



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4RG-8-00-L12-835-F-EM10WRM-DIM-UNV_(EMERGENCY MODE).IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]GEN from BALLABS TEST NO. 20647.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 03-28-2024
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 8' RECESSED GRID LUMINAIRE
[MORE] WHITE ALUM BODY w/WHITE REFL & FLAT FROST LENS
[LUMCAT] MX4RG-8-00-L12-835-F-EM10WRM-DIM-UNV(EMERGENCY MODE)

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 1180 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 118 |
| Total Luminaire Watts | 10 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.20 |
| Spacing Criterion (90-270) | 1.16 |
| Spacing Criterion (Diagonal) | 1.30 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 8.00 ft |
| Luminous Width (90-270) | 0.32 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 1704 | 1668 | 1599 |
| 55 | 1578 | 1483 | 1459 |
| 65 | 1331 | 1284 | 1243 |
| 75 | 993 | 982 | 993 |
| 85 | 459 | 459 | 459 |

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| | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
|-----------|------------|-------------|-------------|-------------|-------------|
| 0 | 482.942 | 482.942 | 482.942 | 482.942 | 482.942 |
| 5 | 485.644 | 480.240 | 476.863 | 476.188 | 476.188 |
| 10 | 476.863 | 471.460 | 467.407 | 466.732 | 466.056 |
| 15 | 463.354 | 456.600 | 451.872 | 451.196 | 449.170 |
| 20 | 439.714 | 434.986 | 433.635 | 430.933 | 427.556 |
| 25 | 414.047 | 409.994 | 407.292 | 403.240 | 401.213 |
| 30 | 385.678 | 380.950 | 376.222 | 373.520 | 370.819 |
| 35 | 355.283 | 352.582 | 344.476 | 345.827 | 338.397 |
| 40 | 321.511 | 319.485 | 316.783 | 308.678 | 304.625 |
| 45 | 285.037 | 282.335 | 278.958 | 270.853 | 267.476 |
| 50 | 247.888 | 246.537 | 239.782 | 235.730 | 233.028 |
| 55 | 214.116 | 209.388 | 201.282 | 201.282 | 197.905 |
| 60 | 168.861 | 170.212 | 164.133 | 162.106 | 158.054 |
| 65 | 133.062 | 131.711 | 128.334 | 125.633 | 124.282 |
| 70 | 98.615 | 95.913 | 92.536 | 91.185 | 90.509 |
| 75 | 60.790 | 59.439 | 60.114 | 58.764 | 60.790 |
| 80 | 31.070 | 29.720 | 31.070 | 33.772 | 31.070 |
| 85 | 9.456 | 9.456 | 9.456 | 11.483 | 9.456 |
| 90 | 0.675 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : MX4RG-8-00-L12-835-F-EM10WRM-DIM-UNV_(EMERGENCY MODE).IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 173.29 | N.A. | 14.70 |
| 0-30 | 360.68 | N.A. | 30.60 |
| 0-40 | 577.83 | N.A. | 49.00 |
| 0-60 | 974.17 | N.A. | 82.50 |
| 0-80 | 1166.26 | N.A. | 98.80 |
| 0-90 | 1180.25 | N.A. | 100.00 |
| 10-90 | 1134.85 | N.A. | 96.20 |
| 20-40 | 404.54 | N.A. | 34.30 |
| 20-50 | 618.69 | N.A. | 52.40 |
| 40-70 | 523.95 | N.A. | 44.40 |
| 60-80 | 192.09 | N.A. | 16.30 |
| 70-80 | 64.48 | N.A. | 5.50 |
| 80-90 | 13.99 | N.A. | 1.20 |
| 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 | 1180.25 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 45.40 |
| 10-20 | 127.89 |
| 20-30 | 187.39 |
| 30-40 | 217.15 |
| 40-50 | 214.15 |
| 50-60 | 182.18 |
| 60-70 | 127.61 |
| 70-80 | 64.48 |
| 80-90 | 13.99 |
| 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 | 109 | 105 | 101 | 97 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 86 | 80 | 97 | 90 | 84 | 79 | 87 | 82 | 77 | 84 | 79 | 76 | 81 | 77 | 74 | 72 |
| 3 | 92 | 81 | 74 | 67 | 89 | 80 | 73 | 67 | 77 | 71 | 66 | 74 | 69 | 64 | 72 | 67 | 63 | 61 |
| 4 | 84 | 73 | 64 | 58 | 82 | 71 | 63 | 57 | 69 | 62 | 56 | 66 | 60 | 56 | 64 | 59 | 55 | 53 |
| 5 | 77 | 65 | 56 | 50 | 75 | 64 | 56 | 50 | 62 | 55 | 49 | 60 | 54 | 49 | 58 | 52 | 48 | 46 |
| 6 | 72 | 59 | 50 | 44 | 70 | 58 | 50 | 44 | 56 | 49 | 43 | 54 | 48 | 43 | 53 | 47 | 42 | 40 |
| 7 | 67 | 53 | 45 | 39 | 65 | 53 | 44 | 39 | 51 | 44 | 38 | 50 | 43 | 38 | 48 | 42 | 38 | 36 |
| 8 | 62 | 49 | 41 | 35 | 61 | 48 | 40 | 35 | 47 | 40 | 34 | 46 | 39 | 34 | 44 | 39 | 34 | 32 |
| 9 | 58 | 45 | 37 | 31 | 57 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 31 | 29 |
| 10 | 54 | 42 | 34 | 29 | 53 | 41 | 34 | 29 | 40 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 |

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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 |

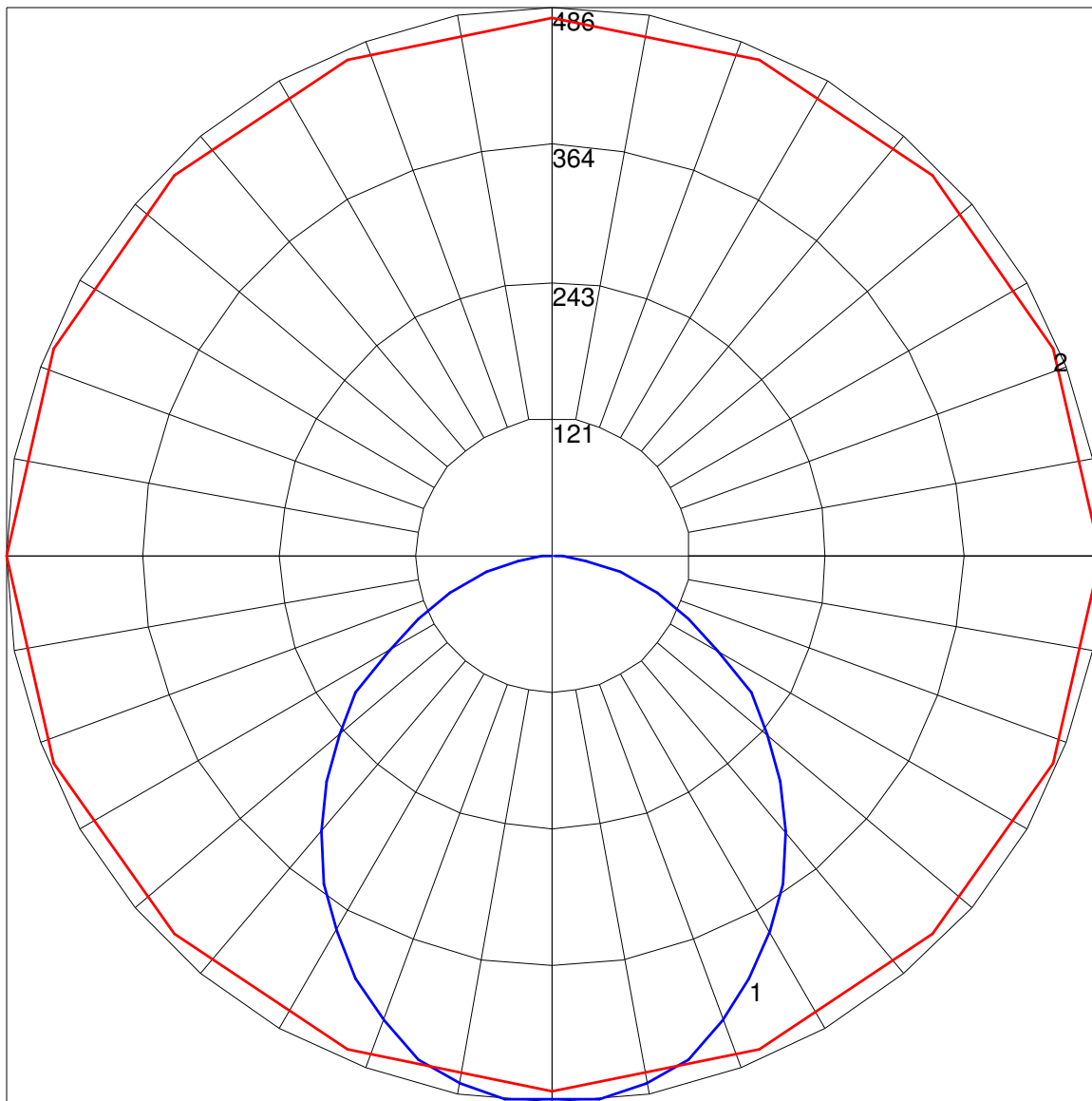
| Room Size | | UGR Viewed Crosswise | | | | | UGR Viewed Endwise | | | | |
|-----------|------|----------------------|------|------|------|------|--------------------|------|------|------|------|
| X=2H | Y=2H | 13.6 | 15.2 | 13.9 | 15.5 | 15.8 | 13.2 | 14.8 | 13.6 | 15.1 | 15.4 |
| | 3H | 15.1 | 16.5 | 15.5 | 16.9 | 17.2 | 14.7 | 16.2 | 15.1 | 16.5 | 16.9 |
| | 4H | 15.6 | 16.9 | 16.0 | 17.3 | 17.7 | 15.3 | 16.6 | 15.7 | 16.9 | 17.3 |
| | 6H | 15.9 | 17.1 | 16.3 | 17.5 | 17.9 | 15.6 | 16.8 | 16.0 | 17.2 | 17.6 |
| | 8H | 15.9 | 17.1 | 16.4 | 17.5 | 17.9 | 15.7 | 16.8 | 16.1 | 17.2 | 17.6 |
| | 12H | 16.0 | 17.1 | 16.4 | 17.5 | 17.9 | 15.7 | 16.8 | 16.1 | 17.2 | 17.6 |
| 4H | 2H | 14.1 | 15.4 | 14.5 | 15.8 | 16.1 | 13.8 | 15.1 | 14.2 | 15.5 | 15.9 |
| | 3H | 15.8 | 16.9 | 16.2 | 17.3 | 17.7 | 15.5 | 16.6 | 15.9 | 17.0 | 17.4 |
| | 4H | 16.4 | 17.4 | 16.9 | 17.8 | 18.3 | 16.1 | 17.1 | 16.6 | 17.6 | 18.0 |
| | 6H | 16.8 | 17.7 | 17.3 | 18.1 | 18.6 | 16.6 | 17.4 | 17.0 | 17.9 | 18.3 |
| | 8H | 16.9 | 17.7 | 17.3 | 18.1 | 18.6 | 16.7 | 17.5 | 17.2 | 17.9 | 18.4 |
| | 12H | 16.9 | 17.7 | 17.4 | 18.1 | 18.6 | 16.7 | 17.5 | 17.2 | 18.0 | 18.4 |
| 8H | 4H | 16.6 | 17.4 | 17.1 | 17.9 | 18.3 | 16.4 | 17.2 | 16.8 | 17.6 | 18.1 |
| | 6H | 17.1 | 17.7 | 17.6 | 18.2 | 18.7 | 16.9 | 17.6 | 17.4 | 18.1 | 18.5 |
| | 8H | 17.2 | 17.8 | 17.7 | 18.3 | 18.8 | 17.1 | 17.7 | 17.6 | 18.2 | 18.7 |
| | 12H | 17.3 | 17.8 | 17.8 | 18.3 | 18.9 | 17.2 | 17.7 | 17.7 | 18.2 | 18.8 |
| 12H | 4H | 16.6 | 17.4 | 17.1 | 17.8 | 18.3 | 16.4 | 17.1 | 16.9 | 17.6 | 18.1 |
| | 6H | 17.1 | 17.7 | 17.6 | 18.2 | 18.7 | 16.9 | 17.5 | 17.5 | 18.0 | 18.5 |
| | 8H | 17.2 | 17.8 | 17.8 | 18.3 | 18.8 | 17.1 | 17.7 | 17.6 | 18.2 | 18.7 |

Maximum UGR = 18.9

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POLAR GRAPH



Maximum Candela = 485.644 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.)