

LED Downlight CATO Series C6R-20S-840



|                     |        |                          |
|---------------------|--------|--------------------------|
| Light Output Ratio: | 100.0% |                          |
| Luminaire Power:    | 21.5 W |                          |
| SHR Nominal:        | 1.00   | Calculated using the TM5 |
| SHR Maximum:        | 1.05   | fine grid method.        |

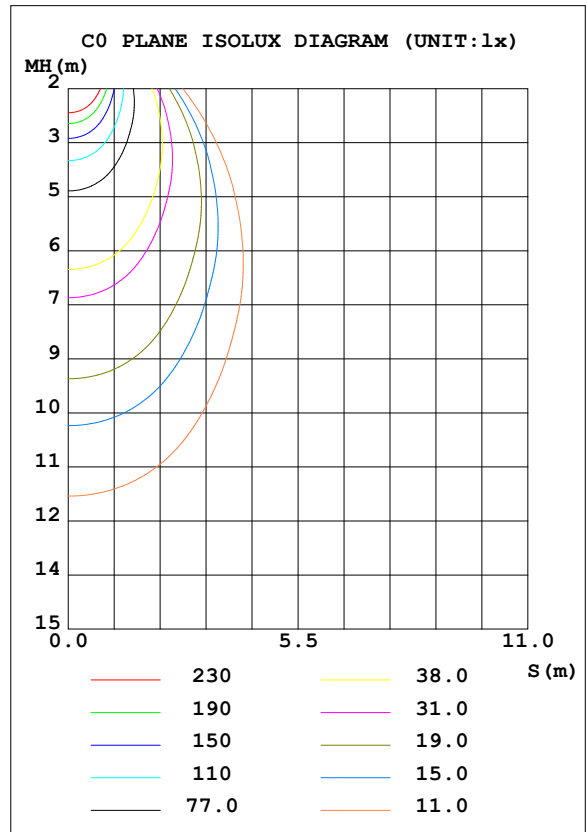
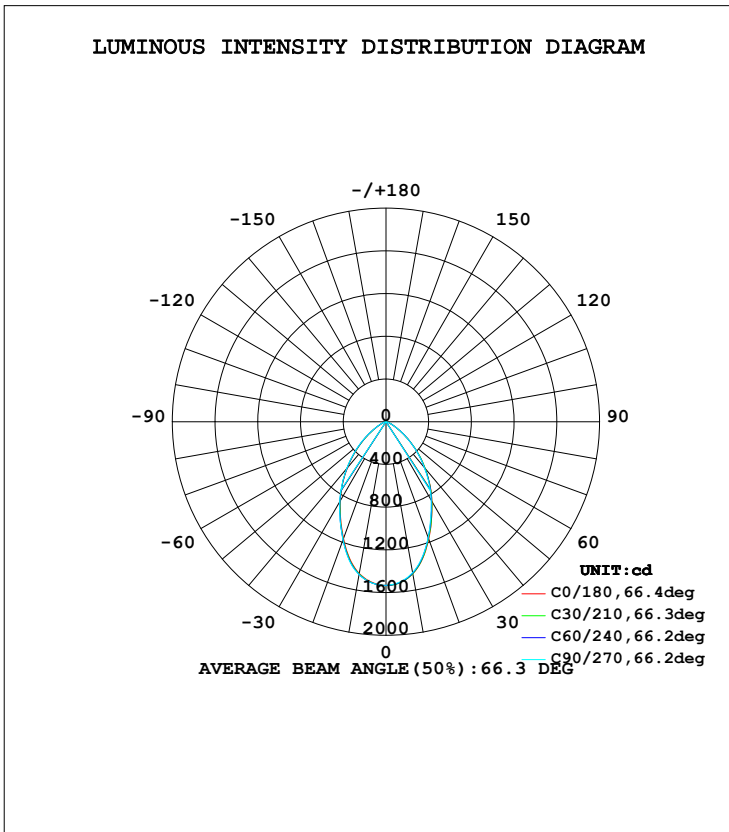
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Cao Chengpei  
 Test Date: 2014-08-30

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:0.1017A P:21.50W PF:0.9592 Lamp Flux:1995.28x1 lm |                    |             |
| NAME: C6R-20S-840   | TYPE:Downlight     | SERIAL No.: |
| SPEC.:4000K   | DIM.: φ169mm*H66mm |             |
| MFR.: E-LITE LIGHTING CO.,LTD.                                    |                    |             |

| DATA OF LAMP      |               | PHOTOMETRIC DATA |        |                     |           |
|-------------------|---------------|------------------|--------|---------------------|-----------|
| MODEL             | SAMSUNG-4000K | Imax (cd)        | 1535   | S/MH (C0/180)       | 0.92      |
| NOMINAL POWER (W) | 22            | LOR (%)          | 100.0  | S/MH (C90/270)      | 0.93      |
| RATED VOLTAGE (V) | 220           | TOTAL FLUX (lm)  | 1995.3 | η UP, DN (C0-180)   | 0.0, 49.8 |
| NOMINAL FLUX (lm) | 1995.28       | CIE CLASS        | DIRECT | η UP, DN (C180-360) | 0.0, 50.2 |
| LAMPS INSIDE      | 1             | η up (%)         | 0.0    | CIBSE SHR NOM       | 1.00      |
| TEST VOLTAGE (V)  | 220           | η down (%)       | 100.0  | CIBSE SHR MAX       | 1.05      |



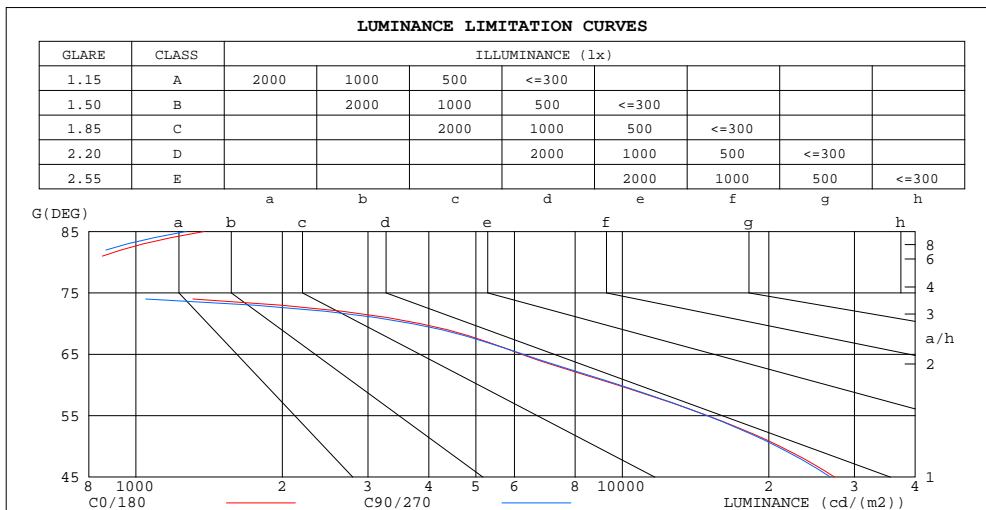
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Cao Chengpei  
 Test Date: 2014-08-30

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:

| $\gamma$ | C0                    | C45    | C90    | C135   | C180   | C225   | C270   | C315   | $\gamma$ | $\Phi$ zone | $\Phi$ total | $\Phi$ lum,lamp |
|----------|-----------------------|--------|--------|--------|--------|--------|--------|--------|----------|-------------|--------------|-----------------|
| 10       | 1445                  | 1446   | 1435   | 1436   | 1442   | 1448   | 1454   | 1453   | 0- 10    | 142.1       | 142.1        | 7.12,7.12       |
| 20       | 1170                  | 1167   | 1154   | 1158   | 1164   | 1167   | 1178   | 1178   | 10- 20   | 369.4       | 511.5        | 25.6,25.6       |
| 30       | 862.0                 | 860.7  | 847.4  | 851.4  | 857.4  | 855.7  | 867.3  | 869.3  | 20- 30   | 462.5       | 974.0        | 48.8,48.8       |
| 40       | 568.1                 | 575.5  | 559.1  | 560.9  | 561.4  | 562.3  | 572.1  | 575.9  | 30- 40   | 443.8       | 1418         | 71.1,71.1       |
| 50       | 304.1                 | 305.9  | 299.6  | 293.5  | 291.7  | 294.7  | 305.3  | 305.2  | 40- 50   | 330.1       | 1748         | 87.6,87.6       |
| 60       | 109.4                 | 114.0  | 110.6  | 105.2  | 103.8  | 104.2  | 111.4  | 114.4  | 50- 60   | 173.8       | 1922         | 96.3,96.3       |
| 70       | 29.48                 | 30.76  | 28.38  | 26.85  | 26.69  | 27.19  | 28.96  | 31.45  | 60- 70   | 61.29       | 1983         | 99.4,99.4       |
| 80       | 3.087                 | 2.915  | 2.896  | 2.923  | 2.873  | 2.777  | 2.675  | 3.029  | 70- 80   | 9.733       | 1993         | 99.9,99.9       |
| 90       | 0.1393                | 0.0894 | 0.0915 | 0.0915 | 0.0499 | 0.1061 | 0.2953 | 0.4409 | 80- 90   | 2.568       | 1995         | 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                | 1382   | 1269    |
| 80                | 793    | 744     |
| 75                | 713    | 606     |
| 70                | 3845   | 3702    |
| 65                | 6194   | 6252    |
| 60                | 9758   | 9867    |
| 55                | 14969  | 14939   |
| 50                | 21102  | 20789   |
| 45                | 27307  | 26784   |

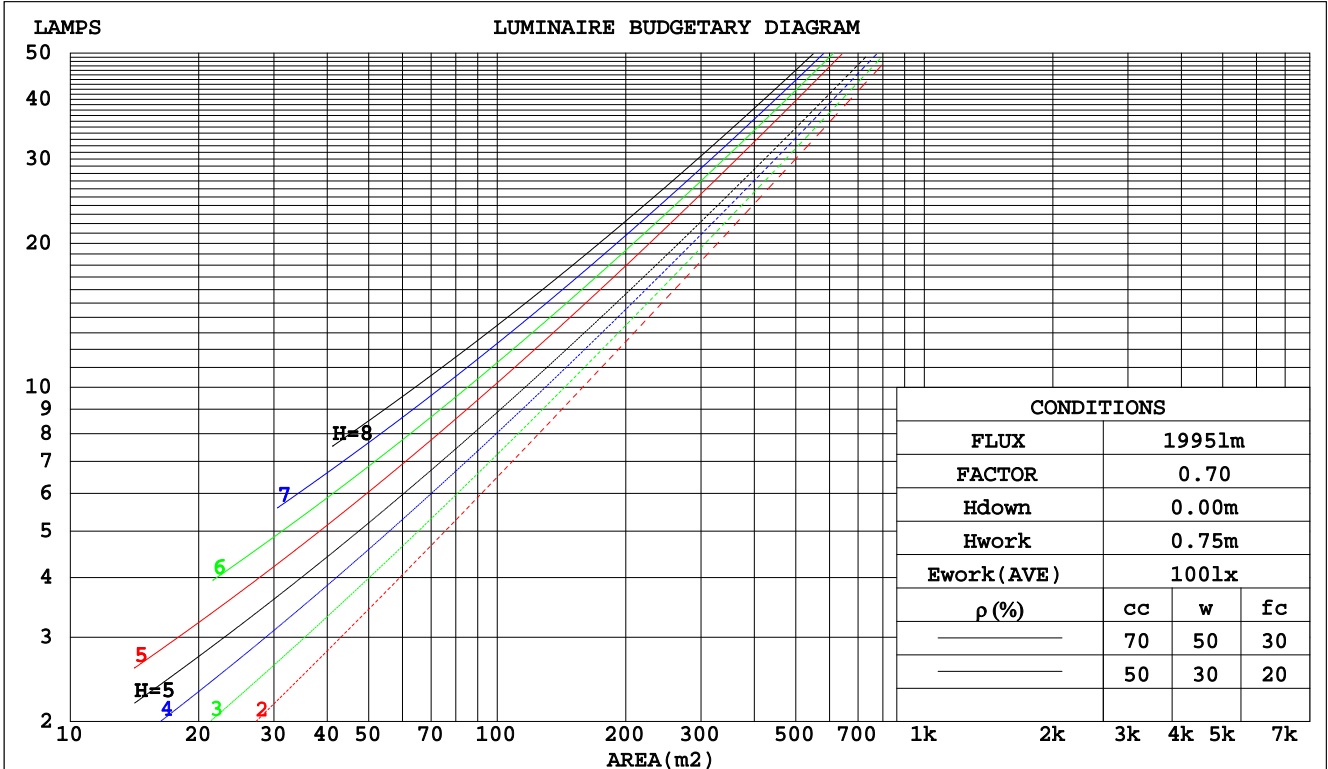
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Cao Chengpei  
 Test Date:2014-08-30

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:0.1017A P:21.50W PF:0.9592 Lamp Flux:1995.28x1 lm |                    |             |
| NAME: C6R-20S-840   | TYPE:Downlight     | SERIAL No.: |
| SPEC.:4000K   | DIM.: φ169mm*H66mm |             |
| 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           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|      | 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  | 1.09                            | 1.06 | 1.03 | 1.07 | 1.04 | 1.02 | 1.03 | 1.00 | .98  | .99  | .97  | .95  | .95  | .94  | .93  | .91  |
| 2.0  | .99                             | .94  | .90  | .97  | .93  | .89  | .94  | .90  | .87  | .91  | .88  | .85  | .88  | .86  | .83  | .81  |
| 3.0  | .90                             | .84  | .79  | .89  | .83  | .79  | .86  | .81  | .77  | .84  | .79  | .76  | .81  | .78  | .75  | .73  |
| 4.0  | .83                             | .76  | .71  | .81  | .75  | .70  | .79  | .74  | .69  | .77  | .72  | .68  | .75  | .71  | .68  | .66  |
| 5.0  | .76                             | .69  | .63  | .75  | .68  | .63  | .73  | .67  | .62  | .71  | .66  | .62  | .69  | .65  | .61  | .60  |
| 6.0  | .70                             | .63  | .57  | .69  | .62  | .57  | .67  | .61  | .57  | .66  | .60  | .56  | .64  | .60  | .56  | .54  |
| 7.0  | .64                             | .57  | .52  | .64  | .57  | .52  | .62  | .56  | .52  | .61  | .56  | .51  | .60  | .55  | .51  | .49  |
| 8.0  | .60                             | .53  | .48  | .59  | .52  | .48  | .58  | .52  | .47  | .57  | .51  | .47  | .56  | .51  | .47  | .45  |
| 9.0  | .56                             | .49  | .44  | .55  | .49  | .44  | .54  | .48  | .44  | .53  | .48  | .44  | .52  | .47  | .43  | .42  |
| 10.0 | .52                             | .45  | .41  | .52  | .45  | .41  | .51  | .45  | .41  | .50  | .44  | .40  | .49  | .44  | .40  | .39  |



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Cao Chengpei  
 Test Date:2014-08-30

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:

WEC AND CCEC

|   |                    |             |
|---|--------------------|-------------|
| Test:U:220.3V I:0.1017A P:21.50W PF:0.9592 Lamp Flux:1995.28x1 lm |                    |             |
| NAME: C6R-20S-840   | TYPE:Downlight     | SERIAL No.: |
| SPEC.:4000K   | DIM.: φ169mm*H66mm |             |
| 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  | .214                  | .122 | .039 | .207 | .118 | .038 | .195                            | .112 | .036 | .183 | .105 | .034 | .172 | .100 | .032 |   |
| 2.0  | .209                  | .115 | .035 | .203 | .112 | .034 | .192                            | .107 | .033 | .182 | .102 | .032 | .173 | .098 | .031 |   |
| 3.0  | .200                  | .106 | .032 | .195 | .104 | .031 | .185                            | .101 | .031 | .177 | .097 | .030 | .169 | .093 | .029 |   |
| 4.0  | .190                  | .099 | .029 | .186 | .097 | .029 | .177                            | .094 | .028 | .170 | .091 | .027 | .163 | .088 | .027 |   |
| 5.0  | .180                  | .092 | .027 | .177 | .091 | .026 | .169                            | .088 | .026 | .162 | .086 | .025 | .156 | .083 | .025 |   |
| 6.0  | .171                  | .086 | .025 | .168 | .085 | .024 | .161                            | .083 | .024 | .155 | .081 | .024 | .149 | .079 | .023 |   |
| 7.0  | .162                  | .080 | .023 | .159 | .079 | .023 | .153                            | .078 | .022 | .148 | .076 | .022 | .143 | .074 | .022 |   |
| 8.0  | .154                  | .075 | .021 | .151 | .074 | .021 | .146                            | .073 | .021 | .141 | .071 | .021 | .137 | .070 | .020 |   |
| 9.0  | .146                  | .071 | .020 | .144 | .070 | .020 | .139                            | .069 | .020 | .135 | .068 | .019 | .131 | .066 | .019 |   |
| 10.0 | .139                  | .067 | .019 | .137 | .066 | .018 | .133                            | .065 | .018 | .129 | .064 | .018 | .125 | .063 | .018 |   |

| 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  | .174                  | .157 | .142 | .149 | .135 | .122 | .102                                       | .093 | .084 | .059 | .054 | .049 | .019 | .017 | .016 |   |
| 2.0  | .161                  | .132 | .108 | .138 | .114 | .093 | .095                                       | .079 | .065 | .055 | .046 | .038 | .018 | .015 | .012 |   |
| 3.0  | .151                  | .114 | .084 | .129 | .098 | .073 | .089                                       | .068 | .051 | .051 | .040 | .030 | .016 | .013 | .010 |   |
| 4.0  | .142                  | .100 | .067 | .122 | .086 | .058 | .084                                       | .060 | .041 | .049 | .035 | .024 | .016 | .011 | .008 |   |
| 5.0  | .135                  | .089 | .055 | .116 | .077 | .047 | .080                                       | .054 | .034 | .046 | .031 | .020 | .015 | .010 | .007 |   |
| 6.0  | .128                  | .080 | .045 | .110 | .069 | .039 | .076                                       | .048 | .028 | .044 | .028 | .017 | .014 | .009 | .005 |   |
| 7.0  | .122                  | .073 | .038 | .105 | .063 | .033 | .072                                       | .044 | .024 | .042 | .026 | .014 | .014 | .009 | .005 |   |
| 8.0  | .116                  | .067 | .033 | .100 | .058 | .029 | .069                                       | .041 | .020 | .040 | .024 | .012 | .013 | .008 | .004 |   |
| 9.0  | .111                  | .062 | .028 | .095 | .053 | .025 | .066                                       | .038 | .018 | .038 | .022 | .011 | .012 | .007 | .003 |   |
| 10.0 | .106                  | .057 | .025 | .091 | .050 | .022 | .063                                       | .035 | .016 | .037 | .021 | .009 | .012 | .007 | .003 |   |

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Cao Chengpei  
 Test Date:2014-08-30

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:0.1017A P:21.50W PF:0.9592 Lamp Flux:1995.28x1 lm |                    |             |
| NAME: C6R-20S-840   | TYPE:Downlight     | SERIAL No.: |
| SPEC.:4000K   | DIM.: φ169mm*H66mm |             |
| 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                                      | 21.2             | 22.4 | 21.5 | 22.6 | 22.8 | 21.2           | 22.4 | 21.5 | 22.6 | 22.8 |
| 3H   | 21.3             | 22.3 | 21.5 | 22.5 | 22.8 | 21.2           | 22.3 | 21.5 | 22.5 | 22.7 |
| 4H   | 21.2             | 22.2 | 21.5 | 22.4 | 22.7 | 21.1           | 22.2 | 21.4 | 22.4 | 22.6 |
| 6H   | 21.1             | 22.0 | 21.4 | 22.3 | 22.5 | 21.0           | 22.0 | 21.4 | 22.3 | 22.5 |
| 8H   | 21.0             | 22.0 | 21.4 | 22.2 | 22.5 | 21.0           | 21.9 | 21.3 | 22.2 | 22.5 |
| 12H  | 21.0             | 21.9 | 21.3 | 22.1 | 22.4 | 21.0           | 21.8 | 21.3 | 22.1 | 22.4 |
| 4H 2H  | 21.2             | 22.2 | 21.5 | 22.5 | 22.7 | 21.2           | 22.2 | 21.5 | 22.4 | 22.7 |
| 3H   | 21.3             | 22.2 | 21.6 | 22.4 | 22.7 | 21.2           | 22.1 | 21.6 | 22.4 | 22.7 |
| 4H   | 21.2             | 22.0 | 21.6 | 22.3 | 22.6 | 21.2           | 22.0 | 21.5 | 22.3 | 22.6 |
| 6H   | 21.1             | 21.8 | 21.5 | 22.1 | 22.5 | 21.1           | 21.8 | 21.5 | 22.1 | 22.5 |
| 8H   | 21.1             | 21.7 | 21.5 | 22.1 | 22.4 | 21.0           | 21.7 | 21.4 | 22.0 | 22.4 |
| 12H  | 21.0             | 21.6 | 21.4 | 22.0 | 22.4 | 21.0           | 21.6 | 21.4 | 21.9 | 22.3 |
| 8H 4H  | 21.1             | 21.7 | 21.5 | 22.1 | 22.4 | 21.0           | 21.7 | 21.4 | 22.0 | 22.4 |
| 6H   | 21.0             | 21.5 | 21.4 | 21.9 | 22.3 | 20.9           | 21.5 | 21.4 | 21.9 | 22.3 |
| 8H   | 20.9             | 21.4 | 21.4 | 21.8 | 22.3 | 20.9           | 21.4 | 21.4 | 21.8 | 22.2 |
| 12H  | 20.9             | 21.3 | 21.4 | 21.7 | 22.2 | 20.9           | 21.3 | 21.3 | 21.7 | 22.2 |
| 12H 4H   | 21.0             | 21.6 | 21.4 | 22.0 | 22.4 | 21.0           | 21.6 | 21.4 | 22.0 | 22.3 |
| 6H   | 20.9             | 21.4 | 21.4 | 21.8 | 22.3 | 20.9           | 21.4 | 21.4 | 21.8 | 22.2 |
| 8H   | 20.9             | 21.3 | 21.4 | 21.7 | 22.2 | 20.9           | 21.3 | 21.3 | 21.7 | 22.2 |
| Variations with the observer position at spacings: |                  |      |      |      |      |                |      |      |      |      |
| S = 1.0H   | + 1.4 / - 2.3    |      |      |      |      | + 1.4 / - 2.3  |      |      |      |      |
| 1.5H   | + 1.0 / - 1.4    |      |      |      |      | + 1.0 / - 1.3  |      |      |      |      |
| 2.0H   | + 3.0 / - 3.8    |      |      |      |      | + 2.9 / - 3.9  |      |      |      |      |

CIE Pub.117 Corrected 1995 lm Total Lamp Luminous Flux.(8log(F/F0) = 2.4)

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Cao Chengpei  
 Test Date:2014-08-30

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:

UTILIZATION FACTORS TABLE

|   |                    |             |
|---|--------------------|-------------|
| Test:U:220.3V I:0.1017A P:21.50W PF:0.9592 Lamp Flux:1995.28x1 lm |                    |             |
| NAME: C6R-20S-840   | TYPE:Downlight     | SERIAL No.: |
| SPEC.:4000K   | DIM.: φ169mm*H66mm |             |
| 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                         | 73  | 64  | 59        | 72  | 64  | 59  | 71            | 63  | 58  | 54     |
| 0.80                             | 83  | 74  | 69        | 82  | 74  | 69  | 80            | 73  | 68  | 63     |
| 1.00                             | 90  | 82  | 77        | 89  | 81  | 76  | 87            | 82  | 76  | 71     |
| 1.25                             | 96  | 88  | 83        | 94  | 88  | 83  | 92            | 86  | 82  | 77     |
| 1.50                             | 99  | 93  | 88        | 98  | 92  | 88  | 95            | 90  | 86  | 81     |
| 2.00                             | 104   | 98  | 94        | 102 | 97  | 93  | 99            | 95  | 92  | 86     |
| 2.50                             | 106   | 101 | 97        | 105 | 100 | 96  | 101           | 97  | 94  | 88     |
| 3.00                             | 109   | 104 | 100       | 107 | 103 | 99  | 103           | 100 | 97  | 90     |
| 4.00                             | 111   | 107 | 104       | 109 | 106 | 103 | 105           | 103 | 100 | 93     |
| 5.00                             | 113   | 110 | 107       | 110 | 108 | 105 | 106           | 104 | 102 | 94     |
| ROOM INDEX                       | UF(total)   |     |           |     |     |     |               |     |     | Direct |
| According to DIN EN 13032-2 2004 |   |     | Suspended |     |     |     | SHRNOM = 1.25 |     |     |        |

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Cao Chengpei  
 Test Date:2014-08-30

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Humidity:53.0%  
 Test Distance:5.780m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

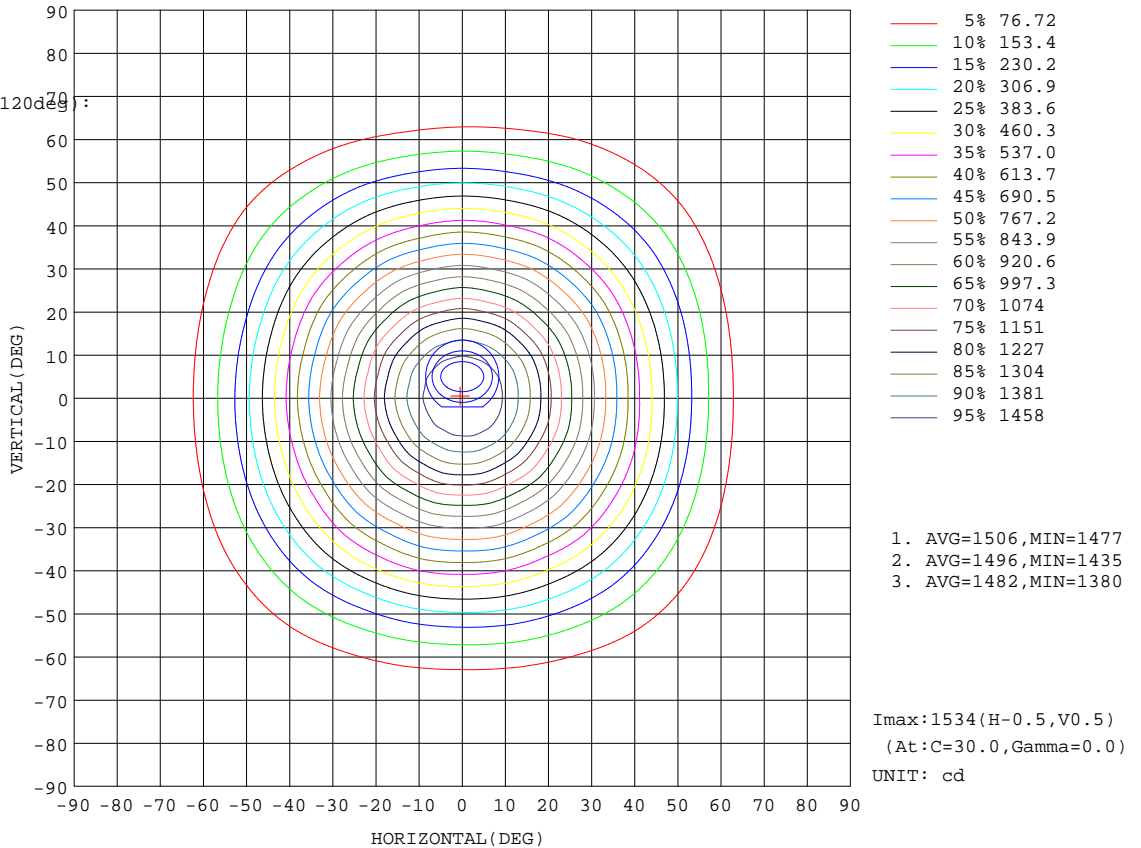
|   |                    |             |
|---|--------------------|-------------|
| Test:U:220.3V I:0.1017A P:21.50W PF:0.9592 Lamp Flux:1995.28x1 lm |                    |             |
| NAME: C6R-20S-840   | TYPE:Downlight     | SERIAL No.: |
| SPEC.:4000K   | DIM.: φ169mm*H66mm |             |
| MFR.: E-LITE LIGHTING CO.,LTD.                                    |                    |             |

Conical surface Flux(90deg):

1601.6 lm  
%lum = 80.3%  
%lamp = 80.3%

Conical surface Flux(120deg):

1921.7 lm  
%lum = 96.3%  
%lamp = 96.3%



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Cao Chengpei  
Test Date: 2014-08-30

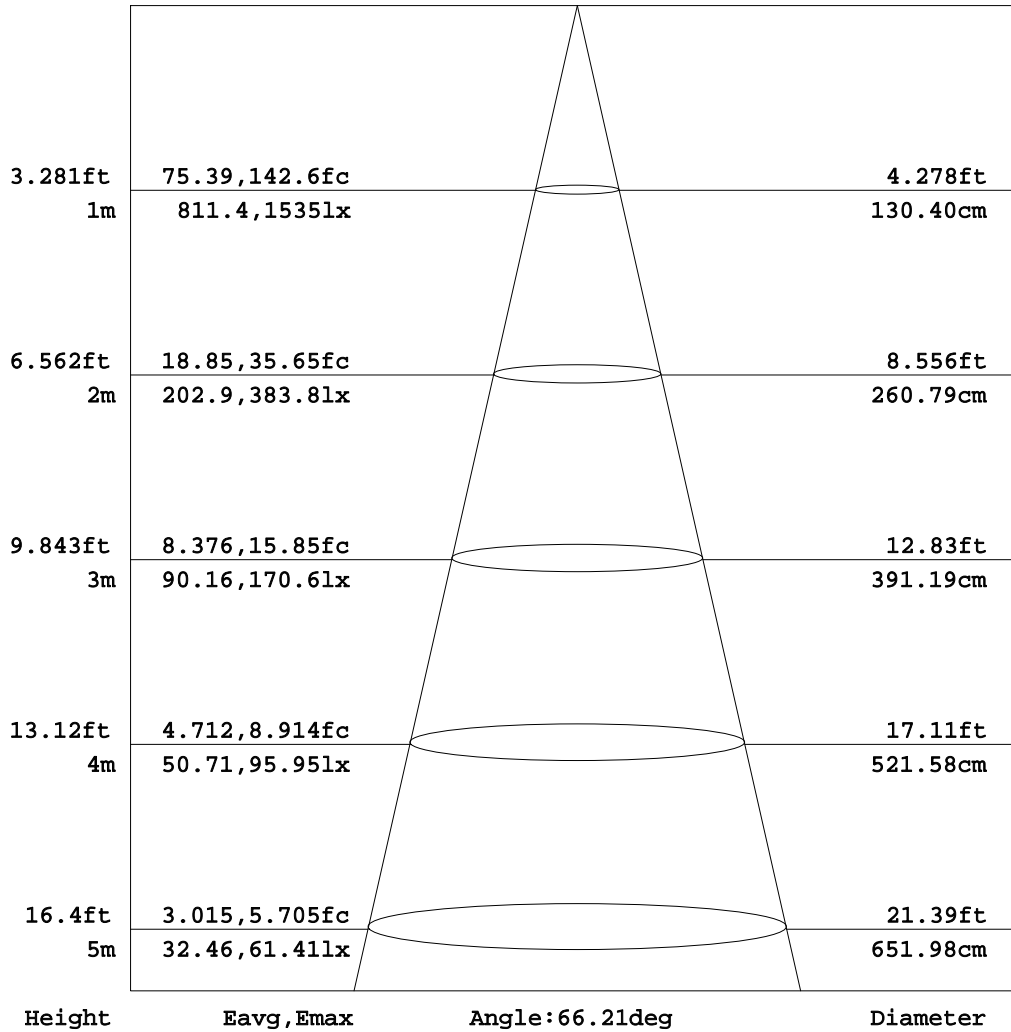
γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity: 53.0%  
Test Distance: 5.780m [K=1.0000]  
Remarks:



AAI Figure

|   |                    |             |
|---|--------------------|-------------|
| Test:U:220.3V I:0.1017A P:21.50W PF:0.9592 Lamp Flux:1995.28x1 lm |                    |             |
| NAME: C6R-20S-840   | TYPE:Downlight     | SERIAL No.: |
| SPEC.:4000K   | DIM.: φ169mm*H66mm |             |
| MFR.: E-LITE LIGHTING CO.,LTD.                                    |                    |             |

Flux out:1160 lm



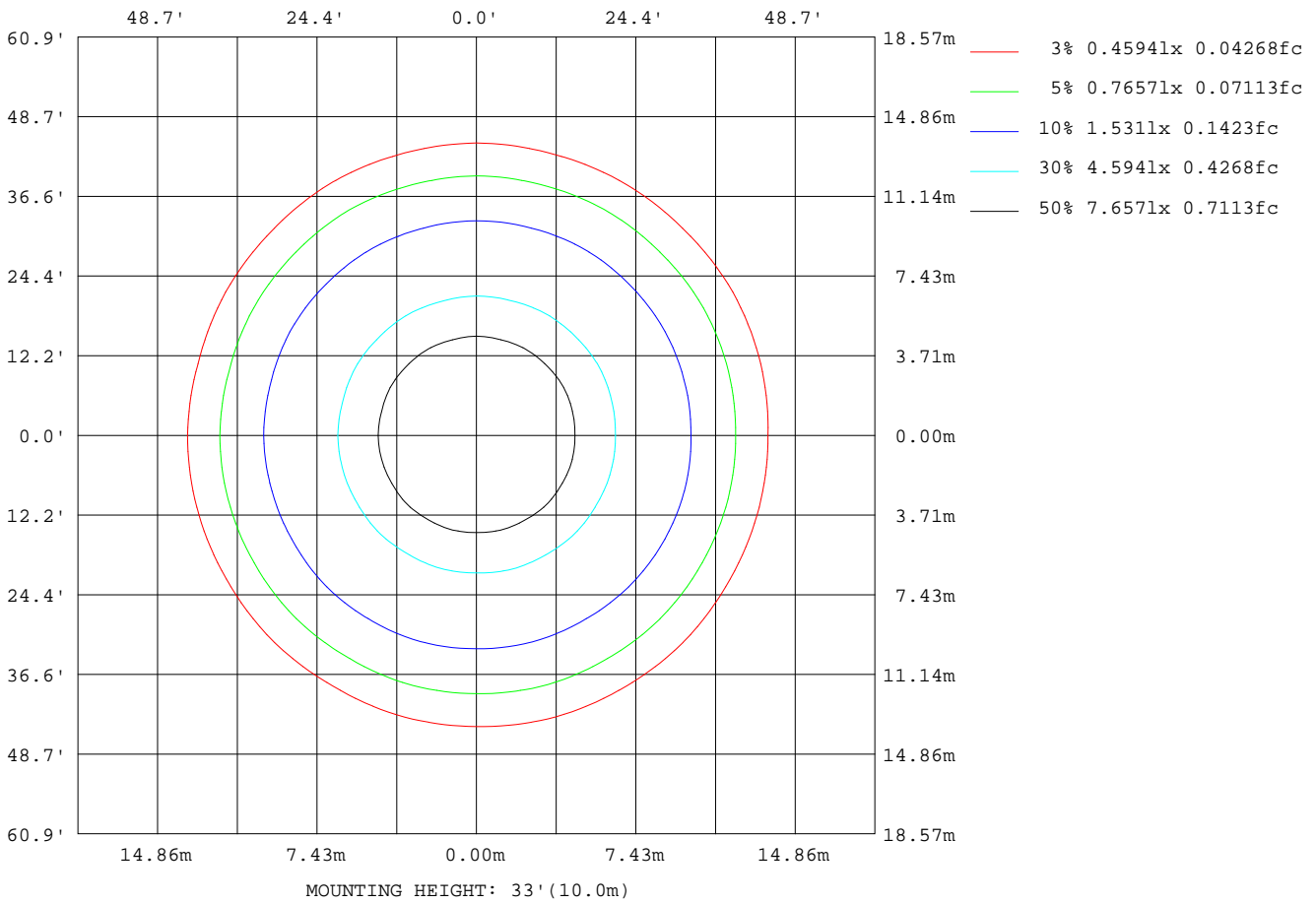
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Cao Chengpei  
 Test Date:2014-08-30

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

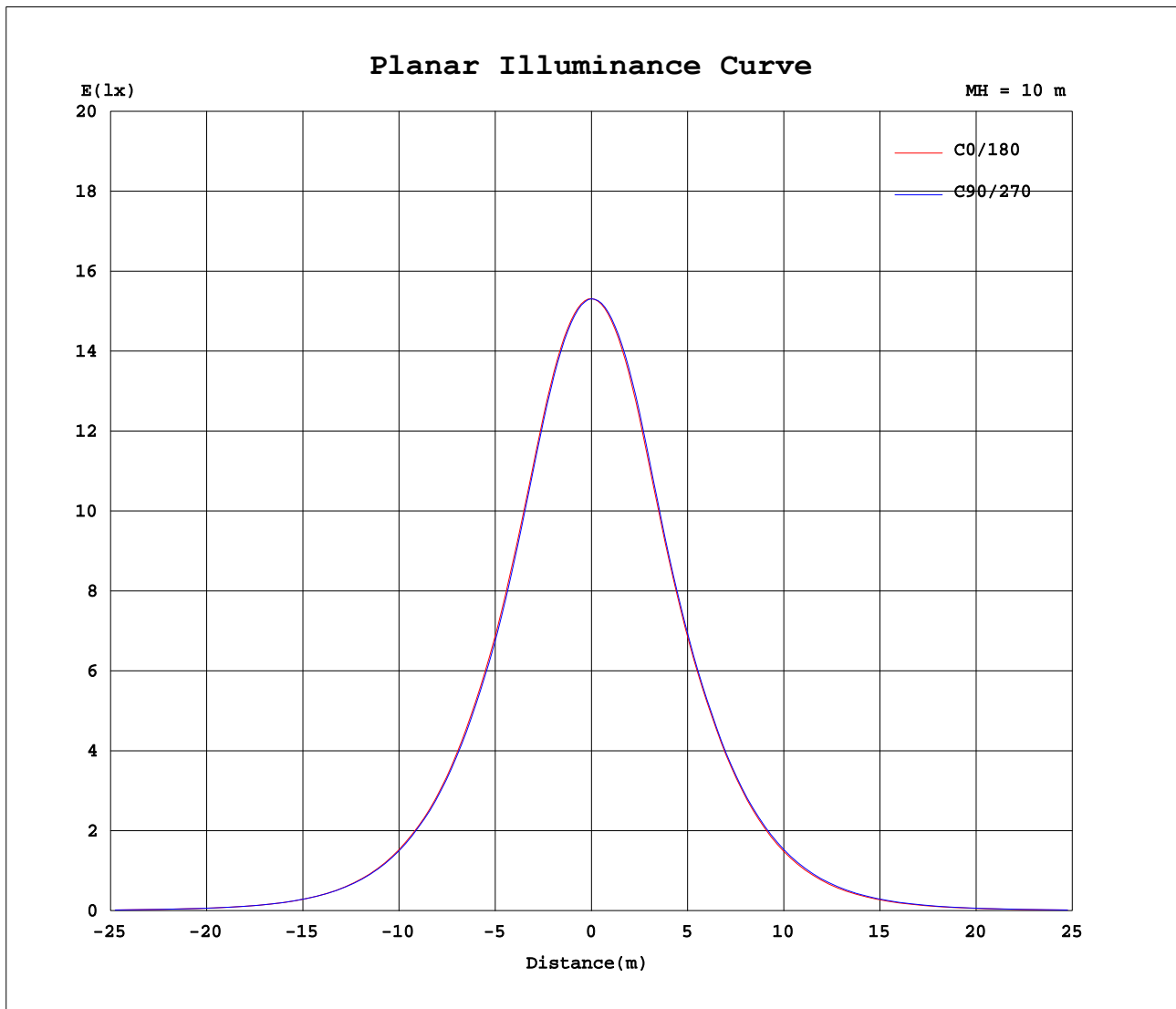
|   |                    |             |
|---|--------------------|-------------|
| Test:U:220.3V I:0.1017A P:21.50W PF:0.9592 Lamp Flux:1995.28x1 lm |                    |             |
| NAME: C6R-20S-840   | TYPE:Downlight     | SERIAL No.: |
| SPEC.:4000K   | DIM.: φ169mm*H66mm |             |
| 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:2014-08-30

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: 2014-08-30

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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  | 1531   | 1531   | 1535   | 1535   | 1534   | 1532   | 1531   | 1530   | 1528   | 1532   |
| 3.0  | 1525   | 1524   | 1527   | 1527   | 1525   | 1524   | 1521   | 1520   | 1518   | 1522   |
| 6.0  | 1502   | 1502   | 1504   | 1504   | 1500   | 1499   | 1496   | 1495   | 1493   | 1497   |
| 9.0  | 1462   | 1463   | 1463   | 1463   | 1458   | 1458   | 1453   | 1454   | 1450   | 1454   |
| 12.0 | 1404   | 1404   | 1403   | 1404   | 1397   | 1397   | 1392   | 1393   | 1388   | 1394   |
| 15.0 | 1326   | 1327   | 1324   | 1324   | 1317   | 1318   | 1313   | 1314   | 1309   | 1315   |
| 18.0 | 1234   | 1236   | 1230   | 1231   | 1222   | 1227   | 1220   | 1224   | 1216   | 1223   |
| 21.0 | 1138   | 1140   | 1132   | 1134   | 1124   | 1129   | 1121   | 1127   | 1118   | 1125   |
| 24.0 | 1041   | 1045   | 1039   | 1042   | 1029   | 1033   | 1023   | 1029   | 1023   | 1032   |
| 27.0 | 947.8  | 952.1  | 945.5  | 947.2  | 937.3  | 940.3  | 931.0  | 937.0  | 930.0  | 939.4  |
| 30.0 | 862.0  | 865.6  | 858.5  | 860.7  | 851.0  | 855.8  | 847.4  | 851.1  | 843.2  | 851.4  |
| 33.0 | 774.3  | 777.4  | 771.6  | 775.3  | 765.5  | 768.9  | 759.2  | 762.4  | 753.4  | 760.0  |
| 36.0 | 685.0  | 689.5  | 685.2  | 689.9  | 678.8  | 682.0  | 672.9  | 678.3  | 668.7  | 675.2  |
| 39.0 | 597.1  | 604.4  | 601.1  | 604.3  | 592.5  | 595.4  | 587.5  | 593.6  | 585.6  | 589.0  |
| 42.0 | 514.0  | 520.7  | 518.4  | 518.6  | 510.2  | 510.5  | 506.5  | 509.3  | 505.4  | 504.8  |
| 45.0 | 432.9  | 437.5  | 436.3  | 434.3  | 427.0  | 428.9  | 424.6  | 426.6  | 421.7  | 422.1  |
| 48.0 | 354.0  | 356.9  | 355.4  | 355.1  | 350.0  | 352.0  | 347.8  | 347.9  | 341.9  | 343.0  |
| 51.0 | 280.1  | 281.0  | 280.1  | 282.0  | 279.1  | 280.8  | 276.5  | 275.2  | 268.8  | 270.0  |
| 54.0 | 212.8  | 213.3  | 213.0  | 216.6  | 215.1  | 216.4  | 211.7  | 210.4  | 204.0  | 205.2  |
| 57.0 | 155.5  | 156.0  | 156.9  | 160.1  | 159.1  | 160.4  | 156.0  | 154.7  | 149.9  | 149.8  |
| 60.0 | 109.4  | 110.6  | 111.8  | 114.0  | 112.5  | 114.0  | 110.6  | 110.1  | 106.2  | 105.2  |
| 63.0 | 75.07  | 77.14  | 78.10  | 79.07  | 77.07  | 77.94  | 76.11  | 76.38  | 73.05  | 71.93  |
| 66.0 | 52.34  | 53.77  | 54.96  | 55.01  | 53.43  | 53.35  | 52.30  | 52.57  | 50.52  | 49.68  |
| 69.0 | 35.10  | 35.97  | 36.45  | 36.67  | 35.07  | 35.18  | 34.19  | 34.40  | 32.84  | 32.44  |
| 72.0 | 18.45  | 19.10  | 19.18  | 19.20  | 17.76  | 17.99  | 17.04  | 17.29  | 16.06  | 15.89  |
| 75.0 | 4.137  | 4.329  | 3.782  | 3.813  | 3.550  | 3.538  | 3.518  | 3.534  | 3.530  | 3.497  |
| 78.0 | 3.293  | 3.216  | 3.135  | 3.119  | 3.075  | 3.079  | 3.104  | 3.141  | 3.131  | 3.121  |
| 81.0 | 2.994  | 2.921  | 2.860  | 2.830  | 2.783  | 2.786  | 2.796  | 2.836  | 2.838  | 2.840  |
| 84.0 | 2.767  | 2.701  | 2.638  | 2.601  | 2.557  | 2.541  | 2.555  | 2.599  | 2.609  | 2.626  |
| 87.0 | 2.567  | 2.514  | 2.442  | 2.401  | 2.340  | 2.328  | 2.334  | 2.382  | 2.399  | 2.418  |
| 90.0 | 0.1393 | 0.1040 | 0.0977 | 0.0894 | 0.0894 | 0.0873 | 0.0915 | 0.0894 | 0.0936 | 0.0915 |
| G/C  | 150.0  | 165.0  | 180.0  | 195.0  | 210.0  | 225.0  | 240.0  | 255.0  | 270.0  | 285.0  |
| 0.0  | 1531   | 1531   | 1531   | 1531   | 1535   | 1535   | 1534   | 1532   | 1531   | 1530   |
| 3.0  | 1521   | 1521   | 1524   | 1522   | 1527   | 1528   | 1528   | 1526   | 1526   | 1525   |
| 6.0  | 1495   | 1496   | 1500   | 1499   | 1505   | 1505   | 1507   | 1505   | 1506   | 1504   |
| 9.0  | 1452   | 1454   | 1460   | 1458   | 1465   | 1465   | 1469   | 1467   | 1470   | 1468   |
| 12.0 | 1391   | 1394   | 1401   | 1399   | 1407   | 1407   | 1412   | 1411   | 1415   | 1412   |
| 15.0 | 1310   | 1315   | 1323   | 1320   | 1329   | 1328   | 1335   | 1333   | 1339   | 1336   |
| 18.0 | 1215   | 1221   | 1230   | 1225   | 1237   | 1233   | 1242   | 1237   | 1245   | 1241   |
| 21.0 | 1116   | 1123   | 1131   | 1125   | 1139   | 1134   | 1143   | 1136   | 1144   | 1138   |
| 24.0 | 1024   | 1030   | 1037   | 1033   | 1045   | 1039   | 1047   | 1041   | 1049   | 1043   |
| 27.0 | 932.1  | 938.4  | 944.4  | 936.2  | 946.8  | 943.5  | 953.8  | 947.9  | 956.2  | 950.8  |
| 30.0 | 844.3  | 850.6  | 857.4  | 849.8  | 860.3  | 855.7  | 865.6  | 859.7  | 867.3  | 862.4  |
| 33.0 | 754.9  | 762.6  | 769.9  | 763.1  | 772.5  | 766.7  | 774.2  | 769.0  | 779.3  | 776.1  |
| 36.0 | 665.8  | 670.7  | 679.0  | 675.3  | 686.4  | 679.9  | 685.8  | 678.7  | 688.4  | 685.4  |
| 39.0 | 577.3  | 581.4  | 590.4  | 588.1  | 598.5  | 591.4  | 596.8  | 590.6  | 600.5  | 598.5  |
| 42.0 | 495.4  | 495.8  | 503.8  | 503.2  | 510.5  | 507.9  | 511.6  | 509.7  | 516.2  | 514.7  |
| 45.0 | 414.2  | 414.9  | 419.8  | 417.2  | 424.5  | 423.7  | 429.6  | 428.5  | 433.3  | 432.3  |
| 48.0 | 338.4  | 338.9  | 341.0  | 337.0  | 342.8  | 344.4  | 351.7  | 351.1  | 355.2  | 352.9  |
| 51.0 | 267.2  | 267.4  | 268.1  | 263.4  | 268.6  | 271.2  | 278.9  | 278.1  | 281.5  | 279.0  |
| 54.0 | 202.0  | 203.1  | 203.8  | 199.4  | 203.8  | 205.3  | 212.1  | 212.2  | 215.8  | 213.3  |
| 57.0 | 146.1  | 147.1  | 148.5  | 145.9  | 149.2  | 149.3  | 154.1  | 154.9  | 158.5  | 156.9  |
| 60.0 | 101.1  | 101.9  | 103.8  | 102.9  | 105.7  | 104.2  | 107.2  | 107.1  | 111.4  | 111.4  |
| 63.0 | 68.52  | 68.98  | 70.51  | 70.56  | 72.89  | 71.62  | 72.64  | 72.06  | 75.85  | 77.49  |
| 66.0 | 47.57  | 47.78  | 48.42  | 48.43  | 50.15  | 49.58  | 49.87  | 49.48  | 52.02  | 53.98  |
| 69.0 | 31.06  | 31.51  | 32.02  | 31.89  | 33.14  | 32.58  | 32.99  | 32.68  | 34.52  | 35.69  |
| 72.0 | 15.04  | 15.54  | 16.23  | 16.21  | 17.17  | 16.63  | 16.98  | 16.68  | 18.20  | 18.93  |
| 75.0 | 3.429  | 3.353  | 3.388  | 3.434  | 3.529  | 3.412  | 3.537  | 3.386  | 3.949  | 4.010  |
| 78.0 | 3.077  | 3.036  | 3.046  | 3.072  | 3.077  | 2.950  | 2.831  | 2.790  | 2.877  | 3.058  |
| 81.0 | 2.810  | 2.792  | 2.794  | 2.827  | 2.825  | 2.704  | 2.569  | 2.505  | 2.586  | 2.742  |
| 84.0 | 2.604  | 2.595  | 2.595  | 2.631  | 2.622  | 2.500  | 2.358  | 2.278  | 2.335  | 2.484  |
| 87.0 | 2.401  | 2.404  | 2.418  | 2.450  | 2.447  | 2.328  | 2.183  | 2.091  | 2.135  | 2.267  |
| 90.0 | 0.0957 | 0.0936 | 0.0499 | 0.0582 | 0.0520 | 0.1061 | 0.1477 | 0.2371 | 0.2953 | 0.3764 |
| G/C  | 300.0  | 315.0  | 330.0  | 345.0  |        |        |        |        |        |        |
| 0.0  | 1528   | 1532   | 1531   | 1531   |        |        |        |        |        |        |
| 3.0  | 1524   | 1527   | 1526   | 1525   |        |        |        |        |        |        |
| 6.0  | 1505   | 1506   | 1506   | 1504   |        |        |        |        |        |        |
| 9.0  | 1469   | 1469   | 1469   | 1465   |        |        |        |        |        |        |
| 12.0 | 1415   | 1414   | 1414   | 1408   |        |        |        |        |        |        |
| 15.0 | 1340   | 1338   | 1339   | 1332   |        |        |        |        |        |        |
| 18.0 | 1248   | 1245   | 1250   | 1241   |        |        |        |        |        |        |
| 21.0 | 1148   | 1144   | 1153   | 1144   |        |        |        |        |        |        |

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Cao Chengpei  
 Test Date: 2014-08-30

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 | 1051   | 1048   | 1056   | 1048   |
| 27.0 | 958.6  | 954.8  | 961.9  | 953.9  |
| 30.0 | 872.6  | 869.3  | 876.5  | 869.3  |
| 33.0 | 787.6  | 785.1  | 791.5  | 782.8  |
| 36.0 | 696.0  | 695.8  | 703.9  | 693.9  |
| 39.0 | 608.5  | 605.8  | 612.4  | 604.8  |
| 42.0 | 522.5  | 519.3  | 523.5  | 518.6  |
| 45.0 | 437.7  | 435.3  | 437.8  | 435.3  |
| 48.0 | 357.0  | 355.7  | 358.4  | 356.9  |
| 51.0 | 281.7  | 281.3  | 285.9  | 284.6  |
| 54.0 | 215.9  | 215.5  | 220.5  | 218.8  |
| 57.0 | 159.8  | 159.8  | 163.2  | 161.5  |
| 60.0 | 114.8  | 114.4  | 115.8  | 113.5  |
| 63.0 | 80.75  | 79.89  | 79.95  | 77.63  |
| 66.0 | 56.25  | 55.85  | 55.43  | 54.33  |
| 69.0 | 37.59  | 37.19  | 37.30  | 36.43  |
| 72.0 | 20.47  | 20.16  | 20.19  | 19.42  |
| 75.0 | 4.760  | 4.524  | 4.850  | 4.523  |
| 78.0 | 3.210  | 3.249  | 3.239  | 3.274  |
| 81.0 | 2.879  | 2.931  | 2.931  | 2.966  |
| 84.0 | 2.626  | 2.679  | 2.694  | 2.729  |
| 87.0 | 2.414  | 2.475  | 2.491  | 2.531  |
| 90.0 | 0.4222 | 0.4409 | 0.3847 | 0.3390 |

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Cao Chengpei  
 Test Date: 2014-08-30

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: