

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P332094-840

Luminaire Tested: **S123DIW-S340D460U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332094-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIW-S340D460U840-4F0-1E-UDD-F
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 460 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3288.0 lumens
Efficiency: N/A
Efficacy: 143.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: General Diffuse

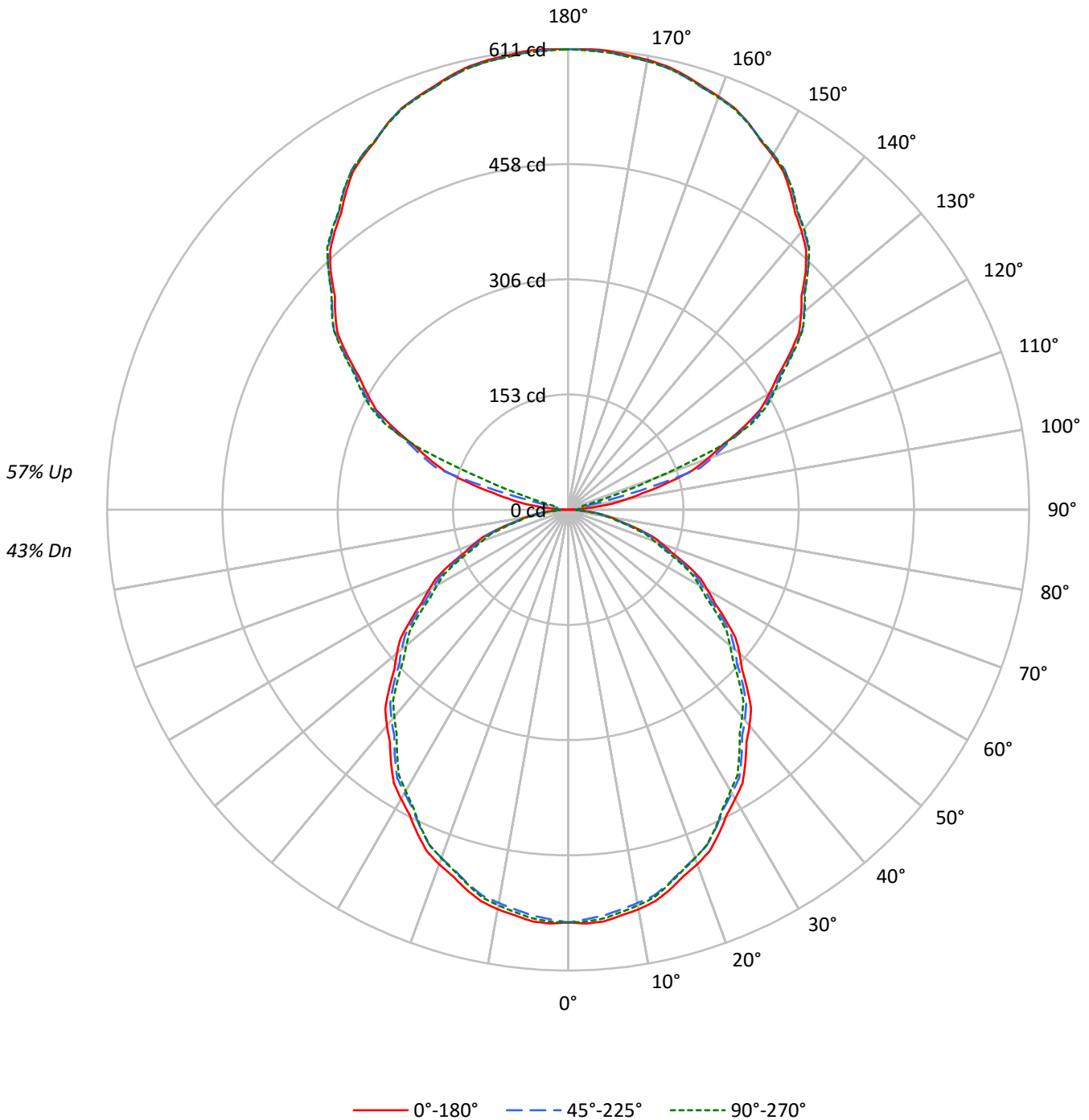
Input Watts (W): 23
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332094-840

CATALOG NUMBER: S123DIW-S340D460U840-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P332094-840

CATALOG NUMBER: S123DIW-S340D460U840-4F0-1E-UDD-F

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RF | 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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 106 | 106 | 106 | 106 | 97 | 97 | 97 | 97 | 80 | 80 | 80 | 64 | 64 | 64 | 50 | 50 | 50 | 43 |
| 1 | 96 | 92 | 88 | 85 | 88 | 84 | 81 | 78 | 70 | 67 | 65 | 56 | 55 | 53 | 44 | 43 | 42 | 36 |
| 2 | 88 | 80 | 74 | 69 | 80 | 74 | 68 | 64 | 61 | 57 | 54 | 49 | 47 | 44 | 39 | 37 | 35 | 30 |
| 3 | 80 | 70 | 63 | 57 | 73 | 65 | 58 | 53 | 54 | 49 | 45 | 44 | 40 | 38 | 34 | 32 | 30 | 26 |
| 4 | 73 | 62 | 54 | 48 | 66 | 57 | 50 | 45 | 48 | 43 | 39 | 39 | 35 | 32 | 31 | 28 | 26 | 22 |
| 5 | 67 | 55 | 47 | 41 | 61 | 51 | 44 | 39 | 43 | 37 | 33 | 35 | 31 | 28 | 28 | 25 | 23 | 19 |
| 6 | 62 | 50 | 42 | 36 | 56 | 46 | 39 | 34 | 38 | 33 | 29 | 31 | 27 | 24 | 25 | 22 | 20 | 17 |
| 7 | 57 | 45 | 37 | 31 | 52 | 41 | 34 | 29 | 35 | 29 | 25 | 29 | 25 | 21 | 23 | 20 | 18 | 15 |
| 8 | 53 | 41 | 33 | 28 | 48 | 38 | 31 | 26 | 32 | 26 | 23 | 26 | 22 | 19 | 21 | 18 | 16 | 13 |
| 9 | 49 | 37 | 30 | 25 | 45 | 34 | 28 | 23 | 29 | 24 | 20 | 24 | 20 | 17 | 19 | 16 | 14 | 12 |
| 10 | 46 | 34 | 27 | 22 | 42 | 31 | 25 | 21 | 27 | 22 | 18 | 22 | 18 | 15 | 18 | 15 | 13 | 11 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5890 | 5890 | 5890 |
| 5° | 5919 | 5837 | 5877 |
| 10° | 5879 | 5786 | 5822 |
| 15° | 5810 | 5721 | 5731 |
| 20° | 5730 | 5628 | 5632 |
| 25° | 5621 | 5516 | 5505 |
| 30° | 5504 | 5392 | 5351 |
| 35° | 5380 | 5261 | 5194 |
| 40° | 5251 | 5117 | 5039 |
| 45° | 5107 | 4985 | 4864 |
| 50° | 4963 | 4823 | 4687 |
| 55° | 4778 | 4654 | 4511 |
| 60° | 4590 | 4456 | 4316 |
| 65° | 4422 | 4241 | 4111 |
| 70° | 4176 | 3997 | 3821 |
| 75° | 3818 | 3681 | 3523 |
| 80° | 3440 | 3298 | 3267 |
| 85° | 3013 | 2902 | 2791 |



TEST NUMBER: P332094-840

CATALOG NUMBER: S123DIW-S340D460U840-4F0-1E-UDD-F

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 51.5 | 1.6 |
| 10°-20° | 145.6 | 4.4 |
| 20°-30° | 215.0 | 6.5 |
| 30°-40° | 251.2 | 7.6 |
| 40°-50° | 252.5 | 7.7 |
| 50°-60° | 221.8 | 6.7 |
| 60°-70° | 165.2 | 5.0 |
| 70°-80° | 94.1 | 2.9 |
| 80°-90° | 28.7 | 0.9 |
| 90°-100° | 22.2 | 0.7 |
| 100°-110° | 105.8 | 3.2 |
| 110°-120° | 254.2 | 7.7 |
| 120°-130° | 323.7 | 9.8 |
| 130°-140° | 345.8 | 10.5 |
| 140°-150° | 323.4 | 9.8 |
| 150°-160° | 260.8 | 7.9 |
| 160°-170° | 168.4 | 5.1 |
| 170°-180° | 58.0 | 1.8 |
| 0°-30° | 412.1 | 12.5 |
| 0°-40° | 663.3 | 20.2 |
| 0°-60° | 1137.6 | 34.6 |
| 0°-90° | 1425.7 | 43.4 |
| 90°-120° | 382.2 | 11.6 |
| 90°-150° | 1375.1 | 41.8 |
| 90°-180° | 1862.0 | 56.6 |
| 0°-180° | 3288.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 547 | 547 | 547 | 547 | 547 | |
| 5° | 548 | 545 | 540 | 545 | 544 | 52 |
| 15° | 521 | 519 | 513 | 517 | 514 | 147 |
| 25° | 473 | 470 | 464 | 465 | 464 | 218 |
| 35° | 409 | 406 | 400 | 398 | 395 | 256 |
| 45° | 336 | 333 | 328 | 322 | 320 | 259 |
| 55° | 255 | 254 | 248 | 243 | 240 | 228 |
| 65° | 174 | 171 | 166 | 163 | 161 | 171 |
| 75° | 92 | 90 | 88 | 86 | 85 | 98 |
| 85° | 24 | 24 | 24 | 23 | 23 | 27 |
| 90° | 0 | 5 | 11 | 13 | 14 | 3 |
| 95° | 28 | 10 | 14 | 17 | 17 | 34 |
| 105° | 135 | 138 | 99 | 24 | 20 | 143 |
| 115° | 254 | 256 | 260 | 265 | 267 | 250 |
| 125° | 358 | 361 | 363 | 364 | 365 | 319 |
| 135° | 445 | 448 | 450 | 451 | 450 | 343 |
| 145° | 514 | 517 | 518 | 519 | 519 | 321 |
| 155° | 566 | 565 | 565 | 567 | 565 | 261 |
| 165° | 597 | 595 | 595 | 598 | 595 | 169 |
| 175° | 611 | 608 | 609 | 612 | 608 | 58 |
| 180° | 611 | 611 | 611 | 611 | 611 | |



TEST NUMBER: P332094-840

CATALOG NUMBER: S123DIW-S340D460U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 547.2 | 547.2 | 547.2 | 547.2 | 547.2 | 547.2 | 547.2 | 547.2 | 547.2 | 547.2 | 547.2 |
| 2.5° | 549.2 | 548.8 | 548.5 | 548.2 | 547.8 | 547.1 | 546.2 | 545.3 | 544.4 | 543.5 | 544.3 |
| 5° | 547.8 | 547.1 | 546.6 | 546.1 | 545.6 | 544.8 | 543.6 | 542.5 | 541.3 | 540.2 | 541.2 |
| 7.5° | 542.4 | 541.8 | 541.3 | 540.8 | 540.3 | 539.4 | 538.3 | 537.0 | 535.8 | 534.6 | 535.5 |
| 10° | 537.9 | 537.3 | 536.7 | 536.2 | 535.7 | 534.8 | 533.4 | 532.1 | 530.7 | 529.4 | 530.3 |
| 12.5° | 531.8 | 531.4 | 530.9 | 530.5 | 530.1 | 529.2 | 528.0 | 526.6 | 525.3 | 524.1 | 524.8 |
| 15° | 521.4 | 521.0 | 520.5 | 520.1 | 519.7 | 518.8 | 517.5 | 516.0 | 514.7 | 513.4 | 514.2 |
| 17.5° | 509.2 | 508.7 | 508.2 | 507.6 | 507.1 | 506.1 | 504.7 | 503.4 | 502.0 | 500.7 | 501.2 |
| 20° | 500.2 | 499.6 | 499.0 | 498.3 | 497.7 | 496.7 | 495.3 | 493.9 | 492.6 | 491.3 | 491.7 |
| 22.5° | 490.0 | 489.4 | 488.8 | 488.2 | 487.6 | 486.6 | 485.1 | 483.8 | 482.4 | 481.1 | 481.4 |
| 25° | 473.3 | 472.7 | 472.1 | 471.5 | 470.9 | 469.9 | 468.5 | 467.2 | 465.7 | 464.4 | 464.5 |
| 27.5° | 455.6 | 454.9 | 454.3 | 453.7 | 453.1 | 452.1 | 450.7 | 449.2 | 447.8 | 446.3 | 446.4 |
| 30° | 442.8 | 442.2 | 441.7 | 441.2 | 440.7 | 439.7 | 438.3 | 436.8 | 435.4 | 433.8 | 433.8 |
| 32.5° | 430.0 | 429.3 | 428.6 | 427.9 | 427.3 | 426.3 | 425.2 | 424.0 | 422.9 | 421.8 | 421.2 |
| 35° | 409.4 | 408.8 | 408.1 | 407.5 | 406.9 | 405.9 | 404.6 | 403.1 | 401.8 | 400.4 | 399.8 |
| 37.5° | 388.3 | 387.5 | 386.7 | 385.9 | 385.2 | 384.1 | 382.6 | 381.2 | 379.9 | 378.5 | 377.8 |
| 40° | 373.7 | 372.9 | 372.3 | 371.7 | 371.1 | 370.0 | 368.6 | 367.1 | 365.7 | 364.2 | 363.3 |
| 42.5° | 358.9 | 358.2 | 357.5 | 356.8 | 356.1 | 355.0 | 353.6 | 352.0 | 350.6 | 349.1 | 348.3 |
| 45° | 335.5 | 335.1 | 334.7 | 334.3 | 333.9 | 333.0 | 331.5 | 330.2 | 328.8 | 327.5 | 326.3 |
| 47.5° | 312.3 | 311.6 | 311.0 | 310.4 | 309.8 | 308.9 | 307.6 | 306.3 | 305.1 | 303.8 | 302.6 |
| 50° | 296.4 | 295.9 | 295.4 | 294.9 | 294.4 | 293.4 | 292.1 | 290.7 | 289.3 | 288.0 | 286.8 |
| 52.5° | 279.8 | 279.5 | 279.1 | 278.8 | 278.4 | 277.5 | 276.1 | 274.7 | 273.3 | 271.8 | 270.8 |
| 55° | 254.6 | 254.5 | 254.4 | 254.3 | 254.2 | 253.4 | 252.1 | 250.6 | 249.3 | 248.0 | 246.8 |
| 57.5° | 230.5 | 230.1 | 229.7 | 229.4 | 229.0 | 228.3 | 227.2 | 226.1 | 225.1 | 224.0 | 223.0 |
| 60° | 213.2 | 213.1 | 213.0 | 212.9 | 212.8 | 212.1 | 210.8 | 209.5 | 208.3 | 207.0 | 206.1 |
| 62.5° | 197.7 | 197.4 | 197.2 | 196.9 | 196.6 | 195.9 | 194.6 | 193.4 | 192.1 | 190.9 | 190.0 |
| 65° | 173.6 | 173.1 | 172.6 | 172.1 | 171.6 | 170.8 | 169.8 | 168.6 | 167.6 | 166.5 | 165.7 |
| 67.5° | 148.1 | 147.6 | 147.2 | 146.7 | 146.3 | 145.6 | 144.9 | 144.1 | 143.3 | 142.5 | 141.8 |
| 70° | 132.7 | 132.1 | 131.5 | 130.8 | 130.2 | 129.6 | 129.0 | 128.3 | 127.6 | 127.0 | 126.3 |
| 72.5° | 116.5 | 116.0 | 115.6 | 115.1 | 114.6 | 114.1 | 113.4 | 112.7 | 112.0 | 111.3 | 110.6 |
| 75° | 91.8 | 91.3 | 90.9 | 90.5 | 90.1 | 89.7 | 89.4 | 89.1 | 88.8 | 88.5 | 88.0 |
| 77.5° | 69.8 | 69.6 | 69.4 | 69.2 | 68.9 | 68.6 | 68.3 | 67.9 | 67.5 | 67.1 | 66.8 |
| 80° | 55.5 | 55.2 | 54.9 | 54.6 | 54.2 | 54.0 | 53.8 | 53.6 | 53.4 | 53.2 | 53.0 |
| 82.5° | 41.6 | 41.5 | 41.5 | 41.4 | 41.3 | 41.3 | 41.2 | 41.2 | 41.2 | 41.1 | 40.9 |
| 85° | 24.4 | 24.2 | 24.0 | 23.8 | 23.6 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.3 |
| 87.5° | 9.9 | 9.8 | 9.8 | 9.7 | 9.7 | 9.8 | 9.9 | 10.1 | 10.3 | 10.5 | 10.5 |
| 90° | 0.4 | 1.4 | 2.4 | 3.4 | 4.4 | 5.7 | 7.0 | 8.3 | 9.6 | 10.9 | 11.3 |
| 92.5° | 8.5 | 8.2 | 7.9 | 7.6 | 7.3 | 7.7 | 8.7 | 9.6 | 10.6 | 11.6 | 12.2 |
| 95° | 27.7 | 23.5 | 19.4 | 15.2 | 11.1 | 9.6 | 10.7 | 11.8 | 12.9 | 14.0 | 14.7 |
| 97.5° | 55.6 | 53.7 | 51.9 | 50.1 | 48.2 | 43.6 | 36.4 | 29.1 | 21.9 | 14.6 | 15.5 |
| 100° | 76.6 | 78.7 | 80.7 | 82.7 | 84.7 | 77.9 | 62.2 | 46.5 | 30.7 | 14.9 | 15.8 |
| 102.5° | 100.6 | 102.1 | 103.5 | 105.0 | 106.4 | 98.6 | 81.4 | 64.2 | 47.1 | 29.9 | 27.4 |
| 105° | 135.2 | 136.3 | 137.4 | 138.6 | 139.7 | 135.6 | 126.5 | 117.5 | 108.5 | 99.4 | 81.5 |
| 107.5° | 171.7 | 172.6 | 173.5 | 174.3 | 175.2 | 176.4 | 177.8 | 179.3 | 180.7 | 182.1 | 169.1 |
| 110° | 196.0 | 196.8 | 197.6 | 198.4 | 199.2 | 200.2 | 201.3 | 202.4 | 203.5 | 204.6 | 201.3 |



TEST NUMBER: P332094-840

CATALOG NUMBER: S123DIW-S340D460U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 219.2 | 219.9 | 220.7 | 221.4 | 222.2 | 223.1 | 224.2 | 225.3 | 226.4 | 227.5 | 227.5 |
| 115° | 253.6 | 254.2 | 254.8 | 255.4 | 256.0 | 256.8 | 257.7 | 258.6 | 259.5 | 260.4 | 261.5 |
| 117.5° | 286.9 | 287.7 | 288.4 | 289.1 | 289.9 | 290.5 | 290.9 | 291.4 | 292.0 | 292.4 | 293.2 |
| 120° | 307.6 | 308.5 | 309.4 | 310.3 | 311.2 | 311.8 | 312.1 | 312.5 | 312.8 | 313.1 | 313.9 |
| 122.5° | 328.7 | 329.4 | 330.1 | 330.9 | 331.6 | 332.2 | 332.6 | 333.0 | 333.4 | 333.8 | 334.3 |
| 125° | 357.5 | 358.3 | 359.1 | 359.9 | 360.7 | 361.3 | 361.7 | 362.1 | 362.5 | 362.9 | 363.1 |
| 127.5° | 385.5 | 386.3 | 387.1 | 387.9 | 388.7 | 389.3 | 389.8 | 390.3 | 390.8 | 391.3 | 391.6 |
| 130° | 402.9 | 403.7 | 404.6 | 405.4 | 406.2 | 406.8 | 407.2 | 407.6 | 408.0 | 408.3 | 408.7 |
| 132.5° | 419.6 | 420.4 | 421.2 | 422.0 | 422.8 | 423.3 | 423.7 | 424.0 | 424.3 | 424.6 | 425.1 |
| 135° | 445.0 | 445.7 | 446.3 | 446.9 | 447.5 | 448.0 | 448.4 | 448.8 | 449.2 | 449.6 | 449.9 |
| 137.5° | 466.9 | 467.7 | 468.4 | 469.2 | 469.9 | 470.4 | 470.7 | 470.9 | 471.1 | 471.3 | 471.8 |
| 140° | 481.4 | 482.0 | 482.6 | 483.2 | 483.8 | 484.2 | 484.5 | 484.8 | 485.1 | 485.4 | 485.8 |
| 142.5° | 494.8 | 495.4 | 496.0 | 496.7 | 497.3 | 497.7 | 498.0 | 498.3 | 498.6 | 498.9 | 499.2 |
| 145° | 513.6 | 514.3 | 515.0 | 515.7 | 516.4 | 516.8 | 517.1 | 517.3 | 517.5 | 517.7 | 517.9 |
| 147.5° | 531.3 | 531.8 | 532.2 | 532.7 | 533.1 | 533.5 | 533.7 | 533.9 | 534.1 | 534.3 | 534.5 |
| 150° | 542.2 | 542.5 | 542.8 | 543.1 | 543.4 | 543.6 | 543.8 | 544.0 | 544.2 | 544.4 | 544.6 |
| 152.5° | 552.0 | 552.1 | 552.3 | 552.4 | 552.6 | 552.7 | 552.8 | 552.9 | 553.0 | 553.2 | 553.5 |
| 155° | 565.7 | 565.5 | 565.3 | 565.2 | 565.0 | 564.9 | 565.0 | 565.1 | 565.2 | 565.3 | 565.8 |
| 157.5° | 576.5 | 576.4 | 576.4 | 576.4 | 576.4 | 576.3 | 576.2 | 576.1 | 576.0 | 575.9 | 576.5 |
| 160° | 583.0 | 582.9 | 582.8 | 582.7 | 582.6 | 582.5 | 582.4 | 582.3 | 582.2 | 582.1 | 582.7 |
| 162.5° | 589.2 | 589.0 | 588.7 | 588.4 | 588.1 | 587.9 | 587.8 | 587.7 | 587.6 | 587.5 | 588.2 |
| 165° | 596.6 | 596.3 | 596.0 | 595.7 | 595.4 | 595.2 | 595.1 | 595.0 | 594.9 | 594.8 | 595.6 |
| 167.5° | 602.5 | 602.1 | 601.7 | 601.3 | 600.9 | 600.7 | 600.7 | 600.7 | 600.7 | 600.7 | 601.5 |
| 170° | 605.7 | 605.3 | 604.9 | 604.5 | 604.1 | 603.9 | 603.9 | 603.9 | 603.9 | 603.9 | 604.7 |
| 172.5° | 607.8 | 607.4 | 606.9 | 606.4 | 605.9 | 605.7 | 605.8 | 605.9 | 606.0 | 606.0 | 606.8 |
| 175° | 610.7 | 610.2 | 609.7 | 609.2 | 608.6 | 608.4 | 608.5 | 608.6 | 608.7 | 608.8 | 609.6 |
| 177.5° | 611.4 | 611.0 | 610.6 | 610.2 | 609.8 | 609.7 | 609.8 | 609.8 | 609.9 | 610.0 | 610.6 |
| 180° | 610.7 | 610.7 | 610.7 | 610.7 | 610.7 | 610.7 | 610.7 | 610.7 | 610.7 | 610.7 | 610.7 |



TEST NUMBER: P332094-840

CATALOG NUMBER: S123DIW-S340D460U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 547.2 | 547.2 | 547.2 | 547.2 | 547.2 | 547.2 | 547.2 | 547.2 |
| 2.5° | 545.1 | 546.0 | 546.8 | 547.2 | 547.1 | 547.0 | 546.9 | 546.8 |
| 5° | 542.3 | 543.3 | 544.4 | 544.8 | 544.6 | 544.4 | 544.1 | 543.9 |
| 7.5° | 536.5 | 537.5 | 538.4 | 538.8 | 538.7 | 538.6 | 538.5 | 538.3 |
| 10° | 531.3 | 532.2 | 533.1 | 533.5 | 533.3 | 533.1 | 532.9 | 532.7 |
| 12.5° | 525.4 | 526.1 | 526.8 | 527.1 | 527.0 | 526.8 | 526.7 | 526.6 |
| 15° | 515.0 | 515.8 | 516.7 | 516.8 | 516.1 | 515.5 | 514.9 | 514.3 |
| 17.5° | 501.8 | 502.4 | 503.0 | 503.2 | 502.9 | 502.7 | 502.5 | 502.3 |
| 20° | 492.1 | 492.5 | 492.9 | 493.0 | 492.6 | 492.3 | 492.0 | 491.7 |
| 22.5° | 481.7 | 482.1 | 482.4 | 482.4 | 482.0 | 481.6 | 481.2 | 480.8 |
| 25° | 464.6 | 464.7 | 464.8 | 464.7 | 464.4 | 464.1 | 463.8 | 463.5 |
| 27.5° | 446.5 | 446.6 | 446.6 | 446.5 | 446.1 | 445.7 | 445.2 | 444.8 |
| 30° | 433.8 | 433.8 | 433.8 | 433.4 | 432.7 | 432.0 | 431.3 | 430.5 |
| 32.5° | 420.6 | 420.0 | 419.5 | 419.0 | 418.6 | 418.2 | 417.8 | 417.4 |
| 35° | 399.2 | 398.6 | 397.9 | 397.4 | 396.9 | 396.3 | 395.8 | 395.3 |
| 37.5° | 377.0 | 376.3 | 375.5 | 375.0 | 374.7 | 374.3 | 374.0 | 373.7 |
| 40° | 362.5 | 361.7 | 360.8 | 360.2 | 359.8 | 359.4 | 359.0 | 358.6 |
| 42.5° | 347.5 | 346.6 | 345.8 | 345.2 | 344.8 | 344.4 | 344.0 | 343.5 |
| 45° | 325.0 | 323.8 | 322.4 | 321.6 | 321.0 | 320.5 | 320.0 | 319.5 |
| 47.5° | 301.3 | 300.1 | 298.8 | 298.0 | 297.5 | 297.1 | 296.6 | 296.2 |
| 50° | 285.7 | 284.5 | 283.4 | 282.5 | 281.9 | 281.2 | 280.6 | 279.9 |
| 52.5° | 269.8 | 268.8 | 267.8 | 267.0 | 266.4 | 265.8 | 265.2 | 264.6 |
| 55° | 245.7 | 244.5 | 243.4 | 242.6 | 242.1 | 241.5 | 241.0 | 240.4 |
| 57.5° | 222.0 | 220.9 | 219.8 | 219.0 | 218.4 | 217.8 | 217.2 | 216.6 |
| 60° | 205.2 | 204.2 | 203.3 | 202.6 | 202.0 | 201.5 | 201.0 | 200.5 |
| 62.5° | 188.9 | 188.0 | 187.1 | 186.4 | 186.1 | 185.7 | 185.4 | 185.0 |
| 65° | 164.9 | 164.1 | 163.2 | 162.7 | 162.4 | 162.0 | 161.7 | 161.4 |
| 67.5° | 141.0 | 140.3 | 139.6 | 139.0 | 138.6 | 138.0 | 137.6 | 137.2 |
| 70° | 125.6 | 124.8 | 124.1 | 123.5 | 123.0 | 122.5 | 121.9 | 121.4 |
| 72.5° | 110.0 | 109.3 | 108.7 | 108.2 | 108.0 | 107.7 | 107.3 | 107.0 |
| 75° | 87.5 | 86.8 | 86.3 | 85.9 | 85.6 | 85.3 | 85.0 | 84.7 |
| 77.5° | 66.3 | 66.0 | 65.6 | 65.5 | 65.5 | 65.5 | 65.5 | 65.5 |
| 80° | 52.9 | 52.8 | 52.7 | 52.7 | 52.7 | 52.7 | 52.7 | 52.7 |
| 82.5° | 40.8 | 40.6 | 40.4 | 40.2 | 40.2 | 40.1 | 40.0 | 39.9 |
| 85° | 23.1 | 22.9 | 22.7 | 22.6 | 22.6 | 22.6 | 22.6 | 22.6 |
| 87.5° | 10.5 | 10.4 | 10.4 | 10.5 | 10.5 | 10.5 | 10.6 | 10.6 |
| 90° | 11.7 | 12.1 | 12.5 | 12.8 | 13.0 | 13.2 | 13.4 | 13.6 |
| 92.5° | 12.9 | 13.5 | 14.2 | 14.5 | 14.7 | 14.8 | 14.9 | 15.0 |
| 95° | 15.5 | 16.2 | 16.9 | 17.3 | 17.3 | 17.3 | 17.3 | 17.3 |
| 97.5° | 16.3 | 17.1 | 17.9 | 18.3 | 18.4 | 18.5 | 18.6 | 18.7 |
| 100° | 16.6 | 17.4 | 18.2 | 18.7 | 18.8 | 18.9 | 19.0 | 19.1 |
| 102.5° | 24.8 | 22.3 | 19.9 | 18.7 | 18.9 | 19.1 | 19.2 | 19.4 |
| 105° | 63.6 | 45.8 | 28.0 | 19.2 | 19.4 | 19.6 | 19.8 | 20.0 |
| 107.5° | 155.9 | 142.9 | 129.8 | 116.5 | 103.0 | 89.6 | 76.1 | 62.7 |
| 110° | 197.9 | 194.6 | 191.3 | 182.5 | 168.0 | 153.6 | 139.2 | 124.8 |



TEST NUMBER: P332094-840

CATALOG NUMBER: S123DIW-S340D460U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 227.6 | 227.6 | 227.7 | 226.2 | 223.2 | 220.2 | 217.1 | 214.1 |
| 115° | 262.5 | 263.5 | 264.5 | 265.2 | 265.6 | 266.0 | 266.4 | 266.8 |
| 117.5° | 294.0 | 294.8 | 295.6 | 296.0 | 296.1 | 296.2 | 296.3 | 296.4 |
| 120° | 314.7 | 315.5 | 316.3 | 316.7 | 316.7 | 316.7 | 316.7 | 316.7 |
| 122.5° | 334.9 | 335.5 | 336.0 | 336.3 | 336.4 | 336.5 | 336.6 | 336.7 |
| 125° | 363.3 | 363.6 | 363.8 | 364.0 | 364.2 | 364.4 | 364.6 | 364.8 |
| 127.5° | 391.9 | 392.2 | 392.5 | 392.6 | 392.4 | 392.2 | 392.0 | 391.8 |
| 130° | 409.1 | 409.5 | 409.9 | 410.0 | 409.8 | 409.6 | 409.4 | 409.2 |
| 132.5° | 425.5 | 425.9 | 426.3 | 426.4 | 426.1 | 425.8 | 425.5 | 425.3 |
| 135° | 450.2 | 450.5 | 450.8 | 450.8 | 450.5 | 450.2 | 449.9 | 449.6 |
| 137.5° | 472.3 | 472.7 | 473.2 | 473.4 | 473.2 | 473.0 | 472.8 | 472.6 |
| 140° | 486.3 | 486.7 | 487.1 | 487.2 | 487.0 | 486.8 | 486.6 | 486.4 |
| 142.5° | 499.6 | 499.9 | 500.2 | 500.2 | 499.9 | 499.7 | 499.4 | 499.1 |
| 145° | 518.1 | 518.3 | 518.5 | 518.6 | 518.6 | 518.6 | 518.6 | 518.6 |
| 147.5° | 534.7 | 534.9 | 535.1 | 534.9 | 534.5 | 534.0 | 533.6 | 533.1 |
| 150° | 544.8 | 545.0 | 545.2 | 545.2 | 544.9 | 544.6 | 544.3 | 544.0 |
| 152.5° | 553.9 | 554.2 | 554.6 | 554.5 | 554.1 | 553.6 | 553.2 | 552.7 |
| 155° | 566.3 | 566.8 | 567.3 | 567.2 | 566.6 | 566.0 | 565.4 | 564.9 |
| 157.5° | 577.1 | 577.7 | 578.3 | 578.2 | 577.4 | 576.7 | 575.9 | 575.1 |
| 160° | 583.3 | 583.9 | 584.5 | 584.5 | 583.8 | 583.1 | 582.4 | 581.7 |
| 162.5° | 589.0 | 589.7 | 590.3 | 590.4 | 589.7 | 589.1 | 588.4 | 587.8 |
| 165° | 596.4 | 597.2 | 598.0 | 598.0 | 597.3 | 596.7 | 596.0 | 595.3 |
| 167.5° | 602.3 | 603.0 | 603.8 | 603.8 | 603.0 | 602.3 | 601.5 | 600.7 |
| 170° | 605.5 | 606.3 | 607.1 | 607.1 | 606.3 | 605.5 | 604.7 | 603.9 |
| 172.5° | 607.6 | 608.4 | 609.3 | 609.3 | 608.3 | 607.4 | 606.6 | 605.7 |
| 175° | 610.3 | 611.0 | 611.7 | 611.7 | 610.9 | 610.1 | 609.3 | 608.4 |
| 177.5° | 611.3 | 611.9 | 612.6 | 612.5 | 611.7 | 610.9 | 610.1 | 609.3 |
| 180° | 610.7 | 610.7 | 610.7 | 610.7 | 610.7 | 610.7 | 610.7 | 610.7 |

(END OF REPORT)