**IES INDOOR REPORT**
**PHOTOMETRIC FILENAME : MCTVG-22-L65-835-CS-SAF125-PC250-DIM-UNV_.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19834.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2026-05-06
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 3-42 LED 22" ARRAYS 2x2' RECESSED WHITE REFL LUMINAIRE
[MORE] FROSTED ACRYLIC LENS w/CLEAR ACRYLIC LENS IN DOOR
[LUMCAT] MCTVG-22-L65-835-CS-SAF125-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 | 6553 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 112 |
| Total Luminaire Watts | 58.5 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.20 |
| Spacing Criterion (90-270) | 1.20 |
| Spacing Criterion (Diagonal) | 1.30 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 1.92 ft |
| Luminous Width (90-270) | 1.92 ft |
| Luminous Height | 0.00 ft |

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

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---|---|---|---|
| 45 | 6548 | 6568 | 6574 |
| 55 | 5732 | 5579 | 5686 |
| 65 | 4443 | 4332 | 4472 |
| 75 | 2843 | 2945 | 2724 |
| 85 | 562 | 1065 | 866 |

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**CANDELA TABULATION**

| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
|---|---|---|---|---|---|
| **0** | 2789.435 | 2789.435 | 2789.435 | 2789.435 | 2789.435 |
| **5** | 2800.629 | 2782.789 | 2768.446 | 2761.800 | 2762.499 |
| **10** | 2752.355 | 2737.312 | 2725.069 | 2719.472 | 2712.126 |
| **15** | 2671.197 | 2657.205 | 2652.657 | 2642.512 | 2637.965 |
| **20** | 2556.108 | 2549.811 | 2549.111 | 2521.826 | 2526.023 |
| **25** | 2409.884 | 2406.736 | 2401.139 | 2385.397 | 2391.694 |
| **30** | 2241.273 | 2234.277 | 2219.235 | 2219.235 | 2225.181 |
| **35** | 2037.680 | 2031.733 | 2025.436 | 2018.790 | 2020.889 |
| **40** | 1816.246 | 1816.246 | 1818.695 | 1808.200 | 1808.200 |
| **45** | 1587.117 | 1591.314 | 1592.014 | 1577.671 | 1593.413 |
| **50** | 1356.937 | 1345.393 | 1349.241 | 1324.055 | 1357.987 |
| **55** | 1127.108 | 1104.020 | 1097.024 | 1098.773 | 1118.013 |
| **60** | 879.788 | 870.693 | 853.202 | 878.039 | 884.685 |
| **65** | 643.662 | 652.757 | 627.570 | 646.461 | 647.860 |
| **70** | 439.019 | 437.270 | 432.373 | 428.175 | 421.179 |
| **75** | 252.218 | 242.423 | 261.313 | 247.670 | 241.723 |
| **80** | 100.747 | 99.698 | 119.987 | 122.786 | 112.991 |
| **85** | 16.791 | 21.689 | 31.833 | 34.282 | 25.886 |
| **90** | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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**ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---|---|---|---|
| 0-20 | 1010.4 | N.A. | 15.40 |
| 0-30 | 2113.7 | N.A. | 32.30 |
| 0-40 | 3380.66 | N.A. | 51.60 |
| 0-60 | 5592.45 | N.A. | 85.30 |
| 0-80 | 6507.77 | N.A. | 99.30 |
| 0-90 | 6553.18 | N.A. | 100.00 |
| 10-90 | 6289.85 | N.A. | 96.00 |
| 20-40 | 2370.26 | N.A. | 36.20 |
| 20-50 | 3592.53 | N.A. | 54.80 |
| 40-70 | 2852.12 | N.A. | 43.50 |
| 60-80 | 915.32 | N.A. | 14.00 |
| 70-80 | 274.99 | N.A. | 4.20 |
| 80-90 | 45.41 | N.A. | 0.70 |
| 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 | 6553.18 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

| Zone | Lumens |
|---|---|
| 0-10 | 263.34 |
| 10-20 | 747.06 |
| 20-30 | 1103.31 |
| 30-40 | 1266.96 |
| 40-50 | 1222.27 |
| 50-60 | 989.53 |
| 60-70 | 640.33 |
| 70-80 | 274.99 |
| 80-90 | 45.41 |
| 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 | 107 | 104 | 100 | 97 | 99 | 97 | 94 | 95 | 93 | 91 | 92 | 90 | 88 | 86 |
| 2 | 101 | 93 | 87 | 82 | 98 | 92 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 77 | 82 | 79 | 76 | 74 |
| 3 | 93 | 83 | 75 | 69 | 90 | 81 | 74 | 69 | 78 | 72 | 67 | 76 | 71 | 66 | 73 | 69 | 65 | 63 |
| 4 | 85 | 74 | 66 | 59 | 83 | 73 | 65 | 59 | 70 | 64 | 58 | 68 | 62 | 57 | 66 | 61 | 57 | 55 |
| 5 | 79 | 66 | 58 | 52 | 77 | 65 | 57 | 51 | 63 | 56 | 51 | 61 | 55 | 50 | 60 | 54 | 50 | 48 |
| 6 | 73 | 60 | 52 | 45 | 71 | 59 | 51 | 45 | 57 | 50 | 45 | 56 | 49 | 45 | 54 | 49 | 44 | 42 |
| 7 | 68 | 55 | 46 | 40 | 66 | 54 | 46 | 40 | 52 | 45 | 40 | 51 | 45 | 40 | 50 | 44 | 39 | 38 |
| 8 | 63 | 50 | 42 | 36 | 62 | 49 | 42 | 36 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 36 | 34 |
| 9 | 59 | 46 | 38 | 33 | 58 | 46 | 38 | 33 | 44 | 37 | 33 | 43 | 37 | 32 | 42 | 37 | 32 | 30 |
| 10 | 55 | 43 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 30 | 39 | 34 | 29 | 28 |

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**UGR TABLE - CORRECTED**

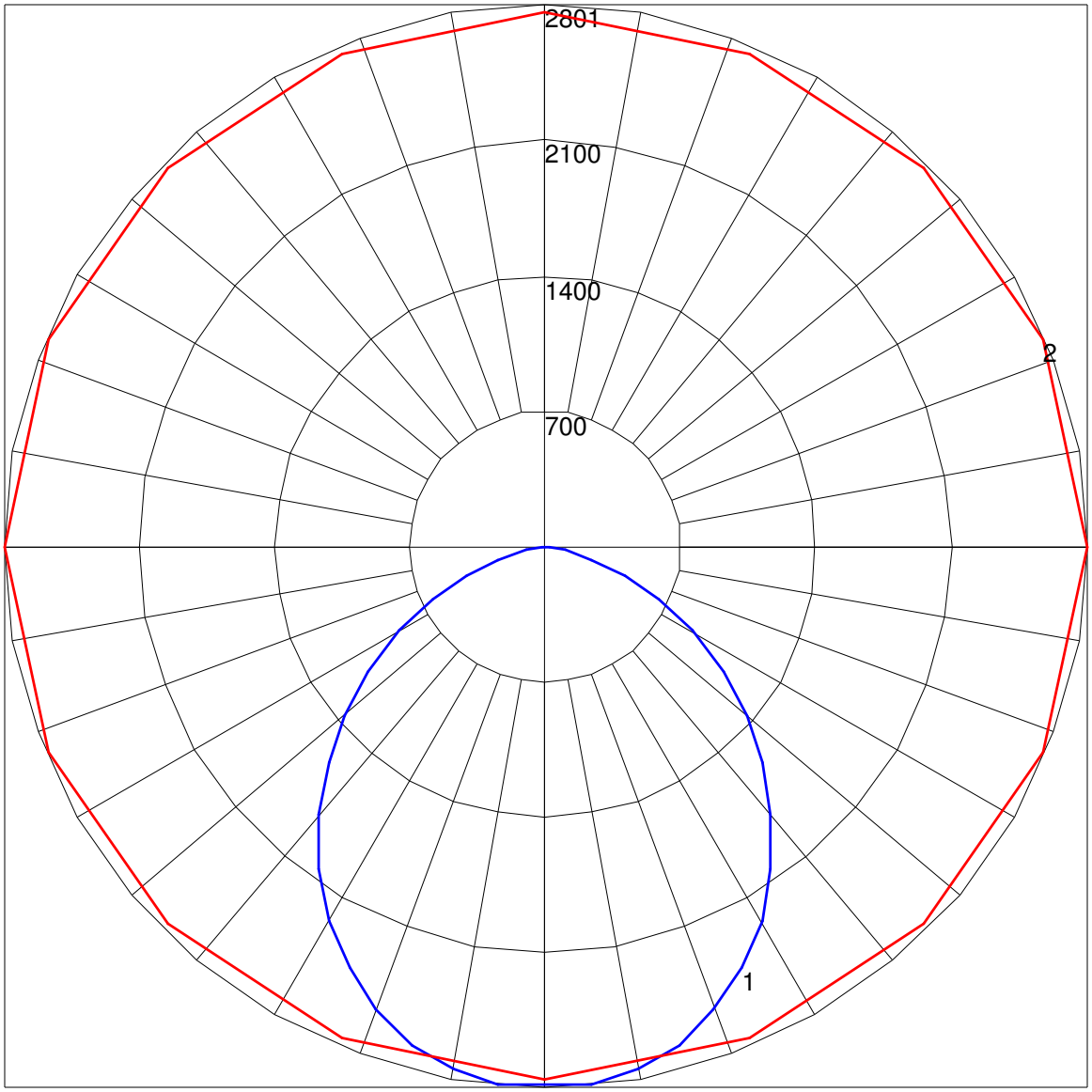
| Reflectances | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ceiling Cavity | | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| Walls | | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| Floor Cavity | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Room Size | | UGR Viewed Crosswise | | | | | UGR Viewed Endwise | | | | |
| X=2H | Y=2H | 17.8 | 19.3 | 18.1 | 19.6 | 19.9 | 17.8 | 19.3 | 18.1 | 19.6 | 20.0 |
| | 3H | 19.0 | 20.4 | 19.4 | 20.8 | 21.1 | 19.0 | 20.4 | 19.4 | 20.7 | 21.1 |
| | 4H | 19.4 | 20.7 | 19.8 | 21.0 | 21.4 | 19.3 | 20.6 | 19.7 | 21.0 | 21.3 |
| | 6H | 19.5 | 20.7 | 19.9 | 21.1 | 21.5 | 19.5 | 20.7 | 19.9 | 21.0 | 21.4 |
| | 8H | 19.5 | 20.7 | 19.9 | 21.0 | 21.4 | 19.5 | 20.6 | 19.9 | 21.0 | 21.4 |
| | 12H | 19.5 | 20.6 | 19.9 | 21.0 | 21.4 | 19.5 | 20.6 | 19.9 | 21.0 | 21.4 |
| 4H | 2H | 18.2 | 19.5 | 18.6 | 19.9 | 20.2 | 18.2 | 19.5 | 18.6 | 19.9 | 20.2 |
| | 3H | 19.7 | 20.7 | 20.1 | 21.1 | 21.5 | 19.6 | 20.7 | 20.0 | 21.1 | 21.5 |
| | 4H | 20.1 | 21.0 | 20.5 | 21.5 | 21.9 | 20.0 | 21.0 | 20.5 | 21.4 | 21.9 |
| | 6H | 20.3 | 21.1 | 20.7 | 21.5 | 22.0 | 20.3 | 21.1 | 20.7 | 21.6 | 22.0 |
| | 8H | 20.3 | 21.1 | 20.7 | 21.5 | 22.0 | 20.3 | 21.1 | 20.8 | 21.5 | 22.0 |
| | 12H | 20.3 | 21.0 | 20.7 | 21.4 | 21.9 | 20.3 | 21.0 | 20.8 | 21.5 | 22.0 |
| 8H | 4H | 20.2 | 21.0 | 20.7 | 21.4 | 21.9 | 20.2 | 21.0 | 20.6 | 21.4 | 21.9 |
| | 6H | 20.5 | 21.1 | 20.9 | 21.6 | 22.1 | 20.5 | 21.1 | 21.0 | 21.6 | 22.1 |
| | 8H | 20.5 | 21.1 | 21.0 | 21.6 | 22.1 | 20.5 | 21.1 | 21.1 | 21.6 | 22.1 |
| | 12H | 20.5 | 21.0 | 21.0 | 21.5 | 22.0 | 20.6 | 21.1 | 21.1 | 21.6 | 22.1 |
| 12H | 4H | 20.2 | 20.9 | 20.7 | 21.4 | 21.9 | 20.2 | 20.9 | 20.6 | 21.3 | 21.8 |
| | 6H | 20.5 | 21.0 | 21.0 | 21.5 | 22.0 | 20.5 | 21.1 | 21.0 | 21.5 | 22.1 |
| | 8H | 20.5 | 21.0 | 21.0 | 21.5 | 22.1 | 20.6 | 21.1 | 21.1 | 21.6 | 22.1 |

Maximum UGR = 22.1

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**POLAR GRAPH**




Maximum Candela = 2800.629 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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