



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT3-22-L50-8TW-D-DALI-UNV 4000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from BALLABS TEST NO. 19255.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 3-JAN-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 2-56 LED 22" ARRAYS 2x2' RECESSED LUMINAIRE
 [MORE] WHITE REFLECTOR w/FROSTED ACRYLIC CONCAVE LX4 LENS IN
 [MORE] DOOR
 [LUMCAT] AT3-22-L50-8TW-D-DALI-UNV 4000k
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] Indoor, Architectural, Commercial, Office, Direct
 [_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 4623 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 85 |
| Total Luminaire Watts | 54.65 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.14 |
| Spacing Criterion (90-270) | 1.28 |
| Spacing Criterion (Diagonal) | 1.32 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 1.76 ft |
| Luminous Width (90-270) | 1.76 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 4750 | 5283 | 5751 |
| 55 | 4141 | 4882 | 5307 |
| 65 | 3480 | 4411 | 4950 |
| 75 | 2826 | 4133 | 4376 |
| 85 | 1895 | 1624 | 1173 |

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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 | 1801.117 | 1801.117 | 1801.117 | 1801.117 | 1801.117 |
| 5 | 1801.117 | 1794.320 | 1792.055 | 1792.055 | 1789.789 |
| 10 | 1755.806 | 1755.806 | 1755.806 | 1764.868 | 1767.134 |
| 15 | 1690.105 | 1696.902 | 1705.964 | 1726.354 | 1733.150 |
| 20 | 1604.014 | 1617.607 | 1640.263 | 1671.980 | 1685.574 |
| 25 | 1488.470 | 1513.391 | 1563.234 | 1606.279 | 1626.669 |
| 30 | 1361.599 | 1395.583 | 1461.284 | 1524.719 | 1540.578 |
| 35 | 1232.463 | 1270.977 | 1336.678 | 1429.566 | 1436.363 |
| 40 | 1098.795 | 1125.981 | 1205.276 | 1298.164 | 1307.226 |
| 45 | 967.392 | 978.720 | 1076.139 | 1141.840 | 1171.293 |
| 50 | 829.194 | 838.256 | 944.737 | 990.048 | 1030.828 |
| 55 | 684.198 | 709.119 | 806.538 | 845.052 | 876.770 |
| 60 | 550.530 | 589.045 | 670.605 | 709.119 | 731.775 |
| 65 | 423.659 | 480.298 | 536.937 | 577.717 | 602.638 |
| 70 | 308.116 | 371.551 | 416.862 | 453.111 | 468.970 |
| 75 | 210.697 | 265.070 | 308.116 | 321.709 | 326.240 |
| 80 | 124.606 | 160.854 | 183.510 | 131.402 | 120.074 |
| 85 | 47.577 | 52.108 | 40.780 | 33.983 | 29.452 |
| 90 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 652.30 | N.A. | 14.10 |
| 0-30 | 1370.28 | N.A. | 29.60 |
| 0-40 | 2208.38 | N.A. | 47.80 |
| 0-60 | 3736.49 | N.A. | 80.80 |
| 0-80 | 4560.23 | N.A. | 98.60 |
| 0-90 | 4623.42 | N.A. | 100.00 |
| 10-90 | 4453.35 | N.A. | 96.30 |
| 20-40 | 1556.08 | N.A. | 33.70 |
| 20-50 | 2379.81 | N.A. | 51.50 |
| 40-70 | 2051.48 | N.A. | 44.40 |
| 60-80 | 823.74 | N.A. | 17.80 |
| 70-80 | 300.37 | N.A. | 6.50 |
| 80-90 | 63.19 | N.A. | 1.40 |
| 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 | 4623.42 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 170.07 |
| 10-20 | 482.23 |
| 20-30 | 717.98 |
| 30-40 | 838.10 |
| 40-50 | 823.73 |
| 50-60 | 704.38 |
| 60-70 | 523.37 |
| 70-80 | 300.37 |
| 80-90 | 63.19 |
| 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 | 290 | 290 | 290 | 290 | 284 | 284 | 284 | 284 | 271 | 271 | 271 | 259 | 259 | 259 | 249 | 249 | 249 | 244 |
| 1 | 266 | 255 | 245 | 236 | 260 | 249 | 240 | 232 | 239 | 232 | 225 | 230 | 223 | 218 | 221 | 216 | 211 | 206 |
| 2 | 243 | 223 | 207 | 193 | 236 | 219 | 204 | 191 | 210 | 197 | 187 | 202 | 191 | 182 | 195 | 186 | 178 | 173 |
| 3 | 222 | 197 | 177 | 162 | 216 | 193 | 175 | 160 | 186 | 170 | 157 | 179 | 166 | 155 | 173 | 162 | 152 | 147 |
| 4 | 203 | 175 | 154 | 138 | 198 | 172 | 152 | 137 | 165 | 148 | 135 | 160 | 145 | 133 | 155 | 142 | 131 | 126 |
| 5 | 187 | 157 | 135 | 119 | 182 | 154 | 134 | 119 | 149 | 131 | 117 | 144 | 128 | 116 | 139 | 126 | 115 | 110 |
| 6 | 173 | 141 | 120 | 104 | 169 | 139 | 119 | 104 | 135 | 117 | 103 | 131 | 114 | 102 | 127 | 112 | 101 | 96 |
| 7 | 161 | 128 | 107 | 93 | 157 | 126 | 106 | 92 | 123 | 105 | 92 | 119 | 103 | 91 | 116 | 101 | 90 | 85 |
| 8 | 150 | 117 | 97 | 83 | 146 | 116 | 96 | 83 | 113 | 95 | 82 | 109 | 93 | 82 | 107 | 92 | 81 | 77 |
| 9 | 140 | 108 | 88 | 75 | 137 | 106 | 88 | 75 | 104 | 86 | 74 | 101 | 85 | 74 | 99 | 84 | 73 | 69 |
| 10 | 132 | 100 | 81 | 68 | 128 | 98 | 80 | 68 | 96 | 79 | 68 | 94 | 78 | 67 | 92 | 77 | 67 | 63 |

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UGR TABLE - CORRECTED

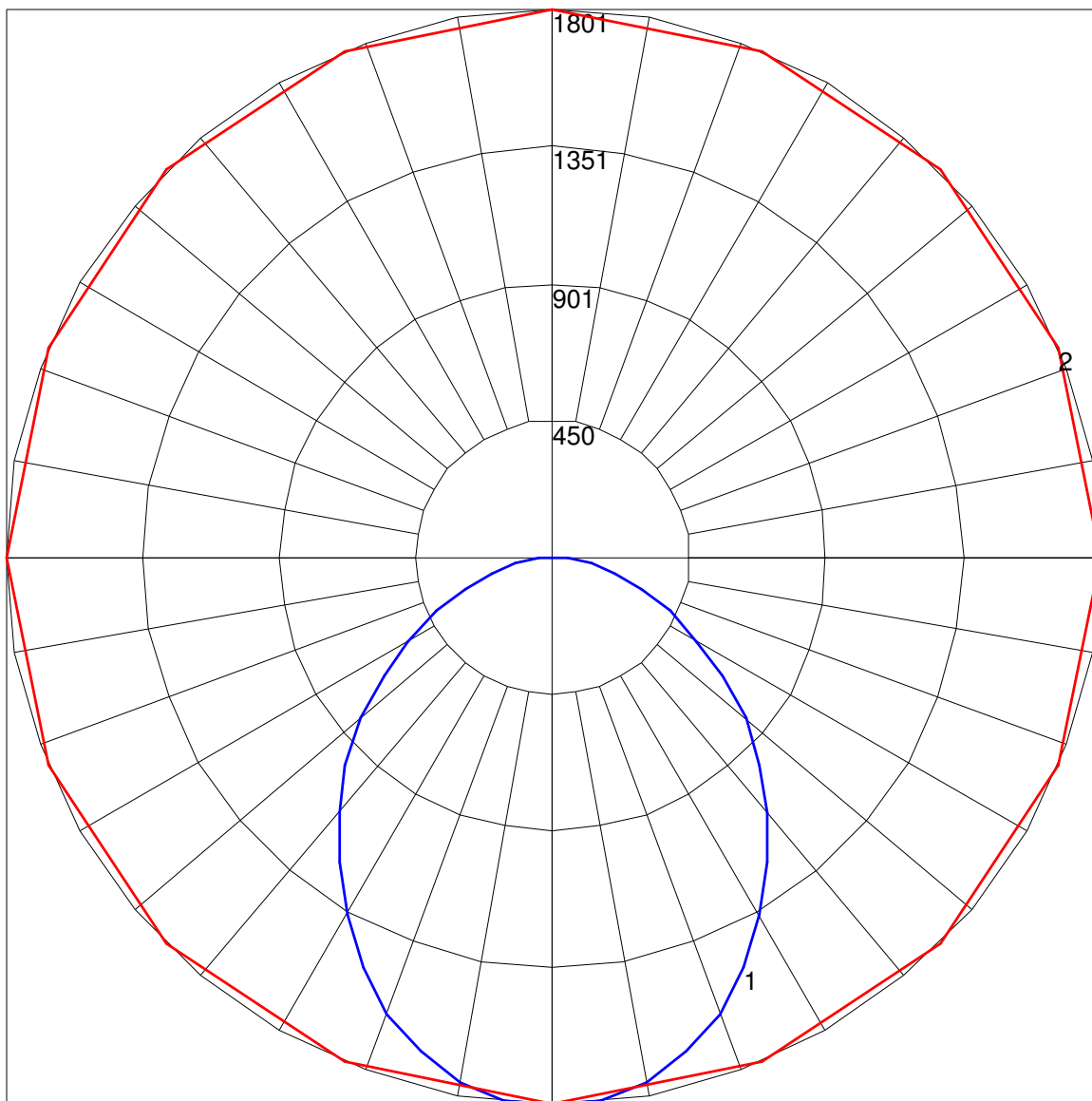
Reflectances

| | | | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|----|----|
| 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 | 13.4 | 15.0 | 13.8 | 15.4 | 15.7 | 14.8 | 16.4 | 15.2 | 16.7 | 17.0 |
| | 3H | 15.0 | 16.5 | 15.4 | 16.8 | 17.2 | 16.7 | 18.1 | 17.1 | 18.5 | 18.8 |
| | 4H | 15.6 | 17.0 | 16.0 | 17.3 | 17.7 | 17.4 | 18.8 | 17.8 | 19.1 | 19.5 |
| | 6H | 16.0 | 17.3 | 16.5 | 17.7 | 18.1 | 17.7 | 19.0 | 18.1 | 19.3 | 19.7 |
| | 8H | 16.2 | 17.4 | 16.6 | 17.8 | 18.1 | 17.8 | 19.0 | 18.2 | 19.4 | 19.8 |
| | 12H | 16.2 | 17.4 | 16.7 | 17.8 | 18.2 | 17.8 | 18.9 | 18.2 | 19.3 | 19.7 |
| 4H | 2H | 14.3 | 15.6 | 14.7 | 16.0 | 16.4 | 15.3 | 16.7 | 15.7 | 17.0 | 17.4 |
| | 3H | 16.2 | 17.3 | 16.6 | 17.7 | 18.1 | 17.5 | 18.6 | 17.9 | 19.0 | 19.4 |
| | 4H | 16.9 | 17.9 | 17.3 | 18.3 | 18.7 | 18.3 | 19.3 | 18.7 | 19.8 | 20.2 |
| | 6H | 17.4 | 18.3 | 17.9 | 18.7 | 19.2 | 18.7 | 19.6 | 19.2 | 20.1 | 20.5 |
| | 8H | 17.6 | 18.4 | 18.0 | 18.8 | 19.3 | 18.8 | 19.6 | 19.2 | 20.1 | 20.5 |
| | 12H | 17.7 | 18.4 | 18.1 | 18.9 | 19.3 | 18.8 | 19.5 | 19.3 | 20.0 | 20.5 |
| 8H | 4H | 17.3 | 18.2 | 17.8 | 18.6 | 19.1 | 18.6 | 19.4 | 19.1 | 19.9 | 20.3 |
| | 6H | 18.0 | 18.7 | 18.5 | 19.2 | 19.7 | 19.1 | 19.8 | 19.6 | 20.3 | 20.7 |
| | 8H | 18.2 | 18.9 | 18.7 | 19.4 | 19.8 | 19.2 | 19.8 | 19.7 | 20.3 | 20.8 |
| | 12H | 18.4 | 18.9 | 18.9 | 19.4 | 20.0 | 19.2 | 19.8 | 19.7 | 20.2 | 20.8 |
| 12H | 4H | 17.4 | 18.1 | 17.8 | 18.6 | 19.1 | 18.6 | 19.4 | 19.1 | 19.8 | 20.3 |
| | 6H | 18.1 | 18.7 | 18.6 | 19.2 | 19.7 | 19.1 | 19.7 | 19.6 | 20.2 | 20.7 |
| | 8H | 18.3 | 18.9 | 18.8 | 19.4 | 19.9 | 19.2 | 19.8 | 19.7 | 20.3 | 20.8 |

Maximum UGR = 20.8

POLAR GRAPH



Maximum Candela = 1801.117 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.)