

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: SHAPER

Report Number: P33616

Luminaire Tested: **PDR-M422-P1S-L1/840-UNV**

Test Date: 11/25/14

Test Information

Test Method: LM-79-08
Report Number: P33616
Test Lab: INNOVATION CENTER-P3
Test Date: 11/25/14
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: PDR-M422-P1S-L1/840-UNV
Description: SHAPER 422 LUMINOUS CYLINDER PENDANT WITH THREE ACCENT TRIM BARS AND MATTE WHITE ACRYLIC OPEN ENDED LENS.
Light Source: 4000K LEDS
Ballast/Driver: (1) COOPER LIGHTING ELECTRONIC DRIVER
ELM030W-0550-41

Summary

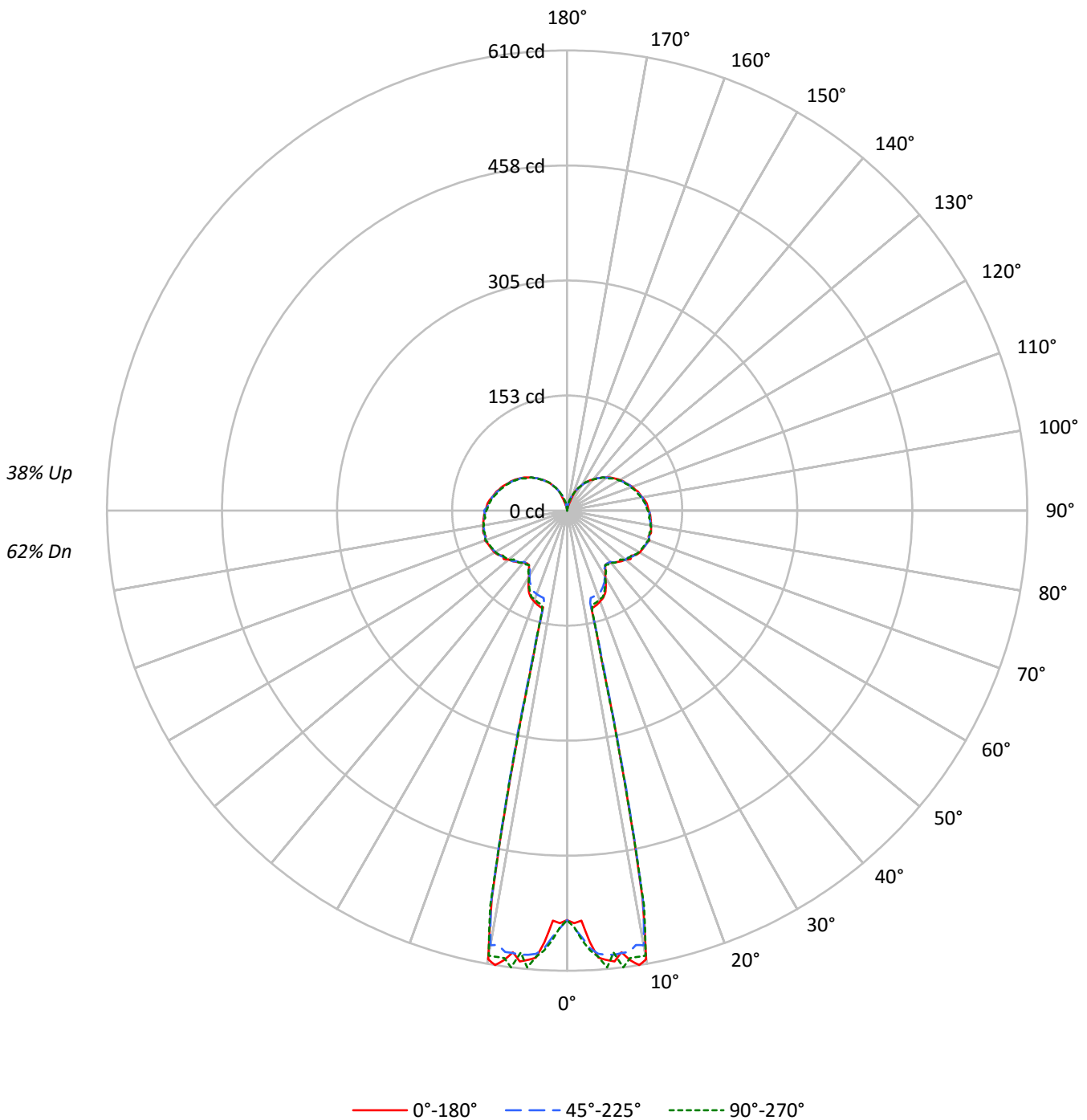
Lumens per Lamp: N/A
Luminaire Lumens: 1208.0 lumens
Efficiency: N/A
Efficacy: 56.7 lumens/watt
Spacing Criteria (0/90/45): 0.44 / 0.44 / 0.35
Luminous Opening: Vertical Cylinder (Dia: 0.33' x H: 0.71')
CIE Type: Semi-Direct

Input Watts (W): 21.3
Input Voltage (V): 120.01
Input Current (A_{in}): 0.1799
Voltage Rise (V): NR
Power Factor: 0.9901
Total Harmonic Distortion (THDi): 7.5
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P33616

CATALOG NUMBER: PDR-M422-P1S-L1/840-UNV

Luminous Intensity Polar Plot





TEST NUMBER: P33616

CATALOG NUMBER: PDR-M422-P1S-L1/840-UNV

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 | 110 | 110 | 110 | 110 | 103 | 103 | 103 | 103 | 90 | 90 | 90 | 78 | 78 | 78 | 67 | 67 | 67 | 62 |
| 1 | 96 | 90 | 84 | 79 | 89 | 83 | 78 | 74 | 72 | 68 | 65 | 62 | 59 | 56 | 52 | 50 | 48 | 43 |
| 2 | 86 | 76 | 68 | 62 | 80 | 71 | 64 | 58 | 61 | 56 | 51 | 52 | 48 | 44 | 44 | 40 | 37 | 33 |
| 3 | 78 | 66 | 57 | 50 | 72 | 62 | 54 | 47 | 53 | 47 | 42 | 45 | 40 | 36 | 38 | 34 | 31 | 27 |
| 4 | 71 | 58 | 49 | 42 | 66 | 54 | 46 | 40 | 47 | 40 | 35 | 40 | 35 | 30 | 34 | 30 | 26 | 23 |
| 5 | 65 | 52 | 43 | 36 | 60 | 49 | 40 | 34 | 42 | 35 | 30 | 36 | 31 | 26 | 31 | 26 | 23 | 20 |
| 6 | 60 | 47 | 38 | 31 | 56 | 44 | 36 | 30 | 38 | 32 | 27 | 33 | 28 | 23 | 28 | 24 | 20 | 17 |
| 7 | 56 | 43 | 34 | 28 | 52 | 40 | 32 | 26 | 35 | 28 | 24 | 30 | 25 | 21 | 26 | 22 | 18 | 16 |
| 8 | 52 | 39 | 31 | 25 | 49 | 37 | 29 | 24 | 32 | 26 | 21 | 28 | 23 | 19 | 24 | 20 | 17 | 14 |
| 9 | 49 | 36 | 28 | 23 | 46 | 34 | 27 | 22 | 30 | 24 | 19 | 26 | 21 | 17 | 23 | 18 | 15 | 13 |
| 10 | 46 | 33 | 26 | 21 | 43 | 31 | 24 | 20 | 28 | 22 | 18 | 25 | 20 | 16 | 21 | 17 | 14 | 12 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 66977 | 66977 | 66977 |
| 5° | 59870 | 59170 | 60872 |
| 10° | 51216 | 49605 | 50792 |
| 15° | 9846 | 8883 | 9550 |
| 20° | 8465 | 7804 | 8267 |
| 25° | 7221 | 6740 | 7041 |
| 30° | 5615 | 5559 | 5615 |
| 35° | 4578 | 4578 | 4578 |
| 40° | 4431 | 4382 | 4431 |
| 45° | 4519 | 4472 | 4472 |
| 50° | 4588 | 4588 | 4588 |
| 55° | 4598 | 4686 | 4598 |
| 60° | 4816 | 4772 | 4772 |
| 65° | 4848 | 4848 | 4806 |
| 70° | 4960 | 4918 | 4918 |
| 75° | 4939 | 4896 | 4853 |
| 80° | 4911 | 4911 | 4867 |
| 85° | 4921 | 4876 | 4832 |



TEST NUMBER: P33616

CATALOG NUMBER: PDR-M422-P1S-L1/840-UNV

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 56.7 | 4.7 |
| 10°-20° | 57.2 | 4.7 |
| 20°-30° | 53.1 | 4.4 |
| 30°-40° | 57.4 | 4.8 |
| 40°-50° | 74.1 | 6.1 |
| 50°-60° | 95.2 | 7.9 |
| 60°-70° | 111.8 | 9.3 |
| 70°-80° | 120.4 | 10.0 |
| 80°-90° | 120.2 | 9.9 |
| 90°-100° | 113.6 | 9.4 |
| 100°-110° | 101.2 | 8.4 |
| 110°-120° | 85.0 | 7.0 |
| 120°-130° | 66.4 | 5.5 |
| 130°-140° | 47.2 | 3.9 |
| 140°-150° | 29.4 | 2.4 |
| 150°-160° | 14.5 | 1.2 |
| 160°-170° | 4.3 | 0.4 |
| 170°-180° | 0.2 | 0.0 |
| 0°-30° | 167.0 | 13.8 |
| 0°-40° | 224.4 | 18.6 |
| 0°-60° | 393.6 | 32.6 |
| 0°-90° | 746.0 | 61.8 |
| 90°-120° | 299.8 | 24.8 |
| 90°-150° | 442.9 | 36.7 |
| 90°-180° | 462.0 | 38.2 |
| 0°-180° | 1208.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 543 | 543 | 543 | 543 | 543 | |
| 5° | 598 | 596 | 591 | 594 | 608 | 57 |
| 15° | 133 | 131 | 120 | 127 | 129 | 57 |
| 25° | 120 | 118 | 112 | 116 | 117 | 54 |
| 35° | 88 | 88 | 88 | 88 | 88 | 57 |
| 45° | 96 | 96 | 95 | 95 | 95 | 74 |
| 55° | 104 | 106 | 106 | 106 | 104 | 95 |
| 65° | 113 | 112 | 113 | 113 | 112 | 112 |
| 75° | 115 | 114 | 114 | 114 | 113 | 121 |
| 85° | 111 | 110 | 110 | 110 | 109 | 91 |
| 90° | 108 | 108 | 110 | 107 | 107 | 59 |
| 95° | 106 | 104 | 104 | 104 | 104 | 86 |
| 105° | 97 | 96 | 96 | 96 | 95 | 102 |
| 115° | 86 | 86 | 86 | 85 | 85 | 86 |
| 125° | 75 | 74 | 75 | 74 | 74 | 67 |
| 135° | 61 | 60 | 61 | 61 | 61 | 47 |
| 145° | 47 | 46 | 46 | 46 | 47 | 30 |
| 155° | 31 | 31 | 31 | 32 | 31 | 14 |
| 165° | 8 | 12 | 16 | 16 | 16 | 3 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P33616

CATALOG NUMBER: PDR-M422-P1S-L1/840-UNV

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0° | 543 | 543 | 543 | 543 | 543 | 543 | 543 | 543 | 543 | 543 | 543 |
| 1° | 547 | 556 | 545 | 552 | 548 | 547 | 552 | 545 | 553 | 554 | 545 |
| 2° | 544 | 573 | 564 | 570 | 570 | 564 | 568 | 569 | 570 | 566 | 560 |
| 3° | 573 | 586 | 578 | 588 | 592 | 581 | 585 | 580 | 586 | 581 | 579 |
| 4° | 594 | 597 | 591 | 598 | 606 | 586 | 594 | 594 | 595 | 589 | 592 |
| 5° | 598 | 609 | 603 | 603 | 603 | 590 | 594 | 597 | 598 | 591 | 592 |
| 6° | 601 | 611 | 611 | 605 | 608 | 601 | 599 | 603 | 600 | 592 | 596 |
| 7° | 590 | 605 | 605 | 599 | 605 | 606 | 599 | 598 | 594 | 591 | 591 |
| 8° | 602 | 611 | 611 | 605 | 601 | 592 | 601 | 598 | 596 | 591 | 591 |
| 9° | 610 | 611 | 605 | 604 | 604 | 601 | 599 | 597 | 598 | 583 | 589 |
| 10° | 604 | 602 | 611 | 600 | 605 | 591 | 597 | 596 | 593 | 585 | 588 |
| 11° | 524 | 549 | 544 | 541 | 545 | 537 | 541 | 556 | 529 | 530 | 521 |
| 12° | 365 | 395 | 383 | 378 | 378 | 367 | 393 | 400 | 388 | 376 | 369 |
| 13° | 205 | 217 | 219 | 212 | 214 | 210 | 220 | 229 | 213 | 225 | 204 |
| 14° | 132 | 139 | 142 | 137 | 142 | 135 | 141 | 138 | 131 | 126 | 124 |
| 15° | 133 | 135 | 132 | 129 | 131 | 131 | 130 | 127 | 124 | 120 | 118 |
| 17.5° | 131 | 132 | 129 | 128 | 130 | 129 | 128 | 124 | 122 | 119 | 119 |
| 20° | 128 | 129 | 127 | 125 | 127 | 127 | 126 | 122 | 120 | 118 | 116 |
| 22.5° | 125 | 126 | 124 | 123 | 124 | 123 | 123 | 120 | 118 | 116 | 115 |
| 25° | 120 | 121 | 118 | 118 | 119 | 118 | 118 | 116 | 114 | 112 | 111 |
| 27.5° | 111 | 114 | 113 | 111 | 113 | 113 | 112 | 109 | 109 | 107 | 107 |
| 30° | 101 | 104 | 103 | 101 | 104 | 103 | 104 | 102 | 100 | 100 | 99 |
| 32.5° | 94 | 94 | 94 | 94 | 94 | 94 | 93 | 95 | 93 | 92 | 93 |
| 35° | 88 | 89 | 89 | 89 | 88 | 88 | 88 | 89 | 89 | 88 | 87 |
| 37.5° | 88 | 89 | 90 | 88 | 89 | 88 | 89 | 89 | 89 | 88 | 88 |
| 40° | 90 | 91 | 92 | 90 | 90 | 89 | 91 | 90 | 90 | 89 | 88 |
| 42.5° | 93 | 92 | 93 | 93 | 93 | 91 | 94 | 92 | 94 | 93 | 92 |
| 45° | 96 | 96 | 96 | 95 | 96 | 95 | 96 | 96 | 96 | 95 | 94 |
| 47.5° | 99 | 99 | 100 | 99 | 98 | 98 | 99 | 99 | 98 | 99 | 98 |
| 50° | 101 | 102 | 101 | 100 | 101 | 100 | 101 | 102 | 102 | 101 | 101 |
| 52.5° | 106 | 104 | 104 | 102 | 104 | 103 | 104 | 105 | 104 | 102 | 104 |
| 55° | 104 | 107 | 106 | 106 | 106 | 106 | 107 | 107 | 106 | 106 | 106 |
| 57.5° | 109 | 109 | 108 | 108 | 107 | 108 | 109 | 110 | 108 | 108 | 108 |
| 60° | 111 | 111 | 112 | 110 | 110 | 109 | 111 | 111 | 110 | 110 | 109 |
| 62.5° | 112 | 112 | 112 | 111 | 112 | 111 | 112 | 112 | 112 | 111 | 111 |
| 65° | 113 | 113 | 113 | 113 | 113 | 110 | 112 | 114 | 113 | 113 | 111 |
| 67.5° | 114 | 114 | 114 | 114 | 113 | 113 | 114 | 114 | 114 | 114 | 113 |
| 70° | 116 | 113 | 115 | 113 | 114 | 114 | 115 | 116 | 114 | 115 | 114 |
| 72.5° | 113 | 115 | 114 | 114 | 114 | 114 | 115 | 115 | 114 | 114 | 114 |
| 75° | 115 | 114 | 113 | 114 | 114 | 113 | 115 | 116 | 114 | 114 | 113 |
| 77.5° | 114 | 114 | 114 | 112 | 113 | 113 | 114 | 114 | 113 | 113 | 112 |
| 80° | 113 | 113 | 113 | 112 | 113 | 112 | 113 | 115 | 113 | 113 | 112 |
| 82.5° | 112 | 111 | 113 | 112 | 112 | 110 | 112 | 111 | 111 | 111 | 110 |
| 85° | 111 | 110 | 109 | 110 | 110 | 110 | 111 | 111 | 110 | 110 | 110 |
| 87.5° | 110 | 109 | 109 | 109 | 109 | 108 | 110 | 110 | 109 | 109 | 108 |



TEST NUMBER: P33616

CATALOG NUMBER: PDR-M422-P1S-L1/840-UNV

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 90° | 108 | 107 | 107 | 107 | 108 | 107 | 107 | 108 | 107 | 110 | 107 |
| 92.5° | 107 | 106 | 105 | 106 | 106 | 105 | 107 | 107 | 106 | 106 | 105 |
| 95° | 106 | 105 | 104 | 103 | 104 | 104 | 105 | 104 | 105 | 104 | 104 |
| 97.5° | 104 | 103 | 102 | 102 | 102 | 102 | 103 | 103 | 102 | 102 | 102 |
| 100° | 101 | 100 | 101 | 100 | 100 | 100 | 101 | 101 | 100 | 101 | 99 |
| 102.5° | 99 | 98 | 97 | 98 | 99 | 98 | 99 | 99 | 98 | 98 | 98 |
| 105° | 97 | 96 | 97 | 95 | 96 | 96 | 97 | 97 | 96 | 96 | 96 |
| 107.5° | 94 | 94 | 92 | 94 | 93 | 93 | 93 | 94 | 93 | 93 | 93 |
| 110° | 92 | 92 | 91 | 91 | 91 | 91 | 91 | 92 | 91 | 91 | 91 |
| 112.5° | 89 | 88 | 88 | 87 | 88 | 87 | 89 | 89 | 88 | 89 | 88 |
| 115° | 86 | 86 | 85 | 86 | 86 | 85 | 86 | 86 | 85 | 86 | 85 |
| 117.5° | 84 | 83 | 83 | 83 | 84 | 83 | 83 | 85 | 83 | 83 | 82 |
| 120° | 81 | 79 | 81 | 80 | 80 | 80 | 81 | 80 | 80 | 80 | 80 |
| 122.5° | 78 | 77 | 77 | 76 | 78 | 78 | 75 | 78 | 77 | 77 | 76 |
| 125° | 75 | 74 | 74 | 74 | 74 | 74 | 75 | 75 | 74 | 75 | 73 |
| 127.5° | 72 | 72 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 70 |
| 130° | 68 | 68 | 67 | 68 | 67 | 68 | 68 | 68 | 67 | 68 | 67 |
| 132.5° | 65 | 64 | 64 | 64 | 64 | 64 | 64 | 65 | 64 | 65 | 64 |
| 135° | 61 | 62 | 61 | 61 | 60 | 61 | 61 | 62 | 61 | 61 | 60 |
| 137.5° | 58 | 58 | 57 | 57 | 57 | 57 | 57 | 58 | 57 | 58 | 57 |
| 140° | 53 | 55 | 54 | 54 | 54 | 54 | 55 | 54 | 54 | 54 | 53 |
| 142.5° | 51 | 50 | 50 | 50 | 50 | 50 | 51 | 51 | 50 | 50 | 50 |
| 145° | 47 | 47 | 46 | 46 | 46 | 47 | 47 | 47 | 46 | 46 | 47 |
| 147.5° | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 |
| 150° | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 |
| 152.5° | 35 | 35 | 34 | 35 | 35 | 36 | 35 | 35 | 35 | 35 | 35 |
| 155° | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 32 | 32 | 31 | 31 |
| 157.5° | 27 | 26 | 26 | 26 | 26 | 26 | 27 | 28 | 28 | 27 | 27 |
| 160° | 19 | 19 | 19 | 19 | 20 | 21 | 23 | 24 | 24 | 23 | 24 |
| 162.5° | 12 | 12 | 13 | 14 | 16 | 17 | 19 | 20 | 20 | 20 | 20 |
| 165° | 8 | 8 | 9 | 10 | 12 | 13 | 15 | 16 | 16 | 16 | 16 |
| 167.5° | 6 | 6 | 6 | 7 | 9 | 10 | 11 | 12 | 12 | 13 | 13 |
| 170° | 3 | 4 | 4 | 5 | 6 | 6 | 7 | 8 | 8 | 9 | 9 |
| 172.5° | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 2 | 3 | 3 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 177.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P33616

CATALOG NUMBER: PDR-M422-P1S-L1/840-UNV

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|
| 0° | 543 | 543 | 543 | 543 | 543 | 543 | 543 | 543 |
| 1° | 550 | 548 | 552 | 545 | 545 | 553 | 546 | 553 |
| 2° | 565 | 568 | 568 | 566 | 563 | 567 | 573 | 570 |
| 3° | 582 | 583 | 586 | 581 | 583 | 585 | 584 | 584 |
| 4° | 589 | 590 | 592 | 589 | 586 | 595 | 593 | 593 |
| 5° | 595 | 592 | 595 | 592 | 589 | 597 | 597 | 608 |
| 6° | 590 | 592 | 595 | 593 | 597 | 598 | 593 | 610 |
| 7° | 589 | 591 | 595 | 593 | 591 | 604 | 603 | 599 |
| 8° | 588 | 586 | 599 | 599 | 597 | 598 | 594 | 599 |
| 9° | 589 | 590 | 593 | 590 | 590 | 598 | 597 | 599 |
| 10° | 541 | 528 | 535 | 530 | 533 | 545 | 540 | 534 |
| 11° | 383 | 392 | 391 | 386 | 378 | 386 | 397 | 367 |
| 12° | 207 | 207 | 215 | 221 | 218 | 202 | 225 | 199 |
| 13° | 128 | 125 | 130 | 136 | 131 | 131 | 133 | 137 |
| 14° | 119 | 121 | 126 | 128 | 129 | 130 | 129 | 129 |
| 15° | 117 | 120 | 126 | 128 | 128 | 129 | 127 | 128 |
| 17.5° | 117 | 119 | 123 | 127 | 127 | 126 | 125 | 125 |
| 20° | 116 | 117 | 121 | 123 | 123 | 123 | 122 | 124 |
| 22.5° | 112 | 113 | 117 | 116 | 118 | 118 | 118 | 117 |
| 25° | 108 | 107 | 110 | 111 | 113 | 111 | 111 | 110 |
| 27.5° | 100 | 101 | 103 | 104 | 103 | 103 | 102 | 101 |
| 30° | 92 | 94 | 94 | 94 | 94 | 93 | 94 | 96 |
| 32.5° | 87 | 87 | 88 | 88 | 88 | 88 | 88 | 88 |
| 35° | 88 | 88 | 88 | 88 | 91 | 88 | 88 | 90 |
| 37.5° | 90 | 90 | 91 | 90 | 91 | 89 | 91 | 90 |
| 40° | 92 | 93 | 93 | 92 | 93 | 92 | 92 | 94 |
| 42.5° | 95 | 95 | 95 | 95 | 96 | 95 | 95 | 95 |
| 45° | 99 | 98 | 99 | 97 | 98 | 98 | 98 | 96 |
| 47.5° | 101 | 101 | 101 | 101 | 102 | 100 | 101 | 101 |
| 50° | 103 | 104 | 104 | 103 | 104 | 104 | 104 | 103 |
| 52.5° | 106 | 107 | 107 | 106 | 106 | 106 | 107 | 104 |
| 55° | 108 | 109 | 109 | 108 | 110 | 108 | 108 | 108 |
| 57.5° | 110 | 110 | 110 | 110 | 111 | 110 | 110 | 110 |
| 60° | 111 | 113 | 112 | 112 | 112 | 111 | 112 | 111 |
| 62.5° | 114 | 112 | 113 | 113 | 113 | 112 | 113 | 112 |
| 65° | 113 | 115 | 115 | 113 | 114 | 113 | 117 | 113 |
| 67.5° | 112 | 115 | 114 | 114 | 116 | 114 | 114 | 115 |
| 70° | 115 | 115 | 114 | 114 | 114 | 114 | 114 | 114 |
| 72.5° | 115 | 113 | 114 | 113 | 115 | 113 | 114 | 113 |
| 75° | 114 | 113 | 113 | 113 | 115 | 112 | 114 | 115 |
| 77.5° | 112 | 112 | 113 | 113 | 113 | 111 | 114 | 112 |
| 80° | 112 | 111 | 113 | 111 | 112 | 111 | 112 | 112 |
| 82.5° | 110 | 110 | 110 | 110 | 110 | 108 | 111 | 109 |
| 85° | 108 | 109 | 110 | 108 | 110 | 108 | 109 | 110 |
| 87.5° | | | | | | | | |



TEST NUMBER: P33616

CATALOG NUMBER: PDR-M422-P1S-L1/840-UNV

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| 90° | 109 | 107 | 107 | 107 | 107 | 107 | 108 | 107 |
| 92.5° | 105 | 105 | 107 | 106 | 106 | 105 | 106 | 105 |
| 95° | 104 | 104 | 104 | 104 | 105 | 104 | 105 | 104 |
| 97.5° | 102 | 102 | 102 | 102 | 103 | 102 | 102 | 102 |
| 100° | 101 | 100 | 100 | 101 | 100 | 99 | 101 | 100 |
| 102.5° | 99 | 99 | 98 | 97 | 98 | 97 | 98 | 97 |
| 105° | 95 | 95 | 96 | 95 | 95 | 93 | 97 | 95 |
| 107.5° | 93 | 94 | 93 | 93 | 94 | 92 | 93 | 93 |
| 110° | 90 | 90 | 91 | 90 | 91 | 90 | 91 | 90 |
| 112.5° | 89 | 88 | 89 | 88 | 89 | 87 | 89 | 88 |
| 115° | 85 | 85 | 85 | 85 | 86 | 85 | 86 | 85 |
| 117.5° | 83 | 84 | 83 | 83 | 83 | 82 | 83 | 83 |
| 120° | 80 | 79 | 80 | 80 | 79 | 79 | 80 | 80 |
| 122.5° | 77 | 76 | 77 | 77 | 77 | 76 | 77 | 77 |
| 125° | 74 | 74 | 74 | 74 | 74 | 73 | 74 | 74 |
| 127.5° | 71 | 71 | 71 | 71 | 71 | 70 | 71 | 70 |
| 130° | 68 | 68 | 68 | 68 | 68 | 67 | 68 | 67 |
| 132.5° | 64 | 65 | 64 | 64 | 64 | 63 | 64 | 65 |
| 135° | 60 | 61 | 61 | 61 | 61 | 61 | 60 | 61 |
| 137.5° | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| 140° | 54 | 54 | 54 | 54 | 54 | 53 | 54 | 54 |
| 142.5° | 51 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 145° | 46 | 47 | 47 | 46 | 46 | 46 | 46 | 47 |
| 147.5° | 43 | 43 | 43 | 43 | 43 | 43 | 42 | 44 |
| 150° | 39 | 39 | 40 | 39 | 39 | 39 | 39 | 39 |
| 152.5° | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| 155° | 31 | 31 | 32 | 31 | 31 | 31 | 31 | 31 |
| 157.5° | 27 | 27 | 28 | 28 | 27 | 27 | 27 | 27 |
| 160° | 23 | 24 | 24 | 24 | 23 | 23 | 24 | 23 |
| 162.5° | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| 165° | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| 167.5° | 13 | 13 | 13 | 13 | 13 | 12 | 13 | 13 |
| 170° | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 172.5° | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 177.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)