



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-14-L12-RED-SAF125-DIM-UNV\_.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] 17 Feb. 2020

[TESTDATE] Wed Jan 24 15:50:54 2018

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.

[LUMCAT] MCTG-14-L12-RED-SAF125-DIM-UNV

[LUMINAIRE] 1x4 LED CLEANROOM LUMINAIRE

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1062
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	35
Total Luminaire Watts	30.3
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	942	695	611
55	766	513	432
65	574	343	283
75	375	189	158
85	192	71	63

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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>	533.410	533.410	533.410	533.410	533.410
<b>10</b>	512.373	512.030	509.720	503.974	504.718
<b>20</b>	460.377	456.436	450.511	444.847	437.974
<b>30</b>	390.522	386.064	371.342	360.130	353.941
<b>40</b>	309.023	303.086	282.453	267.159	261.272
<b>50</b>	222.714	214.621	196.472	180.671	173.659
<b>60</b>	140.964	135.067	121.273	109.669	105.499
<b>70</b>	71.817	68.548	60.545	55.403	53.274
<b>80</b>	23.776	21.465	19.745	18.866	19.124
<b>90</b>	1.577	1.855	2.065	2.147	2.221
<b>100</b>	0.432	0.616	0.715	0.711	0.628
<b>110</b>	0.212	0.302	0.325	0.358	0.368
<b>120</b>	0.090	0.108	0.130	0.164	0.156
<b>130</b>	0.140	0.082	0.085	0.105	0.089
<b>140</b>	0.082	0.077	0.092	0.099	0.107
<b>150</b>	0.128	0.095	0.105	0.089	0.069
<b>160</b>	0.061	0.079	0.074	0.090	0.094
<b>170</b>	0.041	0.066	0.103	0.113	0.099
<b>180</b>	0.125	0.125	0.125	0.125	0.125

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	185.63	N.A.	17.50
0-30	376.02	N.A.	35.40
0-40	582.36	N.A.	54.80
0-60	912.43	N.A.	85.90
0-80	1047.24	N.A.	98.60
0-90	1059.44	N.A.	99.80
10-90	1009.71	N.A.	95.10
20-40	396.73	N.A.	37.40
20-50	583.35	N.A.	54.90
40-70	421.43	N.A.	39.70
60-80	134.81	N.A.	12.70
70-80	43.45	N.A.	4.10
80-90	12.21	N.A.	1.10
90-110	1.95	N.A.	0.20
90-120	2.17	N.A.	0.20
90-130	2.27	N.A.	0.20
90-150	2.40	N.A.	0.20
90-180	2.48	N.A.	0.20
110-180	0.53	N.A.	0.00
0-180	1061.92	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	49.73
10-20	135.90
20-30	190.40
30-40	206.33
40-50	186.62
50-60	143.46
60-70	91.36
70-80	43.45
80-90	12.21
90-100	1.44
100-110	0.51
110-120	0.22
120-130	0.10
130-140	0.07
140-150	0.06
150-160	0.04
160-170	0.02
170-180	0.01

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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	233	233	233	233	228	228	228	228	217	217	217	208	208	208	200	200	200	195
1	216	207	200	193	210	203	196	190	195	189	184	187	183	178	180	176	173	169
2	198	184	172	162	193	180	169	160	173	164	156	167	159	153	161	155	149	145
3	183	164	150	138	178	161	148	137	155	144	134	150	140	132	145	137	130	126
4	169	147	131	119	164	145	130	119	140	127	117	135	124	115	131	122	114	110
5	156	133	117	105	152	131	115	104	127	113	103	123	111	102	119	109	101	97
6	145	121	104	93	141	119	104	92	115	102	92	112	100	91	109	98	90	86
7	135	110	94	83	132	109	94	83	106	92	82	103	91	82	100	89	81	77
8	126	101	86	75	123	100	85	75	97	84	74	95	83	74	93	82	73	70
9	118	94	78	68	116	92	78	68	90	77	68	88	76	67	86	75	67	64
10	111	87	72	62	109	86	72	62	84	71	62	82	70	62	80	69	61	58

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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	7.9	9.4	8.2	9.7	10.0	6.4	7.9	6.8	8.2	8.5
	3H	9.1	10.4	9.5	10.7	11.1	7.5	8.9	7.9	9.2	9.6
	4H	9.5	10.7	9.9	11.1	11.5	7.9	9.1	8.3	9.5	9.9
	6H	9.7	10.8	10.1	11.2	11.6	8.1	9.3	8.5	9.6	10.0
	8H	9.7	10.8	10.1	11.2	11.6	8.1	9.3	8.6	9.6	10.1
	12H	9.8	10.8	10.2	11.2	11.6	8.2	9.3	8.6	9.6	10.1

UGR Viewed Endwise

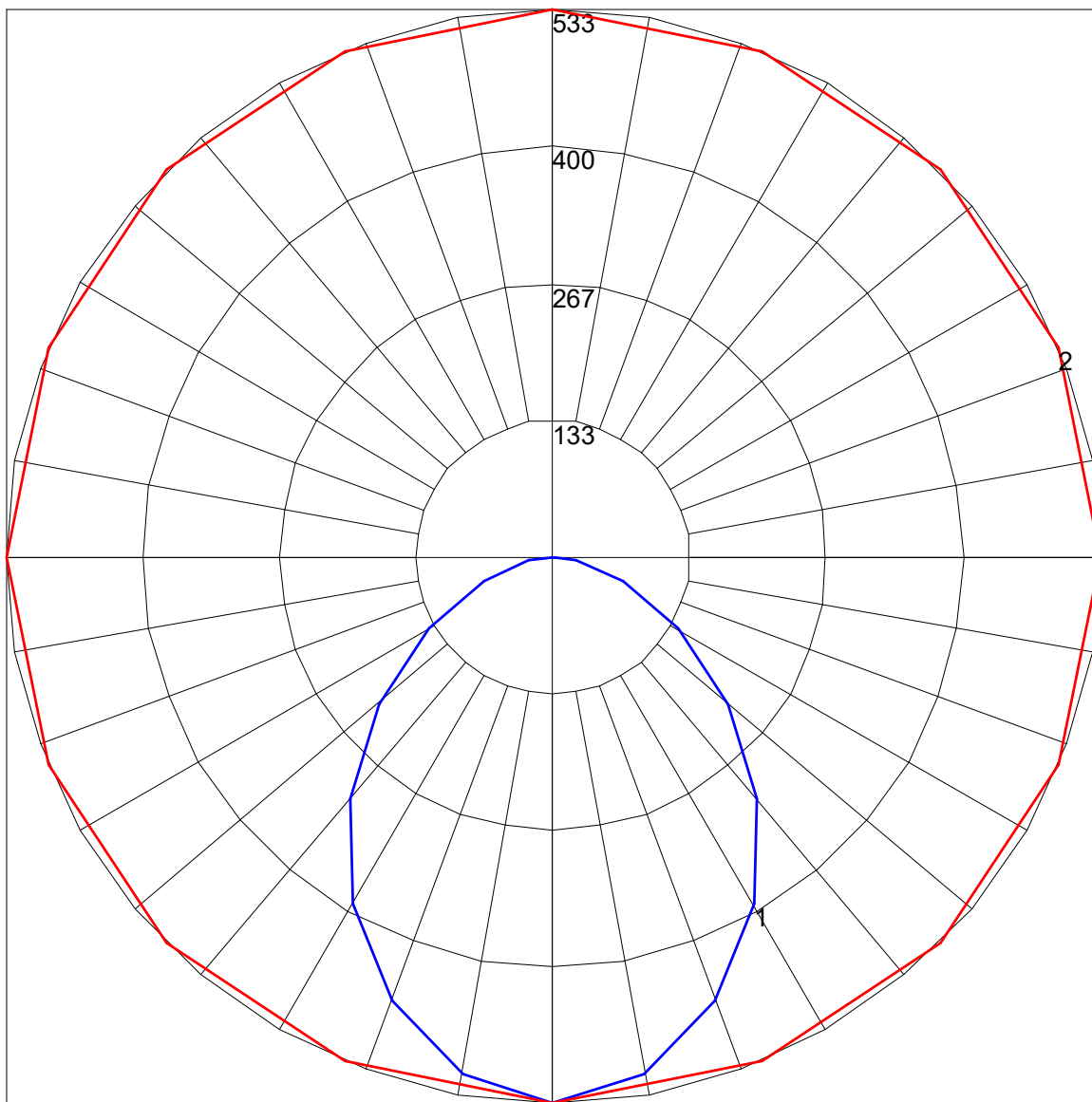
4H	2H	8.1	9.3	8.5	9.7	10.1	6.8	8.1	7.2	8.4	8.8
	3H	9.4	10.5	9.9	10.9	11.3	8.1	9.1	8.5	9.5	9.9
	4H	9.9	10.9	10.4	11.3	11.7	8.5	9.5	9.0	9.9	10.3
	6H	10.2	11.0	10.7	11.5	11.9	8.8	9.6	9.3	10.1	10.5
	8H	10.3	11.0	10.7	11.5	12.0	8.9	9.6	9.3	10.1	10.6
	12H	10.3	11.0	10.8	11.5	12.0	8.9	9.6	9.4	10.1	10.6

8H	4H	10.0	10.7	10.4	11.2	11.6	8.6	9.4	9.1	9.9	10.3
	6H	10.3	10.9	10.8	11.4	11.9	9.0	9.6	9.5	10.1	10.6
	8H	10.4	10.9	10.9	11.4	11.9	9.1	9.6	9.6	10.1	10.6
	12H	10.5	11.0	11.0	11.5	12.0	9.2	9.7	9.7	10.2	10.7

12H	4H	9.9	10.6	10.4	11.1	11.6	8.6	9.3	9.1	9.8	10.3
	6H	10.2	10.8	10.8	11.3	11.8	8.9	9.5	9.5	10.0	10.5
	8H	10.4	10.9	10.9	11.4	11.9	9.1	9.6	9.6	10.1	10.6

Maximum UGR = 12.0

POLAR GRAPH



Maximum Candela = 533.41 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.)