

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: METALUX

Report Number: P188275

Luminaire Tested: **22SR-LD2-20-C-UNV-L850-CD1-BR-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188275
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24796)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22SR-LD2-20-C-UNV-L850-CD1-BR-U
Description: METALUX 2X2 SKYRIDGE LED FIXTURE WITH BELLADONNA ROSE

Light Source: EATON LED 5000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1289.0 lumens
Efficiency: N/A
Efficacy: 83.7 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 2.23 / 2.03
Luminous Opening: Rectangular (W 1.92' x L: 1.92' x H: 0')
CIE Type: Direct

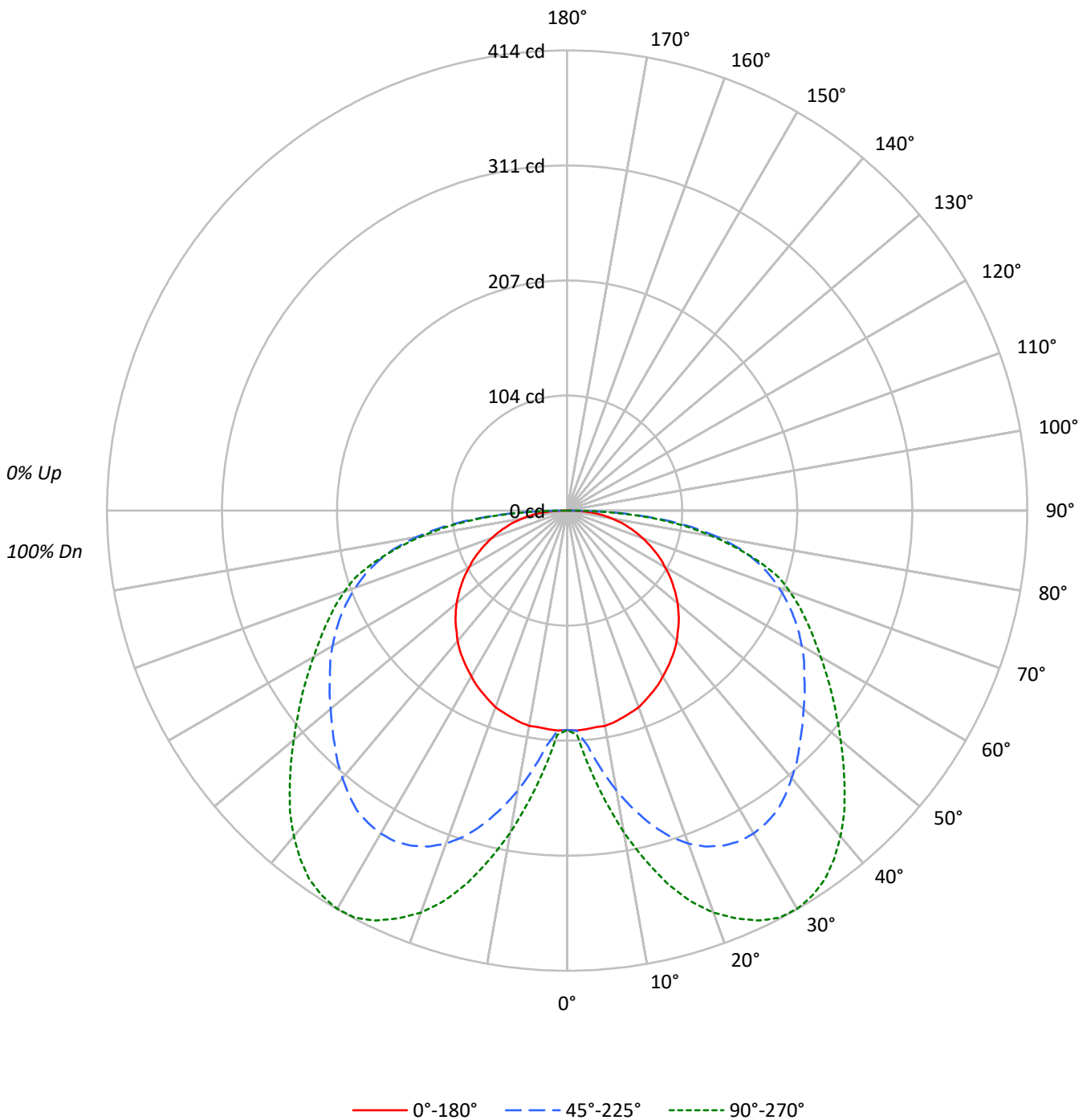
Input Watts (W): 15.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P188275

CATALOG NUMBER: 22SR-LD2-20-C-UNV-L850-CD1-BR-U

Luminous Intensity Polar Plot





TEST NUMBER: P188275

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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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 106 | 100 | 95 | 90 | 103 | 98 | 93 | 88 | 93 | 89 | 86 | 89 | 86 | 83 | 86 | 83 | 80 | 78 |
| 2 | 95 | 85 | 77 | 70 | 92 | 83 | 76 | 69 | 79 | 73 | 68 | 76 | 71 | 66 | 73 | 68 | 64 | 62 |
| 3 | 85 | 73 | 64 | 56 | 83 | 72 | 63 | 56 | 68 | 61 | 55 | 66 | 59 | 54 | 63 | 57 | 53 | 50 |
| 4 | 78 | 64 | 54 | 46 | 75 | 63 | 53 | 46 | 60 | 52 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 42 |
| 5 | 71 | 56 | 46 | 39 | 69 | 55 | 46 | 39 | 53 | 45 | 38 | 51 | 44 | 38 | 49 | 43 | 37 | 35 |
| 6 | 65 | 50 | 41 | 33 | 63 | 49 | 40 | 33 | 47 | 39 | 33 | 46 | 38 | 33 | 44 | 37 | 32 | 30 |
| 7 | 60 | 45 | 36 | 29 | 58 | 44 | 35 | 29 | 43 | 35 | 29 | 41 | 34 | 28 | 40 | 33 | 28 | 26 |
| 8 | 56 | 41 | 32 | 26 | 54 | 40 | 32 | 25 | 39 | 31 | 25 | 38 | 30 | 25 | 36 | 30 | 25 | 23 |
| 9 | 52 | 37 | 29 | 23 | 50 | 37 | 28 | 23 | 36 | 28 | 22 | 34 | 27 | 22 | 33 | 27 | 22 | 20 |
| 10 | 48 | 34 | 26 | 20 | 47 | 34 | 26 | 20 | 33 | 25 | 20 | 32 | 25 | 20 | 31 | 24 | 20 | 18 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-----|------|------|
| 0° | 578 | 578 | 578 |
| 5° | 581 | 625 | 683 |
| 10° | 585 | 761 | 874 |
| 15° | 585 | 887 | 1052 |
| 20° | 587 | 994 | 1200 |
| 25° | 584 | 1075 | 1315 |
| 30° | 583 | 1135 | 1400 |
| 35° | 584 | 1179 | 1447 |
| 40° | 586 | 1202 | 1463 |
| 45° | 588 | 1227 | 1463 |
| 50° | 592 | 1266 | 1464 |
| 55° | 593 | 1330 | 1489 |
| 60° | 596 | 1428 | 1544 |
| 65° | 605 | 1558 | 1653 |
| 70° | 618 | 1737 | 1827 |
| 75° | 644 | 1994 | 2037 |
| 80° | 692 | 2332 | 2241 |
| 85° | 790 | 2730 | 2602 |



TEST NUMBER: P188275

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 21.5 | 1.7 |
| 10°-20° | 79.9 | 6.2 |
| 20°-30° | 145.6 | 11.3 |
| 30°-40° | 194.1 | 15.1 |
| 40°-50° | 213.8 | 16.6 |
| 50°-60° | 212.5 | 16.5 |
| 60°-70° | 195.9 | 15.2 |
| 70°-80° | 157.1 | 12.2 |
| 80°-90° | 68.6 | 5.3 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 247.0 | 19.2 |
| 0°-40° | 441.1 | 34.2 |
| 0°-60° | 867.4 | 67.3 |
| 0°-90° | 1289.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1289.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 197 | 197 | 197 | 197 | 197 | |
| 5° | 197 | 199 | 213 | 227 | 232 | 19 |
| 15° | 193 | 233 | 292 | 331 | 347 | 55 |
| 25° | 181 | 251 | 332 | 387 | 407 | 83 |
| 35° | 163 | 244 | 330 | 385 | 405 | 102 |
| 45° | 142 | 221 | 296 | 340 | 353 | 109 |
| 55° | 116 | 195 | 260 | 287 | 292 | 104 |
| 65° | 87 | 165 | 225 | 235 | 238 | 86 |
| 75° | 57 | 126 | 176 | 179 | 180 | 60 |
| 85° | 24 | 58 | 81 | 76 | 77 | 24 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P188275

CATALOG NUMBER: 22SR-LD2-20-C-UNV-L850-CD1-BR-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 197.4 | 197.4 | 197.4 | 197.4 | 197.4 | 197.4 | 197.4 | 197.4 | 197.4 | 197.4 | 197.4 |
| 2.5° | 198.1 | 198.1 | 198.1 | 197.4 | 197.4 | 197.4 | 197.4 | 197.4 | 197.4 | 198.1 | 198.1 |
| 5° | 197.4 | 197.4 | 198.1 | 197.4 | 198.1 | 199.6 | 201.9 | 205.7 | 208.0 | 212.6 | 215.6 |
| 7.5° | 196.6 | 197.4 | 197.4 | 198.9 | 201.9 | 208.0 | 214.1 | 221.7 | 228.5 | 234.6 | 239.9 |
| 10° | 196.6 | 196.6 | 197.4 | 201.2 | 209.5 | 219.4 | 229.3 | 238.4 | 246.7 | 255.8 | 263.4 |
| 12.5° | 195.1 | 195.1 | 197.4 | 205.7 | 217.9 | 230.8 | 241.4 | 253.5 | 264.9 | 274.8 | 283.9 |
| 15° | 192.8 | 193.6 | 198.1 | 210.3 | 225.5 | 239.9 | 253.5 | 267.2 | 280.9 | 292.3 | 302.9 |
| 17.5° | 190.5 | 191.3 | 198.9 | 214.8 | 231.5 | 248.2 | 263.4 | 279.4 | 293.8 | 307.4 | 318.8 |
| 20° | 188.3 | 188.3 | 199.6 | 217.9 | 236.1 | 255.1 | 271.8 | 288.5 | 304.4 | 318.8 | 331.7 |
| 22.5° | 184.5 | 186.0 | 199.6 | 220.1 | 239.9 | 258.9 | 277.1 | 295.3 | 312.0 | 327.2 | 340.8 |
| 25° | 180.7 | 182.9 | 198.9 | 220.1 | 240.6 | 261.1 | 280.1 | 299.1 | 316.6 | 332.5 | 346.9 |
| 27.5° | 176.9 | 179.2 | 197.4 | 219.4 | 241.4 | 261.9 | 282.4 | 301.4 | 319.6 | 335.5 | 350.7 |
| 30° | 172.3 | 176.1 | 195.1 | 217.1 | 239.9 | 261.1 | 280.9 | 300.6 | 318.8 | 335.5 | 350.7 |
| 32.5° | 167.8 | 172.3 | 192.8 | 214.8 | 237.6 | 258.1 | 279.4 | 298.3 | 316.6 | 333.3 | 349.2 |
| 35° | 163.2 | 167.8 | 189.0 | 211.8 | 233.8 | 255.1 | 275.6 | 294.5 | 312.0 | 329.5 | 343.9 |
| 37.5° | 158.7 | 164.0 | 184.5 | 207.2 | 229.3 | 249.8 | 270.2 | 289.2 | 306.7 | 322.6 | 337.1 |
| 40° | 153.3 | 159.4 | 179.9 | 201.9 | 223.2 | 243.7 | 263.4 | 281.6 | 299.1 | 314.3 | 327.9 |
| 42.5° | 147.3 | 154.1 | 174.6 | 196.6 | 217.9 | 237.6 | 257.3 | 274.8 | 290.7 | 305.9 | 318.8 |
| 45° | 142.0 | 149.5 | 169.3 | 190.5 | 211.8 | 230.8 | 250.5 | 267.2 | 282.4 | 296.1 | 308.2 |
| 47.5° | 135.9 | 144.2 | 164.0 | 184.5 | 205.0 | 224.7 | 242.9 | 258.9 | 273.3 | 286.9 | 298.3 |
| 50° | 129.8 | 138.2 | 157.9 | 178.4 | 198.9 | 217.9 | 235.3 | 251.3 | 264.9 | 277.8 | 288.5 |
| 52.5° | 123.0 | 132.8 | 151.8 | 172.3 | 192.1 | 211.0 | 227.7 | 243.7 | 257.3 | 269.5 | 278.6 |
| 55° | 116.1 | 126.0 | 145.8 | 166.2 | 185.2 | 204.2 | 220.9 | 236.1 | 249.0 | 260.4 | 269.5 |
| 57.5° | 109.3 | 119.9 | 139.7 | 159.4 | 178.4 | 197.4 | 213.3 | 228.5 | 241.4 | 252.8 | 260.4 |
| 60° | 101.7 | 113.9 | 132.8 | 152.6 | 171.6 | 189.8 | 206.5 | 220.9 | 233.1 | 243.7 | 250.5 |
| 62.5° | 94.9 | 107.0 | 126.0 | 145.0 | 164.0 | 182.2 | 198.9 | 213.3 | 224.7 | 234.6 | 240.6 |
| 65° | 87.3 | 99.4 | 118.4 | 137.4 | 155.6 | 173.8 | 190.5 | 204.2 | 215.6 | 224.7 | 230.0 |
| 67.5° | 79.7 | 92.6 | 110.8 | 129.1 | 148.0 | 165.5 | 181.4 | 195.1 | 205.7 | 214.1 | 218.6 |
| 70° | 72.1 | 85.0 | 102.5 | 120.7 | 138.9 | 156.4 | 171.6 | 185.2 | 195.1 | 202.7 | 206.5 |
| 72.5° | 64.5 | 77.4 | 94.1 | 111.6 | 129.1 | 146.5 | 160.9 | 173.8 | 182.9 | 190.5 | 193.6 |
| 75° | 56.9 | 69.1 | 85.0 | 101.0 | 117.7 | 135.1 | 148.8 | 160.9 | 170.0 | 176.1 | 178.4 |
| 77.5° | 49.3 | 60.7 | 75.2 | 90.3 | 106.3 | 122.2 | 135.9 | 146.5 | 154.1 | 159.4 | 160.9 |
| 80° | 41.0 | 51.6 | 64.5 | 78.2 | 91.9 | 107.0 | 118.4 | 128.3 | 135.1 | 138.2 | 137.4 |
| 82.5° | 32.6 | 41.0 | 51.6 | 63.0 | 74.4 | 87.3 | 97.2 | 104.8 | 110.1 | 112.4 | 110.8 |
| 85° | 23.5 | 28.8 | 35.7 | 44.0 | 53.1 | 63.0 | 70.6 | 75.9 | 79.7 | 81.2 | 79.7 |
| 87.5° | 12.1 | 13.7 | 16.7 | 20.5 | 25.8 | 32.6 | 37.2 | 41.8 | 41.8 | 43.3 | 42.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P188275

CATALOG NUMBER: 22SR-LD2-20-C-UNV-L850-CD1-BR-U

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 197.4 | 197.4 | 197.4 | 197.4 | 197.4 | 197.4 | 197.4 | 197.4 |
| 2.5° | 198.9 | 198.9 | 199.6 | 200.4 | 200.4 | 200.4 | 200.4 | 201.9 |
| 5° | 220.1 | 222.4 | 225.5 | 227.7 | 228.5 | 229.3 | 230.8 | 232.3 |
| 7.5° | 244.4 | 249.0 | 252.0 | 257.3 | 258.9 | 260.4 | 261.1 | 263.4 |
| 10° | 270.2 | 276.3 | 280.1 | 284.7 | 288.5 | 290.0 | 291.5 | 293.8 |
| 12.5° | 291.5 | 299.1 | 305.2 | 311.2 | 314.3 | 318.1 | 318.8 | 321.1 |
| 15° | 312.8 | 321.1 | 327.9 | 334.8 | 339.3 | 342.4 | 344.6 | 346.9 |
| 17.5° | 330.2 | 338.6 | 346.9 | 355.3 | 359.8 | 363.6 | 365.9 | 368.2 |
| 20° | 343.1 | 353.8 | 362.9 | 371.2 | 375.8 | 380.3 | 382.6 | 384.9 |
| 22.5° | 353.0 | 364.4 | 374.2 | 382.6 | 388.7 | 394.0 | 396.3 | 397.0 |
| 25° | 360.6 | 372.0 | 382.6 | 390.9 | 397.8 | 403.1 | 405.4 | 406.9 |
| 27.5° | 364.4 | 376.5 | 387.9 | 397.0 | 403.9 | 409.2 | 411.4 | 413.0 |
| 30° | 365.1 | 377.3 | 388.7 | 397.8 | 404.6 | 409.9 | 412.2 | 413.7 |
| 32.5° | 362.9 | 375.8 | 386.4 | 395.5 | 402.3 | 407.7 | 409.9 | 410.7 |
| 35° | 357.5 | 370.5 | 381.1 | 389.4 | 396.3 | 400.8 | 403.9 | 404.6 |
| 37.5° | 350.0 | 362.1 | 372.0 | 380.3 | 387.2 | 391.7 | 394.0 | 394.7 |
| 40° | 340.8 | 351.5 | 361.3 | 368.9 | 375.0 | 379.6 | 381.8 | 382.6 |
| 42.5° | 331.0 | 340.8 | 349.2 | 356.8 | 362.1 | 365.9 | 368.2 | 368.9 |
| 45° | 319.6 | 328.7 | 337.1 | 343.1 | 347.7 | 350.7 | 353.0 | 353.0 |
| 47.5° | 308.2 | 316.6 | 324.1 | 328.7 | 332.5 | 334.8 | 336.3 | 337.1 |
| 50° | 297.6 | 305.2 | 310.5 | 315.0 | 318.1 | 319.6 | 321.1 | 321.1 |
| 52.5° | 286.9 | 293.0 | 297.6 | 300.6 | 303.6 | 304.4 | 305.9 | 305.9 |
| 55° | 277.1 | 281.6 | 285.4 | 287.7 | 289.2 | 290.0 | 290.7 | 291.5 |
| 57.5° | 266.5 | 270.2 | 272.5 | 274.0 | 275.6 | 276.3 | 276.3 | 277.1 |
| 60° | 255.8 | 258.9 | 260.4 | 261.1 | 261.9 | 262.7 | 263.4 | 263.4 |
| 62.5° | 244.4 | 246.7 | 247.5 | 248.2 | 249.0 | 249.8 | 250.5 | 250.5 |
| 65° | 233.1 | 234.6 | 234.6 | 235.3 | 236.1 | 237.6 | 237.6 | 238.4 |
| 67.5° | 220.9 | 221.7 | 221.7 | 222.4 | 223.2 | 224.7 | 225.5 | 226.2 |
| 70° | 208.0 | 208.8 | 208.8 | 209.5 | 210.3 | 211.0 | 212.6 | 213.3 |
| 72.5° | 194.3 | 194.3 | 194.3 | 195.1 | 196.6 | 197.4 | 198.9 | 199.6 |
| 75° | 179.2 | 178.4 | 179.2 | 178.4 | 178.4 | 179.2 | 179.2 | 179.9 |
| 77.5° | 160.2 | 157.9 | 156.4 | 155.6 | 154.9 | 154.9 | 155.6 | 156.4 |
| 80° | 135.9 | 133.6 | 132.1 | 131.3 | 131.3 | 132.1 | 132.1 | 132.8 |
| 82.5° | 110.1 | 107.8 | 106.3 | 106.3 | 105.5 | 106.3 | 106.3 | 107.0 |
| 85° | 79.7 | 78.2 | 76.7 | 75.9 | 75.9 | 76.7 | 76.7 | 77.4 |
| 87.5° | 42.5 | 41.8 | 41.0 | 41.0 | 39.5 | 41.0 | 41.0 | 41.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)