

LED Downlight CATO Series CS8R-20S-840



| | | |
|---------------------|---------|--------------------------|
| Light Output Ratio: | 100.0% | |
| Luminaire Power: | 21.57 W | |
| SHR Nominal: | 1.00 | Calculated using the TM5 |
| SHR Maximum: | 1.10 | fine grid method. |

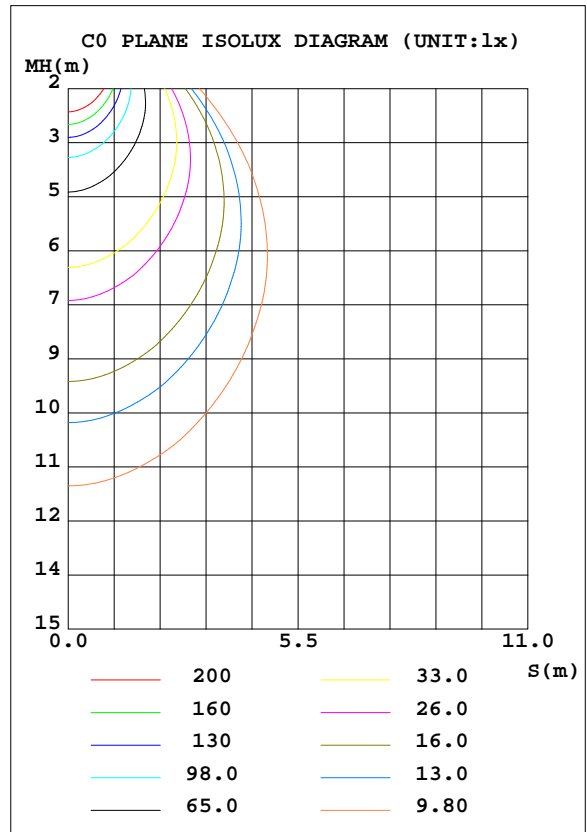
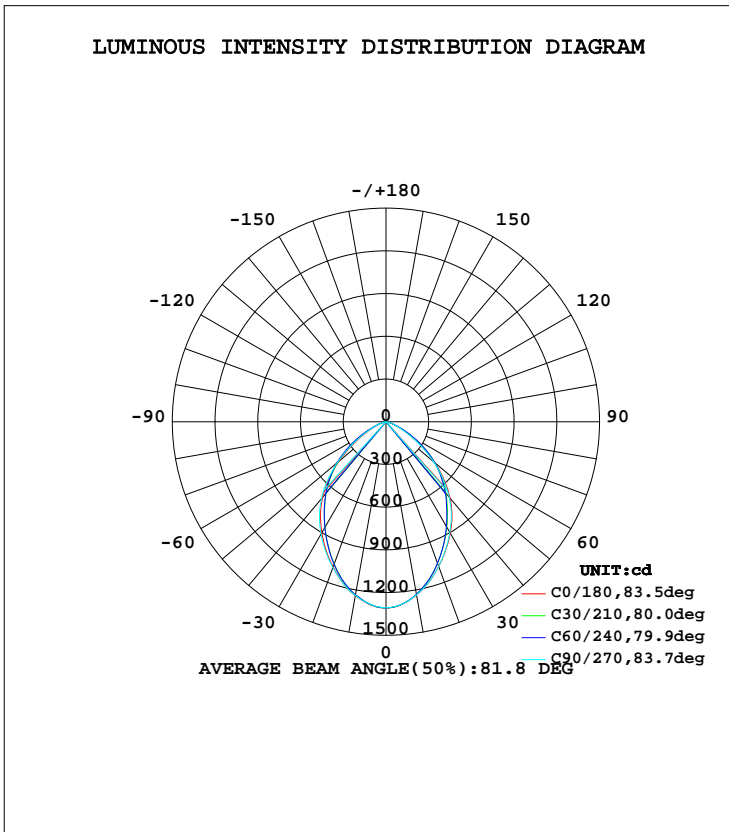
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Cao Chengpei
 Test Date: 2014-08-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity: 53.0%
 Test Distance: 5.780m [K=1.0000]
 Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

| | | |
|---|---------------------------|-------------|
| Test:U:220.3V I:0.1020A P:21.57W PF:0.9596 Lamp Flux:2255.22x1 lm | | |
| NAME: CS8R-20S-840 | TYPE:Downlight | SERIAL No.: |
| SPEC.:4000K | DIM.: L230mm*W230mm*H76mm | |
| MFR.: E-LITE LIGHTING CO.,LTD. | | |

| DATA OF LAMP | | PHOTOMETRIC DATA Eff: 104.56 lm/W | | | |
|------------------|---------------|-----------------------------------|--------|--------------------|----------|
| MODEL | SAMSUNG-4000K | I _{max} (cd) | 1309 | S/MH(C0/180) | 1.05 |
| NOMINAL POWER(W) | 22 | LOR(%) | 100.0 | S/MH(C90/270) | 1.07 |
| RATED VOLTAGE(V) | 220 | TOTAL FLUX(lm) | 2255.2 | η UP, DN(C0-180) | 0.0,49.9 |
| NOMINAL FLUX(lm) | 2255.22 | CIE CLASS | DIRECT | η UP, DN(C180-360) | 0.0,50.1 |
| LAMPS INSIDE | 1 | η up(%) | 0.0 | CIBSE SHR NOM | 1.00 |
| TEST VOLTAGE(V) | 220 | η down(%) | 100.0 | CIBSE SHR MAX | 1.10 |



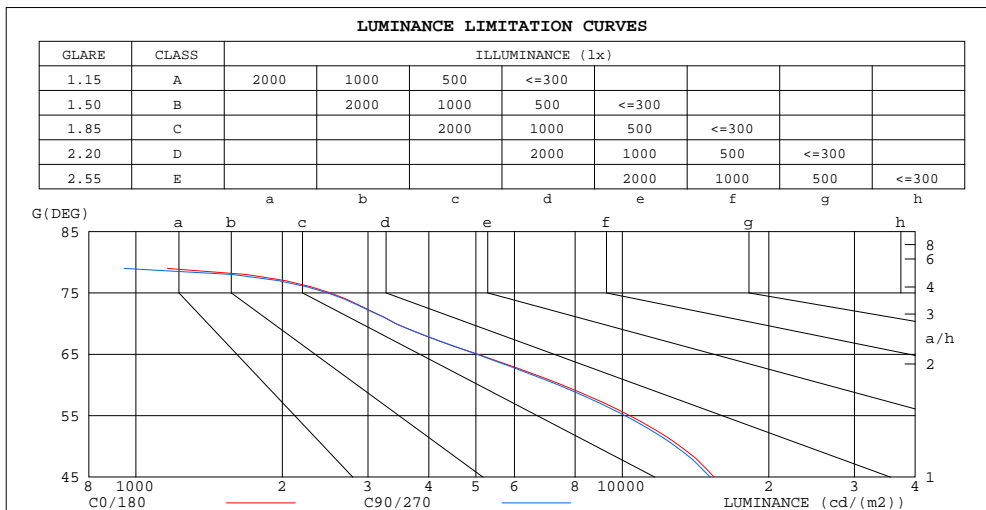
C Range: 0 - 360DEG
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 Temperature:25.3DEG
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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:53.0%
 Test Distance:5.780m [K=1.0000]
 Remarks:

**ZONAL FLUX DIAGRAM
AND LUMINANCE LIMITATION CURVES**

ZONAL FLUX DIAGRAM:

| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | Φ zone | Φ total | Φ lum,lamp |
|----------|-----------------------|--------|--------|--------|--------|--------|--------|--------|----------|-------------|--------------|-----------------|
| 10 | 1235 | 1233 | 1234 | 1230 | 1240 | 1229 | 1239 | 1228 | 0- 10 | 121.1 | 121.1 | 5.37,5.37 |
| 20 | 1082 | 1061 | 1081 | 1057 | 1087 | 1055 | 1091 | 1058 | 10- 20 | 325.4 | 446.4 | 19.8,19.8 |
| 30 | 901.8 | 842.6 | 896.8 | 835.4 | 902.0 | 838.5 | 912.3 | 843.9 | 20- 30 | 446.2 | 892.7 | 39.6,39.6 |
| 40 | 699.8 | 643.3 | 690.9 | 634.7 | 692.3 | 639.1 | 705.2 | 646.2 | 30- 40 | 480.2 | 1373 | 60.9,60.9 |
| 50 | 447.5 | 461.2 | 437.7 | 450.3 | 431.0 | 455.6 | 443.2 | 465.1 | 40- 50 | 429.3 | 1802 | 79.9,79.9 |
| 60 | 199.0 | 251.2 | 195.4 | 238.3 | 185.5 | 238.1 | 194.9 | 249.7 | 50- 60 | 290.7 | 2093 | 92.8,92.8 |
| 70 | 61.92 | 70.62 | 61.88 | 63.25 | 57.62 | 61.57 | 60.48 | 68.82 | 60- 70 | 125.0 | 2218 | 98.3,98.3 |
| 80 | 3.766 | 9.891 | 3.695 | 8.357 | 3.260 | 8.080 | 3.305 | 9.515 | 70- 80 | 33.14 | 2251 | 99.8,99.8 |
| 90 | 0.8422 | 0.3847 | 0.1560 | 0.1643 | 0.1165 | 0.1352 | 0.1976 | 0.9171 | 80- 90 | 4.230 | 2255 | 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 | 736 | 754 |
| 80 | 410 | 402 |
| 75 | 2512 | 2478 |
| 70 | 3422 | 3420 |
| 65 | 5046 | 5018 |
| 60 | 7524 | 7386 |
| 55 | 10365 | 10129 |
| 50 | 13160 | 12871 |
| 45 | 15442 | 15157 |

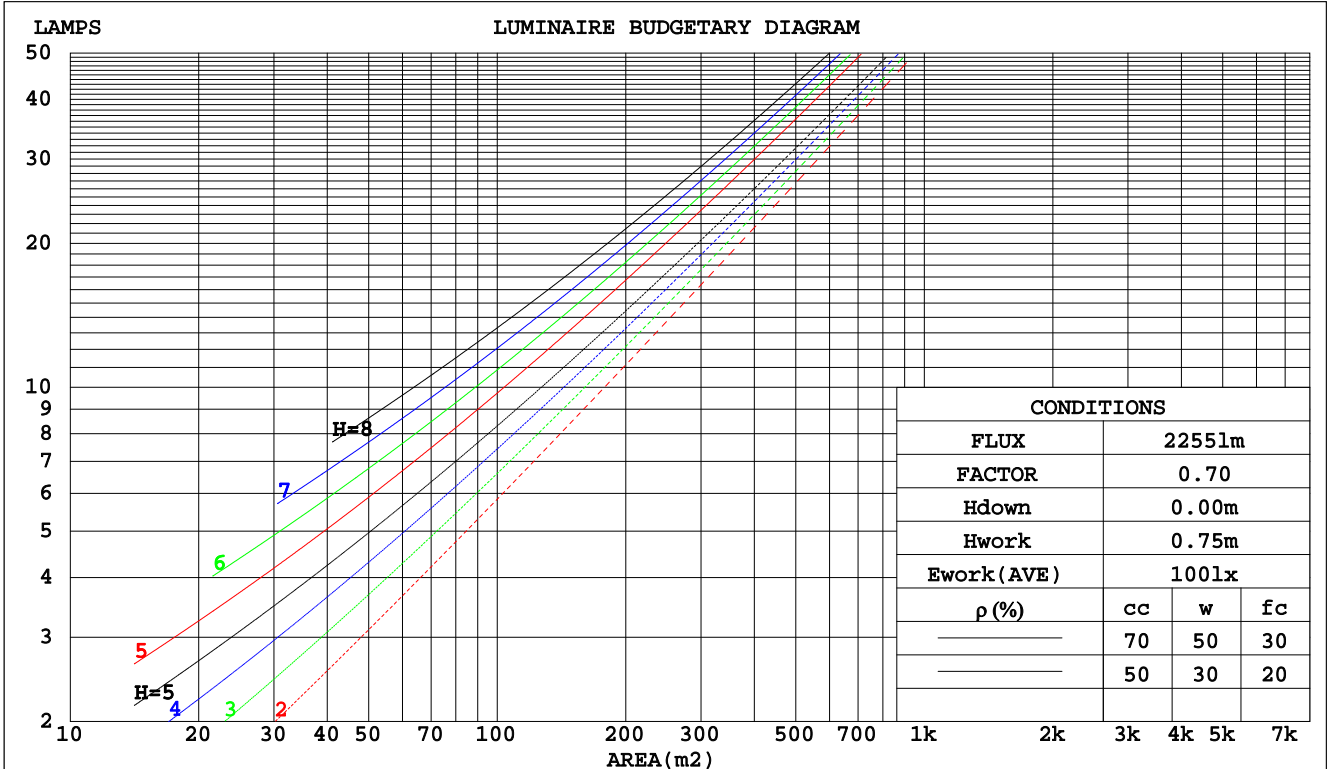
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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:53.0%
 Test Distance:5.780m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

| | | |
|---|---------------------------|-------------|
| Test:U:220.3V I:0.1020A P:21.57W PF:0.9596 Lamp Flux:2255.22x1 lm | | |
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| SPEC.:4000K | DIM.: L230mm*W230mm*H76mm | |
| MFR.: E-LITE LIGHTING CO.,LTD. | | |

| pcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|------|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| pw | | | | | | | | | | | | | | | | |
| pfc | | | | | | | | | | | | | | | | |
| 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 | 1.08 | 1.04 | 1.01 | 1.05 | 1.02 | .90 | 1.01 | .99 | .97 | .97 | .96 | .94 | .94 | .92 | .91 | .89 |
| 2.0 | .97 | .91 | .87 | .95 | .90 | .86 | .91 | .87 | .84 | .88 | .85 | .82 | .85 | .83 | .80 | .78 |
| 3.0 | .87 | .80 | .75 | .85 | .79 | .74 | .83 | .77 | .73 | .80 | .76 | .72 | .78 | .74 | .71 | .69 |
| 4.0 | .79 | .71 | .65 | .77 | .70 | .65 | .75 | .69 | .64 | .73 | .68 | .63 | .71 | .66 | .63 | .61 |
| 5.0 | .71 | .63 | .58 | .70 | .63 | .57 | .68 | .62 | .57 | .66 | .61 | .56 | .65 | .60 | .56 | .54 |
| 6.0 | .65 | .57 | .51 | .64 | .57 | .51 | .62 | .56 | .51 | .61 | .55 | .50 | .59 | .54 | .50 | .48 |
| 7.0 | .60 | .52 | .46 | .59 | .51 | .46 | .57 | .51 | .46 | .56 | .50 | .46 | .55 | .49 | .45 | .43 |
| 8.0 | .55 | .47 | .42 | .54 | .47 | .42 | .53 | .46 | .42 | .52 | .46 | .41 | .51 | .45 | .41 | .39 |
| 9.0 | .51 | .43 | .38 | .50 | .43 | .38 | .49 | .43 | .38 | .48 | .42 | .38 | .47 | .42 | .38 | .36 |
| 10.0 | .47 | .40 | .35 | .47 | .40 | .35 | .46 | .39 | .35 | .45 | .39 | .35 | .44 | .38 | .35 | .33 |



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 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:53.0%
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 Remarks:

WEC AND CCEC

| | | |
|---|---------------------------|-------------|
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| MFR.: E-LITE LIGHTING CO.,LTD. | | |

| 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 | .237 | .135 | .043 | .231 | .131 | .042 | .218 | .125 | .040 | .206 | .119 | .038 | .195 | .113 | .036 | |
| 2.0 | .232 | .127 | .039 | .226 | .125 | .038 | .215 | .120 | .037 | .205 | .115 | .036 | .195 | .110 | .035 | |
| 3.0 | .221 | .118 | .035 | .216 | .116 | .035 | .206 | .112 | .034 | .197 | .108 | .033 | .189 | .105 | .032 | |
| 4.0 | .209 | .109 | .032 | .205 | .107 | .032 | .196 | .104 | .031 | .188 | .101 | .030 | .181 | .098 | .030 | |
| 5.0 | .198 | .101 | .029 | .194 | .099 | .029 | .186 | .097 | .028 | .179 | .094 | .028 | .172 | .092 | .028 | |
| 6.0 | .186 | .093 | .027 | .183 | .092 | .027 | .176 | .090 | .026 | .170 | .088 | .026 | .164 | .086 | .026 | |
| 7.0 | .176 | .087 | .025 | .173 | .086 | .024 | .166 | .084 | .024 | .161 | .082 | .024 | .155 | .081 | .024 | |
| 8.0 | .166 | .081 | .023 | .163 | .080 | .023 | .158 | .079 | .023 | .153 | .077 | .022 | .148 | .076 | .022 | |
| 9.0 | .157 | .076 | .021 | .155 | .075 | .021 | .150 | .074 | .021 | .145 | .073 | .021 | .141 | .071 | .021 | |
| 10.0 | .149 | .071 | .020 | .147 | .071 | .020 | .142 | .070 | .020 | .138 | .069 | .019 | .134 | .067 | .019 | |

| 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 | .190 | .190 | .190 | .163 | .163 | .163 | .111 | .111 | .111 | .064 | .064 | .064 | .020 | .020 | .020 | |
| 1.0 | .175 | .157 | .140 | .150 | .135 | .121 | .103 | .093 | .083 | .059 | .054 | .048 | .019 | .017 | .016 | |
| 2.0 | .164 | .132 | .105 | .141 | .114 | .091 | .096 | .079 | .063 | .056 | .046 | .037 | .018 | .015 | .012 | |
| 3.0 | .155 | .114 | .081 | .133 | .098 | .070 | .091 | .068 | .049 | .053 | .040 | .029 | .017 | .013 | .010 | |
| 4.0 | .147 | .100 | .064 | .126 | .086 | .056 | .087 | .060 | .039 | .050 | .035 | .023 | .016 | .011 | .008 | |
| 5.0 | .140 | .089 | .052 | .120 | .077 | .045 | .083 | .054 | .032 | .048 | .032 | .019 | .015 | .010 | .006 | |
| 6.0 | .133 | .081 | .043 | .114 | .070 | .038 | .079 | .049 | .027 | .046 | .029 | .016 | .015 | .009 | .005 | |
| 7.0 | .127 | .074 | .036 | .109 | .064 | .032 | .075 | .045 | .022 | .044 | .026 | .013 | .014 | .009 | .004 | |
| 8.0 | .121 | .068 | .031 | .104 | .059 | .027 | .072 | .041 | .019 | .042 | .024 | .012 | .014 | .008 | .004 | |
| 9.0 | .115 | .063 | .027 | .099 | .054 | .024 | .069 | .038 | .017 | .040 | .023 | .010 | .013 | .007 | .003 | |
| 10.0 | .110 | .058 | .024 | .095 | .051 | .021 | .066 | .036 | .015 | .038 | .021 | .009 | .012 | .007 | .003 | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Cao Chengpei
 Test Date:2014-08-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:53.0%
 Test Distance:5.780m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

| | | |
|---|---------------------------|-------------|
| Test:U:220.3V I:0.1020A P:21.57W PF:0.9596 Lamp Flux:2255.22x1 lm | | |
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| SPEC.:4000K | DIM.: L230mm*W230mm*H76mm | |
| MFR.: E-LITE LIGHTING CO.,LTD. | | |

| | | | | | | | | | | |
|--|------------------|------|------|------|------|----------------|------|------|------|------|
| 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 | 20.4 | 21.7 | 20.7 | 21.9 | 22.1 | 20.4 | 21.7 | 20.6 | 21.9 | 22.1 |
| 3H | 20.6 | 21.8 | 20.9 | 22.0 | 22.2 | 20.5 | 21.7 | 20.8 | 22.0 | 22.2 |
| 4H | 20.6 | 21.7 | 20.9 | 22.0 | 22.2 | 20.5 | 21.7 | 20.8 | 21.9 | 22.2 |
| 6H | 20.5 | 21.6 | 20.8 | 21.8 | 22.1 | 20.5 | 21.5 | 20.8 | 21.8 | 22.1 |
| 8H | 20.5 | 21.5 | 20.8 | 21.8 | 22.0 | 20.4 | 21.4 | 20.8 | 21.7 | 22.0 |
| 12H | 20.4 | 21.4 | 20.8 | 21.7 | 22.0 | 20.4 | 21.4 | 20.7 | 21.6 | 21.9 |
| 4H 2H | 20.6 | 21.8 | 20.9 | 22.0 | 22.3 | 20.6 | 21.7 | 20.9 | 22.0 | 22.2 |
| 3H | 20.9 | 21.8 | 21.2 | 22.1 | 22.4 | 20.8 | 21.8 | 21.2 | 22.1 | 22.4 |
| 4H | 20.9 | 21.8 | 21.3 | 22.1 | 22.4 | 20.9 | 21.8 | 21.2 | 22.1 | 22.4 |
| 6H | 20.9 | 21.6 | 21.3 | 22.0 | 22.3 | 20.8 | 21.6 | 21.2 | 21.9 | 22.3 |
| 8H | 20.8 | 21.5 | 21.2 | 21.9 | 22.3 | 20.8 | 21.5 | 21.2 | 21.9 | 22.2 |
| 12H | 20.8 | 21.4 | 21.2 | 21.8 | 22.2 | 20.8 | 21.4 | 21.2 | 21.8 | 22.2 |
| 8H 4H | 20.8 | 21.5 | 21.2 | 21.9 | 22.3 | 20.8 | 21.5 | 21.2 | 21.9 | 22.3 |
| 6H | 20.8 | 21.4 | 21.2 | 21.8 | 22.2 | 20.8 | 21.4 | 21.2 | 21.8 | 22.2 |
| 8H | 20.8 | 21.3 | 21.2 | 21.7 | 22.1 | 20.7 | 21.2 | 21.2 | 21.7 | 22.1 |
| 12H | 20.7 | 21.2 | 21.2 | 21.6 | 22.1 | 20.7 | 21.1 | 21.2 | 21.6 | 22.1 |
| 12H 4H | 20.8 | 21.4 | 21.2 | 21.8 | 22.2 | 20.8 | 21.4 | 21.2 | 21.8 | 22.2 |
| 6H | 20.8 | 21.3 | 21.2 | 21.7 | 22.1 | 20.7 | 21.2 | 21.2 | 21.7 | 22.1 |
| 8H | 20.7 | 21.2 | 21.2 | 21.6 | 22.1 | 20.7 | 21.1 | 21.2 | 21.6 | 22.0 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S = 1.0H | + 0.7 / - 1.0 | | | | | + 0.7 / - 1.0 | | | | |
| 1.5H | + 0.4 / - 0.6 | | | | | + 0.4 / - 0.6 | | | | |
| 2.0H | + 1.5 / - 2.0 | | | | | + 1.5 / - 2.0 | | | | |

CIE Pub.117 Corrected 2255 lm Total Lamp Luminous Flux.(8log(F/F0) = 2.8)

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 C Interval: 15.0DEG
 Test Speed: HIGH
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 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:53.0%
 Test Distance:5.780m [K=1.0000]
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UTILIZATION FACTORS TABLE

| | | |
|---|---------------------------|-------------|
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| MFR.: E-LITE LIGHTING CO.,LTD. | | |

| 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 | 67 | 57 | 51 | 66 | 56 | 50 | 65 | 56 | 50 | 45 |
| 0.80 | 77 | 67 | 61 | 76 | 67 | 61 | 74 | 66 | 60 | 55 |
| 1.00 | 85 | 76 | 70 | 84 | 75 | 70 | 82 | 76 | 69 | 63 |
| 1.25 | 91 | 83 | 78 | 90 | 82 | 77 | 88 | 81 | 76 | 70 |
| 1.50 | 96 | 88 | 83 | 94 | 87 | 82 | 92 | 86 | 81 | 75 |
| 2.00 | 101 | 95 | 90 | 100 | 94 | 89 | 97 | 92 | 88 | 81 |
| 2.50 | 104 | 98 | 94 | 102 | 97 | 93 | 99 | 94 | 91 | 84 |
| 3.00 | 107 | 102 | 97 | 105 | 100 | 96 | 101 | 97 | 94 | 87 |
| 4.00 | 110 | 105 | 102 | 108 | 104 | 101 | 104 | 101 | 98 | 90 |
| 5.00 | 112 | 108 | 105 | 109 | 106 | 103 | 105 | 102 | 100 | 92 |
| ROOM INDEX | UF(total) | | | | | | | | | Direct |
| According to DIN EN 13032-2 2004 | | | Suspended | | | | SHRNOM = 1.25 | | | |

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ISOCANDELA DIAGRAM

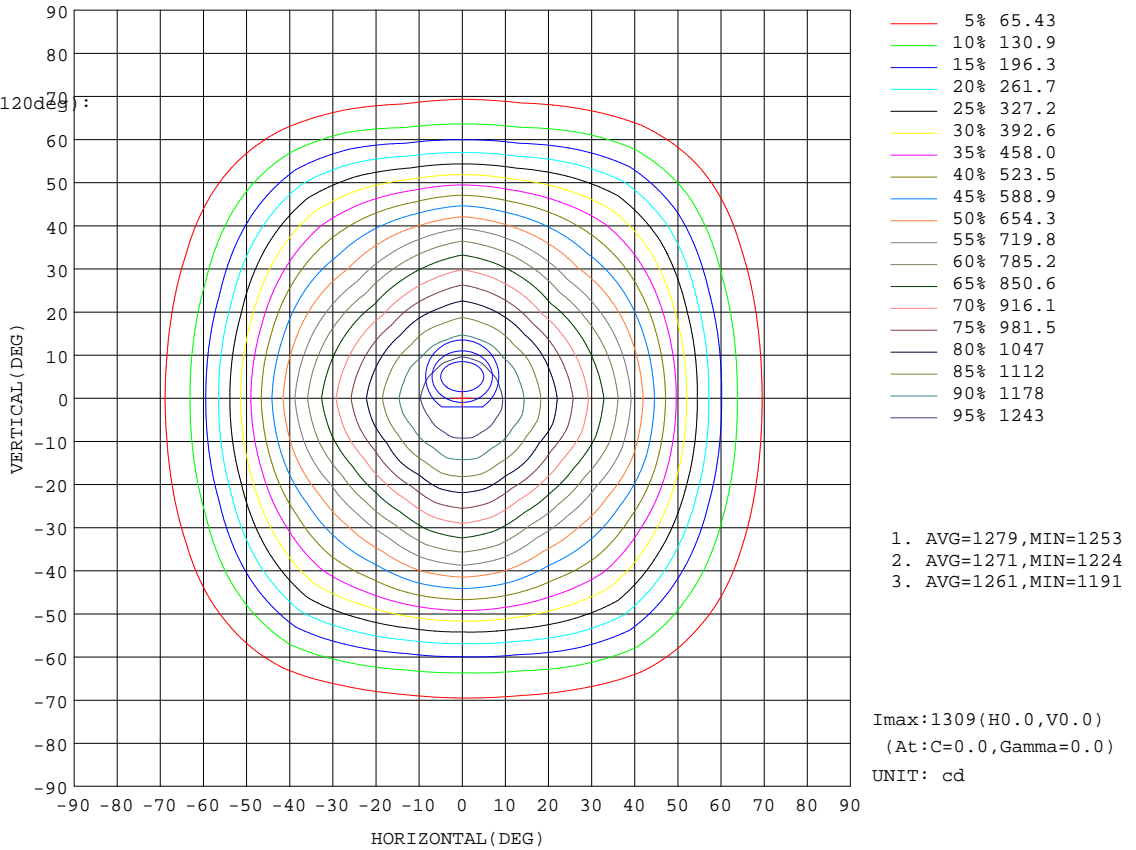
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Conical surface Flux(90deg):

1599.6 lm
%lum = 70.9%
%lamp = 70.9%

Conical surface Flux(120deg):

2092.9 lm
%lum = 92.8%
%lamp = 92.8%



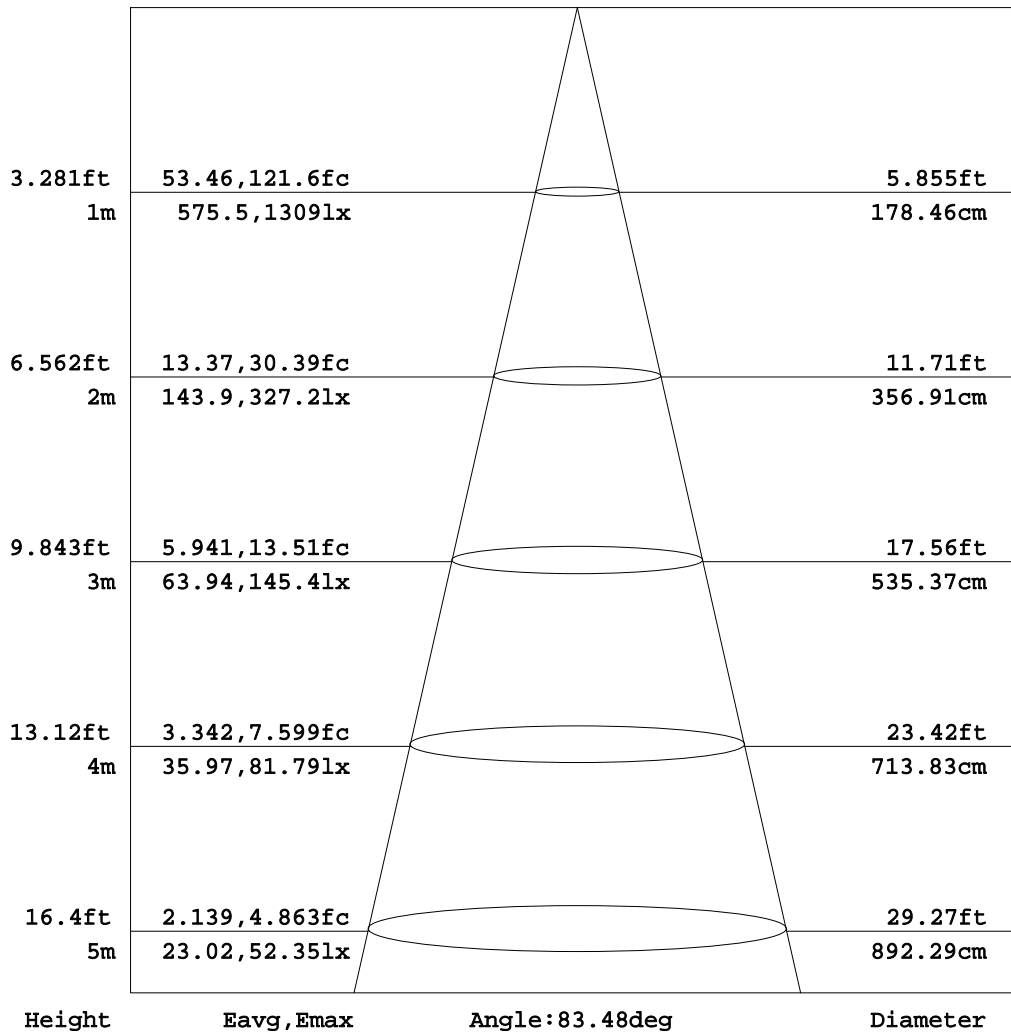
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AAI Figure

| | | |
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| MFR.: E-LITE LIGHTING CO.,LTD. | | |

Flux out:1466 lm



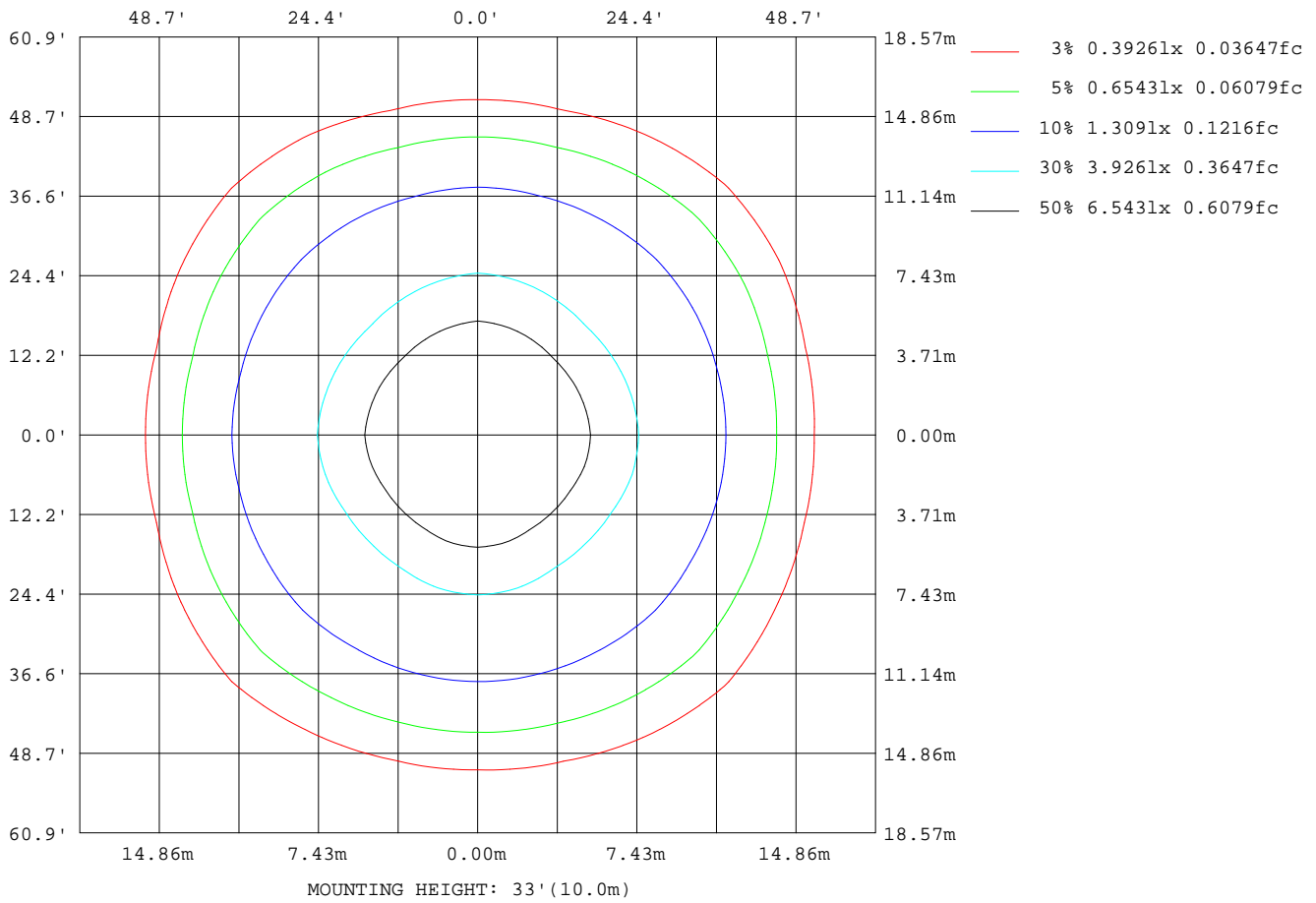
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Cao Chengpei
Test Date:2014-08-29

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity:53.0%
Test Distance:5.780m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

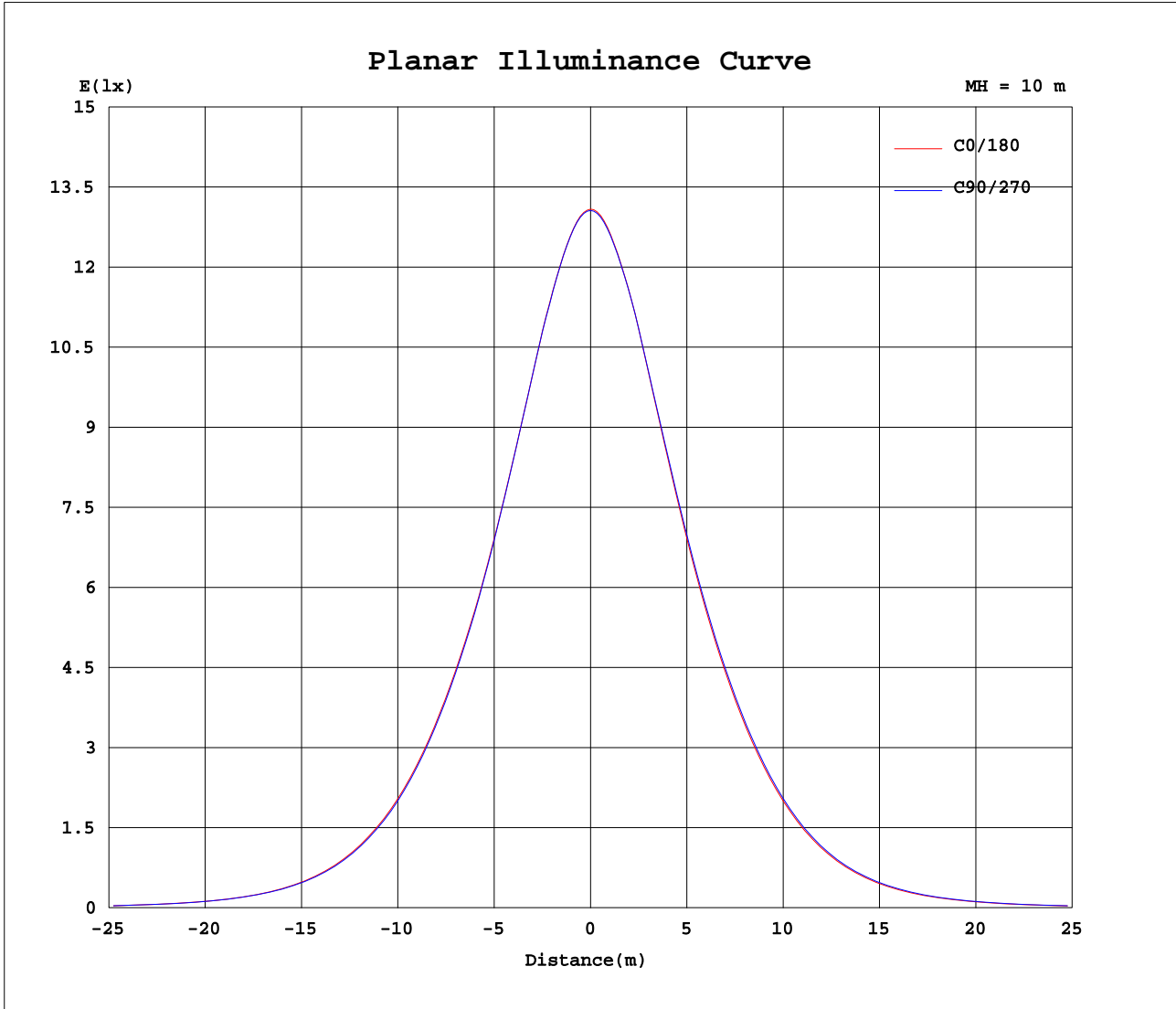
| | | |
|---|---------------------------|-------------|
| Test:U:220.3V I:0.1020A P:21.57W PF:0.9596 Lamp Flux:2255.22x1 lm | | |
| NAME: CS8R-20S-840 | TYPE:Downlight | SERIAL No.: |
| SPEC.:4000K | DIM.: L230mm*W230mm*H76mm | |
| MFR.: E-LITE LIGHTING CO.,LTD. | | |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Cao Chengpei
 Test Date:2014-08-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:53.0%
 Test Distance:5.780m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Cao Chengpei
 Test Date: 2014-08-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity: 53.0%
 Test Distance: 5.780m [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 | 1309 | 1308 | 1308 | 1307 | 1307 | 1306 | 1306 | 1306 | 1306 | 1305 |
| 3.0 | 1301 | 1301 | 1300 | 1300 | 1299 | 1300 | 1299 | 1299 | 1298 | 1299 |
| 6.0 | 1279 | 1280 | 1278 | 1278 | 1279 | 1278 | 1278 | 1278 | 1276 | 1277 |
| 9.0 | 1247 | 1249 | 1245 | 1246 | 1244 | 1248 | 1246 | 1247 | 1242 | 1243 |
| 12.0 | 1210 | 1213 | 1202 | 1204 | 1201 | 1211 | 1208 | 1210 | 1198 | 1201 |
| 15.0 | 1166 | 1168 | 1154 | 1153 | 1152 | 1168 | 1166 | 1166 | 1150 | 1149 |
| 18.0 | 1116 | 1116 | 1097 | 1099 | 1098 | 1114 | 1116 | 1113 | 1093 | 1095 |
| 21.0 | 1064 | 1061 | 1038 | 1040 | 1037 | 1058 | 1063 | 1057 | 1033 | 1036 |
| 24.0 | 1012 | 1005 | 976.8 | 973.9 | 975.4 | 1000 | 1010 | 999.5 | 971.0 | 967.5 |
| 27.0 | 958.3 | 947.9 | 916.1 | 907.5 | 912.1 | 941.9 | 953.9 | 940.5 | 909.6 | 900.9 |
| 30.0 | 901.8 | 889.3 | 855.1 | 842.6 | 848.4 | 882.3 | 896.8 | 881.0 | 845.5 | 835.4 |
| 33.0 | 847.3 | 831.6 | 791.7 | 779.5 | 785.5 | 821.6 | 839.8 | 820.5 | 782.5 | 771.9 |
| 36.0 | 788.0 | 772.7 | 732.4 | 719.3 | 724.4 | 762.4 | 779.2 | 761.2 | 722.3 | 711.2 |
| 39.0 | 723.2 | 709.8 | 673.5 | 661.7 | 666.4 | 699.6 | 714.1 | 698.1 | 663.9 | 653.6 |
| 42.0 | 652.8 | 642.4 | 613.7 | 607.9 | 607.4 | 632.5 | 642.6 | 630.9 | 604.3 | 599.1 |
| 45.0 | 577.6 | 572.3 | 552.3 | 554.9 | 547.0 | 562.3 | 567.0 | 560.5 | 542.0 | 545.5 |
| 48.0 | 501.6 | 498.2 | 491.9 | 499.7 | 488.7 | 489.3 | 491.3 | 486.0 | 481.4 | 489.4 |
| 51.0 | 420.4 | 421.2 | 426.4 | 441.3 | 425.9 | 414.2 | 411.0 | 409.8 | 415.1 | 429.9 |
| 54.0 | 340.2 | 344.5 | 359.0 | 380.1 | 360.4 | 339.6 | 332.4 | 334.5 | 347.6 | 368.1 |
| 57.0 | 265.5 | 270.8 | 291.3 | 316.2 | 294.0 | 268.0 | 259.6 | 262.5 | 280.3 | 303.4 |
| 60.0 | 199.0 | 204.0 | 225.6 | 251.2 | 229.3 | 202.8 | 195.4 | 197.7 | 215.6 | 238.3 |
| 63.0 | 143.2 | 146.8 | 165.3 | 187.9 | 169.4 | 146.6 | 141.5 | 143.0 | 157.1 | 175.7 |
| 66.0 | 99.55 | 101.6 | 113.8 | 131.3 | 117.6 | 102.3 | 99.43 | 99.16 | 107.9 | 120.7 |
| 69.0 | 69.43 | 69.28 | 73.85 | 83.60 | 76.55 | 70.06 | 69.47 | 68.00 | 69.91 | 75.32 |
| 72.0 | 49.89 | 48.94 | 47.07 | 49.50 | 47.86 | 49.00 | 49.72 | 48.05 | 44.55 | 43.93 |
| 75.0 | 34.39 | 34.29 | 30.41 | 28.56 | 29.80 | 34.02 | 33.93 | 33.35 | 28.32 | 25.30 |
| 78.0 | 18.56 | 19.83 | 17.40 | 15.97 | 16.71 | 19.43 | 17.39 | 18.34 | 15.41 | 13.85 |
| 81.0 | 3.502 | 4.186 | 5.327 | 7.532 | 5.723 | 4.377 | 3.590 | 4.181 | 4.717 | 6.358 |
| 84.0 | 3.413 | 3.986 | 4.557 | 4.892 | 4.685 | 4.165 | 3.500 | 3.982 | 4.402 | 4.609 |
| 87.0 | 3.371 | 3.820 | 4.265 | 4.472 | 4.267 | 3.931 | 3.438 | 3.769 | 4.040 | 4.138 |
| 90.0 | 0.8422 | 0.7528 | 0.6176 | 0.3847 | 0.2433 | 0.1622 | 0.1560 | 0.1539 | 0.1643 | 0.1643 |
| G/C | 150.0 | 165.0 | 180.0 | 195.0 | 210.0 | 225.0 | 240.0 | 255.0 | 270.0 | 285.0 |
| 0.0 | 1305 | 1305 | 1309 | 1308 | 1308 | 1307 | 1307 | 1306 | 1306 | 1306 |
| 3.0 | 1298 | 1298 | 1302 | 1301 | 1300 | 1299 | 1300 | 1298 | 1299 | 1298 |
| 6.0 | 1276 | 1277 | 1281 | 1279 | 1279 | 1277 | 1278 | 1277 | 1279 | 1277 |
| 9.0 | 1241 | 1246 | 1251 | 1247 | 1247 | 1243 | 1246 | 1246 | 1250 | 1247 |
| 12.0 | 1198 | 1209 | 1217 | 1209 | 1208 | 1200 | 1207 | 1207 | 1217 | 1210 |
| 15.0 | 1149 | 1164 | 1172 | 1162 | 1159 | 1150 | 1159 | 1162 | 1173 | 1164 |
| 18.0 | 1093 | 1109 | 1121 | 1109 | 1103 | 1094 | 1106 | 1109 | 1124 | 1113 |
| 21.0 | 1031 | 1053 | 1069 | 1054 | 1043 | 1034 | 1046 | 1055 | 1074 | 1061 |
| 24.0 | 969.7 | 995.3 | 1015 | 996.6 | 982.0 | 968.7 | 984.6 | 999.3 | 1022 | 1006 |
| 27.0 | 906.3 | 936.5 | 958.8 | 937.8 | 919.8 | 903.5 | 920.9 | 942.3 | 967.9 | 948.8 |
| 30.0 | 842.7 | 876.8 | 902.0 | 878.2 | 857.1 | 838.5 | 858.7 | 883.6 | 912.3 | 890.5 |
| 33.0 | 779.6 | 815.7 | 843.2 | 817.6 | 794.1 | 776.0 | 797.1 | 824.3 | 854.5 | 831.6 |
| 36.0 | 718.2 | 755.3 | 782.2 | 756.4 | 733.6 | 715.2 | 736.6 | 763.9 | 794.2 | 770.6 |
| 39.0 | 658.9 | 691.3 | 715.5 | 692.5 | 674.1 | 658.0 | 677.5 | 700.4 | 728.4 | 706.7 |
| 42.0 | 598.9 | 623.2 | 643.1 | 623.9 | 613.6 | 602.8 | 617.9 | 632.5 | 656.6 | 638.1 |
| 45.0 | 537.4 | 551.4 | 566.3 | 551.6 | 551.4 | 548.4 | 556.2 | 560.6 | 579.3 | 565.0 |
| 48.0 | 477.5 | 476.4 | 485.5 | 479.4 | 486.1 | 495.1 | 492.4 | 488.9 | 498.3 | 492.0 |
| 51.0 | 413.3 | 399.9 | 403.7 | 401.3 | 418.5 | 435.0 | 426.9 | 411.7 | 415.7 | 413.3 |
| 54.0 | 346.5 | 324.1 | 324.0 | 324.1 | 349.4 | 371.2 | 359.6 | 335.3 | 335.5 | 335.7 |
| 57.0 | 279.2 | 251.9 | 250.0 | 251.3 | 280.3 | 305.2 | 291.1 | 262.7 | 260.8 | 262.5 |
| 60.0 | 214.0 | 187.3 | 185.5 | 186.0 | 214.1 | 238.1 | 224.9 | 196.3 | 194.9 | 196.0 |
| 63.0 | 154.8 | 132.7 | 132.6 | 132.5 | 154.4 | 174.6 | 164.2 | 139.7 | 140.0 | 140.4 |
| 66.0 | 104.8 | 90.90 | 92.32 | 90.56 | 105.0 | 118.1 | 112.1 | 95.23 | 97.59 | 96.50 |
| 69.0 | 66.69 | 62.04 | 64.59 | 61.84 | 67.49 | 73.49 | 71.36 | 64.18 | 67.91 | 66.14 |
| 72.0 | 41.66 | 43.71 | 46.17 | 44.24 | 42.80 | 42.95 | 43.58 | 45.03 | 48.42 | 47.04 |
| 75.0 | 26.08 | 29.91 | 31.21 | 30.36 | 27.39 | 24.55 | 27.04 | 31.04 | 33.25 | 32.82 |
| 78.0 | 14.02 | 15.83 | 15.34 | 16.00 | 14.95 | 13.43 | 15.01 | 17.40 | 17.76 | 18.66 |
| 81.0 | 4.671 | 3.965 | 3.217 | 3.738 | 4.293 | 6.096 | 4.946 | 3.852 | 3.186 | 3.889 |
| 84.0 | 4.308 | 3.772 | 3.119 | 3.550 | 4.017 | 4.269 | 4.100 | 3.642 | 3.092 | 3.673 |
| 87.0 | 3.961 | 3.581 | 3.113 | 3.405 | 3.747 | 3.861 | 3.739 | 3.432 | 3.025 | 3.492 |
| 90.0 | 0.1643 | 0.1601 | 0.1165 | 0.1185 | 0.1185 | 0.1352 | 0.1310 | 0.1393 | 0.1976 | 0.4534 |
| G/C | 300.0 | 315.0 | 330.0 | 345.0 | | | | | | |
| 0.0 | 1306 | 1305 | 1305 | 1305 | | | | | | |
| 3.0 | 1298 | 1298 | 1298 | 1298 | | | | | | |
| 6.0 | 1278 | 1276 | 1277 | 1276 | | | | | | |
| 9.0 | 1246 | 1242 | 1244 | 1244 | | | | | | |
| 12.0 | 1209 | 1199 | 1205 | 1204 | | | | | | |
| 15.0 | 1161 | 1150 | 1158 | 1160 | | | | | | |
| 18.0 | 1107 | 1096 | 1105 | 1107 | | | | | | |
| 21.0 | 1049 | 1038 | 1046 | 1052 | | | | | | |

C Range: 0 - 360DEG

C Interval: 15.0DEG

Test Speed: HIGH

Temperature: 25.3DEG

Operators: Cao Chengpei

Test Date: 2014-08-29

γ Range: 0 - 90DEG

γ Interval: 1.0DEG

Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288

Humidity: 53.0%

Test Distance: 5.780m [K=1.0000]

Remarks:

Photometric Data Table [cd]

| | | | | |
|------|--------|--------|-------|-------|
| 24.0 | 989.6 | 973.2 | 984.1 | 995.8 |
| 27.0 | 929.0 | 908.7 | 921.8 | 939.2 |
| 30.0 | 867.4 | 843.9 | 860.7 | 880.3 |
| 33.0 | 805.0 | 782.1 | 798.4 | 823.2 |
| 36.0 | 744.3 | 722.1 | 740.0 | 764.7 |
| 39.0 | 684.1 | 664.4 | 682.3 | 703.1 |
| 42.0 | 623.6 | 610.7 | 624.2 | 636.9 |
| 45.0 | 561.5 | 556.8 | 563.8 | 567.9 |
| 48.0 | 495.7 | 504.3 | 501.8 | 498.6 |
| 51.0 | 428.4 | 444.7 | 438.1 | 423.0 |
| 54.0 | 359.9 | 382.2 | 372.0 | 347.1 |
| 57.0 | 290.9 | 316.8 | 304.0 | 274.2 |
| 60.0 | 224.6 | 249.7 | 237.2 | 206.6 |
| 63.0 | 164.4 | 185.7 | 175.1 | 148.8 |
| 66.0 | 113.4 | 127.9 | 121.8 | 101.8 |
| 69.0 | 73.99 | 81.44 | 77.97 | 68.66 |
| 72.0 | 46.95 | 48.47 | 47.91 | 48.05 |
| 75.0 | 30.21 | 27.65 | 29.86 | 33.41 |
| 78.0 | 17.40 | 15.42 | 17.16 | 19.56 |
| 81.0 | 5.371 | 7.238 | 6.352 | 4.192 |
| 84.0 | 4.247 | 4.587 | 4.403 | 3.946 |
| 87.0 | 3.941 | 4.198 | 4.054 | 3.752 |
| 90.0 | 0.6925 | 0.9171 | 1.081 | 1.231 |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Cao Chengpei
 Test Date: 2014-08-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity: 53.0%
 Test Distance: 5.780m [K=1.0000]
 Remarks: