



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : SL-4-L3-940-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-L3-940-RD-DIM-UNV  
 [LAMPCAT] 22 INCH LED ARRAY

**CHARACTERISTICS**

|                                 |                     |
|---------------------------------|---------------------|
| Lumens Per Lamp                 | N.A. (absolute)     |
| Total Lamp Lumens               | N.A. (absolute)     |
| Luminaire Lumens                | 1047                |
| Total Luminaire Efficiency      | N.A.                |
| Luminaire Efficacy Rating (LER) | 95                  |
| 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<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 6473             | 5217              | 4963              |
| 55                  | 6110             | 4668              | 4476              |
| 65                  | 5438             | 4012              | 3984              |
| 75                  | 4554             | 3303              | 3545              |
| 85                  | 2466             | 2738              | 3193              |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : SL-4-L3-940-RD-DIM-UNV\_.IES**

**CANDELA TABULATION**

|            | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
|------------|------------|-------------|-------------|-------------|-------------|
| <b>0</b>   | 329.732    | 329.732     | 329.732     | 329.732     | 329.732     |
| <b>5</b>   | 330.812    | 329.193     | 327.034     | 326.494     | 327.034     |
| <b>10</b>  | 325.955    | 324.336     | 322.177     | 322.177     | 323.256     |
| <b>15</b>  | 318.939    | 317.320     | 315.161     | 315.701     | 315.701     |
| <b>20</b>  | 308.146    | 306.527     | 303.829     | 305.987     | 306.527     |
| <b>25</b>  | 294.654    | 293.035     | 292.496     | 294.115     | 295.194     |
| <b>30</b>  | 277.925    | 277.925     | 277.925     | 280.084     | 279.544     |
| <b>35</b>  | 260.116    | 260.116     | 260.116     | 262.275     | 263.894     |
| <b>40</b>  | 238.530    | 239.069     | 239.609     | 243.387     | 245.545     |
| <b>45</b>  | 215.324    | 216.943     | 218.562     | 222.880     | 224.499     |
| <b>50</b>  | 189.960    | 191.579     | 195.357     | 201.833     | 205.071     |
| <b>55</b>  | 165.676    | 166.215     | 173.231     | 178.627     | 183.484     |
| <b>60</b>  | 137.613    | 140.312     | 150.025     | 160.279     | 163.517     |
| <b>65</b>  | 109.551    | 113.868     | 125.201     | 136.534     | 141.391     |
| <b>70</b>  | 83.647     | 87.965      | 101.996     | 116.027     | 120.344     |
| <b>75</b>  | 57.204     | 64.759      | 80.409      | 96.059      | 102.535     |
| <b>80</b>  | 33.459     | 41.554      | 62.601      | 78.251      | 85.266      |
| <b>85</b>  | 11.333     | 26.443      | 45.871      | 61.521      | 68.537      |
| <b>90</b>  | 0.000      | 14.571      | 33.999      | 48.030      | 53.426      |
| <b>95</b>  | 0.000      | 7.555       | 23.205      | 37.237      | 42.093      |
| <b>100</b> | 0.000      | 3.778       | 16.190      | 27.523      | 32.380      |
| <b>105</b> | 0.000      | 2.159       | 11.333      | 19.967      | 24.285      |
| <b>110</b> | 0.000      | 1.619       | 7.555       | 14.571      | 17.269      |
| <b>115</b> | 0.000      | 1.079       | 4.857       | 10.254      | 12.952      |
| <b>120</b> | 0.000      | 0.000       | 2.698       | 6.476       | 8.095       |
| <b>125</b> | 0.000      | 0.000       | 2.159       | 4.317       | 5.397       |
| <b>130</b> | 0.000      | 0.000       | 0.000       | 2.698       | 3.238       |
| <b>135</b> | 0.000      | 0.000       | 0.000       | 0.000       | 2.159       |
| <b>140</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       |
| <b>145</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       |
| <b>150</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       |
| <b>155</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       |
| <b>160</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       |
| <b>165</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       |
| <b>170</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       |
| <b>175</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       |
| <b>180</b> | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : SL-4-L3-940-RD-DIM-UNV\_.IES**

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 120.39  | N.A.  | 11.50  |
| 0-30    | 255.70  | N.A.  | 24.40  |
| 0-40    | 418.97  | N.A.  | 40.00  |
| 0-60    | 743.50  | N.A.  | 71.00  |
| 0-80    | 953.33  | N.A.  | 91.00  |
| 0-90    | 1001.89 | N.A.  | 95.70  |
| 10-90   | 970.73  | N.A.  | 92.70  |
| 20-40   | 298.58  | N.A.  | 28.50  |
| 20-50   | 467.95  | N.A.  | 44.70  |
| 40-70   | 449.07  | N.A.  | 42.90  |
| 60-80   | 209.83  | N.A.  | 20.00  |
| 70-80   | 85.29   | N.A.  | 8.10   |
| 80-90   | 48.56   | N.A.  | 4.60   |
| 90-110  | 37.32   | N.A.  | 3.60   |
| 90-120  | 42.98   | N.A.  | 4.10   |
| 90-130  | 45.01   | N.A.  | 4.30   |
| 90-150  | 45.33   | N.A.  | 4.30   |
| 90-180  | 45.33   | N.A.  | 4.30   |
| 110-180 | 8.02    | N.A.  | 0.80   |
| 0-180   | 1047.23 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 31.16  |
| 10-20   | 89.23  |
| 20-30   | 135.31 |
| 30-40   | 163.27 |
| 40-50   | 169.37 |
| 50-60   | 155.16 |
| 60-70   | 124.53 |
| 70-80   | 85.29  |
| 80-90   | 48.56  |
| 90-100  | 24.91  |
| 100-110 | 12.41  |
| 110-120 | 5.67   |
| 120-130 | 2.03   |
| 130-140 | 0.32   |
| 140-150 | 0.00   |
| 150-160 | 0.00   |
| 160-170 | 0.00   |
| 170-180 | 0.00   |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : SL-4-L3-940-RD-DIM-UNV\_.IES**

**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  | 56  | 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  | 59  | 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 |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : SL-4-L3-940-RD-DIM-UNV\_.IES**

**UGR TABLE - CORRECTED**

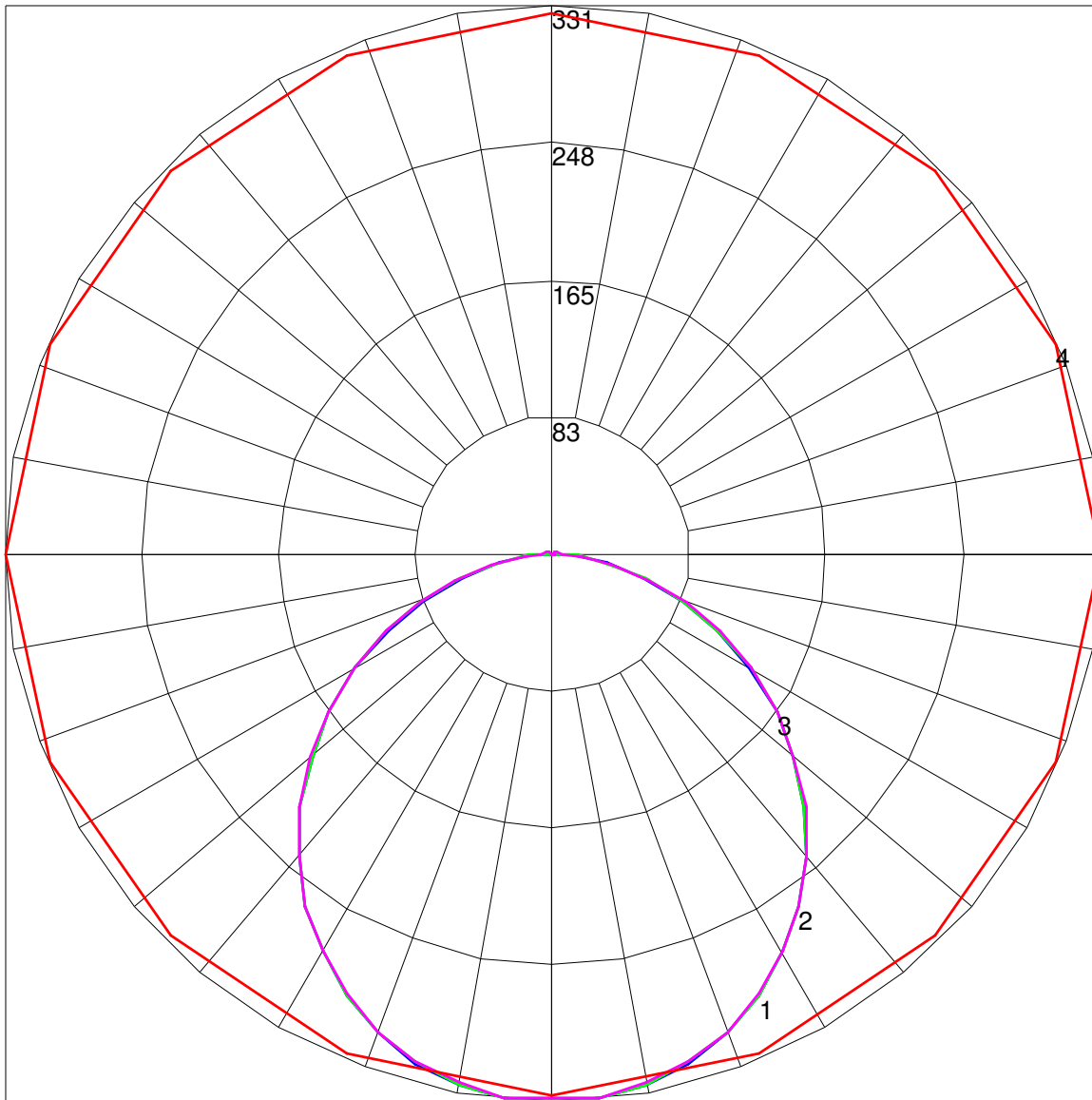
Reflectances

|                |    |    |    |    |    |    |    |    |    |    |
|----------------|----|----|----|----|----|----|----|----|----|----|
| 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 | 16.3                 | 17.9 | 16.7 | 18.3 | 18.7 | 18.0               | 19.6 | 18.4 | 20.0 | 20.4 |
|           | 3H   | 17.8                 | 19.2 | 18.2 | 19.6 | 20.1 | 20.3               | 21.7 | 20.7 | 22.2 | 22.6 |
|           | 4H   | 18.2                 | 19.6 | 18.7 | 20.0 | 20.5 | 21.4               | 22.8 | 21.9 | 23.2 | 23.7 |
|           | 6H   | 18.5                 | 19.8 | 19.0 | 20.3 | 20.7 | 22.6               | 23.8 | 23.0 | 24.3 | 24.8 |
|           | 8H   | 18.6                 | 19.8 | 19.1 | 20.3 | 20.8 | 23.2               | 24.4 | 23.7 | 24.9 | 25.3 |
|           | 12H  | 18.6                 | 19.8 | 19.1 | 20.2 | 20.8 | 23.8               | 25.0 | 24.3 | 25.4 | 26.0 |
| 4H        | 2H   | 17.1                 | 18.5 | 17.5 | 18.9 | 19.4 | 18.4               | 19.8 | 18.9 | 20.2 | 20.7 |
|           | 3H   | 18.8                 | 19.9 | 19.2 | 20.4 | 20.9 | 20.9               | 22.1 | 21.4 | 22.6 | 23.1 |
|           | 4H   | 19.3                 | 20.4 | 19.8 | 20.9 | 21.4 | 22.2               | 23.3 | 22.7 | 23.7 | 24.3 |
|           | 6H   | 19.7                 | 20.7 | 20.3 | 21.2 | 21.7 | 23.5               | 24.5 | 24.1 | 25.0 | 25.5 |
|           | 8H   | 19.8                 | 20.7 | 20.4 | 21.2 | 21.8 | 24.2               | 25.1 | 24.7 | 25.6 | 26.2 |
|           | 12H  | 19.9                 | 20.7 | 20.4 | 21.2 | 21.8 | 25.0               | 25.8 | 25.5 | 26.3 | 26.9 |
| 8H        | 4H   | 19.9                 | 20.8 | 20.4 | 21.3 | 21.8 | 22.4               | 23.3 | 22.9 | 23.8 | 24.3 |
|           | 6H   | 20.4                 | 21.2 | 21.0 | 21.7 | 22.3 | 23.9               | 24.6 | 24.4 | 25.2 | 25.7 |
|           | 8H   | 20.6                 | 21.3 | 21.1 | 21.8 | 22.4 | 24.7               | 25.4 | 25.2 | 25.9 | 26.5 |
|           | 12H  | 20.7                 | 21.3 | 21.3 | 21.8 | 22.5 | 25.6               | 26.2 | 26.2 | 26.8 | 27.4 |
| 12H       | 4H   | 20.0                 | 20.8 | 20.6 | 21.4 | 21.9 | 22.4               | 23.2 | 22.9 | 23.7 | 24.3 |
|           | 6H   | 20.6                 | 21.3 | 21.2 | 21.9 | 22.5 | 23.9               | 24.6 | 24.5 | 25.1 | 25.7 |
|           | 8H   | 20.9                 | 21.5 | 21.5 | 22.0 | 22.7 | 24.8               | 25.4 | 25.3 | 25.9 | 26.6 |

Maximum UGR = 27.4

POLAR GRAPH



Maximum Candela = 330.812 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.)