



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S22-L26-840-SAF19156-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 18124.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 06-17-2022
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMINAIRE] 2x2' RECESSED LED TROFFER LUMINAIRE
[MORE] WHITE REFLECTOR w/PAT 12 LENS PRISMS DOWN
[LUMCAT] 50G-S22-L26-840-SAF19156-DIM-UNV
[LAMPCAT] HLM 80 CRI 4000K CCT
[_SEARCH_SOURCETYPE]LED
[_SEARCH_APPLICATION]INDOOR,DIRECT
[_SEARCH_MOUNTING]RECESSED

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 2546 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 120 |
| Total Luminaire Watts | 21.3 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.18 |
| Spacing Criterion (90-270) | 1.22 |
| Spacing Criterion (Diagonal) | 1.26 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 1.77 ft |
| Luminous Width (90-270) | 1.77 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 2825 | 2883 | 3002 |
| 55 | 2327 | 2346 | 2416 |
| 65 | 1852 | 1813 | 1891 |
| 75 | 1621 | 1563 | 1557 |
| 85 | 1600 | 1473 | 1505 |

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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 | 1111.142 | 1111.142 | 1111.142 | 1111.142 | 1111.142 |
| 5 | 1109.531 | 1108.726 | 1106.310 | 1103.895 | 1103.090 |
| 10 | 1086.986 | 1087.791 | 1087.791 | 1085.778 | 1089.402 |
| 15 | 1067.259 | 1068.870 | 1074.506 | 1073.701 | 1079.337 |
| 20 | 984.729 | 994.391 | 998.014 | 1002.443 | 1011.702 |
| 25 | 938.029 | 950.107 | 955.743 | 962.587 | 975.470 |
| 30 | 864.758 | 872.810 | 885.290 | 891.731 | 909.848 |
| 35 | 774.176 | 779.409 | 795.110 | 809.603 | 826.512 |
| 40 | 679.568 | 682.386 | 696.476 | 710.970 | 729.086 |
| 45 | 582.544 | 582.142 | 594.622 | 601.466 | 619.180 |
| 50 | 484.313 | 484.715 | 493.975 | 491.962 | 510.481 |
| 55 | 389.302 | 390.107 | 392.523 | 390.912 | 404.198 |
| 60 | 300.733 | 299.928 | 299.928 | 295.902 | 308.382 |
| 65 | 228.267 | 224.644 | 223.436 | 222.228 | 233.098 |
| 70 | 170.295 | 166.671 | 164.256 | 164.658 | 167.879 |
| 75 | 122.387 | 119.971 | 117.958 | 116.750 | 117.556 |
| 80 | 80.115 | 79.712 | 78.505 | 75.686 | 76.089 |
| 85 | 40.661 | 42.272 | 37.441 | 37.441 | 38.246 |
| 90 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 403.78 | N.A. | 15.90 |
| 0-30 | 841.71 | N.A. | 33.10 |
| 0-40 | 1338.53 | N.A. | 52.60 |
| 0-60 | 2150.04 | N.A. | 84.40 |
| 0-80 | 2503.93 | N.A. | 98.30 |
| 0-90 | 2546.48 | N.A. | 100.00 |
| 10-90 | 2441.5 | N.A. | 95.90 |
| 20-40 | 934.75 | N.A. | 36.70 |
| 20-50 | 1393.82 | N.A. | 54.70 |
| 40-70 | 1038.33 | N.A. | 40.80 |
| 60-80 | 353.89 | N.A. | 13.90 |
| 70-80 | 127.07 | N.A. | 5.00 |
| 80-90 | 42.55 | N.A. | 1.70 |
| 90-110 | 0.00 | N.A. | 0.00 |
| 90-120 | 0.00 | N.A. | 0.00 |
| 90-130 | 0.00 | N.A. | 0.00 |
| 90-150 | 0.00 | N.A. | 0.00 |
| 90-180 | 0.00 | N.A. | 0.00 |
| 110-180 | 0.00 | N.A. | 0.00 |
| 0-180 | 2546.48 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 104.98 |
| 10-20 | 298.80 |
| 20-30 | 437.92 |
| 30-40 | 496.82 |
| 40-50 | 459.07 |
| 50-60 | 352.44 |
| 60-70 | 226.82 |
| 70-80 | 127.07 |
| 80-90 | 42.55 |
| 90-100 | 0.00 |
| 100-110 | 0.00 |
| 110-120 | 0.00 |
| 120-130 | 0.00 |
| 130-140 | 0.00 |
| 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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 110 | 105 | 101 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 93 | 90 | 91 | 89 | 88 | 86 |
| 2 | 101 | 93 | 87 | 81 | 98 | 91 | 85 | 80 | 88 | 83 | 79 | 84 | 80 | 77 | 81 | 78 | 75 | 73 |
| 3 | 92 | 83 | 75 | 69 | 90 | 81 | 74 | 68 | 78 | 72 | 67 | 75 | 70 | 66 | 73 | 69 | 65 | 63 |
| 4 | 85 | 74 | 66 | 59 | 83 | 73 | 65 | 59 | 70 | 63 | 58 | 68 | 62 | 57 | 66 | 61 | 57 | 55 |
| 5 | 79 | 67 | 58 | 52 | 77 | 65 | 57 | 52 | 63 | 56 | 51 | 61 | 55 | 50 | 60 | 54 | 50 | 48 |
| 6 | 73 | 60 | 52 | 46 | 71 | 59 | 51 | 46 | 58 | 50 | 45 | 56 | 50 | 45 | 54 | 49 | 44 | 42 |
| 7 | 68 | 55 | 47 | 41 | 66 | 54 | 46 | 41 | 53 | 46 | 40 | 51 | 45 | 40 | 50 | 44 | 40 | 38 |
| 8 | 63 | 50 | 42 | 37 | 62 | 50 | 42 | 37 | 48 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 34 |
| 9 | 59 | 46 | 39 | 33 | 58 | 46 | 38 | 33 | 45 | 38 | 33 | 44 | 37 | 33 | 43 | 37 | 33 | 31 |
| 10 | 56 | 43 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 30 | 28 |

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UGR TABLE - CORRECTED

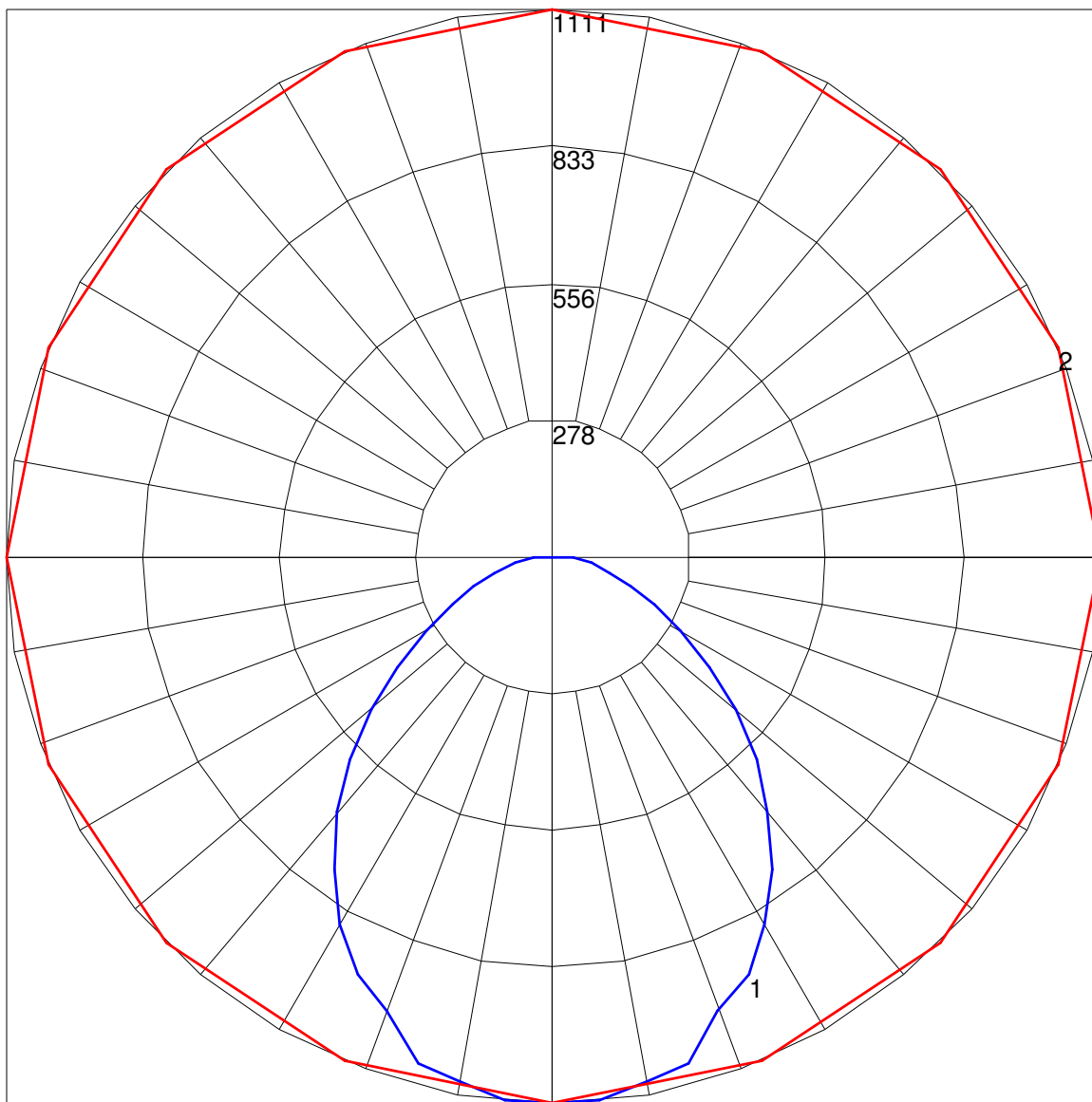
Reflectances

| | | | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|----|----|
| 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 | 14.3 | 15.8 | 14.7 | 16.1 | 16.4 | 14.3 | 15.8 | 14.7 | 16.1 | 16.5 |
| | 3H | 15.7 | 17.1 | 16.1 | 17.4 | 17.8 | 15.7 | 17.1 | 16.1 | 17.4 | 17.8 |
| | 4H | 16.3 | 17.6 | 16.7 | 17.9 | 18.3 | 16.2 | 17.5 | 16.6 | 17.9 | 18.3 |
| | 6H | 16.8 | 18.0 | 17.2 | 18.3 | 18.7 | 16.7 | 17.9 | 17.1 | 18.3 | 18.7 |
| | 8H | 17.0 | 18.1 | 17.4 | 18.5 | 18.9 | 16.9 | 18.0 | 17.3 | 18.4 | 18.8 |
| | 12H | 17.1 | 18.2 | 17.5 | 18.6 | 19.0 | 17.0 | 18.1 | 17.4 | 18.5 | 18.9 |
| 4H | 2H | 14.7 | 16.0 | 15.1 | 16.4 | 16.8 | 14.7 | 16.0 | 15.1 | 16.4 | 16.8 |
| | 3H | 16.4 | 17.5 | 16.8 | 17.9 | 18.3 | 16.4 | 17.5 | 16.8 | 17.9 | 18.3 |
| | 4H | 17.1 | 18.1 | 17.5 | 18.5 | 18.9 | 17.1 | 18.0 | 17.5 | 18.4 | 18.9 |
| | 6H | 17.8 | 18.6 | 18.2 | 19.0 | 19.5 | 17.7 | 18.5 | 18.1 | 18.9 | 19.4 |
| | 8H | 18.0 | 18.8 | 18.5 | 19.3 | 19.7 | 17.9 | 18.7 | 18.4 | 19.1 | 19.6 |
| | 12H | 18.2 | 18.9 | 18.7 | 19.4 | 19.9 | 18.1 | 18.8 | 18.6 | 19.3 | 19.7 |
| 8H | 4H | 17.4 | 18.2 | 17.8 | 18.6 | 19.1 | 17.3 | 18.1 | 17.8 | 18.6 | 19.0 |
| | 6H | 18.2 | 18.8 | 18.7 | 19.3 | 19.8 | 18.1 | 18.7 | 18.6 | 19.2 | 19.7 |
| | 8H | 18.5 | 19.1 | 19.0 | 19.6 | 20.1 | 18.4 | 19.0 | 18.9 | 19.5 | 20.0 |
| | 12H | 18.8 | 19.4 | 19.4 | 19.9 | 20.4 | 18.7 | 19.2 | 19.2 | 19.7 | 20.2 |
| 12H | 4H | 17.4 | 18.1 | 17.9 | 18.6 | 19.1 | 17.4 | 18.1 | 17.8 | 18.5 | 19.0 |
| | 6H | 18.2 | 18.8 | 18.8 | 19.3 | 19.8 | 18.1 | 18.7 | 18.7 | 19.2 | 19.7 |
| | 8H | 18.7 | 19.2 | 19.2 | 19.7 | 20.2 | 18.5 | 19.0 | 19.0 | 19.5 | 20.1 |

Maximum UGR = 20.4

POLAR GRAPH



Maximum Candela = 1111.142 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)