

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: P453043

Luminaire Tested: **GALN-SA4A-740-U-SL4**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453043  
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-740-U-SL4  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 4000K, 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

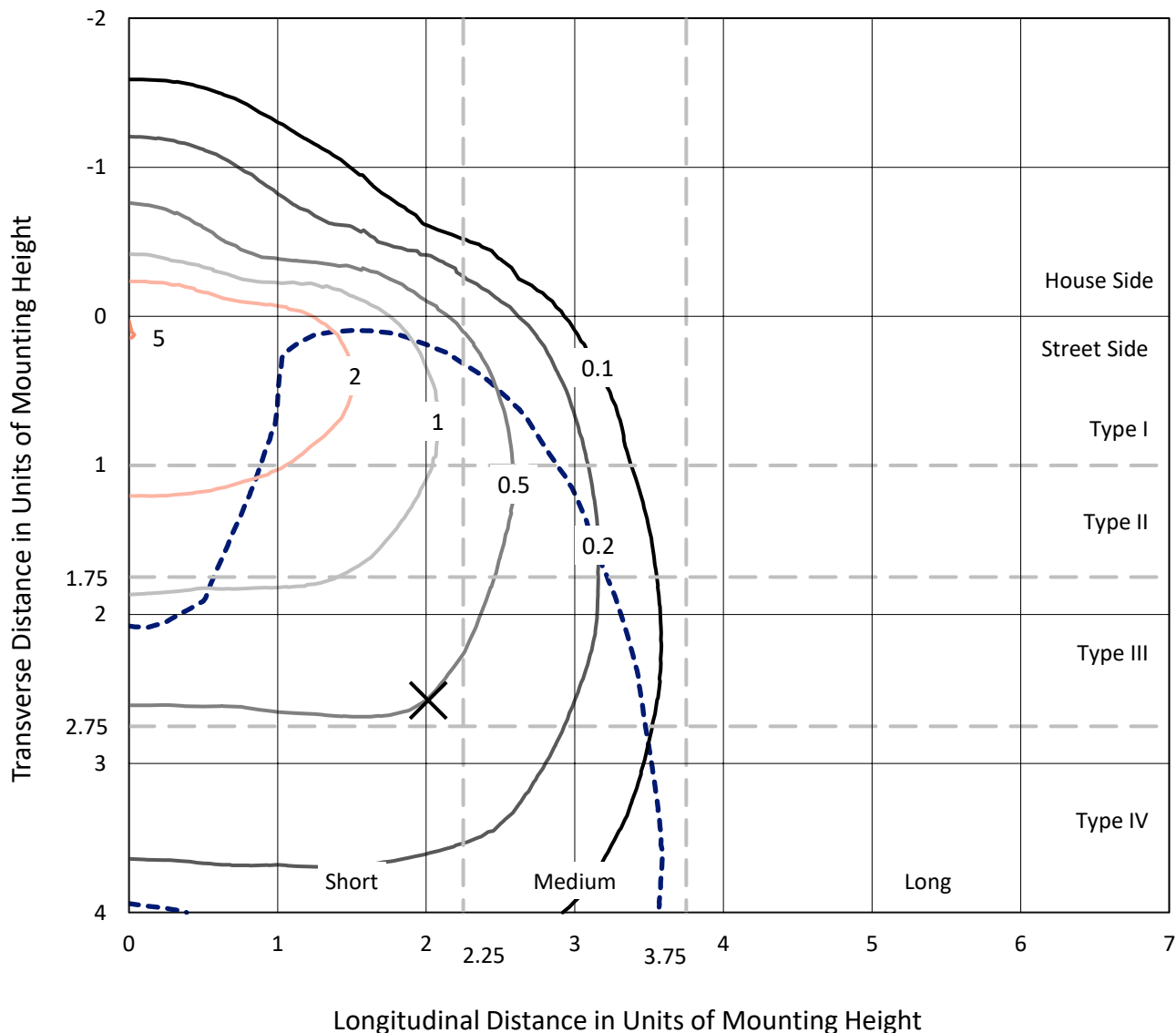
Input Watts (W): 121  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

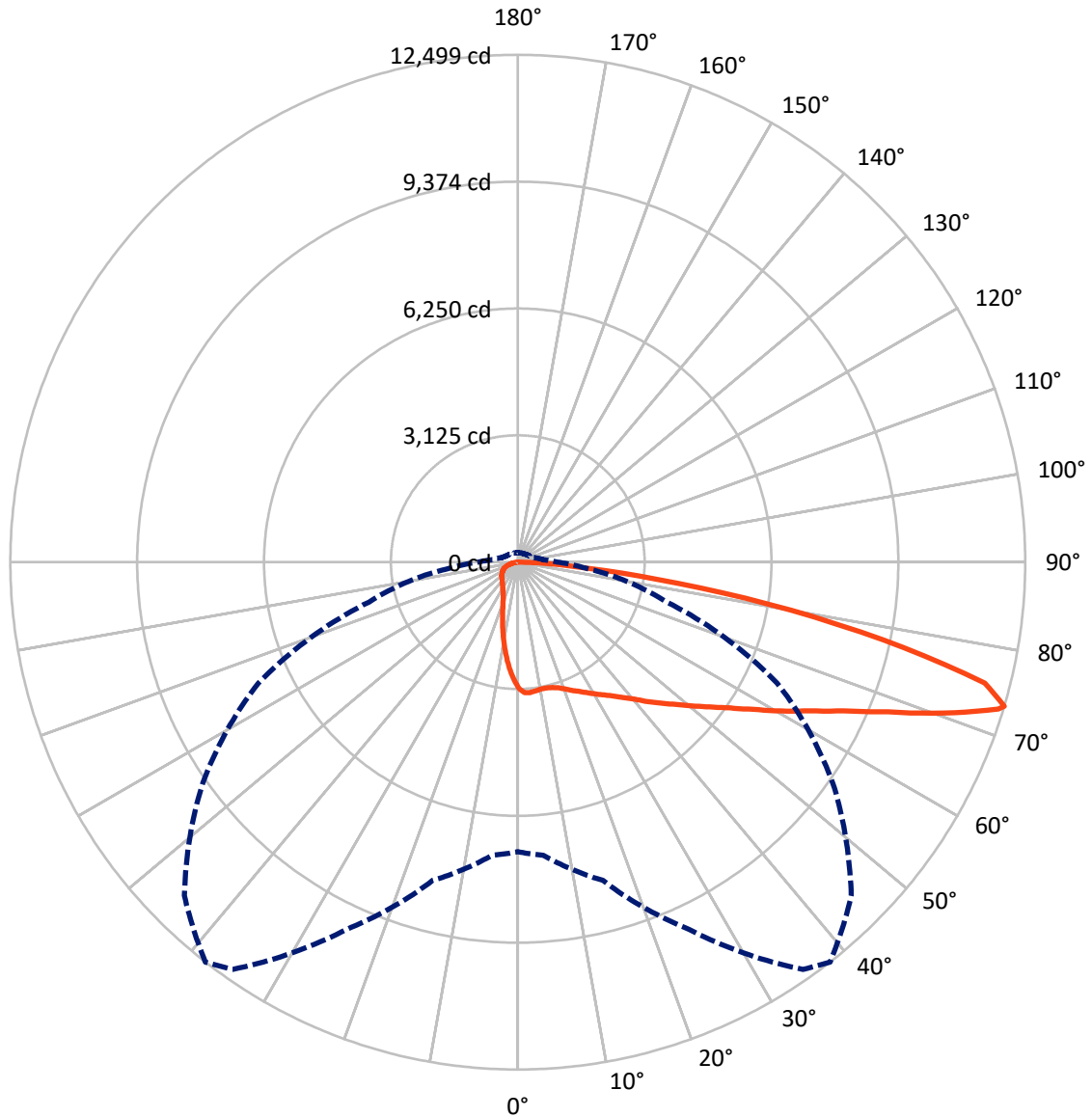
× Max cd  
 - - - 1/2 Max cd



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

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### 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   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2380.5   | 0.0    | 2380.5  |
|                    | % Fixture | 13.4     | 0.0    | 13.4    |
| <b>Street Side</b> | Lumens    | 15327.5  | 0.0    | 15327.5 |
|                    | % Fixture | 86.6     | 0.0    | 86.6    |
| <b>Total</b>       | 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**



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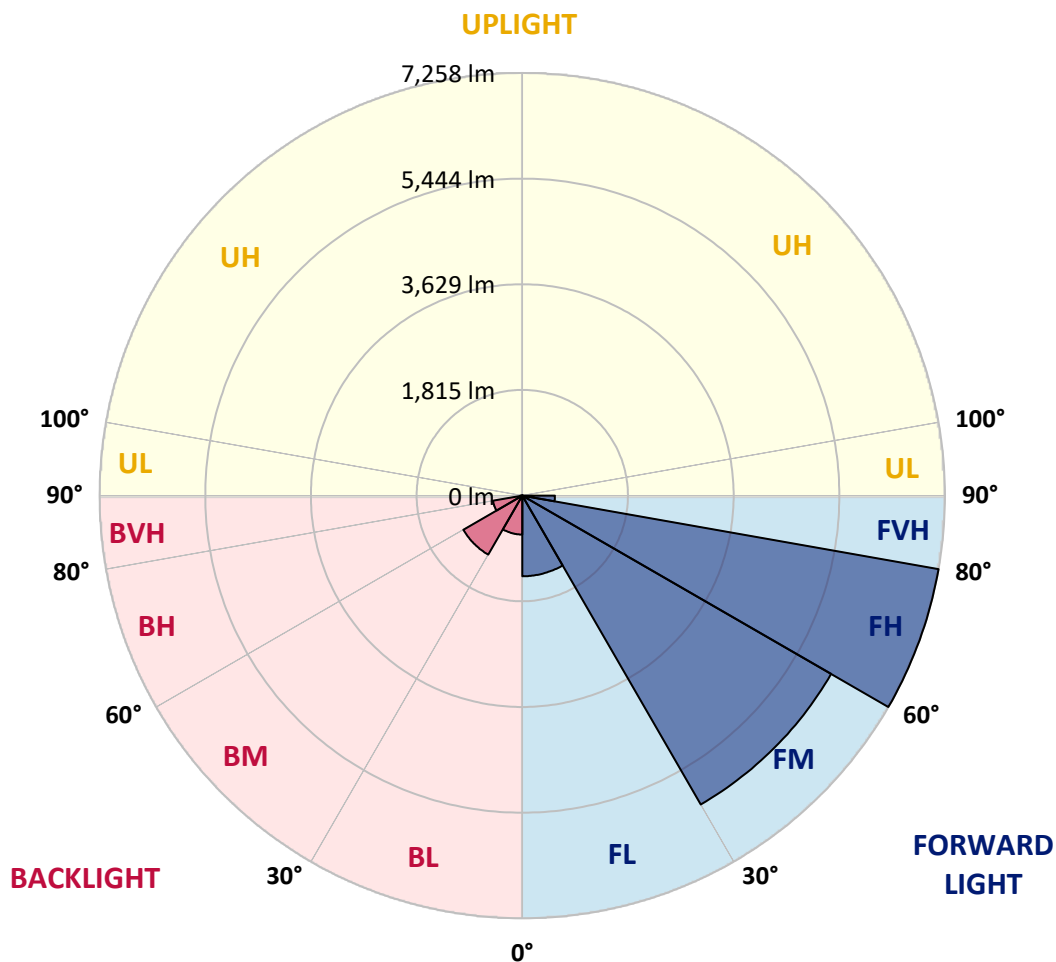
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| 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)