



IES INDOOR REPORT
PHOTOMETRIC FILENAME : PXX-62-03-08-L13-835-S-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 20590.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUE DATE] 20-NOV-2019
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2-56 LED 22"ARRAYS 3'8" PERIMETER LUMINAIRE
[MORE] WHITE ASYM REFLECTOR w/OPEN BOTTOM
[LUMCAT] PXX-62-03-08-L13-835-S-LCAP-RCAP-EXTR-DIM-UNV
[LAMPCAT] HLM2256-5630 REV B 10560227

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 5069 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 99 |
| Total Luminaire Watts | 51.3 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.24 |
| Spacing Criterion (90-270) | 1.34 |
| Spacing Criterion (Diagonal) | 1.20 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 0.50 ft |
| Luminous Width (90-270) | 3.68 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 12476 | 12510 | 13659 |
| 55 | 12124 | 12237 | 13598 |
| 65 | 8627 | 10761 | 12970 |
| 75 | 4851 | 6500 | 10947 |
| 85 | 0 | 369 | 2309 |

IES INDOOR REPORT
 PHOTOMETRIC FILENAME : PXX-62-03-08-L13-835-S-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> | <u>112.5</u> | <u>135.0</u> | <u>157.5</u> | <u>180.0</u> |
|-----------|------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|
| 0 | 2238.837 | 2238.837 | 2238.837 | 2238.837 | 2238.837 | 2238.837 | 2238.837 | 2238.837 | 2238.837 |
| 5 | 2182.419 | 2187.923 | 2211.316 | 2251.221 | 2306.263 | 2275.990 | 2258.101 | 2157.650 | 2215.444 |
| 10 | 2134.257 | 2143.889 | 2172.786 | 2226.452 | 2292.503 | 2259.477 | 2218.196 | 2110.864 | 2154.897 |
| 15 | 2076.463 | 2079.215 | 2113.616 | 2175.538 | 2245.717 | 2212.692 | 2157.650 | 2029.677 | 2051.694 |
| 20 | 2007.660 | 2014.540 | 2039.309 | 2103.984 | 2193.427 | 2137.009 | 2061.326 | 1894.824 | 1839.782 |
| 25 | 1933.353 | 1933.353 | 1958.122 | 2015.916 | 2113.616 | 2044.813 | 1903.080 | 1616.861 | 1469.624 |
| 30 | 1849.414 | 1848.038 | 1863.174 | 1922.345 | 2025.549 | 1933.353 | 1692.544 | 1224.686 | 953.604 |
| 35 | 1759.971 | 1751.714 | 1748.962 | 1809.508 | 1920.969 | 1792.996 | 1330.642 | 701.787 | 451.345 |
| 40 | 1643.006 | 1637.502 | 1637.502 | 1667.775 | 1795.748 | 1608.605 | 873.793 | 356.397 | 276.586 |
| 45 | 1508.153 | 1502.649 | 1512.281 | 1535.674 | 1651.262 | 1407.701 | 437.585 | 238.057 | 216.040 |
| 50 | 1378.804 | 1369.172 | 1369.172 | 1376.052 | 1509.529 | 1102.218 | 249.065 | 188.519 | 170.630 |
| 55 | 1188.909 | 1231.567 | 1199.917 | 1230.191 | 1333.394 | 747.196 | 184.391 | 149.990 | 158.246 |
| 60 | 873.793 | 917.827 | 1040.295 | 1022.407 | 1157.260 | 370.158 | 136.229 | 140.357 | 152.742 |
| 65 | 623.352 | 645.368 | 777.469 | 798.110 | 937.091 | 158.246 | 122.469 | 134.853 | 145.862 |
| 70 | 401.807 | 426.576 | 499.507 | 649.497 | 733.436 | 103.204 | 114.212 | 127.973 | 134.853 |
| 75 | 214.664 | 233.929 | 287.595 | 432.080 | 484.370 | 75.683 | 99.076 | 107.332 | 107.332 |
| 80 | 78.435 | 85.315 | 112.836 | 185.767 | 242.185 | 57.794 | 68.803 | 68.803 | 67.427 |
| 85 | 0.000 | 1.376 | 5.504 | 27.521 | 34.401 | 26.145 | 28.897 | 28.897 | 26.145 |
| 90 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PXX-62-03-08-L13-835-S-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 813.26 | N.A. | 16.00 |
| 0-30 | 1690.16 | N.A. | 33.30 |
| 0-40 | 2643.5 | N.A. | 52.20 |
| 0-60 | 4277.97 | N.A. | 84.40 |
| 0-80 | 5026.82 | N.A. | 99.20 |
| 0-90 | 5068.5 | N.A. | 100.00 |
| 10-90 | 4856.7 | N.A. | 95.80 |
| 20-40 | 1830.23 | N.A. | 36.10 |
| 20-50 | 2717.38 | N.A. | 53.60 |
| 40-70 | 2133.54 | N.A. | 42.10 |
| 60-80 | 748.84 | N.A. | 14.80 |
| 70-80 | 249.79 | N.A. | 4.90 |
| 80-90 | 41.69 | N.A. | 0.80 |
| 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 | 5068.5 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 211.80 |
| 10-20 | 601.46 |
| 20-30 | 876.89 |
| 30-40 | 953.34 |
| 40-50 | 887.14 |
| 50-60 | 747.33 |
| 60-70 | 499.06 |
| 70-80 | 249.79 |
| 80-90 | 41.69 |
| 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 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PXX-62-03-08-L13-835-S-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 | 382 | 382 | 382 | 382 | 373 | 373 | 373 | 373 | 356 | 356 | 356 | 341 | 341 | 341 | 327 | 327 | 327 | 321 |
| 1 | 353 | 339 | 326 | 315 | 344 | 332 | 320 | 310 | 318 | 309 | 300 | 306 | 298 | 291 | 294 | 288 | 283 | 276 |
| 2 | 323 | 299 | 279 | 262 | 315 | 293 | 274 | 259 | 282 | 266 | 253 | 271 | 258 | 247 | 262 | 251 | 242 | 235 |
| 3 | 297 | 265 | 241 | 221 | 289 | 260 | 238 | 219 | 251 | 232 | 216 | 242 | 226 | 212 | 234 | 220 | 208 | 202 |
| 4 | 273 | 237 | 210 | 190 | 266 | 233 | 208 | 189 | 225 | 203 | 186 | 218 | 199 | 184 | 211 | 195 | 182 | 175 |
| 5 | 252 | 213 | 186 | 166 | 246 | 210 | 184 | 165 | 203 | 181 | 163 | 197 | 177 | 162 | 191 | 174 | 160 | 153 |
| 6 | 234 | 193 | 166 | 146 | 228 | 190 | 164 | 146 | 185 | 162 | 144 | 179 | 159 | 143 | 174 | 156 | 142 | 136 |
| 7 | 217 | 176 | 149 | 130 | 212 | 174 | 148 | 130 | 169 | 146 | 129 | 164 | 144 | 128 | 160 | 141 | 127 | 121 |
| 8 | 203 | 161 | 135 | 117 | 198 | 159 | 134 | 117 | 155 | 132 | 116 | 151 | 131 | 116 | 147 | 129 | 115 | 109 |
| 9 | 190 | 149 | 123 | 106 | 186 | 147 | 123 | 106 | 143 | 121 | 106 | 140 | 120 | 105 | 137 | 118 | 105 | 99 |
| 10 | 179 | 138 | 113 | 97 | 175 | 136 | 113 | 97 | 133 | 111 | 96 | 130 | 110 | 96 | 127 | 109 | 96 | 90 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PXX-62-03-08-L13-835-S-DIM-UNV_.IES

UGR TABLE - CORRECTED

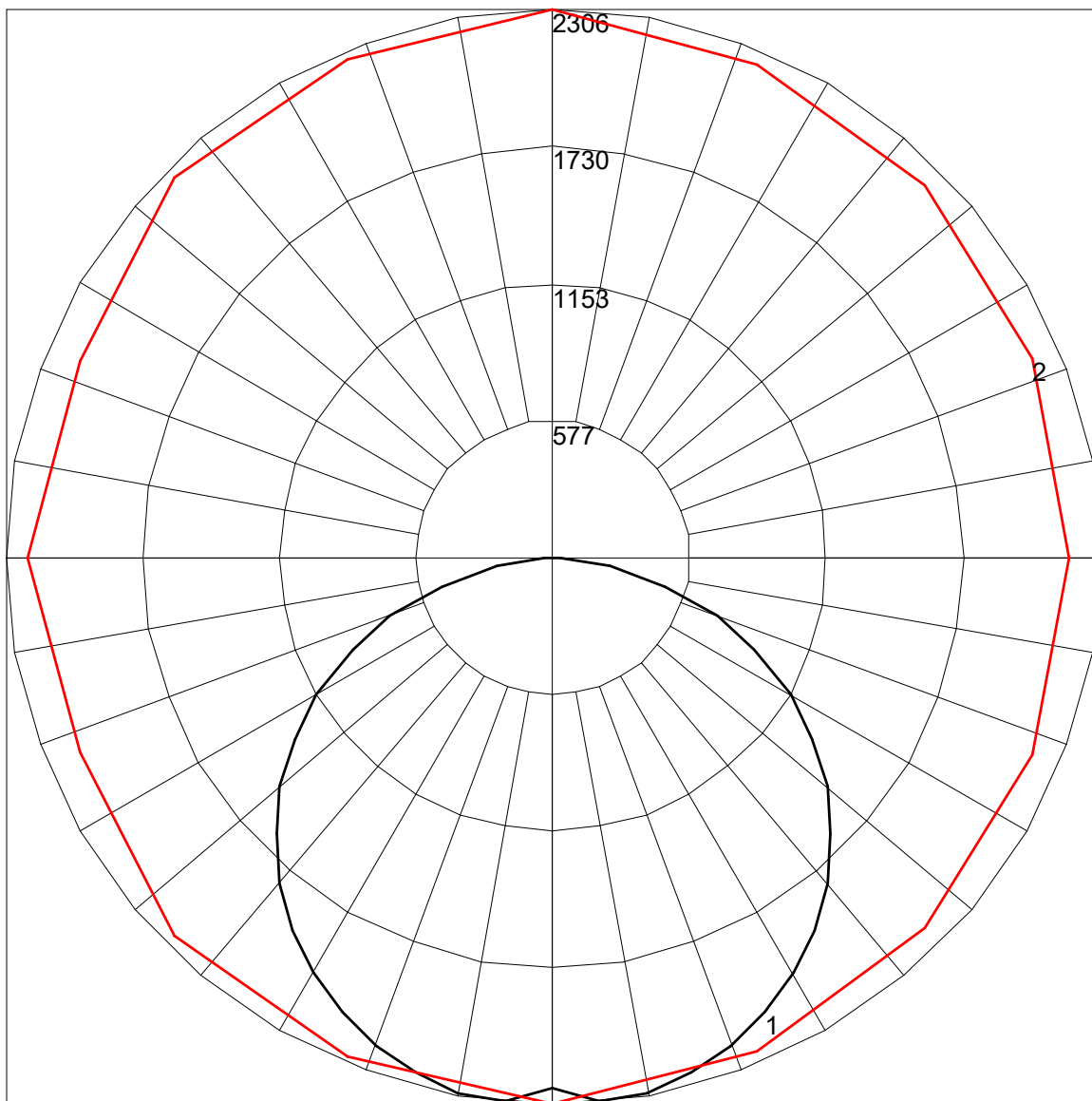
Reflectances

| | | | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|----|----|
| 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 | 17.6 | 19.1 | 17.9 | 19.4 | 19.7 | 16.7 | 18.3 | 17.1 | 18.6 | 18.9 |
| | 3H | 18.6 | 20.0 | 19.0 | 20.3 | 20.7 | 18.7 | 20.1 | 19.1 | 20.4 | 20.8 |
| | 4H | 18.8 | 20.1 | 19.2 | 20.5 | 20.9 | 19.5 | 20.8 | 19.9 | 21.1 | 21.5 |
| | 6H | 18.9 | 20.1 | 19.3 | 20.5 | 20.9 | 19.9 | 21.1 | 20.4 | 21.5 | 21.9 |
| | 8H | 18.9 | 20.0 | 19.3 | 20.4 | 20.8 | 20.0 | 21.2 | 20.5 | 21.6 | 22.0 |
| | 12H | 18.9 | 20.0 | 19.3 | 20.3 | 20.8 | 20.1 | 21.2 | 20.5 | 21.5 | 22.0 |
| 4H | 2H | 18.2 | 19.5 | 18.6 | 19.8 | 20.2 | 17.1 | 18.4 | 17.5 | 18.7 | 19.1 |
| | 3H | 19.4 | 20.4 | 19.8 | 20.8 | 21.2 | 19.2 | 20.2 | 19.6 | 20.6 | 21.1 |
| | 4H | 19.6 | 20.6 | 20.1 | 21.0 | 21.5 | 20.0 | 21.0 | 20.4 | 21.4 | 21.8 |
| | 6H | 19.8 | 20.6 | 20.2 | 21.1 | 21.5 | 20.6 | 21.4 | 21.0 | 21.8 | 22.3 |
| | 8H | 19.8 | 20.5 | 20.2 | 21.0 | 21.5 | 20.7 | 21.5 | 21.1 | 21.9 | 22.4 |
| | 12H | 19.7 | 20.4 | 20.2 | 20.9 | 21.4 | 20.7 | 21.4 | 21.2 | 21.9 | 22.4 |
| 8H | 4H | 19.9 | 20.7 | 20.3 | 21.1 | 21.6 | 20.1 | 20.8 | 20.5 | 21.3 | 21.8 |
| | 6H | 20.0 | 20.7 | 20.5 | 21.1 | 21.6 | 20.6 | 21.3 | 21.1 | 21.8 | 22.3 |
| | 8H | 20.0 | 20.6 | 20.5 | 21.1 | 21.6 | 20.8 | 21.4 | 21.3 | 21.9 | 22.4 |
| | 12H | 20.0 | 20.5 | 20.5 | 21.0 | 21.5 | 20.8 | 21.3 | 21.3 | 21.8 | 22.4 |
| 12H | 4H | 19.9 | 20.6 | 20.4 | 21.1 | 21.5 | 20.0 | 20.7 | 20.5 | 21.2 | 21.7 |
| | 6H | 20.0 | 20.6 | 20.5 | 21.1 | 21.6 | 20.6 | 21.2 | 21.1 | 21.7 | 22.2 |
| | 8H | 20.0 | 20.5 | 20.5 | 21.0 | 21.6 | 20.8 | 21.3 | 21.3 | 21.8 | 22.3 |

Maximum UGR = 22.4

POLAR GRAPH



Maximum Candela = 2306.263 Located At Horizontal Angle = 90, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)