

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: INVUE

Report Number: P95373

Luminaire Tested: **VFS-K-B40-3-LED-E1-MSR-SG**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P95373  
REPORT SCALED FROM IESNA LM79-08 TEST DATA (P22804)  
Test Lab: INNOVATION CENTER  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: VFS-K-B40-3-LED-E1-MSR-SG  
Description: ARCHITECTURAL FLOOD LUMINAIRE  
MEDIUM SYMMETRIC ROUND WITH SOFTENING GLASS DISTRIBUTION  
WITH 40 LED'S, 350mA DRIVE CURRENT  
Light Source: -  
Ballast/Driver: -

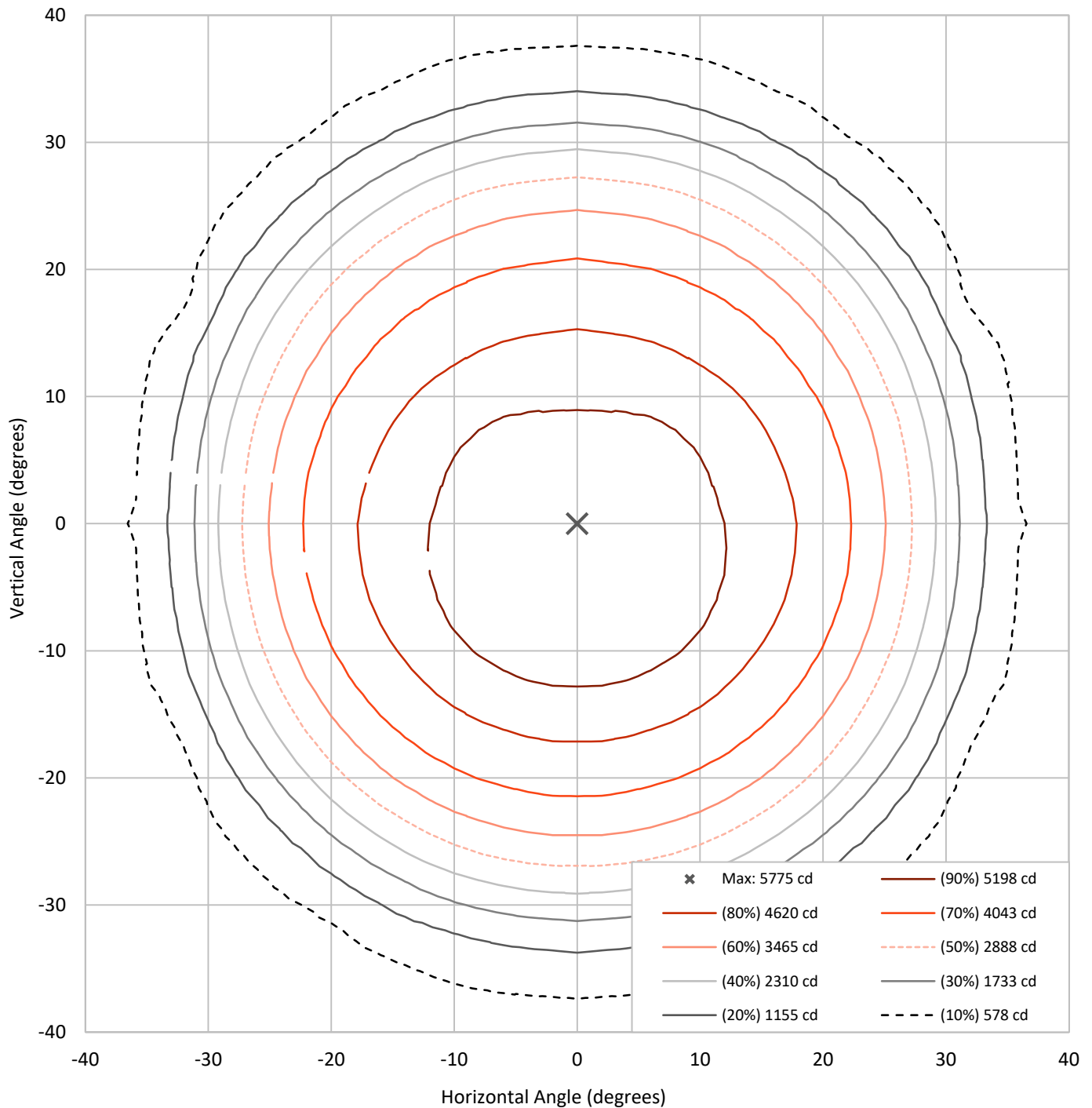
**Summary**

|                                   |                                 |                      |               |
|-----------------------------------|---------------------------------|----------------------|---------------|
| Lumens per Lamp:                  | N/A                             | NEMA Type:           | 5H x 5V       |
| Luminaire Lumens:                 | 4185.8 lumens                   | Max Intensity:       | 5775 candela  |
| Efficiency:                       | N/A                             | Max Intensity Angle: | 0°H x 0°V     |
| Efficacy:                         | 93.0 lumens/watt                |                      |               |
| Luminous Opening:                 | (L: 0.83 ' x W: 0 ' x H: 0.5 ') |                      |               |
| Beam Angle (50%):                 | 54.5°H x 54.2°V                 | Field Angle (10%):   | 73°H x 74.6°V |
| Beam Lumens:                      | 2935.8 lumens                   | Field Lumens:        | 3895.1 lumens |
| Beam Efficiency:                  | 70.1%                           | Field Efficiency:    | 93.1%         |
| Input Watts (W):                  | 45                              |                      |               |
| 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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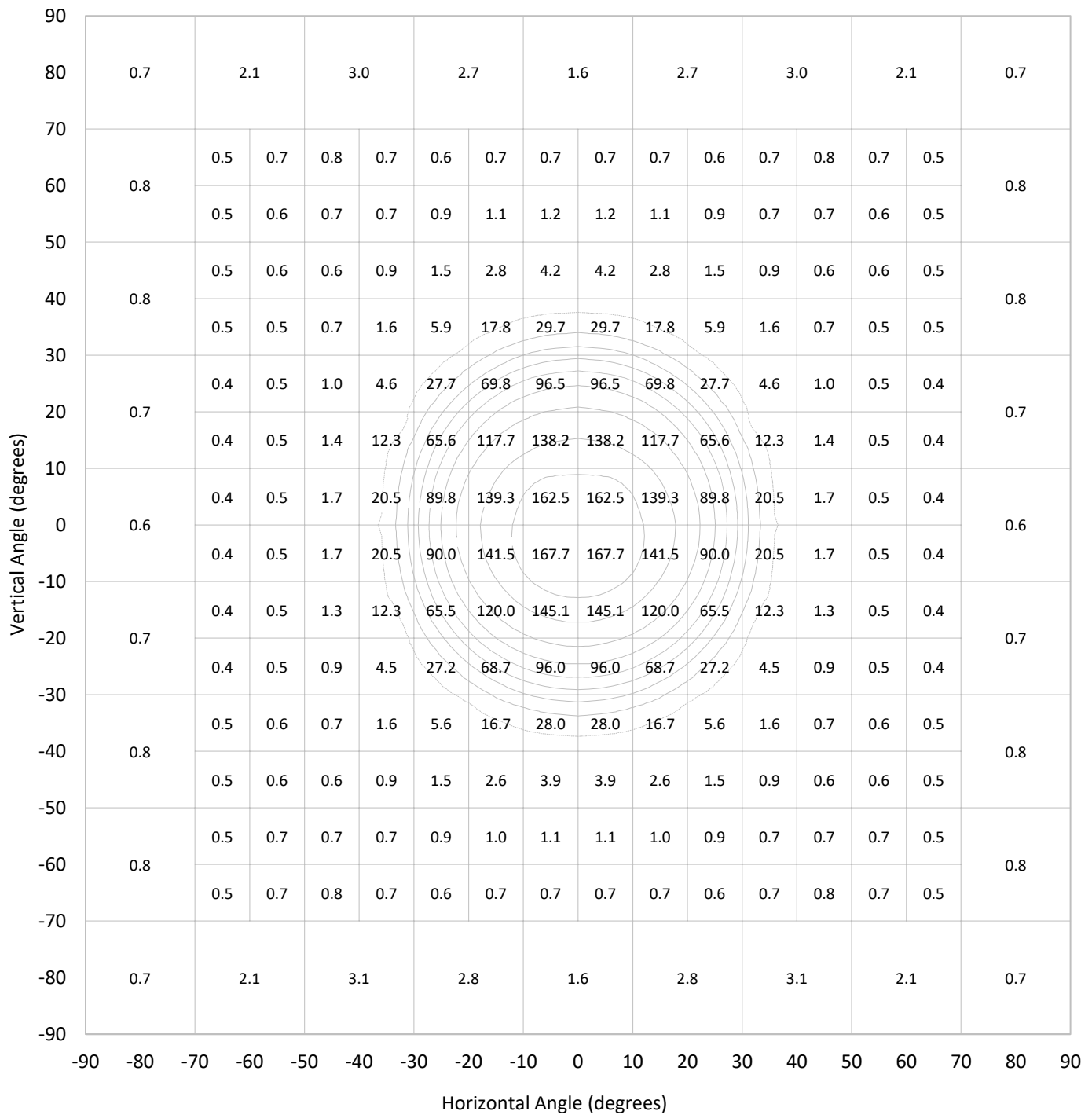
### Iso-Candela Plot





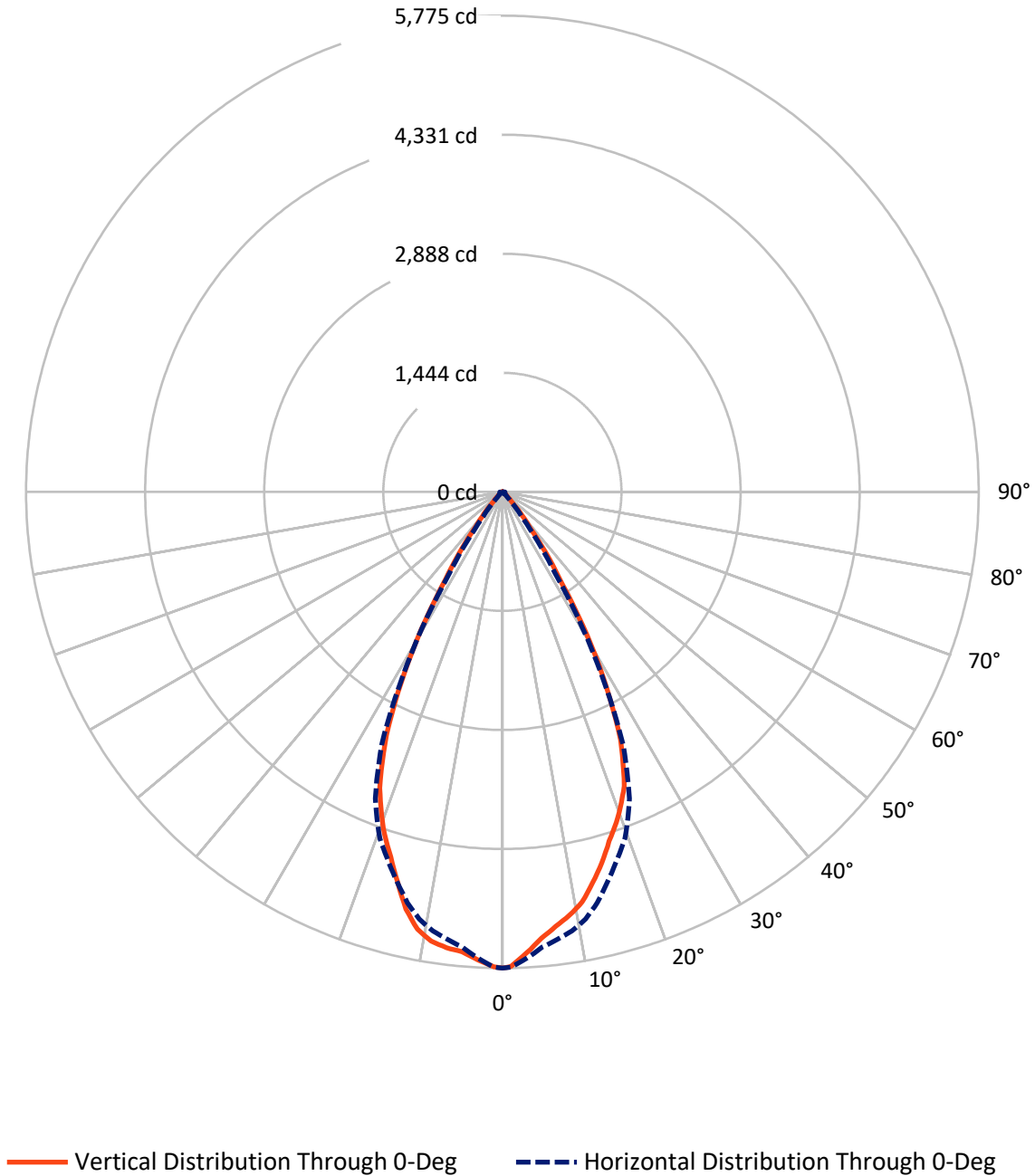
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### Lumen Table



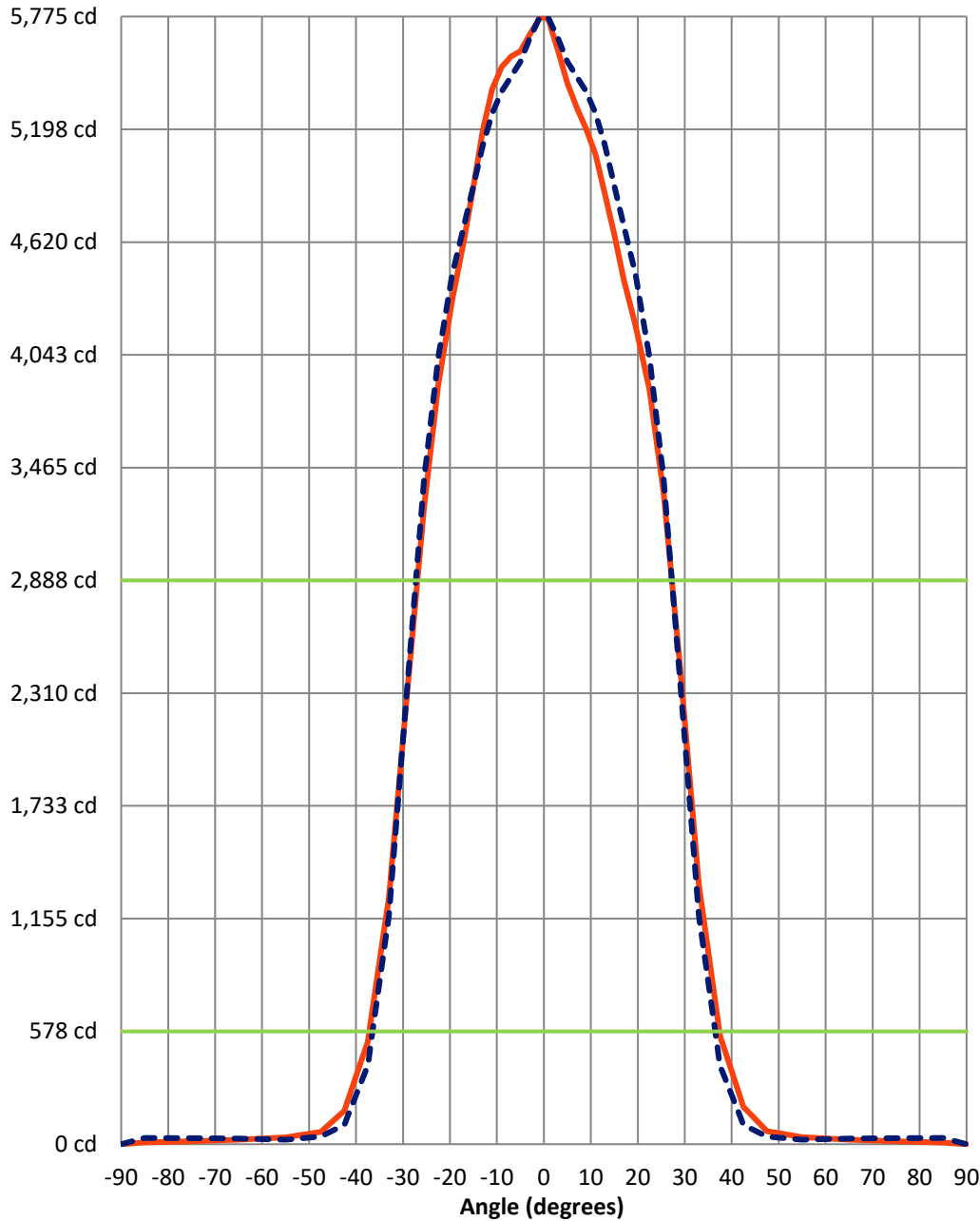
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### Luminous Intensity Polar Plot



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### Luminous Intensity Plot



**Beam:**  
H Angle: 54.5°  
V Angle: 54.2°  
Lumens: 2935.8  
Efficiency: 70.1%

**Field:**  
H Angle: 73°  
V Angle: 74.6°  
Lumens: 3895.1  
Efficiency: 93.1%

**Spill:**  
Lumens: 290.7  
Efficiency: 6.9%

— Vertical Distribution through 0-Deg  
- - Horizontal Distribution through 0-Deg



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FIELD  
BEAM

**CANDELA DISTRIBUTION:**

|        | 0°   | 1°   | 3°   | 5°   | 7°   | 9°   | 11°  | 13°  | 15°  | 17°  | 19.5° |
|--------|------|------|------|------|------|------|------|------|------|------|-------|
| 90°    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| 85°    | 8    | 8    | 12   | 11   | 12   | 21   | 29   | 33   | 34   | 35   | 36    |
| 75°    | 15   | 15   | 15   | 16   | 17   | 17   | 17   | 17   | 16   | 16   | 17    |
| 65°    | 23   | 23   | 23   | 23   | 23   | 23   | 24   | 24   | 24   | 24   | 23    |
| 55°    | 36   | 36   | 36   | 36   | 35   | 35   | 35   | 34   | 34   | 34   | 33    |
| 47.5°  | 67   | 66   | 66   | 66   | 65   | 62   | 59   | 56   | 53   | 50   | 47    |
| 42.5°  | 191  | 187  | 180  | 178  | 169  | 162  | 146  | 130  | 113  | 97   | 82    |
| 37.5°  | 556  | 548  | 532  | 533  | 492  | 467  | 424  | 369  | 247  | 239  | 213   |
| 33°    | 1330 | 1298 | 1279 | 1254 | 1159 | 1069 | 975  | 855  | 741  | 631  | 497   |
| 29°    | 2444 | 2412 | 2379 | 2319 | 2223 | 2062 | 1907 | 1692 | 1459 | 1228 | 979   |
| 25.5°  | 3333 | 3306 | 3281 | 3214 | 3136 | 2988 | 2829 | 2590 | 2310 | 2012 | 1627  |
| 22.5°  | 3861 | 3842 | 3820 | 3771 | 3703 | 3581 | 3448 | 3253 | 3000 | 2698 | 2267  |
| 19.5°  | 4193 | 4180 | 4158 | 4129 | 4093 | 4006 | 3907 | 3760 | 3556 | 3291 | 2877  |
| 17°    | 4429 | 4419 | 4394 | 4359 | 4323 | 4250 | 4171 | 4054 | 3889 | 3668 | 3297  |
| 15°    | 4658 | 4641 | 4613 | 4570 | 4521 | 4429 | 4337 | 4238 | 4099 | 3908 | 3569  |
| 13°    | 4865 | 4855 | 4847 | 4794 | 4731 | 4619 | 4514 | 4404 | 4270 | 4096 | 3792  |
| 11°    | 5068 | 5060 | 5057 | 5009 | 4948 | 4828 | 4699 | 4569 | 4416 | 4245 | 3981  |
| 9°     | 5199 | 5193 | 5198 | 5181 | 5141 | 5021 | 4882 | 4720 | 4556 | 4395 | 4133  |
| 7°     | 5309 | 5302 | 5318 | 5314 | 5284 | 5183 | 5035 | 4852 | 4661 | 4498 | 4237  |
| 5°     | 5434 | 5421 | 5414 | 5402 | 5380 | 5297 | 5150 | 4963 | 4762 | 4580 | 4335  |
| 3°     | 5601 | 5589 | 5539 | 5474 | 5432 | 5346 | 5212 | 5039 | 4840 | 4647 | 4401  |
| 1°     | 5757 | 5740 | 5646 | 5533 | 5455 | 5377 | 5263 | 5099 | 4895 | 4698 | 4450  |
| 0°     | 5775 | 5765 | 5664 | 5544 | 5467 | 5391 | 5279 | 5115 | 4908 | 4705 | 4456  |
| -1°    | 5762 | 5755 | 5666 | 5557 | 5483 | 5409 | 5290 | 5121 | 4904 | 4706 | 4451  |
| -3°    | 5683 | 5684 | 5652 | 5593 | 5528 | 5453 | 5314 | 5119 | 4896 | 4688 | 4425  |
| -5°    | 5598 | 5608 | 5622 | 5613 | 5570 | 5449 | 5276 | 5072 | 4858 | 4648 | 4376  |
| -7°    | 5570 | 5578 | 5601 | 5592 | 5534 | 5398 | 5204 | 4987 | 4778 | 4572 | 4296  |
| -9°    | 5516 | 5527 | 5530 | 5501 | 5406 | 5260 | 5060 | 4848 | 4652 | 4456 | 4169  |
| -11°   | 5403 | 5413 | 5391 | 5327 | 5213 | 5075 | 4888 | 4691 | 4523 | 4337 | 4029  |
| -13°   | 5193 | 5203 | 5163 | 5085 | 4970 | 4848 | 4697 | 4526 | 4366 | 4164 | 3836  |
| -15°   | 4905 | 4919 | 4880 | 4812 | 4723 | 4627 | 4493 | 4340 | 4180 | 3955 | 3591  |
| -17°   | 4631 | 4643 | 4616 | 4560 | 4484 | 4402 | 4282 | 4125 | 3942 | 3698 | 3303  |
| -19.5° | 4325 | 4336 | 4308 | 4260 | 4181 | 4089 | 3961 | 3791 | 3573 | 3297 | 2866  |
| -22.5° | 3887 | 3903 | 3864 | 3806 | 3713 | 3608 | 3431 | 3221 | 2974 | 2671 | 2237  |
| -25.5° | 3264 | 3290 | 3252 | 3186 | 3070 | 2937 | 2756 | 2525 | 2261 | 1965 | 1588  |
| -29°   | 2339 | 2328 | 2295 | 2228 | 2111 | 1995 | 1820 | 1620 | 1413 | 1189 | 942   |
| -33°   | 1265 | 1235 | 1208 | 1165 | 1091 | 1006 | 919  | 816  | 716  | 610  | 391   |
| -37.5° | 525  | 511  | 503  | 486  | 467  | 435  | 398  | 308  | 242  | 228  | 197   |
| -42.5° | 171  | 165  | 164  | 159  | 155  | 146  | 131  | 118  | 105  | 90   | 77    |
| -47.5° | 63   | 62   | 62   | 62   | 61   | 59   | 56   | 54   | 51   | 49   | 47    |
| -55°   | 35   | 35   | 35   | 35   | 35   | 35   | 34   | 34   | 34   | 34   | 33    |
| -65°   | 23   | 23   | 23   | 23   | 23   | 23   | 24   | 24   | 24   | 24   | 23    |
| -75°   | 15   | 15   | 15   | 16   | 16   | 17   | 17   | 17   | 16   | 16   | 17    |
| -85°   | 9    | 9    | 12   | 12   | 13   | 22   | 30   | 34   | 35   | 36   | 37    |
| -90°   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     |



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**CANDELA DISTRIBUTION (continued):**

|        | 22.5° | 25.5° | 29°  | 33°  | 37.5° | 42.5° | 47.5° | 55° | 65° | 75° | 85° |
|--------|-------|-------|------|------|-------|-------|-------|-----|-----|-----|-----|
| 90°    | 0     | 0     | 0    | 0    | 0     | 0     | 0     | 0   | 0   | 0   | 0   |
| 85°    | 37    | 37    | 38   | 38   | 38    | 38    | 38    | 38  | 39  | 39  | 39  |
| 75°    | 21    | 26    | 32   | 35   | 37    | 38    | 38    | 39  | 39  | 39  | 39  |
| 65°    | 22    | 21    | 21   | 24   | 29    | 35    | 38    | 39  | 39  | 39  | 39  |
| 55°    | 32    | 30    | 28   | 26   | 25    | 28    | 33    | 38  | 39  | 39  | 39  |
| 47.5°  | 44    | 40    | 37   | 32   | 29    | 27    | 29    | 36  | 39  | 39  | 39  |
| 42.5°  | 67    | 55    | 47   | 39   | 33    | 29    | 28    | 34  | 39  | 39  | 38  |
| 37.5°  | 156   | 112   | 76   | 53   | 40    | 32    | 28    | 32  | 39  | 39  | 38  |
| 33°    | 251   | 221   | 142  | 77   | 47    | 35    | 30    | 30  | 37  | 38  | 37  |
| 29°    | 694   | 461   | 236  | 133  | 69    | 41    | 31    | 29  | 36  | 37  | 36  |
| 25.5°  | 1176  | 785   | 458  | 184  | 97    | 47    | 32    | 28  | 35  | 36  | 36  |
| 22.5°  | 1706  | 1163  | 674  | 216  | 131   | 53    | 33    | 27  | 35  | 36  | 35  |
| 19.5°  | 2275  | 1626  | 953  | 239  | 173   | 61    | 34    | 27  | 34  | 35  | 34  |
| 17°    | 2717  | 2010  | 1210 | 251  | 210   | 68    | 35    | 26  | 33  | 35  | 34  |
| 15°    | 3019  | 2312  | 1423 | 673  | 220   | 73    | 36    | 25  | 32  | 34  | 34  |
| 13°    | 3274  | 2572  | 1630 | 774  | 229   | 78    | 37    | 25  | 32  | 33  | 33  |
| 11°    | 3500  | 2798  | 1826 | 873  | 236   | 84    | 37    | 25  | 31  | 33  | 33  |
| 9°     | 3685  | 3005  | 2001 | 965  | 241   | 89    | 38    | 24  | 31  | 32  | 33  |
| 7°     | 3817  | 3162  | 2142 | 1045 | 245   | 92    | 38    | 24  | 30  | 32  | 33  |
| 5°     | 3915  | 3274  | 2251 | 1108 | 248   | 95    | 39    | 24  | 30  | 32  | 33  |
| 3°     | 3991  | 3346  | 2329 | 1142 | 250   | 97    | 39    | 23  | 30  | 32  | 32  |
| 1°     | 4017  | 3396  | 2368 | 1165 | 251   | 99    | 39    | 23  | 29  | 31  | 32  |
| 0°     | 4026  | 3406  | 2371 | 1171 | 403   | 99    | 39    | 23  | 29  | 31  | 32  |
| -1°    | 4025  | 3404  | 2364 | 1172 | 251   | 99    | 39    | 23  | 30  | 32  | 32  |
| -3°    | 4003  | 3365  | 2333 | 1144 | 250   | 97    | 39    | 23  | 30  | 32  | 32  |
| -5°    | 3934  | 3275  | 2258 | 1105 | 248   | 94    | 38    | 24  | 30  | 32  | 32  |
| -7°    | 3840  | 3151  | 2144 | 1037 | 245   | 91    | 38    | 24  | 30  | 32  | 33  |
| -9°    | 3700  | 3003  | 1998 | 955  | 241   | 87    | 38    | 24  | 30  | 32  | 33  |
| -11°   | 3516  | 2811  | 1831 | 871  | 235   | 82    | 37    | 24  | 31  | 33  | 33  |
| -13°   | 3287  | 2568  | 1631 | 770  | 228   | 76    | 36    | 25  | 31  | 33  | 33  |
| -15°   | 3014  | 2291  | 1422 | 499  | 219   | 71    | 35    | 25  | 32  | 33  | 33  |
| -17°   | 2702  | 1994  | 1207 | 439  | 200   | 65    | 35    | 26  | 32  | 34  | 33  |
| -19.5° | 2246  | 1597  | 945  | 237  | 170   | 59    | 34    | 26  | 33  | 34  | 34  |
| -22.5° | 1676  | 1151  | 669  | 213  | 128   | 52    | 33    | 27  | 34  | 35  | 34  |
| -25.5° | 1143  | 772   | 448  | 180  | 94    | 46    | 32    | 28  | 35  | 36  | 35  |
| -29°   | 669   | 453   | 227  | 128  | 67    | 40    | 31    | 29  | 36  | 37  | 36  |
| -33°   | 248   | 216   | 135  | 74   | 47    | 35    | 30    | 30  | 37  | 38  | 37  |
| -37.5° | 147   | 106   | 73   | 52   | 40    | 32    | 29    | 32  | 39  | 38  | 37  |
| -42.5° | 65    | 54    | 47   | 40   | 34    | 29    | 28    | 34  | 39  | 39  | 38  |
| -47.5° | 44    | 41    | 37   | 33   | 29    | 27    | 29    | 37  | 40  | 39  | 39  |
| -55°   | 32    | 30    | 28   | 26   | 25    | 28    | 33    | 39  | 40  | 39  | 39  |
| -65°   | 22    | 21    | 22   | 24   | 29    | 35    | 38    | 40  | 40  | 39  | 39  |
| -75°   | 22    | 27    | 33   | 36   | 38    | 39    | 39    | 40  | 39  | 39  | 39  |
| -85°   | 38    | 38    | 38   | 38   | 39    | 39    | 39    | 39  | 39  | 39  | 39  |
| -90°   | 0     | 0     | 0    | 0    | 0     | 0     | 0     | 0   | 0   | 0   | 0   |





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**CANDELA DISTRIBUTION (continued):**

|        | 90° |
|--------|-----|
| 90°    | 0   |
| 85°    | 0   |
| 75°    | 0   |
| 65°    | 0   |
| 55°    | 0   |
| 47.5°  | 0   |
| 42.5°  | 0   |
| 37.5°  | 0   |
| 33°    | 0   |
| 29°    | 0   |
| 25.5°  | 0   |
| 22.5°  | 0   |
| 19.5°  | 0   |
| 17°    | 0   |
| 15°    | 0   |
| 13°    | 0   |
| 11°    | 0   |
| 9°     | 0   |
| 7°     | 0   |
| 5°     | 0   |
| 3°     | 0   |
| 1°     | 0   |
| 0°     | 0   |
| -1°    | 0   |
| -3°    | 0   |
| -5°    | 0   |
| -7°    | 0   |
| -9°    | 0   |
| -11°   | 0   |
| -13°   | 0   |
| -15°   | 0   |
| -17°   | 0   |
| -19.5° | 0   |
| -22.5° | 0   |
| -25.5° | 0   |
| -29°   | 0   |
| -33°   | 0   |
| -37.5° | 0   |
| -42.5° | 0   |
| -47.5° | 0   |
| -55°   | 0   |
| -65°   | 0   |
| -75°   | 0   |
| -85°   | 0   |
| -90°   | 0   |

(END OF REPORT)