



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-14-L12-RED-L45-835-SAF125-DIM-UNV WHITE ONLY_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TESTLAB] GEN from Photopia 2017.0.4 see: 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 WHITE ONLY

[LUMINAIRE] 1x4 LED CLEANROOM LUMINAIRE

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4546
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	39.12
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	4033	2975	2614
55	3280	2197	1850
65	2458	1467	1213
75	1604	808	678
85	822	303	268

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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>
0	2283.315	2283.315	2283.315	2283.315	2283.315
10	2193.267	2191.798	2181.911	2157.314	2160.500
20	1970.693	1953.824	1928.460	1904.215	1874.794
30	1671.669	1652.585	1589.567	1541.576	1515.080
40	1322.805	1297.392	1209.067	1143.602	1118.400
50	953.352	918.707	841.021	773.383	743.364
60	603.412	578.168	519.123	469.451	451.597
70	307.419	293.426	259.168	237.158	228.045
80	101.777	91.883	84.521	80.759	81.863
90	6.750	7.939	8.839	9.190	9.507
100	1.849	2.637	3.059	3.045	2.686
110	0.907	1.294	1.392	1.533	1.575
120	0.387	0.464	0.556	0.703	0.668
130	0.598	0.352	0.366	0.450	0.380
140	0.352	0.330	0.394	0.422	0.457
150	0.548	0.408	0.450	0.380	0.295
160	0.260	0.338	0.316	0.387	0.401
170	0.176	0.281	0.443	0.485	0.422
180	0.534	0.534	0.534	0.534	0.534

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

Zone	Lumens	%Lamp	%Fixt
0-20	794.59	N.A.	17.50
0-30	1609.6	N.A.	35.40
0-40	2492.83	N.A.	54.80
0-60	3905.76	N.A.	85.90
0-80	4482.81	N.A.	98.60
0-90	4535.05	N.A.	99.80
10-90	4322.17	N.A.	95.10
20-40	1698.24	N.A.	37.40
20-50	2497.09	N.A.	54.90
40-70	1803.99	N.A.	39.70
60-80	577.05	N.A.	12.70
70-80	185.99	N.A.	4.10
80-90	52.25	N.A.	1.10
90-110	8.33	N.A.	0.20
90-120	9.29	N.A.	0.20
90-130	9.72	N.A.	0.20
90-150	10.29	N.A.	0.20
90-180	10.61	N.A.	0.20
110-180	2.28	N.A.	0.10
0-180	4545.66	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	212.88
10-20	581.71
20-30	815.01
30-40	883.23
40-50	798.85
50-60	614.07
60-70	391.06
70-80	185.99
80-90	52.25
90-100	6.15
100-110	2.18
110-120	0.96
120-130	0.44
130-140	0.31
140-150	0.25
150-160	0.18
160-170	0.10
170-180	0.04

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	94	94	94	94	92	92	92	92	88	88	88	84	84	84	81	81	81	79
1	87	84	81	78	85	82	80	77	79	77	75	76	74	72	73	71	70	69
2	80	75	70	66	78	73	69	65	70	67	63	68	65	62	65	63	61	59
3	74	66	61	56	72	65	60	55	63	58	54	61	57	53	59	55	53	51
4	68	60	53	48	67	59	53	48	57	51	47	55	50	47	53	49	46	45
5	63	54	47	42	62	53	47	42	51	46	42	50	45	41	48	44	41	39
6	59	49	42	38	57	48	42	37	47	41	37	45	41	37	44	40	36	35
7	55	45	38	34	53	44	38	34	43	37	33	42	37	33	41	36	33	31
8	51	41	35	30	50	41	34	30	39	34	30	39	34	30	38	33	30	28
9	48	38	32	28	47	37	32	28	37	31	27	36	31	27	35	30	27	26
10	45	35	29	25	44	35	29	25	34	29	25	33	28	25	33	28	25	24

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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	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

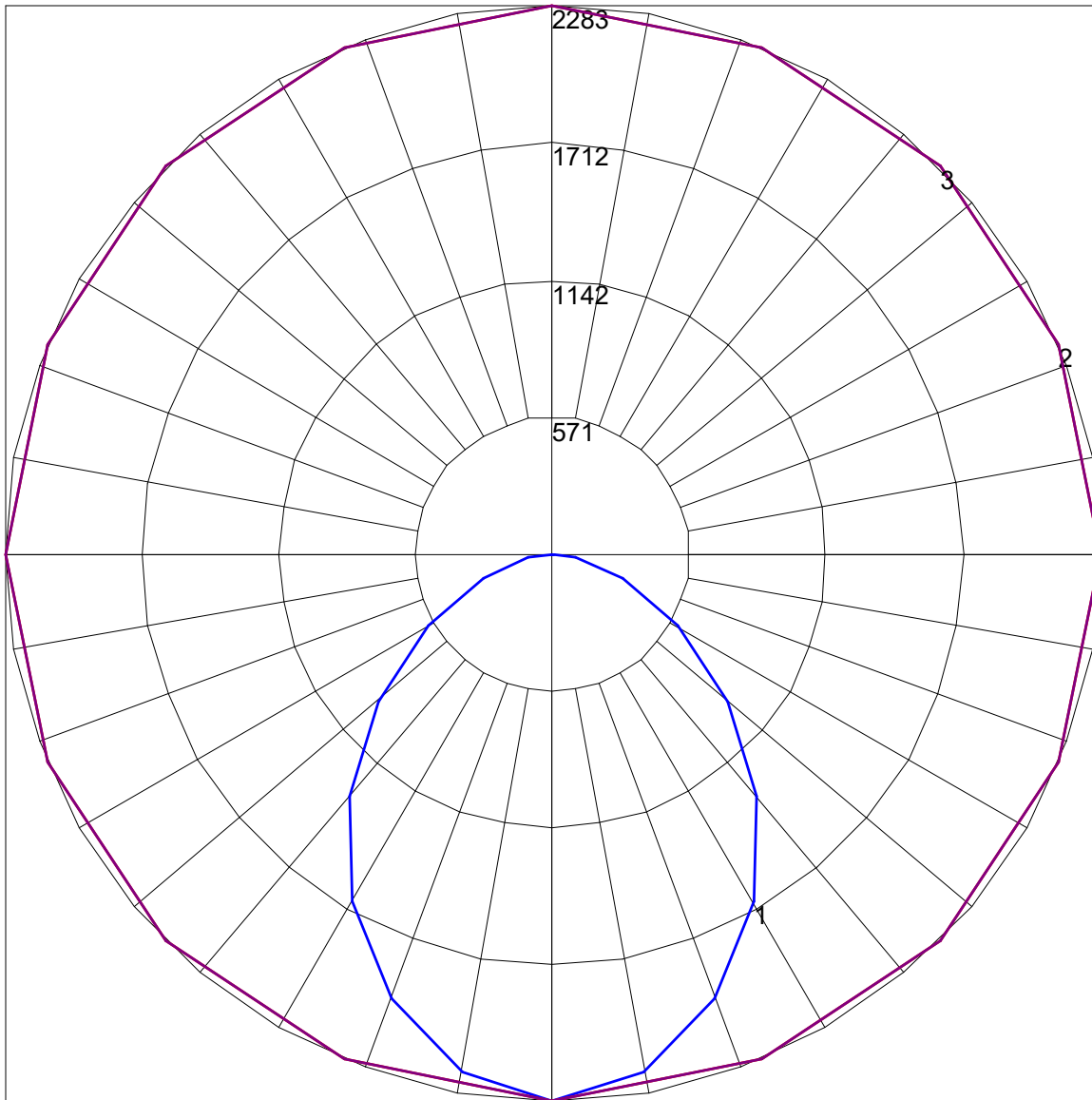
12H	4H	17.3	18.0	17.8	18.4	18.9	16.7	17.4	17.2	17.9	18.4
	6H	17.5	18.1	18.0	18.5	19.1	17.1	17.6	17.6	18.1	18.6
	8H	17.6	18.1	18.1	18.6	19.2	17.2	17.7	17.7	18.2	18.8

Maximum UGR = 19.2

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POLAR GRAPH



Maximum Candela = 2283.315 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)