



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MCTG-14-L54-AMB-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

[ISSUEDATE] 17 FEB 2020

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

[TEST] MCT-14-L79-940

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] MCTG-14-L54 AMB--SAF125-DIM-UNV

[LUMINAIRE] 1x4 LED CLEANROOM LUMINAIRE

[LAMP] LED 22" 56 AMBER linear LED module

CHARACTERISTICS

| | |
|---------------------------------|---------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 4888 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 55 |
| Total Luminaire Watts | 88.9 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.12 |
| Spacing Criterion (90-270) | 1.06 |
| Spacing Criterion (Diagonal) | 1.18 |
| 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 | 4324 | 3214 | 2817 |
| 55 | 3523 | 2359 | 2001 |
| 65 | 2650 | 1574 | 1313 |
| 75 | 1731 | 868 | 729 |
| 85 | 867 | 331 | 282 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : MCTG-14-L54-AMB-SAF125-DIM-UNV_.IES****CANDELA TABULATION**

| | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
|------------|------------|-------------|-------------|-------------|-------------|
| 0 | 2424.926 | 2424.926 | 2424.926 | 2424.926 | 2424.926 |
| 10 | 2315.529 | 2368.022 | 2340.504 | 2332.284 | 2289.636 |
| 20 | 2114.213 | 2096.706 | 2077.949 | 2043.174 | 2050.054 |
| 30 | 1797.615 | 1765.791 | 1707.683 | 1660.218 | 1630.291 |
| 40 | 1415.246 | 1386.539 | 1311.962 | 1232.718 | 1202.444 |
| 50 | 1024.899 | 995.815 | 902.526 | 836.244 | 804.119 |
| 60 | 647.197 | 621.425 | 557.777 | 506.082 | 488.529 |
| 70 | 334.573 | 312.534 | 276.886 | 255.510 | 247.064 |
| 80 | 107.139 | 99.883 | 92.491 | 86.229 | 86.123 |
| 90 | 7.316 | 8.671 | 9.228 | 9.921 | 9.725 |
| 100 | 1.716 | 3.131 | 3.297 | 3.161 | 2.800 |
| 110 | 1.280 | 1.490 | 1.596 | 1.927 | 1.475 |
| 120 | 0.482 | 0.497 | 0.677 | 0.662 | 0.753 |
| 130 | 0.437 | 0.391 | 0.361 | 0.437 | 0.452 |
| 140 | 0.437 | 0.467 | 0.346 | 0.437 | 0.437 |
| 150 | 0.361 | 0.422 | 0.406 | 0.437 | 0.346 |
| 160 | 0.361 | 0.542 | 0.452 | 0.452 | 0.376 |
| 170 | 0.286 | 0.617 | 0.406 | 0.316 | 0.542 |
| 180 | 0.346 | 0.346 | 0.346 | 0.346 | 0.346 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 852.38 | N.A. | 17.40 |
| 0-30 | 1728.8 | N.A. | 35.40 |
| 0-40 | 2677.98 | N.A. | 54.80 |
| 0-60 | 4200.41 | N.A. | 85.90 |
| 0-80 | 4820.71 | N.A. | 98.60 |
| 0-90 | 4876.84 | N.A. | 99.80 |
| 10-90 | 4649.62 | N.A. | 95.10 |
| 20-40 | 1825.6 | N.A. | 37.30 |
| 20-50 | 2686.12 | N.A. | 54.90 |
| 40-70 | 1942.91 | N.A. | 39.70 |
| 60-80 | 620.30 | N.A. | 12.70 |
| 70-80 | 199.81 | N.A. | 4.10 |
| 80-90 | 56.13 | N.A. | 1.10 |
| 90-110 | 8.98 | N.A. | 0.20 |
| 90-120 | 10.08 | N.A. | 0.20 |
| 90-130 | 10.54 | N.A. | 0.20 |
| 90-150 | 11.12 | N.A. | 0.20 |
| 90-180 | 11.48 | N.A. | 0.20 |
| 110-180 | 2.50 | N.A. | 0.10 |
| 0-180 | 4888.32 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 227.22 |
| 10-20 | 625.16 |
| 20-30 | 876.41 |
| 30-40 | 949.19 |
| 40-50 | 860.52 |
| 50-60 | 661.91 |
| 60-70 | 420.48 |
| 70-80 | 199.81 |
| 80-90 | 56.13 |
| 90-100 | 6.57 |
| 100-110 | 2.41 |
| 110-120 | 1.10 |
| 120-130 | 0.46 |
| 130-140 | 0.32 |
| 140-150 | 0.26 |
| 150-160 | 0.20 |
| 160-170 | 0.13 |
| 170-180 | 0.04 |

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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 | 121 | 121 | 121 | 121 | 118 | 118 | 118 | 118 | 113 | 113 | 113 | 108 | 108 | 108 | 104 | 104 | 104 | 102 |
| 1 | 112 | 108 | 104 | 101 | 110 | 106 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 94 | 92 | 90 | 88 |
| 2 | 103 | 96 | 90 | 84 | 101 | 94 | 88 | 83 | 90 | 85 | 81 | 87 | 83 | 79 | 84 | 81 | 78 | 76 |
| 3 | 95 | 85 | 78 | 72 | 93 | 84 | 77 | 71 | 81 | 75 | 70 | 78 | 73 | 69 | 75 | 71 | 68 | 65 |
| 4 | 88 | 77 | 68 | 62 | 85 | 75 | 68 | 62 | 73 | 66 | 61 | 70 | 65 | 60 | 68 | 63 | 59 | 57 |
| 5 | 81 | 69 | 61 | 54 | 79 | 68 | 60 | 54 | 66 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 52 | 50 |
| 6 | 75 | 63 | 54 | 48 | 74 | 62 | 54 | 48 | 60 | 53 | 48 | 58 | 52 | 47 | 57 | 51 | 47 | 45 |
| 7 | 70 | 57 | 49 | 43 | 69 | 57 | 49 | 43 | 55 | 48 | 43 | 54 | 47 | 42 | 52 | 46 | 42 | 40 |
| 8 | 66 | 53 | 45 | 39 | 64 | 52 | 44 | 39 | 51 | 44 | 39 | 49 | 43 | 38 | 48 | 42 | 38 | 36 |
| 9 | 62 | 49 | 41 | 35 | 60 | 48 | 40 | 35 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 35 | 33 |
| 10 | 58 | 45 | 37 | 32 | 57 | 45 | 37 | 32 | 44 | 37 | 32 | 43 | 36 | 32 | 42 | 36 | 32 | 30 |

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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

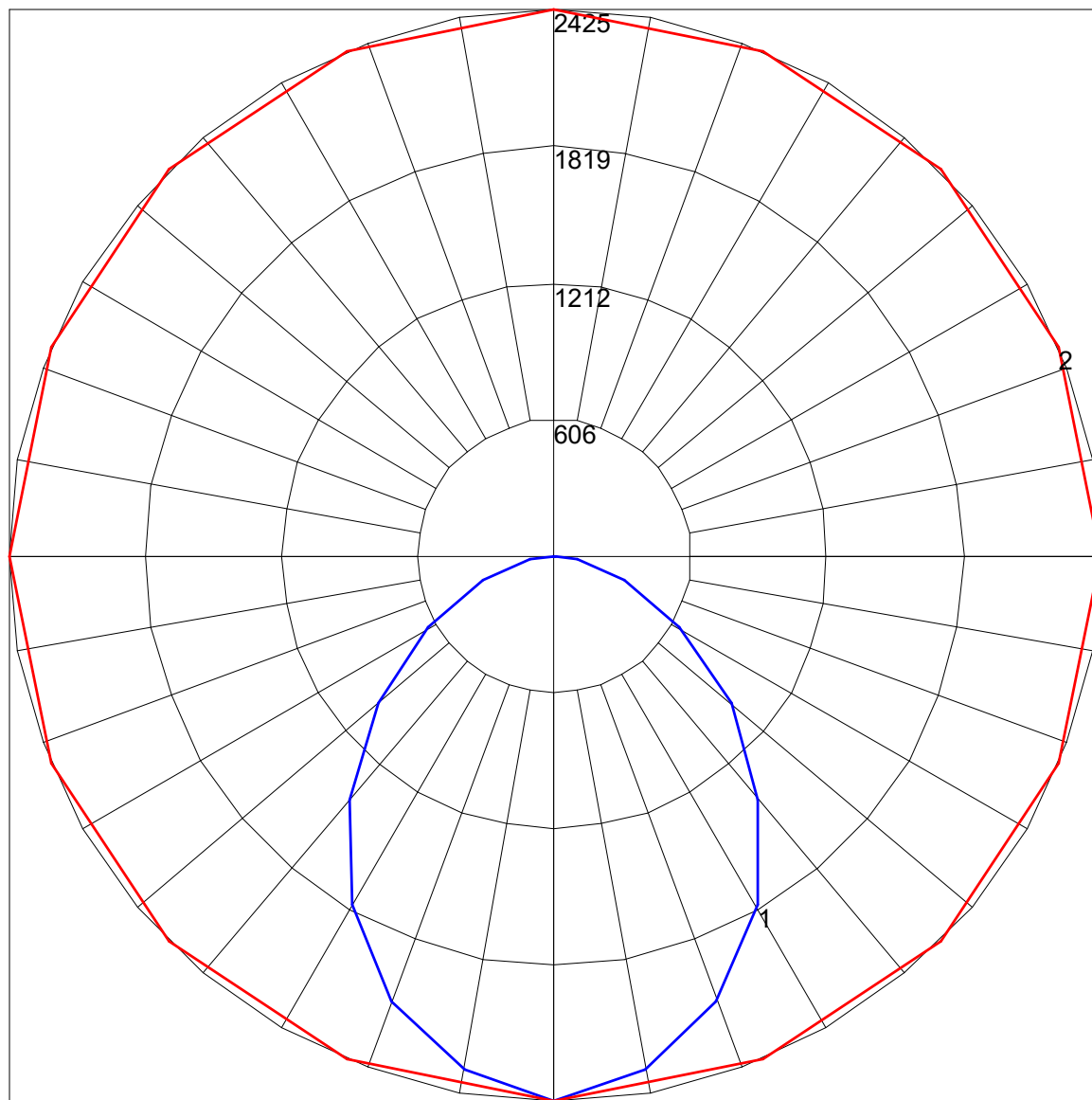
| X=2H | Y=2H | 15.4 | 16.9 | 15.7 | 17.2 | 17.5 | 13.9 | 15.4 | 14.3 | 15.7 | 16.0 |
|------|------|------|------|------|------|------|------|------|------|------|------|
| | 3H | 16.6 | 17.9 | 17.0 | 18.3 | 18.6 | 15.0 | 16.4 | 15.4 | 16.7 | 17.1 |
| | 4H | 17.0 | 18.2 | 17.4 | 18.6 | 19.0 | 15.4 | 16.7 | 15.8 | 17.0 | 17.4 |
| | 6H | 17.2 | 18.4 | 17.6 | 18.7 | 19.1 | 15.6 | 16.8 | 16.0 | 17.2 | 17.5 |
| | 8H | 17.2 | 18.3 | 17.7 | 18.7 | 19.1 | 15.7 | 16.8 | 16.1 | 17.2 | 17.6 |
| | 12H | 17.3 | 18.3 | 17.7 | 18.7 | 19.1 | 15.7 | 16.8 | 16.1 | 17.2 | 17.6 |

UGR Viewed Endwise

| | | | | | | | | | | | |
|-----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H | 15.6 | 16.8 | 16.0 | 17.2 | 17.6 | 14.3 | 15.6 | 14.7 | 15.9 | 16.3 |
| | 3H | 16.9 | 18.0 | 17.4 | 18.4 | 18.8 | 15.6 | 16.7 | 16.0 | 17.1 | 17.5 |
| | 4H | 17.4 | 18.4 | 17.9 | 18.8 | 19.2 | 16.1 | 17.0 | 16.5 | 17.4 | 17.8 |
| | 6H | 17.7 | 18.5 | 18.2 | 19.0 | 19.4 | 16.3 | 17.1 | 16.8 | 17.6 | 18.0 |
| | 8H | 17.8 | 18.5 | 18.2 | 19.0 | 19.5 | 16.4 | 17.2 | 16.9 | 17.6 | 18.1 |
| | 12H | 17.8 | 18.5 | 18.3 | 19.0 | 19.5 | 16.5 | 17.1 | 16.9 | 17.6 | 18.1 |
| 8H | 4H | 17.5 | 18.2 | 17.9 | 18.7 | 19.1 | 16.2 | 16.9 | 16.6 | 17.4 | 17.8 |
| | 6H | 17.8 | 18.4 | 18.3 | 18.9 | 19.4 | 16.5 | 17.1 | 17.0 | 17.6 | 18.1 |
| | 8H | 17.9 | 18.4 | 18.4 | 19.0 | 19.4 | 16.6 | 17.1 | 17.1 | 17.7 | 18.1 |
| | 12H | 18.0 | 18.5 | 18.5 | 19.0 | 19.5 | 16.7 | 17.2 | 17.2 | 17.7 | 18.2 |
| 12H | 4H | 17.4 | 18.1 | 17.9 | 18.6 | 19.1 | 16.1 | 16.8 | 16.6 | 17.3 | 17.8 |
| | 6H | 17.8 | 18.3 | 18.3 | 18.8 | 19.3 | 16.5 | 17.0 | 17.0 | 17.5 | 18.0 |
| | 8H | 17.9 | 18.4 | 18.4 | 18.9 | 19.4 | 16.6 | 17.1 | 17.1 | 17.6 | 18.2 |

Maximum UGR = 19.5

POLAR GRAPH



Maximum Candela = 2424.926 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.)