
LED Downlight FUSION Series LE-FF1-2W-930-24D
Specular

| | | |
|---------------------|---------|--------------------------|
| Light Output Ratio: | 100.0% | |
| Luminaire Power: | 3.092 W | |
| SHR Nominal: | 0.00 | Calculated using the TM5 |
| SHR Maximum: | 1.00 | fine grid method. |

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Meng Yongjian
Test Date: 2017-05-17

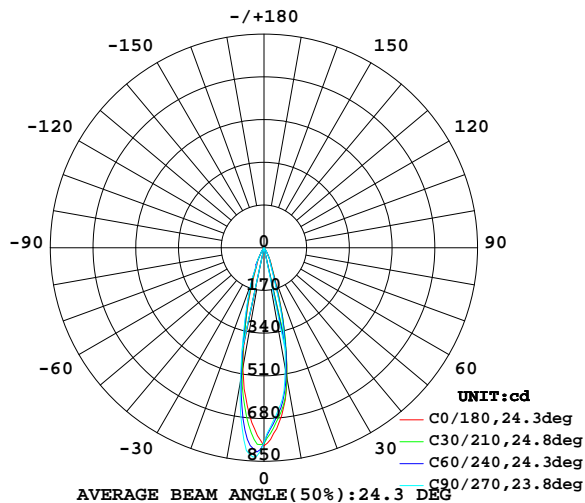
γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity: 52%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

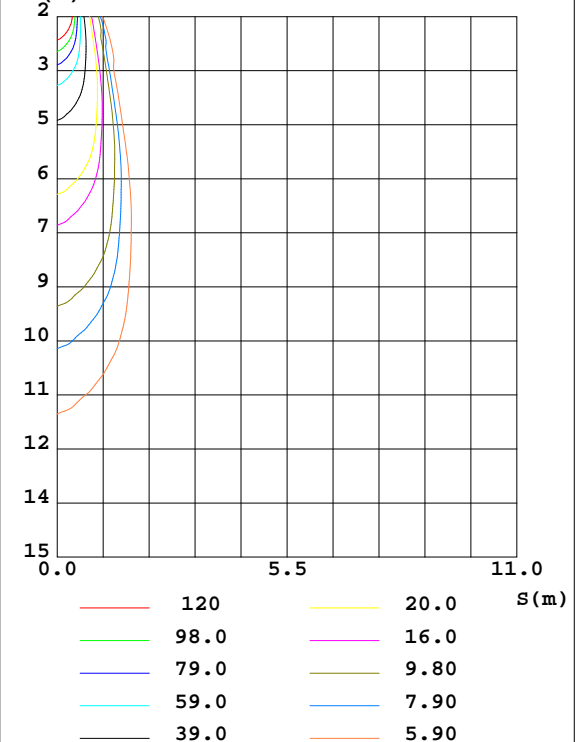
| | | |
|---|-------------------------|-------------|
| Test:U:220.8V I:0.0198A P:3.092W PF:0.7067 Lamp Flux:173.663x1 lm | | |
| NAME: FF1-2W-930-24D Specular | TYPE:Downlight | SERIAL No.: |
| SPEC.:3000K | DIM.: L45mm*W45mm*H60mm | |
| MFR.: | | |

| DATA OF LAMP | | PHOTOMETRIC DATA Eff: 56.17 lm/W | | | |
|------------------|------------|----------------------------------|--------|-------------------|----------|
| MODEL | CREE-3000K | I _{max} (cd) | 845.0 | S/MH(C0/180) | 0.40 |
| NOMINAL POWER(W) | 3.0 | LOR(%) | 100.0 | S/MH(C90/270) | 0.43 |
| RATED VOLTAGE(V) | 220 | TOTAL FLUX(lm) | 173.66 | η UP,DN(C0-180) | 0.0,47.5 |
| NOMINAL FLUX(lm) | 173.663 | CIE CLASS | DIRECT | η UP,DN(C180-360) | 0.0,52.5 |
| LAMPS INSIDE | 1 | η up(%) | 0.0 | CIBSE SHR NOM | 0.00 |
| TEST VOLTAGE(V) | 220 | η down(%) | 100.0 | CIBSE SHR MAX | 1.00 |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Meng Yongjian
 Test Date:2017-05-17

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:52%
 Test Distance:5.850m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM AND LUMINANCE LIMITATION CURVES

ZONAL FLUX DIAGRAM:

| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | Φ zone | Φ total | $\%lum, lamp$ |
|----------|-----------------------|--------|--------|--------|--------|--------|--------|--------|----------|-------------|--------------|---------------|
| 10 | 526.4 | 523.9 | 489.5 | 492.9 | 487.6 | 506.8 | 542.8 | 544.9 | 0- 10 | 61.36 | 61.36 | 35.3,35.3 |
| 20 | 119.8 | 105.8 | 90.57 | 98.20 | 114.7 | 136.4 | 153.3 | 151.3 | 10- 20 | 76.30 | 137.7 | 79.3,79.3 |
| 30 | 26.98 | 27.49 | 25.62 | 25.62 | 26.95 | 27.51 | 27.39 | 26.78 | 20- 30 | 28.54 | 166.2 | 95.7,95.7 |
| 40 | 2.199 | 1.855 | 1.584 | 1.501 | 2.388 | 3.700 | 4.211 | 2.970 | 30- 40 | 7.045 | 173.2 | 99.8,99.8 |
| 50 | 0.0700 | 0.0481 | 0.0678 | 0.0350 | 0.0349 | 0.0744 | 0.0634 | 0.0765 | 40- 50 | 0.3323 | 173.6 | 99.9,99.9 |
| 60 | 0.0525 | 0.0284 | 0.0459 | 0.0218 | 0.0196 | 0.0525 | 0.0372 | 0.0547 | 50- 60 | 0.0424 | 173.6 | 100,100 |
| 70 | 0.0416 | 0.0065 | 0.0284 | 0.0022 | 0.0109 | 0.0328 | 0.0196 | 0.0328 | 60- 70 | 0.0294 | 173.6 | 100,100 |
| 80 | 0.0175 | 0.0022 | 0.0110 | 0 | 0.0022 | 0.0153 | 0 | 0.0154 | 70- 80 | 0.0142 | 173.7 | 100,100 |
| 90 | 0.0022 | 0.0022 | 0.0022 | 0 | 0.0022 | 0 | 0 | 0.0022 | 80- 90 | 0.0040 | 173.7 | 100,100 |
| 100 | | | | | | | | | 90-100 | | | |
| 110 | | | | | | | | | 100-110 | | | |
| 120 | | | | | | | | | 110-120 | | | |
| 130 | | | | | | | | | 120-130 | | | |
| 140 | | | | | | | | | 130-140 | | | |
| 150 | | | | | | | | | 140-150 | | | |
| 160 | | | | | | | | | 150-160 | | | |
| 170 | | | | | | | | | 160-170 | | | |
| 180 | | | | | | | | | 170-180 | | | |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | | UNIT:lm | | |



| LUMINANCE cd/(m2) | | |
|-------------------|--------|---------|
| G(DEG) | C0/180 | C90/270 |
| 85 | 37 | 25 |
| 80 | 50 | 31 |
| 75 | 50 | 38 |
| 70 | 60 | 41 |
| 65 | 54 | 43 |
| 60 | 52 | 45 |
| 55 | 53 | 49 |
| 50 | 54 | 52 |
| 45 | 83 | 75 |

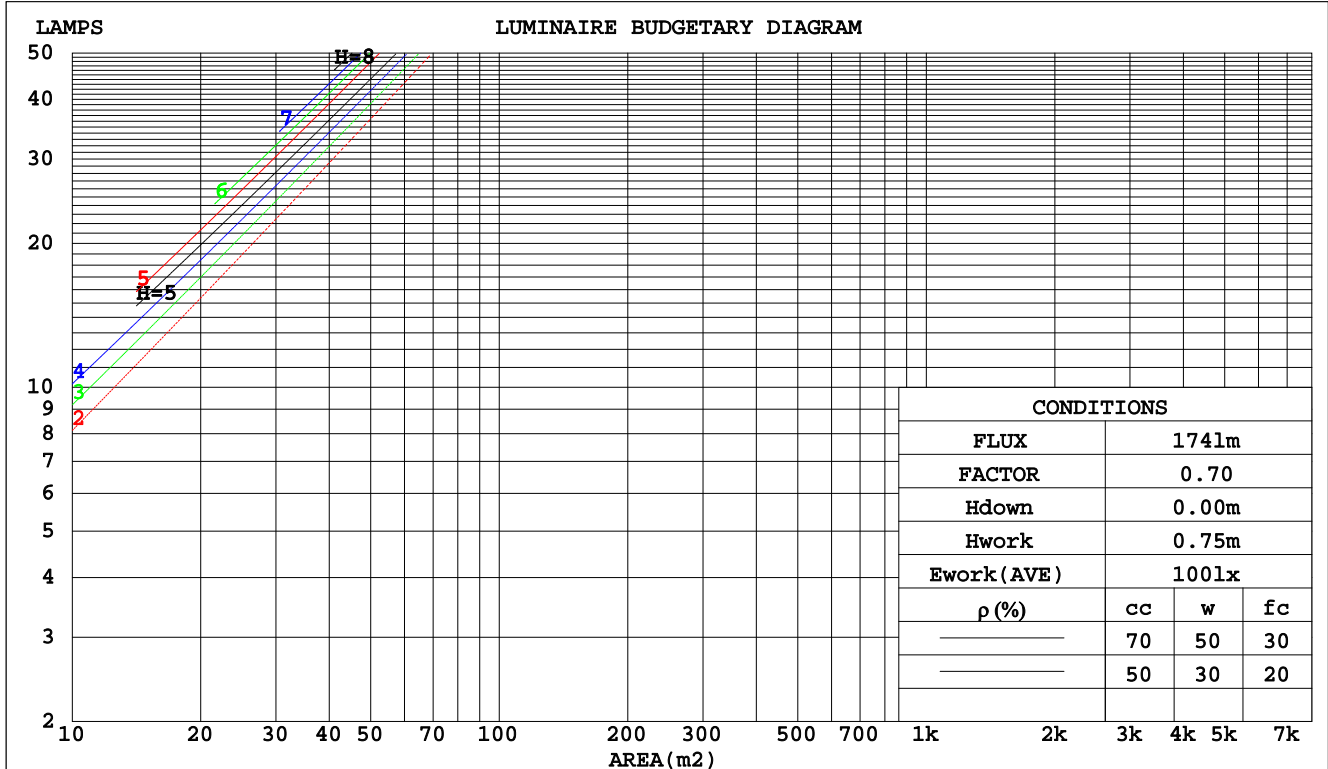
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Meng Yongjian
 Test Date: 2017-05-17

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity: 52%
 Test Distance: 5.850m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

| | | |
|---|-------------------------|-------------|
| Test:U:220.8V I:0.0198A P:3.092W PF:0.7067 Lamp Flux:173.663x1 lm | | |
| NAME: FF1-2W-930-24D Specular | TYPE:Downlight | SERIAL No.: |
| SPEC.:3000K | DIM.: L45mm*W45mm*H60mm | |
| MFR.: | | |

| pcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|------|
| pw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| pfc | 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 | 1.00 |
| 1.0 | 1.13 | 1.11 | 1.09 | 1.11 | 1.09 | 1.08 | 1.07 | 1.06 | 1.04 | 1.03 | 1.02 | 1.01 | .00 | .99 | .98 | .97 |
| 2.0 | 1.08 | 1.05 | 1.02 | 1.06 | 1.03 | 1.01 | 1.03 | 1.01 | .99 | 1.00 | .98 | .97 | .97 | .96 | .95 | .94 |
| 3.0 | 1.03 | .00 | .97 | 1.02 | .99 | .96 | .99 | .97 | .95 | .97 | .95 | .93 | .95 | .93 | .92 | .90 |
| 4.0 | .99 | .95 | .92 | .98 | .95 | .92 | .96 | .93 | .91 | .94 | .92 | .90 | .93 | .91 | .89 | .88 |
| 5.0 | .96 | .92 | .89 | .95 | .91 | .88 | .93 | .90 | .87 | .92 | .89 | .87 | .90 | .88 | .86 | .85 |
| 6.0 | .92 | .88 | .85 | .92 | .88 | .85 | .90 | .87 | .84 | .89 | .86 | .84 | .88 | .85 | .83 | .82 |
| 7.0 | .89 | .85 | .82 | .89 | .85 | .82 | .88 | .84 | .82 | .87 | .84 | .81 | .86 | .83 | .81 | .80 |
| 8.0 | .87 | .83 | .80 | .86 | .82 | .80 | .85 | .82 | .79 | .84 | .81 | .79 | .84 | .81 | .79 | .78 |
| 9.0 | .84 | .80 | .77 | .84 | .80 | .77 | .83 | .79 | .77 | .82 | .79 | .77 | .81 | .79 | .77 | .76 |
| 10.0 | .82 | .78 | .75 | .81 | .78 | .75 | .81 | .77 | .75 | .80 | .77 | .75 | .79 | .77 | .75 | .74 |



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 Temperature:25.3DEG
 Operators:Meng Yongjian
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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:52%
 Test Distance:5.850m [K=1.0000]
 Remarks:

WEC AND CCEC

| | | |
|---|-------------------------|-------------|
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| MFR.: | | |

| pcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 | |
|------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|--|
| pw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 | |
| pfc | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 | |
| RCR | RCR:Room Cavity Ratio | | | | | | Wall Exitance Coefficients(WEC) | | | | | | | | | | |
| 0.0 | | | | | | | | | | | | | | | | | |
| 1.0 | .136 | .077 | .024 | .129 | .074 | .023 | .117 | .067 | .021 | .105 | .061 | .019 | .095 | .055 | .018 | | |
| 2.0 | .126 | .069 | .021 | .120 | .066 | .020 | .110 | .061 | .019 | .101 | .056 | .018 | .092 | .052 | .016 | | |
| 3.0 | .117 | .062 | .019 | .113 | .060 | .018 | .104 | .056 | .017 | .096 | .053 | .016 | .089 | .049 | .015 | | |
| 4.0 | .110 | .057 | .017 | .106 | .055 | .016 | .099 | .052 | .016 | .092 | .050 | .015 | .086 | .047 | .014 | | |
| 5.0 | .104 | .053 | .015 | .100 | .052 | .015 | .094 | .049 | .014 | .089 | .047 | .014 | .083 | .044 | .013 | | |
| 6.0 | .098 | .049 | .014 | .095 | .048 | .014 | .090 | .046 | .013 | .085 | .044 | .013 | .081 | .042 | .013 | | |
| 7.0 | .093 | .046 | .013 | .091 | .045 | .013 | .086 | .044 | .013 | .082 | .042 | .012 | .078 | .041 | .012 | | |
| 8.0 | .089 | .043 | .012 | .087 | .043 | .012 | .083 | .041 | .012 | .079 | .040 | .012 | .076 | .039 | .011 | | |
| 9.0 | .085 | .041 | .011 | .083 | .041 | .011 | .080 | .039 | .011 | .076 | .038 | .011 | .073 | .037 | .011 | | |
| 10.0 | .082 | .039 | .011 | .080 | .039 | .011 | .077 | .038 | .011 | .074 | .037 | .010 | .071 | .036 | .010 | | |

| pcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|------|-----------------------|------|------|------|------|------|--|------|------|------|------|------|------|------|------|---|
| pw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| pfc | 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 | .168 | .158 | .148 | .144 | .135 | .128 | .098 | .093 | .088 | .057 | .054 | .051 | .018 | .017 | .017 | |
| 2.0 | .150 | .133 | .118 | .129 | .114 | .102 | .088 | .079 | .071 | .051 | .046 | .042 | .016 | .015 | .014 | |
| 3.0 | .135 | .113 | .096 | .116 | .098 | .083 | .079 | .068 | .058 | .046 | .040 | .034 | .015 | .013 | .011 | |
| 4.0 | .123 | .098 | .079 | .105 | .085 | .069 | .072 | .059 | .048 | .042 | .035 | .029 | .013 | .011 | .009 | |
| 5.0 | .112 | .086 | .066 | .096 | .074 | .057 | .066 | .052 | .041 | .038 | .030 | .024 | .012 | .010 | .008 | |
| 6.0 | .103 | .076 | .056 | .089 | .065 | .049 | .061 | .046 | .034 | .035 | .027 | .020 | .011 | .009 | .007 | |
| 7.0 | .096 | .067 | .048 | .082 | .058 | .041 | .057 | .041 | .029 | .033 | .024 | .017 | .011 | .008 | .006 | |
| 8.0 | .089 | .061 | .041 | .077 | .053 | .036 | .053 | .037 | .025 | .031 | .022 | .015 | .010 | .007 | .005 | |
| 9.0 | .083 | .055 | .036 | .072 | .048 | .031 | .050 | .034 | .022 | .029 | .020 | .013 | .009 | .006 | .004 | |
| 10.0 | .079 | .050 | .031 | .068 | .044 | .027 | .047 | .031 | .019 | .027 | .018 | .012 | .009 | .006 | .004 | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Meng Yongjian
 Test Date:2017-05-17

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:52%
 Test Distance:5.850m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

| | | | | | | | | | | |
|---|------------------|-----|-----|-----|-------------------------|----------------|-----|-------------|-----|-----|
| Test:U:220.8V I:0.0198A P:3.092W PF:0.7067 Lamp Flux:173.663x1 lm | | | | | | | | | | |
| NAME: FF1-2W-930-24D Specular | | | | | TYPE:Downlight | | | SERIAL No.: | | |
| SPEC.:3000K | | | | | DIM.: L45mm*W45mm*H60mm | | | | | |
| MFR.: | | | | | | | | | | |
| 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 | 4.3 | 5.0 | 4.5 | 5.1 | 5.3 | 3.3 | 3.9 | 3.5 | 4.1 | 4.2 |
| 3H | 4.2 | 4.8 | 4.4 | 5.0 | 5.2 | 3.1 | 3.7 | 3.4 | 3.9 | 4.1 |
| 4H | 4.1 | 4.7 | 4.4 | 4.9 | 5.1 | 3.0 | 3.6 | 3.3 | 3.8 | 4.0 |
| 6H | 4.0 | 4.6 | 4.3 | 4.8 | 5.0 | 3.0 | 3.5 | 3.2 | 3.7 | 4.0 |
| 8H | 4.0 | 4.5 | 4.3 | 4.8 | 5.0 | 2.9 | 3.4 | 3.2 | 3.7 | 3.9 |
| 12H | 3.9 | 4.4 | 4.3 | 4.7 | 5.0 | 2.9 | 3.4 | 3.2 | 3.6 | 3.9 |
| 4H 2H | 4.1 | 4.7 | 4.4 | 4.9 | 5.1 | 3.0 | 3.6 | 3.3 | 3.8 | 4.0 |
| 3H | 3.9 | 4.4 | 4.2 | 4.7 | 5.0 | 2.9 | 3.4 | 3.2 | 3.6 | 3.9 |
| 4H | 3.9 | 4.3 | 4.2 | 4.6 | 4.9 | 2.8 | 3.2 | 3.1 | 3.5 | 3.8 |
| 6H | 3.7 | 4.2 | 4.1 | 4.5 | 4.8 | 2.7 | 3.1 | 3.0 | 3.4 | 3.8 |
| 8H | 3.7 | 4.1 | 4.1 | 4.4 | 4.8 | 2.6 | 3.0 | 3.0 | 3.4 | 3.7 |
| 12H | 3.6 | 4.0 | 4.0 | 4.4 | 4.7 | 2.6 | 2.9 | 3.0 | 3.3 | 3.7 |
| 8H 4H | 3.7 | 4.1 | 4.1 | 4.4 | 4.8 | 2.6 | 3.0 | 3.0 | 3.4 | 3.7 |
| 6H | 3.6 | 3.9 | 4.0 | 4.3 | 4.7 | 2.5 | 2.8 | 2.9 | 3.2 | 3.6 |
| 8H | 3.5 | 3.8 | 4.0 | 4.2 | 4.7 | 2.5 | 2.7 | 2.9 | 3.1 | 3.6 |
| 12H | 3.5 | 3.7 | 3.9 | 4.1 | 4.6 | 2.4 | 2.6 | 2.9 | 3.1 | 3.5 |
| 12H 4H | 3.6 | 4.0 | 4.0 | 4.4 | 4.7 | 2.6 | 2.9 | 3.0 | 3.3 | 3.7 |
| 6H | 3.5 | 3.8 | 4.0 | 4.2 | 4.7 | 2.5 | 2.7 | 2.9 | 3.1 | 3.6 |
| 8H | 3.5 | 3.7 | 3.9 | 4.1 | 4.6 | 2.4 | 2.6 | 2.9 | 3.1 | 3.5 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S = 1.0H | + 3.6 / -17.5 | | | | | + 3.8 / -16.3 | | | | |
| 1.5H | + 6.4 / -17.8 | | | | | + 6.6 / -17.1 | | | | |
| 2.0H | + 2.7 / - 2.4 | | | | | + 2.4 / - 2.3 | | | | |

CIE Pub.117 Corrected 173.7 lm Total Lamp Luminous Flux.(8log(F/F0) = -6.1)

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Meng Yongjian
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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:52%
 Test Distance:5.850m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

| | | |
|---|-------------------------|-------------|
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| SPEC.:3000K | DIM.: L45mm*W45mm*H60mm | |
| MFR.: | | |

| 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) $k(RI) \times RCR = 5$ | | | | | | | | | |
| $k = 0.60$ | 91 | 86 | 82 | 91 | 86 | 82 | 90 | 85 | 82 | 79 |
| 0.80 | 98 | 93 | 90 | 98 | 93 | 90 | 97 | 92 | 89 | 86 |
| 1.00 | 102 | 97 | 94 | 101 | 97 | 94 | 100 | 96 | 93 | 90 |
| 1.25 | 105 | 101 | 98 | 104 | 100 | 97 | 103 | 99 | 97 | 93 |
| 1.50 | 108 | 104 | 101 | 107 | 103 | 100 | 105 | 102 | 99 | 95 |
| 2.00 | 110 | 106 | 103 | 109 | 105 | 103 | 106 | 103 | 101 | 96 |
| 2.50 | 111 | 108 | 105 | 110 | 107 | 104 | 107 | 104 | 103 | 97 |
| 3.00 | 113 | 110 | 107 | 111 | 108 | 106 | 108 | 106 | 104 | 98 |
| 4.00 | 115 | 112 | 110 | 113 | 111 | 109 | 109 | 107 | 106 | 99 |
| 5.00 | 116 | 114 | 112 | 114 | 112 | 111 | 110 | 109 | 108 | 100 |
| ROOM INDEX | UF(total) | | | | | | | | | Direct |
| According to DIN EN 13032-2 2004 | | | Suspended | | | | | SHRNOM = 1.25 | | |

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ISOCANDELA DIAGRAM

| | | |
|---|-------------------------|-------------|
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| SPEC.:3000K | DIM.: L45mm*W45mm*H60mm | |
| MFR.: | | |

Conical surface Flux(90deg):

173.54 lm

%lum = 99.9%

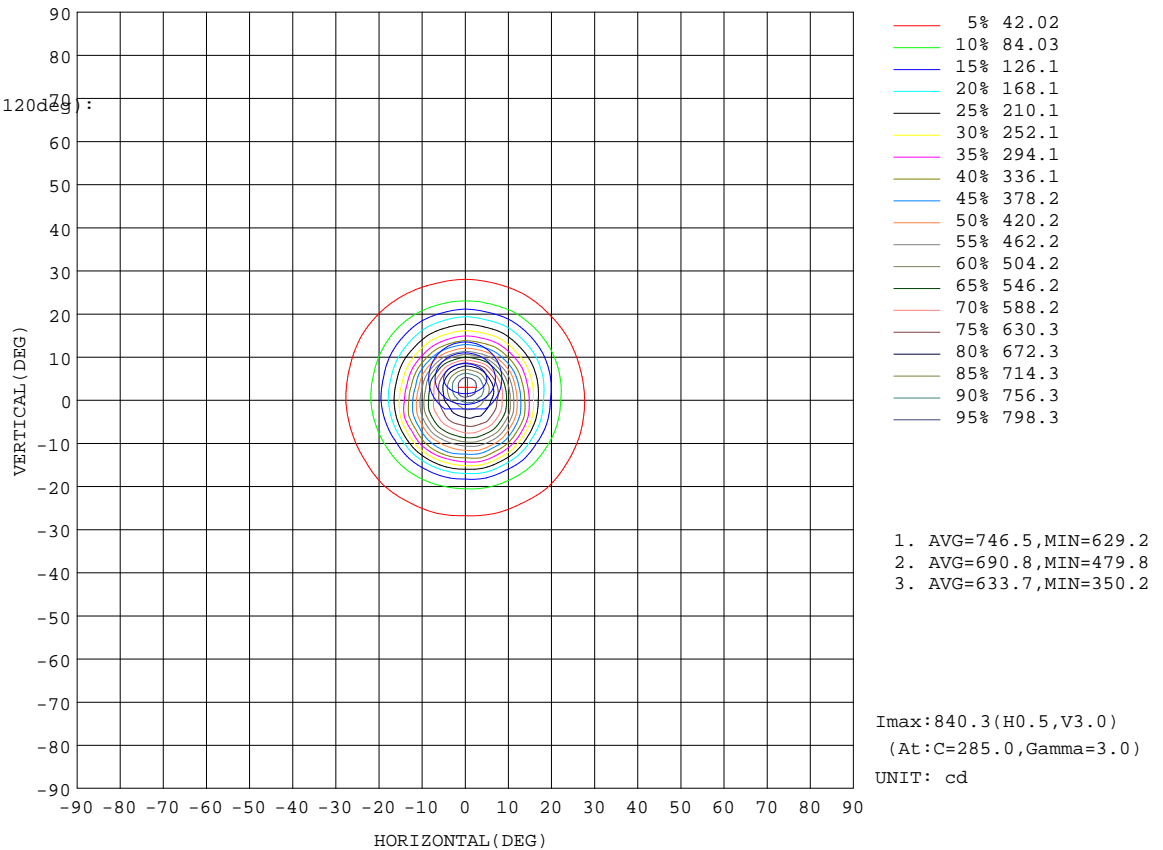
%lamp = 99.9%

Conical surface Flux(120deg):

173.62 lm

%lum = 100.0%

%lamp = 100.0%

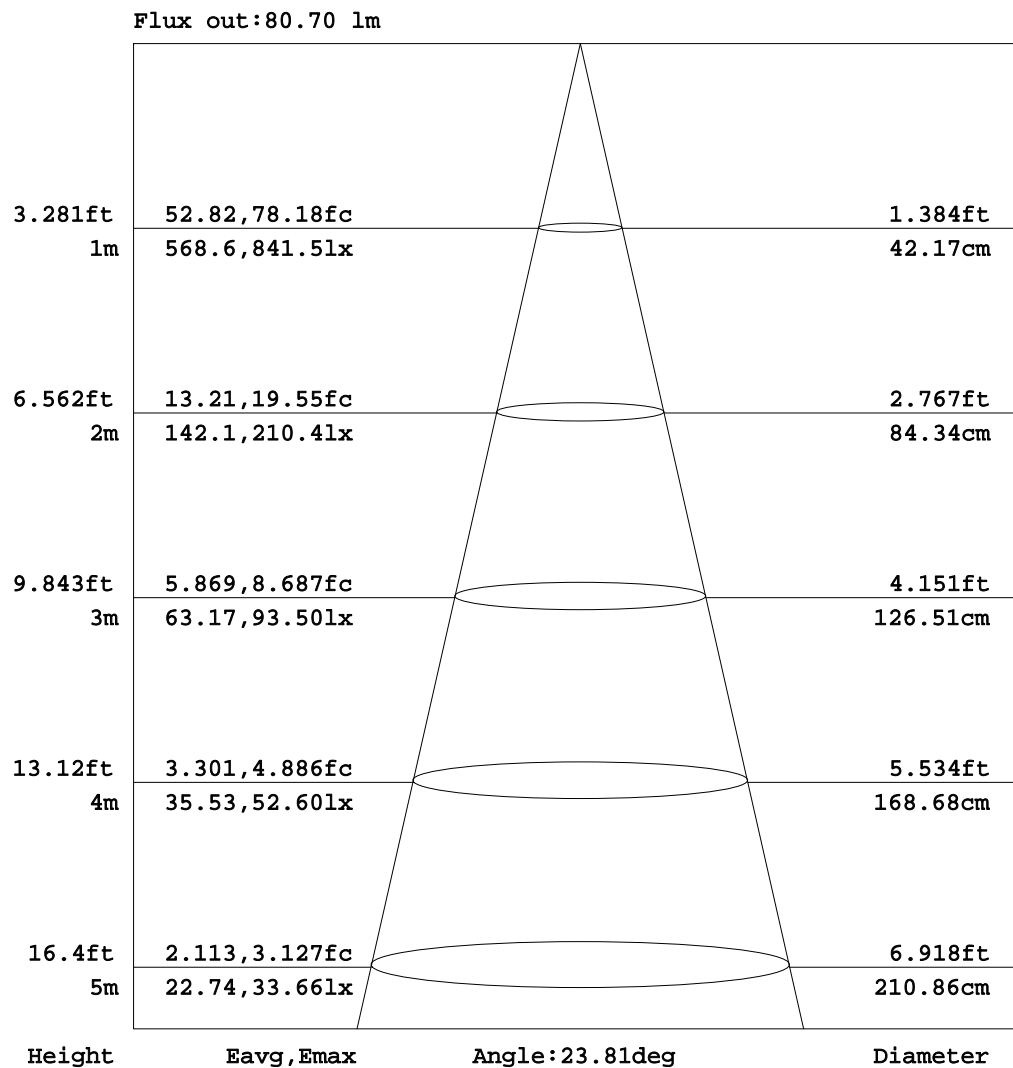


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AAI Figure

| | | |
|---|-------------------------|-------------|
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| MFR.: | | |



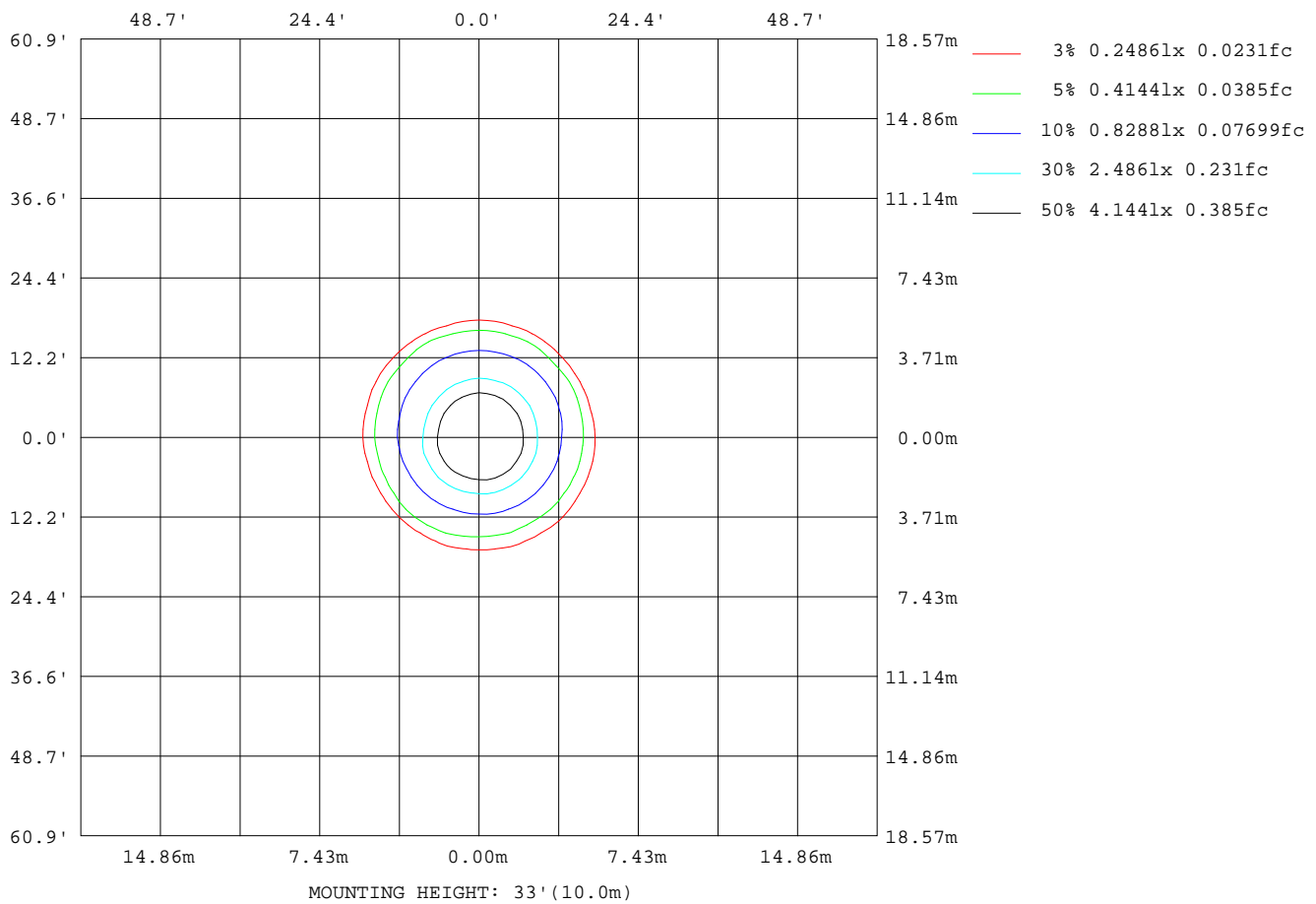
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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Operators:Meng Yongjian
Test Date:2017-05-17

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity:52%
Test Distance:5.850m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

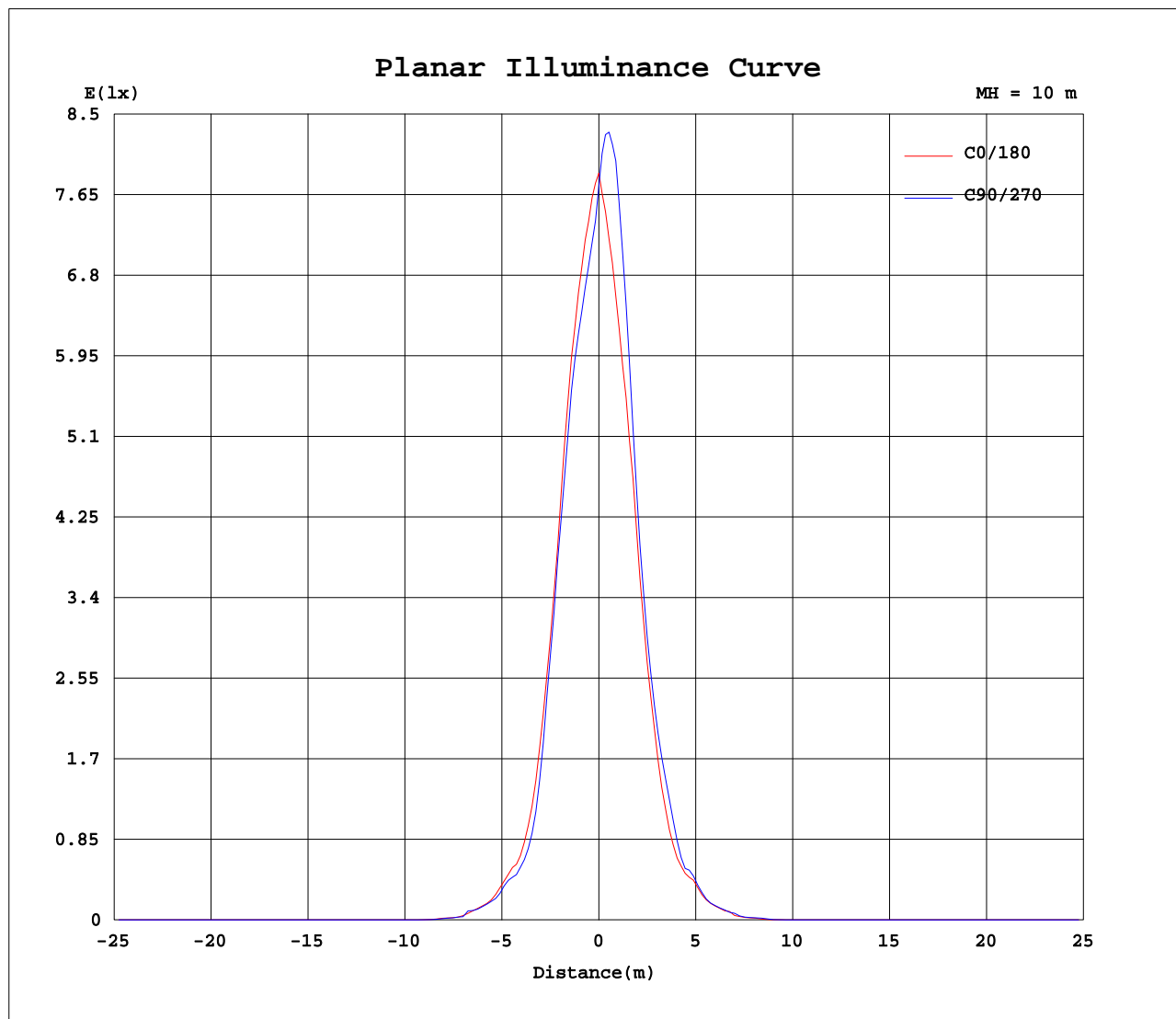
| | | |
|---|-------------------------|-------------|
| Test:U:220.8V I:0.0198A P:3.092W PF:0.7067 Lamp Flux:173.663x1 lm | | |
| NAME: FF1-2W-930-24D Specular | TYPE:Downlight | SERIAL No.: |
| SPEC.:3000K | DIM.: L45mm*W45mm*H60mm | |
| MFR.: | | |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Meng Yongjian
 Test Date: 2017-05-17

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity: 52%
 Test Distance: 5.850m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Meng Yongjian
Test Date: 2017-05-17

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity: 52%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|---|-------------------------|-------------|
| Test:U:220.8V I:0.0198A P:3.092W PF:0.7067 Lamp Flux:173.663x1 lm | | |
| NAME: FF1-2W-930-24D Specular | TYPE:Downlight | SERIAL No.: |
| SPEC.:3000K | DIM.: L45mm*W45mm*H60mm | |
| MFR.: | | |

Table--1

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Meng Yongjian
Test Date: 2017-05-17

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity:52%
Test Distance:5.850m [K=1.0000]
Remarks:

```

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|---|-------------------------|-------------|
| Test:U:220.8V I:0.0198A P:3.092W PF:0.7067 Lamp Flux:173.663x1 lm | | |
| NAME: FF1-2W-930-24D Specular | TYPE:Downlight | SERIAL No.: |
| SPEC.:3000K | DIM.: L45mm*W45mm*H60mm | |
| MFR.: | | |

Table--2

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Meng Yongjian
Test Date: 2017-05-17

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity:52%
Test Distance:5.850m [K=1.0000]
Remarks:

```

Photometric Data Table [cd]

| G/C | 0.0 | 15.0 | 30.0 | 45.0 | 60.0 | 75.0 | 90.0 | 105.0 | 120.0 | 135.0 |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.0 | 787.9 | 781.6 | 779.3 | 779.9 | 775.5 | 780.3 | 774.2 | 782.2 | 771.5 | 779.3 |
| 3.0 | 739.8 | 732.2 | 719.0 | 712.4 | 702.7 | 701.2 | 692.6 | 689.7 | 687.4 | 691.3 |
| 6.0 | 672.2 | 663.1 | 656.3 | 649.3 | 641.7 | 636.4 | 628.6 | 625.0 | 630.4 | 628.8 |
| 9.0 | 570.3 | 571.8 | 566.0 | 562.5 | 549.6 | 544.1 | 532.6 | 525.8 | 526.5 | 535.6 |
| 12.0 | 420.6 | 433.0 | 427.1 | 432.9 | 423.8 | 421.6 | 405.2 | 402.1 | 399.1 | 405.0 |
| 15.0 | 286.9 | 296.2 | 291.1 | 287.6 | 275.9 | 275.3 | 261.9 | 256.3 | 264.2 | 272.7 |
| 18.0 | 171.0 | 170.1 | 158.6 | 155.9 | 144.5 | 146.4 | 133.0 | 137.0 | 136.4 | 146.2 |
| 21.0 | 101.1 | 98.47 | 92.94 | 89.73 | 84.65 | 81.72 | 78.30 | 78.49 | 81.28 | 84.07 |
| 24.0 | 72.57 | 69.98 | 62.88 | 61.46 | 58.55 | 58.53 | 59.20 | 60.10 | 63.19 | 62.75 |
| 27.0 | 48.19 | 47.39 | 45.63 | 46.18 | 42.52 | 42.68 | 39.85 | 41.64 | 39.86 | 42.76 |
| 30.0 | 26.98 | 27.59 | 27.14 | 27.49 | 26.61 | 26.34 | 25.62 | 25.68 | 25.06 | 25.62 |
| 33.0 | 16.33 | 17.19 | 17.66 | 15.65 | 15.51 | 15.76 | 16.94 | 16.06 | 16.19 | 15.92 |
| 36.0 | 5.770 | 5.799 | 5.826 | 6.006 | 5.882 | 5.649 | 5.655 | 5.642 | 5.327 | 5.576 |
| 39.0 | 3.908 | 3.990 | 3.498 | 3.435 | 2.978 | 2.916 | 2.760 | 3.070 | 2.361 | 2.572 |
| 42.0 | 0.6075 | 0.5692 | 0.5435 | 0.5581 | 0.5194 | 0.5274 | 0.5179 | 0.5360 | 0.4669 | 0.5077 |
| 45.0 | 0.1190 | 0.1025 | 0.1123 | 0.0960 | 0.1078 | 0.0916 | 0.1078 | 0.0894 | 0.0989 | 0.0763 |
| 48.0 | 0.0765 | 0.0568 | 0.0765 | 0.0589 | 0.0766 | 0.0546 | 0.0744 | 0.0481 | 0.0678 | 0.0393 |
| 51.0 | 0.0700 | 0.0481 | 0.0635 | 0.0459 | 0.0635 | 0.0415 | 0.0635 | 0.0415 | 0.0591 | 0.0328 |
| 54.0 | 0.0634 | 0.0372 | 0.0591 | 0.0350 | 0.0569 | 0.0371 | 0.0547 | 0.0328 | 0.0503 | 0.0284 |
| 57.0 | 0.0590 | 0.0328 | 0.0525 | 0.0284 | 0.0525 | 0.0306 | 0.0503 | 0.0284 | 0.0459 | 0.0284 |
| 60.0 | 0.0525 | 0.0306 | 0.0503 | 0.0284 | 0.0459 | 0.0306 | 0.0459 | 0.0262 | 0.0394 | 0.0218 |
| 63.0 | 0.0481 | 0.0305 | 0.0416 | 0.0284 | 0.0437 | 0.0284 | 0.0394 | 0.0241 | 0.0350 | 0.0131 |
| 66.0 | 0.0459 | 0.0175 | 0.0350 | 0.0153 | 0.0372 | 0.0153 | 0.0372 | 0.0131 | 0.0328 | 0.0087 |
| 69.0 | 0.0438 | 0.0109 | 0.0328 | 0.0109 | 0.0306 | 0.0131 | 0.0307 | 0.0087 | 0.0284 | 0.0065 |
| 72.0 | 0.0394 | 0.0066 | 0.0263 | 0.0065 | 0.0262 | 0.0066 | 0.0241 | 0.0044 | 0.0262 | 0.0022 |
| 75.0 | 0.0263 | 0.0022 | 0.0198 | 0.0022 | 0.0219 | 0 | 0.0197 | 0.0022 | 0.0197 | 0 |
| 78.0 | 0.0197 | 0.0022 | 0.0154 | 0.0022 | 0.0175 | 0 | 0.0153 | 0.0022 | 0.0153 | 0 |
| 81.0 | 0.0175 | 0.0022 | 0.0131 | 0.0022 | 0.0088 | 0 | 0.0131 | 0.0022 | 0.0087 | 0 |
| 84.0 | 0.0088 | 0.0022 | 0.0066 | 0.0022 | 0.0066 | 0 | 0.0066 | 0.0022 | 0.0044 | 0 |
| 87.0 | 0.0044 | 0.0022 | 0.0044 | 0.0022 | 0.0022 | 0 | 0.0022 | 0.0022 | 0.0044 | 0 |
| 90.0 | 0.0022 | 0.0022 | 0.0022 | 0.0022 | 0.0022 | 0 | 0.0022 | 0.0022 | 0 | 0 |
| G/C | 150.0 | 165.0 | 180.0 | 195.0 | 210.0 | 225.0 | 240.0 | 255.0 | 270.0 | 285.0 |
| 0.0 | 774.7 | 781.2 | 787.9 | 779.3 | 779.9 | 775.5 | 780.3 | 775.5 | 774.2 | 782.2 |
| 3.0 | 691.9 | 699.3 | 721.3 | 737.3 | 763.6 | 777.6 | 801.6 | 810.0 | 834.3 | 845.0 |
| 6.0 | 624.3 | 626.4 | 633.9 | 642.4 | 672.4 | 700.4 | 729.3 | 754.6 | 767.9 | 763.5 |
| 9.0 | 532.2 | 535.9 | 524.6 | 528.1 | 554.7 | 558.8 | 585.5 | 594.6 | 609.9 | 605.7 |
| 12.0 | 395.5 | 402.4 | 385.5 | 373.9 | 396.5 | 398.2 | 409.7 | 413.2 | 423.0 | 423.2 |
| 15.0 | 267.5 | 277.2 | 262.4 | 255.8 | 267.3 | 270.6 | 279.8 | 282.6 | 290.4 | 289.4 |
| 18.0 | 142.6 | 152.0 | 162.9 | 165.2 | 175.9 | 182.0 | 192.9 | 193.5 | 199.7 | 197.4 |
| 21.0 | 85.61 | 89.97 | 97.39 | 99.76 | 108.2 | 114.5 | 123.3 | 123.7 | 129.0 | 126.0 |
| 24.0 | 67.10 | 67.13 | 64.68 | 75.39 | 74.57 | 73.47 | 73.12 | 70.47 | 71.40 | 74.77 |
| 27.0 | 41.08 | 44.15 | 48.51 | 48.81 | 52.03 | 51.88 | 54.49 | 51.73 | 52.29 | 51.16 |
| 30.0 | 25.34 | 26.18 | 26.95 | 26.79 | 27.69 | 27.51 | 27.40 | 26.63 | 27.39 | 27.07 |
| 33.0 | 18.22 | 17.86 | 16.38 | 16.19 | 17.16 | 17.30 | 17.79 | 17.25 | 17.91 | 17.70 |
| 36.0 | 5.371 | 5.339 | 6.883 | 6.628 | 7.640 | 7.581 | 7.815 | 7.407 | 8.001 | 7.043 |
| 39.0 | 2.492 | 2.787 | 4.258 | 4.630 | 4.597 | 4.433 | 4.907 | 4.565 | 4.833 | 4.640 |
| 42.0 | 0.4785 | 0.5099 | 0.6491 | 0.6896 | 0.7823 | 0.8005 | 0.9234 | 0.8520 | 0.9648 | 0.8949 |
| 45.0 | 0.0902 | 0.0719 | 0.0892 | 0.1123 | 0.1218 | 0.1496 | 0.1718 | 0.1937 | 0.1958 | 0.1937 |
| 48.0 | 0.0569 | 0.0328 | 0.0371 | 0.0656 | 0.0524 | 0.0809 | 0.0634 | 0.0897 | 0.0634 | 0.0831 |
| 51.0 | 0.0503 | 0.0284 | 0.0306 | 0.0569 | 0.0437 | 0.0722 | 0.0655 | 0.0788 | 0.0634 | 0.0787 |
| 54.0 | 0.0481 | 0.0263 | 0.0284 | 0.0525 | 0.0371 | 0.0634 | 0.0481 | 0.0722 | 0.0524 | 0.0678 |
| 57.0 | 0.0394 | 0.0197 | 0.0284 | 0.0481 | 0.0306 | 0.0590 | 0.0437 | 0.0656 | 0.0459 | 0.0656 |
| 60.0 | 0.0350 | 0.0109 | 0.0196 | 0.0415 | 0.0306 | 0.0525 | 0.0349 | 0.0591 | 0.0372 | 0.0569 |
| 63.0 | 0.0306 | 0.0109 | 0.0131 | 0.0372 | 0.0262 | 0.0481 | 0.0306 | 0.0503 | 0.0306 | 0.0546 |
| 66.0 | 0.0263 | 0.0066 | 0.0131 | 0.0328 | 0.0153 | 0.0350 | 0.0284 | 0.0437 | 0.0284 | 0.0481 |
| 69.0 | 0.0241 | 0.0022 | 0.0131 | 0.0263 | 0.0087 | 0.0350 | 0.0174 | 0.0415 | 0.0262 | 0.0394 |
| 72.0 | 0.0219 | 0 | 0.0087 | 0.0219 | 0.0065 | 0.0284 | 0.0109 | 0.0328 | 0.0131 | 0.0328 |
| 75.0 | 0.0175 | 0 | 0.0022 | 0.0197 | 0 | 0.0219 | 0.0065 | 0.0284 | 0.0065 | 0.0263 |
| 78.0 | 0.0131 | 0 | 0.0022 | 0.0131 | 0 | 0.0197 | 0 | 0.0219 | 0.0022 | 0.0219 |
| 81.0 | 0.0088 | 0 | 0.0022 | 0.0088 | 0 | 0.0131 | 0 | 0.0153 | 0 | 0.0153 |
| 84.0 | 0.0044 | 0 | 0.0022 | 0.0066 | 0 | 0.0087 | 0 | 0.0066 | 0 | 0.0088 |
| 87.0 | 0.0022 | 0 | 0.0022 | 0.0022 | 0 | 0.0044 | 0 | 0.0022 | 0 | 0.0022 |
| 90.0 | 0.0022 | 0 | 0.0022 | 0.0022 | 0 | 0 | 0 | 0 | 0 | 0 |
| G/C | 300.0 | 315.0 | 330.0 | 345.0 | | | | | | |
| 0.0 | 771.5 | 779.3 | 774.7 | 781.2 | | | | | | |
| 3.0 | 809.8 | 801.1 | 796.2 | 770.0 | | | | | | |
| 6.0 | 762.8 | 741.9 | 729.2 | 700.1 | | | | | | |
| 9.0 | 619.6 | 597.9 | 592.5 | 583.5 | | | | | | |
| 12.0 | 432.9 | 431.0 | 435.1 | 420.4 | | | | | | |
| 15.0 | 298.3 | 297.5 | 298.7 | 287.6 | | | | | | |
| 18.0 | 203.7 | 199.2 | 197.4 | 189.8 | | | | | | |
| 21.0 | 131.5 | 127.6 | 123.9 | 113.6 | | | | | | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Meng Yongjian
 Test Date: 2017-05-17

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity: 52%
 Test Distance: 5.850m [K=1.0000]
 Remarks:

Photometric Data Table [cd]

| | | | | |
|------|--------|--------|--------|--------|
| 24.0 | 75.43 | 74.82 | 76.85 | 77.12 |
| 27.0 | 52.24 | 47.70 | 48.13 | 47.68 |
| 30.0 | 27.11 | 26.78 | 26.63 | 25.90 |
| 33.0 | 17.76 | 17.09 | 16.95 | 15.77 |
| 36.0 | 6.304 | 6.028 | 5.997 | 5.548 |
| 39.0 | 4.404 | 4.459 | 4.227 | 3.981 |
| 42.0 | 0.8386 | 0.6960 | 0.6868 | 0.6250 |
| 45.0 | 0.1524 | 0.1517 | 0.1284 | 0.1275 |
| 48.0 | 0.0634 | 0.0787 | 0.0590 | 0.0722 |
| 51.0 | 0.0568 | 0.0744 | 0.0481 | 0.0656 |
| 54.0 | 0.0459 | 0.0656 | 0.0415 | 0.0612 |
| 57.0 | 0.0393 | 0.0612 | 0.0371 | 0.0525 |
| 60.0 | 0.0350 | 0.0547 | 0.0306 | 0.0503 |
| 63.0 | 0.0306 | 0.0503 | 0.0306 | 0.0437 |
| 66.0 | 0.0306 | 0.0416 | 0.0240 | 0.0394 |
| 69.0 | 0.0218 | 0.0350 | 0.0153 | 0.0328 |
| 72.0 | 0.0109 | 0.0328 | 0.0087 | 0.0284 |
| 75.0 | 0.0044 | 0.0263 | 0.0044 | 0.0241 |
| 78.0 | 0.0043 | 0.0197 | 0 | 0.0175 |
| 81.0 | 0 | 0.0131 | 0 | 0.0153 |
| 84.0 | 0 | 0.0088 | 0 | 0.0088 |
| 87.0 | 0 | 0.0044 | 0 | 0.0022 |
| 90.0 | 0 | 0.0022 | 0 | 0 |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Meng Yongjian
 Test Date: 2017-05-17

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity: 52%
 Test Distance: 5.850m [K=1.0000]
 Remarks: