

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: McGRAW-EDISON

Report Number: ITL53971

Luminaire Tested: **GSM-XX-400-HPS-XX-3S-XX-FG-HS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: ITL53971  
Test Lab: INDEPENDENT TESTING LABORATORIES, INC.  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GSM-XX-400-HPS-XX-3S-XX-FG-HS  
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE - TYPE III DISTRIBUTION WITH HOUSE SIDE SHIELD  
Light Source: 400 WATT HPS CLEAR E-18  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 50000 (1 lamp)  
Luminaire Lumens: 24484.3 lumens  
Efficiency: 49.0%  
Efficacy: 61.2 lumens/watt  
Luminous Opening: Circular (Dia: 1.74' x H: 0')  
IES Classification: Type III - Medium - Full Cutoff  
BUG Rating: B3 - U0 - G3

Input Watts (W): 400  
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

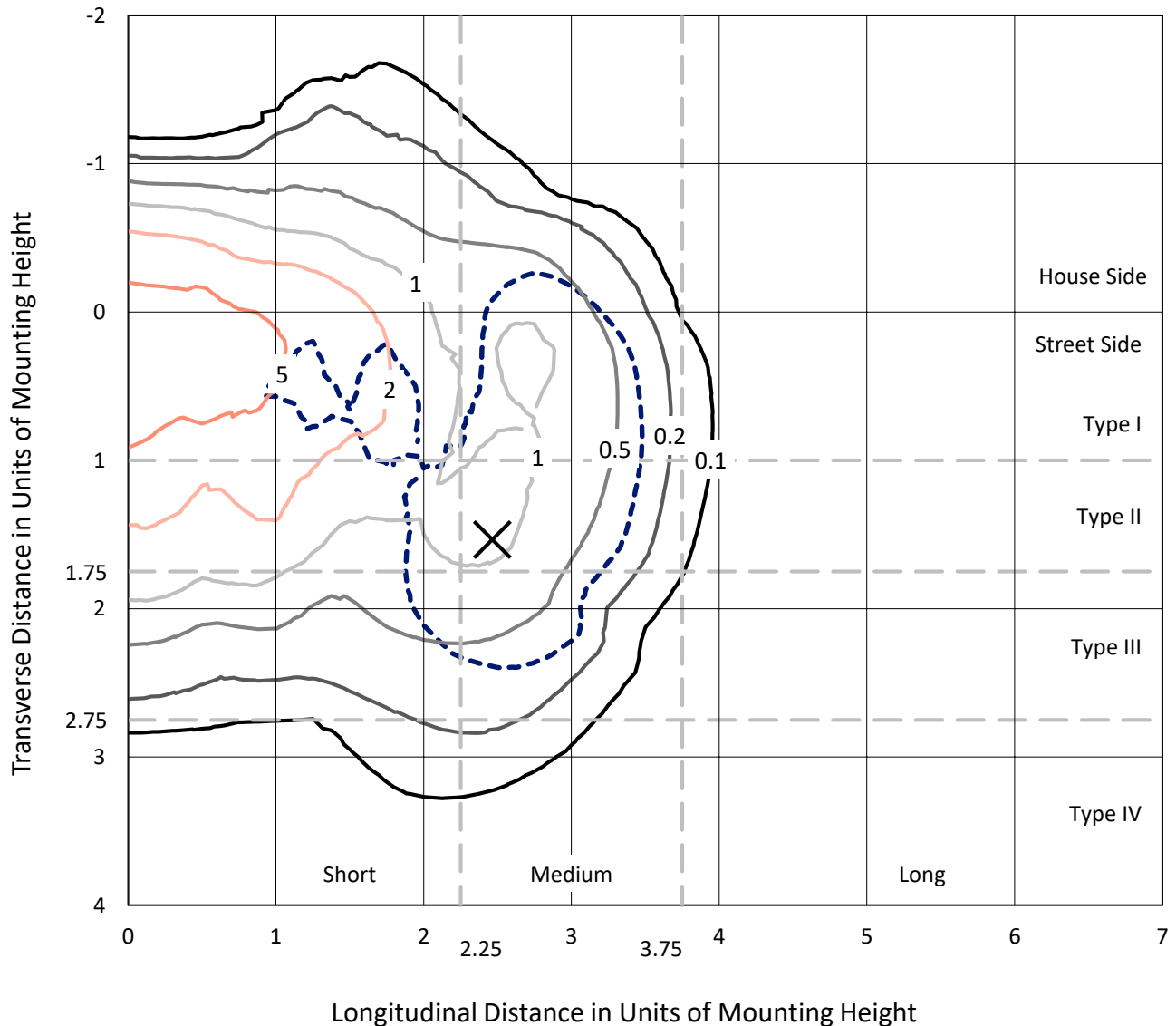


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### Iso-Footcandle Lines of Horizontal Illumination

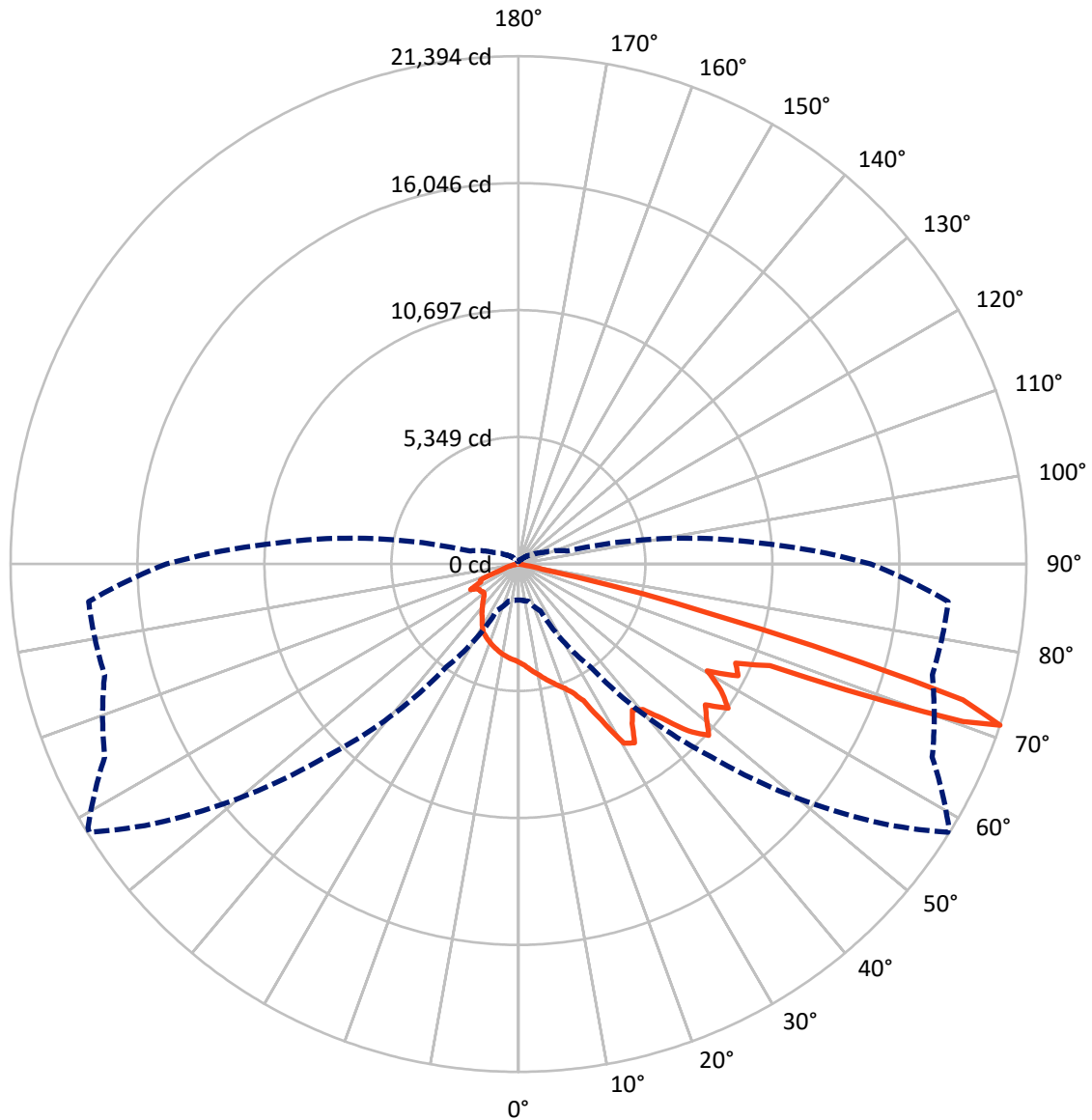
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9 fc  
 Type III - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58.1-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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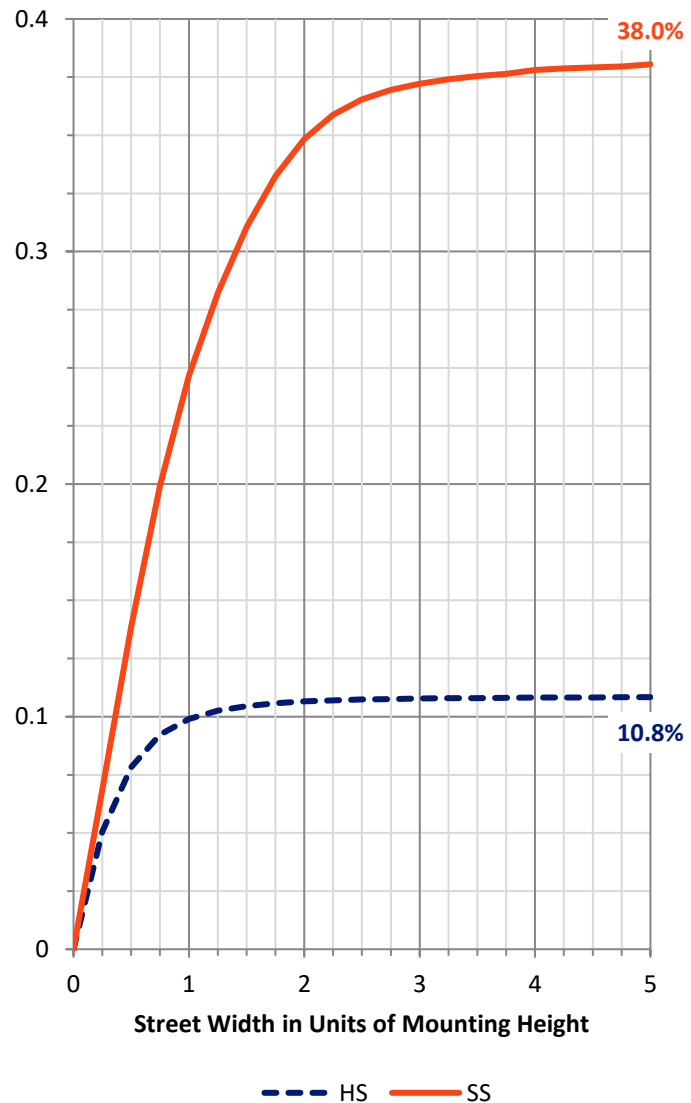
**FLUX DISTRIBUTION:**

|                    |        | Downward | Upward | Total   |
|--------------------|--------|----------|--------|---------|
| <b>House Side</b>  | Lumens | 5459.0   | 0.0    | 5459.0  |
|                    | % Lamp | 10.9     | 0.0    | 10.9    |
| <b>Street Side</b> | Lumens | 19025.4  | 0.0    | 19025.4 |
|                    | % Lamp | 38.1     | 0.0    | 38.1    |
| <b>Total</b>       | Lumens | 24484.3  | 0.0    | 24484.3 |
|                    | % Lamp | 49.0     | 0.0    | 49.0    |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture | % Lamp |
|-----------|---------|-----------|--------|
| 0°-10°    | 401.7   | 1.6       | 0.8    |
| 10°-20°   | 1231.8  | 5.0       | 2.5    |
| 20°-30°   | 2201.9  | 9.0       | 4.4    |
| 30°-40°   | 3120.9  | 12.7      | 6.2    |
| 40°-50°   | 4046.7  | 16.5      | 8.1    |
| 50°-60°   | 4796.6  | 19.6      | 9.6    |
| 60°-70°   | 5077.7  | 20.7      | 10.2   |
| 70°-80°   | 3495.0  | 14.3      | 7.0    |
| 80°-90°   | 112.1   | 0.5       | 0.2    |
| 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°    | 24484.3 | 100.0     | 49.0   |
| 0°-180°   | 24484.3 | 100.0     | 49.0   |



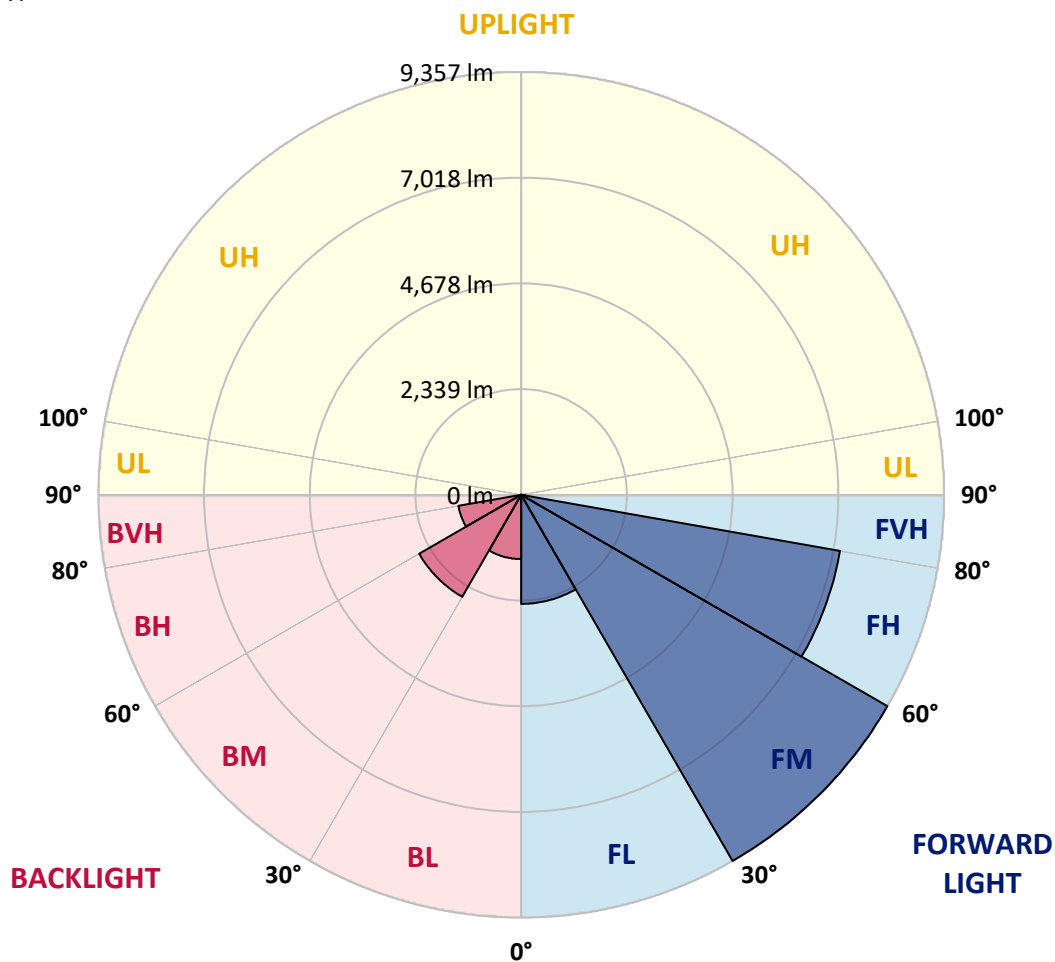
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone          |             | Lumens  | % Lamp | Zone Rating/Lumen Limit |      |         |
|---------------|-------------|---------|--------|-------------------------|------|---------|
|               |             |         |        | B                       | U    | G       |
| FL            | (0°-30°)    | 2413.7  | 4.8    |                         |      |         |
| FM            | (30°-60°)   | 9356.7  | 18.7   |                         |      |         |
| FH            | (60°-80°)   | 7164.0  | 14.3   |                         |      | G3/7500 |
| FVH           | (80°-90°)   | 91.0    | 0.2    |                         |      | G1/100  |
| BL            | (0°-30°)    | 1421.8  | 2.8    | B3/2500                 |      |         |
| BM            | (30°-60°)   | 2607.4  | 5.2    | B3/5000                 |      |         |
| BH            | (60°-80°)   | 1408.6  | 2.8    | B3/2500                 |      | G3/2500 |
| BVH           | (80°-90°)   | 21.1    | 0.0    |                         |      | G1/100  |
| UL            | (90°-100°)  | 0.0     | 0.0    |                         | U0/0 |         |
| UH            | (100°-180°) | 0.0     | 0.0    |                         | U0/0 |         |
| Trapped Light |             | 25515.7 | 51.0   |                         |      |         |

**BUG Rating: B3-U0-G3**  
 Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°   | 5°   | 15°  | 25°  | 35°   | 45°   | 55°   | 58.1° | 65°   | 75°   | 85°   |
|-------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 4143 | 4143 | 4143 | 4143 | 4143  | 4143  | 4143  | 4143  | 4143  | 4143  | 4143  |
| 2.5°  | 4375 | 4310 | 4329 | 4301 | 4282  | 4282  | 4273  | 4245  | 4245  | 4227  | 4181  |
| 5°    | 4561 | 4524 | 4524 | 4477 | 4459  | 4449  | 4440  | 4403  | 4394  | 4357  | 4292  |
| 7.5°  | 4783 | 4765 | 4653 | 4644 | 4635  | 4644  | 4598  | 4588  | 4551  | 4496  | 4403  |
| 10°   | 5006 | 4913 | 4857 | 4848 | 4820  | 4802  | 4755  | 4746  | 4718  | 4672  | 4561  |
| 12.5° | 5172 | 5126 | 5070 | 5070 | 5033  | 4987  | 4959  | 4959  | 4931  | 4829  | 4663  |
| 15°   | 5395 | 5348 | 5311 | 5293 | 5256  | 5247  | 5182  | 5154  | 5080  | 4959  | 4755  |
| 17.5° | 5562 | 5525 | 5506 | 5469 | 5478  | 5478  | 5395  | 5376  | 5256  | 5117  | 4885  |
| 20°   | 5654 | 5617 | 5627 | 5617 | 5682  | 5682  | 5627  | 5589  | 5497  | 5348  | 5126  |
| 22.5° | 5691 | 5691 | 5691 | 5747 | 5858  | 5914  | 5868  | 5895  | 5868  | 5886  | 5617  |
| 25°   | 5803 | 5747 | 5729 | 5849 | 5988  | 6118  | 6238  | 6377  | 6618  | 6915  | 6646  |
| 27.5° | 5988 | 5942 | 5895 | 5960 | 6090  | 6396  | 6998  | 7443  | 7935  | 8176  | 7397  |
| 30°   | 6303 | 6211 | 6118 | 6220 | 6220  | 6822  | 8278  | 8760  | 8797  | 8157  | 7110  |
| 32.5° | 6674 | 6544 | 6368 | 6322 | 6452  | 7629  | 9038  | 8982  | 8491  | 7378  | 6479  |
| 35°   | 7026 | 6869 | 6554 | 6266 | 6813  | 8602  | 8778  | 8250  | 7694  | 7388  | 6776  |
| 37.5° | 7360 | 7221 | 6776 | 6303 | 7156  | 8936  | 8009  | 7805  | 7833  | 7684  | 7082  |
| 40°   | 7638 | 7480 | 6841 | 6331 | 7694  | 8519  | 8018  | 8064  | 8259  | 8426  | 7786  |
| 42.5° | 7805 | 7601 | 6674 | 6257 | 7925  | 7953  | 8704  | 8889  | 9223  | 9418  | 8630  |
| 45°   | 7823 | 7620 | 6313 | 5886 | 7536  | 8482  | 9714  | 10030 | 10252 | 9946  | 8723  |
| 47.5° | 7749 | 7518 | 5988 | 5423 | 7017  | 9483  | 10502 | 10790 | 10817 | 10159 | 9520  |
| 50°   | 7601 | 7397 | 5830 | 5126 | 6757  | 9742  | 10382 | 10271 | 10660 | 10762 | 10308 |
| 52.5° | 7230 | 7073 | 6044 | 5043 | 7564  | 10456 | 9631  | 9853  | 11429 | 11411 | 9900  |
| 55°   | 6637 | 6934 | 6294 | 5321 | 8630  | 10150 | 10030 | 10716 | 11930 | 9872  | 8444  |
| 57.5° | 6173 | 6934 | 5868 | 5840 | 9733  | 8704  | 9353  | 10067 | 10410 | 9612  | 9455  |
| 60°   | 7026 | 7545 | 5988 | 7110 | 10233 | 8528  | 8315  | 9140  | 10873 | 12013 | 10484 |
| 62.5° | 6748 | 6915 | 5756 | 7759 | 9019  | 7666  | 9093  | 10382 | 12486 | 11142 | 8973  |
| 65°   | 5043 | 5135 | 4162 | 6850 | 6442  | 6665  | 9928  | 10057 | 10317 | 9853  | 7962  |
| 67.5° | 3986 | 3661 | 2818 | 4885 | 4570  | 8259  | 11188 | 11420 | 10410 | 10030 | 10419 |
| 70°   | 1928 | 1919 | 2030 | 2790 | 5274  | 10975 | 17399 | 19864 | 16824 | 15378 | 16824 |
| 71°   | 1520 | 1529 | 1622 | 2169 | 5284  | 11476 | 19206 | 21394 | 19234 | 18048 | 18177 |
| 72.5° | 1539 | 1418 | 1316 | 1835 | 5256  | 11411 | 19188 | 19577 | 19623 | 19364 | 15332 |
| 75°   | 1520 | 1557 | 1437 | 2132 | 5191  | 8797  | 10790 | 8343  | 9965  | 8222  | 5562  |
| 77.5° | 1149 | 1094 | 742  | 1928 | 2874  | 2642  | 1817  | 1020  | 1224  | 788   | 760   |
| 80°   | 463  | 565  | 538  | 1131 | 1993  | 667   | 222   | 158   | 250   | 222   | 315   |
| 82.5° | 74   | 158  | 241  | 463  | 825   | 853   | 148   | 56    | 111   | 93    | 121   |
| 85°   | 0    | 0    | 0    | 0    | 9     | 9     | 28    | 0     | 37    | 28    | 37    |
| 87.5° | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 0     | 9     | 9     | 9     |
| 90°   | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 0     |



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**CANDELA DISTRIBUTION (continued):**

|       | 90°   | 95°   | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 0°    | 4143  | 4143  | 4143 | 4143 | 4143 | 4143 | 4143 | 4143 | 4143 | 4143 | 4143 |
| 2.5°  | 4171  | 4153  | 4116 | 4079 | 4041 | 4004 | 3986 | 3949 | 3921 | 3940 | 4004 |
| 5°    | 4255  | 4227  | 4143 | 4060 | 3977 | 3893 | 3828 | 3763 | 3736 | 3763 | 3838 |
| 7.5°  | 4357  | 4301  | 4162 | 4023 | 3893 | 3782 | 3680 | 3597 | 3532 | 3550 | 3652 |
| 10°   | 4486  | 4394  | 4199 | 3995 | 3810 | 3652 | 3522 | 3420 | 3337 | 3365 | 3411 |
| 12.5° | 4561  | 4449  | 4199 | 3949 | 3717 | 3522 | 3328 | 3226 | 3170 | 3133 | 3189 |
| 15°   | 4625  | 4486  | 4190 | 3884 | 3615 | 3365 | 3170 | 3031 | 2938 | 2901 | 2966 |
| 17.5° | 4737  | 4561  | 4199 | 3838 | 3522 | 3226 | 3003 | 2836 | 2725 | 2688 | 2762 |
| 20°   | 4941  | 4727  | 4255 | 3800 | 3402 | 3087 | 2809 | 2633 | 2512 | 2484 | 2540 |
| 22.5° | 5358  | 5052  | 4347 | 3773 | 3281 | 2929 | 2642 | 2456 | 2317 | 2271 | 2336 |
| 25°   | 6238  | 5738  | 4653 | 3763 | 3142 | 2772 | 2475 | 2262 | 2113 | 2058 | 2113 |
| 27.5° | 6813  | 6192  | 4922 | 3763 | 3003 | 2623 | 2308 | 2076 | 1910 | 1854 | 1910 |
| 30°   | 6489  | 5886  | 4681 | 3578 | 2846 | 2475 | 2132 | 1882 | 1706 | 1631 | 1706 |
| 32.5° | 5951  | 5376  | 4282 | 3309 | 2697 | 2317 | 1956 | 1678 | 1511 | 1427 | 1483 |
| 35°   | 6192  | 5534  | 4171 | 3077 | 2531 | 2132 | 1752 | 1455 | 1288 | 1205 | 1261 |
| 37.5° | 6396  | 5636  | 4097 | 2929 | 2373 | 1937 | 1557 | 1270 | 1085 | 1001 | 1057 |
| 40°   | 6971  | 6016  | 4051 | 2781 | 2215 | 1752 | 1353 | 1075 | 881  | 797  | 853  |
| 42.5° | 7647  | 6600  | 4273 | 2660 | 2058 | 1557 | 1168 | 871  | 686  | 603  | 649  |
| 45°   | 7786  | 6776  | 4292 | 2577 | 1900 | 1363 | 964  | 686  | 501  | 426  | 463  |
| 47.5° | 8723  | 7202  | 4375 | 2531 | 1733 | 1177 | 779  | 501  | 343  | 278  | 297  |
| 50°   | 9251  | 7888  | 4607 | 2549 | 1604 | 1001 | 593  | 334  | 222  | 195  | 185  |
| 52.5° | 9010  | 7545  | 4505 | 2558 | 1594 | 983  | 454  | 250  | 195  | 176  | 185  |
| 55°   | 8769  | 7443  | 4681 | 2521 | 1724 | 1186 | 389  | 241  | 195  | 176  | 185  |
| 57.5° | 9103  | 7879  | 3902 | 2568 | 1678 | 1224 | 389  | 241  | 195  | 176  | 167  |
| 60°   | 9056  | 7184  | 3708 | 2484 | 1872 | 1112 | 362  | 250  | 195  | 167  | 167  |
| 62.5° | 7972  | 6748  | 3782 | 2577 | 2151 | 1418 | 371  | 260  | 195  | 158  | 167  |
| 65°   | 7100  | 6869  | 3680 | 2595 | 1390 | 899  | 352  | 250  | 185  | 139  | 148  |
| 67.5° | 10280 | 8964  | 3356 | 2021 | 1622 | 1112 | 334  | 241  | 167  | 139  | 148  |
| 70°   | 15109 | 11003 | 2623 | 1474 | 844  | 538  | 287  | 213  | 148  | 121  | 130  |
| 71°   | 14831 | 10169 | 2123 | 1149 | 677  | 436  | 260  | 195  | 139  | 102  | 111  |
| 72.5° | 10929 | 7277  | 1390 | 890  | 593  | 380  | 222  | 176  | 121  | 93   | 111  |
| 75°   | 3374  | 2373  | 751  | 677  | 408  | 324  | 167  | 121  | 83   | 74   | 93   |
| 77.5° | 686   | 677   | 426  | 426  | 269  | 260  | 121  | 83   | 65   | 56   | 56   |
| 80°   | 315   | 352   | 213  | 232  | 158  | 185  | 65   | 46   | 37   | 28   | 37   |
| 82.5° | 139   | 139   | 111  | 93   | 65   | 93   | 37   | 19   | 19   | 9    | 19   |
| 85°   | 37    | 46    | 28   | 28   | 19   | 28   | 0    | 0    | 0    | 0    | 0    |
| 87.5° | 9     | 9     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| 90°   | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

(END OF REPORT)