

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P893334

Luminaire Tested: 4MB-2SL-RND-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893334
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2403-327-1)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-2SL-RND-UNV-L935
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 90CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

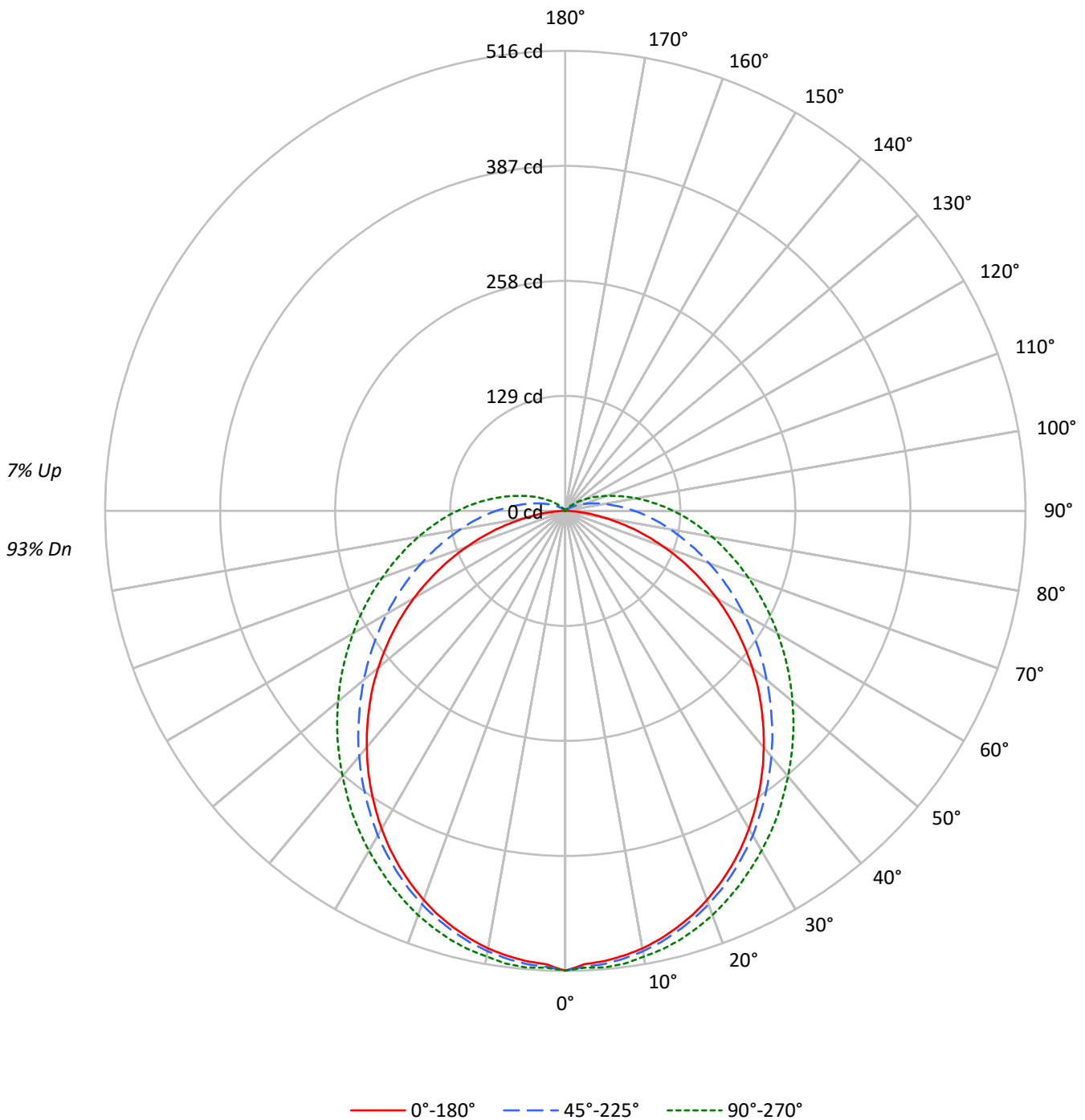
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1707.0 lumens
Efficiency: N/A
Efficacy: 123.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.35
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 13.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.92
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P893334
CATALOG NUMBER: 4MB-2SL-RND-UNV-L935

Luminous Intensity Polar Plot





TEST NUMBER: P893334

CATALOG NUMBER: 4MB-2SL-RND-UNV-L935

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 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 | 50 | 30 | 10 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | | |
| 0 | 117 | 117 | 117 | 117 | 114 | 114 | 114 | 114 | 107 | 107 | 107 | 101 | 101 | 101 | 96 | 96 | 96 | 96 | 96 | 96 | 93 |
| 1 | 105 | 100 | 95 | 90 | 102 | 97 | 92 | 88 | 91 | 87 | 84 | 86 | 83 | 80 | 81 | 79 | 76 | 76 | 76 | 76 | 74 |
| 2 | 95 | 86 | 78 | 72 | 92 | 83 | 77 | 71 | 79 | 73 | 68 | 74 | 70 | 65 | 70 | 66 | 63 | 63 | 63 | 63 | 60 |
| 3 | 86 | 75 | 66 | 59 | 83 | 73 | 65 | 58 | 69 | 62 | 56 | 65 | 59 | 55 | 62 | 57 | 53 | 53 | 53 | 53 | 50 |
| 4 | 79 | 66 | 57 | 50 | 76 | 64 | 56 | 49 | 61 | 54 | 48 | 58 | 51 | 46 | 55 | 49 | 45 | 45 | 45 | 45 | 43 |
| 5 | 72 | 59 | 50 | 43 | 70 | 58 | 49 | 42 | 55 | 47 | 41 | 52 | 45 | 40 | 49 | 44 | 39 | 39 | 39 | 39 | 37 |
| 6 | 67 | 53 | 44 | 37 | 64 | 52 | 43 | 37 | 49 | 42 | 36 | 47 | 40 | 35 | 45 | 39 | 34 | 34 | 34 | 34 | 32 |
| 7 | 62 | 48 | 39 | 33 | 60 | 47 | 38 | 32 | 45 | 37 | 32 | 43 | 36 | 31 | 41 | 35 | 30 | 30 | 30 | 30 | 28 |
| 8 | 58 | 44 | 35 | 29 | 56 | 43 | 35 | 29 | 41 | 34 | 28 | 39 | 33 | 28 | 37 | 32 | 27 | 27 | 27 | 27 | 25 |
| 9 | 54 | 40 | 32 | 26 | 52 | 39 | 31 | 26 | 38 | 31 | 25 | 36 | 30 | 25 | 35 | 29 | 24 | 24 | 24 | 24 | 23 |
| 10 | 50 | 37 | 29 | 24 | 49 | 36 | 29 | 24 | 35 | 28 | 23 | 33 | 27 | 23 | 32 | 26 | 22 | 22 | 22 | 22 | 20 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|-------|
| 0° | 3668 | 3668 | 3668 |
| 5° | 3620 | 3643 | 3671 |
| 10° | 3600 | 3623 | 3667 |
| 15° | 3564 | 3593 | 3668 |
| 20° | 3516 | 3556 | 3654 |
| 25° | 3456 | 3506 | 3633 |
| 30° | 3384 | 3454 | 3617 |
| 35° | 3301 | 3393 | 3610 |
| 40° | 3215 | 3339 | 3608 |
| 45° | 3126 | 3292 | 3633 |
| 50° | 3028 | 3264 | 3680 |
| 55° | 2918 | 3259 | 3769 |
| 60° | 2791 | 3290 | 3910 |
| 65° | 2635 | 3376 | 4143 |
| 70° | 2442 | 3568 | 4541 |
| 75° | 2207 | 3970 | 5270 |
| 80° | 1868 | 4892 | 6843 |
| 85° | 1518 | 7968 | 11723 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 87.5°
 Luminance: 21580 cd/sqm



TEST NUMBER: P893334

CATALOG NUMBER: 4MB-2SL-RND-UNV-L935

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 48.8 | 2.9 |
| 10°-20° | 138.9 | 8.1 |
| 20°-30° | 208.0 | 12.2 |
| 30°-40° | 248.1 | 14.5 |
| 40°-50° | 257.3 | 15.1 |
| 50°-60° | 238.7 | 14.0 |
| 60°-70° | 199.1 | 11.7 |
| 70°-80° | 148.5 | 8.7 |
| 80°-90° | 98.8 | 5.8 |
| 90°-100° | 60.2 | 3.5 |
| 100°-110° | 33.6 | 2.0 |
| 110°-120° | 16.8 | 1.0 |
| 120°-130° | 7.0 | 0.4 |
| 130°-140° | 2.2 | 0.1 |
| 140°-150° | 0.5 | 0.0 |
| 150°-160° | 0.2 | 0.0 |
| 160°-170° | 0.2 | 0.0 |
| 170°-180° | 0.1 | 0.0 |
| 0°-30° | 395.8 | 23.2 |
| 0°-40° | 643.8 | 37.7 |
| 0°-60° | 1139.8 | 66.8 |
| 0°-90° | 1586.2 | 92.9 |
| 90°-120° | 110.6 | 6.5 |
| 90°-150° | 120.3 | 7.0 |
| 90°-180° | 121.0 | 7.1 |
| 0°-180° | 1707.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 516 | 516 | 516 | 516 | 516 | |
| 5° | 507 | 518 | 510 | 513 | 514 | 48 |
| 15° | 484 | 496 | 488 | 497 | 498 | 136 |
| 25° | 440 | 452 | 447 | 459 | 463 | 203 |
| 35° | 380 | 390 | 391 | 410 | 416 | 238 |
| 45° | 311 | 319 | 327 | 353 | 361 | 240 |
| 55° | 235 | 243 | 263 | 293 | 304 | 210 |
| 65° | 156 | 169 | 200 | 234 | 246 | 155 |
| 75° | 80 | 102 | 144 | 180 | 192 | 85 |
| 85° | 19 | 51 | 98 | 131 | 144 | 21 |
| 90° | 1 | 34 | 78 | 109 | 121 | 1 |
| 95° | 0 | 21 | 60 | 90 | 100 | 0 |
| 105° | 0 | 6 | 33 | 55 | 64 | 0 |
| 115° | 0 | 2 | 15 | 31 | 37 | 0 |
| 125° | 0 | 0 | 6 | 15 | 19 | 0 |
| 135° | 0 | 0 | 2 | 5 | 7 | 0 |
| 145° | 0 | 0 | 0 | 1 | 2 | 0 |
| 155° | 1 | 1 | 0 | 0 | 0 | 0 |
| 165° | 1 | 1 | 0 | 0 | 0 | 0 |
| 175° | 1 | 1 | 1 | 0 | 0 | 0 |
| 180° | 1 | 1 | 1 | 1 | 1 | |



TEST NUMBER: P893334

CATALOG NUMBER: 4MB-2SL-RND-UNV-L935

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 515.6 | 515.6 | 515.6 | 515.6 | 515.6 | 515.6 | 515.6 | 515.6 | 515.6 | 515.6 | 515.6 |
| 2.5° | 508.8 | 509.6 | 516.9 | 516.4 | 515.2 | 520.1 | 521.3 | 517.3 | 510.8 | 517.3 | 511.6 |
| 5° | 506.8 | 507.6 | 514.8 | 514.4 | 513.2 | 518.5 | 518.9 | 515.2 | 508.8 | 515.2 | 510.0 |
| 7.5° | 503.1 | 503.9 | 511.2 | 510.8 | 510.0 | 515.2 | 514.8 | 512.0 | 505.1 | 512.0 | 506.4 |
| 10° | 498.3 | 498.7 | 506.4 | 505.6 | 505.1 | 510.4 | 509.2 | 506.8 | 499.9 | 506.8 | 501.5 |
| 12.5° | 491.8 | 492.2 | 499.9 | 499.1 | 499.1 | 503.9 | 502.3 | 500.3 | 493.4 | 499.9 | 495.5 |
| 15° | 483.8 | 484.2 | 491.4 | 491.0 | 491.0 | 496.3 | 493.9 | 492.2 | 485.8 | 492.6 | 487.8 |
| 17.5° | 474.9 | 474.5 | 482.2 | 481.3 | 482.2 | 487.0 | 483.8 | 483.0 | 476.9 | 483.4 | 479.3 |
| 20° | 464.4 | 464.4 | 471.3 | 470.9 | 472.1 | 476.5 | 472.5 | 472.9 | 466.8 | 473.7 | 469.6 |
| 22.5° | 452.7 | 452.3 | 459.2 | 459.2 | 460.4 | 464.8 | 460.4 | 461.6 | 455.5 | 462.0 | 458.8 |
| 25° | 440.2 | 439.4 | 446.2 | 446.2 | 448.3 | 451.9 | 447.0 | 448.7 | 443.0 | 449.5 | 446.6 |
| 27.5° | 426.5 | 425.3 | 432.1 | 432.5 | 434.1 | 437.8 | 432.5 | 434.9 | 429.7 | 435.8 | 433.7 |
| 30° | 411.9 | 410.7 | 417.6 | 418.0 | 420.0 | 422.8 | 417.6 | 420.8 | 416.0 | 422.0 | 420.4 |
| 32.5° | 396.2 | 395.4 | 401.9 | 402.7 | 404.7 | 406.7 | 401.9 | 405.1 | 401.1 | 407.1 | 405.5 |
| 35° | 380.1 | 379.3 | 385.3 | 386.5 | 388.5 | 390.2 | 384.9 | 389.4 | 385.7 | 391.4 | 390.6 |
| 37.5° | 363.5 | 362.3 | 368.8 | 369.6 | 372.0 | 372.8 | 368.0 | 373.2 | 370.0 | 375.6 | 375.2 |
| 40° | 346.2 | 345.0 | 351.4 | 352.2 | 354.7 | 354.7 | 350.6 | 356.3 | 353.8 | 359.1 | 359.5 |
| 42.5° | 328.8 | 327.6 | 333.3 | 334.9 | 336.9 | 336.9 | 332.9 | 338.9 | 337.3 | 342.5 | 343.8 |
| 45° | 310.7 | 309.5 | 314.7 | 316.3 | 318.7 | 318.7 | 314.7 | 321.6 | 320.4 | 325.6 | 327.2 |
| 47.5° | 292.9 | 291.3 | 296.2 | 297.8 | 300.2 | 299.8 | 296.6 | 303.4 | 303.0 | 308.3 | 311.1 |
| 50° | 273.6 | 272.3 | 277.2 | 278.8 | 281.6 | 280.8 | 278.4 | 285.7 | 285.7 | 290.9 | 294.9 |
| 52.5° | 254.6 | 253.4 | 258.2 | 259.8 | 262.3 | 262.3 | 259.8 | 267.5 | 268.7 | 274.0 | 278.8 |
| 55° | 235.2 | 233.6 | 238.5 | 240.1 | 242.9 | 243.3 | 241.3 | 248.9 | 251.4 | 257.4 | 262.7 |
| 57.5° | 215.9 | 215.1 | 219.1 | 220.7 | 224.3 | 224.3 | 223.1 | 231.2 | 234.4 | 240.9 | 246.9 |
| 60° | 196.1 | 195.3 | 198.9 | 200.9 | 205.0 | 205.8 | 205.0 | 213.4 | 217.9 | 224.3 | 231.2 |
| 62.5° | 176.3 | 175.5 | 179.1 | 182.0 | 186.4 | 187.2 | 187.6 | 196.5 | 201.3 | 208.2 | 215.9 |
| 65° | 156.5 | 155.7 | 159.4 | 162.6 | 167.8 | 169.1 | 170.3 | 179.5 | 185.2 | 192.5 | 200.5 |
| 67.5° | 136.8 | 136.4 | 140.0 | 144.0 | 149.7 | 151.3 | 153.3 | 163.0 | 169.5 | 177.1 | 186.0 |
| 70° | 117.4 | 117.0 | 120.6 | 125.5 | 132.3 | 134.4 | 136.8 | 146.5 | 154.5 | 162.6 | 171.5 |
| 72.5° | 98.0 | 98.4 | 102.5 | 108.1 | 115.8 | 117.8 | 121.0 | 131.1 | 140.0 | 148.5 | 157.8 |
| 75° | 80.3 | 80.3 | 84.7 | 91.2 | 99.7 | 102.5 | 106.1 | 116.6 | 125.9 | 134.8 | 144.4 |
| 77.5° | 62.1 | 62.1 | 67.4 | 75.4 | 84.7 | 87.6 | 92.0 | 102.9 | 113.0 | 121.8 | 131.5 |
| 80° | 45.6 | 46.4 | 52.5 | 60.5 | 70.2 | 73.8 | 79.1 | 90.0 | 100.9 | 109.7 | 119.4 |
| 82.5° | 31.1 | 32.3 | 38.7 | 48.0 | 57.7 | 61.3 | 66.6 | 78.3 | 89.2 | 98.4 | 108.5 |
| 85° | 18.6 | 20.6 | 27.4 | 36.7 | 46.8 | 50.8 | 56.5 | 67.4 | 78.3 | 87.6 | 97.6 |
| 87.5° | 8.5 | 11.3 | 18.6 | 27.8 | 37.5 | 42.0 | 46.8 | 57.3 | 68.2 | 77.5 | 88.0 |
| 90° | 0.8 | 4.8 | 12.1 | 20.2 | 29.5 | 33.5 | 38.3 | 48.4 | 58.9 | 67.4 | 77.5 |
| 92.5° | 0.0 | 2.0 | 7.3 | 14.5 | 22.6 | 26.6 | 31.1 | 40.8 | 50.0 | 58.5 | 68.2 |
| 95° | 0.0 | 0.8 | 4.0 | 10.1 | 16.9 | 20.6 | 24.6 | 33.5 | 42.8 | 50.8 | 59.7 |
| 97.5° | 0.0 | 0.4 | 2.4 | 6.9 | 12.5 | 15.7 | 19.4 | 27.4 | 35.9 | 43.6 | 51.6 |
| 100° | 0.0 | 0.4 | 1.2 | 4.4 | 9.3 | 11.7 | 15.3 | 22.2 | 29.9 | 36.7 | 44.8 |
| 102.5° | 0.0 | 0.0 | 0.8 | 2.8 | 6.9 | 8.9 | 11.7 | 17.8 | 24.6 | 31.1 | 38.3 |
| 105° | 0.0 | 0.0 | 0.4 | 2.0 | 4.8 | 6.5 | 8.9 | 14.1 | 20.2 | 25.8 | 32.7 |
| 107.5° | 0.0 | 0.0 | 0.4 | 1.2 | 3.2 | 4.8 | 6.9 | 10.9 | 16.1 | 21.4 | 27.4 |
| 110° | 0.4 | 0.4 | 0.4 | 0.8 | 2.4 | 3.6 | 4.8 | 8.5 | 13.3 | 17.8 | 23.0 |



TEST NUMBER: P893334

CATALOG NUMBER: 4MB-2SL-RND-UNV-L935

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|--------|-----|-----|-----|-----|-----|-------|-----|-----|------|------|------|
| 112.5° | 0.4 | 0.4 | 0.4 | 0.4 | 1.6 | 2.4 | 3.6 | 6.5 | 10.5 | 14.1 | 19.0 |
| 115° | 0.4 | 0.4 | 0.4 | 0.4 | 1.2 | 1.6 | 2.4 | 4.8 | 8.1 | 11.3 | 15.3 |
| 117.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.8 | 1.2 | 1.6 | 3.6 | 6.1 | 8.9 | 12.5 |
| 120° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.8 | 1.2 | 2.4 | 4.8 | 6.9 | 10.1 |
| 122.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.8 | 0.8 | 2.0 | 3.6 | 5.2 | 7.7 |
| 125° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.8 | 1.2 | 2.4 | 4.0 | 6.1 |
| 127.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.8 | 1.2 | 1.6 | 2.8 | 4.4 |
| 130° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.8 | 1.2 | 2.0 | 3.2 |
| 132.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.8 | 1.2 | 1.6 | 2.4 |
| 135° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.8 | 1.2 | 1.6 |
| 137.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.8 | 0.8 | 1.2 |
| 140° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.8 | 0.8 |
| 142.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.8 |
| 145° | 0.4 | 0.8 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| 147.5° | 0.4 | 0.8 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| 150° | 0.4 | 0.8 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| 152.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| 155° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| 157.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.4 | 0.4 | 0.4 |
| 160° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.4 | 0.4 | 0.4 |
| 162.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.4 | 0.4 | 0.4 |
| 165° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.4 | 0.4 |
| 167.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.4 |
| 170° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 172.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.4 |
| 175° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 177.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 180° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |



TEST NUMBER: P893334

CATALOG NUMBER: 4MB-2SL-RND-UNV-L935

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 515.6 | 515.6 | 515.6 | 515.6 | 515.6 | 515.6 | 515.6 | 515.6 | 515.6 | 515.6 |
| 2.5° | 513.2 | 514.4 | 515.6 | 512.4 | 514.4 | 518.1 | 519.3 | 514.4 | 516.0 | 512.8 |
| 5° | 511.6 | 512.4 | 514.0 | 510.0 | 512.8 | 516.0 | 518.1 | 514.0 | 516.4 | 514.0 |
| 7.5° | 508.4 | 509.2 | 511.2 | 507.2 | 510.8 | 513.6 | 516.0 | 512.0 | 514.4 | 512.0 |
| 10° | 503.5 | 504.7 | 507.6 | 502.7 | 507.2 | 509.6 | 512.0 | 507.6 | 510.0 | 507.6 |
| 12.5° | 497.5 | 499.5 | 501.9 | 497.5 | 501.9 | 503.9 | 507.2 | 502.7 | 505.6 | 503.5 |
| 15° | 490.2 | 492.2 | 495.5 | 491.0 | 496.7 | 498.3 | 501.5 | 497.1 | 499.9 | 497.9 |
| 17.5° | 481.7 | 484.2 | 488.2 | 483.0 | 489.4 | 490.6 | 493.9 | 489.8 | 492.6 | 490.6 |
| 20° | 472.1 | 474.5 | 478.5 | 473.7 | 480.1 | 480.9 | 484.6 | 480.9 | 483.8 | 482.6 |
| 22.5° | 460.8 | 463.6 | 467.6 | 463.2 | 470.0 | 470.0 | 474.5 | 470.9 | 474.1 | 472.9 |
| 25° | 449.1 | 452.3 | 456.7 | 451.9 | 459.2 | 459.2 | 464.0 | 460.4 | 463.6 | 462.8 |
| 27.5° | 436.6 | 440.2 | 445.4 | 440.6 | 447.9 | 447.5 | 452.3 | 449.1 | 452.7 | 451.5 |
| 30° | 423.2 | 427.3 | 432.5 | 428.5 | 436.2 | 435.3 | 440.2 | 437.4 | 440.6 | 440.2 |
| 32.5° | 408.7 | 413.2 | 419.6 | 415.2 | 422.8 | 422.0 | 428.1 | 424.9 | 428.9 | 428.1 |
| 35° | 394.2 | 399.0 | 405.5 | 401.5 | 409.9 | 408.7 | 414.8 | 411.9 | 416.0 | 415.6 |
| 37.5° | 379.3 | 384.5 | 391.0 | 387.7 | 395.8 | 394.6 | 401.1 | 398.6 | 403.1 | 401.9 |
| 40° | 363.9 | 369.2 | 376.0 | 373.2 | 381.7 | 380.1 | 386.9 | 384.9 | 389.4 | 388.5 |
| 42.5° | 348.6 | 354.3 | 361.1 | 359.5 | 367.6 | 366.0 | 372.8 | 371.2 | 375.6 | 374.8 |
| 45° | 332.9 | 338.9 | 346.2 | 344.6 | 353.0 | 351.4 | 358.3 | 357.1 | 361.5 | 361.1 |
| 47.5° | 317.1 | 323.6 | 330.8 | 330.0 | 338.1 | 336.5 | 343.8 | 342.5 | 347.0 | 347.0 |
| 50° | 301.0 | 308.3 | 315.5 | 315.1 | 323.2 | 321.6 | 328.0 | 328.0 | 332.9 | 332.5 |
| 52.5° | 284.9 | 292.5 | 300.2 | 300.2 | 308.3 | 306.6 | 313.9 | 313.5 | 318.3 | 318.3 |
| 55° | 269.5 | 276.4 | 284.0 | 285.7 | 293.3 | 290.9 | 298.6 | 299.4 | 303.4 | 303.8 |
| 57.5° | 254.2 | 261.5 | 269.1 | 271.1 | 278.4 | 276.8 | 284.0 | 284.9 | 288.9 | 289.3 |
| 60° | 238.9 | 245.7 | 253.4 | 256.2 | 263.5 | 261.9 | 269.1 | 269.9 | 274.4 | 274.8 |
| 62.5° | 223.5 | 230.4 | 238.9 | 241.7 | 248.5 | 247.3 | 255.0 | 255.8 | 259.8 | 260.6 |
| 65° | 208.6 | 215.9 | 223.9 | 228.0 | 234.4 | 232.8 | 240.5 | 241.3 | 245.7 | 246.1 |
| 67.5° | 194.1 | 201.3 | 209.4 | 213.8 | 219.9 | 219.1 | 226.3 | 228.0 | 231.6 | 232.4 |
| 70° | 179.9 | 187.2 | 195.7 | 200.1 | 206.2 | 205.8 | 212.6 | 213.8 | 217.9 | 218.3 |
| 72.5° | 166.2 | 173.5 | 182.0 | 187.2 | 192.5 | 192.1 | 198.9 | 200.5 | 204.6 | 205.0 |
| 75° | 152.9 | 160.6 | 168.7 | 174.3 | 179.5 | 179.1 | 186.0 | 187.6 | 191.2 | 191.7 |
| 77.5° | 140.4 | 148.1 | 156.5 | 162.2 | 166.6 | 167.0 | 173.1 | 174.7 | 178.3 | 179.5 |
| 80° | 128.7 | 136.0 | 144.0 | 150.1 | 154.1 | 154.9 | 160.6 | 162.6 | 165.4 | 167.0 |
| 82.5° | 117.4 | 124.7 | 132.7 | 138.4 | 142.4 | 143.2 | 148.5 | 150.9 | 153.7 | 154.9 |
| 85° | 106.5 | 113.8 | 121.4 | 127.5 | 131.1 | 131.5 | 136.8 | 139.2 | 141.6 | 143.6 |
| 87.5° | 96.0 | 103.3 | 110.6 | 117.0 | 120.2 | 121.0 | 125.9 | 128.3 | 130.3 | 132.3 |
| 90° | 85.5 | 92.8 | 100.1 | 106.1 | 109.3 | 109.7 | 115.0 | 117.4 | 119.4 | 121.0 |
| 92.5° | 75.9 | 83.1 | 90.4 | 96.4 | 99.3 | 100.1 | 104.5 | 107.3 | 108.9 | 110.6 |
| 95° | 66.6 | 73.8 | 80.3 | 86.7 | 89.6 | 90.8 | 94.8 | 97.2 | 99.3 | 100.1 |
| 97.5° | 58.5 | 65.0 | 71.0 | 77.5 | 79.9 | 81.1 | 85.1 | 88.0 | 89.6 | 90.4 |
| 100° | 50.8 | 56.9 | 62.5 | 68.6 | 71.0 | 72.2 | 75.9 | 78.3 | 79.9 | 81.1 |
| 102.5° | 44.0 | 49.6 | 54.9 | 60.5 | 62.9 | 63.7 | 67.0 | 69.4 | 71.0 | 72.2 |
| 105° | 37.9 | 43.2 | 48.0 | 53.3 | 55.3 | 56.5 | 59.3 | 61.3 | 62.9 | 63.7 |
| 107.5° | 32.3 | 37.5 | 41.6 | 46.4 | 48.4 | 49.2 | 52.0 | 54.5 | 55.7 | 56.1 |
| 110° | 27.4 | 31.9 | 35.9 | 39.9 | 42.4 | 43.2 | 45.6 | 47.6 | 48.8 | 49.2 |



TEST NUMBER: P893334

CATALOG NUMBER: 4MB-2SL-RND-UNV-L935

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° |
|--------|------|------|------|------|-------|------|------|------|------|------|
| 112.5° | 23.0 | 27.0 | 30.7 | 34.3 | 36.3 | 37.1 | 39.5 | 41.6 | 42.4 | 42.8 |
| 115° | 19.0 | 23.0 | 25.8 | 29.5 | 31.1 | 31.9 | 33.9 | 35.9 | 36.3 | 37.1 |
| 117.5° | 15.3 | 19.0 | 21.8 | 24.6 | 26.2 | 27.0 | 28.6 | 30.3 | 31.1 | 31.5 |
| 120° | 12.5 | 15.3 | 17.8 | 20.6 | 21.8 | 22.6 | 24.2 | 25.8 | 26.2 | 26.6 |
| 122.5° | 10.1 | 12.5 | 14.5 | 16.9 | 18.2 | 19.0 | 20.2 | 21.4 | 21.8 | 22.2 |
| 125° | 7.7 | 10.1 | 11.7 | 13.7 | 14.9 | 15.3 | 16.5 | 17.8 | 18.2 | 18.6 |
| 127.5° | 6.1 | 7.7 | 9.3 | 10.9 | 11.7 | 12.1 | 13.3 | 14.1 | 14.5 | 14.9 |
| 130° | 4.4 | 5.6 | 6.9 | 8.5 | 9.3 | 9.7 | 10.5 | 11.3 | 11.7 | 11.7 |
| 132.5° | 3.2 | 4.4 | 5.2 | 6.5 | 6.9 | 7.3 | 8.1 | 8.9 | 8.9 | 9.3 |
| 135° | 2.0 | 2.8 | 3.6 | 4.4 | 5.2 | 5.2 | 6.1 | 6.5 | 6.9 | 6.9 |
| 137.5° | 1.6 | 2.0 | 2.4 | 3.2 | 3.6 | 4.0 | 4.0 | 4.8 | 4.8 | 4.8 |
| 140° | 1.2 | 1.6 | 1.6 | 2.0 | 2.4 | 2.8 | 2.8 | 3.2 | 3.2 | 3.2 |
| 142.5° | 0.8 | 1.2 | 1.2 | 1.6 | 1.6 | 2.0 | 2.0 | 2.0 | 2.4 | 2.4 |
| 145° | 0.8 | 0.8 | 0.8 | 1.2 | 1.2 | 1.2 | 1.2 | 1.6 | 1.6 | 1.6 |
| 147.5° | 0.4 | 0.4 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 1.2 | 1.2 | 1.2 |
| 150° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 152.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| 155° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| 157.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| 160° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| 162.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| 165° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| 167.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| 170° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| 172.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| 175° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.0 |
| 177.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.0 |
| 180° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |



TEST NUMBER: P893334
 CATALOG NUMBER: 4MB-2SL-RND-UNV-L935

CIE UGR TABLE:

| Reflectances: | | | | | | | | | | | |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling | | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Wall | | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Reference plane | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Room dimensions | | Viewed crosswise | | | | | Viewed endwise | | | | |
| X=2H | Y=2H | 14.80 | 16.34 | 15.27 | 16.80 | 17.28 | 16.37 | 17.91 | 16.84 | 18.37 | 18.85 |
| | 3H | 16.48 | 17.88 | 16.96 | 18.35 | 18.88 | 19.00 | 20.40 | 19.48 | 20.87 | 21.40 |
| | 4H | 17.08 | 18.41 | 17.58 | 18.89 | 19.43 | 20.31 | 21.64 | 20.81 | 22.13 | 22.67 |
| | 6H | 17.48 | 18.72 | 17.99 | 19.21 | 19.77 | 21.72 | 22.96 | 22.23 | 23.45 | 24.01 |
| | 8H | 17.59 | 18.78 | 18.12 | 19.30 | 19.86 | 22.46 | 23.65 | 22.99 | 24.17 | 24.74 |
| | 12H | 17.67 | 18.81 | 18.20 | 19.32 | 19.92 | 23.32 | 24.46 | 23.85 | 24.97 | 25.56 |
| 4H | 2H | 15.73 | 17.06 | 16.24 | 17.55 | 18.09 | 16.93 | 18.26 | 17.43 | 18.74 | 19.28 |
| | 3H | 17.71 | 18.85 | 18.23 | 19.37 | 19.94 | 19.84 | 20.98 | 20.36 | 21.51 | 22.07 |
| | 4H | 18.49 | 19.53 | 19.02 | 20.06 | 20.66 | 21.37 | 22.41 | 21.90 | 22.95 | 23.54 |
| | 6H | 19.07 | 19.99 | 19.62 | 20.55 | 21.16 | 23.01 | 23.93 | 23.57 | 24.49 | 25.10 |
| | 8H | 19.25 | 20.11 | 19.81 | 20.68 | 21.30 | 23.89 | 24.76 | 24.45 | 25.32 | 25.94 |
| | 12H | 19.37 | 20.16 | 19.96 | 20.75 | 21.38 | 24.89 | 25.68 | 25.48 | 26.27 | 26.90 |
| 8H | 4H | 19.36 | 20.23 | 19.93 | 20.80 | 21.42 | 21.73 | 22.59 | 22.29 | 23.16 | 23.78 |
| | 6H | 20.25 | 20.98 | 20.84 | 21.59 | 22.22 | 23.63 | 24.37 | 24.22 | 24.97 | 25.60 |
| | 8H | 20.59 | 21.26 | 21.20 | 21.88 | 22.52 | 24.71 | 25.38 | 25.32 | 25.99 | 26.63 |
| | 12H | 20.87 | 21.46 | 21.47 | 22.07 | 22.77 | 25.98 | 26.57 | 26.58 | 27.18 | 27.88 |
| 12H | 4H | 19.64 | 20.43 | 20.23 | 21.02 | 21.65 | 21.77 | 22.56 | 22.35 | 23.15 | 23.78 |
| | 6H | 20.70 | 21.36 | 21.30 | 21.98 | 22.62 | 23.74 | 24.41 | 24.34 | 25.02 | 25.66 |
| | 8H | 21.21 | 21.81 | 21.82 | 22.41 | 23.12 | 24.94 | 25.53 | 25.54 | 26.14 | 26.84 |