

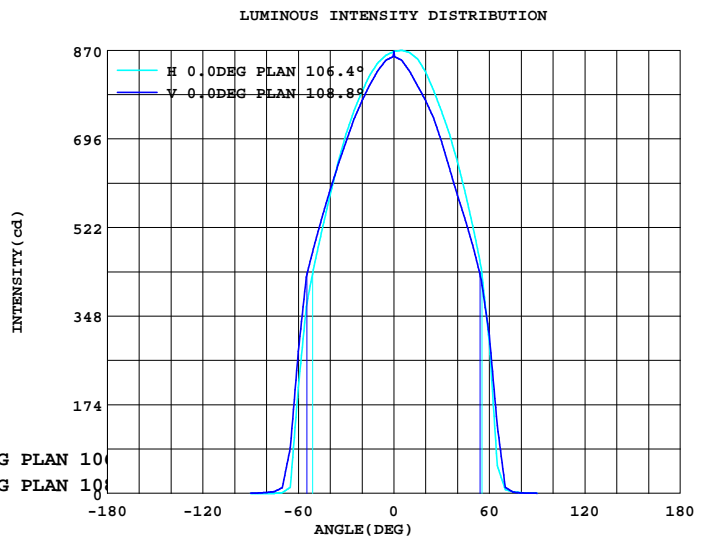
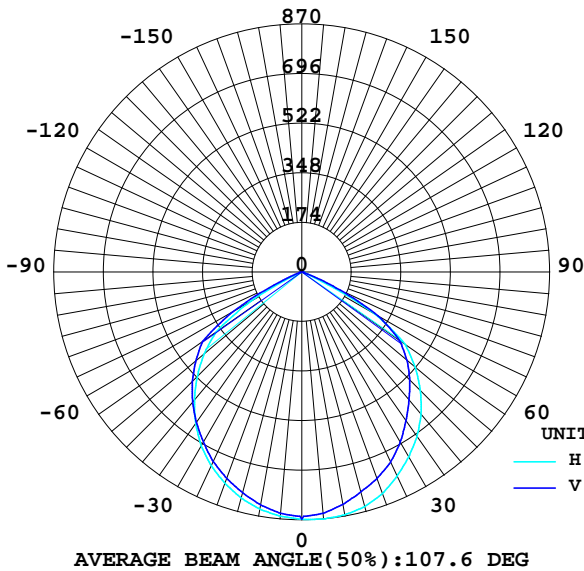
HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

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

| | | | | | |
|----------------------|--------|----------------------|----------------|------------------|-------|
| MODEL: | | | | | |
| NOMINAL POWER(W): | 22 | Imax(cd): | 869.5 | Voltage(V) | 220.8 |
| RATED VOLTAGE(V): | 220 | AVAILABILITY(%): | 87.4 | Current(A) | 0.107 |
| NOMINAL FLUX(lm): | 2269 | Avai. FLUX(lm): | 1983 | Power(W) | 22.69 |
| TEST FLUX(lm): | 2269 | EFFICIENCY(%): | 88.9 | Power Factor(PF) | 0.959 |
| LAMPS QUANTITY : | 1 | TOTAL FLUX(lm): | 2017 | EFFICIENCY(lm/W) | 88.9 |
| Effective Flux(lm) : | 1983.3 | θ @50%(H, V): | 106.4,108.6DEG | EEL: | 0.156 |



Test System:HOPOO HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2014年09月04日

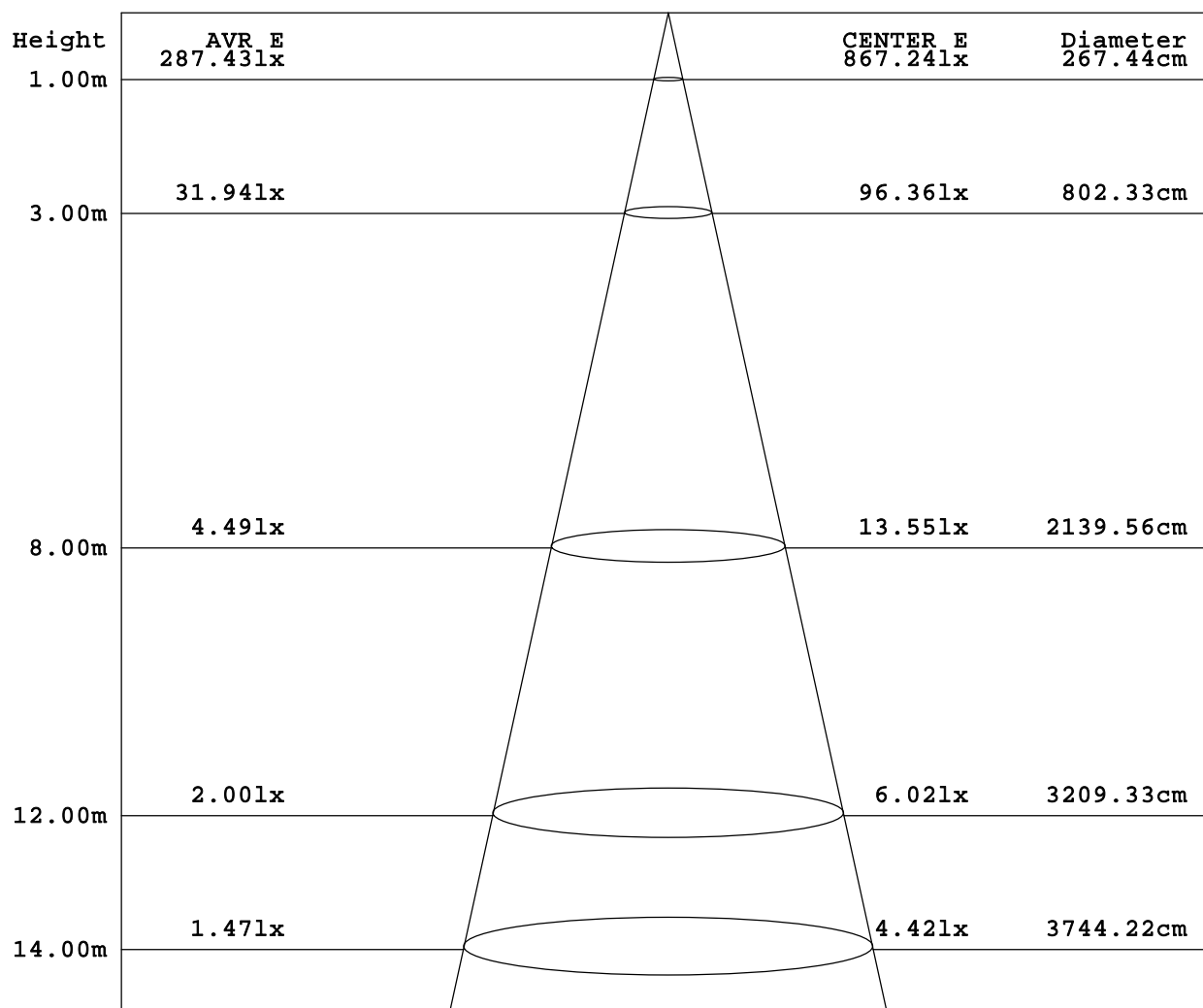
Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:6.000 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

AVERAGE AND CENTER E Figure

Report number:

| | | |
|----------------|------------|-------------|
| MANUFACTURER: | Address: | |
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Angle:106.4deg

Test System:HOPOO HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2014年09月04日

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:6.000 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 |
|----------------|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------|------|------|------|
| | 90 | 80 | 70 | 60 | 50 | 40 | 30 | 20 | 10 | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 0.38 | 0.00 |
| 80 | 0.00 | 0.00 | 0.02 | 0.04 | 0.09 | 0.14 | 0.22 | 0.25 | 0.19 | 0.15 | 0.17 | 0.16 | 0.12 | 0.09 | 0.05 | 0.02 | 0.01 | 0.00 | 1.72 | 0.00 | |
| 70 | 0.00 | 0.01 | 0.03 | 0.14 | 0.83 | 2.15 | 3.39 | 4.26 | 4.57 | 4.45 | 3.85 | 2.66 | 1.37 | 0.44 | 0.11 | 0.04 | 0.01 | 0.00 | 28.3 | 22.7 | |
| 60 | 0.00 | 0.01 | 0.07 | 0.87 | 3.65 | 6.86 | 9.20 | 11.1 | 12.1 | 12.3 | 11.5 | 9.68 | 6.73 | 2.91 | 0.54 | 0.07 | 0.01 | 0.00 | 87.8 | 86.1 | |
| 50 | 0.00 | 0.01 | 0.25 | 2.18 | 6.23 | 9.95 | 12.8 | 15.0 | 16.0 | 16.1 | 15.2 | 13.4 | 10.8 | 6.91 | 1.99 | 0.17 | 0.02 | 0.00 | 128 | 126 | |
| 40 | 0.00 | 0.01 | 0.49 | 3.59 | 8.32 | 12.2 | 15.5 | 17.8 | 19.1 | 19.2 | 18.0 | 15.8 | 13.0 | 9.41 | 4.17 | 0.44 | 0.02 | 0.00 | 158 | 157 | |
| 30 | 0.00 | 0.02 | 0.70 | 4.89 | 9.78 | 14.0 | 17.5 | 20.2 | 21.9 | 22.1 | 20.6 | 17.9 | 14.7 | 10.8 | 5.95 | 0.82 | 0.03 | 0.00 | 182 | 182 | |
| 20 | 0.00 | 0.02 | 0.87 | 5.75 | 10.6 | 15.2 | 19.2 | 22.2 | 24.0 | 24.1 | 22.6 | 19.9 | 16.1 | 11.8 | 6.97 | 1.22 | 0.03 | 0.00 | 201 | 200 | |
| 10 | 0.00 | 0.01 | 0.89 | 6.11 | 11.1 | 15.9 | 20.3 | 23.7 | 25.5 | 25.5 | 24.3 | 21.3 | 17.2 | 12.4 | 7.42 | 1.43 | 0.03 | 0.00 | 214 | 213 | |
| 0 | 0.00 | 0.00 | 0.83 | 6.11 | 11.1 | 15.9 | 20.3 | 23.5 | 25.3 | 25.7 | 24.4 | 21.4 | 17.2 | 12.5 | 7.42 | 1.49 | 0.05 | 0.00 | 214 | 213 | |
| -10 | 0.00 | 0.00 | 0.67 | 5.71 | 10.6 | 15.2 | 19.2 | 22.1 | 23.9 | 24.3 | 22.9 | 20.1 | 16.3 | 11.9 | 6.98 | 1.41 | 0.07 | 0.00 | 202 | 201 | |
| -20 | 0.00 | 0.00 | 0.38 | 4.70 | 9.78 | 13.9 | 17.5 | 20.3 | 21.9 | 22.1 | 20.9 | 18.3 | 15.0 | 10.9 | 6.02 | 1.17 | 0.06 | 0.00 | 183 | 183 | |
| -30 | 0.00 | 0.00 | 0.16 | 2.95 | 8.31 | 12.2 | 15.4 | 17.9 | 19.3 | 19.5 | 18.4 | 16.3 | 13.2 | 9.43 | 4.56 | 0.94 | 0.04 | 0.00 | 159 | 158 | |
| -40 | 0.00 | 0.00 | 0.03 | 1.09 | 5.41 | 9.92 | 12.9 | 15.0 | 16.2 | 16.4 | 15.5 | 13.6 | 10.9 | 7.28 | 3.07 | 0.61 | 0.02 | 0.00 | 128 | 127 | |
| -50 | 0.00 | 0.00 | 0.00 | 0.17 | 1.66 | 5.01 | 8.39 | 10.8 | 12.0 | 12.2 | 11.4 | 9.75 | 7.75 | 4.92 | 1.80 | 0.19 | 0.01 | 0.00 | 86.1 | 84.5 | |
| -60 | 0.00 | 0.00 | 0.00 | 0.01 | 0.09 | 0.62 | 1.59 | 2.70 | 3.43 | 4.01 | 4.44 | 4.34 | 3.67 | 1.94 | 0.35 | 0.05 | 0.01 | 0.00 | 27.2 | 22.0 | |
| -70 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.05 | 0.09 | 0.14 | 0.31 | 0.52 | 0.49 | 0.27 | 0.13 | 0.05 | 0.01 | 0.00 | 0.00 | 2.07 | 0.00 | |
| -80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.02 | 0.02 | 0.03 | 0.03 | 0.02 | 0.02 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.17 | 0.00 | |
| -90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Φ t | 0.00 | 0.10 | 5.39 | 44.3 | 97.7 | 150 | 194 | 228 | 246 | 249 | 235 | 206 | 165 | 114 | 57.5 | 10.1 | 0.45 | 0.03 | 2017 | | |
| Φ a | 0.00 | 0.00 | 2.79 | 42.3 | 96.1 | 148 | 192 | 226 | 245 | 247 | 234 | 204 | 163 | 113 | 55.7 | 6.19 | 0.00 | 0.00 | | 1983 | |

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 Operators:
 Test Date:2014年09月04日

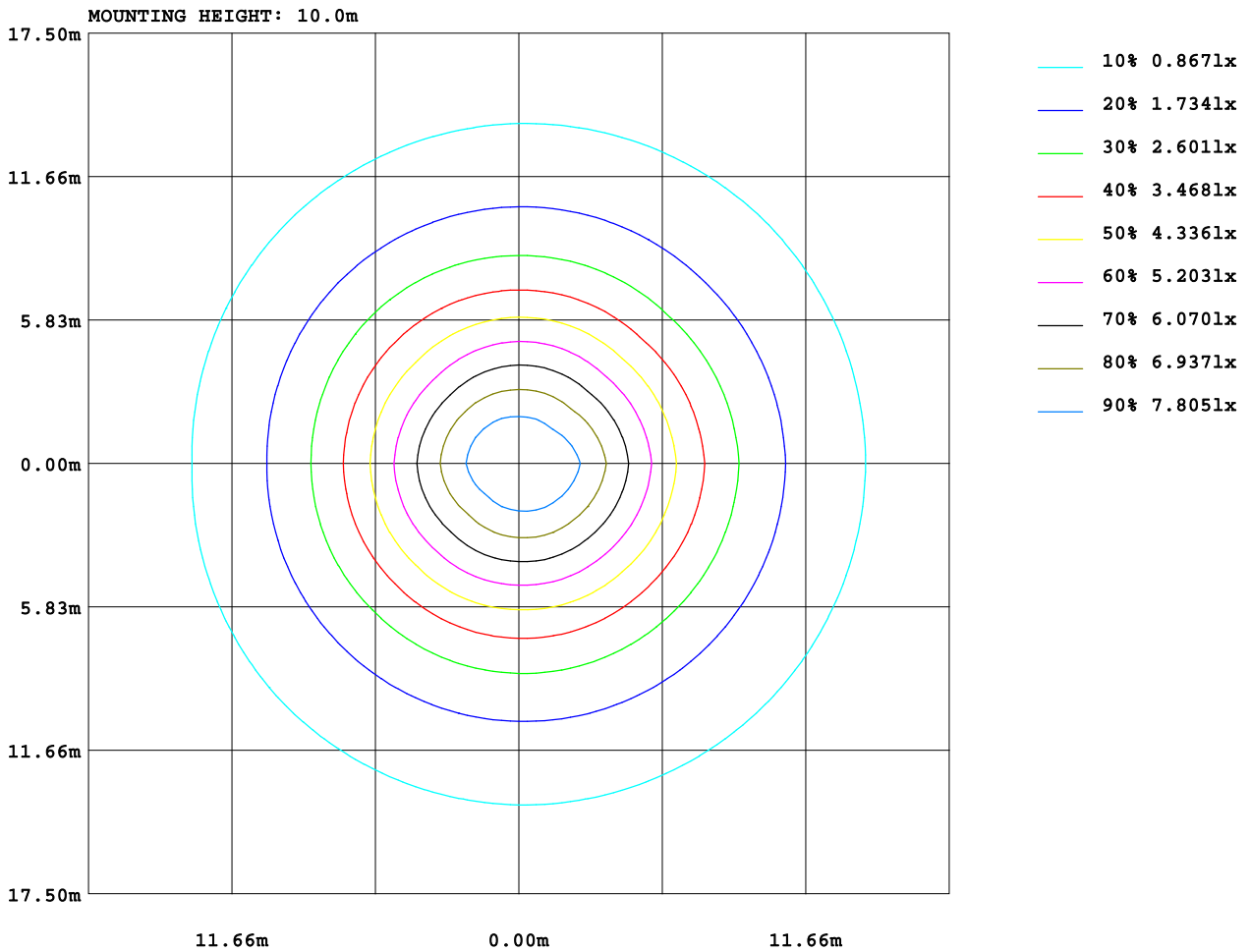
Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:6.000 m
 Remarks:

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ISOLUX DIAGRAM

Report number:

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