

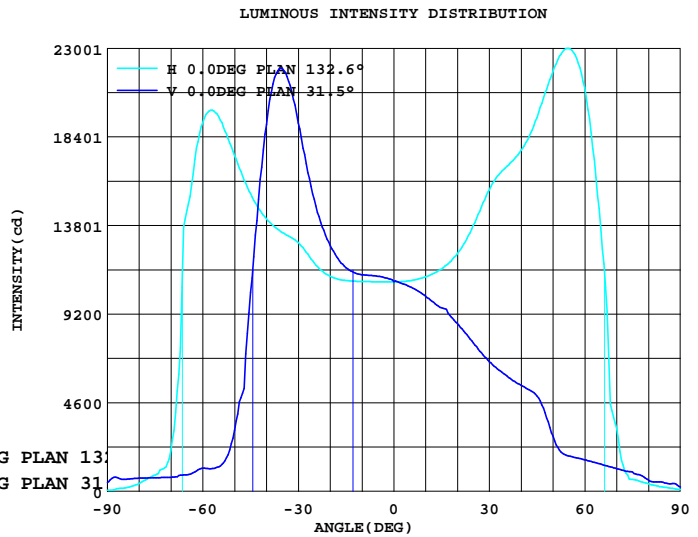
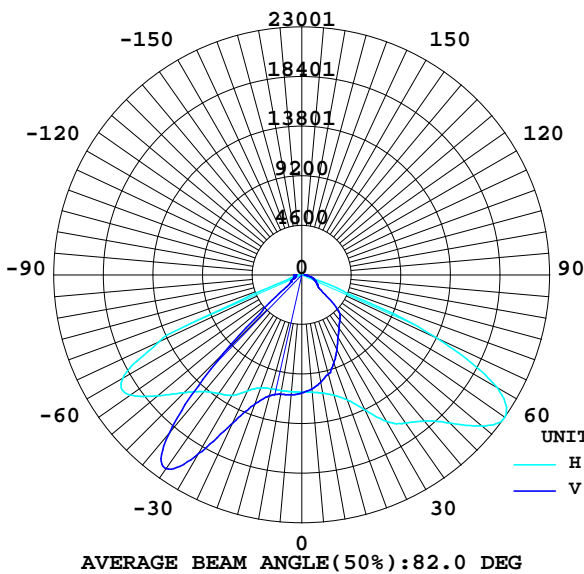
HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

| | | |
|----------------|------------|-------------|
| MANUFACTURER: | Address: | |
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |

| | | | | | |
|----------------------|---------|----------------------|---------------|------------------|-------|
| MODEL: | | | | | |
| NOMINAL POWER(W): | 406 | Imax(cd): | 29160 | Voltage(V) | 217.6 |
| RATED VOLTAGE(V): | 218 | AVAILABILITY(%): | 93.4 | Current(A) | 1.908 |
| NOMINAL FLUX(lm): | 46472 | Avai. FLUX(lm): | 43423 | Power(W) | 405.6 |
| TEST FLUX(lm): | 46472 | EFFICIENCY(%): | 100.0 | Power Factor(PF) | 0.977 |
| LAMPS QUANTITY : | 1 | TOTAL FLUX(lm): | 46472 | EFFICIENCY(lm/W) | 114.6 |
| Effective Flux(lm) : | 43423.2 | θ @50%(H, V): | 122.9,48.9DEG | EET: | 0.127 |



Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年03月04日

Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.690 m
 Remarks:

Color Temperature Data List

Report number:

| | | |
|----------------|------------|-------------|
| MANUFACTURER: | Address: | |
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |

Test System:HOPOO HPG1600
Temperature:25.3DEG
Operators:
Test Date:2019年03月04日

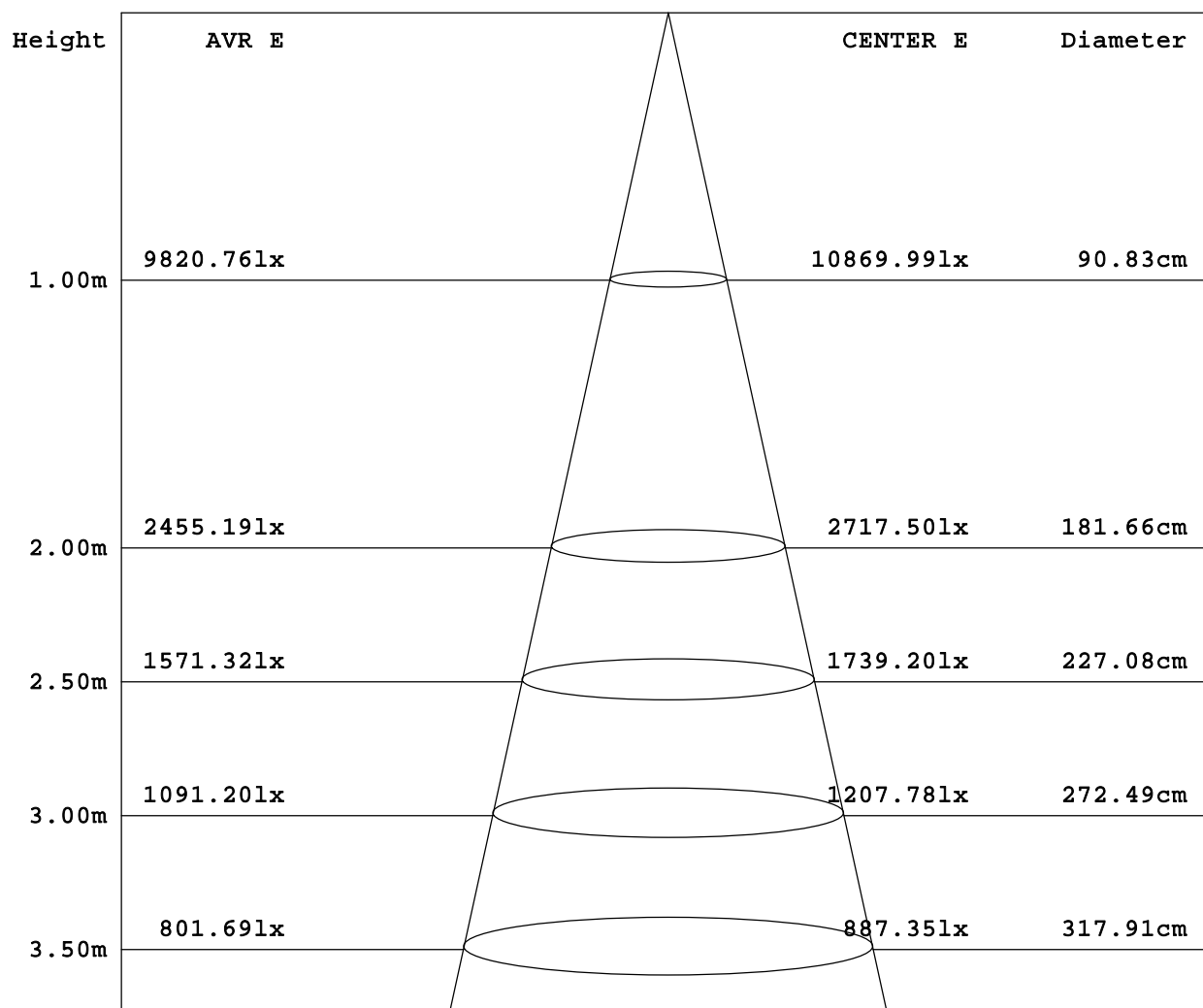
Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:5.690 m
Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

AVERAGE AND CENTER E Figure

Report number:

| | | |
|----------------|------------|-------------|
| MANUFACTURER: | Address: | |
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |



Angle: 48.9deg

Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年03月04日

Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.690 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

AREA LUMINOUS FLUX

Report number:

| | | |
|----------------|------------|-------------|
| MANUFACTURER: | Address: | |
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |

| VERTICAL (DEG) | AREA FLUX DIAGRAM | | | | | | | | | | | | | | | | | UNIT:lm | | Φ t | Φ a |
|----------------|-------------------|------|------|------|------|------|------|------|------------------|------|------|------|------|------|------|------|------|---------|-------|-------|-----|
| | 0.15 | 0.65 | 1.38 | 2.13 | 3.03 | 4.51 | 5.75 | 6.91 | 11.0 | 10.8 | 6.49 | 5.74 | 4.75 | 3.35 | 2.33 | 1.51 | 0.77 | 0.23 | 71.6 | 0.00 | |
| 90 | 0.22 | 1.58 | 3.38 | 5.86 | 10.0 | 15.2 | 18.8 | 22.8 | 26.9 | 26.5 | 21.7 | 18.2 | 14.3 | 9.39 | 5.38 | 3.03 | 1.42 | 0.33 | 206 | 0.00 | |
| 80 | 0.35 | 2.23 | 5.50 | 11.3 | 28.1 | 37.5 | 34.2 | 38.5 | 41.9 | 41.6 | 38.3 | 35.1 | 33.9 | 23.1 | 9.72 | 4.80 | 1.95 | 0.41 | 389 | 0.00 | |
| 70 | 0.43 | 2.99 | 9.09 | 25.3 | 61.5 | 80.1 | 71.8 | 64.8 | 60.1 | 62.8 | 73.4 | 87.6 | 81.6 | 53.9 | 20.4 | 7.41 | 2.66 | 0.48 | 767 | 310 | |
| 60 | 0.49 | 3.95 | 17.4 | 60.8 | 111 | 135 | 144 | 144 | 144 | 148 | 156 | 163 | 153 | 116 | 51.0 | 13.0 | 3.45 | 0.54 | 1566 | 1494 | |
| 50 | 0.54 | 5.14 | 34.3 | 119 | 156 | 165 | 172 | 180 | 184 | 188 | 192 | 194 | 203 | 196 | 116 | 26.6 | 4.13 | 0.59 | 2136 | 2094 | |
| 40 | 0.59 | 6.37 | 64.5 | 178 | 196 | 196 | 210 | 223 | 233 | 236 | 236 | 234 | 243 | 272 | 203 | 56.7 | 5.08 | 0.65 | 2795 | 2764 | |
| 30 | 0.62 | 7.31 | 109 | 238 | 242 | 249 | 262 | 274 | 286 | 290 | 297 | 306 | 312 | 338 | 292 | 105 | 6.41 | 0.68 | 3617 | 3594 | |
| 20 | 0.63 | 7.82 | 149 | 301 | 303 | 306 | 307 | 309 | 320 | 325 | 337 | 371 | 384 | 391 | 361 | 151 | 7.84 | 0.70 | 4331 | 4311 | |
| 10 | 0.63 | 8.19 | 175 | 362 | 363 | 374 | 364 | 342 | 339 | 343 | 362 | 412 | 449 | 441 | 406 | 175 | 8.46 | 0.71 | 4924 | 4903 | |
| 0 | 0.63 | 8.26 | 179 | 424 | 440 | 449 | 440 | 387 | 358 | 378 | 431 | 497 | 514 | 496 | 430 | 170 | 7.79 | 0.70 | 5609 | 5589 | |
| -10 | 0.60 | 7.86 | 153 | 460 | 552 | 561 | 558 | 504 | 471 | 495 | 555 | 607 | 599 | 567 | 430 | 144 | 6.53 | 0.67 | 6670 | 6647 | |
| -20 | 0.56 | 7.29 | 87.4 | 380 | 581 | 625 | 658 | 647 | 638 | 654 | 674 | 678 | 639 | 570 | 350 | 91.1 | 5.27 | 0.62 | 7287 | 7257 | |
| -30 | 0.50 | 6.19 | 28.6 | 193 | 354 | 368 | 351 | 340 | 328 | 340 | 364 | 375 | 391 | 350 | 195 | 32.2 | 4.26 | 0.56 | 4022 | 3979 | |
| -40 | 0.44 | 3.92 | 13.8 | 44.8 | 95.7 | 84.2 | 68.8 | 54.9 | 49.2 | 50.3 | 57.3 | 73.5 | 89.5 | 100 | 54.6 | 11.3 | 3.24 | 0.50 | 857 | 474 | |
| -50 | 0.38 | 2.42 | 7.70 | 12.8 | 19.8 | 24.7 | 28.4 | 28.9 | 28.5 | 28.2 | 28.2 | 27.5 | 24.1 | 21.0 | 12.9 | 6.19 | 2.21 | 0.44 | 305 | 0.00 | |
| -60 | 0.31 | 1.71 | 4.28 | 7.49 | 10.8 | 15.7 | 18.7 | 19.4 | 20.9 | 21.0 | 19.8 | 19.3 | 16.0 | 10.7 | 6.93 | 3.87 | 1.60 | 0.38 | 199 | 0.00 | |
| -70 | 0.22 | 1.17 | 2.33 | 3.71 | 5.42 | 9.79 | 13.4 | 15.4 | 18.4 | 18.2 | 15.3 | 14.5 | 11.1 | 6.16 | 3.84 | 2.28 | 1.23 | 0.32 | 143 | 0.00 | |
| -80 | 0.22 | 1.17 | 2.33 | 3.71 | 5.42 | 9.79 | 13.4 | 15.4 | 18.4 | 18.2 | 15.3 | 14.5 | 11.1 | 6.16 | 3.84 | 2.28 | 1.23 | 0.32 | 143 | 0.00 | |
| -90 | 0.22 | 1.17 | 2.33 | 3.71 | 5.42 | 9.79 | 13.4 | 15.4 | 18.4 | 18.2 | 15.3 | 14.5 | 11.1 | 6.16 | 3.84 | 2.28 | 1.23 | 0.32 | 143 | 0.00 | |
| | -90 | -80 | -70 | -60 | -50 | -40 | -30 | -20 | HORIZONTAL (DEG) | | | | | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 |
| Φ t | 8.29 | 85.1 | 1045 | 2829 | 3533 | 3701 | 3727 | 3601 | 3558 | 3657 | 3864 | 4119 | 4163 | 3965 | 2951 | 1006 | 74.3 | 9.49 | 46472 | | |
| Φ a | 0.00 | 0.00 | 916 | 2729 | 3410 | 3545 | 3534 | 3378 | 3307 | 3411 | 3647 | 3939 | 4011 | 3842 | 2850 | 898 | 0.00 | 0.00 | | 43423 | |

Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年03月04日

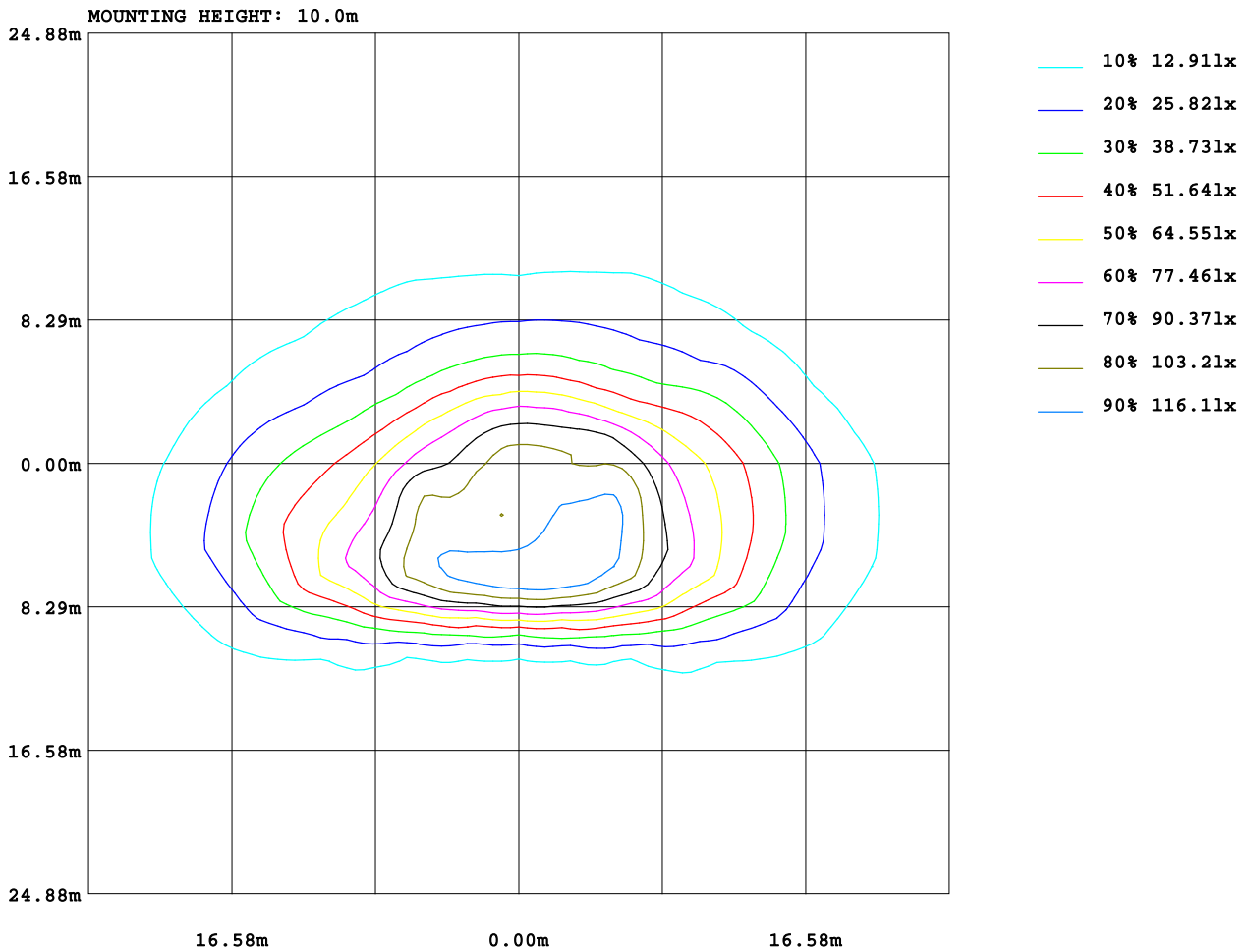
Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.690 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Report number:

| | | |
|----------------|------------|-------------|
| MANUFACTURER: | Address: | |
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |



Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年03月04日

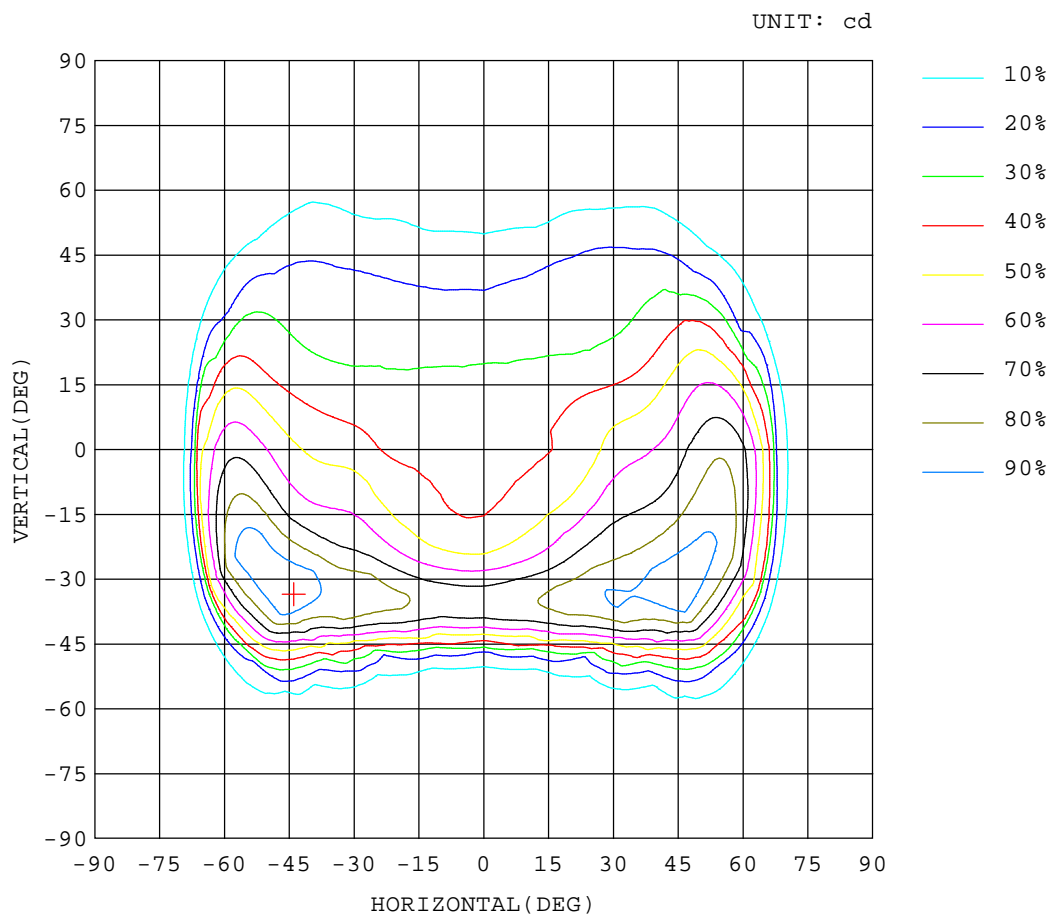
Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.690 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Report number:

| | | |
|----------------|------------|-------------|
| MANUFACTURER: | Address: | |
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |



Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年03月04日

Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.690 m
 Remarks:

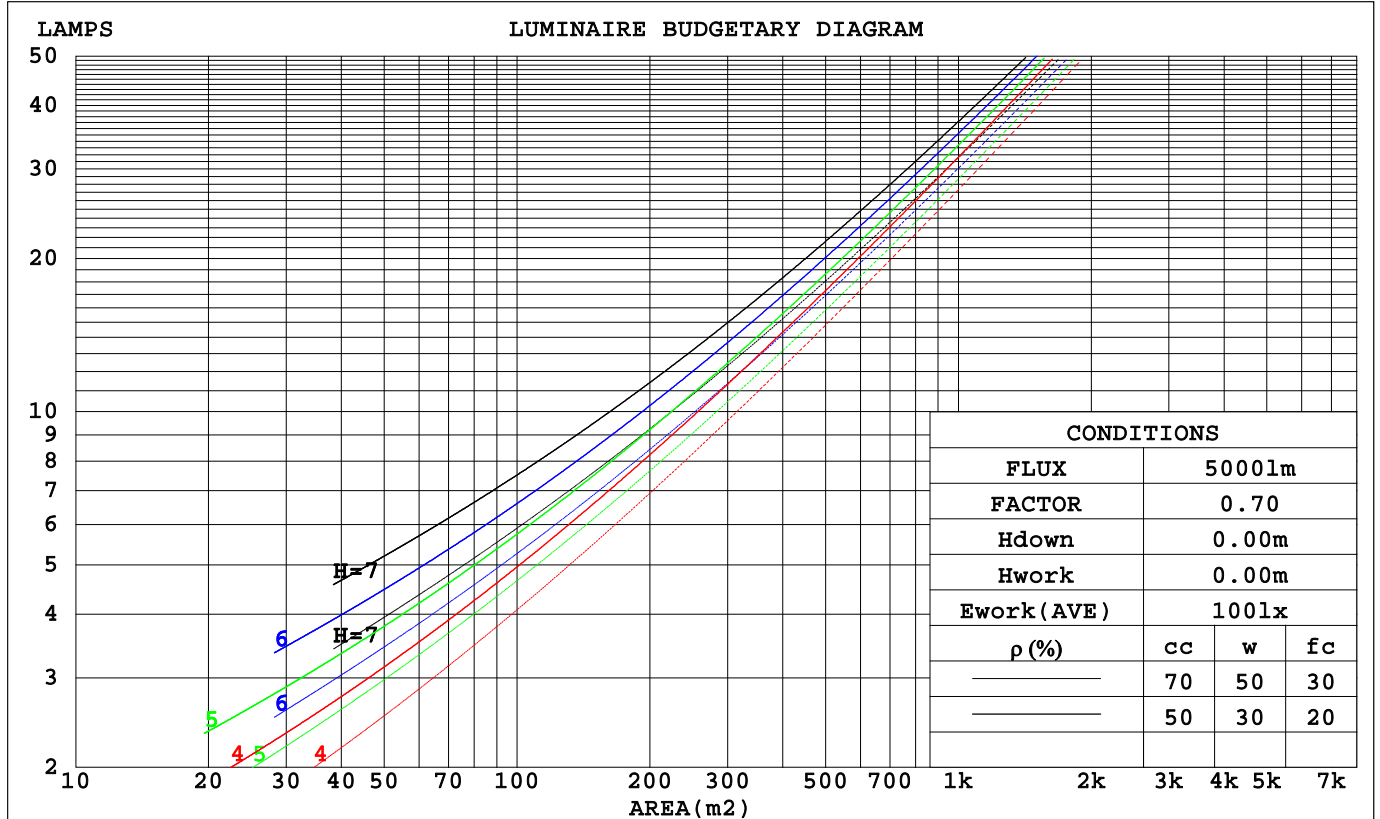
HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

| | | | | | | | | | | | |
|----------------|--|--|--|------------|--|--|--|-------------|--|--|--|
| MANUFACTURER: | | | | Address: | | | | | | | |
| NAME: | | | | TYPE: | | | | WEIGHT: | | | |
| SPECIFICATION: | | | | DIMENSION: | | | | SERIAL No.: | | | |

| ρ_{cc} | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 | | | | | | | | | | | | | | |
|-------------|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| ρ_w | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 | | | | | | | | | | | | | | |
| ρ_{fc} | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 | | | | | | | | | | | | | | |
| RCR | RCR:Room Cavity Ratio | | | | | | | | | | | | | | | Coefficients of Utilization(CU) | | | | | | | | | | | | | | |
| 0.0 | 1.19 | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.10 | 1.10 | 1.10 | 1.05 | 1.05 | 1.05 | 1.01 | 1.01 | 1.01 | .99 | | | | | | | | | | | | | | |
| 1.0 | 1.05 | 1.01 | .98 | 1.03 | .99 | .96 | .98 | .95 | .93 | .94 | .92 | .90 | .90 | .89 | .87 | .85 | | | | | | | | | | | | | | |
| 2.0 | .92 | .85 | .80 | .90 | .84 | .79 | .86 | .81 | .77 | .83 | .79 | .75 | .80 | .76 | .73 | .71 | | | | | | | | | | | | | | |
| 3.0 | .81 | .73 | .66 | .79 | .72 | .66 | .76 | .69 | .64 | .73 | .67 | .63 | .70 | .66 | .62 | .60 | | | | | | | | | | | | | | |
| 4.0 | .71 | .62 | .56 | .69 | .61 | .55 | .67 | .60 | .54 | .64 | .58 | .53 | .62 | .57 | .52 | .50 | | | | | | | | | | | | | | |
| 5.0 | .63 | .54 | .47 | .62 | .53 | .47 | .59 | .52 | .46 | .57 | .51 | .45 | .55 | .49 | .45 | .43 | | | | | | | | | | | | | | |
| 6.0 | .56 | .47 | .40 | .55 | .46 | .40 | .53 | .45 | .40 | .51 | .44 | .39 | .49 | .43 | .39 | .37 | | | | | | | | | | | | | | |
| 7.0 | .50 | .41 | .35 | .49 | .41 | .35 | .48 | .40 | .34 | .46 | .39 | .34 | .45 | .38 | .34 | .32 | | | | | | | | | | | | | | |
| 8.0 | .45 | .37 | .31 | .45 | .36 | .31 | .43 | .36 | .30 | .42 | .35 | .30 | .40 | .34 | .30 | .28 | | | | | | | | | | | | | | |
| 9.0 | .41 | .33 | .27 | .41 | .32 | .27 | .39 | .32 | .27 | .38 | .31 | .27 | .37 | .31 | .26 | .24 | | | | | | | | | | | | | | |
| 10.0 | .38 | .30 | .24 | .37 | .29 | .24 | .36 | .29 | .24 | .35 | .28 | .24 | .34 | .28 | .24 | .22 | | | | | | | | | | | | | | |



Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年03月04日

Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.690 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Report number:

| | | |
|-----------------------|-------------------|--------------------|
| MANUFACTURER: | Address: | |
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |

| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | zone | total |
|----------|--------------------------|-------|-------|-------|-------|-------|-------|-------|----------|---------|-------|
| 5.0 | 1093 | 1116 | 1117 | 1115 | 1088 | 1071 | 1064 | 1081 | 0- 5 | 261.7 | 261.7 |
| 10.0 | 1114 | 1162 | 1125 | 1130 | 1090 | 1041 | 1013 | 1060 | 5- 10 | 782.3 | 1044 |
| 15.0 | 1155 | 1253 | 1161 | 1174 | 1095 | 994.1 | 952.7 | 1039 | 10- 15 | 1302 | 2346 |
| 20.0 | 1234 | 1418 | 1276 | 1278 | 1115 | 942.6 | 871.8 | 1012 | 15- 20 | 1854 | 4200 |
| 25.0 | 1382 | 1663 | 1517 | 1455 | 1186 | 877.9 | 770.7 | 956.3 | 20- 25 | 2487 | 6687 |
| 30.0 | 1565 | 1940 | 1912 | 1709 | 1292 | 799.9 | 672.5 | 870.2 | 25- 30 | 3271 | 9958 |
| 35.0 | 1679 | 2244 | 2194 | 2078 | 1343 | 727.5 | 605.4 | 798.1 | 30- 35 | 4172 | 14129 |
| 40.0 | 1771 | 2542 | 1906 | 2478 | 1414 | 661.8 | 550.5 | 753.5 | 35- 40 | 4959 | 19089 |
| 45.0 | 1941 | 2664 | 1034 | 2611 | 1546 | 628.8 | 494.1 | 731.5 | 40- 45 | 5403 | 24492 |
| 50.0 | 2181 | 2334 | 315.7 | 2239 | 1742 | 601.0 | 286.1 | 699.6 | 45- 50 | 5399 | 29891 |
| 55.0 | 2299 | 1504 | 127.5 | 1364 | 1943 | 545.3 | 183.2 | 608.8 | 50- 55 | 5082 | 34973 |
| 60.0 | 2095 | 643.3 | 120.3 | 593.3 | 1915 | 441.7 | 163.2 | 445.3 | 55- 60 | 4556 | 39529 |
| 65.0 | 1367 | 183.6 | 86.39 | 182.8 | 1456 | 306.2 | 141.3 | 274.2 | 60- 65 | 3391 | 42920 |
| 70.0 | 324.5 | 85.61 | 72.93 | 83.69 | 211.3 | 185.3 | 117.9 | 155.6 | 65- 70 | 1716 | 44636 |
| 75.0 | 61.57 | 69.90 | 70.87 | 72.60 | 84.64 | 101.0 | 101.1 | 81.36 | 70- 75 | 584.2 | 45220 |
| 80.0 | 38.85 | 45.30 | 68.47 | 44.64 | 41.32 | 43.14 | 58.21 | 40.48 | 75- 80 | 336.5 | 45557 |
| 85.0 | 20.96 | 32.02 | 62.31 | 27.45 | 16.58 | 17.46 | 44.54 | 20.23 | 80- 85 | 213.3 | 45770 |
| 90.0 | 8.388 | 17.24 | 45.66 | 9.334 | 4.989 | 5.795 | 21.84 | 6.051 | 85- 90 | 123.8 | 45894 |
| 95.0 | 5.892 | 4.192 | 9.253 | 3.648 | 5.377 | 4.484 | 7.964 | 4.694 | 90- 95 | 42.92 | 45937 |
| 100.0 | 7.083 | 3.797 | 10.73 | 3.794 | 6.206 | 5.170 | 5.879 | 5.037 | 95-100 | 30.10 | 45967 |
| 105.0 | 9.178 | 4.331 | 4.976 | 4.461 | 8.492 | 6.659 | 6.076 | 6.387 | 100-105 | 31.09 | 45998 |
| 110.0 | 11.85 | 5.076 | 4.875 | 5.458 | 11.03 | 8.819 | 6.569 | 8.456 | 105-110 | 36.56 | 46035 |
| 115.0 | 12.79 | 5.737 | 5.228 | 6.423 | 12.10 | 11.09 | 7.631 | 10.61 | 110-115 | 41.65 | 46076 |
| 120.0 | 12.79 | 6.044 | 6.170 | 6.993 | 12.30 | 12.86 | 8.777 | 12.20 | 115-120 | 44.31 | 46121 |
| 125.0 | 12.68 | 6.378 | 7.135 | 7.488 | 12.51 | 13.71 | 10.76 | 12.78 | 120-125 | 45.47 | 46166 |
| 130.0 | 12.59 | 6.808 | 7.491 | 7.993 | 12.52 | 13.83 | 12.47 | 12.47 | 125-130 | 45.27 | 46211 |
| 135.0 | 12.31 | 7.242 | 7.048 | 8.524 | 12.63 | 13.86 | 14.24 | 12.06 | 130-135 | 43.54 | 46255 |
| 140.0 | 12.26 | 7.676 | 7.945 | 9.100 | 12.93 | 14.03 | 13.66 | 12.09 | 135-140 | 40.84 | 46296 |
| 145.0 | 12.24 | 8.071 | 8.327 | 9.538 | 13.24 | 14.16 | 12.89 | 12.55 | 140-145 | 37.59 | 46333 |
| 150.0 | 12.18 | 8.343 | 8.450 | 9.939 | 13.29 | 14.27 | 13.45 | 13.26 | 145-150 | 34.05 | 46367 |
| 155.0 | 11.99 | 8.799 | 9.382 | 10.34 | 13.23 | 14.41 | 14.02 | 13.90 | 150-155 | 30.18 | 46398 |
| 160.0 | 11.82 | 9.366 | 9.852 | 10.68 | 13.27 | 14.61 | 14.62 | 14.34 | 155-160 | 25.78 | 46423 |
| 165.0 | 11.82 | 10.10 | 10.37 | 11.15 | 13.15 | 14.57 | 14.91 | 14.47 | 160-165 | 20.71 | 46444 |
| 170.0 | 11.90 | 10.91 | 11.33 | 11.74 | 12.89 | 14.22 | 14.76 | 14.21 | 165-170 | 15.11 | 46459 |
| 175.0 | 12.20 | 11.80 | 12.36 | 12.45 | 12.70 | 13.64 | 14.34 | 13.83 | 170-175 | 9.203 | 46468 |
| 180.0 | 12.60 | 12.78 | 13.59 | 13.24 | 12.54 | 12.85 | 13.55 | 13.29 | 175-180 | 3.105 | 46472 |
| DEG | LUMINOUS INTENSITY:×10cd | | | | | | | | | UNIT:lm | |

Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年03月04日

Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.690 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Report number:

| | | | | | | |
|----------------|------------|--|--|-------------|--|--|
| MANUFACTURER: | Address: | | | | | |
| NAME: | TYPE: | | | WEIGHT: | | |
| SPECIFICATION: | DIMENSION: | | | SERIAL No.: | | |

| ρcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|
| ρw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| ρfc | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | Wall Exitance Coefficients(WEC) | | | | | | | | | |
| 0.0 | | | | | | | | | | | | | | | | |
| 1.0 | .281 | .160 | .051 | .274 | .156 | .050 | .260 | .149 | .048 | .247 | .142 | .046 | .235 | .136 | .044 | |
| 2.0 | .274 | .150 | .046 | .268 | .148 | .045 | .256 | .142 | .044 | .245 | .137 | .043 | .234 | .132 | .042 | |
| 3.0 | .261 | .139 | .042 | .255 | .136 | .041 | .244 | .132 | .040 | .234 | .128 | .039 | .225 | .124 | .038 | |
| 4.0 | .245 | .127 | .037 | .240 | .125 | .037 | .230 | .122 | .036 | .221 | .119 | .036 | .213 | .116 | .035 | |
| 5.0 | .229 | .117 | .034 | .225 | .115 | .034 | .216 | .112 | .033 | .208 | .110 | .033 | .200 | .107 | .032 | |
| 6.0 | .214 | .108 | .031 | .210 | .106 | .031 | .203 | .104 | .030 | .195 | .102 | .030 | .189 | .099 | .029 | |
| 7.0 | .201 | .099 | .028 | .197 | .098 | .028 | .190 | .096 | .028 | .184 | .094 | .027 | .177 | .092 | .027 | |
| 8.0 | .188 | .092 | .026 | .185 | .091 | .026 | .179 | .089 | .025 | .173 | .088 | .025 | .167 | .086 | .025 | |
| 9.0 | .177 | .086 | .024 | .174 | .085 | .024 | .168 | .083 | .024 | .163 | .082 | .023 | .158 | .080 | .023 | |
| 10.0 | .167 | .080 | .022 | .164 | .079 | .022 | .159 | .078 | .022 | .154 | .076 | .022 | .149 | .075 | .022 | |

| ρcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|------|-----------------------|------|------|------|------|------|--|------|------|------|------|------|------|------|------|---|
| ρw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| ρfc | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | Ceiling Cavity Exitance Coefficients(CCEC) | | | | | | | | | |
| 0.0 | .200 | .200 | .200 | .171 | .171 | .171 | .117 | .117 | .117 | .067 | .067 | .067 | .021 | .021 | .021 | |
| 1.0 | .188 | .166 | .146 | .161 | .142 | .126 | .110 | .098 | .087 | .063 | .057 | .051 | .020 | .018 | .016 | |
| 2.0 | .180 | .142 | .110 | .154 | .122 | .095 | .105 | .084 | .066 | .061 | .049 | .039 | .019 | .016 | .013 | |
| 3.0 | .172 | .124 | .085 | .148 | .107 | .074 | .101 | .074 | .052 | .059 | .043 | .031 | .019 | .014 | .010 | |
| 4.0 | .166 | .111 | .069 | .142 | .096 | .060 | .098 | .067 | .042 | .056 | .039 | .025 | .018 | .013 | .008 | |
| 5.0 | .159 | .100 | .057 | .136 | .087 | .050 | .094 | .061 | .035 | .054 | .036 | .021 | .018 | .012 | .007 | |
| 6.0 | .152 | .092 | .049 | .131 | .080 | .042 | .090 | .056 | .030 | .052 | .033 | .018 | .017 | .011 | .006 | |
| 7.0 | .146 | .085 | .043 | .126 | .074 | .037 | .087 | .052 | .026 | .050 | .031 | .016 | .016 | .010 | .005 | |
| 8.0 | .140 | .080 | .038 | .120 | .069 | .033 | .083 | .048 | .024 | .048 | .029 | .014 | .016 | .009 | .005 | |
| 9.0 | .134 | .075 | .035 | .115 | .065 | .030 | .080 | .046 | .021 | .047 | .027 | .013 | .015 | .009 | .004 | |
| 10.0 | .128 | .071 | .032 | .111 | .061 | .028 | .077 | .043 | .020 | .045 | .025 | .012 | .015 | .008 | .004 | |

Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年03月04日

Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.690 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

Uncorrected UGR Table

Report number:

| MANUFACTURER: | | | | | | Address: | | | | |
|--|------------------|------|------|------|------|----------------|------|------|-------------|------|
| NAME: | | | | | | TYPE: | | | WEIGHT: | |
| SPECIFICATION: | | | | | | DIMENSION: | | | SERIAL No.: | |
| ceiling/cavity | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| walls | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| working plane | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Room dimensions | Viewed crosswise | | | | | Viewed endwise | | | | |
| x = 2H y = 2H | 37.4 | 38.9 | 37.7 | 39.1 | 39.4 | 29.4 | 30.9 | 29.7 | 31.1 | 31.3 |
| 3H | 38.0 | 39.4 | 38.3 | 39.7 | 39.9 | 29.2 | 30.6 | 29.5 | 30.9 | 31.1 |
| 4H | 37.9 | 39.2 | 38.2 | 39.5 | 39.8 | 29.2 | 30.5 | 29.5 | 30.8 | 31.1 |
| 6H | 37.8 | 39.0 | 38.2 | 39.3 | 39.6 | 29.2 | 30.4 | 29.6 | 30.7 | 31.0 |
| 8H | 37.8 | 38.9 | 38.1 | 39.2 | 39.6 | 29.3 | 30.4 | 29.6 | 30.7 | 31.1 |
| 12H | 37.7 | 38.8 | 38.1 | 39.2 | 39.5 | 29.4 | 30.5 | 29.7 | 30.8 | 31.1 |
| 4H 2H | 37.2 | 38.5 | 37.6 | 38.8 | 39.1 | 30.9 | 32.2 | 31.2 | 32.5 | 32.7 |
| 3H | 37.9 | 39.0 | 38.3 | 39.3 | 39.7 | 30.7 | 31.9 | 31.1 | 32.2 | 32.5 |
| 4H | 37.8 | 38.8 | 38.2 | 39.2 | 39.5 | 30.7 | 31.7 | 31.1 | 32.1 | 32.4 |
| 6H | 37.7 | 38.6 | 38.1 | 39.0 | 39.4 | 30.8 | 31.7 | 31.2 | 32.0 | 32.4 |
| 8H | 37.7 | 38.5 | 38.1 | 38.9 | 39.3 | 30.8 | 31.7 | 31.3 | 32.0 | 32.5 |
| 12H | 37.6 | 38.4 | 38.1 | 38.8 | 39.2 | 30.9 | 31.7 | 31.4 | 32.1 | 32.5 |
| 8H 4H | 37.7 | 38.5 | 38.1 | 38.9 | 39.3 | 30.7 | 31.6 | 31.2 | 32.0 | 32.4 |
| 6H | 37.6 | 38.3 | 38.1 | 38.7 | 39.2 | 30.8 | 31.5 | 31.3 | 31.9 | 32.4 |
| 8H | 37.6 | 38.2 | 38.0 | 38.6 | 39.1 | 31.0 | 31.6 | 31.4 | 32.0 | 32.5 |
| 12H | 37.5 | 38.0 | 38.0 | 38.5 | 39.0 | 31.2 | 31.7 | 31.7 | 32.2 | 32.7 |
| 12H 4H | 37.6 | 38.4 | 38.1 | 38.8 | 39.2 | 30.7 | 31.5 | 31.1 | 31.9 | 32.3 |
| 6H | 37.6 | 38.2 | 38.0 | 38.6 | 39.1 | 30.8 | 31.4 | 31.3 | 31.9 | 32.3 |
| 8H | 37.5 | 38.0 | 38.0 | 38.5 | 39.0 | 31.0 | 31.5 | 31.5 | 32.0 | 32.5 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S = 1.0H | + 0.8 / - 1.1 | | | | | + 2.1 / - 5.5 | | | | |
| 1.5H | + 2.1 / - 3.5 | | | | | + 2.0 / - 4.4 | | | | |
| 2.0H | + 1.5 / - 3.9 | | | | | + 4.0 / - 5.0 | | | | |

CIE Pub.117 Corrected 46472 lm Total Lamp Luminous Flux. (8log(F/F0) = 13.3)

Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年03月04日

Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.690 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Report number:

| | | | |
|----------------|------------|-------------|--|
| MANUFACTURER: | Address: | | |
| NAME: | TYPE: | WEIGHT: | |
| SPECIFICATION: | DIMENSION: | SERIAL No.: | |

| REFLECTANCE | | | | | | | | | | |
|----------------------------------|---|-----|-----------|-----|-----|-----|---------------|-----|-----|--------|
| Ceiling | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0 |
| Walls | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0 |
| Working plane | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0 |
| ROOM INDEX | UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$ | | | | | | | | | |
| k = 0.60 | 54 | 42 | 35 | 53 | 42 | 35 | 52 | 41 | 34 | 28 |
| 0.80 | 66 | 54 | 46 | 64 | 53 | 46 | 63 | 52 | 45 | 38 |
| 1.00 | 75 | 64 | 57 | 74 | 64 | 57 | 72 | 65 | 56 | 49 |
| 1.25 | 83 | 73 | 66 | 82 | 72 | 65 | 79 | 71 | 65 | 57 |
| 1.50 | 89 | 79 | 72 | 87 | 78 | 72 | 84 | 76 | 70 | 63 |
| 2.00 | 96 | 88 | 82 | 94 | 87 | 81 | 90 | 84 | 79 | 71 |
| 2.50 | 100 | 92 | 87 | 98 | 91 | 86 | 94 | 88 | 84 | 75 |
| 3.00 | 103 | 97 | 91 | 101 | 95 | 90 | 97 | 92 | 88 | 79 |
| 4.00 | 107 | 101 | 97 | 104 | 100 | 96 | 100 | 96 | 93 | 84 |
| 5.00 | 109 | 104 | 101 | 106 | 102 | 99 | 102 | 99 | 96 | 86 |
| ROOM INDEX | UF(total) | | | | | | | | | Direct |
| According to DIN EN 13032-2 2004 | | | Suspended | | | | SHRNOM = 1.25 | | | |

Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年03月04日

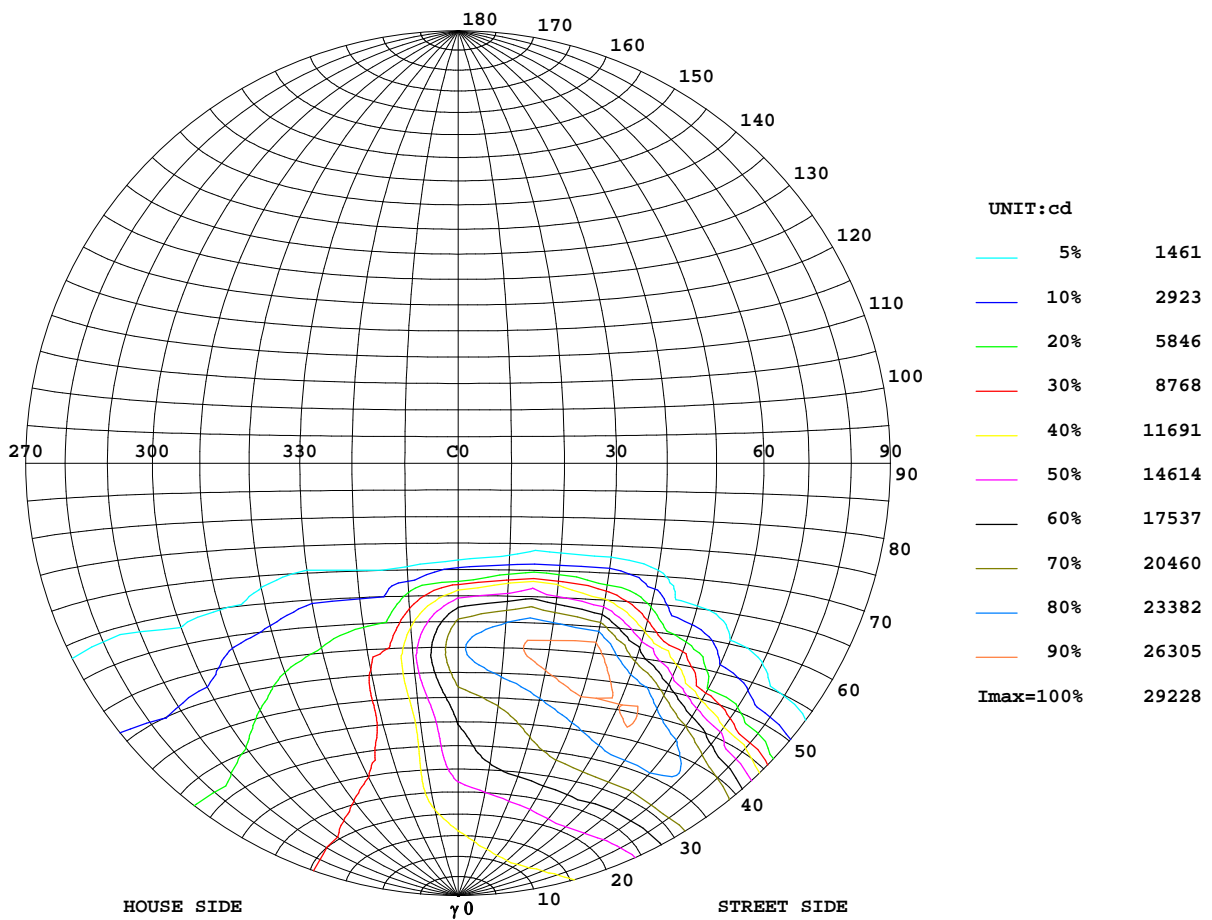
Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.690 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Report number:

| | | |
|----------------|------------|-------------|
| MANUFACTURER: | Address: | |
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |



Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年03月04日

Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.690 m
 Remarks:

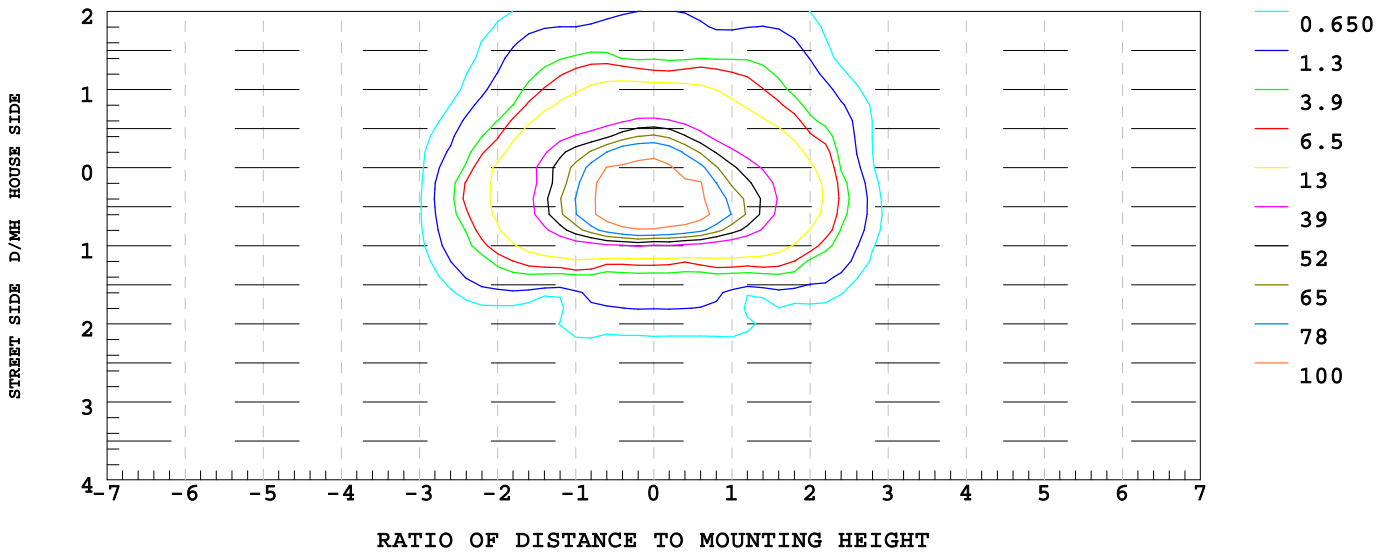
HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Report number:

| | | |
|----------------|------------|-------------|
| MANUFACTURER: | Address: | |
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |

ILLUMINANCE AT MH=10 m, Enadir = 108.70 lx



Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年03月04日

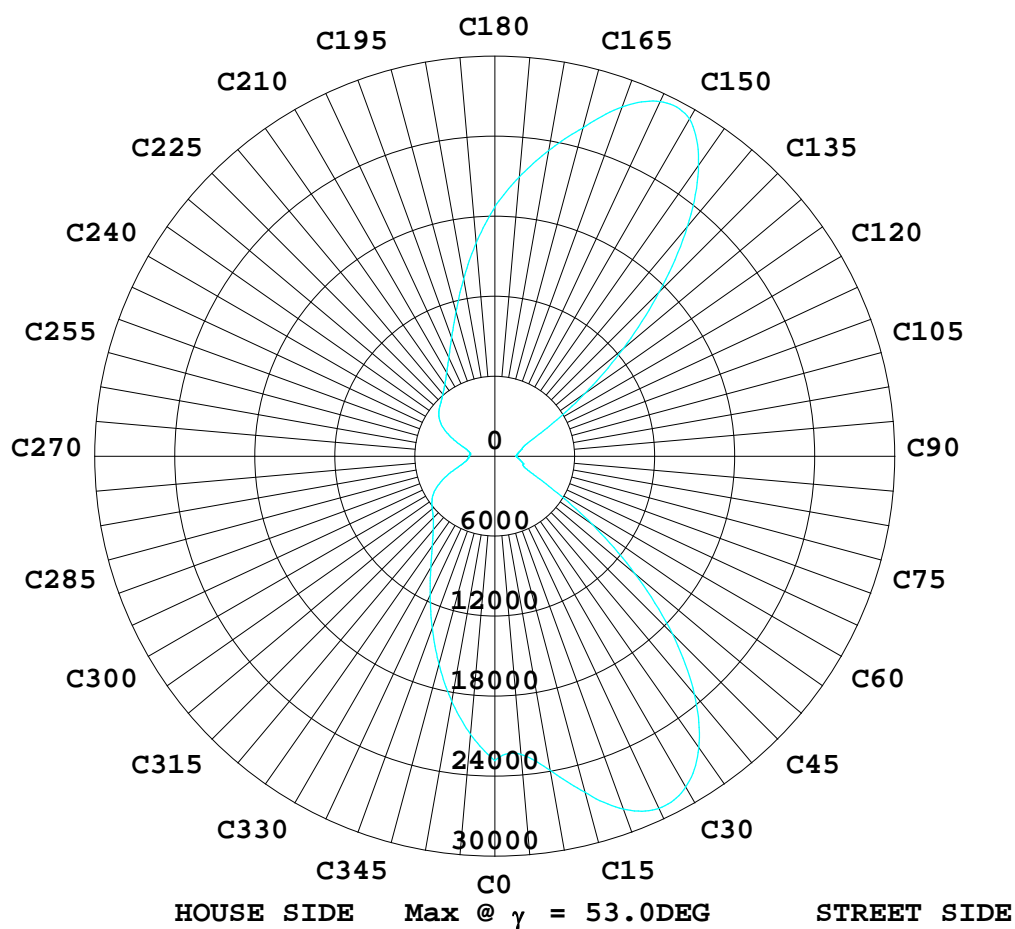
Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.690 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Report number:

| | | |
|----------------|------------|-------------|
| MANUFACTURER: | Address: | |
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |



Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年03月04日

Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.690 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

| | | |
|-----------------------|-------------------|--------------------|
| MANUFACTURER: | Address: | |
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |

UNIT: ×10cd

| V(DEG) \ H(DEG) | -90 | -85 | -80 | -75 | -70 | -65 | -60 | -55 | -50 | -45 | -40 | -35 | -30 | -25 | -20 |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| -90.0 | 4.98 | 6.04 | 7.09 | 8.14 | 9.10 | 10.0 | 11.0 | 10.4 | 9.89 | 9.33 | 16.1 | 22.9 | 29.7 | 28.5 | 27.3 |
| -85.0 | 4.98 | 6.54 | 11.7 | 17.4 | 17.5 | 18.0 | 19.5 | 20.9 | 21.8 | 22.5 | 30.7 | 38.8 | 46.9 | 49.9 | 52.6 |
| -80.0 | 4.98 | 8.43 | 14.0 | 18.7 | 21.1 | 24.9 | 29.1 | 31.8 | 33.2 | 34.7 | 42.9 | 51.1 | 58.9 | 60.5 | 60.9 |
| -75.0 | 4.98 | 9.45 | 15.5 | 21.2 | 26.0 | 32.5 | 39.2 | 42.5 | 44.8 | 47.7 | 54.8 | 61.6 | 66.5 | 67.9 | 66.7 |
| -70.0 | 4.98 | 10.0 | 18.3 | 24.0 | 32.3 | 42.3 | 50.2 | 55.0 | 61.3 | 68.1 | 73.6 | 76.7 | 78.5 | 77.2 | 77.4 |
| -65.0 | 4.98 | 10.6 | 19.8 | 28.2 | 42.2 | 58.2 | 70.5 | 65.6 | 81.7 | 86.1 | 80.1 | 92.7 | 115 | 113 | 99.8 |
| -60.0 | 4.98 | 11.5 | 20.9 | 34.2 | 56.8 | 94.8 | 81.4 | 105 | 152 | 170 | 128 | 137 | 134 | 113 | 121 |
| -55.0 | 4.98 | 14.6 | 23.0 | 41.8 | 79.8 | 106 | 120 | 240 | 461 | 289 | 303 | 290 | 179 | 181 | |
| -50.0 | 4.98 | 16.0 | 25.0 | 50.4 | 125 | 125 | 207 | 478 | 910 | 996 | 814 | 719 | 751 | 511 | 429 |
| -45.0 | 4.98 | 16.3 | 27.7 | 63.4 | 130 | 151 | 472 | 1156 | 1618 | 1684 | 1575 | 1426 | 1369 | 1272 | 1206 |
| -40.0 | 4.98 | 16.6 | 30.4 | 74.5 | 132 | 227 | 1000 | 1726 | 2226 | 2385 | 2239 | 2209 | 2194 | 2089 | 2067 |
| -35.0 | 4.98 | 16.8 | 32.9 | 98.5 | 136 | 433 | 1587 | 2223 | 2606 | 2889 | 2650 | 2555 | 2611 | 2459 | 2377 |
| -30.0 | 4.98 | 17.0 | 35.9 | 99.0 | 142 | 705 | 2056 | 2550 | 2766 | 2816 | 2718 | 2500 | 2448 | 2351 | 2193 |
| -25.0 | 4.98 | 17.1 | 38.4 | 97.9 | 155 | 1113 | 2306 | 2721 | 2728 | 2581 | 2422 | 2230 | 2139 | 2021 | 1841 |
| -20.0 | 4.98 | 17.1 | 39.7 | 97.0 | 175 | 1391 | 2329 | 2683 | 2559 | 2286 | 2099 | 1969 | 1899 | 1771 | 1595 |
| -15.0 | 4.98 | 17.0 | 41.0 | 95.3 | 204 | 1543 | 2276 | 2505 | 2312 | 2012 | 1854 | 1788 | 1747 | 1596 | 1420 |
| -10.0 | 4.98 | 16.9 | 42.0 | 92.6 | 220 | 1543 | 2185 | 2312 | 2089 | 1828 | 1685 | 1654 | 1628 | 1441 | 1298 |
| -5.0 | 4.98 | 16.7 | 42.0 | 89.0 | 224 | 1519 | 2058 | 2124 | 1902 | 1674 | 1545 | 1500 | 1458 | 1307 | 1210 |
| 0.0 | 4.98 | 16.5 | 41.3 | 84.6 | 211 | 1456 | 1915 | 1943 | 1742 | 1546 | 1414 | 1343 | 1292 | 1186 | 1115 |
| 5.0 | 4.98 | 16.8 | 41.1 | 84.5 | 206 | 1314 | 1744 | 1759 | 1571 | 1399 | 1288 | 1225 | 1180 | 1112 | 1061 |
| 10.0 | 4.98 | 17.0 | 40.2 | 83.6 | 189 | 1162 | 1565 | 1581 | 1409 | 1258 | 1164 | 1108 | 1072 | 1037 | 1005 |
| 15.0 | 4.98 | 17.1 | 38.7 | 81.3 | 170 | 989 | 1359 | 1402 | 1244 | 1112 | 1044 | 999 | 972 | 950 | 937 |
| 20.0 | 4.98 | 17.2 | 37.0 | 74.3 | 153 | 677 | 1144 | 1219 | 1098 | 1007 | 934 | 885 | 859 | 860 | 846 |
| 25.0 | 4.98 | 17.2 | 35.4 | 69.1 | 135 | 439 | 880 | 1058 | 1008 | 912 | 824 | 772 | 768 | 758 | 758 |
| 30.0 | 4.98 | 17.0 | 33.0 | 65.3 | 123 | 315 | 599 | 906 | 905 | 819 | 734 | 710 | 689 | 672 | 672 |
| 35.0 | 4.98 | 16.8 | 30.4 | 60.6 | 106 | 232 | 485 | 725 | 773 | 715 | 692 | 662 | 631 | 623 | 615 |
| 40.0 | 4.98 | 16.4 | 28.4 | 54.7 | 89.5 | 169 | 329 | 489 | 609 | 635 | 637 | 614 | 596 | 585 | 574 |
| 45.0 | 4.98 | 15.9 | 26.4 | 48.0 | 65.5 | 121 | 209 | 349 | 432 | 526 | 557 | 549 | 541 | 537 | 521 |
| 50.0 | 4.98 | 15.4 | 24.7 | 40.6 | 60.9 | 89.4 | 145 | 214 | 312 | 398 | 454 | 444 | 425 | 425 | 394 |
| 55.0 | 4.98 | 13.6 | 23.3 | 35.1 | 52.5 | 62.6 | 89.7 | 136 | 206 | 283 | 337 | 324 | 276 | 231 | 238 |
| 60.0 | 4.98 | 9.85 | 21.6 | 30.7 | 42.3 | 54.0 | 65.3 | 82.0 | 142 | 189 | 232 | 221 | 185 | 150 | 158 |
| 65.0 | 4.98 | 8.39 | 19.9 | 27.7 | 34.3 | 42.2 | 49.1 | 61.8 | 90.4 | 128 | 156 | 150 | 130 | 120 | 127 |
| 70.0 | 4.98 | 7.30 | 17.1 | 25.0 | 28.5 | 33.1 | 37.2 | 44.2 | 53.0 | 81.0 | 97.2 | 99.0 | 93.2 | 94.3 | 102 |
| 75.0 | 4.98 | 6.27 | 12.1 | 20.6 | 23.9 | 25.9 | 29.3 | 33.5 | 38.7 | 45.9 | 52.3 | 56.8 | 61.5 | 66.9 | 70.2 |
| 80.0 | 4.98 | 5.45 | 8.33 | 13.5 | 17.9 | 19.9 | 20.0 | 21.7 | 24.3 | 27.5 | 32.3 | 35.7 | 39.1 | 41.6 | 43.6 |
| 85.0 | 4.98 | 5.34 | 5.76 | 7.55 | 8.33 | 8.31 | 8.20 | 12.8 | 13.2 | 12.4 | 14.1 | 15.5 | 16.5 | 17.4 | 18.5 |
| 90.0 | 4.98 | 5.30 | 5.62 | 5.93 | 5.63 | 5.33 | 5.03 | 5.29 | 5.54 | 5.79 | 6.00 | 6.21 | 6.42 | 7.60 | 8.77 |

Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年03月04日

Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.690 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

| | | |
|-----------------------|-------------------|--------------------|
| MANUFACTURER: | Address: | |
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |

UNIT: ×10cd

| V(DEG) \ H(DEG) | H(DEG) | | | | | | | | | | | | | | |
|---------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | -15 | -10 | -5 | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 |
| -90.0 | 26.2 | 32.6 | 39.1 | 45.6 | 38.6 | 31.6 | 24.6 | 28.6 | 32.5 | 36.4 | 30.0 | 23.6 | 17.2 | 15.1 | 13.0 |
| -85.0 | 55.3 | 57.8 | 60.1 | 62.3 | 59.7 | 57.0 | 54.0 | 53.8 | 53.8 | 53.5 | 44.6 | 35.4 | 25.8 | 23.9 | 21.7 |
| -80.0 | 61.1 | 63.4 | 65.9 | 68.4 | 66.3 | 64.2 | 62.3 | 63.4 | 64.5 | 64.7 | 56.4 | 47.8 | 39.2 | 35.5 | 31.9 |
| -75.0 | 64.6 | 66.6 | 68.8 | 70.8 | 69.5 | 68.0 | 66.6 | 68.0 | 68.6 | 67.2 | 62.1 | 54.8 | 47.0 | 42.9 | 39.0 |
| -70.0 | 76.3 | 75.8 | 74.7 | 72.9 | 74.1 | 74.8 | 74.7 | 76.0 | 78.7 | 80.7 | 77.6 | 71.8 | 64.3 | 57.2 | 49.1 |
| -65.0 | 90.7 | 89.4 | 88.8 | 86.3 | 87.2 | 86.9 | 88.7 | 98.8 | 108 | 104 | 87.9 | 81.2 | 93.0 | 87.4 | 60.6 |
| -60.0 | 122 | 118 | 118 | 120 | 119 | 119 | 123 | 122 | 116 | 137 | 137 | 124 | 189 | 184 | 127 |
| -55.0 | 155 | 134 | 134 | 128 | 136 | 139 | 163 | 192 | 192 | 311 | 314 | 291 | 469 | 382 | 300 |
| -50.0 | 370 | 339 | 343 | 316 | 354 | 358 | 418 | 433 | 550 | 789 | 796 | 831 | 977 | 906 | 545 |
| -45.0 | 1141 | 1131 | 1133 | 1034 | 1159 | 1272 | 1232 | 1308 | 1367 | 1449 | 1566 | 1670 | 1656 | 1575 | 1122 |
| -40.0 | 1985 | 1894 | 1931 | 1906 | 1980 | 1988 | 2074 | 2155 | 2175 | 2280 | 2296 | 2274 | 2354 | 2135 | 1586 |
| -35.0 | 2285 | 2210 | 2194 | 2194 | 2245 | 2300 | 2372 | 2454 | 2521 | 2663 | 2609 | 2660 | 2813 | 2498 | 2030 |
| -30.0 | 2058 | 1960 | 1916 | 1912 | 1980 | 2070 | 2181 | 2315 | 2444 | 2536 | 2582 | 2735 | 2802 | 2673 | 2345 |
| -25.0 | 1680 | 1571 | 1509 | 1517 | 1597 | 1720 | 1867 | 2042 | 2204 | 2309 | 2394 | 2535 | 2663 | 2695 | 2529 |
| -20.0 | 1442 | 1329 | 1272 | 1276 | 1368 | 1487 | 1638 | 1823 | 1993 | 2129 | 2202 | 2314 | 2476 | 2620 | 2571 |
| -15.0 | 1306 | 1210 | 1160 | 1161 | 1230 | 1326 | 1459 | 1605 | 1807 | 1980 | 2055 | 2136 | 2296 | 2498 | 2523 |
| -10.0 | 1219 | 1163 | 1125 | 1125 | 1162 | 1233 | 1310 | 1432 | 1625 | 1845 | 1937 | 1998 | 2161 | 2377 | 2456 |
| -5.0 | 1164 | 1135 | 1120 | 1117 | 1131 | 1164 | 1223 | 1318 | 1480 | 1695 | 1806 | 1878 | 2040 | 2272 | 2379 |
| 0.0 | 1095 | 1090 | 1088 | 1087 | 1093 | 1114 | 1155 | 1234 | 1382 | 1565 | 1679 | 1771 | 1941 | 2181 | 2299 |
| 5.0 | 1049 | 1053 | 1061 | 1064 | 1072 | 1097 | 1151 | 1245 | 1356 | 1462 | 1538 | 1635 | 1812 | 2034 | 2121 |
| 10.0 | 997 | 1005 | 1011 | 1013 | 1022 | 1045 | 1093 | 1173 | 1268 | 1337 | 1402 | 1511 | 1698 | 1893 | 1932 |
| 15.0 | 932 | 949 | 944 | 953 | 958 | 976 | 1011 | 1064 | 1107 | 1165 | 1246 | 1387 | 1588 | 1747 | 1720 |
| 20.0 | 854 | 857 | 858 | 872 | 873 | 893 | 913 | 929 | 965 | 995 | 1090 | 1245 | 1445 | 1575 | 1471 |
| 25.0 | 757 | 766 | 771 | 771 | 781 | 790 | 797 | 812 | 839 | 892 | 953 | 1105 | 1288 | 1374 | 1196 |
| 30.0 | 668 | 672 | 676 | 673 | 687 | 695 | 703 | 729 | 753 | 807 | 886 | 971 | 1118 | 1144 | 936 |
| 35.0 | 608 | 604 | 607 | 605 | 620 | 633 | 650 | 673 | 704 | 735 | 818 | 888 | 910 | 879 | 683 |
| 40.0 | 565 | 554 | 554 | 551 | 569 | 583 | 607 | 630 | 661 | 689 | 731 | 775 | 733 | 618 | 425 |
| 45.0 | 512 | 504 | 501 | 494 | 514 | 529 | 552 | 573 | 602 | 618 | 617 | 620 | 539 | 392 | 278 |
| 50.0 | 344 | 314 | 311 | 286 | 330 | 354 | 393 | 450 | 500 | 494 | 479 | 455 | 366 | 259 | 177 |
| 55.0 | 208 | 181 | 184 | 183 | 191 | 193 | 234 | 293 | 309 | 318 | 325 | 308 | 240 | 175 | 87.5 |
| 60.0 | 159 | 160 | 162 | 163 | 162 | 161 | 166 | 179 | 174 | 190 | 204 | 201 | 166 | 103 | 68.8 |
| 65.0 | 131 | 135 | 139 | 141 | 138 | 133 | 128 | 127 | 121 | 126 | 135 | 132 | 106 | 74.6 | 51.7 |
| 70.0 | 104 | 109 | 114 | 118 | 113 | 106 | 100 | 97.9 | 90.5 | 87.7 | 87.5 | 80.7 | 58.8 | 50.0 | 39.6 |
| 75.0 | 72.3 | 83.5 | 93.4 | 101 | 90.1 | 78.8 | 70.1 | 68.1 | 65.3 | 61.0 | 56.2 | 49.5 | 42.3 | 35.5 | 30.0 |
| 80.0 | 46.0 | 50.7 | 54.8 | 58.2 | 53.8 | 48.6 | 43.2 | 43.0 | 43.2 | 42.4 | 37.5 | 33.5 | 29.2 | 25.2 | 22.4 |
| 85.0 | 19.1 | 27.6 | 36.1 | 44.5 | 35.6 | 26.6 | 17.7 | 18.3 | 18.8 | 19.3 | 18.1 | 16.5 | 14.4 | 14.5 | 14.8 |
| 90.0 | 9.95 | 13.9 | 17.8 | 21.8 | 17.3 | 12.8 | 8.36 | 7.62 | 6.89 | 6.15 | 6.12 | 6.08 | 6.05 | 5.86 | 5.68 |

Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年03月04日

Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.690 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

| | | |
|-----------------------|-------------------|--------------------|
| MANUFACTURER: | Address: | |
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION: | DIMENSION: | SERIAL No.: |

UNIT: ×10cd

| V(DEG) \ H(DEG) | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
|---------------------|------|------|------|------|------|------|------|
| -90.0 | 10.9 | 12.2 | 13.5 | 14.7 | 12.6 | 10.5 | 8.38 |
| -85.0 | 19.1 | 17.2 | 16.3 | 15.9 | 13.9 | 11.2 | 8.38 |
| -80.0 | 27.9 | 23.9 | 19.9 | 17.2 | 15.1 | 12.2 | 8.38 |
| -75.0 | 34.5 | 29.6 | 24.0 | 19.6 | 16.6 | 13.2 | 8.38 |
| -70.0 | 42.7 | 36.8 | 29.1 | 22.2 | 18.2 | 14.0 | 8.38 |
| -65.0 | 56.2 | 48.1 | 36.7 | 25.9 | 20.0 | 14.7 | 8.38 |
| -60.0 | 66.3 | 61.1 | 47.6 | 31.4 | 21.5 | 15.7 | 8.38 |
| -55.0 | 139 | 71.8 | 58.7 | 37.4 | 23.6 | 16.6 | 8.38 |
| -50.0 | 264 | 114 | 69.7 | 44.0 | 25.6 | 17.3 | 8.38 |
| -45.0 | 563 | 169 | 78.5 | 50.9 | 28.2 | 17.8 | 8.38 |
| -40.0 | 1142 | 297 | 88.0 | 55.7 | 30.7 | 18.6 | 8.38 |
| -35.0 | 1418 | 552 | 131 | 60.3 | 32.7 | 19.2 | 8.38 |
| -30.0 | 1769 | 782 | 147 | 63.5 | 35.2 | 19.8 | 8.38 |
| -25.0 | 2016 | 1210 | 179 | 66.3 | 37.1 | 20.2 | 8.38 |
| -20.0 | 2119 | 1292 | 228 | 66.6 | 38.0 | 20.5 | 8.38 |
| -15.0 | 2166 | 1343 | 290 | 66.5 | 38.8 | 20.7 | 8.38 |
| -10.0 | 2174 | 1369 | 327 | 65.6 | 39.3 | 20.8 | 8.38 |
| -5.0 | 2148 | 1391 | 336 | 63.9 | 39.3 | 20.9 | 8.38 |
| 0.0 | 2095 | 1367 | 325 | 61.5 | 38.8 | 20.9 | 8.38 |
| 5.0 | 1891 | 1214 | 297 | 61.5 | 38.6 | 20.9 | 8.38 |
| 10.0 | 1665 | 1028 | 256 | 61.2 | 38.0 | 20.8 | 8.38 |
| 15.0 | 1402 | 836 | 205 | 60.6 | 37.0 | 20.6 | 8.38 |
| 20.0 | 1122 | 628 | 155 | 59.7 | 35.8 | 20.3 | 8.38 |
| 25.0 | 690 | 394 | 120 | 58.2 | 34.7 | 20.0 | 8.38 |
| 30.0 | 524 | 250 | 95.9 | 54.3 | 32.8 | 19.5 | 8.38 |
| 35.0 | 384 | 171 | 74.6 | 50.3 | 30.6 | 18.9 | 8.38 |
| 40.0 | 252 | 122 | 62.9 | 46.1 | 28.6 | 18.2 | 8.38 |
| 45.0 | 173 | 90.5 | 60.1 | 41.9 | 26.4 | 17.4 | 8.38 |
| 50.0 | 98.6 | 63.2 | 52.3 | 36.4 | 24.2 | 16.7 | 8.38 |
| 55.0 | 71.6 | 56.2 | 44.6 | 32.0 | 22.6 | 15.9 | 8.38 |
| 60.0 | 54.7 | 46.2 | 36.9 | 27.5 | 20.6 | 14.8 | 8.38 |
| 65.0 | 43.1 | 36.9 | 30.1 | 23.6 | 19.0 | 13.5 | 8.38 |
| 70.0 | 32.4 | 28.9 | 24.6 | 20.7 | 16.9 | 12.4 | 8.38 |
| 75.0 | 26.0 | 23.4 | 20.4 | 17.8 | 14.8 | 11.2 | 8.38 |
| 80.0 | 19.5 | 18.2 | 16.7 | 14.5 | 11.9 | 9.71 | 8.38 |
| 85.0 | 15.4 | 11.1 | 10.2 | 9.73 | 8.76 | 8.20 | 8.38 |
| 90.0 | 5.49 | 5.63 | 5.77 | 5.91 | 6.73 | 7.56 | 8.38 |

Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年03月04日

Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.690 m
 Remarks: