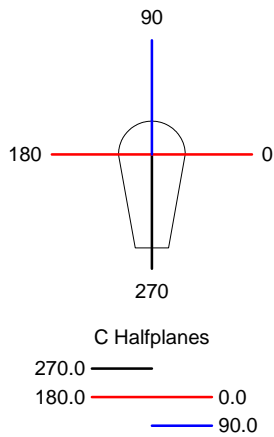
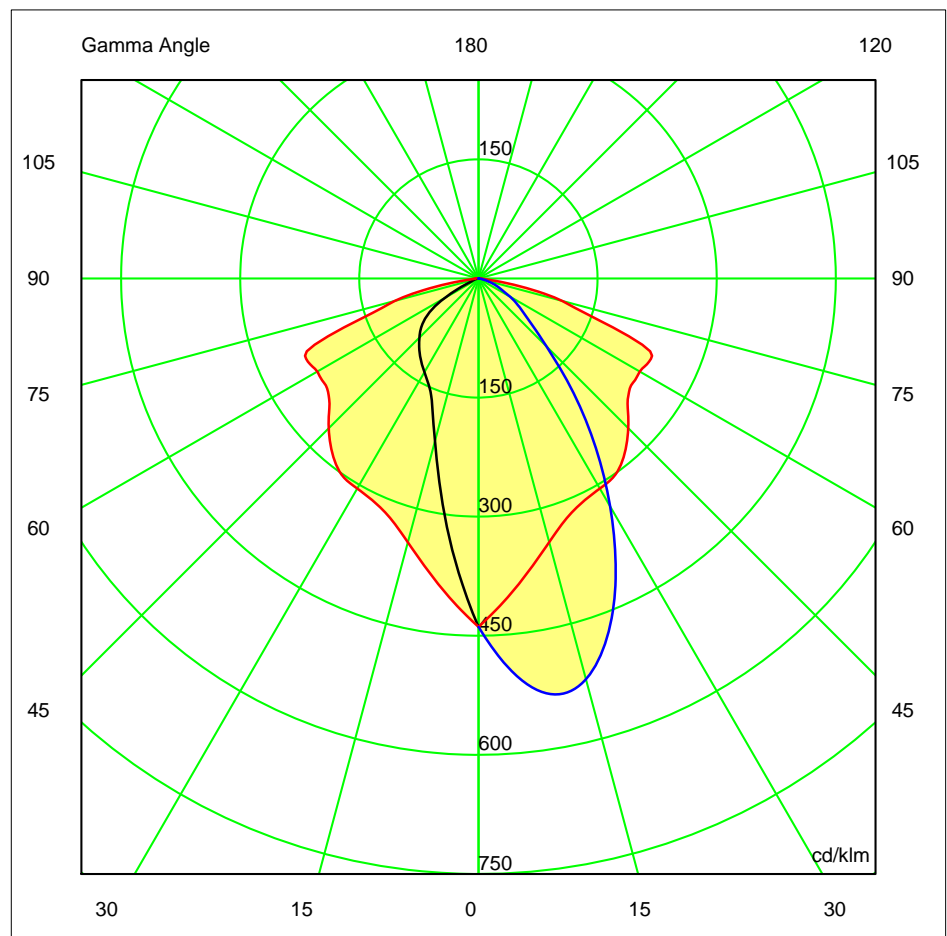


| Luminaire                 |                        | Measurement                |                        | Lamp           |            |        |
|---------------------------|------------------------|----------------------------|------------------------|----------------|------------|--------|
| Code                      | DPS22C 70W             | Code                       | CL2827/09-02S-G5       | Code           | HPS70W     |        |
| Name                      | 70W Road Light DPS 22C | Name                       | 70W Road Light DPS 22C | Number         | 1          |        |
| Line                      | S.O.K. doo 2009        | Date                       | 09-11-2009             | Position       | NA         |        |
| Efficiency                | 84.82%                 | Coordinate system          | C-G Roads              | Total Flux     | 5729.45 lm |        |
| Maximum value             | 531.77 cd/klm          | Position                   | C=90.00 G=10.00        | Sym. on planes | 270-90     |        |
| Rectangular Luminaire     | Length                 | 500 mm                     | Width                  | 230 mm         | Height     | 125 mm |
| Rectangular Luminous Area | Length                 | 250 mm                     | Width                  | 170 mm         | Height     | 20 mm  |
| Horizontal Luminous Area  | 0.042500 m2            | Emitting area on Plane 180 | 0.005000 m2            |                |            |        |
| Emitting area on Plane 0  | 0.005000 m2            | Emitting area on Plane 270 | 0.003400 m2            |                |            |        |
| Emitting area on Plane 90 | 0.003400 m2            | Glare area at 76           | 0.015133 m2            |                |            |        |
| Symmetry Type             | Sym. on planes 270-90  | Maximum Gamma Angle        | 180                    |                |            |        |
| Measurement Distance      | 9.05                   | Measurement Flux           | 5729.45 lm             |                |            |        |
| Operator                  | Danie                  | Source Voltage             | 230.00 V               |                |            |        |
| Temperature               | 25.00                  | Source Current             |                        |                |            |        |
| Humidity                  | 60.00 %                | Photocell                  | Czibula&Grundmann      |                |            |        |
| Notes                     |                        |                            |                        |                |            |        |

| Line   | Lamp            | Luminaire Lamps |                 |     | Flux[lm] | Pow.[w] | Qta |
|--------|-----------------|-----------------|-----------------|-----|----------|---------|-----|
|        |                 | Code            | Name            |     |          |         |     |
|        |                 | HPS70W          | LENTING HPS-70W |     | 5729.45  | 70.00   | 1   |
| C.I.E. | 53 81 97 100 85 |                 | D DIN 5040      | A40 |          |         |     |



ULOR 0.25 %  
DLOR 84.57 %  
RN 0.29 %



|                  |                        |                    |                        |             |        |
|------------------|------------------------|--------------------|------------------------|-------------|--------|
| <b>Luminaire</b> |                        | <b>Measurement</b> |                        | <b>Lamp</b> |        |
| Code             | DPS22C 70W             | Code               | CL2827/09-02S-G5       | Code        | HPS70W |
| Name             | 70W Road Light DPS 22C | Name               | 70W Road Light DPS 22C | Number      | 1      |
| Line             | S.O.K. doo 2009        | Date               | 12-11-2009             | Position    | NA     |

|            |        |                   |           |            |            |
|------------|--------|-------------------|-----------|------------|------------|
| Efficiency | 84.82% | Coordinate system | C-G Roads | Total Flux | 5729.45 lm |
|------------|--------|-------------------|-----------|------------|------------|

|        |        | Luminous Intensity Table cd/klm Table 1/2 |          |          |          |          |          |          |          |          |          |
|--------|--------|-------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|        |        | C 270.00                                  | C 285.00 | C 300.00 | C 310.00 | C 315.00 | C 320.00 | C 325.00 | C 330.00 | C 335.00 | C 340.00 |
| G 0.0  | 438.63 | 438.63                                    | 438.63   | 438.63   | 438.63   | 438.63   | 438.63   | 438.63   | 438.63   | 438.63   | 438.63   |
| G 10.0 | 273.66 | 279.66                                    | 291.38   | 301.23   | 304.87   | 311.45   | 313.25   | 322.27   | 327.50   | 337.24   | 337.24   |
| G 20.0 | 169.99 | 176.46                                    | 181.49   | 190.58   | 198.09   | 207.54   | 218.68   | 231.52   | 244.17   | 259.45   | 259.45   |
| G 30.0 | 136.36 | 138.49                                    | 143.62   | 148.10   | 152.54   | 157.72   | 164.49   | 174.67   | 188.57   | 205.86   | 205.86   |
| G 35.0 | 126.07 | 128.10                                    | 132.49   | 134.96   | 138.31   | 142.98   | 150.22   | 159.21   | 172.84   | 190.33   | 190.33   |
| G 40.0 | 115.89 | 118.45                                    | 122.57   | 125.27   | 129.40   | 132.30   | 138.61   | 146.07   | 156.01   | 169.61   | 169.61   |
| G 45.0 | 105.22 | 107.95                                    | 113.04   | 116.78   | 120.63   | 123.68   | 127.78   | 131.94   | 139.02   | 150.05   | 150.05   |
| G 47.5 | 99.86  | 103.00                                    | 108.62   | 112.87   | 116.13   | 119.78   | 121.27   | 125.76   | 131.32   | 140.68   | 140.68   |
| G 50.0 | 93.32  | 97.54                                     | 104.02   | 108.74   | 112.93   | 113.82   | 116.66   | 120.10   | 125.11   | 132.98   | 132.98   |
| G 52.5 | 85.66  | 91.27                                     | 98.96    | 104.95   | 107.83   | 109.14   | 111.03   | 113.90   | 117.31   | 124.79   | 124.79   |
| G 55.0 | 77.23  | 83.96                                     | 94.91    | 101.46   | 102.29   | 104.43   | 105.83   | 107.37   | 110.20   | 118.50   | 118.50   |
| G 57.5 | 64.85  | 75.22                                     | 89.94    | 95.65    | 97.72    | 98.97    | 98.27    | 98.85    | 105.15   | 115.51   | 115.51   |
| G 60.0 | 48.75  | 60.63                                     | 84.34    | 90.28    | 91.81    | 91.99    | 91.67    | 96.14    | 104.57   | 117.48   | 117.48   |
| G 62.5 | 32.90  | 46.21                                     | 76.42    | 84.97    | 85.57    | 84.84    | 88.43    | 95.36    | 105.95   | 117.45   | 117.45   |
| G 65.0 | 19.22  | 31.50                                     | 60.80    | 78.28    | 77.50    | 81.01    | 88.46    | 96.85    | 106.22   | 117.00   | 117.00   |
| G 67.5 | 10.27  | 18.63                                     | 45.65    | 70.20    | 73.82    | 78.69    | 90.36    | 96.36    | 104.96   | 113.18   | 113.18   |
| G 70.0 | 8.09   | 9.58                                      | 31.35    | 61.53    | 69.36    | 81.09    | 85.48    | 91.03    | 82.29    | 86.54    | 86.54    |
| G 72.5 | 6.35   | 7.41                                      | 17.61    | 47.81    | 62.06    | 65.99    | 52.99    | 49.96    | 37.14    | 38.07    | 38.07    |
| G 75.0 | 4.71   | 5.67                                      | 8.07     | 36.57    | 34.43    | 27.34    | 16.21    | 15.37    | 14.47    | 18.46    | 18.46    |
| G 77.5 | 3.25   | 4.07                                      | 5.39     | 15.50    | 7.77     | 8.25     | 8.36     | 9.50     | 10.16    | 13.05    | 13.05    |
| G 80.0 | 2.08   | 2.76                                      | 3.81     | 5.02     | 5.13     | 5.67     | 5.86     | 6.62     | 7.02     | 8.85     | 8.85     |
| G 82.5 | 1.38   | 1.83                                      | 2.68     | 3.38     | 3.49     | 3.88     | 4.02     | 4.55     | 4.74     | 5.62     | 5.62     |
| G 85.0 | 0.68   | 1.26                                      | 1.91     | 2.35     | 2.41     | 2.66     | 2.76     | 3.08     | 3.26     | 3.66     | 3.66     |
| G 87.5 | 0.38   | 0.88                                      | 1.44     | 1.83     | 1.96     | 2.17     | 2.34     | 2.59     | 2.81     | 3.17     | 3.17     |
| G 90.0 | 0.37   | 0.64                                      | 1.15     | 1.56     | 1.72     | 1.92     | 2.11     | 2.34     | 2.59     | 2.87     | 2.87     |
| G 92.5 | 0.43   | 0.56                                      | 0.98     | 1.37     | 1.54     | 1.75     | 1.96     | 2.20     | 2.44     | 2.71     | 2.71     |
| G 95.0 | 0.51   | 0.57                                      | 0.91     | 1.26     | 1.43     | 1.61     | 1.83     | 2.08     | 2.34     | 2.59     | 2.59     |
| G 97.5 | 0.60   | 0.65                                      | 0.92     | 1.19     | 1.37     | 1.56     | 1.78     | 2.02     | 2.28     | 2.52     | 2.52     |
| G100.0 | 0.70   | 0.75                                      | 1.00     | 1.20     | 1.36     | 1.53     | 1.76     | 2.00     | 2.28     | 2.51     | 2.51     |
| G102.5 | 0.81   | 0.87                                      | 1.09     | 1.29     | 1.46     | 1.60     | 1.83     | 2.04     | 2.32     | 2.54     | 2.54     |
| G105.0 | 0.00   | 0.00                                      | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     |
| G120.0 | 0.00   | 0.00                                      | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     |
| G135.0 | 0.00   | 0.00                                      | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     |
| G150.0 | 0.00   | 0.00                                      | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     |
| G165.0 | 0.00   | 0.00                                      | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     |
| G180.0 | 0.00   | 0.00                                      | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     |

|        |        | C 345.00 | C 350.00 | C 355.00 | C 0.00 | C 5.00 | C 10.00 | C 15.00 | C 20.00 | C 25.00 | C 30.00 |
|--------|--------|----------|----------|----------|--------|--------|---------|---------|---------|---------|---------|
| G 0.0  | 438.63 | 438.63   | 438.63   | 438.63   | 438.63 | 438.63 | 438.63  | 438.63  | 438.63  | 438.63  | 438.63  |
| G 10.0 | 343.04 | 353.45   | 359.87   | 372.30   | 393.56 | 401.00 | 414.58  | 423.11  | 438.67  | 447.07  | 447.07  |
| G 20.0 | 274.02 | 291.05   | 305.51   | 322.34   | 343.30 | 357.49 | 372.77  | 384.55  | 400.96  | 409.39  | 409.39  |
| G 30.0 | 227.09 | 252.50   | 279.10   | 305.46   | 328.23 | 350.79 | 365.83  | 377.21  | 382.28  | 379.72  | 379.72  |
| G 35.0 | 212.20 | 240.11   | 269.33   | 301.04   | 331.41 | 354.74 | 371.46  | 378.70  | 381.18  | 369.75  | 369.75  |
| G 40.0 | 188.71 | 217.26   | 249.94   | 286.49   | 321.61 | 345.75 | 360.36  | 360.14  | 356.53  | 335.78  | 335.78  |
| G 45.0 | 167.01 | 194.57   | 227.26   | 266.72   | 308.08 | 329.90 | 339.10  | 329.66  | 315.33  | 283.36  | 283.36  |
| G 47.5 | 157.10 | 183.61   | 216.64   | 255.61   | 291.68 | 311.64 | 318.67  | 307.02  | 292.63  | 256.24  | 256.24  |
| G 50.0 | 146.95 | 172.73   | 205.84   | 244.95   | 282.01 | 299.22 | 303.26  | 286.18  | 264.16  | 225.43  | 225.43  |
| G 52.5 | 139.36 | 165.27   | 199.33   | 238.29   | 272.68 | 290.80 | 291.62  | 273.41  | 246.28  | 204.04  | 204.04  |
| G 55.0 | 134.52 | 161.59   | 197.11   | 234.64   | 266.78 | 283.96 | 284.23  | 264.27  | 234.78  | 191.48  | 191.48  |
| G 57.5 | 134.89 | 162.45   | 197.46   | 235.12   | 265.07 | 281.37 | 279.25  | 259.57  | 228.17  | 185.22  | 185.22  |
| G 60.0 | 135.63 | 161.87   | 196.93   | 234.33   | 264.11 | 280.87 | 276.94  | 254.22  | 220.39  | 176.21  | 176.21  |
| G 62.5 | 135.09 | 161.63   | 197.96   | 237.33   | 265.79 | 282.74 | 278.05  | 254.13  | 216.35  | 170.73  | 170.73  |
| G 65.0 | 133.26 | 158.93   | 196.49   | 239.50   | 271.05 | 287.67 | 279.64  | 250.65  | 210.17  | 163.36  | 163.36  |
| G 67.5 | 125.35 | 152.44   | 183.99   | 229.82   | 271.78 | 285.41 | 276.82  | 244.65  | 203.46  | 156.55  | 156.55  |
| G 70.0 | 83.57  | 103.52   | 129.43   | 180.23   | 246.10 | 256.14 | 260.15  | 222.16  | 187.20  | 139.08  | 139.08  |
| G 72.5 | 35.97  | 57.48    | 87.53    | 133.48   | 191.09 | 198.01 | 196.19  | 160.05  | 140.74  | 105.89  | 105.89  |
| G 75.0 | 25.07  | 42.31    | 69.57    | 109.47   | 154.13 | 159.85 | 151.11  | 113.85  | 86.08   | 54.23   | 54.23   |
| G 77.5 | 17.51  | 30.34    | 48.95    | 78.32    | 120.56 | 119.92 | 114.33  | 82.88   | 60.77   | 35.12   | 35.12   |
| G 80.0 | 11.06  | 18.21    | 26.60    | 44.77    | 79.83  | 75.97  | 75.30   | 51.29   | 38.51   | 22.72   | 22.72   |
| G 82.5 | 6.28   | 9.02     | 11.13    | 17.32    | 38.13  | 33.58  | 36.36   | 24.27   | 20.35   | 12.22   | 12.22   |
| G 85.0 | 3.96   | 4.69     | 5.23     | 6.32     | 11.44  | 9.59   | 11.19   | 8.01    | 7.88    | 5.64    | 5.64    |
| G 87.5 | 3.47   | 4.02     | 4.55     | 5.27     | 6.16   | 6.16   | 6.07    | 5.37    | 4.82    | 3.91    | 3.91    |
| G 90.0 | 3.17   | 3.59     | 4.00     | 4.48     | 4.98   | 4.92   | 4.90    | 4.28    | 3.85    | 3.18    | 3.18    |
| G 92.5 | 2.96   | 3.29     | 3.58     | 3.95     | 4.25   | 4.21   | 4.13    | 3.70    | 3.32    | 2.70    | 2.70    |
| G 95.0 | 2.83   | 3.05     | 3.20     | 3.39     | 3.61   | 3.52   | 3.51    | 3.06    | 2.76    | 2.30    | 2.30    |
| G 97.5 | 2.72   | 2.88     | 2.91     | 2.94     | 3.02   | 2.89   | 2.85    | 2.44    | 2.24    | 1.76    | 1.76    |
| G100.0 | 2.71   | 2.80     | 2.79     | 2.68     | 2.41   | 2.22   | 2.07    | 1.84    | 1.71    | 1.48    | 1.48    |
| G102.5 | 2.72   | 2.80     | 2.75     | 2.60     | 2.22   | 2.02   | 1.85    | 1.62    | 1.48    | 1.30    | 1.30    |
| G105.0 | 0.00   | 0.00     | 0.00     | 0.00     | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G120.0 | 0.00   | 0.00     | 0.00     | 0.00     | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G135.0 | 0.00   | 0.00     | 0.00     | 0.00     | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G150.0 | 0.00   | 0.00     | 0.00     | 0.00     | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G165.0 | 0.00   | 0.00     | 0.00     | 0.00     | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G180.0 | 0.00   | 0.00     | 0.00     | 0.00     | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |

|                  |                        |                    |                        |             |        |
|------------------|------------------------|--------------------|------------------------|-------------|--------|
| <b>Luminaire</b> |                        | <b>Measurement</b> |                        | <b>Lamp</b> |        |
| Code             | DPS22C 70W             | Code               | CL2827/09-02S-G5       | Code        | HPS70W |
| Name             | 70W Road Light DPS 22C | Name               | 70W Road Light DPS 22C | Number      | 1      |
| Line             | S.O.K. doo 2009        | Date               | 12-11-2009             | Position    | NA     |

|            |        |                   |           |            |            |
|------------|--------|-------------------|-----------|------------|------------|
| Efficiency | 84.82% | Coordinate system | C-G Roads | Total Flux | 5729.45 lm |
|------------|--------|-------------------|-----------|------------|------------|

**Luminous Intensity Table cd/klm Table 2/2**

|        | C 35.00 | C 40.00 | C 45.00 | C 50.00 | C 60.00 | C 75.00 | C 90.00 |
|--------|---------|---------|---------|---------|---------|---------|---------|
| G 0.0  | 438.63  | 438.63  | 438.63  | 438.63  | 438.63  | 438.63  | 438.63  |
| G 10.0 | 463.93  | 469.22  | 485.87  | 489.97  | 514.32  | 523.82  | 531.77  |
| G 20.0 | 422.98  | 425.26  | 434.71  | 435.30  | 449.89  | 462.59  | 476.79  |
| G 30.0 | 378.18  | 367.81  | 371.13  | 362.55  | 359.71  | 325.94  | 331.34  |
| G 35.0 | 359.86  | 336.62  | 324.72  | 305.93  | 297.14  | 257.48  | 255.05  |
| G 40.0 | 318.72  | 288.40  | 271.97  | 246.32  | 227.45  | 190.76  | 183.03  |
| G 45.0 | 258.36  | 224.81  | 212.72  | 189.94  | 166.65  | 131.96  | 121.16  |
| G 47.5 | 228.25  | 192.98  | 178.69  | 160.21  | 142.59  | 110.06  | 100.44  |
| G 50.0 | 195.53  | 163.07  | 151.52  | 135.57  | 119.26  | 90.85   | 84.18   |
| G 52.5 | 170.78  | 138.07  | 125.92  | 113.66  | 102.08  | 80.13   | 72.35   |
| G 55.0 | 155.06  | 122.48  | 108.08  | 96.41   | 89.48   | 71.54   | 63.28   |
| G 57.5 | 147.92  | 115.74  | 96.59   | 83.82   | 80.96   | 63.70   | 55.00   |
| G 60.0 | 142.28  | 112.90  | 92.86   | 78.16   | 73.94   | 56.73   | 46.32   |
| G 62.5 | 135.72  | 106.81  | 91.66   | 78.95   | 68.16   | 49.77   | 36.40   |
| G 65.0 | 127.99  | 100.17  | 84.51   | 73.64   | 64.99   | 40.78   | 30.68   |
| G 67.5 | 125.54  | 97.48   | 81.96   | 70.55   | 61.56   | 33.66   | 25.36   |
| G 70.0 | 111.11  | 89.29   | 79.66   | 68.14   | 56.99   | 26.32   | 20.71   |
| G 72.5 | 98.78   | 83.11   | 71.72   | 62.59   | 51.47   | 17.89   | 13.87   |
| G 75.0 | 54.55   | 47.22   | 63.44   | 59.67   | 44.55   | 9.99    | 10.69   |
| G 77.5 | 24.27   | 17.24   | 26.55   | 30.29   | 38.01   | 7.02    | 7.75    |
| G 80.0 | 16.09   | 10.91   | 10.59   | 8.81    | 10.71   | 4.77    | 4.91    |
| G 82.5 | 9.75    | 6.87    | 6.32    | 4.94    | 4.15    | 3.27    | 3.01    |
| G 85.0 | 5.34    | 4.12    | 4.03    | 3.27    | 3.00    | 2.16    | 1.57    |
| G 87.5 | 3.52    | 2.98    | 2.76    | 2.36    | 2.20    | 1.40    | 0.84    |
| G 90.0 | 2.86    | 2.41    | 2.22    | 1.88    | 1.64    | 0.86    | 0.42    |
| G 92.5 | 2.42    | 2.00    | 1.82    | 1.53    | 1.23    | 0.54    | 0.29    |
| G 95.0 | 2.02    | 1.65    | 1.48    | 1.23    | 0.92    | 0.43    | 0.32    |
| G 97.5 | 1.61    | 1.35    | 1.23    | 1.02    | 0.71    | 0.42    | 0.37    |
| G100.0 | 1.35    | 1.16    | 1.03    | 0.86    | 0.65    | 0.47    | 0.42    |
| G102.5 | 1.18    | 1.03    | 0.94    | 0.88    | 0.71    | 0.54    | 0.49    |
| G105.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G120.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G135.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G150.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G165.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G180.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |