



IES INDOOR REPORT
PHOTOMETRIC FILENAME : SL-4-L3-950-RD-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 21002.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-10-03
[MANUFAC] WILLIAMS INDOOR
[MORE] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 48 INCH LED SLIMLINE ARCHITECTURAL LUMINAIRE
[MORE] 1.5x24"ALUM CHANNEL w/1"WIDE WHITE RADIAL ACRYLIC LENS
[MORE] 0-10V REMOTE DRIVER ENCLOSURE
[LUMCAT] SL-4-L3-950-RD-DIM-UNV
[LAMPCAT] 22 INCH LED ARRAY

CHARACTERISTICS

| | |
|---------------------------------|---------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 1084 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 99 |
| Total Luminaire Watts | 11 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.26 |
| Spacing Criterion (90-270) | 1.28 |
| Spacing Criterion (Diagonal) | 1.38 |
| Basic Luminous Shape | Rectangular w/Sides |
| Luminous Length (0-180) | 4.00 ft |
| Luminous Width (90-270) | 0.13 ft |
| Luminous Height | 0.05 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 6699 | 5399 | 5136 |
| 55 | 6323 | 4831 | 4633 |
| 65 | 5628 | 4152 | 4122 |
| 75 | 4713 | 3418 | 3669 |
| 85 | 2551 | 2834 | 3304 |

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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 | 341.235 | 341.235 | 341.235 | 341.235 | 341.235 |
| 5 | 342.352 | 340.676 | 338.442 | 337.884 | 338.442 |
| 10 | 337.325 | 335.650 | 333.416 | 333.416 | 334.533 |
| 15 | 330.065 | 328.389 | 326.155 | 326.714 | 326.714 |
| 20 | 318.895 | 317.220 | 314.427 | 316.661 | 317.220 |
| 25 | 304.933 | 303.258 | 302.699 | 304.375 | 305.491 |
| 30 | 287.620 | 287.620 | 287.620 | 289.854 | 289.295 |
| 35 | 269.190 | 269.190 | 269.190 | 271.424 | 273.099 |
| 40 | 246.851 | 247.409 | 247.967 | 251.877 | 254.111 |
| 45 | 222.836 | 224.511 | 226.187 | 230.654 | 232.330 |
| 50 | 196.587 | 198.262 | 202.172 | 208.874 | 212.224 |
| 55 | 171.455 | 172.013 | 179.274 | 184.859 | 189.885 |
| 60 | 142.414 | 145.206 | 155.259 | 165.870 | 169.221 |
| 65 | 113.373 | 117.840 | 129.569 | 141.297 | 146.323 |
| 70 | 86.565 | 91.033 | 105.554 | 120.074 | 124.542 |
| 75 | 59.199 | 67.018 | 83.214 | 99.410 | 106.112 |
| 80 | 34.626 | 43.003 | 64.784 | 80.980 | 88.241 |
| 85 | 11.728 | 27.366 | 47.471 | 63.667 | 70.928 |
| 90 | 0.000 | 15.079 | 35.185 | 49.705 | 55.290 |
| 95 | 0.000 | 7.819 | 24.015 | 38.535 | 43.562 |
| 100 | 0.000 | 3.909 | 16.755 | 28.483 | 33.509 |
| 105 | 0.000 | 2.234 | 11.728 | 20.664 | 25.132 |
| 110 | 0.000 | 1.675 | 7.819 | 15.079 | 17.872 |
| 115 | 0.000 | 1.117 | 5.026 | 10.611 | 13.404 |
| 120 | 0.000 | 0.000 | 2.792 | 6.702 | 8.377 |
| 125 | 0.000 | 0.000 | 2.234 | 4.468 | 5.585 |
| 130 | 0.000 | 0.000 | 0.000 | 2.792 | 3.351 |
| 135 | 0.000 | 0.000 | 0.000 | 0.000 | 2.234 |
| 140 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 145 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 150 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 155 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 160 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 165 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 170 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 175 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 180 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 124.59 | N.A. | 11.50 |
| 0-30 | 264.62 | N.A. | 24.40 |
| 0-40 | 433.58 | N.A. | 40.00 |
| 0-60 | 769.44 | N.A. | 71.00 |
| 0-80 | 986.59 | N.A. | 91.00 |
| 0-90 | 1036.84 | N.A. | 95.70 |
| 10-90 | 1004.6 | N.A. | 92.70 |
| 20-40 | 308.99 | N.A. | 28.50 |
| 20-50 | 484.27 | N.A. | 44.70 |
| 40-70 | 464.73 | N.A. | 42.90 |
| 60-80 | 217.15 | N.A. | 20.00 |
| 70-80 | 88.27 | N.A. | 8.10 |
| 80-90 | 50.26 | N.A. | 4.60 |
| 90-110 | 38.62 | N.A. | 3.60 |
| 90-120 | 44.48 | N.A. | 4.10 |
| 90-130 | 46.58 | N.A. | 4.30 |
| 90-150 | 46.91 | N.A. | 4.30 |
| 90-180 | 46.91 | N.A. | 4.30 |
| 110-180 | 8.30 | N.A. | 0.80 |
| 0-180 | 1083.76 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 32.25 |
| 10-20 | 92.35 |
| 20-30 | 140.03 |
| 30-40 | 168.96 |
| 40-50 | 175.28 |
| 50-60 | 160.57 |
| 60-70 | 128.88 |
| 70-80 | 88.27 |
| 80-90 | 50.26 |
| 90-100 | 25.78 |
| 100-110 | 12.84 |
| 110-120 | 5.86 |
| 120-130 | 2.10 |
| 130-140 | 0.33 |
| 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 | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 109 | 109 | 109 | 103 | 103 | 103 | 98 | 98 | 98 | 96 |
| 1 | 106 | 101 | 96 | 92 | 103 | 98 | 94 | 90 | 93 | 90 | 86 | 88 | 86 | 83 | 84 | 82 | 80 | 77 |
| 2 | 96 | 87 | 80 | 74 | 93 | 85 | 78 | 73 | 81 | 75 | 70 | 77 | 72 | 68 | 73 | 69 | 66 | 63 |
| 3 | 88 | 76 | 68 | 61 | 85 | 75 | 67 | 60 | 71 | 64 | 59 | 67 | 62 | 57 | 64 | 60 | 55 | 53 |
| 4 | 80 | 68 | 58 | 51 | 77 | 66 | 57 | 51 | 63 | 55 | 50 | 60 | 54 | 49 | 57 | 52 | 47 | 45 |
| 5 | 74 | 60 | 51 | 44 | 71 | 59 | 50 | 44 | 56 | 49 | 43 | 54 | 47 | 42 | 51 | 46 | 41 | 39 |
| 6 | 68 | 54 | 45 | 38 | 66 | 53 | 44 | 38 | 51 | 43 | 37 | 49 | 42 | 37 | 47 | 41 | 36 | 34 |
| 7 | 63 | 49 | 40 | 34 | 61 | 48 | 40 | 34 | 46 | 39 | 33 | 44 | 38 | 32 | 43 | 37 | 32 | 30 |
| 8 | 58 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 42 | 35 | 29 | 41 | 34 | 29 | 39 | 33 | 29 | 27 |
| 9 | 55 | 41 | 33 | 27 | 53 | 40 | 32 | 27 | 39 | 32 | 27 | 37 | 31 | 26 | 36 | 30 | 26 | 24 |
| 10 | 51 | 38 | 30 | 25 | 50 | 37 | 29 | 24 | 36 | 29 | 24 | 35 | 28 | 24 | 33 | 28 | 23 | 22 |

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UGR TABLE - CORRECTED

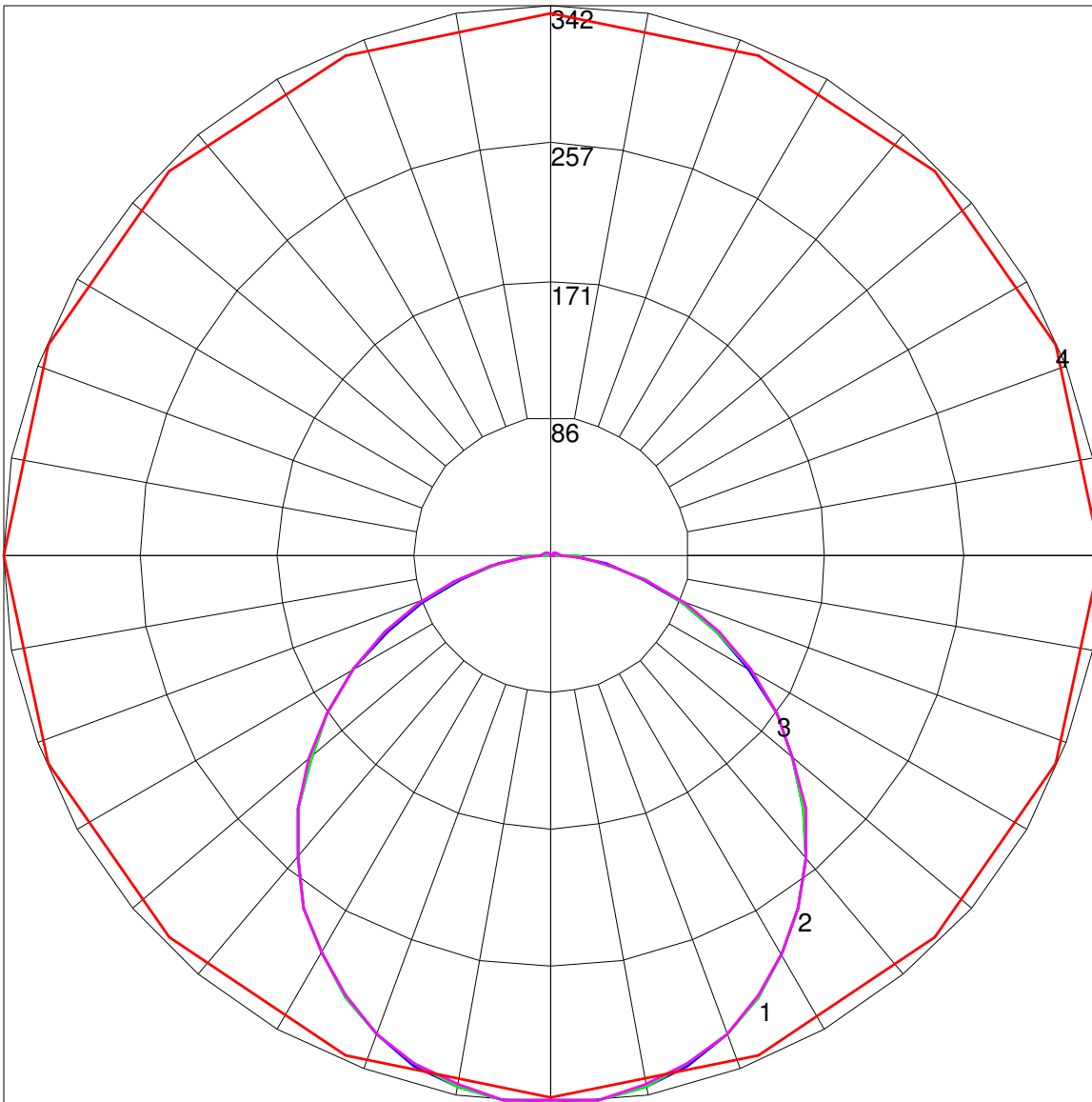
Reflectances

| | | | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|----|----|
| 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 | 16.4 | 18.0 | 16.8 | 18.4 | 18.8 | 18.1 | 19.7 | 18.5 | 20.1 | 20.5 |
| | 3H | 17.9 | 19.3 | 18.3 | 19.7 | 20.2 | 20.4 | 21.8 | 20.8 | 22.2 | 22.7 |
| | 4H | 18.3 | 19.7 | 18.8 | 20.1 | 20.6 | 21.5 | 22.9 | 22.0 | 23.3 | 23.8 |
| | 6H | 18.6 | 19.9 | 19.1 | 20.3 | 20.8 | 22.7 | 23.9 | 23.1 | 24.4 | 24.9 |
| | 8H | 18.7 | 19.9 | 19.2 | 20.4 | 20.9 | 23.2 | 24.5 | 23.7 | 24.9 | 25.4 |
| | 12H | 18.7 | 19.9 | 19.2 | 20.3 | 20.9 | 23.9 | 25.1 | 24.4 | 25.5 | 26.1 |
| 4H | 2H | 17.2 | 18.5 | 17.6 | 19.0 | 19.4 | 18.5 | 19.9 | 19.0 | 20.3 | 20.8 |
| | 3H | 18.9 | 20.0 | 19.3 | 20.5 | 21.0 | 21.0 | 22.2 | 21.5 | 22.7 | 23.2 |
| | 4H | 19.4 | 20.5 | 19.9 | 21.0 | 21.5 | 22.3 | 23.4 | 22.8 | 23.8 | 24.4 |
| | 6H | 19.8 | 20.8 | 20.4 | 21.3 | 21.8 | 23.6 | 24.6 | 24.1 | 25.1 | 25.6 |
| | 8H | 19.9 | 20.8 | 20.5 | 21.3 | 21.9 | 24.3 | 25.2 | 24.8 | 25.7 | 26.3 |
| | 12H | 20.0 | 20.8 | 20.5 | 21.3 | 21.9 | 25.1 | 25.9 | 25.6 | 26.4 | 27.0 |
| 8H | 4H | 20.0 | 20.9 | 20.5 | 21.4 | 21.9 | 22.5 | 23.4 | 23.0 | 23.9 | 24.4 |
| | 6H | 20.5 | 21.3 | 21.1 | 21.8 | 22.4 | 24.0 | 24.7 | 24.5 | 25.3 | 25.8 |
| | 8H | 20.7 | 21.4 | 21.2 | 21.9 | 22.5 | 24.8 | 25.5 | 25.3 | 26.0 | 26.6 |
| | 12H | 20.8 | 21.4 | 21.4 | 21.9 | 22.6 | 25.7 | 26.3 | 26.3 | 26.9 | 27.5 |
| 12H | 4H | 20.1 | 20.9 | 20.7 | 21.5 | 22.0 | 22.5 | 23.3 | 23.0 | 23.8 | 24.4 |
| | 6H | 20.7 | 21.4 | 21.3 | 22.0 | 22.6 | 24.0 | 24.7 | 24.6 | 25.2 | 25.8 |
| | 8H | 21.0 | 21.6 | 21.5 | 22.1 | 22.8 | 24.9 | 25.5 | 25.4 | 26.0 | 26.7 |

Maximum UGR = 27.5

POLAR GRAPH



Maximum Candela = 342.352 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Vertical Plane Through Horizontal Angles (5 - 185)
3 - Vertical Plane Through Horizontal Angles (10 - 190)
4 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)