**IES INDOOR REPORT**
**PHOTOMETRIC FILENAME : SL-2-L5-927-RD-DIM-UNV_.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST] BALLABS TEST NO. 21002.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-04-25
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] SL LED SLIMLINE ARCHITECTURAL LUMINAIRE
[MORE] 1.375 WIDE ALUM CHANNEL w/1"WIDE WHITE RADIAL ACRYLIC LENS
[LUMCAT] SL-2-L5-927-RD-DIM-UNV
[LAMPCAT] HLM 80 CRI 3500K CCT
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] INDOOR, COVE, CLASSROOM
[_SEARCH_MOUNTING] SURFACE, WALL

**CHARACTERISTICS**

| | |
|---|---|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 797 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 85 |
| Total Luminaire Watts | 9.4 |
| 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) | 2.00 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 | 9735 | 7886 | 7550 |
| 55 | 9144 | 7042 | 6810 |
| 65 | 8075 | 6037 | 6060 |
| 75 | 6649 | 4949 | 5394 |
| 85 | 3354 | 4072 | 4857 |

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**CANDELA TABULATION**

| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
|---|---|---|---|---|---|
| **0** | 250.822 | 250.822 | 250.822 | 250.822 | 250.822 |
| **5** | 251.643 | 250.411 | 248.769 | 248.359 | 248.769 |
| **10** | 247.948 | 246.717 | 245.074 | 245.074 | 245.895 |
| **15** | 242.611 | 241.380 | 239.738 | 240.148 | 240.148 |
| **20** | 234.401 | 233.170 | 231.117 | 232.759 | 233.170 |
| **25** | 224.138 | 222.907 | 222.496 | 223.728 | 224.549 |
| **30** | 211.413 | 211.413 | 211.413 | 213.055 | 212.644 |
| **35** | 197.866 | 197.866 | 197.866 | 199.508 | 200.739 |
| **40** | 181.445 | 181.856 | 182.266 | 185.140 | 186.782 |
| **45** | 163.793 | 165.025 | 166.257 | 169.541 | 170.772 |
| **50** | 144.500 | 145.731 | 148.605 | 153.531 | 155.994 |
| **55** | 126.027 | 126.437 | 131.774 | 135.879 | 139.573 |
| **60** | 104.680 | 106.733 | 114.122 | 121.921 | 124.385 |
| **65** | 83.334 | 86.618 | 95.238 | 103.859 | 107.554 |
| **70** | 63.629 | 66.913 | 77.586 | 88.260 | 91.544 |
| **75** | 43.514 | 49.261 | 61.166 | 73.071 | 77.997 |
| **80** | 25.452 | 31.609 | 47.619 | 59.524 | 64.861 |
| **85** | 8.621 | 20.115 | 34.893 | 46.798 | 52.135 |
| **90** | 0.000 | 11.084 | 25.862 | 36.535 | 40.640 |
| **95** | 0.000 | 5.747 | 17.652 | 28.325 | 32.020 |
| **100** | 0.000 | 2.874 | 12.315 | 20.936 | 24.631 |
| **105** | 0.000 | 1.642 | 8.621 | 15.189 | 18.473 |
| **110** | 0.000 | 1.232 | 5.747 | 11.084 | 13.136 |
| **115** | 0.000 | 0.821 | 3.695 | 7.800 | 9.852 |
| **120** | 0.000 | 0.000 | 2.053 | 4.926 | 6.158 |
| **125** | 0.000 | 0.000 | 1.642 | 3.284 | 4.105 |
| **130** | 0.000 | 0.000 | 0.000 | 2.053 | 2.463 |
| **135** | 0.000 | 0.000 | 0.000 | 0.000 | 1.642 |
| **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 | 91.58 | N.A. | 11.50 |
| 0-30 | 194.51 | N.A. | 24.40 |
| 0-40 | 318.70 | N.A. | 40.00 |
| 0-60 | 565.57 | N.A. | 71.00 |
| 0-80 | 725.18 | N.A. | 91.00 |
| 0-90 | 762.12 | N.A. | 95.70 |
| 10-90 | 738.42 | N.A. | 92.70 |
| 20-40 | 227.12 | N.A. | 28.50 |
| 20-50 | 355.96 | N.A. | 44.70 |
| 40-70 | 341.60 | N.A. | 42.90 |
| 60-80 | 159.61 | N.A. | 20.00 |
| 70-80 | 64.88 | N.A. | 8.10 |
| 80-90 | 36.94 | N.A. | 4.60 |
| 90-110 | 28.39 | N.A. | 3.60 |
| 90-120 | 32.70 | N.A. | 4.10 |
| 90-130 | 34.24 | N.A. | 4.30 |
| 90-150 | 34.48 | N.A. | 4.30 |
| 90-180 | 34.48 | N.A. | 4.30 |
| 110-180 | 6.10 | N.A. | 0.80 |
| 0-180 | 796.61 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A.%

## ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---|---|
| 0-10 | 23.70 |
| 10-20 | 67.88 |
| 20-30 | 102.93 |
| 30-40 | 124.20 |
| 40-50 | 128.84 |
| 50-60 | 118.03 |
| 60-70 | 94.73 |
| 70-80 | 64.88 |
| 80-90 | 36.94 |
| 90-100 | 18.95 |
| 100-110 | 9.44 |
| 110-120 | 4.31 |
| 120-130 | 1.54 |
| 130-140 | 0.25 |
| 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 | 74 | 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 | 73 | 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 | 37 | 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 | 24 | 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 | 17.7 | 19.3 | 18.1 | 19.7 | 20.1 | 19.3 | 20.9 | 19.8 | 21.3 | 21.7 |
| | 3H | 19.2 | 20.6 | 19.6 | 21.0 | 21.5 | 21.6 | 23.1 | 22.1 | 23.5 | 23.9 |
| | 4H | 19.6 | 21.0 | 20.1 | 21.4 | 21.9 | 22.7 | 24.1 | 23.2 | 24.5 | 25.0 |
| | 6H | 19.9 | 21.2 | 20.4 | 21.6 | 22.1 | 23.9 | 25.1 | 24.3 | 25.6 | 26.1 |
| | 8H | 20.0 | 21.2 | 20.5 | 21.7 | 22.2 | 24.4 | 25.7 | 24.9 | 26.1 | 26.6 |
| | 12H | 20.0 | 21.2 | 20.5 | 21.6 | 22.2 | 25.1 | 26.2 | 25.6 | 26.7 | 27.2 |
| 4H | 2H | 18.5 | 19.8 | 18.9 | 20.3 | 20.7 | 19.8 | 21.1 | 20.2 | 21.6 | 22.0 |
| | 3H | 20.1 | 21.3 | 20.6 | 21.8 | 22.3 | 22.3 | 23.4 | 22.7 | 23.9 | 24.4 |
| | 4H | 20.7 | 21.8 | 21.2 | 22.3 | 22.8 | 23.5 | 24.6 | 24.0 | 25.1 | 25.6 |
| | 6H | 21.1 | 22.1 | 21.6 | 22.6 | 23.1 | 24.8 | 25.8 | 25.3 | 26.3 | 26.8 |
| | 8H | 21.2 | 22.1 | 21.7 | 22.6 | 23.2 | 25.5 | 26.4 | 26.0 | 26.9 | 27.5 |
| | 12H | 21.3 | 22.1 | 21.8 | 22.6 | 23.2 | 26.2 | 27.0 | 26.8 | 27.6 | 28.2 |
| 8H | 4H | 21.3 | 22.2 | 21.8 | 22.7 | 23.2 | 23.7 | 24.6 | 24.2 | 25.1 | 25.7 |
| | 6H | 21.8 | 22.5 | 22.3 | 23.1 | 23.7 | 25.2 | 25.9 | 25.7 | 26.5 | 27.0 |
| | 8H | 22.0 | 22.6 | 22.5 | 23.2 | 23.8 | 26.0 | 26.6 | 26.5 | 27.2 | 27.8 |
| | 12H | 22.1 | 22.7 | 22.6 | 23.2 | 23.9 | 26.9 | 27.5 | 27.4 | 28.0 | 28.7 |
| 12H | 4H | 21.4 | 22.2 | 22.0 | 22.8 | 23.3 | 23.7 | 24.5 | 24.3 | 25.1 | 25.6 |
| | 6H | 22.0 | 22.7 | 22.6 | 23.2 | 23.9 | 25.2 | 25.9 | 25.8 | 26.4 | 27.0 |
| | 8H | 22.3 | 22.9 | 22.8 | 23.4 | 24.1 | 26.1 | 26.7 | 26.6 | 27.2 | 27.9 |

Maximum UGR = 28.7

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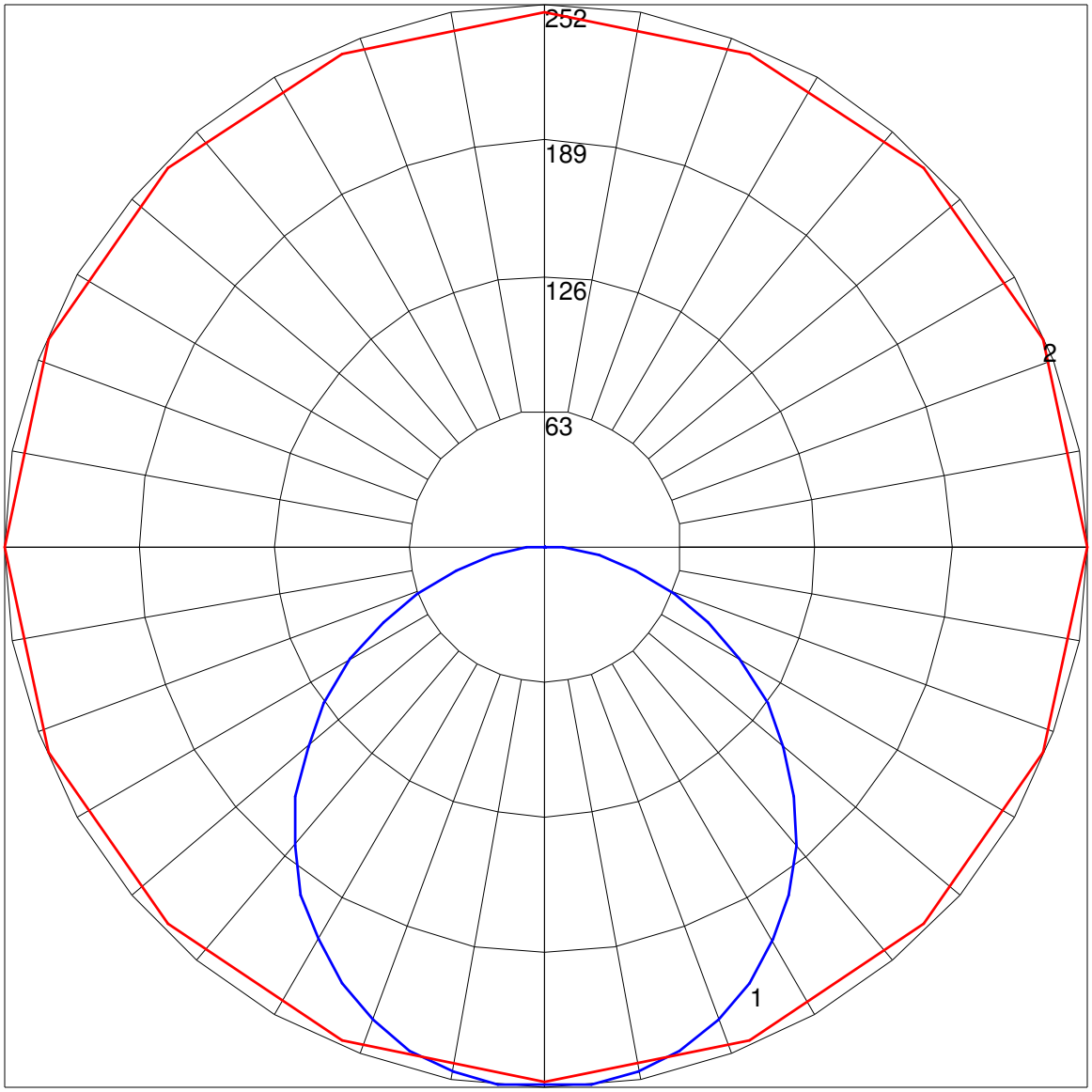
**POLAR GRAPH**




Maximum Candela = 251.643  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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