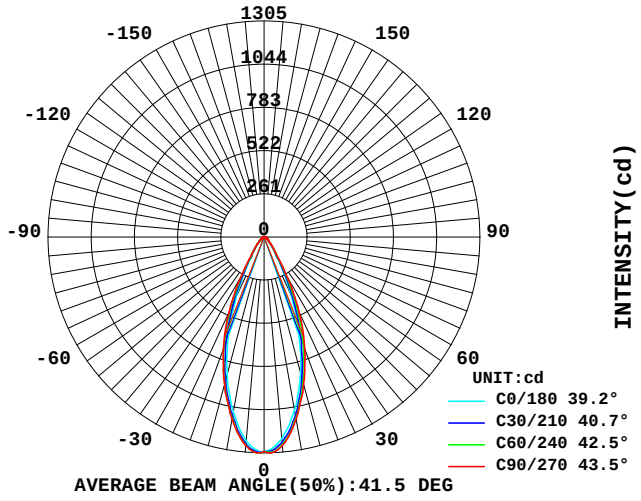
# LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

| | | |
|---|---|---|
| MANUFACTURER: | Address: | |
| NAME: HCP1021011/1031011 | TYPE:HCP1021011/1031011 | WEIGHT: |
| SPECIFICATION: | DIMENSION: 1 | SERIAL No.:2023092802 |

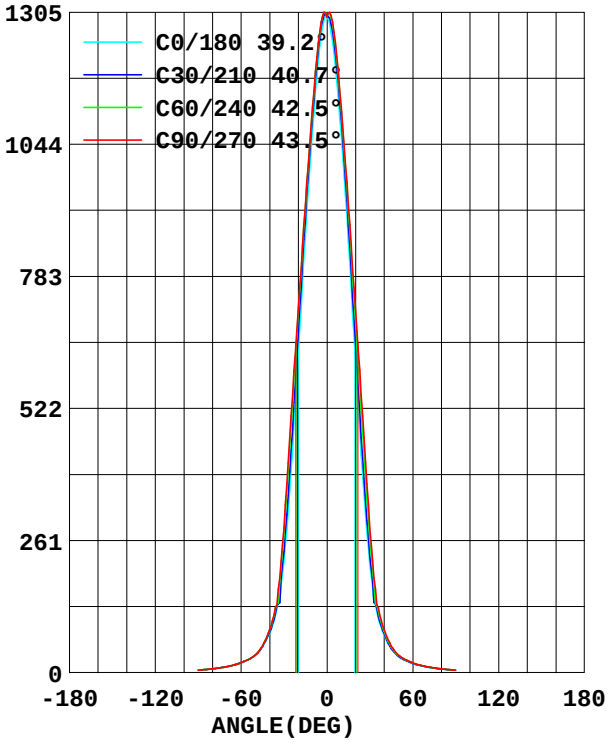
| | | | | | |
|---|---|---|---|---|---|
| DATA OF LAMP | | Imax(cd) | 1305 | S/MH(C0/180) | 0.63 |
| MODEL | 2700K | EFFICIENCY(%) | 100.0 | S/MH(C90/270) | 0.68 |
| NOMINAL POWER(W) | 10 | TOTAL FLUX(lm) | 737.28 | Voltage(V) | 225.6 |
| RATED VOLTAGE(V) | 226 | EFFICIENCY(lm/W) | 68.3 | Current(A) | 0.053 |
| NOMINAL FLUX(lm) | 737.3 | h up(%) | 0.0 | Power(W) | 10.79 |
| LAMPS QUANTITY | 1 | h down(%) | 100.0 | Power Factor(PF) | 0.888 |
| TEST VOLTAGE(V) | 225.7 | Effictive Flux(lm) | 614.5 | EEI | 0.208 |

LUMINOUS INTENSITY DISTRIBUTION




AVERAGE BEAM ANGLE(50%):41.5 DEG

LUMINOUS INTENSITY DISTRIBUTION



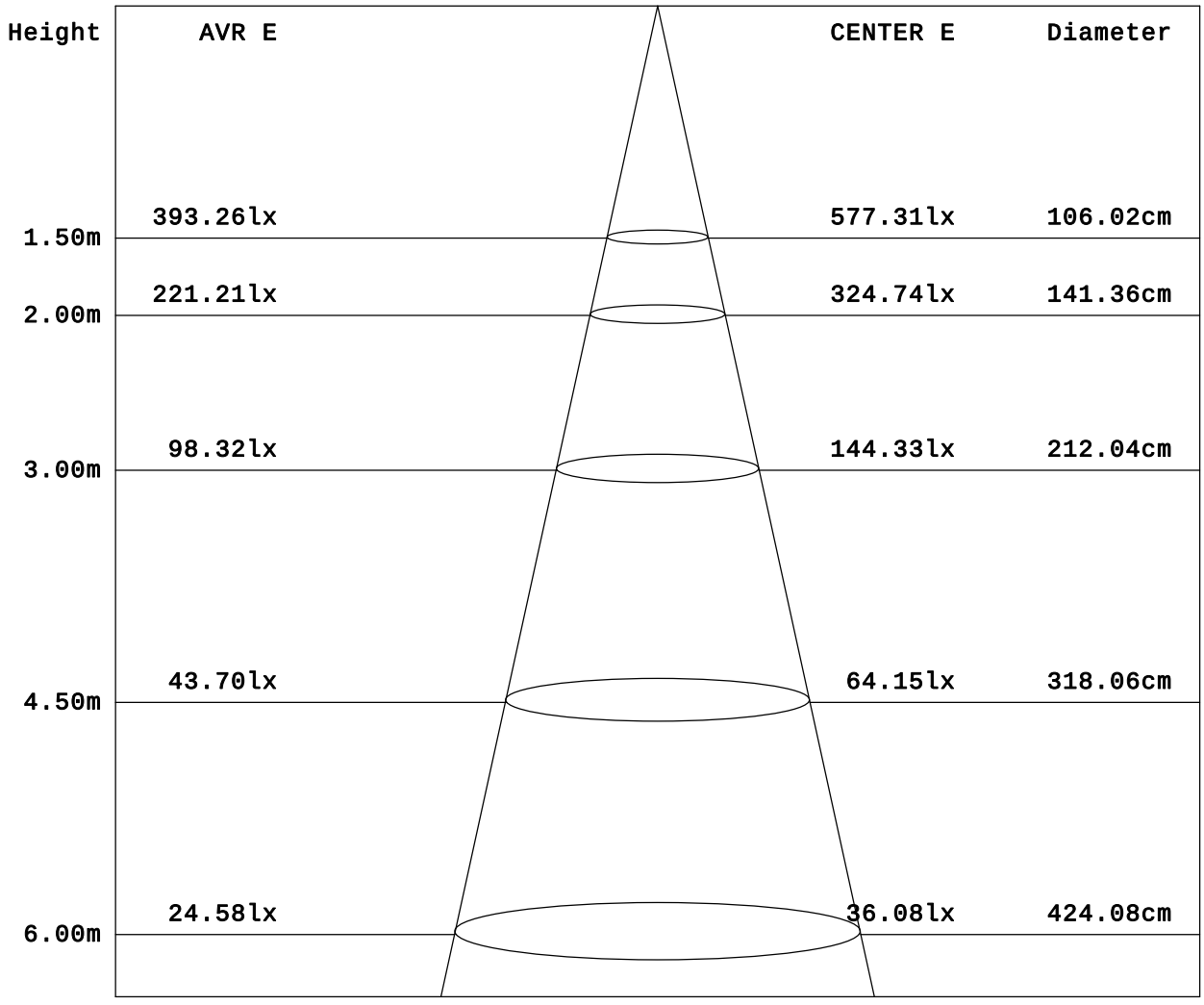

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2023年11月18日

Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:8.000 m
Remarks:

## AVERAGE AND CENTER E Figure

Report number:

| | | |
|---|---|---|
| MANUFACTURER: | Address: | |
| NAME: HCP1021011/1031011 | TYPE:HCP1021011/1031011 | WEIGHT: |
| SPECIFICATION: | DIMENSION: 1 | SERIAL No.:2023092802 |




Angle:38.9deg

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2023年11月18日

Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:8.000 m
Remarks:

# ZONAL FLUX DIAGRAM

Report number:

| | | |
|---|---|---|
| MANUFACTURER: | Address: | |
| NAME: HCP1021011/1031011 | TYPE:HCP1021011/1031011 | WEIGHT: |
| SPECIFICATION: | DIMENSION: 1 | SERIAL No.:2023092802 |

| g | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | g | Zone | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5.0 | 1239 | 1256 | 1267 | 1249 | 1226 | 1249 | 1267 | 1256 | 0- 5 | 30.59 | 30.59 |
| 10.0 | 1073 | 1099 | 1118 | 1097 | 1064 | 1097 | 1118 | 1099 | 5- 10 | 83.81 | 114.4 |
| 15.0 | 862.3 | 900.4 | 924.0 | 886.2 | 852.2 | 886.2 | 924.0 | 900.4 | 10- 15 | 117.6 | 232.0 |
| 20.0 | 634.9 | 676.0 | 721.9 | 656.1 | 621.1 | 656.1 | 721.9 | 676.0 | 15- 20 | 128.4 | 360.5 |
| 25.0 | 400.2 | 448.2 | 507.3 | 432.4 | 390.4 | 432.4 | 507.3 | 448.2 | 20- 25 | 116.3 | 476.9 |
| 30.0 | 218.9 | 248.0 | 285.8 | 244.2 | 214.1 | 244.2 | 285.8 | 248.0 | 25- 30 | 85.93 | 562.8 |
| 35.0 | 126.2 | 124.2 | 134.3 | 118.7 | 120.7 | 118.7 | 134.3 | 124.2 | 30- 35 | 53.20 | 616.0 |
| 40.0 | 78.33 | 74.87 | 84.79 | 72.57 | 75.13 | 72.57 | 84.79 | 74.87 | 35- 40 | 32.94 | 649.0 |
| 45.0 | 50.36 | 46.59 | 52.41 | 43.90 | 46.52 | 43.90 | 52.41 | 46.59 | 40- 45 | 22.81 | 671.8 |
| 50.0 | 34.11 | 30.91 | 35.07 | 29.44 | 32.25 | 29.44 | 35.07 | 30.91 | 45- 50 | 15.79 | 687.6 |
| 55.0 | 25.47 | 22.40 | 25.47 | 21.50 | 23.93 | 21.50 | 25.47 | 22.40 | 50- 55 | 11.87 | 699.5 |
| 60.0 | 19.58 | 16.51 | 19.00 | 15.67 | 17.79 | 15.67 | 19.00 | 16.51 | 55- 60 | 9.500 | 709.0 |
| 65.0 | 15.16 | 12.67 | 14.84 | 12.22 | 14.01 | 12.22 | 14.84 | 12.67 | 60- 65 | 7.500 | 716.5 |
| 70.0 | 11.83 | 9.728 | 11.71 | 9.344 | 11.00 | 9.344 | 11.71 | 9.728 | 65- 70 | 6.067 | 722.6 |
| 75.0 | 9.344 | 7.488 | 9.280 | 7.232 | 8.704 | 7.232 | 9.280 | 7.488 | 70- 75 | 4.899 | 727.5 |
| 80.0 | 7.616 | 6.016 | 7.552 | 5.760 | 7.168 | 5.760 | 7.552 | 6.016 | 75- 80 | 3.976 | 731.4 |
| 85.0 | 6.144 | 4.672 | 6.016 | 4.544 | 5.632 | 4.544 | 6.016 | 4.672 | 80- 85 | 3.232 | 734.7 |
| 90.0 | 4.672 | 3.776 | 4.608 | 3.776 | 4.544 | 3.776 | 4.608 | 3.776 | 85- 90 | 2.569 | 737.2 |
| 95.0 | | | | | | | | | 90- 95 | | |
| 100.0 | | | | | | | | | 95-100 | | |
| 105.0 | | | | | | | | | 100-105 | | |
| 110.0 | | | | | | | | | 105-110 | | |
| 115.0 | | | | | | | | | 110-115 | | |
| 120.0 | | | | | | | | | 115-120 | | |
| 125.0 | | | | | | | | | 120-125 | | |
| 130.0 | | | | | | | | | 125-130 | | |
| 135.0 | | | | | | | | | 130-135 | | |
| 140.0 | | | | | | | | | 135-140 | | |
| 145.0 | | | | | | | | | 140-145 | | |
| 150.0 | | | | | | | | | 145-150 | | |
| 155.0 | | | | | | | | | 150-155 | | |
| 160.0 | | | | | | | | | 155-160 | | |
| 165.0 | | | | | | | | | 160-165 | | |
| 170.0 | | | | | | | | | 165-170 | | |
| 175.0 | | | | | | | | | 170-175 | | |
| 180.0 | | | | | | | | | 175-180 | | |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | | UNIT:lm | |

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2023年11月18日

Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:8.000 m
Remarks:

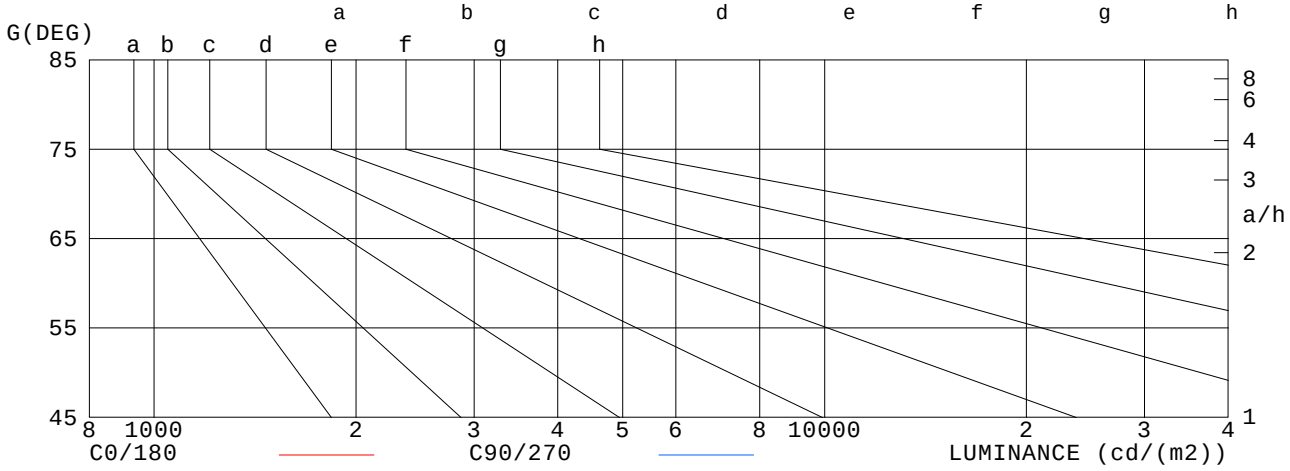
# LUMINANCE LIMITATION CURVES

**Report number:**

| | | |
|---|---|---|
| **MANUFACTURER:** | **Address:** | |
| **NAME: HCP1021011/1031011** | **TYPE:HCP1021011/1031011** | **WEIGHT:** |
| **SPECIFICATION:** | **DIMENSION: 1** | **SERIAL No.:2023092802** |

## LUMINANCE LIMITATION CURVES

| GLARE | CLASS | ILLUMINANCE (lx) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1.15 | A | 2000 | 1000 | 500 | <=300 | | | | |
| 1.50 | B | | 2000 | 1000 | 500 | <=300 | | | |
| 1.85 | C | | | 2000 | 1000 | 500 | <=300 | | |
| 2.20 | D | | | | 2000 | 1000 | 500 | <=300 | |
| 2.55 | E | | | | | 2000 | 1000 | 500 | <=300 |
| | | a | b | c | d | e | f | g | h |




| LUMINANCE cd/(m2) | | |
|---|---|---|
| G(DEG) | C0/180 | C90/270 |
| 85 | 352 | 345 |
| 80 | 219 | 217 |
| 75 | 181 | 179 |
| 70 | 173 | 171 |
| 65 | 179 | 176 |
| 60 | 196 | 190 |
| 55 | 222 | 222 |
| 50 | 265 | 273 |
| 45 | 356 | 371 |

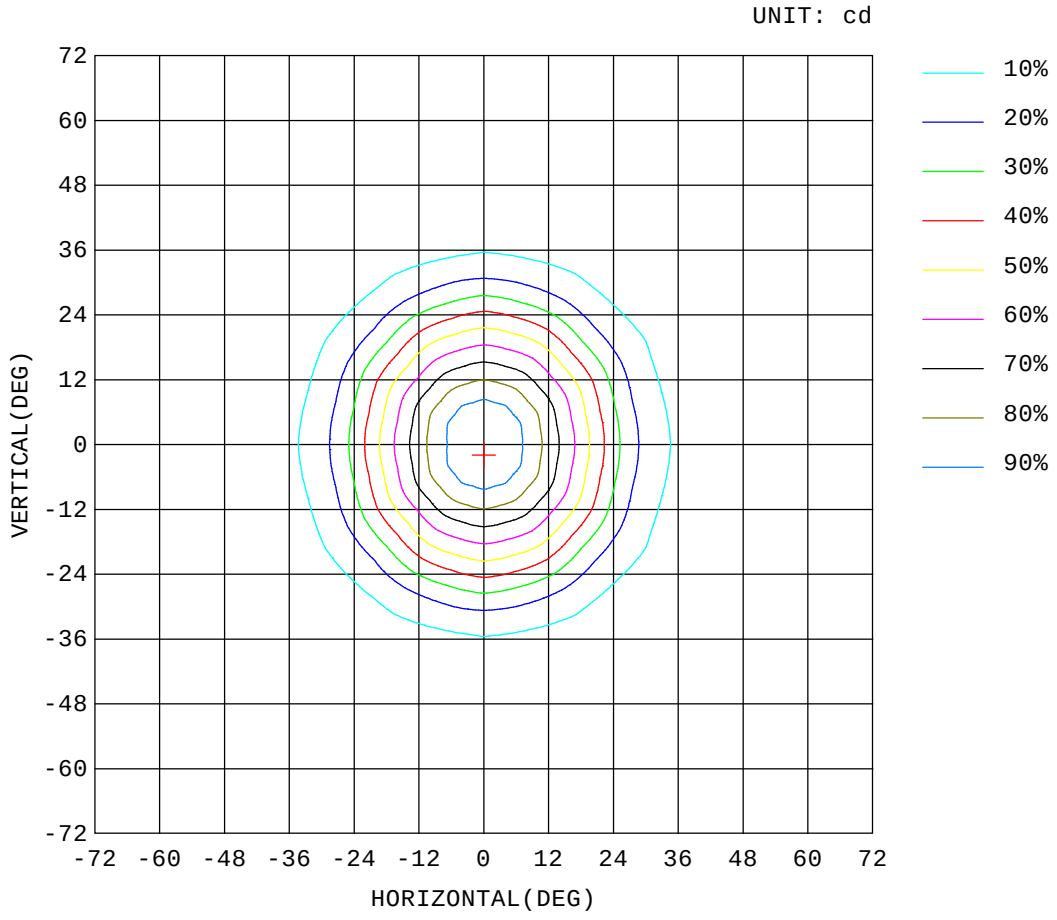
**Test System:HOPOO HPG1800**
**Temperature:25.3DEG**
**Operators:**
**Test Date:2023年11月18日**

**Test Set: 8.0deg/s C-Gamma (TYPE C)**
**Humidity:65.0%**
**Test Distance:8.000 m**
**Remarks:**

# ISOCANDELA DIAGRAM

Report number:

| | | |
|---|---|---|
| MANUFACTURER: | Address: | |
| NAME: HCP1021011/1031011 | TYPE:HCP1021011/1031011 | WEIGHT: |
| SPECIFICATION: | DIMENSION: 1 | SERIAL No.:2023092802 |



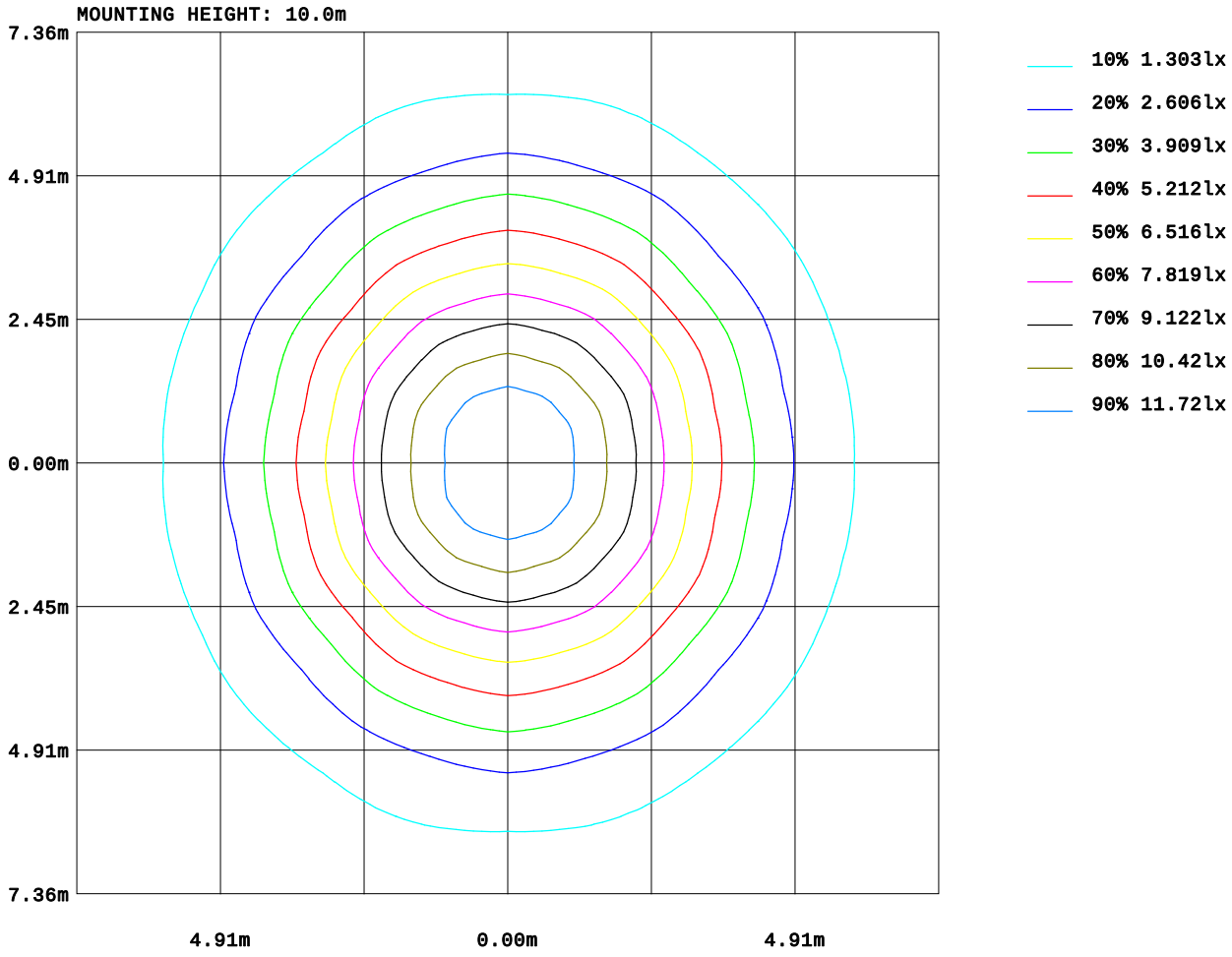

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2023年11月18日

Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:8.000 m
Remarks:

# ISOLUX DIAGRAM

Report number:

| | | |
|---|---|---|
| MANUFACTURER: | Address: | |
| NAME: HCP1021011/1031011 | TYPE:HCP1021011/1031011 | WEIGHT: |
| SPECIFICATION: | DIMENSION: 1 | SERIAL No.:2023092802 |




Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2023年11月18日

Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:8.000 m
Remarks:

# AREA LUMINOUS FLUX

Report number:

| | | |
|---|---|---|
| MANUFACTURER: | Address: | |
| NAME: HCP1021011/1031011 | TYPE:HCP1021011/1031011 | WEIGHT: |
| SPECIFICATION: | DIMENSION: 1 | SERIAL No.:2023092802 |

AREA FLUX DIAGRAM — UNIT:lm

| VERTICAL(DEG) | -72 | -64 | -56 | -48 | -40 | -32 | -24 | -16 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | F t | F a |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 72 | 0.04 | 0.07 | 0.09 | 0.11 | 0.15 | 0.19 | 0.20 | 0.21 | 0.24 | 0.24 | 0.21 | 0.20 | 0.19 | 0.15 | 0.11 | 0.10 | 0.07 | 0.04 | 2.60 | 0.00 |
| 64 | 0.05 | 0.08 | 0.12 | 0.15 | 0.20 | 0.26 | 0.30 | 0.31 | 0.36 | 0.36 | 0.31 | 0.29 | 0.27 | 0.20 | 0.15 | 0.12 | 0.09 | 0.05 | 3.65 | 0.00 |
| 56 | 0.05 | 0.09 | 0.15 | 0.19 | 0.26 | 0.37 | 0.45 | 0.49 | 0.57 | 0.57 | 0.50 | 0.46 | 0.38 | 0.27 | 0.21 | 0.16 | 0.10 | 0.05 | 5.33 | 0.00 |
| 48 | 0.06 | 0.10 | 0.18 | 0.26 | 0.36 | 0.53 | 0.75 | 0.90 | 1.08 | 1.10 | 0.93 | 0.78 | 0.55 | 0.38 | 0.28 | 0.19 | 0.11 | 0.06 | 8.62 | 0.00 |
| 40 | 0.06 | 0.11 | 0.21 | 0.35 | 0.52 | 0.85 | 1.41 | 1.92 | 2.44 | 2.47 | 1.97 | 1.46 | 0.90 | 0.55 | 0.37 | 0.23 | 0.13 | 0.07 | 16.0 | 3.31 |
| 32 | 0.07 | 0.12 | 0.24 | 0.43 | 0.81 | 1.45 | 2.80 | 5.03 | 6.83 | 6.89 | 5.16 | 2.89 | 1.51 | 0.86 | 0.46 | 0.26 | 0.14 | 0.07 | 36.0 | 28.1 |
| 24 | 0.08 | 0.14 | 0.26 | 0.51 | 1.13 | 2.49 | 5.74 | 10.3 | 13.2 | 13.3 | 10.5 | 5.95 | 2.57 | 1.20 | 0.56 | 0.28 | 0.16 | 0.08 | 68.6 | 62.7 |
| | 0.08 | 0.16 | 0.30 | 0.61 | 1.41 | 3.81 | 9.10 | 15.2 | 19.3 | 19.4 | 15.5 | 9.41 | 3.93 | 1.48 | 0.66 | 0.32 | 0.18 | 0.09 | 101 | 95.9 |
| | 0.09 | 0.17 | 0.34 | 0.71 | 1.69 | 4.72 | 10.9 | 18.2 | 23.5 | 23.6 | 18.4 | 11.2 | 4.84 | 1.75 | 0.77 | 0.36 | 0.19 | 0.10 | 122 | 117 |
| | 0.09 | 0.17 | 0.34 | 0.71 | 1.69 | 4.72 | 10.9 | 18.2 | 23.5 | 23.6 | 18.4 | 11.2 | 4.84 | 1.75 | 0.77 | 0.36 | 0.19 | 0.10 | 122 | 117 |
| | 0.08 | 0.16 | 0.30 | 0.61 | 1.41 | 3.81 | 9.10 | 15.2 | 19.3 | 19.4 | 15.5 | 9.41 | 3.93 | 1.48 | 0.66 | 0.32 | 0.18 | 0.09 | 101 | 95.9 |
| -24 | 0.08 | 0.14 | 0.26 | 0.51 | 1.13 | 2.49 | 5.74 | 10.3 | 13.2 | 13.3 | 10.5 | 5.95 | 2.57 | 1.20 | 0.56 | 0.28 | 0.16 | 0.08 | 68.6 | 62.7 |
| -32 | 0.07 | 0.12 | 0.24 | 0.43 | 0.81 | 1.45 | 2.80 | 5.03 | 6.83 | 6.89 | 5.16 | 2.89 | 1.51 | 0.86 | 0.46 | 0.26 | 0.14 | 0.07 | 36.0 | 28.1 |
| -40 | 0.06 | 0.11 | 0.21 | 0.35 | 0.52 | 0.85 | 1.41 | 1.92 | 2.44 | 2.47 | 1.97 | 1.46 | 0.90 | 0.55 | 0.37 | 0.23 | 0.13 | 0.07 | 16.0 | 3.31 |
| -48 | 0.06 | 0.10 | 0.18 | 0.26 | 0.36 | 0.53 | 0.75 | 0.90 | 1.08 | 1.10 | 0.93 | 0.78 | 0.55 | 0.38 | 0.28 | 0.19 | 0.11 | 0.06 | 8.62 | 0.00 |
| -56 | 0.05 | 0.09 | 0.15 | 0.19 | 0.26 | 0.37 | 0.45 | 0.49 | 0.57 | 0.57 | 0.50 | 0.46 | 0.38 | 0.27 | 0.21 | 0.16 | 0.10 | 0.05 | 5.33 | 0.00 |
| -64 | 0.05 | 0.08 | 0.12 | 0.15 | 0.20 | 0.26 | 0.30 | 0.31 | 0.36 | 0.36 | 0.31 | 0.29 | 0.27 | 0.20 | 0.15 | 0.12 | 0.09 | 0.05 | 3.65 | 0.00 |
| -72 | 0.04 | 0.07 | 0.09 | 0.11 | 0.15 | 0.19 | 0.20 | 0.21 | 0.24 | 0.24 | 0.21 | 0.20 | 0.19 | 0.15 | 0.11 | 0.10 | 0.07 | 0.04 | 2.60 | 0.00 |
| HORIZONTAL(DEG) | | | | | | | | | | | | | | | | | | | | |
| F t | 1.14 | 2.12 | 3.75 | 6.64 | 13.0 | 29.3 | 63.3 | 105 | 135 | 136 | 107 | 65.3 | 30.3 | 13.7 | 7.13 | 4.03 | 2.31 | 1.23 | 737 | |
| F a | 0.00 | 0.00 | 0.00 | 0.00 | 1.15 | 20.3 | 55.5 | 98.4 | 128 | 129 | 100 | 57.4 | 21.2 | 1.45 | 0.00 | 0.00 | 0.00 | 0.00 | | 615 |

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2023年11月18日

Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:8.000 m
Remarks:

# CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

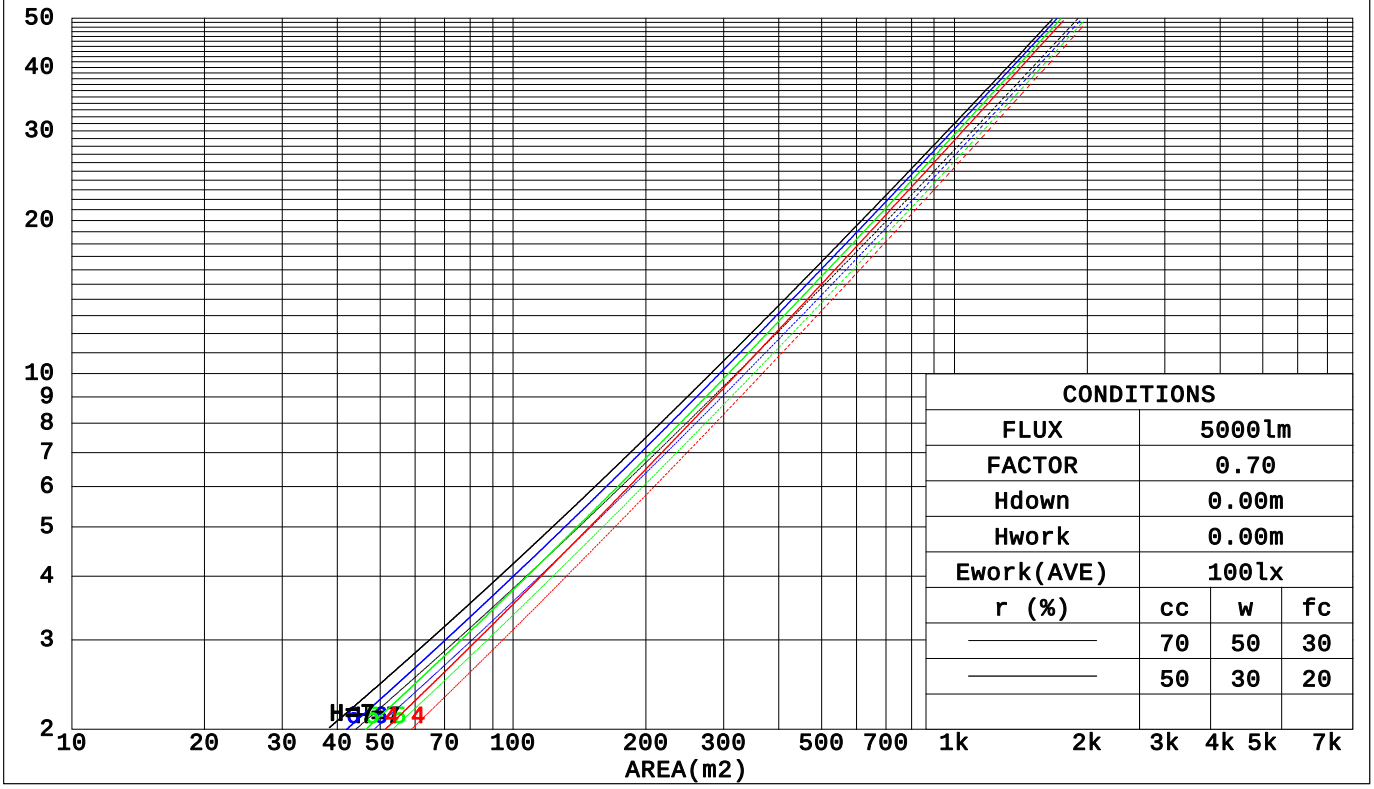
Report number:

| | | |
|---|---|---|
| MANUFACTURER: | Address: | |
| NAME: HCP1021011/1031011 | TYPE:HCP1021011/1031011 | WEIGHT: |
| SPECIFICATION: | DIMENSION: 1 | SERIAL No.:2023092802 |

| rcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| rw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| rfc | 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 | 1.11 | 1.11 | 1.11 | 1.06 | 1.06 | 1.06 | 1.02 | 1.02 | 1.02 | .00 |
| 1.0 | 1.10 | 1.08 | 1.05 | 1.08 | 1.06 | 1.04 | 1.04 | 1.02 | 1.00 | 1.00 | .99 | .97 | .97 | .96 | .95 | .93 |
| 2.0 | 1.03 | .98 | .95 | 1.01 | .97 | .94 | .98 | .95 | .92 | .95 | .92 | .90 | .92 | .90 | .88 | .86 |
| 3.0 | .96 | .91 | .87 | .94 | .90 | .86 | .92 | .88 | .85 | .89 | .86 | .83 | .87 | .84 | .82 | .81 |
| 4.0 | .90 | .85 | .80 | .89 | .84 | .80 | .87 | .82 | .79 | .85 | .81 | .78 | .83 | .80 | .77 | .76 |
| 5.0 | .85 | .79 | .75 | .84 | .78 | .75 | .82 | .77 | .74 | .80 | .76 | .73 | .79 | .75 | .73 | .71 |
| 6.0 | .80 | .74 | .70 | .79 | .74 | .70 | .78 | .73 | .69 | .76 | .72 | .69 | .75 | .71 | .68 | .67 |
| 7.0 | .76 | .70 | .66 | .75 | .70 | .66 | .74 | .69 | .66 | .73 | .68 | .65 | .72 | .68 | .65 | .63 |
| 8.0 | .72 | .66 | .62 | .72 | .66 | .62 | .70 | .66 | .62 | .69 | .65 | .62 | .69 | .65 | .62 | .60 |
| 9.0 | .69 | .63 | .59 | .68 | .63 | .59 | .67 | .62 | .59 | .66 | .62 | .59 | .66 | .61 | .59 | .57 |
| 10.0 | .65 | .60 | .56 | .65 | .60 | .56 | .64 | .59 | .56 | .64 | .59 | .56 | .63 | .59 | .56 | .55 |

LAMPS

LUMINAIRE BUDGETARY DIAGRAM




Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2023年11月18日

Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:8.000 m
Remarks:

# WEC AND CCEC

Report number:

| | | |
|---|---|---|
| MANUFACTURER: | Address: | |
| NAME: HCP1021011/1031011 | TYPE:HCP1021011/1031011 | WEIGHT: |
| SPECIFICATION: | DIMENSION: 1 | SERIAL No.:2023092802 |

| rcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| rw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| rfc | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | Wall Exitance Coeffcients(WEC) | | | | | | | | | |
| 0.0 | | | | | | | | | | | | | | | | |
| 1.0 | .188 | .107 | .034 | .181 | .103 | .033 | .169 | .097 | .031 | .157 | .091 | .029 | .146 | .085 | .027 | |
| 2.0 | .175 | .096 | .029 | .170 | .093 | .029 | .159 | .088 | .027 | .149 | .084 | .026 | .140 | .079 | .025 | |
| 3.0 | .164 | .087 | .026 | .159 | .085 | .026 | .150 | .081 | .025 | .142 | .078 | .024 | .134 | .074 | .023 | |
| 4.0 | .154 | .080 | .024 | .150 | .079 | .023 | .142 | .075 | .023 | .135 | .072 | .022 | .128 | .070 | .021 | |
| 5.0 | .145 | .074 | .021 | .142 | .073 | .021 | .135 | .070 | .021 | .129 | .068 | .020 | .123 | .066 | .020 | |
| 6.0 | .138 | .069 | .020 | .134 | .068 | .020 | .128 | .066 | .019 | .123 | .064 | .019 | .118 | .062 | .018 | |
| 7.0 | .131 | .065 | .018 | .128 | .064 | .018 | .123 | .062 | .018 | .118 | .060 | .018 | .113 | .059 | .017 | |
| 8.0 | .124 | .061 | .017 | .122 | .060 | .017 | .117 | .058 | .017 | .113 | .057 | .016 | .109 | .056 | .016 | |
| 9.0 | .118 | .057 | .016 | .116 | .057 | .016 | .112 | .055 | .016 | .108 | .054 | .016 | .104 | .053 | .015 | |
| 10.0 | .113 | .054 | .015 | .111 | .054 | .015 | .107 | .053 | .015 | .104 | .052 | .015 | .101 | .051 | .015 | |

| rcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| rw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| rfc | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | Ceiling Cavity Exitance Coefficients(CCEC) | | | | | | | | | |
| 0.0 | .190 | .190 | .190 | .163 | .163 | .163 | .111 | .111 | .111 | .064 | .064 | .064 | .020 | .020 | .020 | |
| 1.0 | .172 | .157 | .144 | .147 | .135 | .124 | .101 | .093 | .086 | .058 | .054 | .050 | .019 | .017 | .016 | |
| 2.0 | .157 | .132 | .112 | .134 | .114 | .097 | .092 | .079 | .068 | .053 | .046 | .040 | .017 | .015 | .013 | |
| 3.0 | .144 | .114 | .089 | .124 | .098 | .077 | .085 | .068 | .054 | .049 | .040 | .032 | .016 | .013 | .010 | |
| 4.0 | .133 | .099 | .072 | .115 | .085 | .063 | .079 | .060 | .044 | .046 | .035 | .026 | .015 | .011 | .009 | |
| 5.0 | .124 | .087 | .060 | .107 | .075 | .052 | .074 | .053 | .037 | .043 | .031 | .022 | .014 | .010 | .007 | |
| 6.0 | .116 | .078 | .050 | .100 | .067 | .044 | .069 | .047 | .031 | .040 | .028 | .018 | .013 | .009 | .006 | |
| 7.0 | .110 | .070 | .043 | .094 | .061 | .037 | .065 | .043 | .026 | .038 | .025 | .016 | .012 | .008 | .005 | |
| 8.0 | .104 | .064 | .037 | .089 | .055 | .032 | .062 | .039 | .023 | .036 | .023 | .013 | .012 | .008 | .004 | |
| 9.0 | .098 | .059 | .032 | .085 | .051 | .028 | .059 | .036 | .020 | .034 | .021 | .012 | .011 | .007 | .004 | |
| 10.0 | .093 | .054 | .028 | .081 | .047 | .024 | .056 | .033 | .017 | .033 | .020 | .010 | .011 | .006 | .003 | |

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2023年11月18日

Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:8.000 m
Remarks:

# Uncorrected UGR Table

Report number:

| | | |
|---|---|---|
| MANUFACTURER: | Address: | |
| NAME: HCP1021011/1031011 | TYPE:HCP1021011/1031011 | WEIGHT: |
| SPECIFICATION: | DIMENSION: 1 | SERIAL No.:2023092802 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 3.4 | 4.3 | 3.6 | 4.5 | 4.7 | 3.8 | 4.7 | 4.0 | 4.9 | 5.1 |
| 3H | 4.1 | 4.9 | 4.3 | 5.1 | 5.3 | 4.3 | 5.2 | 4.6 | 5.4 | 5.6 |
| 4H | 4.5 | 5.3 | 4.7 | 5.5 | 5.7 | 4.7 | 5.5 | 5.0 | 5.7 | 6.0 |
| 6H | 5.0 | 5.7 | 5.3 | 6.0 | 6.2 | 5.2 | 5.9 | 5.5 | 6.2 | 6.4 |
| 8H | 5.3 | 6.0 | 5.6 | 6.3 | 6.6 | 5.5 | 6.2 | 5.8 | 6.5 | 6.7 |
| 12H | 5.7 | 6.4 | 6.0 | 6.7 | 7.0 | 5.8 | 6.6 | 6.2 | 6.8 | 7.1 |
| 4H 2H | 3.6 | 4.4 | 3.9 | 4.6 | 4.9 | 3.9 | 4.8 | 4.2 | 5.0 | 5.2 |
| 3H | 4.5 | 5.2 | 4.8 | 5.5 | 5.8 | 4.7 | 5.4 | 5.1 | 5.7 | 6.0 |
| 4H | 5.1 | 5.7 | 5.4 | 6.0 | 6.3 | 5.2 | 5.9 | 5.6 | 6.2 | 6.5 |
| 6H | 5.7 | 6.3 | 6.1 | 6.6 | 7.0 | 5.8 | 6.4 | 6.2 | 6.8 | 7.1 |
| 8H | 6.1 | 6.7 | 6.5 | 7.0 | 7.4 | 6.2 | 6.8 | 6.6 | 7.1 | 7.5 |
| 12H | 6.7 | 7.2 | 7.1 | 7.5 | 7.9 | 6.7 | 7.2 | 7.1 | 7.6 | 8.0 |
| 8H 4H | 5.3 | 5.8 | 5.7 | 6.2 | 6.5 | 5.4 | 6.0 | 5.8 | 6.3 | 6.7 |
| 6H | 6.2 | 6.6 | 6.6 | 7.0 | 7.4 | 6.3 | 6.7 | 6.7 | 7.1 | 7.5 |
| 8H | 6.8 | 7.1 | 7.2 | 7.6 | 8.0 | 6.8 | 7.2 | 7.3 | 7.6 | 8.1 |
| 12H | 7.4 | 7.8 | 7.9 | 8.2 | 8.7 | 7.5 | 7.8 | 7.9 | 8.3 | 8.7 |
| 12H 4H | 5.3 | 5.8 | 5.7 | 6.2 | 6.6 | 5.5 | 6.0 | 5.9 | 6.3 | 6.7 |
| 6H | 6.3 | 6.7 | 6.7 | 7.1 | 7.5 | 6.4 | 6.8 | 6.8 | 7.2 | 7.6 |
| 8H | 6.9 | 7.3 | 7.4 | 7.7 | 8.2 | 7.0 | 7.4 | 7.5 | 7.8 | 8.3 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S = 1.0H | + 0.6 / - 0.5 | | | | | + 0.7 / - 0.6 | | | | |
| 1.5H | + 1.1 / - 0.5 | | | | | + 1.4 / - 0.6 | | | | |
| 2.0H | + 0.9 / - 0.6 | | | | | + 1.1 / - 0.6 | | | | |

CIE Pub.117 Corrected 737.2 lm Total Lamp Luminous Flux.(8log(F/F0) = -1.1)

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2023年11月18日

Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:8.000 m
Remarks:

# UTILIZATION FACTORS TABLE

Report number:

| | | |
|---|---|---|
| MANUFACTURER: | Address: | |
| NAME: HCP1021011/1031011 | TYPE:HCP1021011/1031011 | WEIGHT: |
| SPECIFICATION: | DIMENSION: 1 | SERIAL No.:2023092802 |

| 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) x RCR = 5 | | | | | | | | | |
| k = 0.60 | 84 | 77 | 73 | 84 | 77 | 73 | 83 | 77 | 73 | 69 |
| 0.80 | 92 | 85 | 81 | 91 | 85 | 81 | 90 | 84 | 81 | 77 |
| 1.00 | 97 | 90 | 86 | 96 | 90 | 86 | 94 | 90 | 86 | 81 |
| 1.25 | 101 | 95 | 91 | 100 | 94 | 91 | 98 | 93 | 90 | 85 |
| 1.50 | 104 | 98 | 95 | 103 | 98 | 94 | 100 | 96 | 93 | 88 |
| 2.00 | 107 | 102 | 99 | 105 | 101 | 98 | 103 | 99 | 96 | 91 |
| 2.50 | 109 | 104 | 101 | 107 | 103 | 100 | 104 | 101 | 98 | 92 |
| 3.00 | 111 | 107 | 104 | 109 | 105 | 102 | 105 | 103 | 100 | 94 |
| 4.00 | 113 | 110 | 107 | 111 | 108 | 106 | 107 | 105 | 103 | 96 |
| 5.00 | 114 | 112 | 109 | 112 | 110 | 108 | 108 | 106 | 105 | 97 |
| ROOM INDEX | UF(total) | | | | | | | | | Direct |
| According to DIN EN 13032-2 2004 | Suspended | | | | | | | | SHRNOM = 1.25 | |

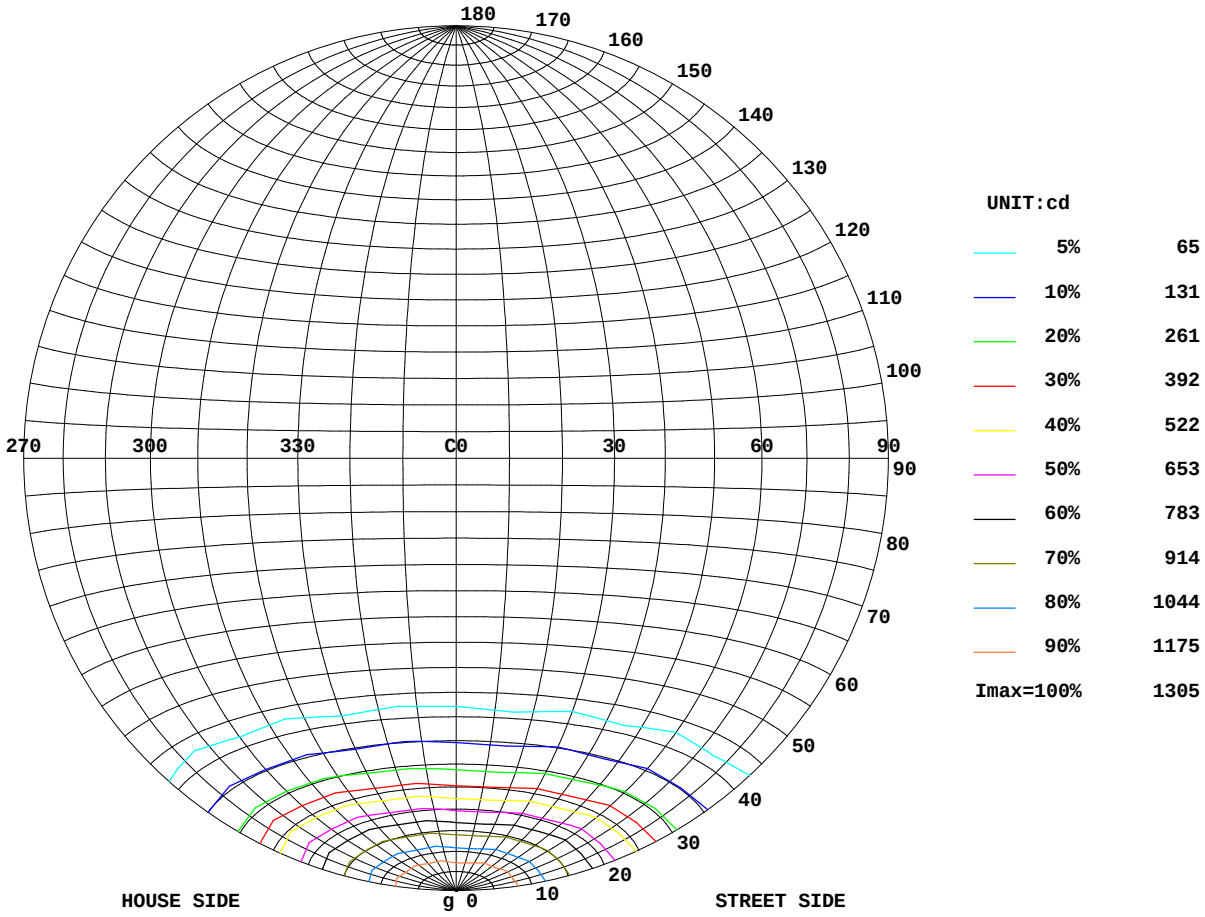
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2023年11月18日

Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:8.000 m
Remarks:

# ISOCANDELA DIAGRAM

Report number:

| | | |
|---|---|---|
| MANUFACTURER: | Address: | |
| NAME: HCP1021011/1031011 | TYPE:HCP1021011/1031011 | WEIGHT: |
| SPECIFICATION: | DIMENSION: 1 | SERIAL No.:2023092802 |




Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2023年11月18日

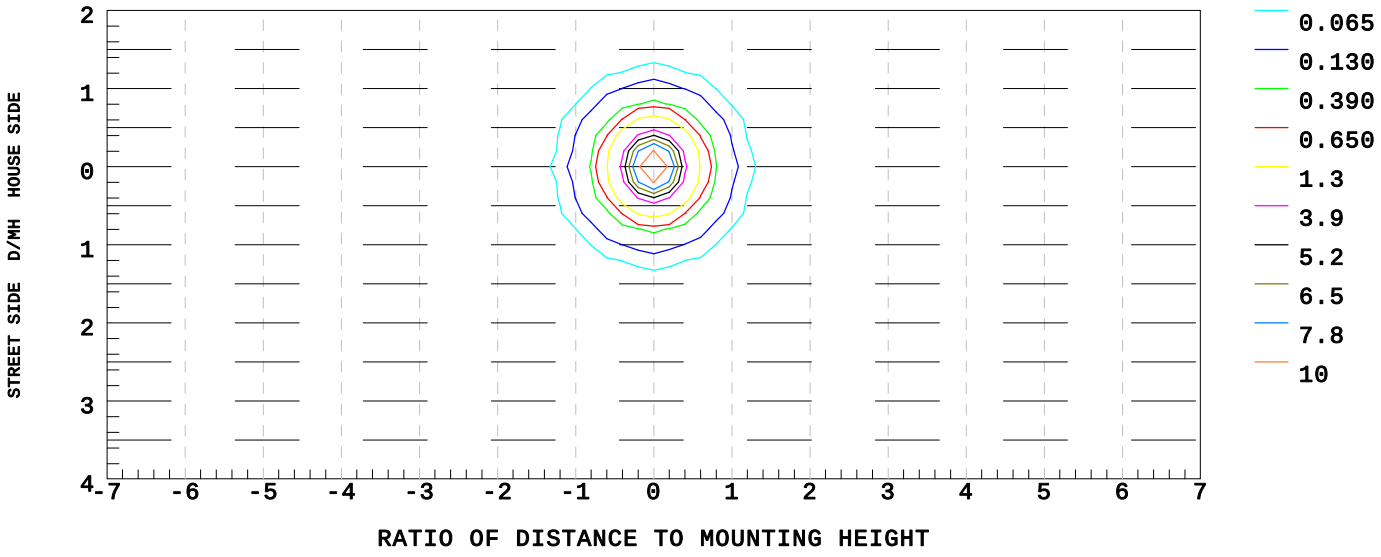
Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:8.000 m
Remarks:

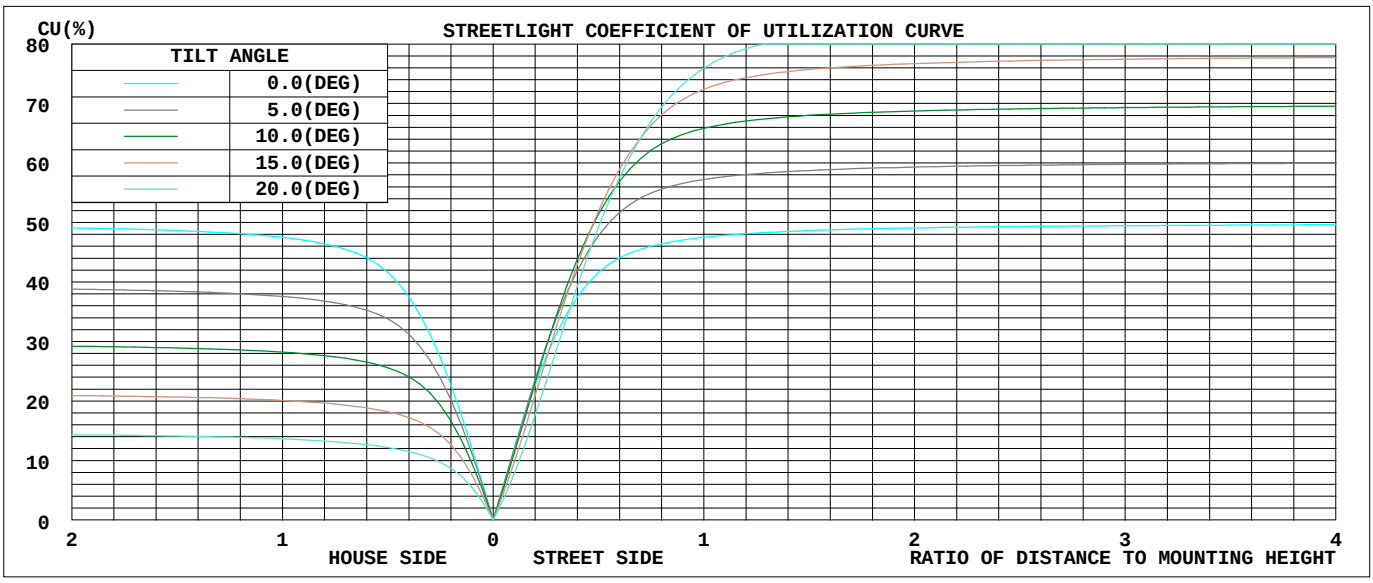
## ISOLUX DIAGRAM

Report number:

| | | |
|---|---|---|
| MANUFACTURER: | Address: | |
| NAME: HCP1021011/1031011 | TYPE:HCP1021011/1031011 | WEIGHT: |
| SPECIFICATION: | DIMENSION: 1 | SERIAL No.:2023092802 |

ILLUMINANCE AT MH=10 m,Enadir = 12.99 lx



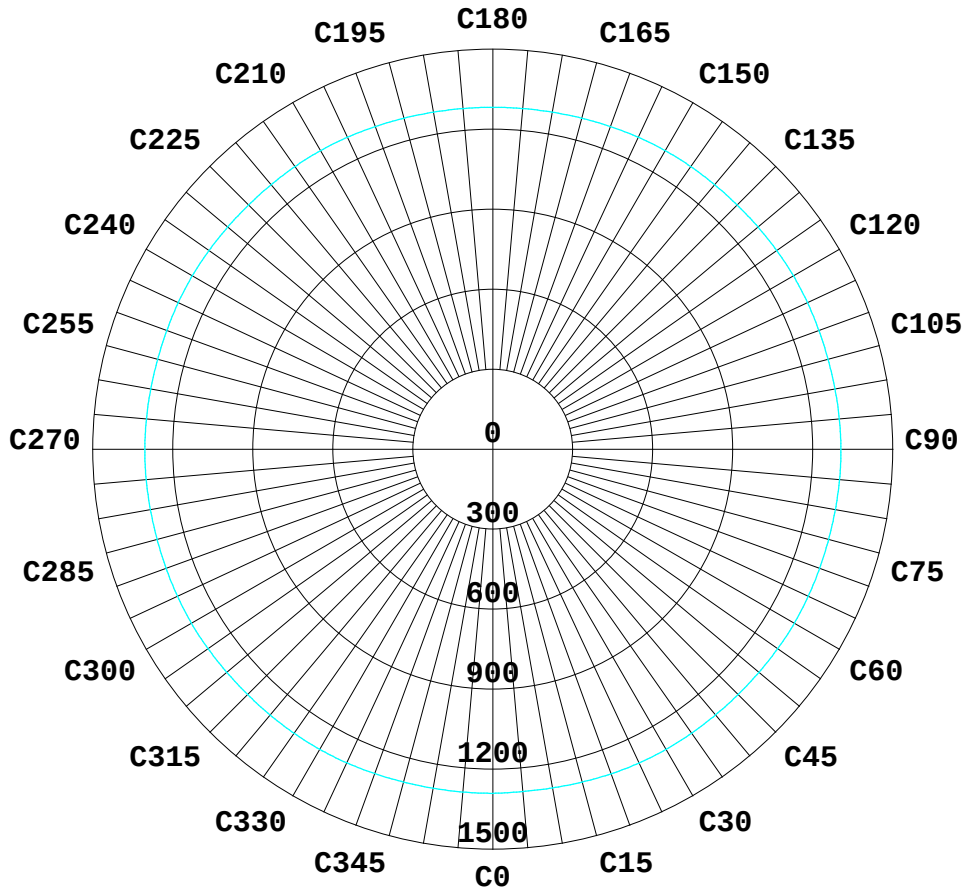

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2023年11月18日

Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:8.000 m
Remarks:

## ISOCANDELA DIAGRAM

Report number:

| | | |
|---|---|---|
| MANUFACTURER: | Address: | |
| NAME: HCP1021011/1031011 | TYPE:HCP1021011/1031011 | WEIGHT: |
| SPECIFICATION: | DIMENSION: 1 | SERIAL No.:2023092802 |




Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2023年11月18日

Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:8.000 m
Remarks:

# LUMINOUS DISTRIBUTION INTENSITY DATA

**Report number:**

| | | |
|---|---|---|
| **MANUFACTURER:** | **Address:** | |
| **NAME: HCP1021011/1031011** | **TYPE:HCP1021011/1031011** | **WEIGHT:** |
| **SPECIFICATION:** | **DIMENSION: 1** | **SERIAL No.:2023092802** |

UNIT: cd

| C(DEG) / g (DEG) | 0 | 15 | 30 | 45 | 60 | 75 | 90 | 105 | 120 | 135 | 150 | 165 | 180 | 195 | 210 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 1299 | 1297 | 1298 | 1296 | 1297 | 1295 | 1296 | 1295 | 1296 | 1295 | 1296 | 1295 | 1296 | 1295 | 1296 |
| 5.0 | 1239 | 1241 | 1258 | 1256 | 1264 | 1261 | 1267 | 1259 | 1264 | 1249 | 1248 | 1229 | 1226 | 1229 | 1248 |
| 10.0 | 1073 | 1081 | 1100 | 1099 | 1113 | 1108 | 1118 | 1108 | 1112 | 1097 | 1095 | 1072 | 1064 | 1072 | 1095 |
| 15.0 | 862 | 870 | 897 | 900 | 920 | 913 | 924 | 910 | 911 | 886 | 884 | 855 | 852 | 855 | 884 |
| 20.0 | 635 | 631 | 676 | 676 | 715 | 700 | 722 | 693 | 700 | 656 | 656 | 611 | 621 | 611 | 656 |
| 25.0 | 400 | 402 | 439 | 448 | 488 | 488 | 507 | 480 | 474 | 432 | 423 | 388 | 390 | 388 | 423 |
| 30.0 | 219 | 239 | 239 | 248 | 272 | 271 | 286 | 265 | 262 | 244 | 231 | 237 | 214 | 237 | 231 |
| 35.0 | 126 | 117 | 133 | 124 | 135 | 134 | 134 | 130 | 132 | 119 | 127 | 111 | 121 | 111 | 127 |
| 40.0 | 78.3 | 72.8 | 80.3 | 74.8 | 84.0 | 78.2 | 84.7 | 76.2 | 81.4 | 72.5 | 77.3 | 69.0 | 75.1 | 69.0 | 77.3 |
| 45.0 | 50.3 | 45.8 | 51.6 | 46.5 | 52.7 | 47.2 | 52.4 | 45.9 | 50.3 | 43.9 | 47.8 | 41.7 | 46.5 | 41.7 | 47.8 |
| 50.0 | 34.1 | 30.5 | 34.8 | 30.9 | 35.1 | 31.0 | 35.0 | 30.5 | 34.1 | 29.4 | 32.6 | 28.3 | 32.2 | 28.3 | 32.6 |
| 55.0 | 25.4 | 22.5 | 25.7 | 22.4 | 25.6 | 22.1 | 25.4 | 22.0 | 25.2 | 21.5 | 24.1 | 20.7 | 23.9 | 20.7 | 24.1 |
| 60.0 | 19.5 | 16.9 | 19.6 | 16.5 | 19.1 | 16.1 | 19.0 | 16.1 | 18.9 | 15.6 | 18.1 | 15.1 | 17.7 | 15.1 | 18.1 |
| 65.0 | 15.1 | 13.0 | 15.4 | 12.6 | 14.8 | 12.3 | 14.8 | 12.5 | 14.9 | 12.2 | 14.2 | 11.7 | 14.0 | 11.7 | 14.2 |
| 70.0 | 11.8 | 9.79 | 11.7 | 9.72 | 11.7 | 9.59 | 11.7 | 9.53 | 11.5 | 9.34 | 11.2 | 9.15 | 11.0 | 9.15 | 11.2 |
| 75.0 | 9.34 | 7.55 | 9.28 | 7.48 | 9.28 | 7.48 | 9.28 | 7.36 | 9.08 | 7.23 | 8.89 | 7.10 | 8.70 | 7.10 | 8.89 |
| 80.0 | 7.61 | 6.08 | 7.55 | 6.01 | 7.61 | 5.95 | 7.55 | 5.88 | 7.42 | 5.76 | 7.23 | 5.63 | 7.16 | 5.63 | 7.23 |
| 85.0 | 6.14 | 4.73 | 6.01 | 4.67 | 6.08 | 4.67 | 6.01 | 4.60 | 5.95 | 4.54 | 5.76 | 4.35 | 5.63 | 4.35 | 5.76 |
| 90.0 | 4.67 | 3.84 | 4.60 | 3.77 | 4.60 | 3.77 | 4.60 | 3.77 | 4.60 | 3.77 | 4.54 | 3.77 | 4.54 | 3.77 | 4.54 |

**Test System:HOPOO HPG1800** **Test Set: 8.0deg/s C-Gamma (TYPE C)**
**Temperature:25.3DEG** **Humidity:65.0%**
**Operators:** **Test Distance:8.000 m**
**Test Date:2023年11月18日** **Remarks:**

# LUMINOUS DISTRIBUTION INTENSITY DATA

**Report number:**

| | | |
|---|---|---|
| **MANUFACTURER:** | **Address:** | |
| **NAME: HCP1021011/1031011** | **TYPE:HCP1021011/1031011** | **WEIGHT:** |
| **SPECIFICATION:** | **DIMENSION: 1** | **SERIAL No.:2023092802** |

UNIT: cd

| C(DEG) / g (DEG) | 225 | 240 | 255 | 270 | 285 | 300 | 315 | 330 | 345 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 1295 | 1296 | 1295 | 1296 | 1295 | 1297 | 1296 | 1298 | 1297 |
| 5.0 | 1249 | 1264 | 1259 | 1267 | 1261 | 1264 | 1256 | 1258 | 1241 |
| 10.0 | 1097 | 1112 | 1108 | 1118 | 1108 | 1113 | 1099 | 1100 | 1081 |
| 15.0 | 886 | 911 | 910 | 924 | 913 | 920 | 900 | 897 | 870 |
| 20.0 | 656 | 700 | 693 | 722 | 700 | 715 | 676 | 676 | 631 |
| 25.0 | 432 | 474 | 480 | 507 | 488 | 488 | 448 | 439 | 402 |
| 30.0 | 244 | 262 | 265 | 286 | 271 | 272 | 248 | 239 | 239 |
| 35.0 | 119 | 132 | 130 | 134 | 134 | 135 | 124 | 133 | 117 |
| 40.0 | 72.5 | 81.4 | 76.2 | 84.7 | 78.2 | 84.0 | 74.8 | 80.3 | 72.8 |
| 45.0 | 43.9 | 50.3 | 45.9 | 52.4 | 47.2 | 52.7 | 46.5 | 51.6 | 45.8 |
| 50.0 | 29.4 | 34.1 | 30.5 | 35.0 | 31.0 | 35.1 | 30.9 | 34.8 | 30.5 |
| 55.0 | 21.5 | 25.2 | 22.0 | 25.4 | 22.1 | 25.6 | 22.4 | 25.7 | 22.5 |
| 60.0 | 15.6 | 18.9 | 16.1 | 19.0 | 16.1 | 19.1 | 16.5 | 19.6 | 16.9 |
| 65.0 | 12.2 | 14.9 | 12.5 | 14.8 | 12.3 | 14.8 | 12.6 | 15.4 | 13.0 |
| 70.0 | 9.34 | 11.5 | 9.53 | 11.7 | 9.59 | 11.7 | 9.72 | 11.7 | 9.79 |
| 75.0 | 7.23 | 9.08 | 7.36 | 9.28 | 7.48 | 9.28 | 7.48 | 9.28 | 7.55 |
| 80.0 | 5.76 | 7.42 | 5.88 | 7.55 | 5.95 | 7.61 | 6.01 | 7.55 | 6.08 |
| 85.0 | 4.54 | 5.95 | 4.60 | 6.01 | 4.67 | 6.08 | 4.67 | 6.01 | 4.73 |
| 90.0 | 3.77 | 4.60 | 3.77 | 4.60 | 3.77 | 4.60 | 3.77 | 4.60 | 3.84 |

**Test System:HOPOO HPG1800** **Test Set: 8.0deg/s C-Gamma (TYPE C)**
**Temperature:25.3DEG** **Humidity:65.0%**
**Operators:** **Test Distance:8.000 m**
**Test Date:2023年11月18日** **Remarks:**