**IES INDOOR REPORT**
**PHOTOMETRIC FILENAME : MCTVG-14-L31-930-CS-SAF12125-PC250-DIM-UNV_.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19835.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2026-04-29
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 6-42 LED 22" ARRAYS 1x4' RECESSED WHITE REFLECTOR LUMINAIRE
[MORE] PAT12 ACRYLIC LENS w/CLEAR ACRYLIC LENS IN DOOR
[LUMCAT] MCTVG-14-L31-930-CS-SAF12125-PC250-DIM-UNV_
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Healthcare, Institutional, Office, Direct, Clean Room
[_SEARCH_MOUNTING] Recessed

**CHARACTERISTICS**

| | |
|---|---|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 2589 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 102 |
| Total Luminaire Watts | 25.3 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.24 |
| Spacing Criterion (90-270) | 1.22 |
| Spacing Criterion (Diagonal) | 1.30 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 3.98 ft |
| Luminous Width (90-270) | 0.98 ft |
| Luminous Height | 0.00 ft |

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

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---|---|---|---|
| 45 | 2510 | 2496 | 2428 |
| 55 | 2075 | 2034 | 1920 |
| 65 | 1504 | 1487 | 1379 |
| 75 | 896 | 922 | 914 |
| 85 | 196 | 270 | 278 |

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**CANDELA TABULATION**

| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
|---|---|---|---|---|---|
| **0** | 1127.768 | 1127.768 | 1127.768 | 1127.768 | 1127.768 |
| **5** | 1133.364 | 1126.276 | 1119.686 | 1117.075 | 1117.324 |
| **10** | 1116.453 | 1108.744 | 1104.392 | 1101.532 | 1102.030 |
| **15** | 1088.974 | 1081.887 | 1079.897 | 1073.805 | 1076.913 |
| **20** | 1049.185 | 1043.465 | 1043.714 | 1035.135 | 1038.741 |
| **25** | 994.848 | 991.491 | 989.750 | 981.171 | 985.896 |
| **30** | 929.694 | 927.953 | 922.109 | 911.167 | 916.514 |
| **35** | 848.500 | 850.240 | 839.423 | 822.015 | 831.962 |
| **40** | 751.763 | 760.093 | 742.686 | 723.289 | 735.225 |
| **45** | 647.317 | 656.767 | 643.835 | 620.335 | 626.303 |
| **50** | 541.379 | 536.529 | 538.146 | 512.034 | 511.288 |
| **55** | 434.073 | 423.628 | 425.493 | 401.371 | 401.620 |
| **60** | 327.762 | 320.425 | 318.436 | 296.552 | 300.407 |
| **65** | 231.895 | 227.294 | 229.160 | 212.498 | 212.622 |
| **70** | 151.695 | 147.219 | 152.566 | 145.851 | 142.494 |
| **75** | 84.552 | 83.681 | 87.038 | 90.147 | 86.292 |
| **80** | 35.810 | 34.567 | 39.167 | 44.763 | 40.038 |
| **85** | 6.217 | 6.963 | 8.579 | 12.683 | 8.828 |
| **90** | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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**ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---|---|---|---|
| 0-20 | 411.07 | N.A. | 15.90 |
| 0-30 | 865.57 | N.A. | 33.40 |
| 0-40 | 1388.28 | N.A. | 53.60 |
| 0-60 | 2254.25 | N.A. | 87.10 |
| 0-80 | 2573.28 | N.A. | 99.40 |
| 0-90 | 2588.78 | N.A. | 100.00 |
| 10-90 | 2482.18 | N.A. | 95.90 |
| 20-40 | 977.21 | N.A. | 37.70 |
| 20-50 | 1469.02 | N.A. | 56.70 |
| 40-70 | 1090.01 | N.A. | 42.10 |
| 60-80 | 319.03 | N.A. | 12.30 |
| 70-80 | 94.99 | N.A. | 3.70 |
| 80-90 | 15.50 | N.A. | 0.60 |
| 90-110 | 0.00 | N.A. | 0.00 |
| 90-120 | 0.00 | N.A. | 0.00 |
| 90-130 | 0.00 | N.A. | 0.00 |
| 90-150 | 0.00 | N.A. | 0.00 |
| 90-180 | 0.00 | N.A. | 0.00 |
| 110-180 | 0.00 | N.A. | 0.00 |
| 0-180 | 2588.78 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

| Zone | Lumens |
|---|---|
| 0-10 | 106.60 |
| 10-20 | 304.47 |
| 20-30 | 454.51 |
| 30-40 | 522.71 |
| 40-50 | 491.81 |
| 50-60 | 374.16 |
| 60-70 | 224.04 |
| 70-80 | 94.99 |
| 80-90 | 15.50 |
| 90-100 | 0.00 |
| 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 | 110 | 106 | 102 | 99 | 108 | 104 | 101 | 98 | 100 | 97 | 94 | 96 | 94 | 92 | 92 | 91 | 89 | 87 |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 78 | 83 | 79 | 77 | 75 |
| 3 | 93 | 84 | 76 | 70 | 91 | 82 | 75 | 70 | 79 | 73 | 69 | 77 | 72 | 67 | 74 | 70 | 66 | 64 |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 66 | 60 | 71 | 65 | 59 | 69 | 63 | 59 | 67 | 62 | 58 | 56 |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 53 | 64 | 57 | 52 | 62 | 56 | 52 | 61 | 55 | 51 | 49 |
| 6 | 74 | 61 | 53 | 47 | 72 | 60 | 52 | 46 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 45 | 43 |
| 7 | 68 | 56 | 47 | 42 | 67 | 55 | 47 | 41 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 43 | 37 | 49 | 42 | 37 | 48 | 41 | 37 | 47 | 41 | 37 | 35 |
| 9 | 60 | 47 | 39 | 34 | 58 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 33 | 43 | 37 | 33 | 31 |
| 10 | 56 | 43 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 30 | 40 | 34 | 30 | 29 |

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**UGR TABLE - CORRECTED**

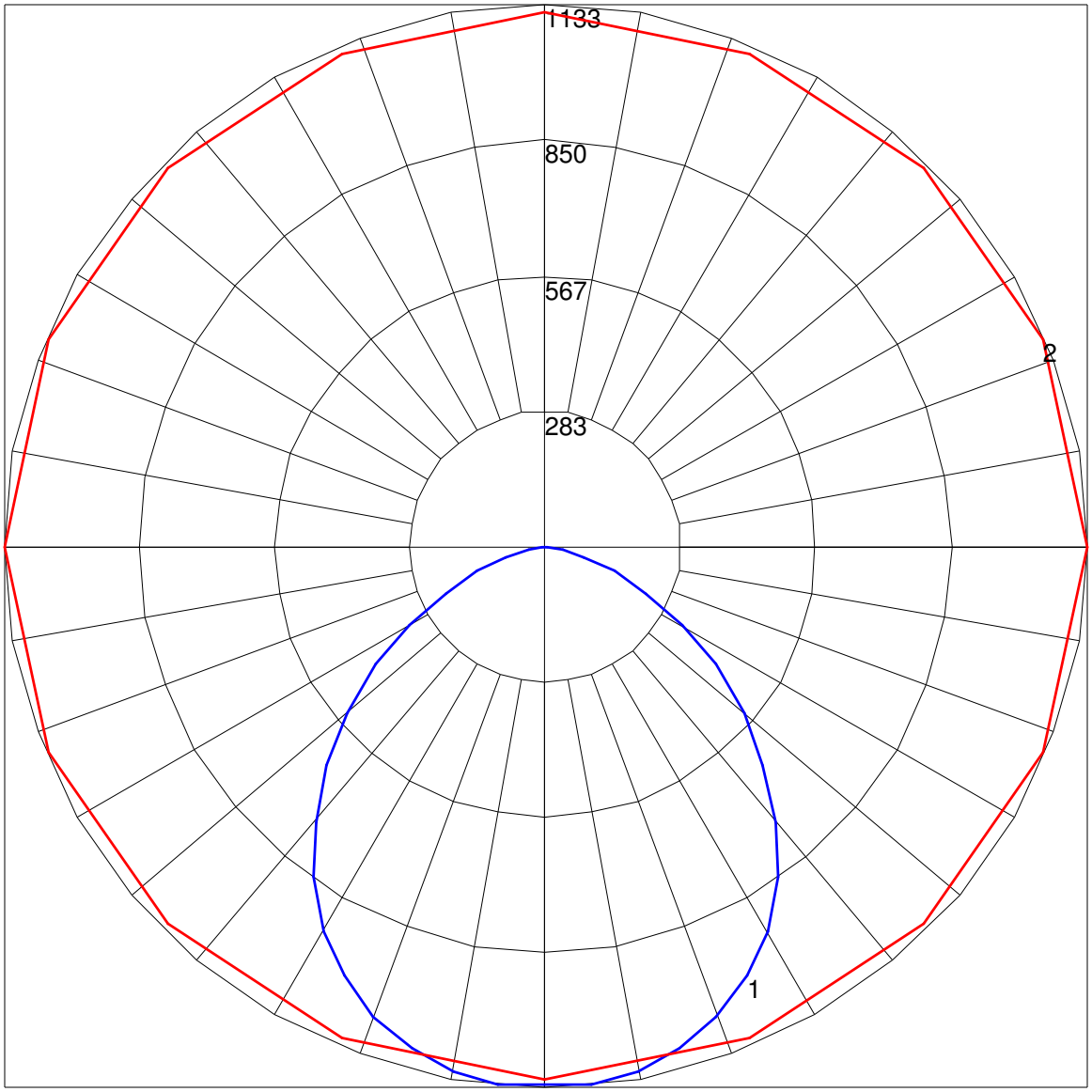
| Reflectances | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ceiling Cavity | | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| Walls | | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| Floor Cavity | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Room Size | | UGR Viewed Crosswise | | | | | UGR Viewed Endwise | | | | |
| X=2H | Y=2H | 14.1 | 15.6 | 14.4 | 15.9 | 16.2 | 13.6 | 15.1 | 14.0 | 15.4 | 15.7 |
| | 3H | 15.1 | 16.5 | 15.5 | 16.8 | 17.2 | 14.7 | 16.1 | 15.1 | 16.4 | 16.8 |
| | 4H | 15.4 | 16.7 | 15.8 | 17.0 | 17.4 | 15.0 | 16.3 | 15.4 | 16.7 | 17.0 |
| | 6H | 15.5 | 16.7 | 15.9 | 17.1 | 17.5 | 15.2 | 16.4 | 15.6 | 16.8 | 17.1 |
| | 8H | 15.5 | 16.7 | 16.0 | 17.0 | 17.4 | 15.2 | 16.4 | 15.7 | 16.7 | 17.1 |
| | 12H | 15.5 | 16.6 | 15.9 | 17.0 | 17.4 | 15.2 | 16.3 | 15.7 | 16.7 | 17.1 |
| 4H | 2H | 14.5 | 15.7 | 14.9 | 16.1 | 16.5 | 14.1 | 15.3 | 14.5 | 15.7 | 16.1 |
| | 3H | 15.7 | 16.8 | 16.1 | 17.2 | 17.6 | 15.4 | 16.4 | 15.8 | 16.8 | 17.2 |
| | 4H | 16.1 | 17.0 | 16.5 | 17.4 | 17.9 | 15.8 | 16.7 | 16.2 | 17.2 | 17.6 |
| | 6H | 16.2 | 17.1 | 16.7 | 17.5 | 18.0 | 16.1 | 16.9 | 16.5 | 17.3 | 17.8 |
| | 8H | 16.2 | 17.0 | 16.7 | 17.4 | 17.9 | 16.1 | 16.9 | 16.5 | 17.3 | 17.8 |
| | 12H | 16.2 | 16.9 | 16.7 | 17.4 | 17.9 | 16.1 | 16.8 | 16.6 | 17.3 | 17.7 |
| 8H | 4H | 16.2 | 16.9 | 16.6 | 17.4 | 17.8 | 15.9 | 16.7 | 16.4 | 17.1 | 17.6 |
| | 6H | 16.4 | 17.0 | 16.9 | 17.5 | 18.0 | 16.2 | 16.9 | 16.7 | 17.4 | 17.8 |
| | 8H | 16.4 | 17.0 | 16.9 | 17.5 | 18.0 | 16.3 | 16.9 | 16.8 | 17.4 | 17.9 |
| | 12H | 16.4 | 16.9 | 16.9 | 17.4 | 18.0 | 16.3 | 16.8 | 16.9 | 17.3 | 17.9 |
| 12H | 4H | 16.2 | 16.8 | 16.6 | 17.3 | 17.8 | 15.9 | 16.6 | 16.4 | 17.1 | 17.5 |
| | 6H | 16.4 | 16.9 | 16.9 | 17.4 | 17.9 | 16.2 | 16.8 | 16.8 | 17.3 | 17.8 |
| | 8H | 16.4 | 16.9 | 16.9 | 17.4 | 18.0 | 16.3 | 16.8 | 16.8 | 17.3 | 17.9 |

Maximum UGR = 18.0

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**POLAR GRAPH**




Maximum Candela = 1133.364 Located At Horizontal Angle = 0, Vertical Angle = 5
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

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