

Scaled data based on original data using  
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge  
or Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: STREETWORKS

Report Number: 768942

Luminaire Tested: **ARC15SXX5C16X**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-46-04  
Report Number: 768942  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARC15SXX5C16X  
Description: CUTOFF GENERATIONS POST TOP TYPE 5 W/CAGE  
Light Source: 150 WATT HPS CLEAR ED-23.5  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 16000 (1 lamp)  
Luminaire Lumens: 9277 lumens  
Efficiency: 58.0%  
Efficacy: 61.8 lumens/watt  
Luminous Opening: Point Source (0' x 0' x 0')  
IES Classification: Type V - Short - Cutoff  
BUG Rating: B3 - U3 - G2

Input Watts (W): 150  
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: 28.75 FT

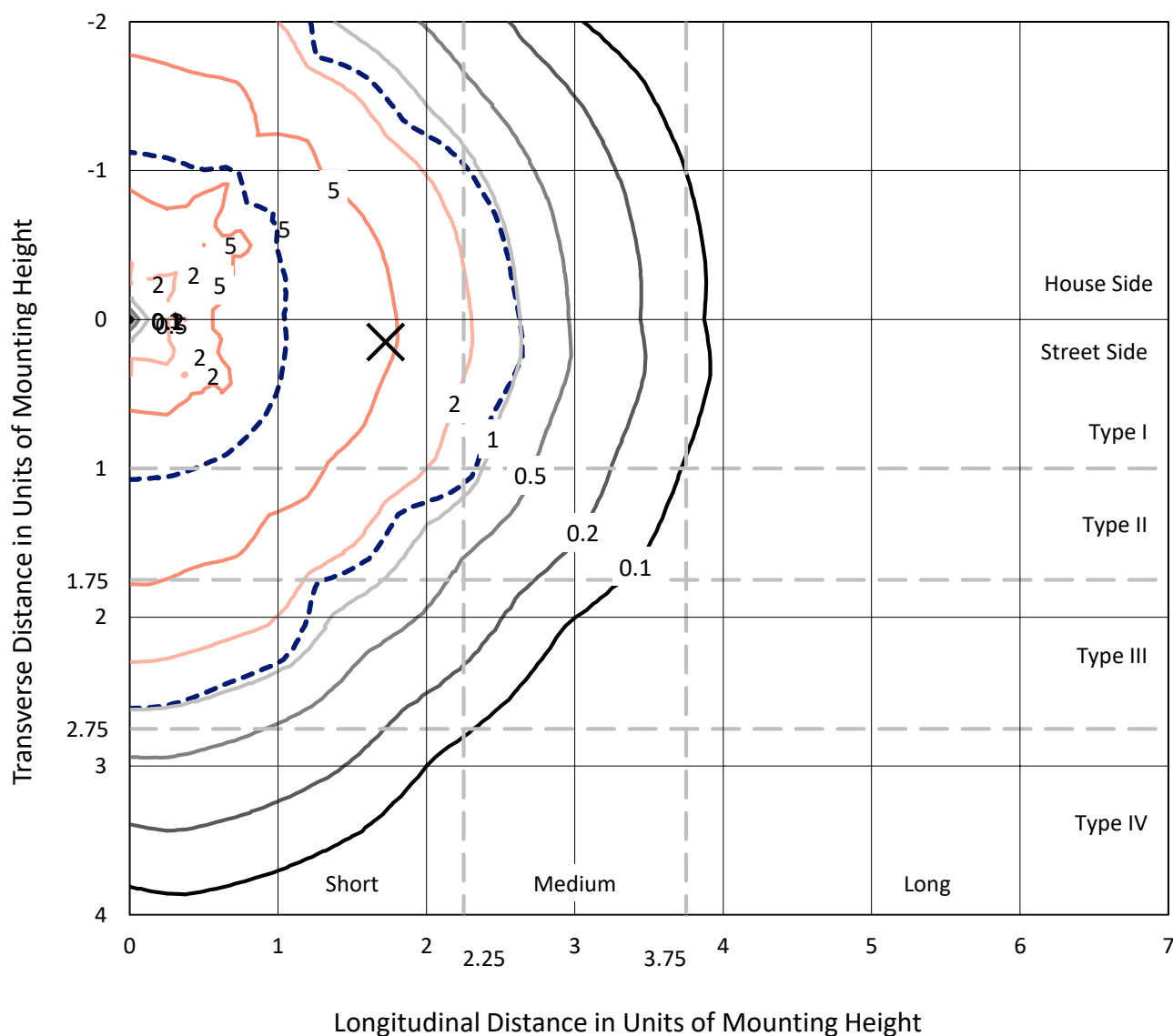


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## Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

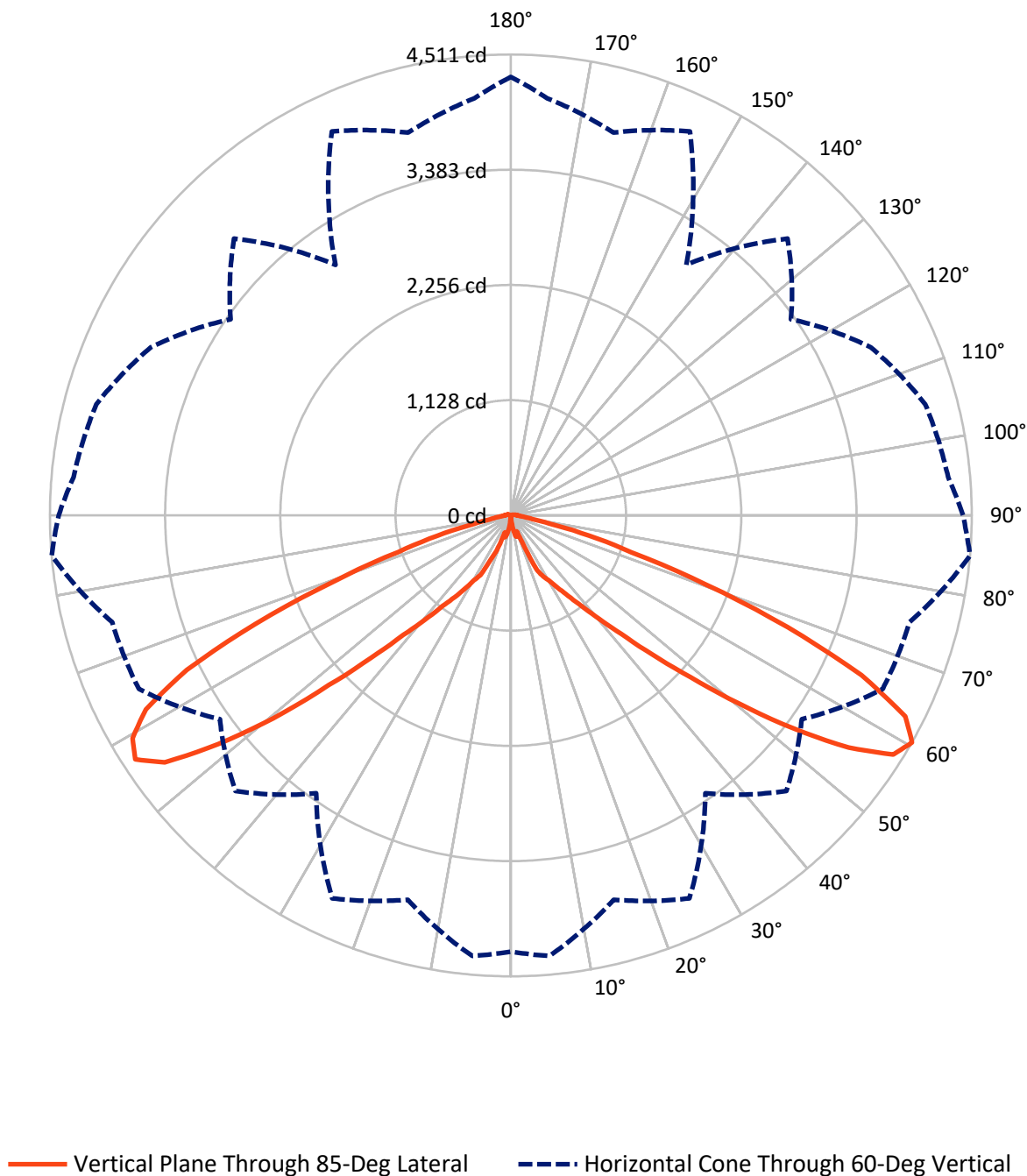


Based on 10 foot mounting height. Maximum calculated value = 8.2 fc  
 Type V - Short - Cutoff

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## Luminous Intensity Polar Plot



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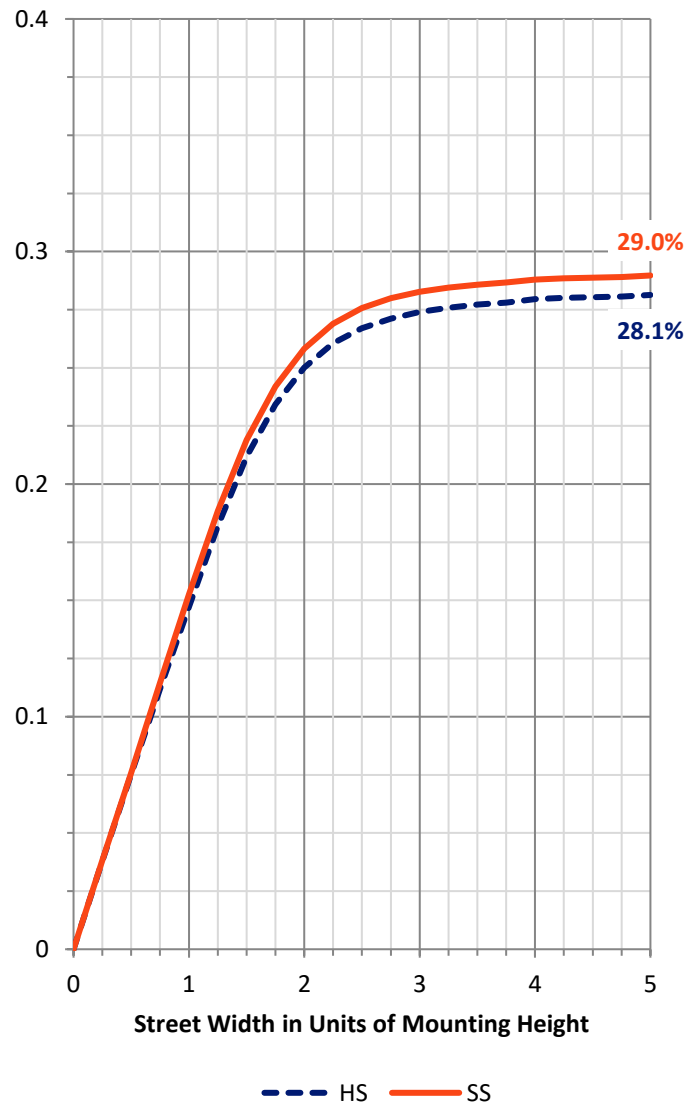
**FLUX DISTRIBUTION:**

|                    |        | Downward | Upward | Total  |
|--------------------|--------|----------|--------|--------|
| <b>House Side</b>  | Lumens | 4520.6   | 46.5   | 4567.2 |
|                    | % Lamp | 28.3     | 0.3    | 28.5   |
| <b>Street Side</b> | Lumens | 4662.7   | 47.2   | 4709.8 |
|                    | % Lamp | 29.1     | 0.3    | 29.4   |
| <b>Total</b>       | Lumens | 9183.3   | 93.7   | 9277.0 |
|                    | % Lamp | 57.4     | 0.6    | 58.0   |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10°    | 8.4    | 0.1       | 0.1    |
| 10°-20°   | 55.4   | 0.6       | 0.3    |
| 20°-30°   | 223.5  | 2.4       | 1.4    |
| 30°-40°   | 572.4  | 6.2       | 3.6    |
| 40°-50°   | 1409.7 | 15.2      | 8.8    |
| 50°-60°   | 3140.6 | 33.9      | 19.6   |
| 60°-70°   | 2923.8 | 31.5      | 18.3   |
| 70°-80°   | 736.9  | 7.9       | 4.6    |
| 80°-90°   | 112.8  | 1.2       | 0.7    |
| 90°-100°  | 50.9   | 0.5       | 0.3    |
| 100°-110° | 27.9   | 0.3       | 0.2    |
| 110°-120° | 12.4   | 0.1       | 0.1    |
| 120°-130° | 4.2    | 0.0       | 0.0    |
| 130°-140° | 0.9    | 0.0       | 0.0    |
| 140°-150° | 0.0    | 0.0       | 0.0    |
| 150°-160° | 0.0    | 0.0       | 0.0    |
| 160°-170° | 0.0    | 0.0       | 0.0    |
| 170°-180° | 0.0    | 0.0       | 0.0    |
| 0°-90°    | 9183.3 | 99.0      | 57.4   |
| 0°-180°   | 9277.0 | 100.0     | 58.0   |

**Coefficient of Utilization**



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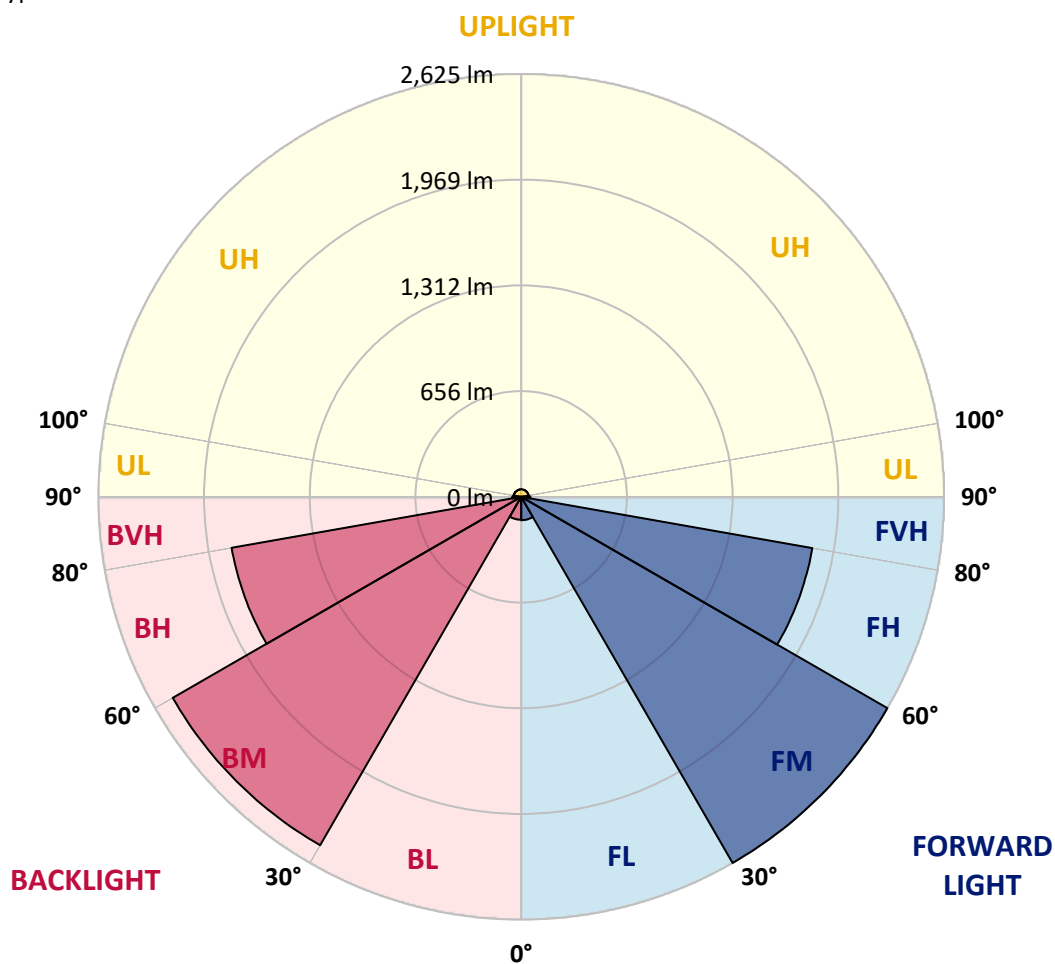
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone          |             | Lumens | % Lamp | Zone Rating/Lumen Limit |        |         |
|---------------|-------------|--------|--------|-------------------------|--------|---------|
|               |             |        |        | B                       | U      | G       |
| FL            | (0°-30°)    | 145.1  | 0.9    |                         |        |         |
| FM            | (30°-60°)   | 2624.9 | 16.4   |                         |        |         |
| FH            | (60°-80°)   | 1835.5 | 11.5   |                         |        | G2/5000 |
| FVH           | (80°-90°)   | 57.2   | 0.4    |                         |        | G1/100  |
| BL            | (0°-30°)    | 142.2  | 0.9    | B1/500                  |        |         |
| BM            | (30°-60°)   | 2497.7 | 15.6   | B2/2500                 |        |         |
| BH            | (60°-80°)   | 1825.1 | 11.4   | B3/2500                 |        | G2/5000 |
| BVH           | (80°-90°)   | 55.6   | 0.3    |                         |        | G1/100  |
| UL            | (90°-100°)  | 50.9   | 0.3    |                         | U3/500 |         |
| UH            | (100°-180°) | 46.5   | 0.3    |                         | U2/50  |         |
| Trapped Light |             | 6723.0 | 42.0   |                         |        |         |

**BUG Rating: B3-U3-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°   | 5°   | 15°  | 25°  | 35°  | 45°  | 55°  | 65°  | 75°  | 85°  | 90°  |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 0°    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| 2.5°  | 0    | 0    | 0    | 0    | 5    | 5    | 0    | 0    | 11   | 5    | 5    |
| 5°    | 32   | 32   | 38   | 43   | 48   | 43   | 43   | 43   | 43   | 48   | 43   |
| 7.5°  | 97   | 97   | 107  | 113  | 107  | 102  | 102  | 107  | 102  | 102  | 113  |
| 10°   | 161  | 161  | 166  | 161  | 182  | 177  | 182  | 166  | 156  | 150  | 145  |
| 12.5° | 204  | 204  | 215  | 215  | 220  | 225  | 231  | 236  | 225  | 209  | 198  |
| 15°   | 204  | 204  | 204  | 209  | 198  | 215  | 225  | 215  | 220  | 215  | 225  |
| 17.5° | 182  | 182  | 177  | 177  | 182  | 198  | 209  | 193  | 188  | 193  | 193  |
| 20°   | 150  | 166  | 166  | 172  | 166  | 172  | 182  | 182  | 166  | 166  | 172  |
| 22.5° | 526  | 424  | 510  | 504  | 274  | 182  | 375  | 467  | 440  | 274  | 467  |
| 25°   | 644  | 579  | 622  | 622  | 354  | 172  | 381  | 590  | 611  | 590  | 611  |
| 27.5° | 687  | 681  | 665  | 670  | 434  | 193  | 424  | 670  | 692  | 676  | 708  |
| 30°   | 783  | 751  | 746  | 735  | 708  | 622  | 531  | 724  | 756  | 740  | 778  |
| 32.5° | 837  | 842  | 826  | 799  | 821  | 831  | 687  | 831  | 837  | 842  | 874  |
| 35°   | 944  | 960  | 939  | 896  | 944  | 960  | 794  | 917  | 949  | 965  | 1008 |
| 37.5° | 1083 | 1094 | 1078 | 1041 | 1083 | 1078 | 923  | 1046 | 1078 | 1126 | 1169 |
| 40°   | 1309 | 1303 | 1255 | 1250 | 1234 | 1250 | 1089 | 1218 | 1260 | 1330 | 1389 |
| 42.5° | 1577 | 1545 | 1475 | 1507 | 1459 | 1459 | 1319 | 1459 | 1486 | 1582 | 1684 |
| 45°   | 1899 | 1877 | 1840 | 1861 | 1797 | 1765 | 1668 | 1797 | 1840 | 1936 | 2033 |
| 47.5° | 2285 | 2296 | 2221 | 2215 | 2135 | 2113 | 2113 | 2162 | 2306 | 2365 | 2435 |
| 50°   | 2789 | 2837 | 2671 | 2698 | 2516 | 2558 | 2591 | 2634 | 2859 | 2896 | 2982 |
| 52.5° | 3336 | 3395 | 3186 | 3261 | 2918 | 3025 | 3030 | 3138 | 3417 | 3465 | 3535 |
| 55°   | 3830 | 3899 | 3615 | 3771 | 3293 | 3465 | 3470 | 3610 | 3894 | 4012 | 4066 |
| 57.5° | 4151 | 4259 | 3915 | 4108 | 3454 | 3787 | 3626 | 3953 | 4114 | 4414 | 4361 |
| 60°   | 4269 | 4328 | 3894 | 4135 | 3320 | 3813 | 3476 | 4017 | 4039 | 4511 | 4425 |
| 62.5° | 4151 | 4146 | 3765 | 3878 | 2880 | 3315 | 3036 | 3840 | 3835 | 4334 | 4210 |
| 65°   | 3647 | 3626 | 3282 | 3331 | 2285 | 2607 | 2440 | 3358 | 3304 | 3771 | 3653 |
| 67.5° | 2810 | 2794 | 2537 | 2505 | 1716 | 1888 | 1808 | 2585 | 2510 | 2923 | 2821 |
| 70°   | 1888 | 1883 | 1722 | 1625 | 1239 | 1357 | 1260 | 1706 | 1690 | 2027 | 1942 |
| 72.5° | 1062 | 1159 | 1062 | 965  | 767  | 821  | 772  | 1014 | 1051 | 1234 | 1137 |
| 75°   | 644  | 729  | 676  | 611  | 434  | 451  | 429  | 649  | 687  | 788  | 713  |
| 77.5° | 343  | 349  | 327  | 300  | 252  | 252  | 247  | 311  | 343  | 381  | 359  |
| 80°   | 193  | 198  | 198  | 177  | 161  | 161  | 161  | 188  | 193  | 209  | 209  |
| 82.5° | 129  | 134  | 134  | 129  | 113  | 113  | 118  | 134  | 134  | 145  | 134  |
| 85°   | 97   | 91   | 91   | 97   | 86   | 86   | 86   | 97   | 102  | 97   | 102  |
| 87.5° | 64   | 75   | 80   | 80   | 70   | 70   | 75   | 80   | 86   | 80   | 80   |
| 90°   | 54   | 59   | 59   | 64   | 54   | 59   | 59   | 64   | 70   | 64   | 64   |
| 95°   | 43   | 48   | 48   | 48   | 38   | 38   | 48   | 48   | 48   | 48   | 48   |
| 105°  | 21   | 27   | 21   | 27   | 21   | 21   | 27   | 27   | 27   | 27   | 21   |
| 115°  | 11   | 11   | 5    | 16   | 11   | 11   | 11   | 5    | 16   | 11   | 16   |
| 125°  | 0    | 0    | 5    | 5    | 0    | 11   | 0    | 5    | 0    | 5    | 11   |
| 135°  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 5    | 0    | 0    |
| 145°  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| 155°  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| 165°  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |



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**CANDELA DISTRIBUTION (continued):**

|      | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 175° | 0  | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 180° | 0  | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |





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**CANDELA DISTRIBUTION (continued):**

|       | 95°  | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|------|------|------|------|------|------|------|------|------|------|
| 0°    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| 2.5°  | 0    | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 5    | 0    |
| 5°    | 43   | 43   | 54   | 48   | 43   | 54   | 48   | 43   | 43   | 43   |
| 7.5°  | 113  | 107  | 107  | 113  | 118  | 102  | 107  | 102  | 97   | 97   |
| 10°   | 150  | 161  | 182  | 193  | 188  | 182  | 166  | 161  | 161  | 172  |
| 12.5° | 198  | 198  | 225  | 236  | 231  | 220  | 209  | 215  | 220  | 215  |
| 15°   | 220  | 209  | 220  | 220  | 215  | 198  | 209  | 204  | 220  | 225  |
| 17.5° | 188  | 193  | 193  | 188  | 188  | 177  | 177  | 177  | 177  | 193  |
| 20°   | 177  | 177  | 172  | 166  | 156  | 172  | 161  | 156  | 161  | 161  |
| 22.5° | 375  | 488  | 488  | 300  | 166  | 397  | 520  | 493  | 327  | 440  |
| 25°   | 472  | 606  | 590  | 402  | 161  | 375  | 611  | 574  | 515  | 493  |
| 27.5° | 654  | 697  | 660  | 434  | 306  | 408  | 670  | 617  | 563  | 569  |
| 30°   | 729  | 746  | 762  | 536  | 729  | 451  | 724  | 681  | 628  | 633  |
| 32.5° | 842  | 826  | 831  | 617  | 810  | 510  | 772  | 762  | 724  | 697  |
| 35°   | 971  | 923  | 917  | 719  | 906  | 579  | 885  | 864  | 826  | 794  |
| 37.5° | 1110 | 1051 | 1062 | 783  | 1030 | 670  | 1008 | 971  | 944  | 890  |
| 40°   | 1325 | 1228 | 1266 | 880  | 1180 | 762  | 1164 | 1148 | 1105 | 1051 |
| 42.5° | 1572 | 1454 | 1502 | 1024 | 1432 | 917  | 1416 | 1427 | 1368 | 1319 |
| 45°   | 1952 | 1797 | 1840 | 1271 | 1743 | 1169 | 1749 | 1738 | 1722 | 1641 |
| 47.5° | 2435 | 2204 | 2253 | 1652 | 2097 | 1529 | 2151 | 2108 | 2103 | 2038 |
| 50°   | 3057 | 2735 | 2773 | 2108 | 2607 | 1963 | 2709 | 2585 | 2623 | 2639 |
| 52.5° | 3636 | 3282 | 3288 | 2580 | 3122 | 2403 | 3261 | 3089 | 3186 | 3240 |
| 55°   | 4162 | 3792 | 3744 | 3046 | 3588 | 2800 | 3792 | 3524 | 3695 | 3830 |
| 57.5° | 4382 | 4157 | 3958 | 3358 | 3867 | 3068 | 4125 | 3824 | 4028 | 4248 |
| 60°   | 4296 | 4200 | 3889 | 3347 | 3830 | 2993 | 4146 | 3878 | 4098 | 4291 |
| 62.5° | 4044 | 4012 | 3690 | 3036 | 3304 | 2698 | 3948 | 3749 | 3948 | 4001 |
| 65°   | 3513 | 3465 | 3170 | 2516 | 2607 | 2263 | 3379 | 3240 | 3438 | 3390 |
| 67.5° | 2714 | 2644 | 2419 | 1963 | 1920 | 1808 | 2564 | 2478 | 2687 | 2542 |
| 70°   | 1861 | 1813 | 1598 | 1384 | 1378 | 1271 | 1722 | 1695 | 1883 | 1695 |
| 72.5° | 1159 | 1121 | 1008 | 837  | 837  | 772  | 1116 | 1116 | 1207 | 1030 |
| 75°   | 746  | 724  | 654  | 461  | 456  | 424  | 681  | 724  | 740  | 665  |
| 77.5° | 365  | 343  | 306  | 257  | 241  | 241  | 290  | 322  | 338  | 333  |
| 80°   | 204  | 198  | 182  | 166  | 150  | 156  | 172  | 182  | 193  | 182  |
| 82.5° | 139  | 134  | 129  | 113  | 113  | 107  | 129  | 129  | 123  | 118  |
| 85°   | 97   | 97   | 102  | 86   | 80   | 80   | 97   | 97   | 86   | 86   |
| 87.5° | 75   | 80   | 80   | 64   | 70   | 80   | 75   | 75   | 70   | 75   |
| 90°   | 64   | 64   | 64   | 54   | 54   | 59   | 64   | 54   | 54   | 54   |
| 95°   | 48   | 48   | 54   | 38   | 43   | 43   | 48   | 48   | 43   | 32   |
| 105°  | 32   | 27   | 27   | 21   | 21   | 21   | 27   | 21   | 27   | 21   |
| 115°  | 11   | 11   | 11   | 11   | 11   | 5    | 11   | 11   | 11   | 11   |
| 125°  | 5    | 5    | 0    | 5    | 0    | 5    | 5    | 5    | 5    | 11   |
| 135°  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| 145°  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| 155°  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| 165°  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |



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**CANDELA DISTRIBUTION (continued):**

|      | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|------|-----|------|------|------|------|------|------|------|------|------|
| 175° | 0   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| 180° | 0   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

(END OF REPORT)