

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: P453101

Luminaire Tested: **GALN-SA4A-760-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453101
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4A-760-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17708 lumens
Efficiency: N/A
Efficacy: 146.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

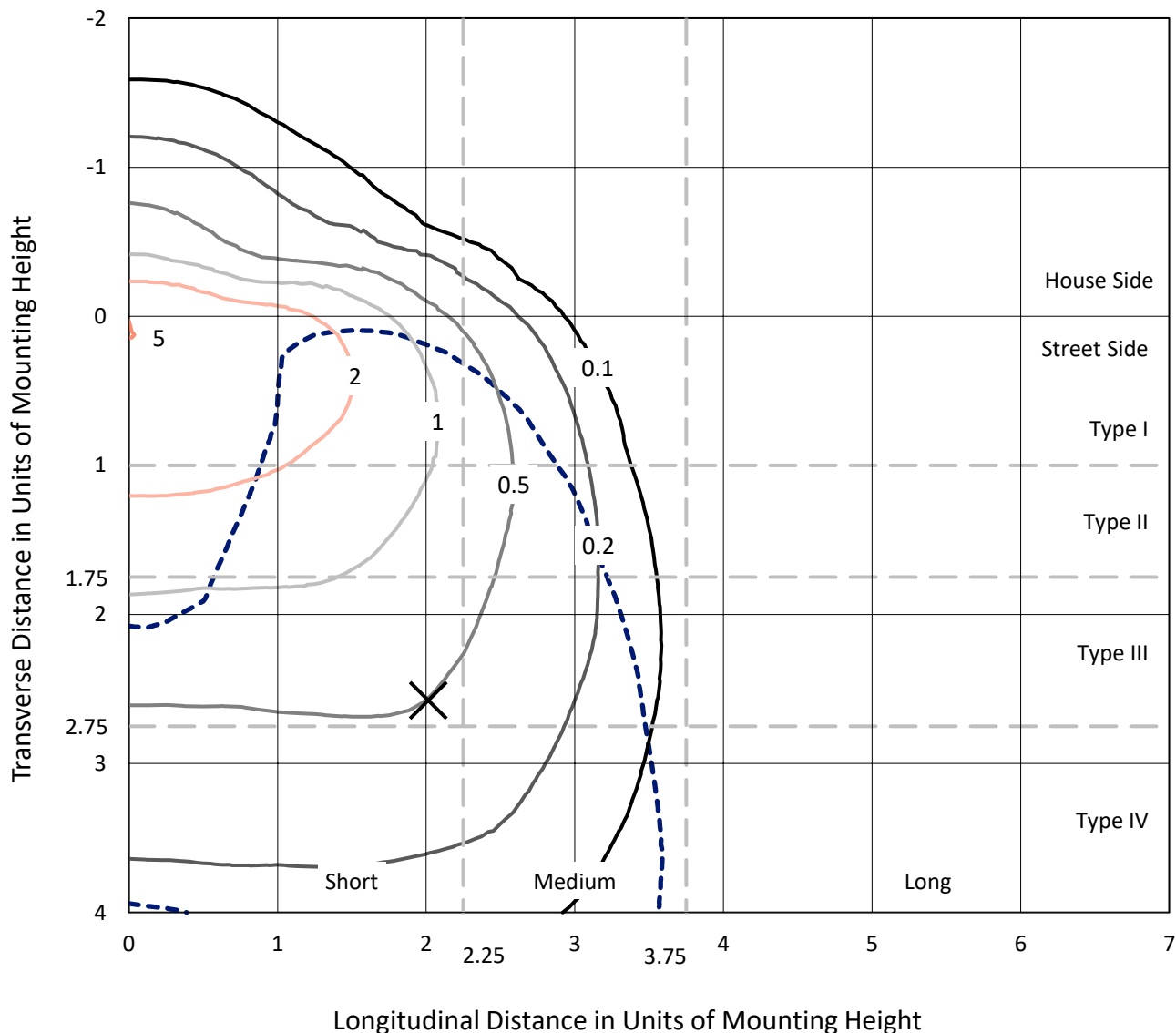
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

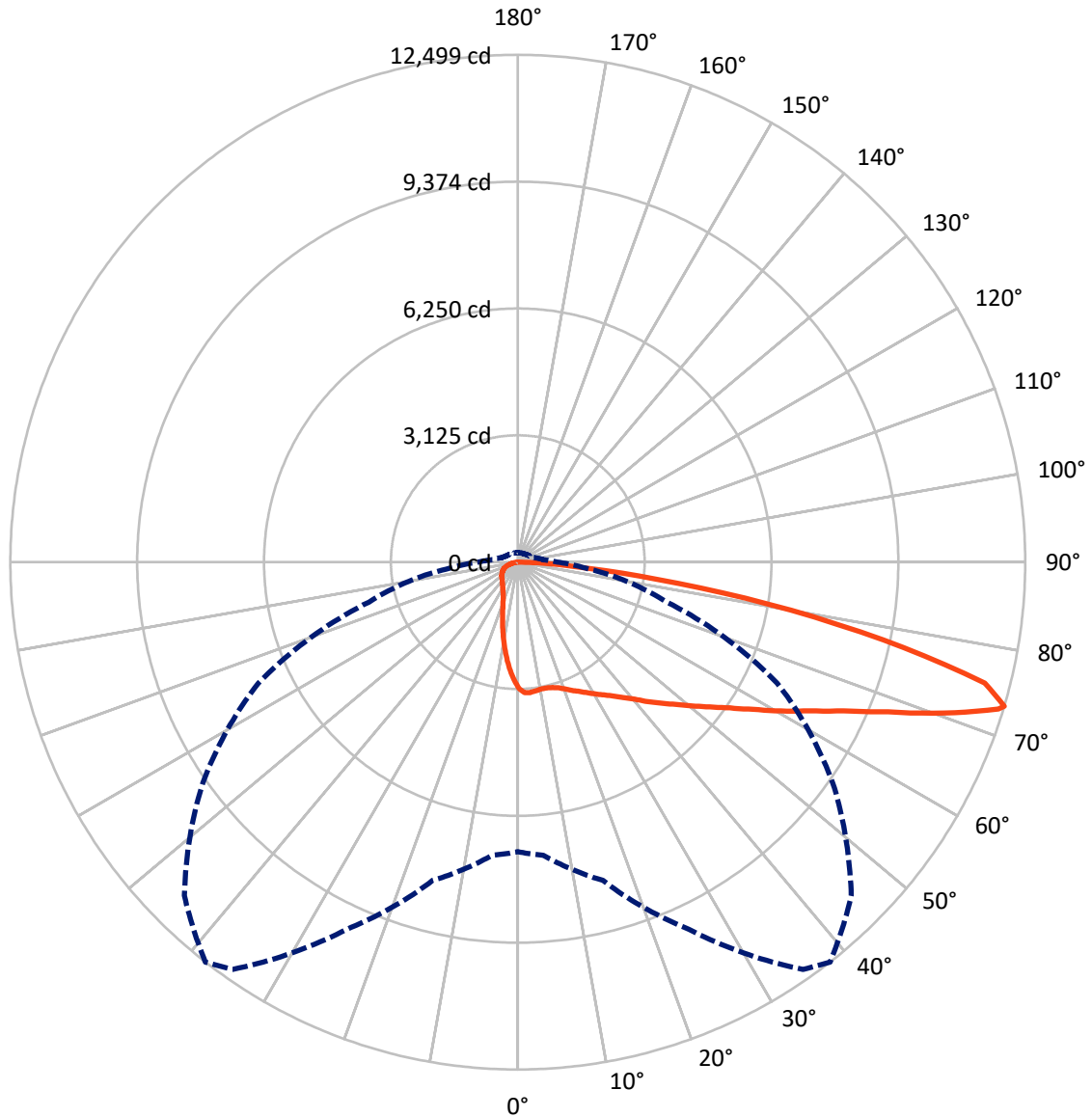
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc
 Type IV - Short - N/A

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CATALOG NUMBER: GALN-SA4A-760-U-SL4

Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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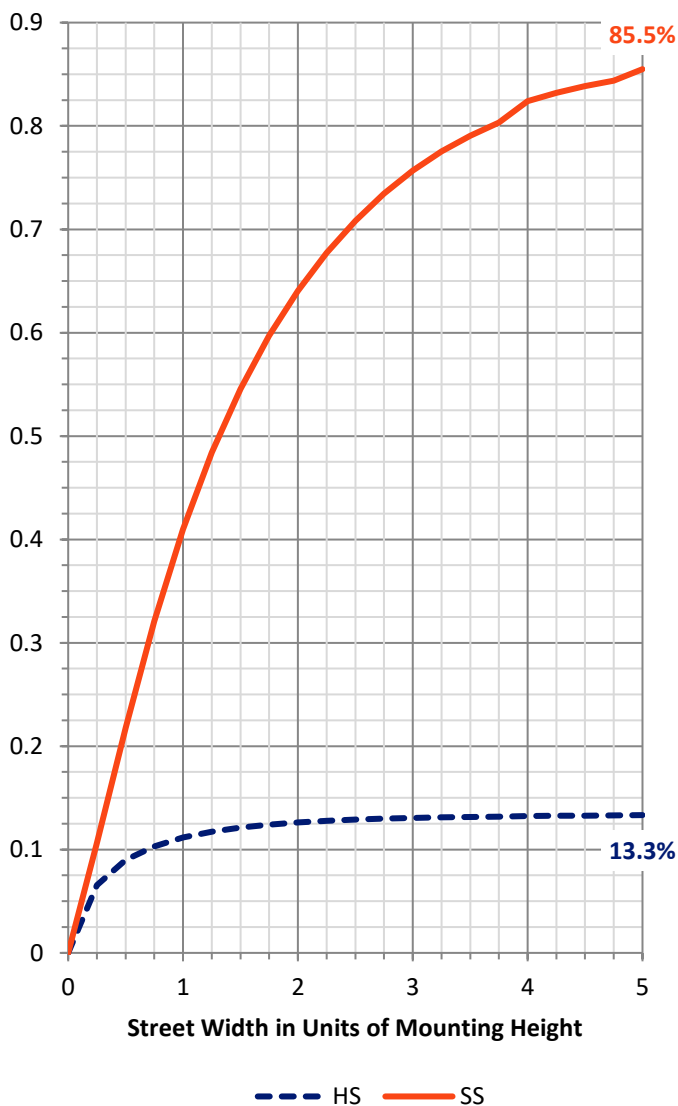
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2380.5 | 0.0 | 2380.5 |
| | % Fixture | 13.4 | 0.0 | 13.4 |
| Street Side | Lumens | 15327.5 | 0.0 | 15327.5 |
| | % Fixture | 86.6 | 0.0 | 86.6 |
| Total | Lumens | 17708.0 | 0.0 | 17708.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 271.6 | 1.5 |
| 10°-20° | 696.4 | 3.9 |
| 20°-30° | 1084.4 | 6.1 |
| 30°-40° | 1590.5 | 9.0 |
| 40°-50° | 2359.3 | 13.3 |
| 50°-60° | 3342.7 | 18.9 |
| 60°-70° | 4240.3 | 23.9 |
| 70°-80° | 3529.8 | 19.9 |
| 80°-90° | 593.1 | 3.3 |
| 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° | 17708.0 | 100.0 |
| 0°-180° | 17708.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P453101

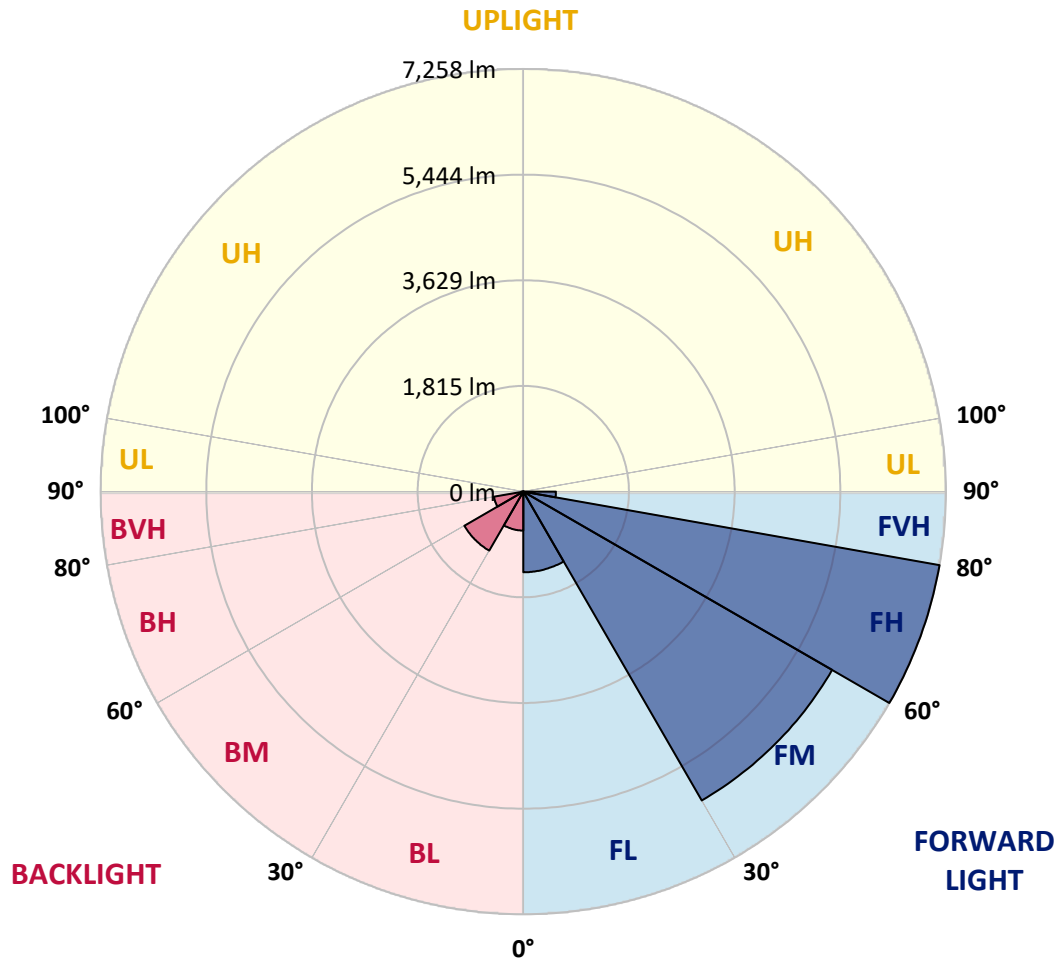
CATALOG NUMBER: GALN-SA4A-760-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1384.3 | 7.8 | | | |
| FM (30°-60°) | 6123.9 | 34.6 | | | |
| FH (60°-80°) | 7258.4 | 41.0 | | | G3/7500 |
| FVH (80°-90°) | 560.9 | 3.2 | | | G4/750 |
| BL (0°-30°) | 668.0 | 3.8 | B2/1000 | | |
| BM (30°-60°) | 1168.7 | 6.6 | B2/2500 | | |
| BH (60°-80°) | 511.7 | 2.9 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 32.2 | 0.2 | | | 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° | 15° | 25° | 35° | 38° | 45° | 55° | 65° | 75° | 85° |
|-------|------|------|------|------|-------|-------|-------|-------|------|------|------|
| 0° | 3111 | 3111 | 3111 | 3111 | 3111 | 3111 | 3111 | 3111 | 3111 | 3111 | 3111 |
| 2.5° | 3236 | 3252 | 3244 | 3233 | 3226 | 3219 | 3209 | 3180 | 3157 | 3132 | 3093 |
| 5° | 3260 | 3270 | 3263 | 3249 | 3233 | 3226 | 3207 | 3169 | 3132 | 3090 | 3032 |
| 7.5° | 3246 | 3250 | 3242 | 3225 | 3211 | 3198 | 3176 | 3134 | 3089 | 3038 | 2962 |
| 10° | 3196 | 3211 | 3211 | 3197 | 3183 | 3176 | 3154 | 3114 | 3073 | 3015 | 2925 |
| 12.5° | 3155 | 3171 | 3184 | 3180 | 3179 | 3179 | 3162 | 3132 | 3084 | 3029 | 2922 |
| 15° | 3127 | 3146 | 3174 | 3190 | 3200 | 3203 | 3196 | 3170 | 3121 | 3057 | 2934 |
| 17.5° | 3121 | 3144 | 3195 | 3230 | 3256 | 3255 | 3253 | 3217 | 3163 | 3097 | 2949 |
| 20° | 3148 | 3178 | 3249 | 3304 | 3342 | 3335 | 3324 | 3277 | 3214 | 3140 | 2963 |
| 22.5° | 3229 | 3260 | 3338 | 3398 | 3435 | 3435 | 3402 | 3340 | 3273 | 3190 | 2982 |
| 25° | 3345 | 3379 | 3462 | 3523 | 3540 | 3527 | 3494 | 3419 | 3342 | 3262 | 3022 |
| 27.5° | 3487 | 3528 | 3605 | 3656 | 3651 | 3641 | 3607 | 3511 | 3434 | 3361 | 3090 |
| 30° | 3664 | 3694 | 3774 | 3786 | 3768 | 3766 | 3718 | 3622 | 3550 | 3494 | 3187 |
| 32.5° | 3831 | 3858 | 3922 | 3927 | 3895 | 3899 | 3854 | 3766 | 3725 | 3705 | 3350 |
| 35° | 4008 | 4022 | 4077 | 4071 | 4050 | 4047 | 4029 | 3945 | 3958 | 3994 | 3581 |
| 37.5° | 4156 | 4184 | 4215 | 4220 | 4219 | 4229 | 4241 | 4201 | 4276 | 4389 | 3884 |
| 40° | 4292 | 4316 | 4362 | 4378 | 4417 | 4437 | 4478 | 4479 | 4652 | 4838 | 4257 |
| 42.5° | 4384 | 4425 | 4511 | 4540 | 4635 | 4695 | 4756 | 4821 | 5072 | 5311 | 4697 |
| 45° | 4464 | 4518 | 4661 | 4751 | 4880 | 4953 | 5082 | 5218 | 5579 | 5892 | 5144 |
| 47.5° | 4585 | 4633 | 4797 | 4956 | 5151 | 5235 | 5428 | 5631 | 6103 | 6446 | 5572 |
| 50° | 4753 | 4782 | 4949 | 5208 | 5457 | 5565 | 5820 | 6113 | 6663 | 6993 | 5948 |
| 52.5° | 4968 | 4980 | 5113 | 5458 | 5786 | 5920 | 6258 | 6600 | 7153 | 7468 | 6246 |
| 55° | 5222 | 5202 | 5306 | 5723 | 6162 | 6337 | 6700 | 7093 | 7704 | 7852 | 6463 |
| 57.5° | 5473 | 5442 | 5525 | 6045 | 6626 | 6837 | 7260 | 7601 | 8196 | 8211 | 6615 |
| 60° | 5739 | 5716 | 5815 | 6423 | 7195 | 7445 | 7836 | 8128 | 8672 | 8461 | 6639 |
| 62.5° | 6012 | 5975 | 6116 | 6848 | 7836 | 8063 | 8442 | 8688 | 9139 | 8554 | 6408 |
| 65° | 6277 | 6260 | 6478 | 7353 | 8566 | 8824 | 9192 | 9359 | 9513 | 8414 | 5835 |
| 67.5° | 6559 | 6593 | 6941 | 8027 | 9518 | 9842 | 10239 | 10082 | 9620 | 7751 | 4914 |
| 70° | 6989 | 7011 | 7549 | 8910 | 10745 | 11136 | 11328 | 10339 | 9104 | 6492 | 3694 |
| 72.5° | 7174 | 7271 | 8092 | 9837 | 12139 | 12378 | 11694 | 9766 | 7584 | 4410 | 1941 |
| 73° | 7133 | 7249 | 8117 | 9978 | 12248 | 12499 | 11616 | 9471 | 7050 | 3798 | 1664 |
| 75° | 6622 | 6765 | 7792 | 9860 | 12036 | 11886 | 10362 | 8072 | 4764 | 1727 | 758 |
| 77.5° | 5225 | 5266 | 6174 | 7962 | 9478 | 9200 | 7755 | 5045 | 1946 | 642 | 430 |
| 80° | 2621 | 2772 | 3480 | 4561 | 6338 | 6247 | 4895 | 2386 | 811 | 377 | 285 |
| 82.5° | 1261 | 1368 | 1695 | 2224 | 3502 | 3419 | 2424 | 1304 | 515 | 220 | 168 |
| 85° | 812 | 892 | 1079 | 1061 | 1440 | 1375 | 1089 | 987 | 305 | 115 | 117 |
| 87.5° | 536 | 587 | 704 | 563 | 524 | 474 | 481 | 556 | 60 | 44 | 16 |
| 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° | 3111 | 3111 | 3111 | 3111 | 3111 | 3111 | 3111 | 3111 | 3111 | 3111 | 3111 |
| 2.5° | 3077 | 3064 | 3021 | 2979 | 2939 | 2901 | 2876 | 2843 | 2821 | 2827 | 2836 |
| 5° | 3000 | 2971 | 2895 | 2821 | 2751 | 2668 | 2601 | 2547 | 2506 | 2491 | 2488 |
| 7.5° | 2919 | 2870 | 2761 | 2634 | 2515 | 2412 | 2293 | 2234 | 2165 | 2141 | 2133 |
| 10° | 2870 | 2804 | 2651 | 2474 | 2295 | 2124 | 1995 | 1890 | 1795 | 1777 | 1768 |
| 12.5° | 2856 | 2769 | 2563 | 2335 | 2097 | 1887 | 1696 | 1558 | 1466 | 1445 | 1414 |
| 15° | 2848 | 2740 | 2481 | 2195 | 1893 | 1637 | 1436 | 1275 | 1191 | 1135 | 1136 |
| 17.5° | 2841 | 2707 | 2389 | 2042 | 1717 | 1422 | 1200 | 1055 | 978 | 948 | 945 |
| 20° | 2831 | 2668 | 2283 | 1881 | 1516 | 1226 | 1025 | 917 | 865 | 840 | 839 |
| 22.5° | 2827 | 2630 | 2179 | 1717 | 1338 | 1075 | 909 | 833 | 800 | 783 | 783 |
| 25° | 2837 | 2603 | 2070 | 1561 | 1180 | 946 | 829 | 777 | 758 | 749 | 746 |
| 27.5° | 2868 | 2591 | 1962 | 1405 | 1035 | 858 | 775 | 739 | 725 | 718 | 719 |
| 30° | 2927 | 2590 | 1856 | 1251 | 927 | 791 | 732 | 707 | 696 | 692 | 691 |
| 32.5° | 3022 | 2612 | 1752 | 1124 | 836 | 735 | 692 | 674 | 669 | 666 | 665 |
| 35° | 3183 | 2674 | 1649 | 1008 | 766 | 685 | 654 | 645 | 638 | 641 | 642 |
| 37.5° | 3400 | 2781 | 1551 | 917 | 713 | 648 | 622 | 614 | 610 | 613 | 616 |
| 40° | 3691 | 2935 | 1469 | 844 | 675 | 617 | 594 | 587 | 583 | 588 | 589 |
| 42.5° | 4012 | 3113 | 1401 | 787 | 644 | 591 | 569 | 561 | 558 | 561 | 562 |
| 45° | 4342 | 3320 | 1366 | 746 | 618 | 572 | 549 | 540 | 533 | 531 | 534 |
| 47.5° | 4667 | 3500 | 1365 | 721 | 597 | 555 | 530 | 520 | 511 | 506 | 505 |
| 50° | 4932 | 3643 | 1389 | 710 | 579 | 536 | 511 | 501 | 489 | 479 | 481 |
| 52.5° | 5132 | 3736 | 1400 | 705 | 569 | 516 | 491 | 482 | 468 | 455 | 455 |
| 55° | 5261 | 3758 | 1373 | 700 | 561 | 495 | 468 | 460 | 446 | 433 | 433 |
| 57.5° | 5305 | 3690 | 1276 | 688 | 553 | 477 | 445 | 438 | 427 | 414 | 412 |
| 60° | 5203 | 3460 | 1106 | 652 | 537 | 458 | 420 | 417 | 413 | 402 | 401 |
| 62.5° | 4810 | 2972 | 921 | 605 | 510 | 438 | 397 | 402 | 405 | 399 | 398 |
| 65° | 4156 | 2413 | 787 | 540 | 474 | 410 | 372 | 385 | 393 | 393 | 391 |
| 67.5° | 3371 | 1853 | 663 | 484 | 429 | 372 | 344 | 354 | 360 | 358 | 363 |
| 70° | 2396 | 1255 | 540 | 420 | 372 | 329 | 308 | 308 | 304 | 302 | 302 |
| 72.5° | 1162 | 717 | 438 | 351 | 317 | 281 | 264 | 257 | 249 | 248 | 243 |
| 73° | 971 | 643 | 418 | 338 | 304 | 274 | 255 | 244 | 239 | 235 | 234 |
| 75° | 591 | 488 | 349 | 285 | 259 | 236 | 219 | 209 | 204 | 201 | 200 |
| 77.5° | 389 | 364 | 271 | 218 | 198 | 184 | 177 | 167 | 164 | 160 | 160 |
| 80° | 290 | 278 | 194 | 154 | 142 | 130 | 128 | 126 | 118 | 113 | 111 |
| 82.5° | 187 | 198 | 132 | 103 | 90 | 80 | 81 | 84 | 76 | 69 | 67 |
| 85° | 133 | 143 | 80 | 47 | 38 | 33 | 37 | 33 | 34 | 27 | 22 |
| 87.5° | 22 | 38 | 14 | 6 | 3 | 2 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)