

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: LUMARK

Report Number: P146060

Luminaire Tested: **LDRL-SLR-E05-E**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P146060
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33704)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-SLR-E05-E
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR RIGHT
Light Source: (105) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13467.2 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G4

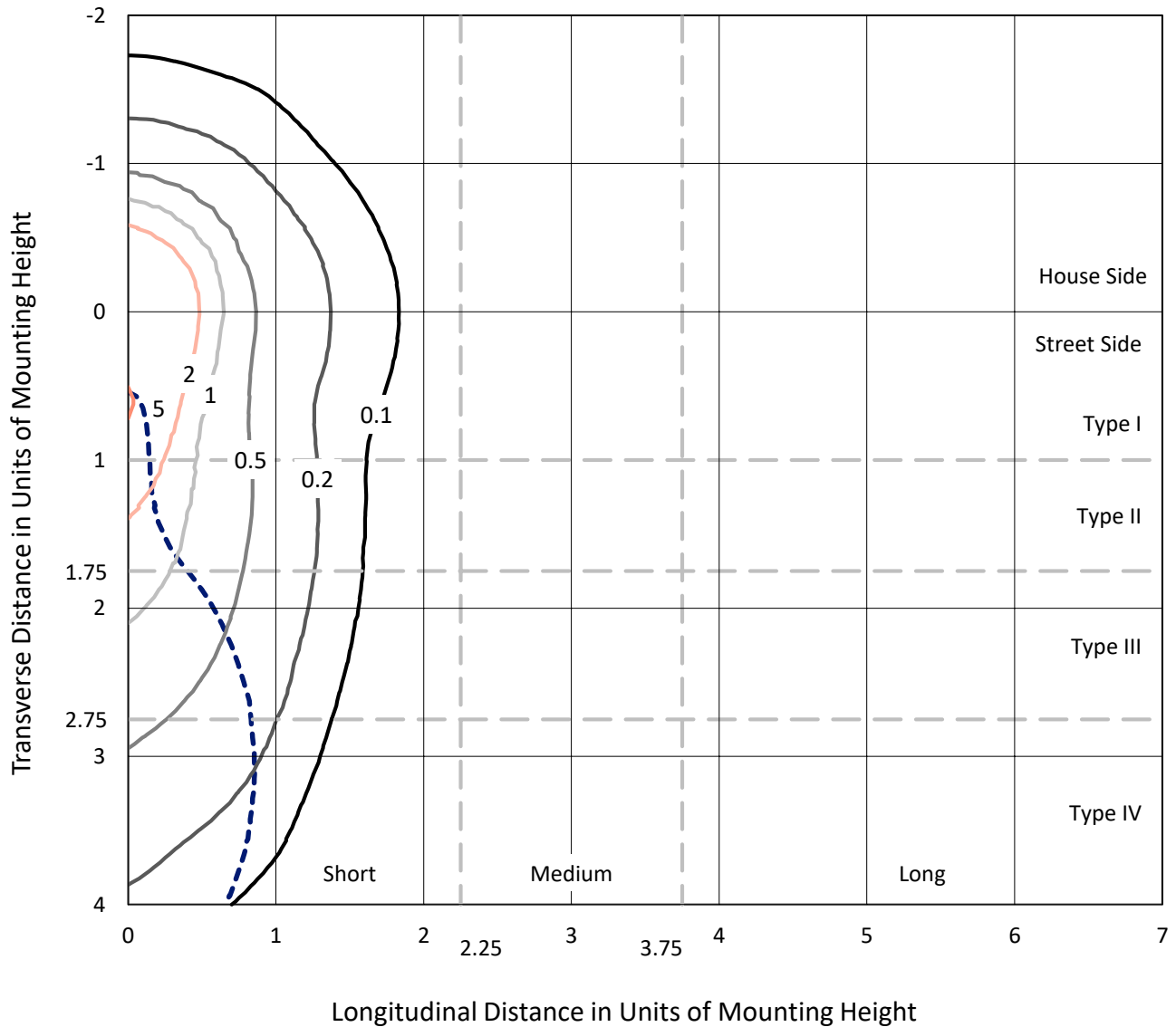
Input Watts (W): 127.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

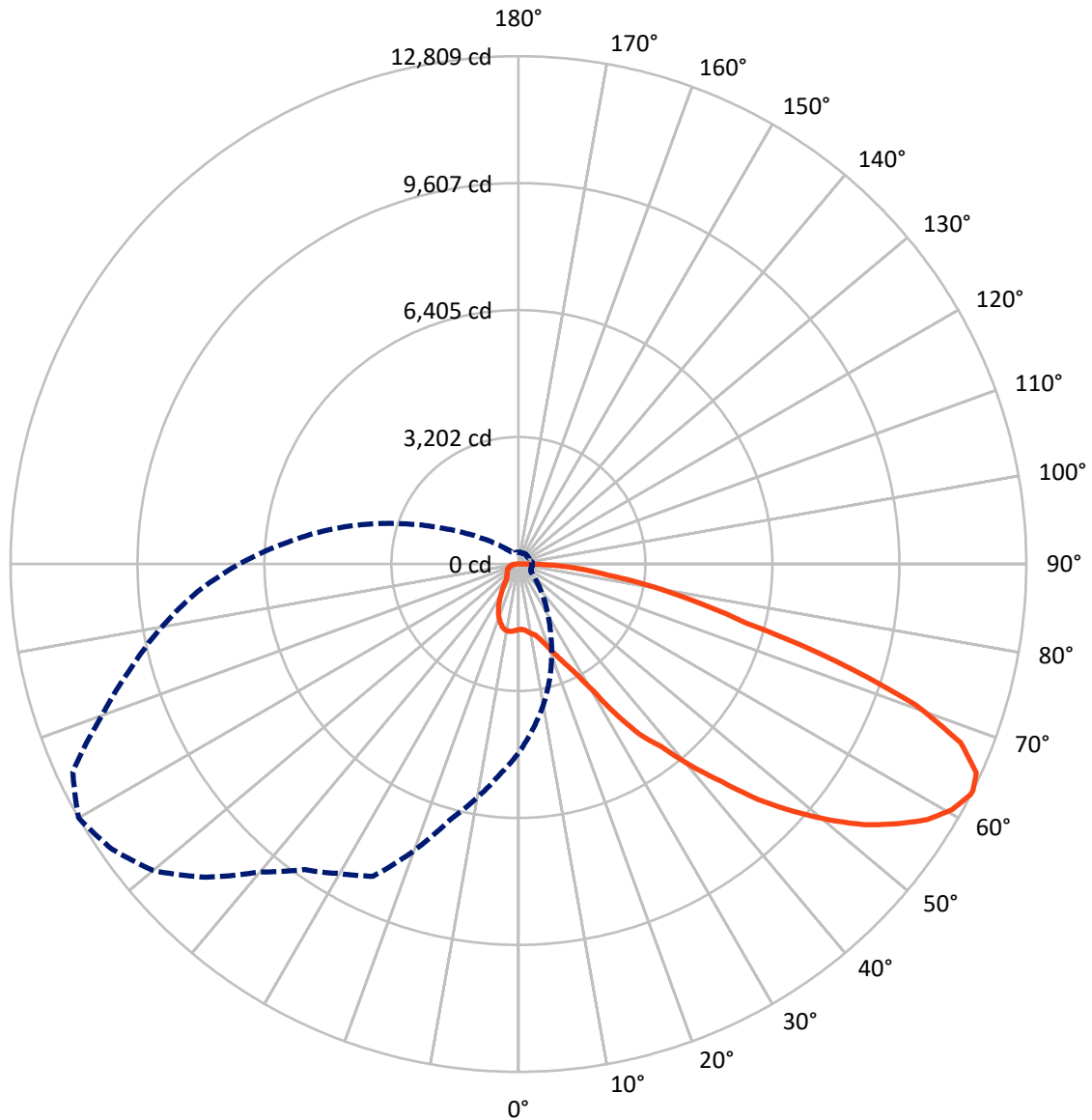
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.3 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P146060
CATALOG NUMBER: LDRL-SLR-E05-E

Luminous Intensity Polar Plot



— Vertical Plane Through 300-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

REPORT NUMBER: P146060

CATALOG NUMBER: LDRL-SLR-E05-E

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2819.1 | 0.0 | 2819.1 |
| | % Fixture | 20.9 | 0.0 | 20.9 |
| Street Side | Lumens | 10648.1 | 0.0 | 10648.1 |
| | % Fixture | 79.1 | 0.0 | 79.1 |
| Total | Lumens | 13467.2 | 0.0 | 13467.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 162.5 | 1.2 |
| 10°-20° | 507.0 | 3.8 |
| 20°-30° | 896.6 | 6.7 |
| 30°-40° | 1415.4 | 10.5 |
| 40°-50° | 2081.4 | 15.5 |
| 50°-60° | 2741.8 | 20.4 |
| 60°-70° | 3056.0 | 22.7 |
| 70°-80° | 2007.8 | 14.9 |
| 80°-90° | 598.8 | 4.4 |
| 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°-90° | 13467.2 | 100.0 |
| 0°-180° | 13467.2 | 100.0 |



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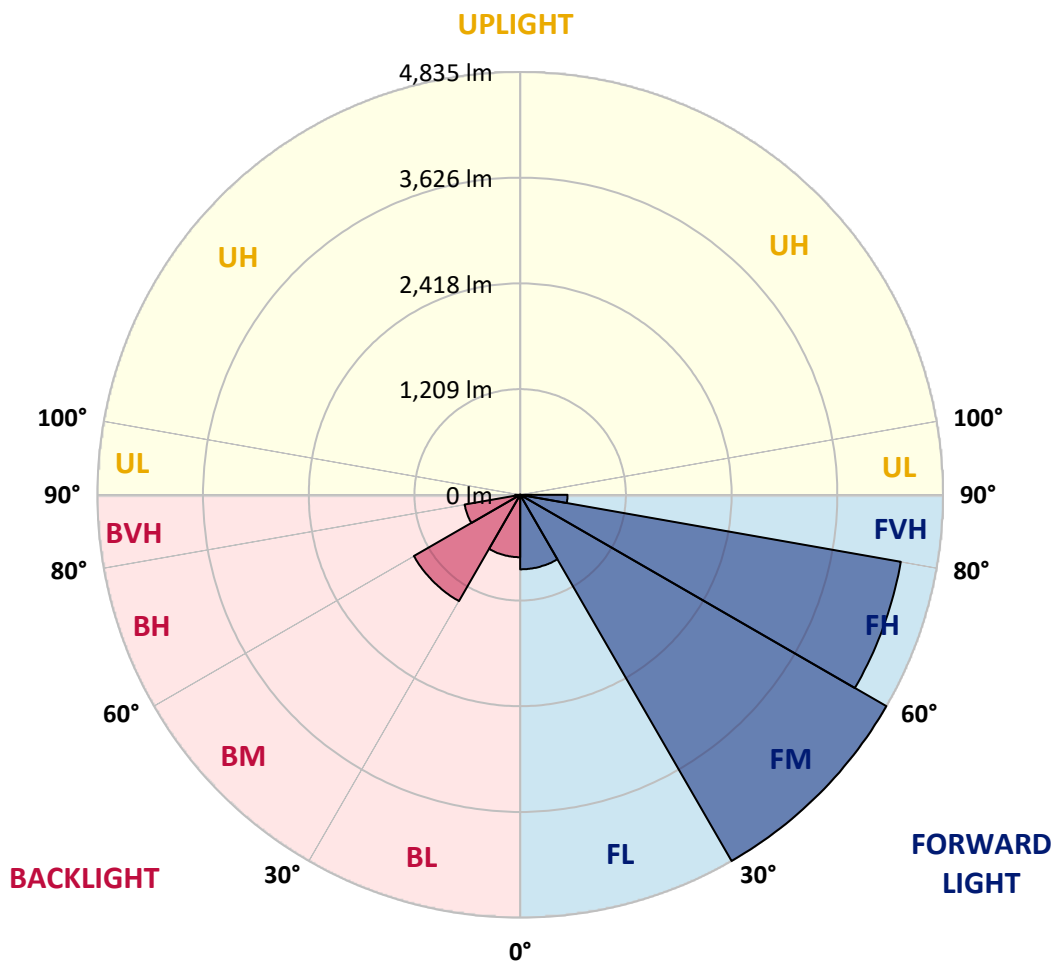
CATALOG NUMBER: LDRL-SLR-E05-E

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 852.4 | 6.3 | | | |
| FM | (30°-60°) | 4835.1 | 35.9 | | | |
| FH | (60°-80°) | 4419.5 | 32.8 | | | G2/5000 |
| FVH | (80°-90°) | 541.2 | 4.0 | | | G4/750 |
| BL | (0°-30°) | 713.6 | 5.3 | B2/1000 | | |
| BM | (30°-60°) | 1403.5 | 10.4 | B2/2500 | | |
| BH | (60°-80°) | 644.3 | 4.8 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 57.6 | 0.4 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 0° | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 |
| 2.5° | 1652 | 1655 | 1655 | 1652 | 1655 | 1654 | 1654 | 1657 | 1658 | 1663 | 1660 |
| 5° | 1644 | 1645 | 1646 | 1644 | 1645 | 1645 | 1647 | 1650 | 1651 | 1657 | 1654 |
| 7.5° | 1635 | 1637 | 1633 | 1634 | 1637 | 1641 | 1641 | 1645 | 1652 | 1655 | 1654 |
| 10° | 1640 | 1638 | 1635 | 1634 | 1636 | 1637 | 1639 | 1646 | 1652 | 1655 | 1660 |
| 12.5° | 1679 | 1673 | 1670 | 1669 | 1670 | 1668 | 1675 | 1677 | 1679 | 1683 | 1681 |
| 15° | 1753 | 1745 | 1740 | 1735 | 1746 | 1741 | 1741 | 1735 | 1725 | 1710 | 1691 |
| 17.5° | 1856 | 1847 | 1843 | 1841 | 1842 | 1833 | 1815 | 1786 | 1751 | 1711 | 1674 |
| 20° | 2004 | 2018 | 2012 | 1985 | 1975 | 1935 | 1878 | 1818 | 1757 | 1693 | 1632 |
| 22.5° | 2260 | 2252 | 2225 | 2158 | 2098 | 2008 | 1906 | 1809 | 1719 | 1626 | 1546 |
| 25° | 2557 | 2490 | 2414 | 2282 | 2144 | 1996 | 1849 | 1734 | 1614 | 1512 | 1416 |
| 27.5° | 2921 | 2776 | 2582 | 2367 | 2161 | 1964 | 1790 | 1638 | 1501 | 1392 | 1285 |
| 30° | 3279 | 3037 | 2767 | 2482 | 2204 | 1938 | 1708 | 1532 | 1374 | 1234 | 1126 |
| 32.5° | 3527 | 3234 | 2898 | 2546 | 2208 | 1896 | 1618 | 1408 | 1230 | 1089 | 959 |
| 35° | 3731 | 3365 | 2944 | 2536 | 2144 | 1798 | 1489 | 1256 | 1067 | 921 | 807 |
| 37.5° | 3871 | 3432 | 2941 | 2478 | 2030 | 1642 | 1341 | 1104 | 928 | 792 | 687 |
| 40° | 3969 | 3453 | 2902 | 2379 | 1899 | 1491 | 1183 | 967 | 813 | 707 | 631 |
| 42.5° | 4016 | 3439 | 2844 | 2285 | 1769 | 1369 | 1064 | 875 | 750 | 670 | 614 |
| 45° | 4036 | 3405 | 2779 | 2193 | 1663 | 1264 | 1003 | 847 | 749 | 680 | 619 |
| 47.5° | 4031 | 3368 | 2721 | 2117 | 1600 | 1236 | 1015 | 885 | 786 | 700 | 622 |
| 50° | 4017 | 3334 | 2684 | 2089 | 1599 | 1278 | 1082 | 949 | 829 | 718 | 619 |
| 52.5° | 4016 | 3331 | 2704 | 2122 | 1657 | 1373 | 1183 | 1023 | 871 | 738 | 620 |
| 55° | 4040 | 3385 | 2789 | 2211 | 1797 | 1506 | 1297 | 1102 | 918 | 752 | 617 |
| 57.5° | 4137 | 3520 | 2950 | 2410 | 1977 | 1668 | 1407 | 1161 | 936 | 748 | 603 |
| 60° | 4350 | 3757 | 3198 | 2691 | 2208 | 1816 | 1472 | 1181 | 928 | 724 | 573 |
| 62.5° | 4682 | 4100 | 3538 | 2967 | 2413 | 1905 | 1487 | 1165 | 896 | 684 | 536 |
| 63° | 4767 | 4179 | 3607 | 3024 | 2448 | 1914 | 1486 | 1159 | 887 | 674 | 527 |
| 65° | 5122 | 4518 | 3884 | 3212 | 2542 | 1932 | 1463 | 1121 | 847 | 627 | 486 |
| 67.5° | 5656 | 4892 | 4159 | 3387 | 2594 | 1900 | 1391 | 1027 | 744 | 545 | 425 |
| 70° | 6012 | 5140 | 4323 | 3444 | 2533 | 1754 | 1226 | 861 | 608 | 449 | 363 |
| 72.5° | 6021 | 4918 | 4101 | 3148 | 2187 | 1447 | 960 | 651 | 473 | 365 | 313 |
| 75° | 5378 | 4156 | 3352 | 2585 | 1683 | 1023 | 675 | 475 | 363 | 301 | 271 |
| 77.5° | 3998 | 3032 | 2419 | 1739 | 1093 | 663 | 470 | 352 | 288 | 249 | 227 |
| 80° | 2481 | 1895 | 1468 | 1040 | 655 | 441 | 344 | 280 | 242 | 208 | 190 |
| 82.5° | 1496 | 1061 | 829 | 628 | 419 | 318 | 265 | 236 | 205 | 175 | 161 |
| 85° | 1096 | 759 | 556 | 388 | 259 | 210 | 186 | 180 | 159 | 135 | 127 |
| 87.5° | 345 | 362 | 376 | 229 | 125 | 95 | 81 | 95 | 91 | 64 | 70 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



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CATALOG NUMBER: LDRL-SLR-E05-E

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | 100° | 105° |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 0° | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 |
| 2.5° | 1665 | 1669 | 1666 | 1666 | 1664 | 1663 | 1670 | 1668 | 1670 | 1669 | 1671 |
| 5° | 1659 | 1662 | 1660 | 1662 | 1660 | 1660 | 1669 | 1669 | 1673 | 1675 | 1680 |
| 7.5° | 1661 | 1662 | 1661 | 1664 | 1662 | 1660 | 1665 | 1668 | 1675 | 1681 | 1686 |
| 10° | 1668 | 1671 | 1670 | 1670 | 1664 | 1660 | 1663 | 1665 | 1672 | 1675 | 1681 |
| 12.5° | 1685 | 1681 | 1673 | 1668 | 1654 | 1646 | 1642 | 1640 | 1645 | 1649 | 1652 |
| 15° | 1681 | 1659 | 1641 | 1626 | 1605 | 1592 | 1582 | 1581 | 1582 | 1583 | 1586 |
| 17.5° | 1640 | 1610 | 1574 | 1555 | 1531 | 1517 | 1510 | 1505 | 1504 | 1506 | 1511 |
| 20° | 1581 | 1537 | 1497 | 1464 | 1438 | 1416 | 1421 | 1410 | 1415 | 1418 | 1427 |
| 22.5° | 1491 | 1430 | 1384 | 1344 | 1313 | 1290 | 1290 | 1280 | 1282 | 1291 | 1303 |
| 25° | 1345 | 1288 | 1222 | 1194 | 1159 | 1143 | 1140 | 1138 | 1146 | 1157 | 1164 |
| 27.5° | 1213 | 1135 | 1070 | 1033 | 996 | 1000 | 980 | 992 | 1001 | 1010 | 1018 |
| 30° | 1035 | 971 | 912 | 875 | 831 | 832 | 835 | 837 | 845 | 857 | 873 |
| 32.5° | 864 | 795 | 740 | 700 | 674 | 666 | 655 | 673 | 683 | 695 | 711 |
| 35° | 723 | 651 | 605 | 570 | 555 | 544 | 541 | 539 | 548 | 554 | 567 |
| 37.5° | 622 | 573 | 539 | 514 | 500 | 488 | 485 | 483 | 482 | 480 | 488 |
| 40° | 581 | 542 | 513 | 490 | 477 | 470 | 467 | 463 | 459 | 454 | 453 |
| 42.5° | 569 | 527 | 493 | 470 | 460 | 459 | 459 | 457 | 453 | 446 | 441 |
| 45° | 564 | 513 | 474 | 456 | 449 | 450 | 450 | 450 | 447 | 440 | 432 |
| 47.5° | 555 | 496 | 456 | 441 | 438 | 440 | 442 | 442 | 440 | 434 | 425 |
| 50° | 538 | 470 | 428 | 414 | 413 | 414 | 414 | 416 | 414 | 409 | 401 |
| 52.5° | 525 | 450 | 407 | 396 | 396 | 395 | 394 | 394 | 393 | 389 | 383 |
| 55° | 513 | 437 | 398 | 389 | 391 | 391 | 389 | 388 | 384 | 379 | 373 |
| 57.5° | 496 | 423 | 389 | 383 | 385 | 384 | 383 | 382 | 378 | 372 | 364 |
| 60° | 466 | 398 | 371 | 367 | 370 | 371 | 375 | 376 | 374 | 367 | 356 |
| 62.5° | 433 | 367 | 347 | 344 | 347 | 350 | 353 | 351 | 351 | 344 | 334 |
| 63° | 422 | 362 | 340 | 340 | 343 | 346 | 348 | 346 | 347 | 339 | 329 |
| 65° | 397 | 344 | 327 | 328 | 331 | 333 | 334 | 334 | 333 | 327 | 318 |
| 67.5° | 355 | 318 | 308 | 313 | 317 | 318 | 318 | 320 | 318 | 314 | 306 |
| 70° | 317 | 293 | 286 | 292 | 294 | 295 | 295 | 295 | 293 | 289 | 282 |
| 72.5° | 288 | 276 | 275 | 274 | 275 | 272 | 272 | 270 | 265 | 262 | 256 |
| 75° | 256 | 250 | 251 | 250 | 248 | 247 | 242 | 240 | 234 | 230 | 222 |
| 77.5° | 220 | 221 | 220 | 221 | 223 | 224 | 217 | 212 | 207 | 203 | 199 |
| 80° | 183 | 185 | 183 | 185 | 186 | 186 | 179 | 171 | 167 | 170 | 171 |
| 82.5° | 163 | 163 | 155 | 157 | 155 | 152 | 147 | 144 | 141 | 139 | 144 |
| 85° | 129 | 130 | 132 | 130 | 126 | 123 | 118 | 114 | 111 | 114 | 121 |
| 87.5° | 77 | 83 | 80 | 80 | 79 | 79 | 75 | 73 | 70 | 82 | 88 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



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CATALOG NUMBER: LDRL-SLR-E05-E

CANDELA DISTRIBUTION (continued):

| | 110° | 115° | 120° | 125° | 130° | 135° | 140° | 145° | 150° | 155° | 160° |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 0° | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 |
| 2.5° | 1670 | 1673 | 1674 | 1673 | 1674 | 1676 | 1668 | 1676 | 1677 | 1671 | 1673 |
| 5° | 1684 | 1689 | 1696 | 1696 | 1701 | 1704 | 1700 | 1711 | 1713 | 1712 | 1717 |
| 7.5° | 1694 | 1701 | 1710 | 1715 | 1724 | 1728 | 1731 | 1741 | 1743 | 1747 | 1751 |
| 10° | 1693 | 1703 | 1711 | 1725 | 1736 | 1744 | 1750 | 1761 | 1765 | 1771 | 1774 |
| 12.5° | 1664 | 1675 | 1690 | 1710 | 1730 | 1743 | 1759 | 1775 | 1781 | 1789 | 1794 |
| 15° | 1599 | 1608 | 1629 | 1655 | 1682 | 1715 | 1738 | 1763 | 1774 | 1782 | 1789 |
| 17.5° | 1514 | 1522 | 1541 | 1564 | 1600 | 1632 | 1667 | 1705 | 1724 | 1733 | 1736 |
| 20° | 1435 | 1447 | 1452 | 1479 | 1491 | 1523 | 1553 | 1595 | 1619 | 1635 | 1645 |
| 22.5° | 1311 | 1317 | 1343 | 1354 | 1363 | 1383 | 1420 | 1457 | 1489 | 1515 | 1523 |
| 25° | 1174 | 1190 | 1204 | 1213 | 1234 | 1235 | 1265 | 1291 | 1331 | 1356 | 1376 |
| 27.5° | 1023 | 1047 | 1055 | 1061 | 1077 | 1096 | 1107 | 1133 | 1156 | 1185 | 1221 |
| 30° | 871 | 894 | 910 | 919 | 934 | 952 | 960 | 977 | 1007 | 1039 | 1067 |
| 32.5° | 729 | 753 | 761 | 790 | 794 | 811 | 817 | 844 | 861 | 888 | 921 |
| 35° | 590 | 615 | 639 | 655 | 673 | 672 | 688 | 713 | 728 | 756 | 778 |
| 37.5° | 495 | 510 | 527 | 545 | 565 | 580 | 595 | 606 | 618 | 637 | 657 |
| 40° | 453 | 457 | 464 | 475 | 489 | 500 | 511 | 520 | 529 | 544 | 557 |
| 42.5° | 436 | 433 | 433 | 431 | 436 | 442 | 451 | 454 | 468 | 477 | 482 |
| 45° | 424 | 417 | 412 | 406 | 404 | 406 | 411 | 418 | 427 | 430 | 430 |
| 47.5° | 417 | 406 | 398 | 389 | 384 | 384 | 387 | 392 | 397 | 398 | 397 |
| 50° | 393 | 382 | 372 | 364 | 360 | 360 | 361 | 368 | 369 | 367 | 368 |
| 52.5° | 375 | 364 | 354 | 347 | 342 | 343 | 346 | 349 | 352 | 350 | 348 |
| 55° | 364 | 351 | 342 | 334 | 328 | 330 | 333 | 337 | 342 | 339 | 336 |
| 57.5° | 354 | 343 | 332 | 324 | 317 | 319 | 322 | 328 | 334 | 328 | 324 |
| 60° | 345 | 334 | 323 | 315 | 307 | 309 | 313 | 319 | 324 | 316 | 311 |
| 62.5° | 323 | 313 | 305 | 301 | 296 | 299 | 302 | 309 | 307 | 299 | 293 |
| 63° | 319 | 309 | 302 | 298 | 294 | 298 | 299 | 306 | 303 | 295 | 290 |
| 65° | 307 | 299 | 292 | 288 | 284 | 286 | 286 | 289 | 285 | 279 | 275 |
| 67.5° | 296 | 287 | 280 | 272 | 268 | 266 | 265 | 264 | 261 | 258 | 257 |
| 70° | 272 | 266 | 260 | 253 | 247 | 243 | 241 | 239 | 237 | 236 | 235 |
| 72.5° | 246 | 241 | 235 | 231 | 226 | 223 | 218 | 217 | 215 | 213 | 212 |
| 75° | 218 | 212 | 210 | 206 | 203 | 201 | 197 | 196 | 194 | 191 | 190 |
| 77.5° | 193 | 191 | 188 | 187 | 182 | 179 | 177 | 176 | 174 | 172 | 170 |
| 80° | 172 | 171 | 169 | 168 | 165 | 161 | 159 | 160 | 157 | 156 | 153 |
| 82.5° | 155 | 156 | 156 | 153 | 150 | 145 | 143 | 146 | 144 | 140 | 136 |
| 85° | 132 | 131 | 132 | 131 | 125 | 120 | 118 | 120 | 119 | 113 | 112 |
| 87.5° | 94 | 93 | 91 | 97 | 89 | 72 | 74 | 84 | 81 | 78 | 76 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



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CATALOG NUMBER: LDRL-SLR-E05-E

CANDELA DISTRIBUTION (continued):

| | 165° | 170° | 175° | 180° | 185° | 190° | 195° | 200° | 205° | 210° | 215° |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 0° | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 |
| 2.5° | 1677 | 1674 | 1676 | 1677 | 1674 | 1681 | 1674 | 1675 | 1677 | 1671 | 1670 |
| 5° | 1721 | 1721 | 1729 | 1730 | 1729 | 1738 | 1737 | 1738 | 1736 | 1735 | 1731 |
| 7.5° | 1757 | 1761 | 1767 | 1776 | 1779 | 1786 | 1788 | 1789 | 1793 | 1797 | 1795 |
| 10° | 1783 | 1794 | 1799 | 1808 | 1817 | 1822 | 1827 | 1835 | 1838 | 1841 | 1837 |
| 12.5° | 1801 | 1814 | 1822 | 1833 | 1844 | 1852 | 1861 | 1871 | 1881 | 1884 | 1879 |
| 15° | 1792 | 1807 | 1819 | 1831 | 1848 | 1863 | 1880 | 1898 | 1911 | 1916 | 1910 |
| 17.5° | 1736 | 1751 | 1769 | 1787 | 1805 | 1833 | 1857 | 1887 | 1908 | 1923 | 1925 |
| 20° | 1659 | 1668 | 1694 | 1712 | 1741 | 1774 | 1810 | 1845 | 1869 | 1896 | 1912 |
| 22.5° | 1545 | 1563 | 1592 | 1623 | 1652 | 1695 | 1733 | 1779 | 1820 | 1857 | 1892 |
| 25° | 1406 | 1431 | 1465 | 1508 | 1546 | 1592 | 1647 | 1698 | 1767 | 1825 | 1900 |
| 27.5° | 1256 | 1302 | 1349 | 1394 | 1436 | 1488 | 1545 | 1602 | 1681 | 1774 | 1872 |
| 30° | 1114 | 1152 | 1211 | 1263 | 1312 | 1376 | 1435 | 1498 | 1573 | 1683 | 1794 |
| 32.5° | 966 | 997 | 1043 | 1107 | 1164 | 1239 | 1291 | 1366 | 1453 | 1569 | 1695 |
| 35° | 813 | 856 | 893 | 937 | 980 | 1055 | 1133 | 1216 | 1316 | 1440 | 1578 |
| 37.5° | 678 | 705 | 723 | 768 | 806 | 870 | 961 | 1061 | 1171 | 1297 | 1445 |
| 40° | 566 | 583 | 603 | 633 | 665 | 723 | 807 | 919 | 1034 | 1160 | 1308 |
| 42.5° | 489 | 500 | 502 | 525 | 555 | 612 | 679 | 782 | 909 | 1041 | 1189 |
| 45° | 436 | 436 | 435 | 445 | 469 | 518 | 579 | 671 | 792 | 930 | 1084 |
| 47.5° | 399 | 402 | 401 | 405 | 421 | 457 | 512 | 590 | 700 | 835 | 990 |
| 50° | 371 | 375 | 376 | 377 | 383 | 413 | 460 | 523 | 621 | 750 | 906 |
| 52.5° | 349 | 350 | 350 | 349 | 351 | 368 | 407 | 465 | 556 | 672 | 822 |
| 55° | 337 | 338 | 338 | 338 | 338 | 349 | 377 | 424 | 497 | 606 | 742 |
| 57.5° | 323 | 323 | 325 | 325 | 325 | 329 | 349 | 388 | 444 | 531 | 652 |
| 60° | 311 | 314 | 318 | 319 | 318 | 318 | 328 | 354 | 391 | 454 | 556 |
| 62.5° | 293 | 297 | 302 | 304 | 305 | 303 | 308 | 319 | 341 | 374 | 443 |
| 63° | 290 | 294 | 298 | 300 | 301 | 299 | 303 | 312 | 330 | 357 | 419 |
| 65° | 277 | 282 | 283 | 284 | 283 | 282 | 281 | 281 | 286 | 296 | 329 |
| 67.5° | 259 | 262 | 262 | 264 | 259 | 257 | 255 | 253 | 250 | 251 | 263 |
| 70° | 238 | 240 | 239 | 238 | 236 | 233 | 231 | 228 | 222 | 220 | 226 |
| 72.5° | 214 | 216 | 216 | 216 | 212 | 210 | 208 | 206 | 204 | 206 | 208 |
| 75° | 192 | 192 | 194 | 193 | 190 | 188 | 187 | 186 | 186 | 186 | 185 |
| 77.5° | 171 | 170 | 170 | 167 | 165 | 164 | 166 | 167 | 166 | 164 | 163 |
| 80° | 153 | 148 | 143 | 139 | 138 | 140 | 142 | 148 | 145 | 145 | 143 |
| 82.5° | 130 | 119 | 112 | 113 | 110 | 111 | 113 | 120 | 118 | 119 | 123 |
| 85° | 104 | 94 | 83 | 85 | 85 | 83 | 88 | 90 | 92 | 97 | 93 |
| 87.5° | 73 | 64 | 53 | 46 | 48 | 50 | 52 | 50 | 44 | 46 | 45 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



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CANDELA DISTRIBUTION (continued):

| | 220° | 225° | 230° | 235° | 240° | 245° | 250° | 255° | 260° | 265° | 270° |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 0° | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 |
| 2.5° | 1668 | 1669 | 1669 | 1662 | 1660 | 1662 | 1661 | 1661 | 1655 | 1656 | 1654 |
| 5° | 1729 | 1731 | 1725 | 1720 | 1713 | 1712 | 1711 | 1707 | 1703 | 1695 | 1691 |
| 7.5° | 1794 | 1785 | 1783 | 1774 | 1771 | 1763 | 1757 | 1751 | 1746 | 1742 | 1739 |
| 10° | 1835 | 1828 | 1826 | 1810 | 1805 | 1795 | 1789 | 1782 | 1776 | 1770 | 1769 |
| 12.5° | 1872 | 1860 | 1853 | 1831 | 1821 | 1810 | 1805 | 1799 | 1797 | 1796 | 1800 |
| 15° | 1901 | 1884 | 1871 | 1851 | 1843 | 1837 | 1838 | 1835 | 1847 | 1854 | 1867 |
| 17.5° | 1920 | 1913 | 1910 | 1895 | 1900 | 1900 | 1914 | 1921 | 1943 | 1961 | 1979 |
| 20° | 1930 | 1943 | 1968 | 1973 | 1985 | 1998 | 2019 | 2031 | 2054 | 2080 | 2105 |
| 22.5° | 1939 | 1994 | 2045 | 2083 | 2110 | 2140 | 2155 | 2180 | 2196 | 2215 | 2253 |
| 25° | 1989 | 2081 | 2171 | 2220 | 2284 | 2327 | 2361 | 2386 | 2414 | 2430 | 2473 |
| 27.5° | 1975 | 2092 | 2212 | 2302 | 2402 | 2483 | 2555 | 2603 | 2639 | 2697 | 2733 |
| 30° | 1911 | 2047 | 2192 | 2320 | 2460 | 2592 | 2717 | 2829 | 2925 | 3003 | 3056 |
| 32.5° | 1820 | 1976 | 2146 | 2304 | 2483 | 2659 | 2839 | 3010 | 3173 | 3302 | 3383 |
| 35° | 1718 | 1886 | 2074 | 2261 | 2476 | 2706 | 2949 | 3179 | 3415 | 3621 | 3783 |
| 37.5° | 1594 | 1776 | 1982 | 2199 | 2446 | 2722 | 3028 | 3341 | 3642 | 3954 | 4182 |
| 40° | 1464 | 1642 | 1856 | 2104 | 2389 | 2714 | 3089 | 3495 | 3931 | 4333 | 4680 |
| 42.5° | 1353 | 1527 | 1751 | 1996 | 2303 | 2684 | 3130 | 3633 | 4170 | 4691 | 5152 |
| 45° | 1244 | 1430 | 1656 | 1915 | 2250 | 2672 | 3183 | 3753 | 4366 | 4984 | 5572 |
| 47.5° | 1158 | 1342 | 1570 | 1848 | 2207 | 2665 | 3233 | 3865 | 4526 | 5202 | 5899 |
| 50° | 1076 | 1252 | 1474 | 1767 | 2162 | 2654 | 3263 | 3954 | 4651 | 5373 | 6131 |
| 52.5° | 992 | 1175 | 1391 | 1675 | 2103 | 2632 | 3272 | 4024 | 4780 | 5537 | 6348 |
| 55° | 907 | 1090 | 1306 | 1600 | 2023 | 2589 | 3265 | 4075 | 4915 | 5710 | 6546 |
| 57.5° | 803 | 983 | 1209 | 1505 | 1920 | 2503 | 3231 | 4097 | 4999 | 5872 | 6745 |
| 60° | 686 | 856 | 1070 | 1372 | 1794 | 2379 | 3155 | 4066 | 5037 | 5979 | 6956 |
| 62.5° | 539 | 687 | 884 | 1184 | 1611 | 2200 | 2989 | 3929 | 4945 | 5952 | 7047 |
| 63° | 506 | 649 | 852 | 1134 | 1557 | 2138 | 2940 | 3882 | 4904 | 5927 | 7036 |
| 65° | 386 | 492 | 660 | 912 | 1316 | 1852 | 2682 | 3616 | 4646 | 5678 | 6863 |
| 67.5° | 285 | 340 | 443 | 612 | 926 | 1441 | 2198 | 3123 | 4098 | 5068 | 6274 |
| 70° | 236 | 257 | 305 | 392 | 573 | 956 | 1553 | 2377 | 3294 | 4129 | 5218 |
| 72.5° | 211 | 226 | 248 | 287 | 362 | 561 | 1010 | 1543 | 2294 | 3016 | 3936 |
| 75° | 189 | 199 | 217 | 240 | 274 | 351 | 534 | 915 | 1402 | 2032 | 2700 |
| 77.5° | 166 | 176 | 194 | 212 | 234 | 267 | 331 | 521 | 839 | 1186 | 1657 |
| 80° | 144 | 149 | 164 | 190 | 206 | 233 | 254 | 326 | 457 | 621 | 883 |
| 82.5° | 119 | 120 | 130 | 150 | 170 | 180 | 186 | 205 | 263 | 328 | 433 |
| 85° | 85 | 81 | 87 | 95 | 111 | 102 | 109 | 115 | 140 | 169 | 310 |
| 87.5° | 38 | 30 | 35 | 39 | 35 | 24 | 35 | 29 | 36 | 71 | 80 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

| | 275° | 280° | 285° | 290° | 295° | 300° | 305° | 310° | 315° | 320° | 325° | |
|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|
| 0° | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 0° |
| 2.5° | 1656 | 1650 | 1650 | 1649 | 1650 | 1648 | 1644 | 1644 | 1647 | 1646 | 1646 | 2.5° |
| 5° | 1691 | 1683 | 1681 | 1680 | 1680 | 1675 | 1669 | 1666 | 1665 | 1661 | 1658 | 5° |
| 7.5° | 1737 | 1732 | 1735 | 1729 | 1727 | 1726 | 1718 | 1712 | 1703 | 1699 | 1684 | 7.5° |
| 10° | 1775 | 1772 | 1780 | 1779 | 1780 | 1780 | 1769 | 1763 | 1750 | 1743 | 1724 | 10° |
| 12.5° | 1808 | 1810 | 1825 | 1825 | 1828 | 1832 | 1826 | 1813 | 1808 | 1801 | 1781 | 12.5° |
| 15° | 1892 | 1900 | 1911 | 1929 | 1934 | 1935 | 1940 | 1929 | 1916 | 1898 | 1874 | 15° |
| 17.5° | 2006 | 2022 | 2059 | 2085 | 2090 | 2095 | 2092 | 2090 | 2066 | 2051 | 2026 | 17.5° |
| 20° | 2149 | 2188 | 2240 | 2276 | 2292 | 2294 | 2314 | 2300 | 2278 | 2248 | 2212 | 20° |
| 22.5° | 2309 | 2374 | 2440 | 2493 | 2524 | 2538 | 2559 | 2539 | 2510 | 2492 | 2444 | 22.5° |
| 25° | 2528 | 2599 | 2675 | 2717 | 2796 | 2819 | 2831 | 2825 | 2795 | 2808 | 2764 | 25° |
| 27.5° | 2828 | 2889 | 2996 | 3049 | 3123 | 3166 | 3157 | 3207 | 3216 | 3247 | 3252 | 27.5° |
| 30° | 3155 | 3256 | 3400 | 3507 | 3620 | 3693 | 3751 | 3795 | 3846 | 3932 | 3984 | 30° |
| 32.5° | 3508 | 3654 | 3838 | 4065 | 4305 | 4501 | 4722 | 4760 | 4874 | 4841 | 4819 | 32.5° |
| 35° | 3901 | 4085 | 4321 | 4619 | 4968 | 5292 | 5505 | 5612 | 5657 | 5682 | 5530 | 35° |
| 37.5° | 4427 | 4676 | 4939 | 5264 | 5531 | 5834 | 6079 | 6345 | 6467 | 6409 | 6118 | 37.5° |
| 40° | 5010 | 5243 | 5599 | 5865 | 6180 | 6679 | 7011 | 7331 | 7431 | 7238 | 6782 | 40° |
| 42.5° | 5595 | 5915 | 6301 | 6679 | 7041 | 7493 | 7933 | 8249 | 8359 | 8029 | 7488 | 42.5° |
| 45° | 6116 | 6526 | 6980 | 7368 | 7874 | 8465 | 9004 | 9258 | 9238 | 8708 | 8099 | 45° |
| 47.5° | 6570 | 7102 | 7614 | 8137 | 8647 | 9314 | 9848 | 10140 | 9933 | 9376 | 8686 | 47.5° |
| 50° | 6945 | 7588 | 8206 | 8807 | 9433 | 10142 | 10657 | 10927 | 10612 | 9907 | 9136 | 50° |
| 52.5° | 7230 | 8027 | 8739 | 9411 | 10159 | 10925 | 11383 | 11546 | 11055 | 10318 | 9473 | 52.5° |
| 55° | 7499 | 8400 | 9188 | 9951 | 10882 | 11569 | 11998 | 11968 | 11334 | 10497 | 9684 | 55° |
| 57.5° | 7702 | 8718 | 9557 | 10426 | 11429 | 12163 | 12411 | 12213 | 11450 | 10550 | 9745 | 57.5° |
| 60° | 7958 | 8966 | 9885 | 10855 | 11949 | 12570 | 12603 | 12248 | 11417 | 10450 | 9659 | 60° |
| 62.5° | 8122 | 9121 | 10094 | 11149 | 12345 | 12799 | 12563 | 12097 | 11227 | 10203 | 9462 | 62.5° |
| 63° | 8138 | 9136 | 10111 | 11178 | 12401 | 12809 | 12526 | 12029 | 11171 | 10135 | 9410 | 63° |
| 65° | 8066 | 9093 | 10033 | 11126 | 12415 | 12691 | 12255 | 11750 | 10862 | 9788 | 9104 | 65° |
| 67.5° | 7563 | 8631 | 9528 | 10553 | 11875 | 12028 | 11591 | 11042 | 10208 | 9040 | 8435 | 67.5° |
| 70° | 6662 | 7677 | 8313 | 9265 | 10428 | 10611 | 10220 | 9795 | 9054 | 8078 | 7576 | 70° |
| 72.5° | 5367 | 6364 | 6746 | 7475 | 8399 | 8359 | 8084 | 8031 | 7641 | 6822 | 6520 | 72.5° |
| 75° | 4012 | 4961 | 5122 | 5419 | 5935 | 5922 | 5986 | 6214 | 6409 | 5925 | 5538 | 75° |
| 77.5° | 2646 | 3590 | 3690 | 4036 | 4179 | 4571 | 5031 | 5604 | 5888 | 5690 | 5215 | 77.5° |
| 80° | 1464 | 2456 | 2436 | 2571 | 2824 | 3394 | 4091 | 4942 | 5510 | 5368 | 4848 | 80° |
| 82.5° | 761 | 1552 | 1529 | 1553 | 1788 | 2267 | 2797 | 3493 | 4080 | 4093 | 3918 | 82.5° |
| 85° | 566 | 1114 | 1180 | 1234 | 1390 | 1557 | 1654 | 1877 | 2199 | 2499 | 2606 | 85° |
| 87.5° | 208 | 669 | 833 | 895 | 899 | 878 | 715 | 787 | 716 | 847 | 1183 | 87.5° |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 90° |



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DISTRIBUTION (continued):

| 330° | 335° | 340° | 345° | 350° | 355° | 360° |
|------|------|------|------|------|------|------|
| 1654 | 1654 | 1654 | 1654 | 1654 | 1654 | 1654 |
| 1648 | 1648 | 1647 | 1649 | 1650 | 1653 | 1652 |
| 1655 | 1652 | 1649 | 1647 | 1645 | 1646 | 1644 |
| 1673 | 1663 | 1655 | 1648 | 1642 | 1641 | 1635 |
| 1713 | 1695 | 1680 | 1669 | 1657 | 1651 | 1640 |
| 1764 | 1744 | 1725 | 1709 | 1695 | 1687 | 1679 |
| 1853 | 1824 | 1801 | 1784 | 1770 | 1761 | 1753 |
| 1985 | 1949 | 1914 | 1881 | 1877 | 1856 | 1856 |
| 2167 | 2118 | 2073 | 2045 | 2032 | 2004 | 2004 |
| 2419 | 2371 | 2304 | 2270 | 2273 | 2249 | 2260 |
| 2745 | 2705 | 2636 | 2622 | 2622 | 2596 | 2557 |
| 3234 | 3220 | 3144 | 3163 | 3123 | 3026 | 2921 |
| 3960 | 3960 | 3813 | 3707 | 3615 | 3464 | 3279 |
| 4687 | 4592 | 4367 | 4187 | 3996 | 3765 | 3527 |
| 5301 | 5048 | 4820 | 4600 | 4313 | 4065 | 3731 |
| 5819 | 5579 | 5318 | 4983 | 4646 | 4300 | 3871 |
| 6461 | 6169 | 5777 | 5356 | 4942 | 4466 | 3969 |
| 7048 | 6682 | 6187 | 5654 | 5127 | 4596 | 4016 |
| 7600 | 7128 | 6517 | 5877 | 5277 | 4676 | 4036 |
| 8120 | 7487 | 6776 | 6036 | 5380 | 4719 | 4031 |
| 8463 | 7750 | 6939 | 6132 | 5442 | 4734 | 4017 |
| 8678 | 7911 | 7035 | 6185 | 5473 | 4737 | 4016 |
| 8799 | 8002 | 7087 | 6222 | 5507 | 4755 | 4040 |
| 8893 | 8074 | 7145 | 6285 | 5588 | 4839 | 4137 |
| 8982 | 8263 | 7296 | 6401 | 5729 | 4996 | 4350 |
| 9019 | 8622 | 7603 | 6615 | 5926 | 5248 | 4682 |
| 9016 | 8690 | 7692 | 6674 | 5978 | 5315 | 4767 |
| 8907 | 8906 | 8097 | 6956 | 6220 | 5625 | 5122 |
| 8584 | 9014 | 8545 | 7328 | 6596 | 6136 | 5656 |
| 8073 | 8883 | 8606 | 7426 | 6863 | 6605 | 6012 |
| 7193 | 8257 | 8035 | 7008 | 6772 | 6697 | 6021 |
| 5818 | 6638 | 6543 | 5987 | 6074 | 6228 | 5378 |
| 4687 | 4661 | 4647 | 4445 | 4815 | 5128 | 3998 |
| 3915 | 3225 | 2995 | 2917 | 3527 | 3767 | 2481 |
| 3660 | 2897 | 2324 | 2226 | 2643 | 2771 | 1496 |
| 2797 | 2813 | 2435 | 2087 | 2056 | 1882 | 1096 |
| 1369 | 1392 | 1471 | 1343 | 1152 | 971 | 345 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)