

Scaled data based on original data using  
LM-31-95 IESNA Approved Method for Photometric Testing of Roadway Luminaires  
Using Incandescent Filament and High Intensity Discharge Lamps

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: STREETWORKS

Report Number: 765160

Luminaire Tested: **CFB15SXX77**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-31-95  
Report Number: 765160  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CFB15SXX77  
Description: 150W HPS 7H X 7V FLOODLIGHT  
Light Source: 150W HPS CL E-23.5  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 16000 (1 lamp)  
Luminaire Lumens: 9670 lumens  
Efficiency: 60.4%  
Efficacy: 51.4 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 1.3' x L: 1.24' x H: 0.6')  
IES Classification: Type I - Short - Full Cutoff  
BUG Rating: B3 - U0 - G2

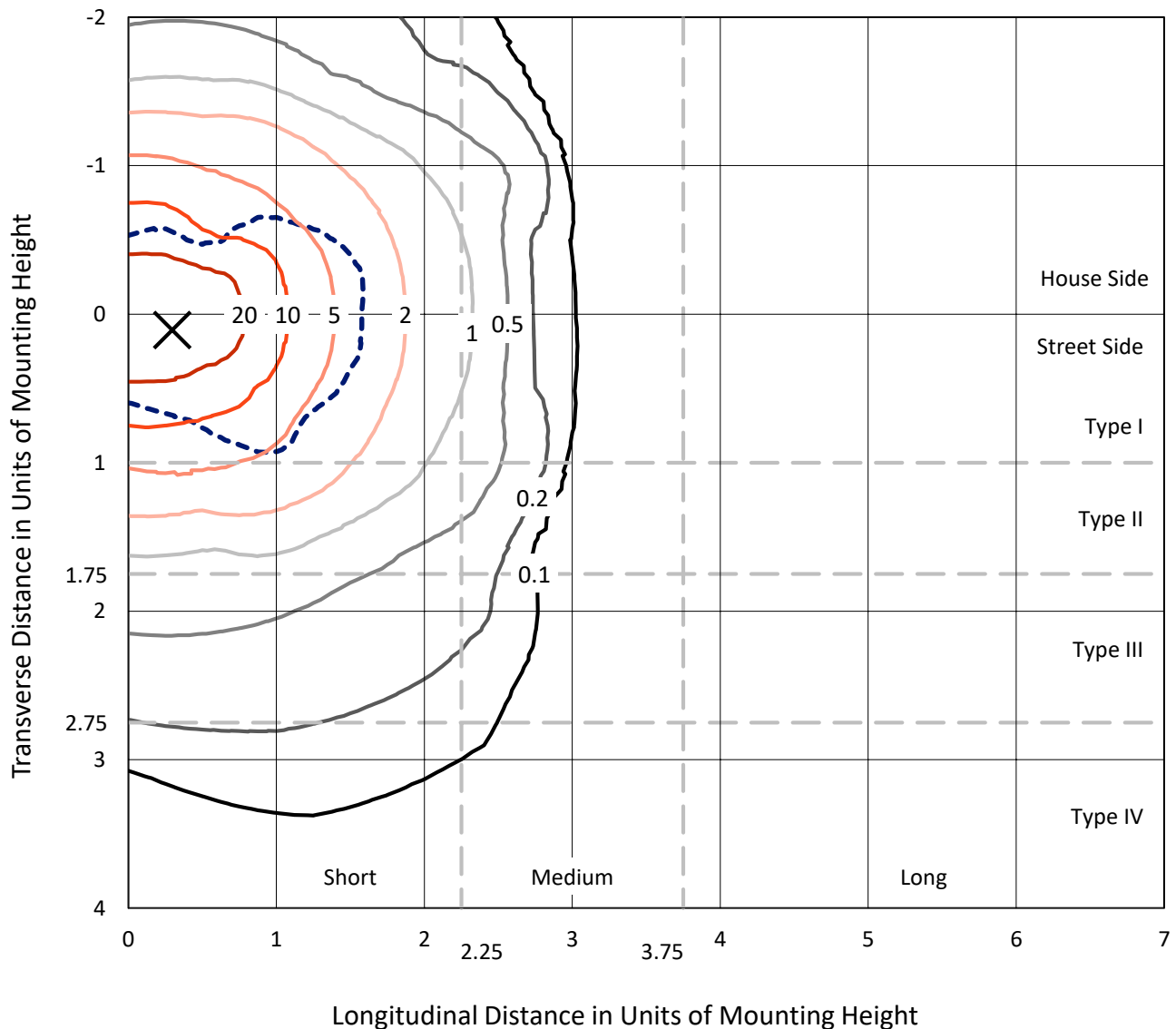
Input Watts (W): 188  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: 765160  
CATALOG NUMBER: CFB15SXX77

## Iso-Footcandle Lines of Horizontal Illumination

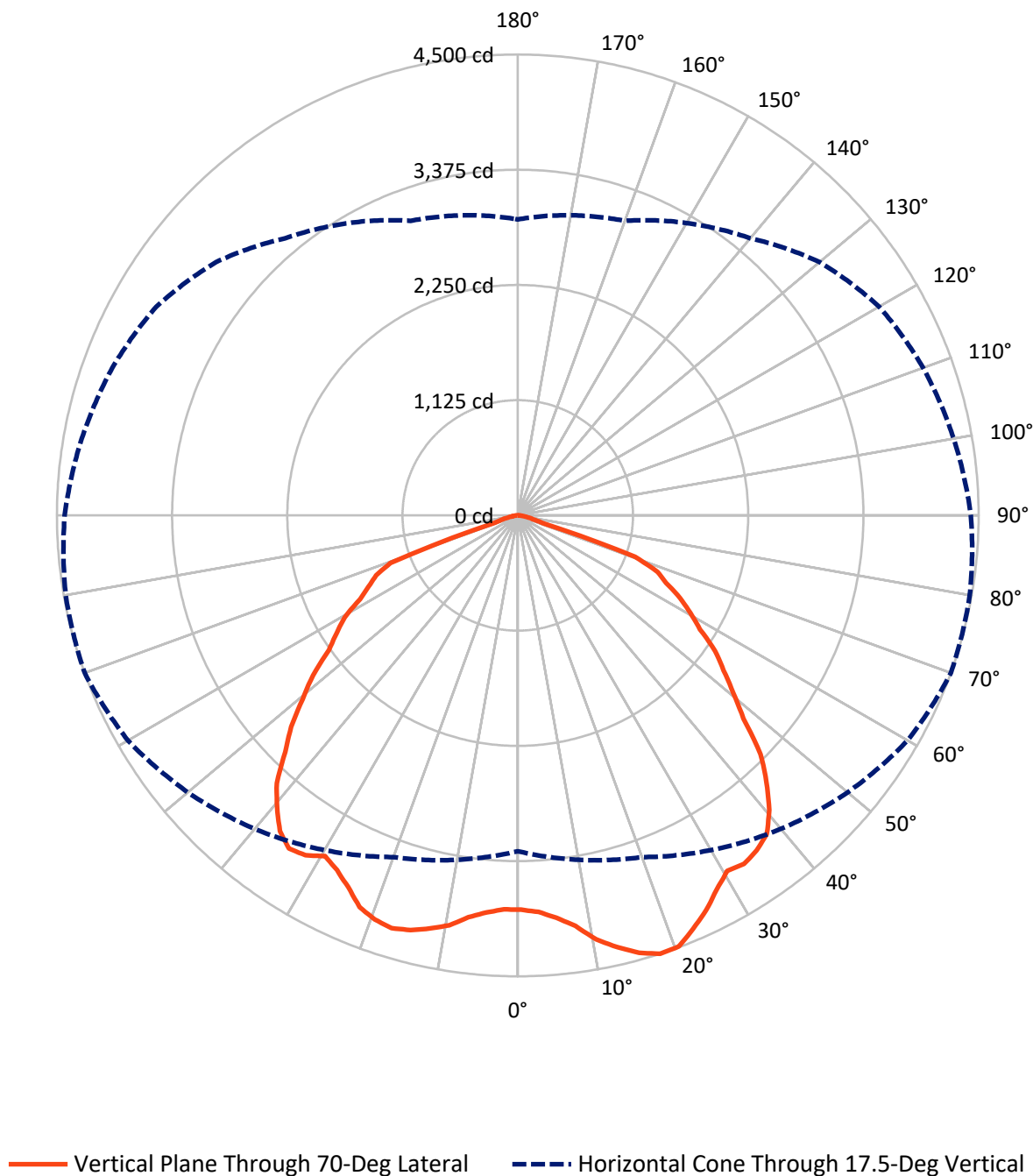
× Max cd  
- - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 39.6 fc  
Type I - Short - Full Cutoff

REPORT NUMBER: 765160  
CATALOG NUMBER: CFB15SXX77

## Luminous Intensity Polar Plot



REPORT NUMBER: 765160

CATALOG NUMBER: CFB15SXX77

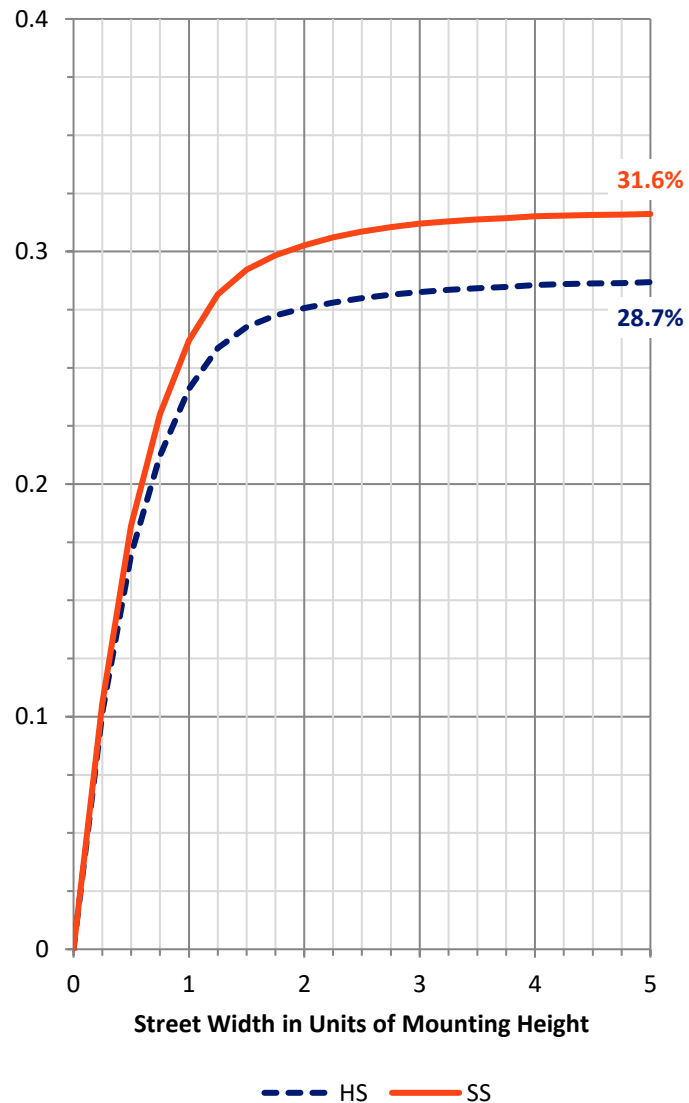
**FLUX DISTRIBUTION:**

|                    |        | Downward | Upward | Total  |
|--------------------|--------|----------|--------|--------|
| <b>House Side</b>  | Lumens | 4623.3   | 0.0    | 4623.3 |
|                    | % Lamp | 28.9     | 0.0    | 28.9   |
| <b>Street Side</b> | Lumens | 5046.7   | 0.0    | 5046.7 |
|                    | % Lamp | 31.5     | 0.0    | 31.5   |
| <b>Total</b>       | Lumens | 9670.0   | 0.0    | 9670.0 |
|                    | % Lamp | 60.4     | 0.0    | 60.4   |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10°    | 373.7  | 3.9       | 2.3    |
| 10°-20°   | 1099.1 | 11.4      | 6.9    |
| 20°-30°   | 1547.8 | 16.0      | 9.7    |
| 30°-40°   | 1785.1 | 18.5      | 11.2   |
| 40°-50°   | 1855.7 | 19.2      | 11.6   |
| 50°-60°   | 1551.0 | 16.0      | 9.7    |
| 60°-70°   | 1063.4 | 11.0      | 6.6    |
| 70°-80°   | 351.7  | 3.6       | 2.2    |
| 80°-90°   | 42.5   | 0.4       | 0.3    |
| 90°-100°  | 0.0    | 0.0       | 0.0    |
| 100°-110° | 0.0    | 0.0       | 0.0    |
| 110°-120° | 0.0    | 0.0       | 0.0    |
| 120°-130° | 0.0    | 0.0       | 0.0    |
| 130°-140° | 0.0    | 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°    | 9670.0 | 100.0     | 60.4   |
| 0°-180°   | 9670.0 | 100.0     | 60.4   |

**Coefficient of Utilization**



REPORT NUMBER: 765160

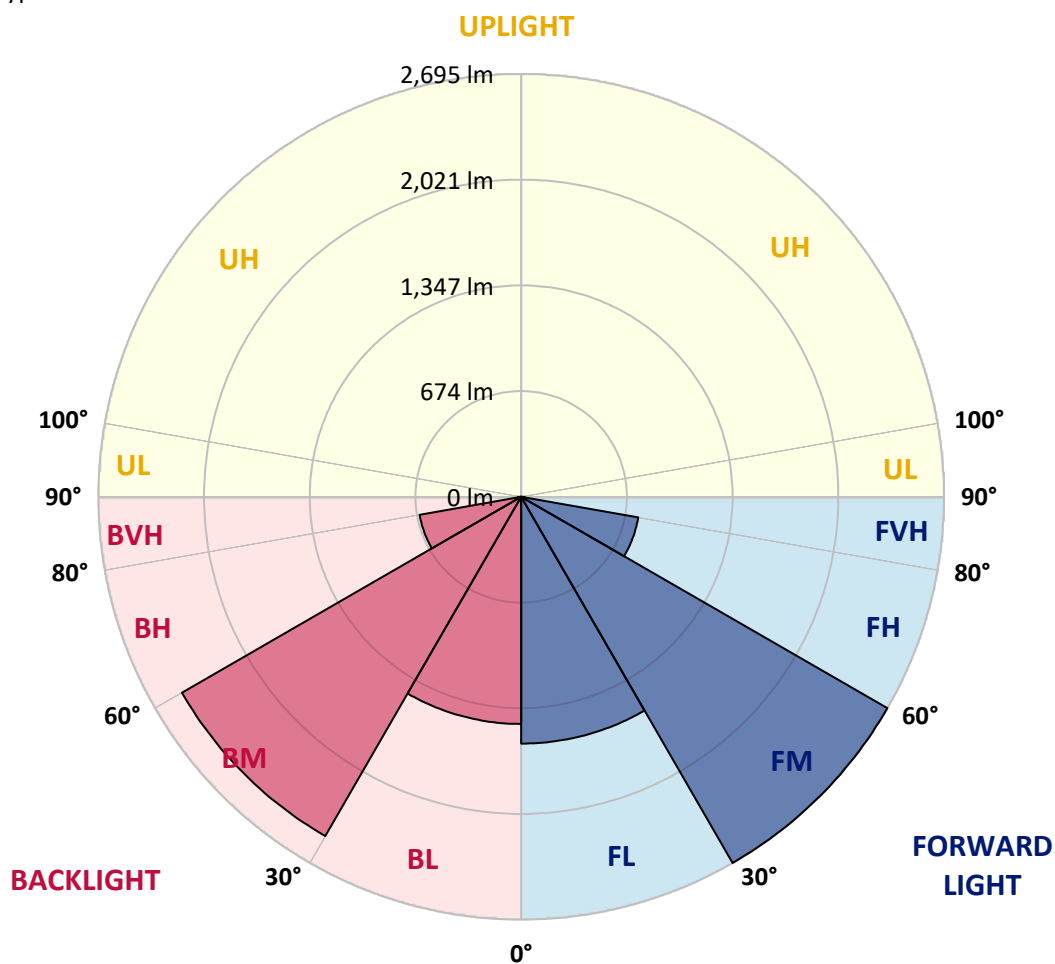
CATALOG NUMBER: CFB15SXX77

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

| Zone          |             | Lumens | % Lamp | Zone Rating/Lumen Limit |      |         |
|---------------|-------------|--------|--------|-------------------------|------|---------|
|               |             |        |        | B                       | U    | G       |
| FL            | (0°-30°)    | 1572.9 | 9.8    |                         |      |         |
| FM            | (30°-60°)   | 2694.9 | 16.8   |                         |      |         |
| FH            | (60°-80°)   | 757.7  | 4.7    |                         |      | G1/1800 |
| FVH           | (80°-90°)   | 21.2   | 0.1    |                         |      | G1/100  |
| BL            | (0°-30°)    | 1447.7 | 9.0    | B3/2500                 |      |         |
| BM            | (30°-60°)   | 2496.9 | 15.6   | B2/2500                 |      |         |
| BH            | (60°-80°)   | 657.4  | 4.1    | B2/1000                 |      | G2/1000 |
| BVH           | (80°-90°)   | 21.3   | 0.1    |                         |      | G1/100  |
| UL            | (90°-100°)  | 0.0    | 0.0    |                         | U0/0 |         |
| UH            | (100°-180°) | 0.0    | 0.0    |                         | U0/0 |         |
| Trapped Light |             | 6330.0 | 39.6   |                         |      |         |

**BUG Rating: B3-U0-G2**

Type I Short





REPORT NUMBER: 765160  
CATALOG NUMBER: CFB15SXX77

**CANDELA DISTRIBUTION (FULL):**

|       | 0°   | 20°  | 40°  | 50°  | 60°  | 70°  | 80°  | 90°  | 100° | 110° | 120° |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 0°    | 3850 | 3850 | 3850 | 3850 | 3850 | 3850 | 3850 | 3850 | 3850 | 3850 | 3850 |
| 2.5°  | 3909 | 3880 | 3887 | 3887 | 3880 | 3876 | 3858 | 3858 | 3851 | 3847 | 3836 |
| 5°    | 3920 | 3909 | 3938 | 3952 | 3952 | 3945 | 3923 | 3920 | 3901 | 3887 | 3862 |
| 7.5°  | 3901 | 3927 | 3996 | 4032 | 4046 | 4046 | 4075 | 4014 | 3981 | 3952 | 3934 |
| 10°   | 3818 | 3887 | 4068 | 4119 | 4199 | 4210 | 4188 | 4115 | 4115 | 4057 | 3988 |
| 12.5° | 3687 | 3807 | 4072 | 4188 | 4300 | 4326 | 4307 | 4278 | 4206 | 4123 | 4036 |
| 15°   | 3513 | 3695 | 4046 | 4220 | 4373 | 4431 | 4409 | 4373 | 4282 | 4181 | 4065 |
| 17.5° | 3278 | 3550 | 3996 | 4206 | 4395 | 4500 | 4482 | 4424 | 4322 | 4213 | 4075 |
| 20°   | 3111 | 3310 | 3920 | 4166 | 4373 | 4492 | 4474 | 4409 | 4297 | 4184 | 4007 |
| 22.5° | 2767 | 2977 | 3789 | 4086 | 4239 | 4384 | 4424 | 4362 | 4239 | 4123 | 3898 |
| 25°   | 2505 | 2679 | 3365 | 3941 | 4119 | 4271 | 4351 | 4253 | 4104 | 3988 | 3745 |
| 27.5° | 2353 | 2462 | 3017 | 3546 | 3985 | 4137 | 4253 | 4173 | 3999 | 3887 | 3564 |
| 30°   | 2234 | 2382 | 2763 | 3169 | 3825 | 4028 | 4228 | 4224 | 4007 | 3822 | 3336 |
| 32.5° | 2139 | 2299 | 2629 | 2814 | 3666 | 4057 | 4282 | 4275 | 4086 | 3912 | 3035 |
| 35°   | 2038 | 2223 | 2553 | 2582 | 3455 | 4017 | 4257 | 4300 | 4086 | 3945 | 2962 |
| 37.5° | 1925 | 2132 | 2455 | 2542 | 3256 | 3949 | 4155 | 4155 | 3967 | 3858 | 2883 |
| 40°   | 1820 | 2005 | 2393 | 2730 | 3093 | 3782 | 3938 | 3941 | 3782 | 3695 | 2803 |
| 42.5° | 1715 | 1929 | 2364 | 2748 | 2948 | 3561 | 3698 | 3720 | 3586 | 3517 | 2719 |
| 45°   | 1541 | 1831 | 2339 | 2701 | 2730 | 3325 | 3452 | 3459 | 3365 | 3238 | 2567 |
| 47.5° | 1414 | 1697 | 2248 | 2621 | 2611 | 2966 | 3031 | 3028 | 3122 | 3024 | 2447 |
| 50°   | 1218 | 1769 | 2168 | 2524 | 2466 | 2727 | 2810 | 2803 | 2796 | 2763 | 2288 |
| 52.5° | 1019 | 1149 | 2099 | 2346 | 2317 | 2516 | 2640 | 2632 | 2625 | 2538 | 2121 |
| 55°   | 859  | 954  | 2009 | 2190 | 2121 | 2339 | 2480 | 2476 | 2462 | 2263 | 1933 |
| 57.5° | 729  | 809  | 1697 | 2001 | 2001 | 2099 | 2215 | 2205 | 2281 | 2107 | 1827 |
| 60°   | 635  | 685  | 1421 | 1827 | 1882 | 1936 | 2034 | 2027 | 2012 | 1962 | 1730 |
| 62.5° | 674  | 714  | 1153 | 1436 | 1748 | 1780 | 1885 | 1882 | 1856 | 1744 | 1577 |
| 65°   | 671  | 747  | 838  | 1189 | 1534 | 1592 | 1748 | 1751 | 1722 | 1613 | 1407 |
| 67.5° | 591  | 740  | 823  | 961  | 1363 | 1472 | 1559 | 1555 | 1592 | 1501 | 1124 |
| 70°   | 486  | 664  | 823  | 790  | 1124 | 1215 | 540  | 442  | 435  | 1327 | 805  |
| 72.5° | 297  | 595  | 740  | 772  | 312  | 257  | 268  | 265  | 272  | 239  | 297  |
| 75°   | 196  | 500  | 609  | 392  | 167  | 160  | 207  | 178  | 203  | 170  | 221  |
| 77.5° | 134  | 257  | 319  | 123  | 120  | 120  | 138  | 134  | 127  | 116  | 134  |
| 80°   | 83   | 98   | 87   | 73   | 83   | 83   | 98   | 98   | 87   | 65   | 73   |
| 82.5° | 62   | 80   | 47   | 47   | 47   | 47   | 65   | 65   | 58   | 44   | 47   |
| 85°   | 33   | 47   | 29   | 29   | 29   | 33   | 29   | 33   | 36   | 29   | 29   |
| 87.5° | 18   | 18   | 18   | 22   | 18   | 18   | 18   | 18   | 18   | 15   | 15   |
| 90°   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |



REPORT NUMBER: 765160  
CATALOG NUMBER: CFB15SXX77

**CANDELA DISTRIBUTION (continued):**

|       | 130° | 140° | 160° | 180° |
|-------|------|------|------|------|
| 0°    | 3850 | 3850 | 3850 | 3850 |
| 2.5°  | 3840 | 3836 | 3829 | 3833 |
| 5°    | 3854 | 3829 | 3800 | 3793 |
| 7.5°  | 3883 | 3847 | 3778 | 3756 |
| 10°   | 3920 | 3840 | 3644 | 3579 |
| 12.5° | 3930 | 3796 | 3499 | 3394 |
| 15°   | 3898 | 3720 | 3300 | 3154 |
| 17.5° | 3847 | 3532 | 3060 | 2890 |
| 20°   | 3749 | 3347 | 2806 | 2640 |
| 22.5° | 3582 | 3118 | 2589 | 2382 |
| 25°   | 3343 | 2875 | 2386 | 2292 |
| 27.5° | 2904 | 2654 | 2310 | 2226 |
| 30°   | 2629 | 2371 | 2248 | 2161 |
| 32.5° | 2353 | 2215 | 2186 | 2088 |
| 35°   | 2125 | 2078 | 2103 | 1991 |
| 37.5° | 2027 | 1936 | 2059 | 1933 |
| 40°   | 2085 | 1762 | 2001 | 1882 |
| 42.5° | 2121 | 1726 | 1925 | 1809 |
| 45°   | 2114 | 1751 | 1827 | 1704 |
| 47.5° | 2088 | 1791 | 1606 | 1497 |
| 50°   | 2049 | 1842 | 1392 | 1298 |
| 52.5° | 1936 | 1846 | 1193 | 1084 |
| 55°   | 1853 | 1737 | 1022 | 794  |
| 57.5° | 1762 | 1519 | 801  | 627  |
| 60°   | 1483 | 1128 | 685  | 551  |
| 62.5° | 1186 | 841  | 624  | 518  |
| 65°   | 885  | 616  | 580  | 518  |
| 67.5° | 595  | 533  | 551  | 518  |
| 70°   | 421  | 500  | 526  | 497  |
| 72.5° | 384  | 464  | 475  | 406  |
| 75°   | 334  | 410  | 406  | 334  |
| 77.5° | 138  | 232  | 272  | 239  |
| 80°   | 83   | 105  | 131  | 98   |
| 82.5° | 51   | 62   | 69   | 58   |
| 85°   | 33   | 29   | 33   | 36   |
| 87.5° | 18   | 18   | 18   | 22   |
| 90°   | 0    | 0    | 0    | 0    |

(END OF REPORT)