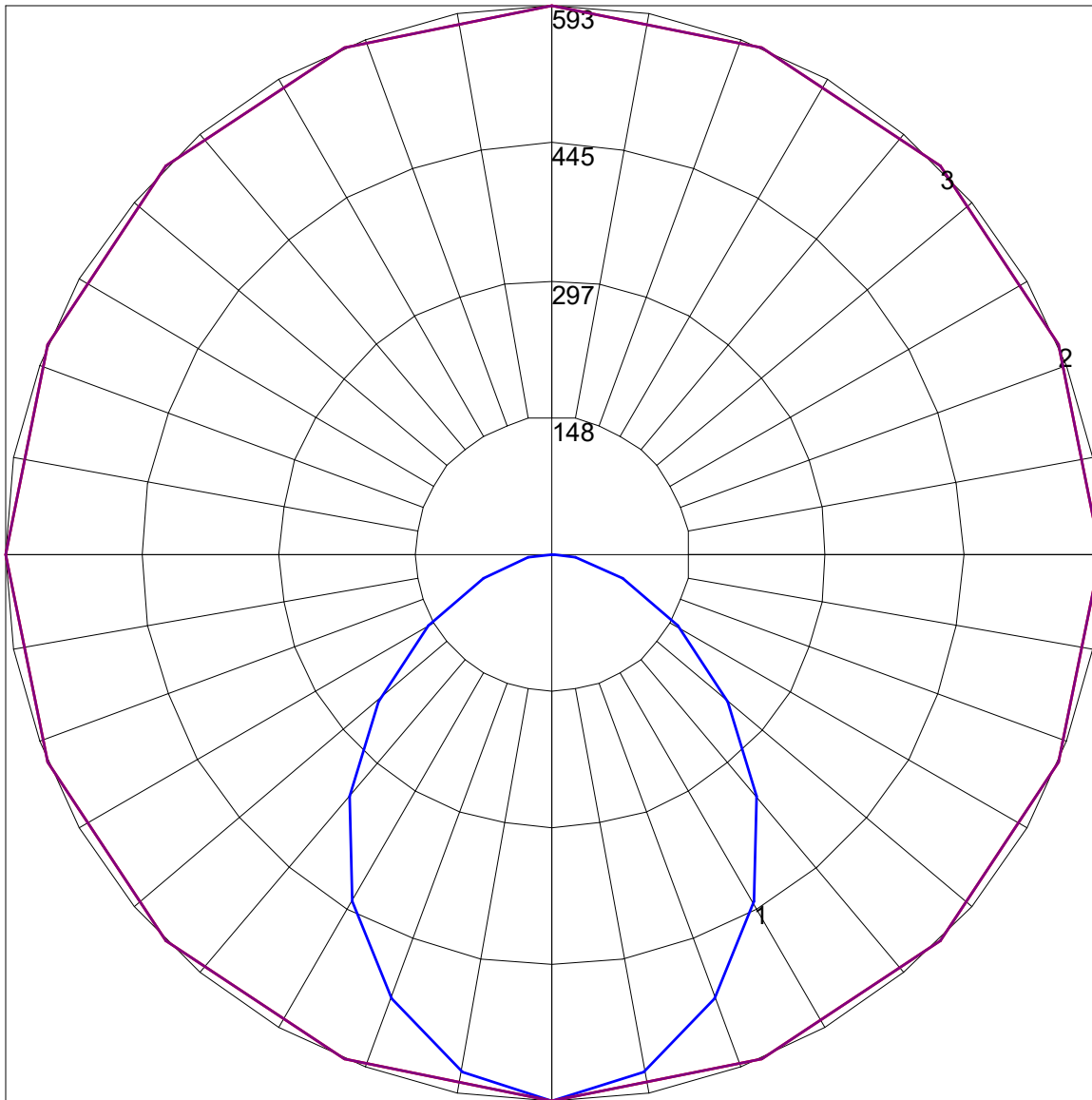
12H	4H	17.3	18.0	17.8	18.4	18.9	16.7	17.4	17.2	17.9	18.4
	6H	17.5	18.1	18.0	18.5	19.1	17.1	17.6	17.6	18.1	18.6
	8H	17.6	18.1	18.1	18.6	19.2	17.2	17.7	17.7	18.2	18.8

Maximum UGR = 19.2

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-14-L12-RED-L45-835-SAF125-DIM-UNV RED ONLY\_.IES

## POLAR GRAPH



Maximum Candela = 593.18 Located At Horizontal Angle = 0, Vertical Angle = 0

# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

# 3 - Horizontal Cone Through Vertical Angle (0)