



IES INDOOR REPORT

PHOTOMETRIC FILENAME : SLF-2-L45-835-HIA-(L35)-OCXXX-EM-10WRM-SD50-UNV_EM MODE ONLY.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 17259.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 06-02-2023
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 24" SURFACE MOUNT LED LUMINAIRE
 [MORE] WHITE REFLECTOR w/FROSTED POLYCARBONATE LENS
 [LUMCAT] SLF-2-L45-835-HIA-(L35)-OCxxx-EM-10WRM-SD50-UNV
 [LAMPCAT] HLM 80 CRI 3500K CCT
 [_SEARCH_SOURCETYPE]LED
 [_SEARCH_APPLICATION]INDOOR,COMMERCIAL,DIRECT,LINEAR
 [_SEARCH_MOUNTING]CEILING,SURFACE,WALL

CHARACTERISTICS

| | |
|---------------------------------|---------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 1225 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 123 |
| Total Luminaire Watts | 10 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.18 |
| Spacing Criterion (90-270) | 1.30 |
| Spacing Criterion (Diagonal) | 1.36 |
| Basic Luminous Shape | Rectangular w/Sides |
| Luminous Length (0-180) | 2.06 ft |
| Luminous Width (90-270) | 0.50 ft |
| Luminous Height | 0.24 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 2808 | 2538 | 2751 |
| 55 | 2344 | 2137 | 2464 |
| 65 | 1815 | 1760 | 2139 |
| 75 | 1291 | 1455 | 1821 |
| 85 | 550 | 1222 | 1606 |

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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 | 386.096 | 386.096 | 386.096 | 386.096 | 386.096 |
| 5 | 387.133 | 384.714 | 382.985 | 383.331 | 381.257 |
| 10 | 380.220 | 379.183 | 378.146 | 380.220 | 379.183 |
| 15 | 368.122 | 367.777 | 369.159 | 372.270 | 372.616 |
| 20 | 352.913 | 354.296 | 357.061 | 362.937 | 365.011 |
| 25 | 329.409 | 332.520 | 339.778 | 347.729 | 351.531 |
| 30 | 303.830 | 309.707 | 322.150 | 332.865 | 337.013 |
| 35 | 276.524 | 282.745 | 299.683 | 314.891 | 320.767 |
| 40 | 244.723 | 253.019 | 273.067 | 293.461 | 299.683 |
| 45 | 212.578 | 222.602 | 244.723 | 268.919 | 276.178 |
| 50 | 178.703 | 192.875 | 214.997 | 242.995 | 250.945 |
| 55 | 150.360 | 164.186 | 188.382 | 219.491 | 228.478 |
| 60 | 119.596 | 134.805 | 161.421 | 191.838 | 202.554 |
| 65 | 91.944 | 106.807 | 135.842 | 164.877 | 175.938 |
| 70 | 68.094 | 82.957 | 114.412 | 141.718 | 150.705 |
| 75 | 45.972 | 60.144 | 92.981 | 119.596 | 126.164 |
| 80 | 26.961 | 43.552 | 75.353 | 99.203 | 105.770 |
| 85 | 10.715 | 30.072 | 59.453 | 82.957 | 87.105 |
| 90 | 0.000 | 18.320 | 46.318 | 67.057 | 70.514 |
| 95 | 0.000 | 12.789 | 36.985 | 55.305 | 58.416 |
| 100 | 0.000 | 8.296 | 27.307 | 44.244 | 46.663 |
| 105 | 0.000 | 7.259 | 23.505 | 35.948 | 39.750 |
| 110 | 0.000 | 4.494 | 16.937 | 28.344 | 31.455 |
| 115 | 0.000 | 4.148 | 14.863 | 23.850 | 26.961 |
| 120 | 0.000 | 3.802 | 11.752 | 19.702 | 22.813 |
| 125 | 0.000 | 2.765 | 8.987 | 15.900 | 18.320 |
| 130 | 0.000 | 0.000 | 8.641 | 14.172 | 15.554 |
| 135 | 0.000 | 0.000 | 5.876 | 10.370 | 12.789 |
| 140 | 0.000 | 0.000 | 5.185 | 8.987 | 10.024 |
| 145 | 0.000 | 0.000 | 0.000 | 6.913 | 8.296 |
| 150 | 0.000 | 0.000 | 0.000 | 5.876 | 6.913 |
| 155 | 0.000 | 0.000 | 0.000 | 4.839 | 4.839 |
| 160 | 0.000 | 0.000 | 0.000 | 4.148 | 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 | 2.765 | 0.000 |
| 180 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SLF-2-L45-835-HIA-(L35)-OCXXX-EM-10WRM-SD50-UNV_EM MODE ONLY.IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 140.96 | N.A. | 11.50 |
| 0-30 | 297.92 | N.A. | 24.30 |
| 0-40 | 484.68 | N.A. | 39.60 |
| 0-60 | 843.84 | N.A. | 68.90 |
| 0-80 | 1074.65 | N.A. | 87.70 |
| 0-90 | 1135.59 | N.A. | 92.70 |
| 10-90 | 1099.09 | N.A. | 89.70 |
| 20-40 | 343.72 | N.A. | 28.10 |
| 20-50 | 532.92 | N.A. | 43.50 |
| 40-70 | 494.19 | N.A. | 40.30 |
| 60-80 | 230.81 | N.A. | 18.80 |
| 70-80 | 95.78 | N.A. | 7.80 |
| 80-90 | 60.95 | N.A. | 5.00 |
| 90-110 | 59.38 | N.A. | 4.80 |
| 90-120 | 73.36 | N.A. | 6.00 |
| 90-130 | 81.84 | N.A. | 6.70 |
| 90-150 | 88.48 | N.A. | 7.20 |
| 90-180 | 89.42 | N.A. | 7.30 |
| 110-180 | 30.04 | N.A. | 2.50 |
| 0-180 | 1225.02 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 36.50 |
| 10-20 | 104.46 |
| 20-30 | 156.96 |
| 30-40 | 186.76 |
| 40-50 | 189.20 |
| 50-60 | 169.97 |
| 60-70 | 135.03 |
| 70-80 | 95.78 |
| 80-90 | 60.95 |
| 90-100 | 36.75 |
| 100-110 | 22.63 |
| 110-120 | 13.97 |
| 120-130 | 8.49 |
| 130-140 | 4.63 |
| 140-150 | 2.01 |
| 150-160 | 0.82 |
| 160-170 | 0.09 |
| 170-180 | 0.03 |

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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 | 117 | 117 | 117 | 117 | 114 | 114 | 114 | 114 | 107 | 107 | 107 | 101 | 101 | 101 | 95 | 95 | 95 | 93 |
| 1 | 106 | 100 | 96 | 91 | 102 | 97 | 93 | 89 | 92 | 88 | 85 | 86 | 84 | 81 | 82 | 79 | 77 | 75 |
| 2 | 96 | 87 | 80 | 74 | 92 | 84 | 78 | 72 | 80 | 74 | 69 | 75 | 71 | 67 | 71 | 67 | 64 | 61 |
| 3 | 87 | 76 | 68 | 61 | 84 | 74 | 66 | 60 | 70 | 63 | 58 | 66 | 61 | 56 | 63 | 58 | 54 | 52 |
| 4 | 80 | 67 | 58 | 51 | 77 | 66 | 57 | 51 | 62 | 55 | 49 | 59 | 53 | 48 | 56 | 51 | 46 | 44 |
| 5 | 73 | 60 | 51 | 44 | 71 | 59 | 50 | 44 | 56 | 48 | 43 | 53 | 46 | 41 | 50 | 45 | 40 | 38 |
| 6 | 68 | 54 | 45 | 39 | 65 | 53 | 44 | 38 | 50 | 43 | 37 | 48 | 41 | 36 | 46 | 40 | 35 | 33 |
| 7 | 63 | 49 | 40 | 34 | 61 | 48 | 40 | 34 | 46 | 38 | 33 | 44 | 37 | 32 | 42 | 36 | 31 | 29 |
| 8 | 58 | 45 | 36 | 30 | 56 | 44 | 36 | 30 | 42 | 35 | 29 | 40 | 34 | 29 | 38 | 33 | 28 | 26 |
| 9 | 55 | 41 | 33 | 27 | 53 | 40 | 32 | 27 | 39 | 31 | 26 | 37 | 31 | 26 | 35 | 30 | 25 | 24 |
| 10 | 51 | 38 | 30 | 25 | 50 | 37 | 30 | 24 | 36 | 29 | 24 | 34 | 28 | 24 | 33 | 27 | 23 | 21 |

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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

| | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|
| X=2H | Y=2H | 12.4 | 13.9 | 12.9 | 14.4 | 14.9 | 15.6 | 17.1 | 16.1 | 17.6 | 18.1 |
| | 3H | 13.6 | 15.0 | 14.1 | 15.5 | 16.0 | 17.8 | 19.2 | 18.3 | 19.7 | 20.2 |
| | 4H | 14.0 | 15.3 | 14.5 | 15.8 | 16.3 | 18.9 | 20.2 | 19.4 | 20.7 | 21.2 |
| | 6H | 14.2 | 15.5 | 14.8 | 15.9 | 16.5 | 19.9 | 21.1 | 20.4 | 21.6 | 22.2 |
| | 8H | 14.3 | 15.4 | 14.8 | 16.0 | 16.5 | 20.4 | 21.6 | 20.9 | 22.1 | 22.6 |
| | 12H | 14.3 | 15.4 | 14.8 | 15.9 | 16.5 | 20.9 | 22.0 | 21.5 | 22.5 | 23.1 |

UGR Viewed Endwise

| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H | 13.3 | 14.6 | 13.8 | 15.1 | 15.7 | 15.9 | 17.2 | 16.4 | 17.7 | 18.2 |
| | 3H | 14.8 | 15.9 | 15.3 | 16.4 | 17.0 | 18.4 | 19.5 | 18.9 | 20.0 | 20.6 |
| | 4H | 15.3 | 16.3 | 15.8 | 16.8 | 17.4 | 19.6 | 20.6 | 20.1 | 21.1 | 21.7 |
| | 6H | 15.6 | 16.5 | 16.2 | 17.1 | 17.7 | 20.8 | 21.7 | 21.4 | 22.3 | 22.9 |
| | 8H | 15.7 | 16.5 | 16.3 | 17.1 | 17.7 | 21.4 | 22.3 | 22.0 | 22.8 | 23.4 |
| | 12H | 15.7 | 16.5 | 16.3 | 17.1 | 17.7 | 22.1 | 22.8 | 22.6 | 23.4 | 24.0 |

| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 8H | 4H | 16.0 | 16.9 | 16.6 | 17.4 | 18.1 | 19.7 | 20.6 | 20.3 | 21.1 | 21.8 |
| | 6H | 16.5 | 17.2 | 17.1 | 17.8 | 18.5 | 21.1 | 21.8 | 21.7 | 22.4 | 23.1 |
| | 8H | 16.7 | 17.3 | 17.3 | 18.0 | 18.6 | 21.9 | 22.5 | 22.5 | 23.1 | 23.8 |
| | 12H | 16.8 | 17.4 | 17.4 | 18.0 | 18.7 | 22.7 | 23.3 | 23.3 | 23.9 | 24.6 |

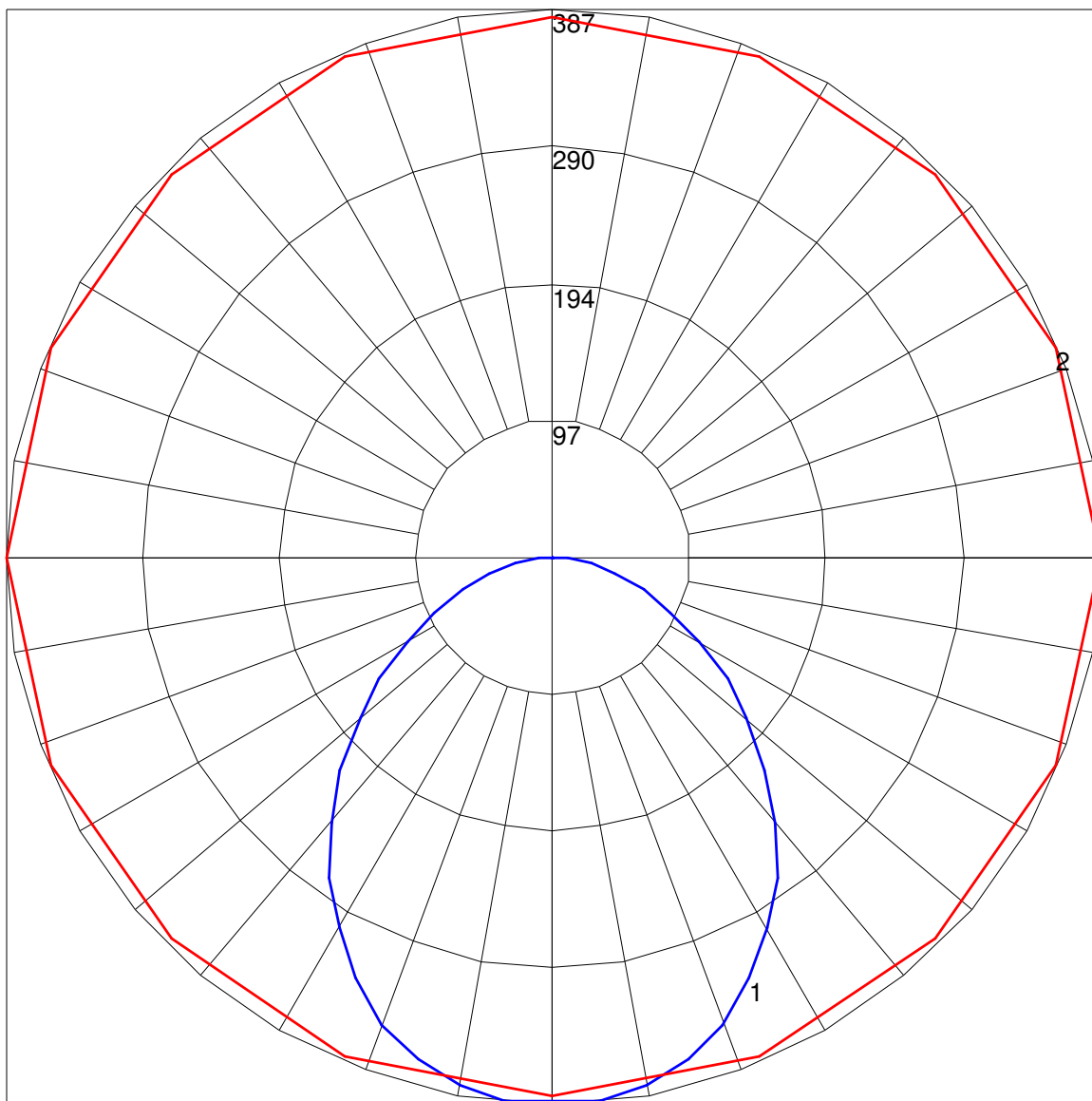
| | | | | | | | | | | | |
|-----|----|------|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 16.2 | 17.0 | 16.8 | 17.6 | 18.2 | 19.7 | 20.5 | 20.3 | 21.1 | 21.7 |
| | 6H | 16.9 | 17.5 | 17.5 | 18.1 | 18.8 | 21.2 | 21.8 | 21.8 | 22.4 | 23.1 |
| | 8H | 17.1 | 17.7 | 17.7 | 18.3 | 19.0 | 21.9 | 22.5 | 22.6 | 23.1 | 23.8 |

Maximum UGR = 24.6

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POLAR GRAPH



Maximum Candela = 387.133 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.)