

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

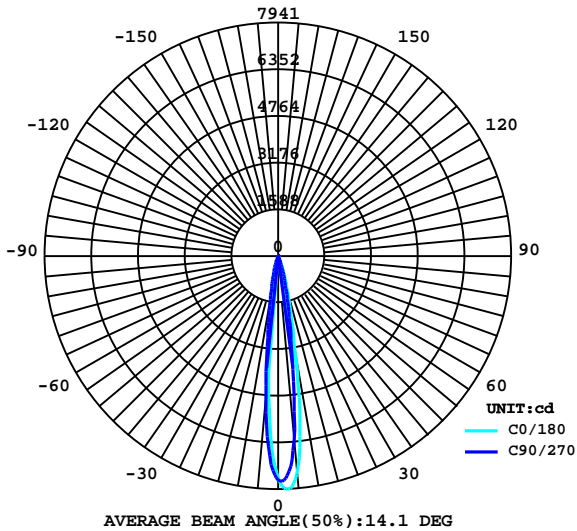
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

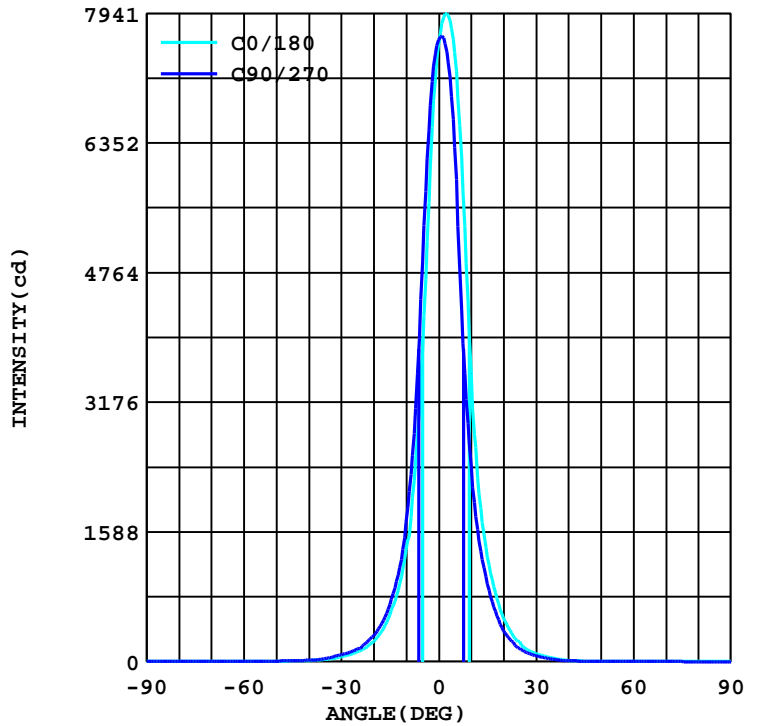
| | | | |
|----------------------------|--|--------------------------|----------------|
| MANUFACTURER: | | Address: | |
| NAME: SD-12-30K-SO-LV15-WH | | TYPE: | WEIGHT:N/A |
| SPECIFICATION: | | DIMENSION: 0.063X1X0.166 | SERIAL No.:N/A |

| | | | | | |
|------------------|----------|-----------------------|--------|------------------|-------|
| DATA OF LAMP | | I _{max} (cd) | 7941 | S/MH(C0/180) | 0.17 |
| MODEL | 3528 LED | EFFICIENCY(%) | 100.0 | S/MH(C90/270) | 0.21 |
| NOMINAL POWER(W) | 14 | TOTAL FLUX(lm) | 795.95 | Voltage(V) | 24.00 |
| RATED VOLTAGE(V) | 24 | EFFICIENCY(lm/W) | 59.4 | Current(A) | 0.558 |
| NOMINAL FLUX(lm) | 796.0 | η up(%) | 1.0 | Power(W) | 13.41 |
| LAMPS QUANTITY | 1 | η down(%) | 99.0 | Power Factor(PF) | 1.000 |
| TEST VOLTAGE(V) | 24.0 | Effective Flux(lm) | 0.0 | EEL | 0.000 |

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



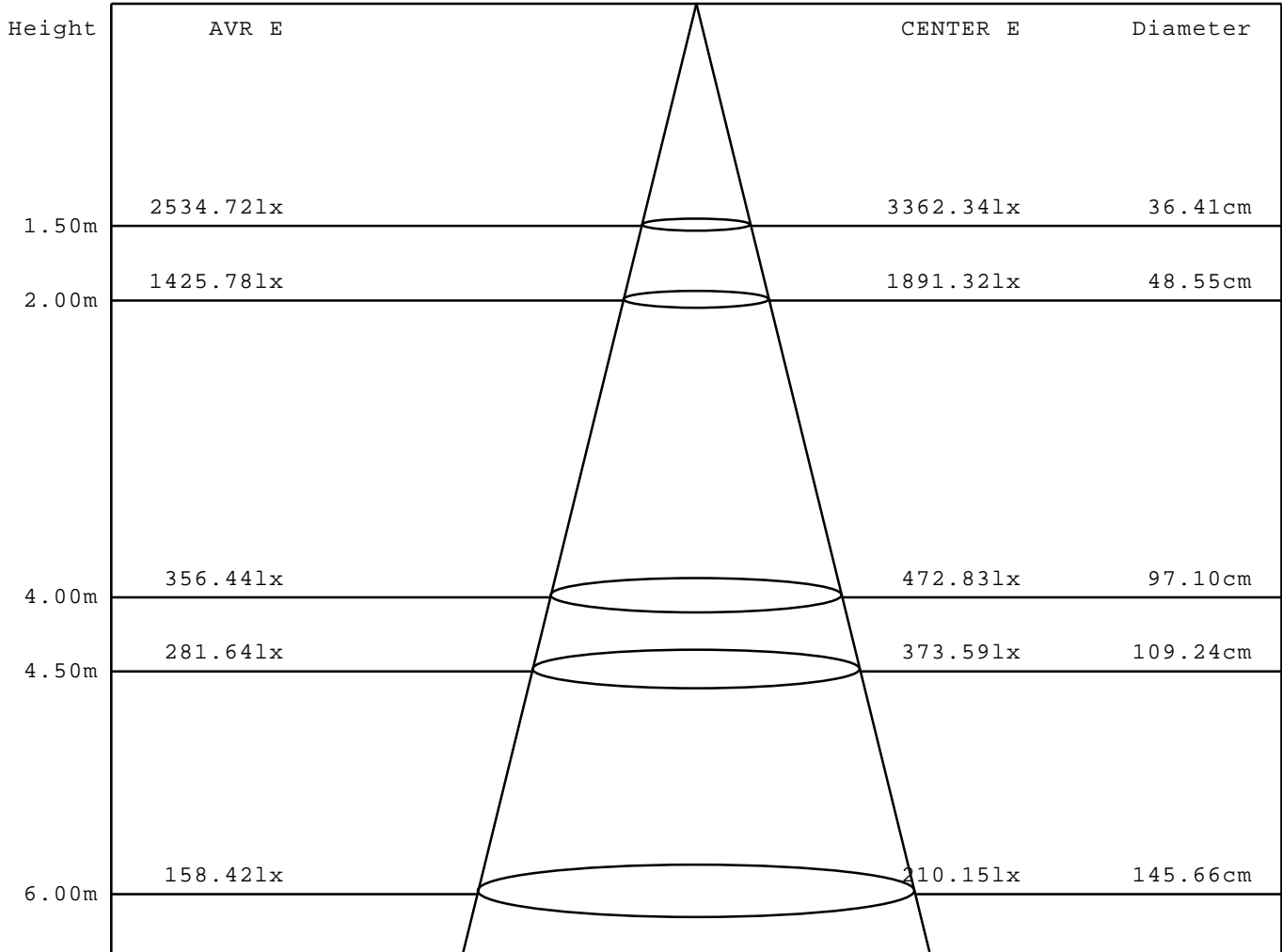
Test System:HOPOO
 Temperature:25.3DEG
 Operators:
 Test Date:06-06-2022

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:8.368 m
 Remarks: SD-12-30K-SO-15-WH

AVERAGE AND CENTER E Figure

Report number:

| | | |
|----------------------------|--------------------------|----------------|
| MANUFACTURER: | Address: | |
| NAME: SD-12-30K-SO-LV15-WH | TYPE: | WEIGHT:N/A |
| SPECIFICATION: | DIMENSION: 0.063X1X0.166 | SERIAL No.:N/A |



Angle:13.8deg

Test System:HOP00
 Temperature:25.3DEG
 Operators:
 Test Date:06-06-2022

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:8.368 m
 Remarks: SD-12-30K-SO-15-WH

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Report number:

| | | |
|-----------------------------------|---------------------------------|-----------------------|
| MANUFACTURER: | Address: | |
| NAME: SD-12-30K-SO-LV15-WH | TYPE: | WEIGHT:N/A |
| SPECIFICATION: | DIMENSION: 0.063X1X0.166 | SERIAL No.:N/A |

| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | Φ zone | Φ total |
|----------|-----------------------|-------|-------|-------|-------|-------|-------|-------|----------|-------------|--------------|
| 5.0 | 3821 | 4047 | 4899 | 5939 | 7455 | 7142 | 6301 | 5359 | 0- 5 | 158 | 158 |
| 10.0 | 1370 | 1403 | 1705 | 2146 | 3534 | 3058 | 2397 | 1943 | 5- 10 | 254 | 412 |
| 15.0 | 576.8 | 586.1 | 703.1 | 865.5 | 1281 | 1210 | 950.4 | 804.7 | 10- 15 | 163 | 574 |
| 20.0 | 248.2 | 255.7 | 320.0 | 380.3 | 535.3 | 514.1 | 383.3 | 341.0 | 15- 20 | 95 | 669 |
| 25.0 | 118.6 | 119.0 | 158.0 | 169.4 | 244.5 | 205.2 | 157.4 | 148.5 | 20- 25 | 52 | 722 |
| 30.0 | 59.09 | 63.86 | 85.14 | 83.18 | 98.94 | 96.49 | 72.33 | 73.38 | 25- 30 | 29 | 750 |
| 35.0 | 25.90 | 26.74 | 36.76 | 42.50 | 45.79 | 49.85 | 29.97 | 36.69 | 30- 35 | 16 | 767 |
| 40.0 | 14.84 | 8.892 | 18.20 | 12.39 | 14.63 | 21.42 | 11.06 | 15.54 | 35- 40 | 8 | 775 |
| 45.0 | 9.033 | 4.341 | 11.20 | 5.391 | 7.002 | 10.99 | 5.671 | 9.243 | 40- 45 | 4 | 779 |
| 50.0 | 5.671 | 2.100 | 6.372 | 2.520 | 3.151 | 7.002 | 2.660 | 6.162 | 45- 50 | 2 | 781 |
| 55.0 | 4.341 | 1.050 | 4.691 | 1.190 | 1.750 | 4.971 | 1.400 | 4.481 | 50- 55 | 2 | 783 |
| 60.0 | 3.431 | 0.560 | 3.711 | 0.700 | 1.120 | 3.991 | 0.770 | 3.571 | 55- 60 | 1 | 784 |
| 65.0 | 2.870 | 0.280 | 3.081 | 0.280 | 0.630 | 3.151 | 0.350 | 2.940 | 60- 65 | 1 | 785 |
| 70.0 | 2.450 | 0.070 | 2.520 | 0.140 | 0.350 | 2.730 | 0.210 | 2.450 | 65- 70 | 1 | 786 |
| 75.0 | 2.100 | 0 | 2.240 | 0 | 0.280 | 2.310 | 0.070 | 2.170 | 70- 75 | 1 | 786 |
| 80.0 | 1.890 | 0 | 1.960 | 0 | 0.140 | 2.030 | 0 | 1.890 | 75- 80 | 1 | 787 |
| 85.0 | 1.680 | 0 | 1.750 | 0 | 0.140 | 1.820 | 0 | 1.680 | 80- 85 | 1 | 787 |
| 90.0 | 1.540 | 0 | 1.540 | 0 | 0.140 | 1.610 | 0 | 1.540 | 85- 90 | 0 | 788 |
| 95.0 | 1.400 | 0 | 1.470 | 0 | 0.140 | 1.540 | 0 | 1.470 | 90- 95 | 0 | 788 |
| 100.0 | 1.330 | 0 | 1.330 | 0 | 0.210 | 1.400 | 0 | 1.330 | 95-100 | 0 | 789 |
| 105.0 | 1.260 | 0 | 1.260 | 0 | 0.210 | 1.330 | 0 | 1.260 | 100-105 | 0 | 789 |
| 110.0 | 1.190 | 0 | 1.190 | 0 | 0.280 | 1.260 | 0.070 | 1.190 | 105-110 | 0 | 789 |
| 115.0 | 1.120 | 0 | 1.120 | 0 | 0.280 | 1.190 | 0.070 | 1.050 | 110-115 | 0 | 790 |
| 120.0 | 1.050 | 0.070 | 1.050 | 0 | 0.350 | 1.120 | 0.140 | 1.050 | 115-120 | 0 | 790 |
| 125.0 | 0.980 | 0.070 | 0.980 | 0.070 | 0.350 | 1.050 | 0.140 | 1.050 | 120-125 | 0 | 790 |
| 130.0 | 0.980 | 0.140 | 0.910 | 0.140 | 0.420 | 1.050 | 0.210 | 1.050 | 125-130 | 0 | 790 |
| 135.0 | 0.980 | 0.280 | 0.910 | 0.140 | 0.560 | 1.120 | 0.420 | 1.120 | 130-135 | 0 | 791 |
| 140.0 | 1.050 | 0.420 | 0.980 | 0.350 | 0.840 | 1.260 | 0.630 | 1.400 | 135-140 | 0 | 791 |
| 145.0 | 1.330 | 0.770 | 1.120 | 0.560 | 1.330 | 1.750 | 1.260 | 2.100 | 140-145 | 0 | 791 |
| 150.0 | 1.890 | 1.540 | 1.540 | 1.050 | 2.240 | 2.940 | 2.380 | 3.571 | 145-150 | 0 | 792 |
| 155.0 | 3.081 | 3.011 | 2.520 | 2.170 | 3.641 | 4.901 | 3.991 | 5.811 | 150-155 | 1 | 792 |
| 160.0 | 4.621 | 5.111 | 4.271 | 4.061 | 5.181 | 7.002 | 5.741 | 7.772 | 155-160 | 1 | 793 |
| 165.0 | 5.951 | 6.512 | 6.162 | 5.881 | 6.442 | 8.332 | 7.142 | 8.612 | 160-165 | 1 | 794 |
| 170.0 | 6.442 | 6.232 | 6.932 | 6.372 | 7.282 | 8.332 | 7.842 | 7.982 | 165-170 | 1 | 795 |
| 175.0 | 6.232 | 5.251 | 6.442 | 5.531 | 7.212 | 7.142 | 7.282 | 6.442 | 170-175 | 0 | 796 |
| 180.0 | 6.512 | 5.461 | 6.302 | 5.181 | 6.652 | 5.741 | 6.092 | 5.391 | 175-180 | 0 | 796 |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | UNIT:lm | | |

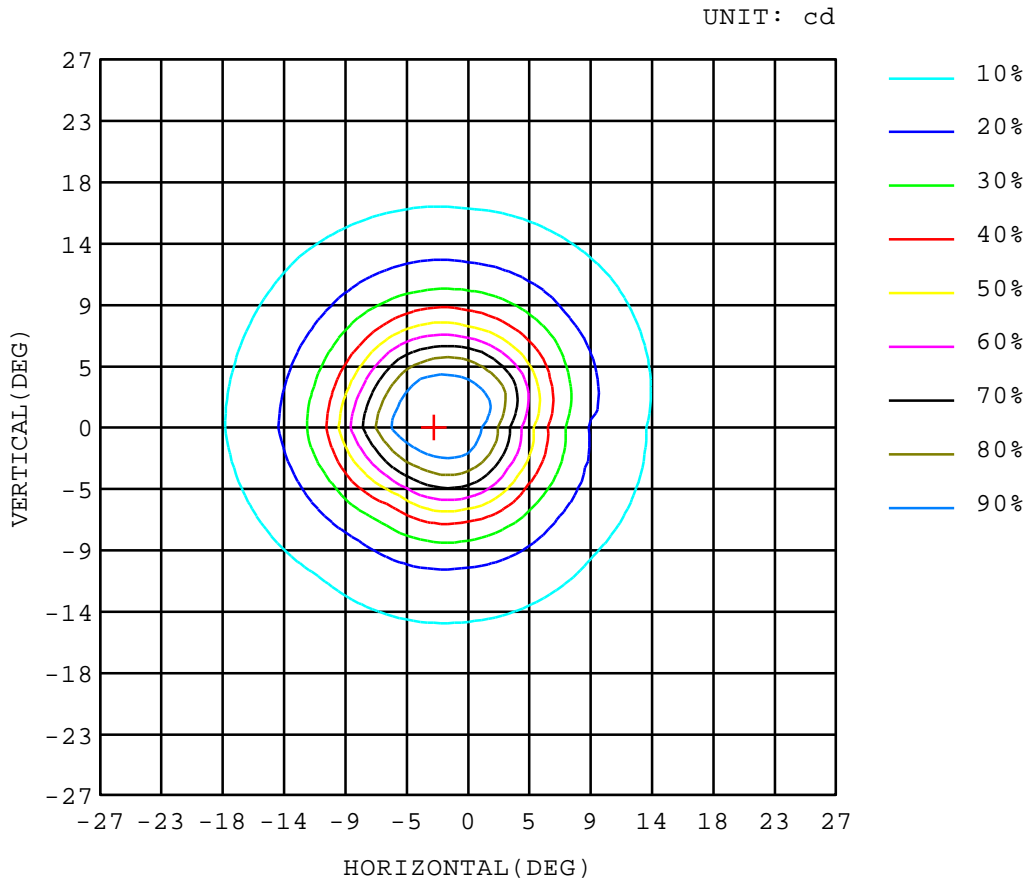
Test System:HOPOO
 Temperature:25.3DEG
 Operators:
 Test Date:06-06-2022

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:8.368 m
 Remarks: SD-12-30K-SO-15-WH

ISOCANDELA DIAGRAM

Report number:

| | | |
|----------------------------|--------------------------|----------------|
| MANUFACTURER: | Address: | |
| NAME: SD-12-30K-SO-LV15-WH | TYPE: | WEIGHT:N/A |
| SPECIFICATION: | DIMENSION: 0.063X1X0.166 | SERIAL No.:N/A |



Test System:HOPOO
 Temperature:25.3DEG
 Operators:
 Test Date:06-06-2022

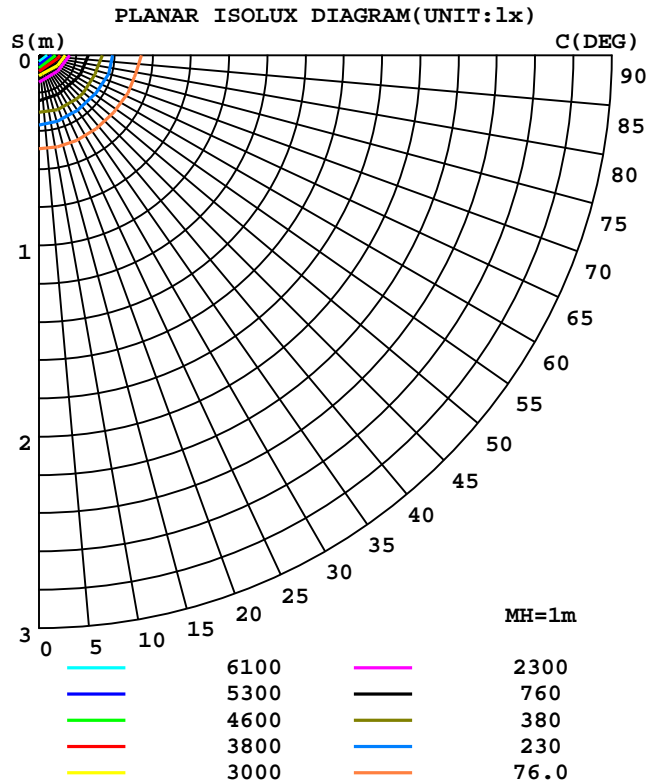
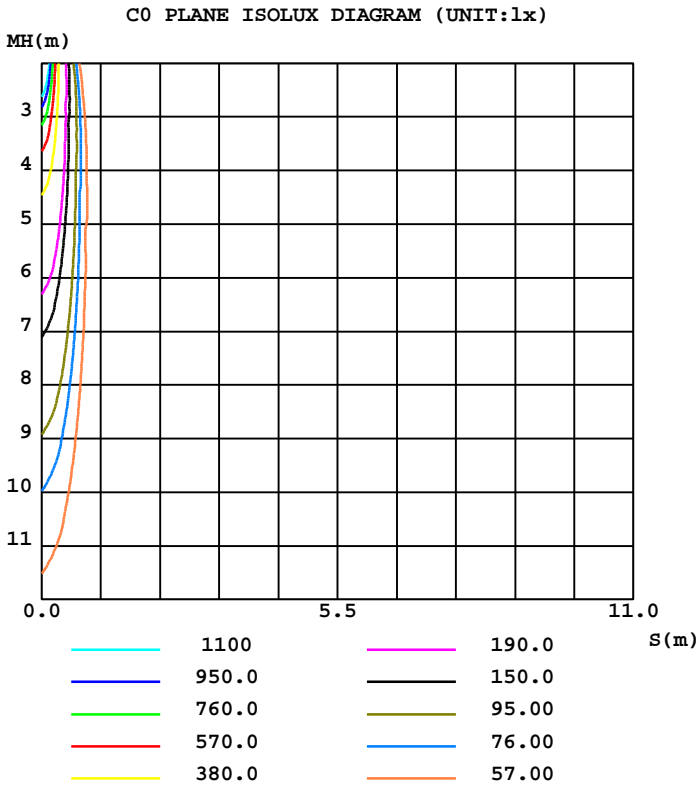
Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:8.368 m
 Remarks: SD-12-30K-SO-15-WH

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Report number:

| | | |
|----------------------------|--------------------------|----------------|
| MANUFACTURER: | Address: | |
| NAME: SD-12-30K-SO-LV15-WH | TYPE: | WEIGHT:N/A |
| SPECIFICATION: | DIMENSION: 0.063X1X0.166 | SERIAL No.:N/A |



Test System:HOP00
 Temperature:25.3DEG
 Operators:
 Test Date:06-06-2022

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:8.368 m
 Remarks: SD-12-30K-SO-15-WH

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

| | | |
|-----------------------------------|---------------------------------|-----------------------|
| MANUFACTURER: | Address: | |
| NAME: SD-12-30K-SO-LV15-WH | TYPE: | WEIGHT:N/A |
| SPECIFICATION: | DIMENSION: 0.063X1X0.166 | SERIAL No.:N/A |

UNIT: cd

| C(DEG)\ γ (DEG) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
|--------------------|------|------|------|------|------|------|------|------|
| 0.0 | 7565 | 7548 | 7619 | 7700 | 7565 | 7548 | 7619 | 7700 |
| 5.0 | 3821 | 4047 | 4899 | 5939 | 7455 | 7142 | 6301 | 5359 |
| 10.0 | 1370 | 1403 | 1705 | 2146 | 3534 | 3058 | 2397 | 1943 |
| 15.0 | 577 | 586 | 703 | 866 | 1281 | 1210 | 950 | 805 |
| 20.0 | 248 | 256 | 320 | 380 | 535 | 514 | 383 | 341 |
| 25.0 | 119 | 119 | 158 | 169 | 245 | 205 | 157 | 149 |
| 30.0 | 59.0 | 63.8 | 85.1 | 83.1 | 98.9 | 96.4 | 72.3 | 73.3 |
| 35.0 | 25.9 | 26.7 | 36.7 | 42.5 | 45.7 | 49.8 | 29.9 | 36.6 |
| 40.0 | 14.8 | 8.89 | 18.2 | 12.3 | 14.6 | 21.4 | 11.0 | 15.5 |
| 45.0 | 9.03 | 4.34 | 11.2 | 5.39 | 7.00 | 10.9 | 5.67 | 9.24 |
| 50.0 | 5.67 | 2.10 | 6.37 | 2.52 | 3.15 | 7.00 | 2.66 | 6.16 |
| 55.0 | 4.34 | 1.05 | 4.69 | 1.19 | 1.75 | 4.97 | 1.40 | 4.48 |
| 60.0 | 3.43 | 0.56 | 3.71 | 0.70 | 1.12 | 3.99 | 0.77 | 3.57 |
| 65.0 | 2.87 | 0.28 | 3.08 | 0.28 | 0.63 | 3.15 | 0.35 | 2.94 |
| 70.0 | 2.45 | 0.07 | 2.52 | 0.14 | 0.35 | 2.73 | 0.21 | 2.45 |
| 75.0 | 2.10 | 0.00 | 2.24 | 0.00 | 0.28 | 2.31 | 0.07 | 2.17 |
| 80.0 | 1.89 | 0.00 | 1.96 | 0.00 | 0.14 | 2.03 | 0.00 | 1.89 |
| 85.0 | 1.68 | 0.00 | 1.75 | 0.00 | 0.14 | 1.82 | 0.00 | 1.68 |
| 90.0 | 1.54 | 0.00 | 1.54 | 0.00 | 0.14 | 1.61 | 0.00 | 1.54 |
| 95.0 | 1.40 | 0.00 | 1.47 | 0.00 | 0.14 | 1.54 | 0.00 | 1.47 |
| 100.0 | 1.33 | 0.00 | 1.33 | 0.00 | 0.21 | 1.40 | 0.00 | 1.33 |
| 105.0 | 1.26 | 0.00 | 1.26 | 0.00 | 0.21 | 1.33 | 0.00 | 1.26 |
| 110.0 | 1.19 | 0.00 | 1.19 | 0.00 | 0.28 | 1.26 | 0.07 | 1.19 |
| 115.0 | 1.12 | 0.00 | 1.12 | 0.00 | 0.28 | 1.19 | 0.07 | 1.05 |
| 120.0 | 1.05 | 0.07 | 1.05 | 0.00 | 0.35 | 1.12 | 0.14 | 1.05 |
| 125.0 | 0.98 | 0.07 | 0.98 | 0.07 | 0.35 | 1.05 | 0.14 | 1.05 |
| 130.0 | 0.98 | 0.14 | 0.91 | 0.14 | 0.42 | 1.05 | 0.21 | 1.05 |
| 135.0 | 0.98 | 0.28 | 0.91 | 0.14 | 0.56 | 1.12 | 0.42 | 1.12 |
| 140.0 | 1.05 | 0.42 | 0.98 | 0.35 | 0.84 | 1.26 | 0.63 | 1.40 |
| 145.0 | 1.33 | 0.77 | 1.12 | 0.56 | 1.33 | 1.75 | 1.26 | 2.10 |
| 150.0 | 1.89 | 1.54 | 1.54 | 1.05 | 2.24 | 2.94 | 2.38 | 3.57 |
| 155.0 | 3.08 | 3.01 | 2.52 | 2.17 | 3.64 | 4.90 | 3.99 | 5.81 |
| 160.0 | 4.62 | 5.11 | 4.27 | 4.06 | 5.18 | 7.00 | 5.74 | 7.77 |
| 165.0 | 5.95 | 6.51 | 6.16 | 5.88 | 6.44 | 8.33 | 7.14 | 8.61 |
| 170.0 | 6.44 | 6.23 | 6.93 | 6.37 | 7.28 | 8.33 | 7.84 | 7.98 |
| 175.0 | 6.23 | 5.25 | 6.44 | 5.53 | 7.21 | 7.14 | 7.28 | 6.44 |
| 180.0 | 6.51 | 5.46 | 6.30 | 5.18 | 6.65 | 5.74 | 6.09 | 5.39 |

Test System:HOPOO
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 Operators:
 Test Date:06-06-2022

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:8.368 m
 Remarks: SD-12-30K-SO-15-WH