**IES INDOOR REPORT**
**PHOTOMETRIC FILENAME : SL-6-L5-827-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-6-L5-827-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 | 2898 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 109 |
| Total Luminaire Watts | 26.5 |
| 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) | 6.00 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 | 11987 | 9645 | 9154 |
| 55 | 11333 | 8635 | 8257 |
| 65 | 10114 | 7429 | 7348 |
| 75 | 8520 | 6123 | 6540 |
| 85 | 4735 | 5090 | 5889 |

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**CANDELA TABULATION**

| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
|---|---|---|---|---|---|
| **0** | 912.364 | 912.364 | 912.364 | 912.364 | 912.364 |
| **5** | 915.350 | 910.870 | 904.897 | 903.404 | 904.897 |
| **10** | 901.911 | 897.431 | 891.458 | 891.458 | 894.445 |
| **15** | 882.499 | 878.019 | 872.046 | 873.540 | 873.540 |
| **20** | 852.634 | 848.155 | 840.688 | 846.661 | 848.155 |
| **25** | 815.304 | 810.824 | 809.331 | 813.810 | 816.797 |
| **30** | 769.013 | 769.013 | 769.013 | 774.986 | 773.493 |
| **35** | 719.737 | 719.737 | 719.737 | 725.710 | 730.189 |
| **40** | 660.008 | 661.501 | 662.994 | 673.447 | 679.420 |
| **45** | 595.799 | 600.278 | 604.758 | 616.704 | 621.184 |
| **50** | 525.617 | 530.097 | 540.549 | 558.468 | 567.427 |
| **55** | 458.422 | 459.915 | 479.327 | 494.259 | 507.698 |
| **60** | 380.774 | 388.240 | 415.118 | 443.489 | 452.449 |
| **65** | 303.126 | 315.072 | 346.429 | 377.787 | 391.226 |
| **70** | 231.451 | 243.396 | 282.220 | 321.044 | 332.990 |
| **75** | 158.282 | 179.188 | 222.491 | 265.795 | 283.714 |
| **80** | 92.580 | 114.979 | 173.215 | 216.518 | 235.930 |
| **85** | 31.358 | 73.168 | 126.925 | 170.228 | 189.640 |
| **90** | 0.000 | 40.317 | 94.073 | 132.897 | 147.830 |
| **95** | 0.000 | 20.905 | 64.209 | 103.033 | 116.472 |
| **100** | 0.000 | 10.453 | 44.797 | 76.155 | 89.594 |
| **105** | 0.000 | 5.973 | 31.358 | 55.250 | 67.195 |
| **110** | 0.000 | 4.480 | 20.905 | 40.317 | 47.783 |
| **115** | 0.000 | 2.986 | 13.439 | 28.371 | 35.838 |
| **120** | 0.000 | 0.000 | 7.466 | 17.919 | 22.398 |
| **125** | 0.000 | 0.000 | 5.973 | 11.946 | 14.932 |
| **130** | 0.000 | 0.000 | 0.000 | 7.466 | 8.959 |
| **135** | 0.000 | 0.000 | 0.000 | 0.000 | 5.973 |
| **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 | 333.12 | N.A. | 11.50 |
| 0-30 | 707.52 | N.A. | 24.40 |
| 0-40 | 1159.28 | N.A. | 40.00 |
| 0-60 | 2057.25 | N.A. | 71.00 |
| 0-80 | 2637.85 | N.A. | 91.00 |
| 0-90 | 2772.22 | N.A. | 95.70 |
| 10-90 | 2686.01 | N.A. | 92.70 |
| 20-40 | 826.16 | N.A. | 28.50 |
| 20-50 | 1294.81 | N.A. | 44.70 |
| 40-70 | 1242.56 | N.A. | 42.90 |
| 60-80 | 580.59 | N.A. | 20.00 |
| 70-80 | 236.01 | N.A. | 8.10 |
| 80-90 | 134.38 | N.A. | 4.60 |
| 90-110 | 103.25 | N.A. | 3.60 |
| 90-120 | 118.93 | N.A. | 4.10 |
| 90-130 | 124.54 | N.A. | 4.30 |
| 90-150 | 125.43 | N.A. | 4.30 |
| 90-180 | 125.43 | N.A. | 4.30 |
| 110-180 | 22.18 | N.A. | 0.80 |
| 0-180 | 2897.66 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A.%

## ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---|---|
| 0-10 | 86.22 |
| 10-20 | 246.90 |
| 20-30 | 374.40 |
| 30-40 | 451.76 |
| 40-50 | 468.65 |
| 50-60 | 429.32 |
| 60-70 | 344.59 |
| 70-80 | 236.01 |
| 80-90 | 134.38 |
| 90-100 | 68.93 |
| 100-110 | 34.33 |
| 110-120 | 15.68 |
| 120-130 | 5.61 |
| 130-140 | 0.89 |
| 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 | 89 | 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 | 68 | 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 | 30 | 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 | 18.4 | 20.0 | 18.8 | 20.4 | 20.8 | 20.1 | 21.7 | 20.5 | 22.1 | 22.5 |
| | 3H | 19.9 | 21.3 | 20.3 | 21.7 | 22.2 | 22.4 | 23.9 | 22.8 | 24.3 | 24.7 |
| | 4H | 20.3 | 21.7 | 20.8 | 22.1 | 22.6 | 23.5 | 24.9 | 24.0 | 25.3 | 25.8 |
| | 6H | 20.6 | 21.9 | 21.1 | 22.3 | 22.8 | 24.7 | 26.0 | 25.2 | 26.4 | 26.9 |
| | 8H | 20.7 | 21.9 | 21.2 | 22.4 | 22.9 | 25.3 | 26.5 | 25.8 | 27.0 | 27.5 |
| | 12H | 20.7 | 21.9 | 21.2 | 22.3 | 22.9 | 26.0 | 27.1 | 26.4 | 27.6 | 28.1 |
| 4H | 2H | 19.2 | 20.5 | 19.6 | 21.0 | 21.4 | 20.5 | 21.9 | 21.0 | 22.3 | 22.8 |
| | 3H | 20.9 | 22.0 | 21.3 | 22.5 | 23.0 | 23.0 | 24.2 | 23.5 | 24.7 | 25.2 |
| | 4H | 21.4 | 22.5 | 21.9 | 23.0 | 23.5 | 24.3 | 25.4 | 24.8 | 25.9 | 26.4 |
| | 6H | 21.8 | 22.8 | 22.3 | 23.3 | 23.8 | 25.7 | 26.6 | 26.2 | 27.1 | 27.7 |
| | 8H | 21.9 | 22.8 | 22.4 | 23.3 | 23.9 | 26.4 | 27.2 | 26.9 | 27.7 | 28.3 |
| | 12H | 22.0 | 22.8 | 22.5 | 23.3 | 23.9 | 27.1 | 27.9 | 27.7 | 28.5 | 29.0 |
| 8H | 4H | 22.0 | 22.9 | 22.5 | 23.4 | 23.9 | 24.5 | 25.4 | 25.0 | 25.9 | 26.5 |
| | 6H | 22.5 | 23.3 | 23.1 | 23.8 | 24.4 | 26.0 | 26.7 | 26.5 | 27.3 | 27.9 |
| | 8H | 22.7 | 23.4 | 23.2 | 23.9 | 24.5 | 26.8 | 27.5 | 27.4 | 28.1 | 28.6 |
| | 12H | 22.8 | 23.4 | 23.4 | 23.9 | 24.6 | 27.8 | 28.4 | 28.3 | 28.9 | 29.6 |
| 12H | 4H | 22.1 | 22.9 | 22.7 | 23.5 | 24.0 | 24.5 | 25.3 | 25.1 | 25.9 | 26.4 |
| | 6H | 22.7 | 23.4 | 23.3 | 24.0 | 24.6 | 26.0 | 26.7 | 26.6 | 27.2 | 27.9 |
| | 8H | 23.0 | 23.6 | 23.6 | 24.1 | 24.8 | 26.9 | 27.5 | 27.5 | 28.1 | 28.7 |

Maximum UGR = 29.6

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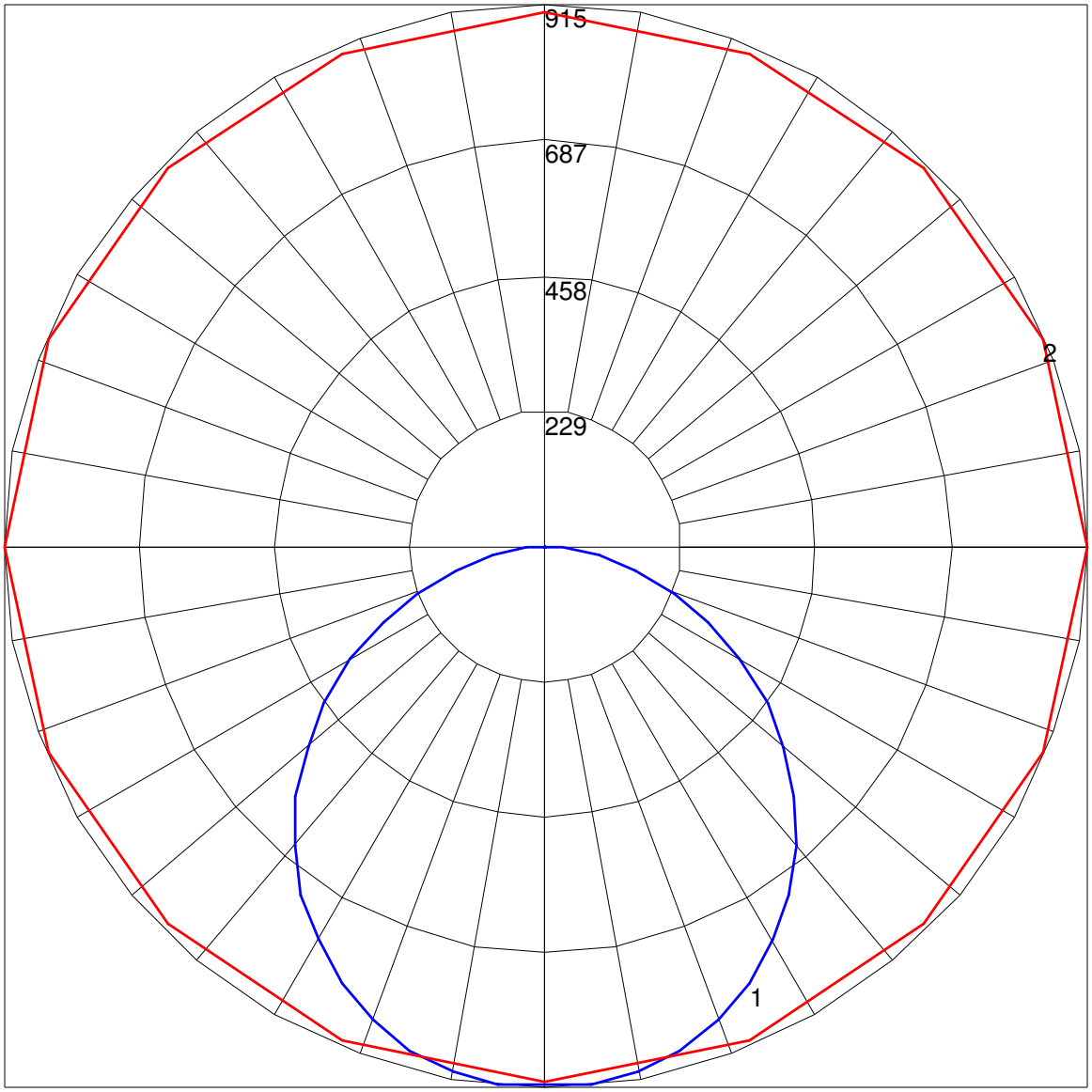
**POLAR GRAPH**




Maximum Candela = 915.35  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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