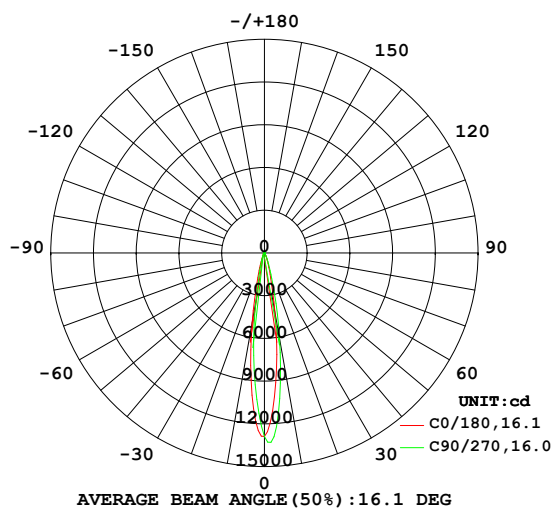


## LUMINAIRE PHOTOMETRIC TEST REPORT

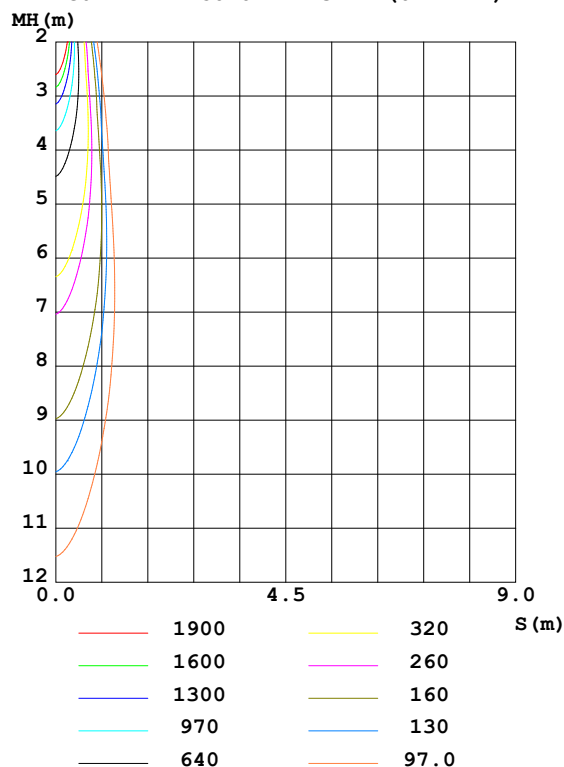
|                                                                                |              |                  |
|--------------------------------------------------------------------------------|--------------|------------------|
| Test:U:221.0V I:0.1191A P:24.91W PF:0.9467 Freq:59.98Hz Lamp Flux:1508.63x1 lm |              |                  |
| NAME: W11162LED                                                                | TYPE:        | WEIGHT:          |
| SPEC.: P-W11162LED-25W2715-CI60037R90-LDK100                                   | DIM.:        | SERIAL No.:      |
| MFR.: CETTIGA                                                                  | SUR.: 0.0001 | Shielding Angle: |

| DATA OF LAMP      |             | PHOTOMETRIC DATA Eff: 60.57 lm/W |        |                     |           |
|-------------------|-------------|----------------------------------|--------|---------------------|-----------|
| MODEL             | CLU711-1204 | I <sub>max</sub> (cd)            | 13303  | S/MH (C0/180)       | 0.29      |
| NOMINAL POWER (W) | 25          | LOR (%)                          | 100.0  | S/MH (C90/270)      | 0.23      |
| RATED VOLTAGE (V) | 220.0       | TOTAL FLUX (lm)                  | 1508.6 | η UP, DN (C0-180)   | 0.2, 53.8 |
| NOMINAL FLUX (lm) | 1508.63     | CIE CLASS                        | DIRECT | η UP, DN (C180-360) | 0.1, 45.8 |
| LAMPS INSIDE      | 1           | η up (%)                         | 0.4    | CIBSE SHR NOM       | 0.00      |
| TEST VOLTAGE (V)  | 220.2       | η down (%)                       | 99.6   | CIBSE SHR MAX       | 1.00      |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT: lx)



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Xie Bi  
Test Date: 2019-12-18

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 65.0%  
Test Distance: 6.900m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

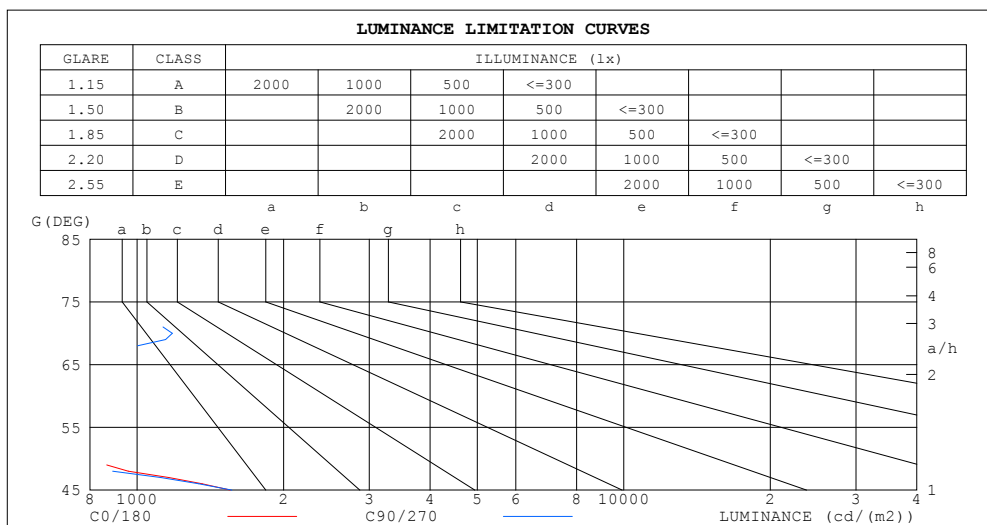
| $\gamma$ | C0                       | C90    | C180   | C270   |  |  |  |  | $\gamma$ | $\Phi$ zone | $\Phi$ total | %lum, lamp |
|----------|--------------------------|--------|--------|--------|--|--|--|--|----------|-------------|--------------|------------|
| 10       | 433.3                    | 609.8  | 495.2  | 345.6  |  |  |  |  | 0- 10    | 759.4       | 759.4        | 50.3,50.3  |
| 20       | 66.00                    | 90.25  | 77.35  | 57.13  |  |  |  |  | 10- 20   | 528.3       | 1288         | 85.4,85.4  |
| 30       | 14.38                    | 16.56  | 15.86  | 13.47  |  |  |  |  | 20- 30   | 162.1       | 1450         | 96.1,96.1  |
| 40       | 2.364                    | 2.237  | 2.297  | 2.006  |  |  |  |  | 30- 40   | 45.57       | 1495         | 99.1,99.1  |
| 50       | 0.3014                   | 0.2441 | 0.2775 | 0.1980 |  |  |  |  | 40- 50   | 6.083       | 1501         | 99.5,99.5  |
| 60       | 0.0163                   | 0.1607 | 0.0116 | 0.0151 |  |  |  |  | 50- 60   | 1.107       | 1502         | 99.6,99.6  |
| 70       | 0.0081                   | 0.2424 | 0.0052 | 0.0075 |  |  |  |  | 60- 70   | 0.5139      | 1503         | 99.6,99.6  |
| 80       | 0.0046                   | 0.0029 | 0.0052 | 0.0052 |  |  |  |  | 70- 80   | 0.2367      | 1503         | 99.6,99.6  |
| 90       | 0.0029                   | 0.0075 | 0.0041 | 0.0041 |  |  |  |  | 80- 90   | 0.0506      | 1503         | 99.6,99.6  |
| 100      | 0.0023                   | 0.0163 | 0.0041 | 0.0041 |  |  |  |  | 90-100   | 0.0565      | 1503         | 99.7,99.7  |
| 110      | 0.0017                   | 0.0029 | 0.0052 | 0.0041 |  |  |  |  | 100-110  | 0.0505      | 1503         | 99.7,99.7  |
| 120      | 0.0023                   | 0.0052 | 0.0064 | 0.0041 |  |  |  |  | 110-120  | 0.0990      | 1504         | 99.7,99.7  |
| 130      | 0.0092                   | 0.0122 | 0.0122 | 0.0087 |  |  |  |  | 120-130  | 0.0536      | 1504         | 99.7,99.7  |
| 140      | 0.0470                   | 0.0436 | 0.0279 | 0.0284 |  |  |  |  | 130-140  | 0.1553      | 1504         | 99.7,99.7  |
| 150      | 0.2452                   | 0.1875 | 0.0987 | 0.1282 |  |  |  |  | 140-150  | 0.5086      | 1504         | 99.7,99.7  |
| 160      | 0.7543                   | 0.6684 | 0.4167 | 0.5107 |  |  |  |  | 150-160  | 1.577       | 1506         | 99.8,99.8  |
| 170      | 0.8596                   | 0.9006 | 0.7532 | 0.7323 |  |  |  |  | 160-170  | 2.095       | 1508         | 100,100    |
| 180      | 0.7010                   | 0.7010 | 0.7016 | 0.6975 |  |  |  |  | 170-180  | 0.7292      | 1509         | 100,100    |
| DEG      | LUMINOUS INTENSITY:×10cd |        |        |        |  |  |  |  |          | UNIT:lm     |              |            |

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Xie Bi  
 Test Date:2019-12-18

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:6.900m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES

|                                                                                |             |                  |
|--------------------------------------------------------------------------------|-------------|------------------|
| Test:U:221.0V I:0.1191A P:24.91W PF:0.9467 Freq:59.98Hz Lamp Flux:1508.63x1 lm |             |                  |
| NAME: W11162LED                                                                | TYPE:       | WEIGHT:          |
| SPEC.:P-W11162LED-25W2715-CI60037R90-LDK100                                    | DIM.:       | SERIAL No.:      |
| MFR.: CETTIGA                                                                  | SUR.:0.0001 | Shielding Angle: |



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G (DEG)           | C0/180 | C90/270 |
| 85                | 67     | 133     |
| 80                | 45     | 28      |
| 75                | 37     | 380     |
| 70                | 40     | 1181    |
| 65                | 44     | 588     |
| 60                | 54     | 536     |
| 55                | 307    | 516     |
| 50                | 781    | 633     |
| 45                | 1554   | 1565    |

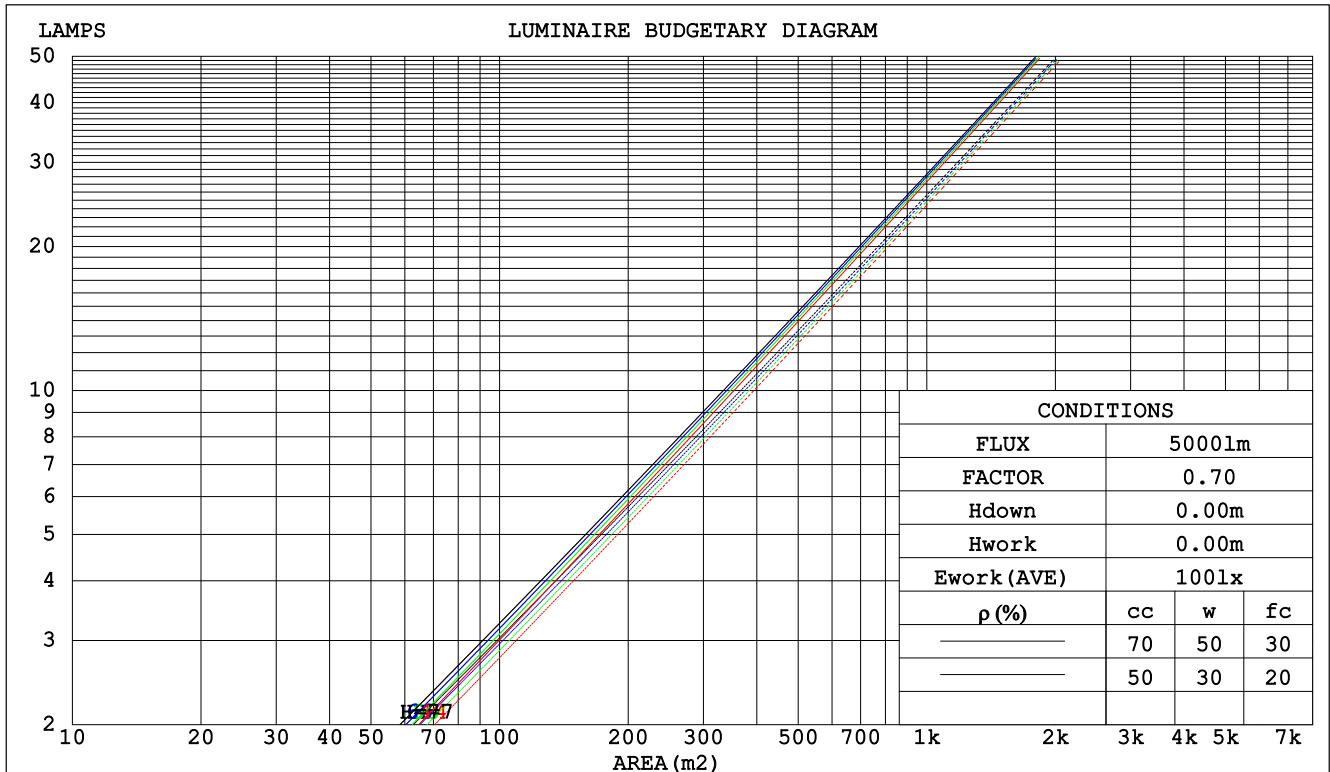
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Xie Bi  
Test Date:2019-12-18

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:6.900m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|                                                                                |             |                  |
|--------------------------------------------------------------------------------|-------------|------------------|
| Test:U:221.0V I:0.1191A P:24.91W PF:0.9467 Freq:59.98Hz Lamp Flux:1508.63x1 lm |             |                  |
| NAME: W11162LED                                                                | TYPE:       | WEIGHT:          |
| SPEC.:P-W11162LED-25W2715-CI60037R90-LDK100                                    | DIM.:       | SERIAL No.:      |
| MFR.: CETTIGA                                                                  | SUR.:0.0001 | Shielding Angle: |

| $\rho_{cc}$ | 80%                   |      |      | 70%  |      |      | 50%                             |      |      | 30%  |      |      | 10%  |      |      | 0   |
|-------------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|-----|
| $\rho_w$    | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0   |
| $\rho_{fc}$ | 20%                   |      |      | 20%  |      |      | 20%                             |      |      | 20%  |      |      | 20%  |      |      | 0   |
| RCR         | RCR:Room Cavity Ratio |      |      |      |      |      | Coefficients of Utilization(CU) |      |      |      |      |      |      |      |      |     |
| 0.0         | 1.19                  | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.11                            | 1.11 | 1.11 | 1.06 | 1.06 | 1.06 | 1.02 | 1.02 | 1.02 | .00 |
| 1.0         | 1.13                  | 1.12 | 1.10 | 1.11 | 1.10 | 1.08 | 1.07                            | 1.06 | 1.05 | 1.04 | 1.03 | 1.02 | 1.00 | .99  | .99  | .97 |
| 2.0         | 1.09                  | 1.06 | 1.04 | 1.07 | 1.05 | 1.03 | 1.04                            | 1.02 | 1.00 | 1.01 | .99  | .98  | .98  | .97  | .96  | .95 |
| 3.0         | 1.05                  | 1.02 | .99  | 1.03 | 1.01 | .98  | 1.01                            | .99  | .97  | .99  | .97  | .95  | .97  | .95  | .94  | .92 |
| 4.0         | 1.01                  | .98  | .95  | 1.00 | .97  | .95  | .98                             | .96  | .93  | .96  | .94  | .92  | .95  | .93  | .91  | .90 |
| 5.0         | .98                   | .95  | .92  | .97  | .94  | .92  | .96                             | .93  | .91  | .94  | .92  | .90  | .93  | .91  | .89  | .88 |
| 6.0         | .96                   | .92  | .89  | .95  | .91  | .89  | .94                             | .91  | .88  | .92  | .90  | .88  | .91  | .89  | .87  | .86 |
| 7.0         | .93                   | .89  | .87  | .93  | .89  | .87  | .92                             | .88  | .86  | .90  | .88  | .86  | .90  | .87  | .85  | .85 |
| 8.0         | .91                   | .87  | .85  | .90  | .87  | .85  | .90                             | .87  | .84  | .89  | .86  | .84  | .88  | .86  | .84  | .83 |
| 9.0         | .89                   | .85  | .83  | .88  | .85  | .83  | .88                             | .85  | .83  | .87  | .84  | .82  | .86  | .84  | .82  | .81 |
| 10.0        | .87                   | .84  | .81  | .87  | .83  | .81  | .86                             | .83  | .81  | .85  | .83  | .81  | .85  | .82  | .81  | .80 |



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Xie Bi  
 Test Date:2019-12-18

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:6.900m [K=1.0000]  
 Remarks:

### WEC AND CCEC

|                                                                                |             |                  |
|--------------------------------------------------------------------------------|-------------|------------------|
| Test:U:221.0V I:0.1191A P:24.91W PF:0.9467 Freq:59.98Hz Lamp Flux:1508.63x1 lm |             |                  |
| NAME: W11162LED                                                                | TYPE:       | WEIGHT:          |
| SPEC.:P-W11162LED-25W2715-CI60037R90-LDK100                                    | DIM.:       | SERIAL No.:      |
| MFR.: CETTIGA                                                                  | SUR.:0.0001 | Shielding Angle: |

| 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 Coeffcients(WEC) |      |      |      |      |      |      |      |      |   |  |
| 0.0  |                       |      |      |      |      |      |                                |      |      |      |      |      |      |      |      |   |  |
| 1.0  | .126                  | .071 | .023 | .119 | .068 | .022 | .106                           | .061 | .019 | .095 | .055 | .018 | .084 | .049 | .016 |   |  |
| 2.0  | .115                  | .063 | .019 | .110 | .060 | .019 | .100                           | .055 | .017 | .090 | .050 | .016 | .081 | .046 | .014 |   |  |
| 3.0  | .107                  | .057 | .017 | .102 | .055 | .016 | .093                           | .051 | .015 | .086 | .047 | .014 | .078 | .043 | .013 |   |  |
| 4.0  | .099                  | .052 | .015 | .095 | .050 | .015 | .088                           | .047 | .014 | .082 | .044 | .013 | .075 | .041 | .012 |   |  |
| 5.0  | .093                  | .047 | .014 | .090 | .046 | .013 | .084                           | .043 | .013 | .078 | .041 | .012 | .073 | .039 | .012 |   |  |
| 6.0  | .087                  | .044 | .013 | .085 | .043 | .012 | .079                           | .041 | .012 | .075 | .039 | .011 | .070 | .037 | .011 |   |  |
| 7.0  | .083                  | .041 | .012 | .080 | .040 | .011 | .076                           | .038 | .011 | .071 | .037 | .011 | .068 | .035 | .010 |   |  |
| 8.0  | .078                  | .038 | .011 | .076 | .038 | .011 | .072                           | .036 | .010 | .069 | .035 | .010 | .065 | .033 | .010 |   |  |
| 9.0  | .075                  | .036 | .010 | .073 | .035 | .010 | .069                           | .034 | .010 | .066 | .033 | .009 | .063 | .032 | .009 |   |  |
| 10.0 | .071                  | .034 | .009 | .070 | .034 | .009 | .067                           | .033 | .009 | .064 | .032 | .009 | .061 | .031 | .009 |   |  |

| 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  | .193                  | .193 | .193 | .165 | .165 | .165 | .113                                        | .113 | .113 | .065 | .065 | .065 | .021 | .021 | .021 |   |
| 1.0  | .170                  | .160 | .152 | .146 | .138 | .131 | .100                                        | .095 | .090 | .057 | .055 | .052 | .018 | .018 | .017 |   |
| 2.0  | .151                  | .135 | .122 | .130 | .117 | .106 | .089                                        | .081 | .074 | .051 | .047 | .043 | .016 | .015 | .014 |   |
| 3.0  | .136                  | .116 | .100 | .116 | .100 | .087 | .080                                        | .069 | .061 | .046 | .041 | .036 | .015 | .013 | .012 |   |
| 4.0  | .123                  | .100 | .083 | .105 | .087 | .072 | .072                                        | .060 | .051 | .042 | .035 | .030 | .013 | .012 | .010 |   |
| 5.0  | .112                  | .088 | .070 | .096 | .076 | .061 | .066                                        | .053 | .043 | .038 | .031 | .026 | .012 | .010 | .008 |   |
| 6.0  | .102                  | .078 | .060 | .088 | .067 | .052 | .061                                        | .047 | .037 | .035 | .028 | .022 | .011 | .009 | .007 |   |
| 7.0  | .094                  | .069 | .052 | .081 | .060 | .045 | .056                                        | .042 | .032 | .033 | .025 | .019 | .011 | .008 | .006 |   |
| 8.0  | .087                  | .062 | .045 | .075 | .054 | .039 | .052                                        | .038 | .028 | .030 | .022 | .017 | .010 | .007 | .006 |   |
| 9.0  | .082                  | .057 | .040 | .070 | .049 | .035 | .049                                        | .035 | .025 | .028 | .020 | .015 | .009 | .007 | .005 |   |
| 10.0 | .076                  | .052 | .035 | .066 | .045 | .031 | .046                                        | .032 | .022 | .027 | .019 | .013 | .009 | .006 | .004 |   |

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Xie Bi  
Test Date:2019-12-18

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:6.900m [K=1.0000]  
Remarks:

### UGR(Unified Glare Rating) Table

|                                                                                |               |                  |     |     |             |                |     |                  |     |     |
|--------------------------------------------------------------------------------|---------------|------------------|-----|-----|-------------|----------------|-----|------------------|-----|-----|
| Test:U:221.0V I:0.1191A P:24.91W PF:0.9467 Freq:59.98Hz Lamp Flux:1508.63x1 lm |               |                  |     |     |             |                |     |                  |     |     |
| NAME.: W11162LED                                                               |               |                  |     |     | TYPE.:      |                |     | WEIGHT.:         |     |     |
| SPEC.:P-W11162LED-25W2715-CI60037R90-LDK100                                    |               |                  |     |     | DIM.:       |                |     | SERIAL No.:      |     |     |
| MFR.: CETTIGA                                                                  |               |                  |     |     | SUR.:0.0001 |                |     | Shielding Angle: |     |     |
| 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                                                                  | 4.4           | 5.0              | 4.6 | 5.1 | 5.3         | 4.7            | 5.2 | 4.9              | 5.4 | 5.5 |
|                                                                                | 3H            | 4.3              | 4.8 | 4.5 | 5.0         | 5.2            | 4.7 | 5.2              | 4.9 | 5.4 |
|                                                                                | 4H            | 4.2              | 4.7 | 4.4 | 4.9         | 5.1            | 4.6 | 5.2              | 4.9 | 5.4 |
|                                                                                | 6H            | 4.1              | 4.6 | 4.4 | 4.8         | 5.1            | 4.6 | 5.0              | 4.8 | 5.3 |
|                                                                                | 8H            | 4.1              | 4.5 | 4.3 | 4.8         | 5.0            | 4.5 | 5.0              | 4.8 | 5.2 |
|                                                                                | 12H           | 4.0              | 4.5 | 4.3 | 4.7         | 5.0            | 4.5 | 4.9              | 4.8 | 5.2 |
| 4H                                                                             | 2H            | 4.2              | 4.7 | 4.4 | 4.9         | 5.1            | 4.5 | 5.0              | 4.7 | 5.2 |
|                                                                                | 3H            | 4.0              | 4.5 | 4.3 | 4.8         | 5.0            | 4.5 | 5.0              | 4.8 | 5.2 |
|                                                                                | 4H            | 3.9              | 4.4 | 4.3 | 4.7         | 5.0            | 4.5 | 4.9              | 4.8 | 5.2 |
|                                                                                | 6H            | 3.8              | 4.2 | 4.2 | 4.5         | 4.9            | 4.3 | 4.7              | 4.7 | 5.1 |
|                                                                                | 8H            | 3.8              | 4.1 | 4.2 | 4.5         | 4.8            | 4.3 | 4.6              | 4.7 | 5.0 |
|                                                                                | 12H           | 3.7              | 4.0 | 4.1 | 4.4         | 4.8            | 4.2 | 4.6              | 4.6 | 4.9 |
| 8H                                                                             | 4H            | 3.8              | 4.1 | 4.2 | 4.5         | 4.9            | 4.3 | 4.6              | 4.7 | 5.0 |
|                                                                                | 6H            | 3.7              | 4.0 | 4.1 | 4.4         | 4.8            | 4.2 | 4.5              | 4.6 | 4.9 |
|                                                                                | 8H            | 3.6              | 3.9 | 4.1 | 4.3         | 4.7            | 4.1 | 4.4              | 4.6 | 4.8 |
|                                                                                | 12H           | 3.6              | 3.8 | 4.0 | 4.2         | 4.7            | 4.1 | 4.3              | 4.5 | 4.7 |
| 12H                                                                            | 4H            | 3.7              | 4.1 | 4.2 | 4.4         | 4.8            | 4.2 | 4.6              | 4.6 | 4.9 |
|                                                                                | 6H            | 3.6              | 3.9 | 4.1 | 4.3         | 4.7            | 4.1 | 4.4              | 4.6 | 4.8 |
|                                                                                | 8H            | 3.6              | 3.8 | 4.0 | 4.2         | 4.7            | 4.1 | 4.3              | 4.5 | 4.7 |
| Variations with the observer position at spacings:                             |               |                  |     |     |             |                |     |                  |     |     |
| S = 1.0H                                                                       | + 4.3 / -11.7 |                  |     |     |             | + 3.7 / - 5.4  |     |                  |     |     |
| 1.5H                                                                           | + 6.9 / -10.2 |                  |     |     |             | + 6.1 / - 4.6  |     |                  |     |     |
| 2.0H                                                                           | + 5.3 / - 5.5 |                  |     |     |             | + 4.7 / - 3.5  |     |                  |     |     |

CIE Pub.117, 1509 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.4)

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Xie Bi  
Test Date:2019-12-18

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:6.900m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

|                                                                                |             |                  |
|--------------------------------------------------------------------------------|-------------|------------------|
| Test:U:221.0V I:0.1191A P:24.91W PF:0.9467 Freq:59.98Hz Lamp Flux:1508.63x1 lm |             |                  |
| NAME: W11162LED                                                                | TYPE:       | WEIGHT:          |
| SPEC.:P-W11162LED-25W2715-CI60037R90-LDK100                                    | DIM.:       | SERIAL No.:      |
| MFR.: CETTIGA                                                                  | SUR.:0.0001 | Shielding Angle: |

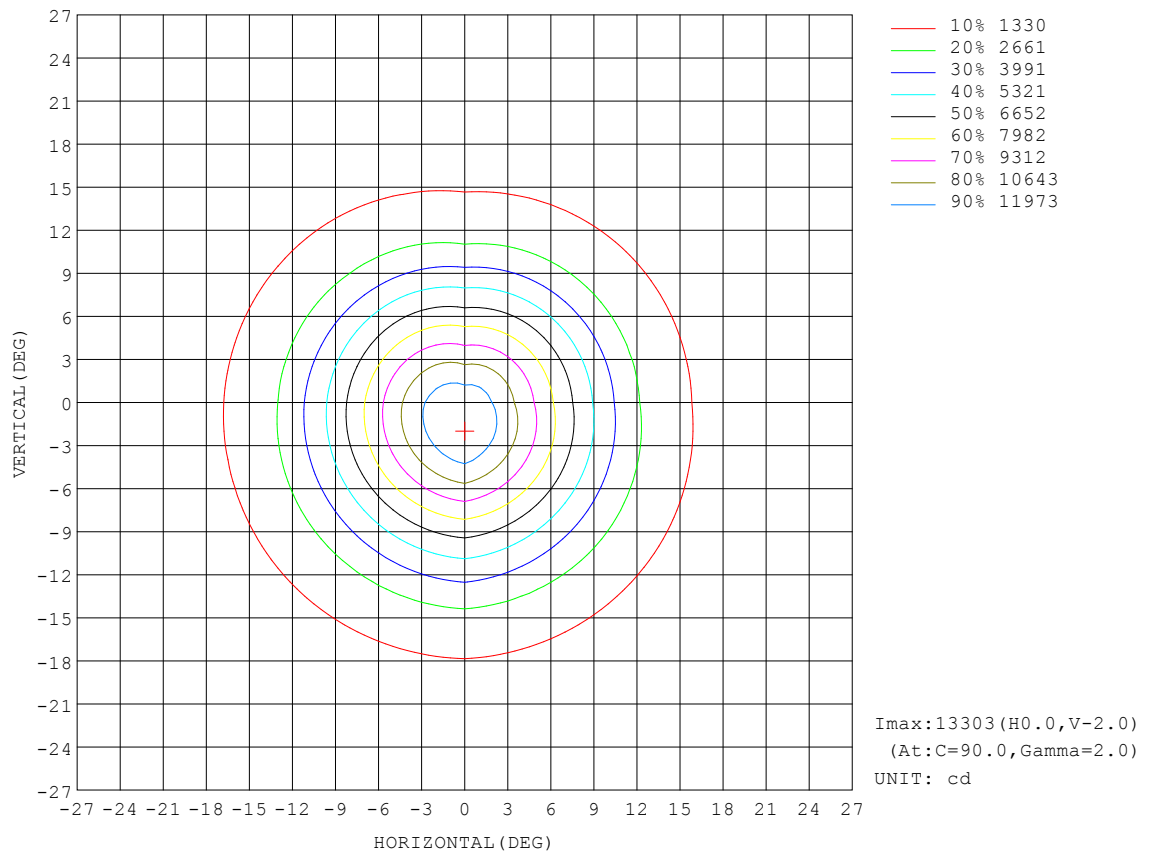
| REFLECTANCE                      |                                                      |     |           |     |     |     |     |               |     |        |
|----------------------------------|------------------------------------------------------|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|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

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Xie Bi  
Test Date:2019-12-18

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:6.900m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

|                                                                                |             |                  |
|--------------------------------------------------------------------------------|-------------|------------------|
| Test:U:221.0V I:0.1191A P:24.91W PF:0.9467 Freq:59.98Hz Lamp Flux:1508.63x1 lm |             |                  |
| NAME: W11162LED                                                                | TYPE:       | WEIGHT:          |
| SPEC.: P-W11162LED-25W2715-CI60037R90-LDK100                                   | DIM.:       | SERIAL No.:      |
| MFR.: CETTIGA                                                                  | SUR.:0.0001 | Shielding Angle: |

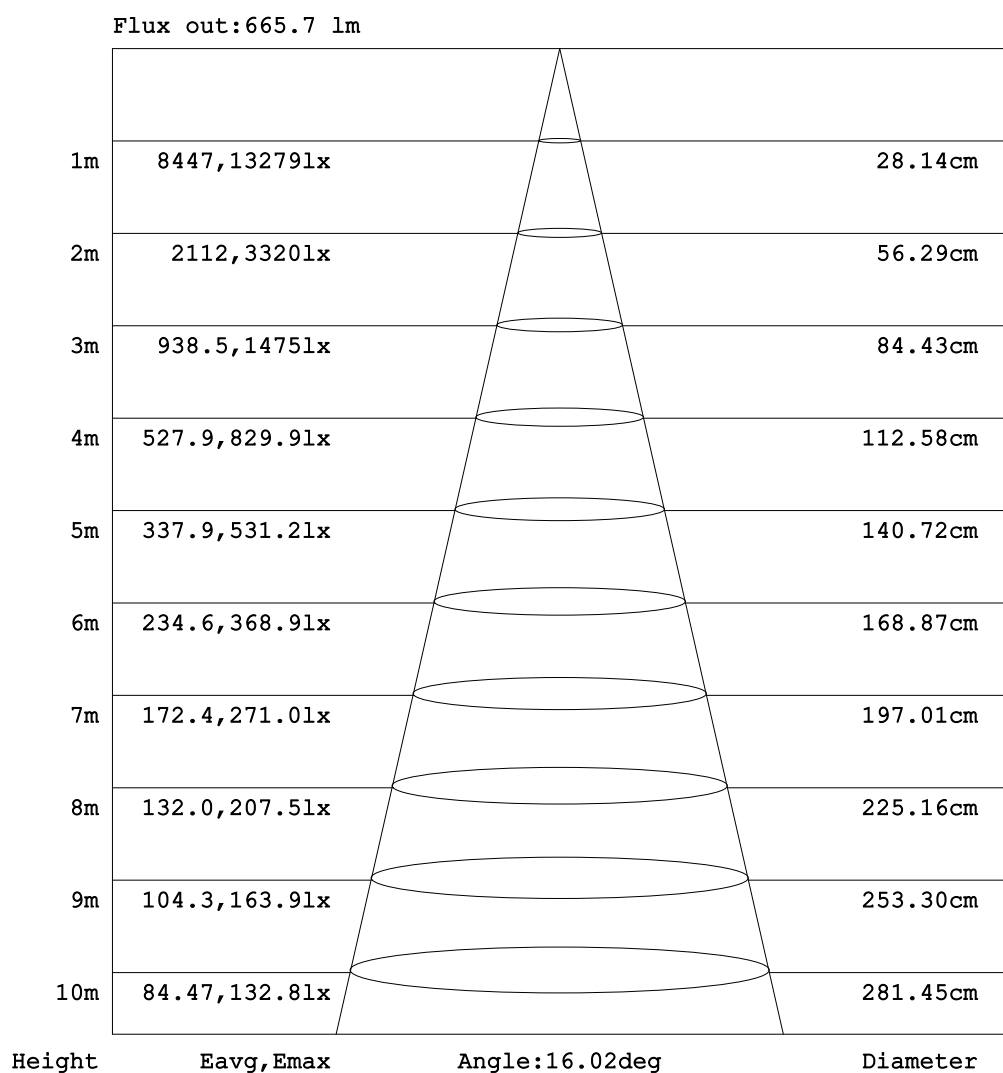


C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Xie Bi  
Test Date:2019-12-18

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:6.900m [K=1.0000]  
Remarks:

## AAI Figure

|                                                                                |             |                  |
|--------------------------------------------------------------------------------|-------------|------------------|
| Test:U:221.0V I:0.1191A P:24.91W PF:0.9467 Freq:59.98Hz Lamp Flux:1508.63x1 lm |             |                  |
| NAME: W11162LED                                                                | TYPE:       | WEIGHT:          |
| SPEC.:P-W11162LED-25W2715-CI60037R90-LDK100                                    | DIM.:       | SERIAL No.:      |
| MFR.: CETTIGA                                                                  | SUR.:0.0001 | Shielding Angle: |



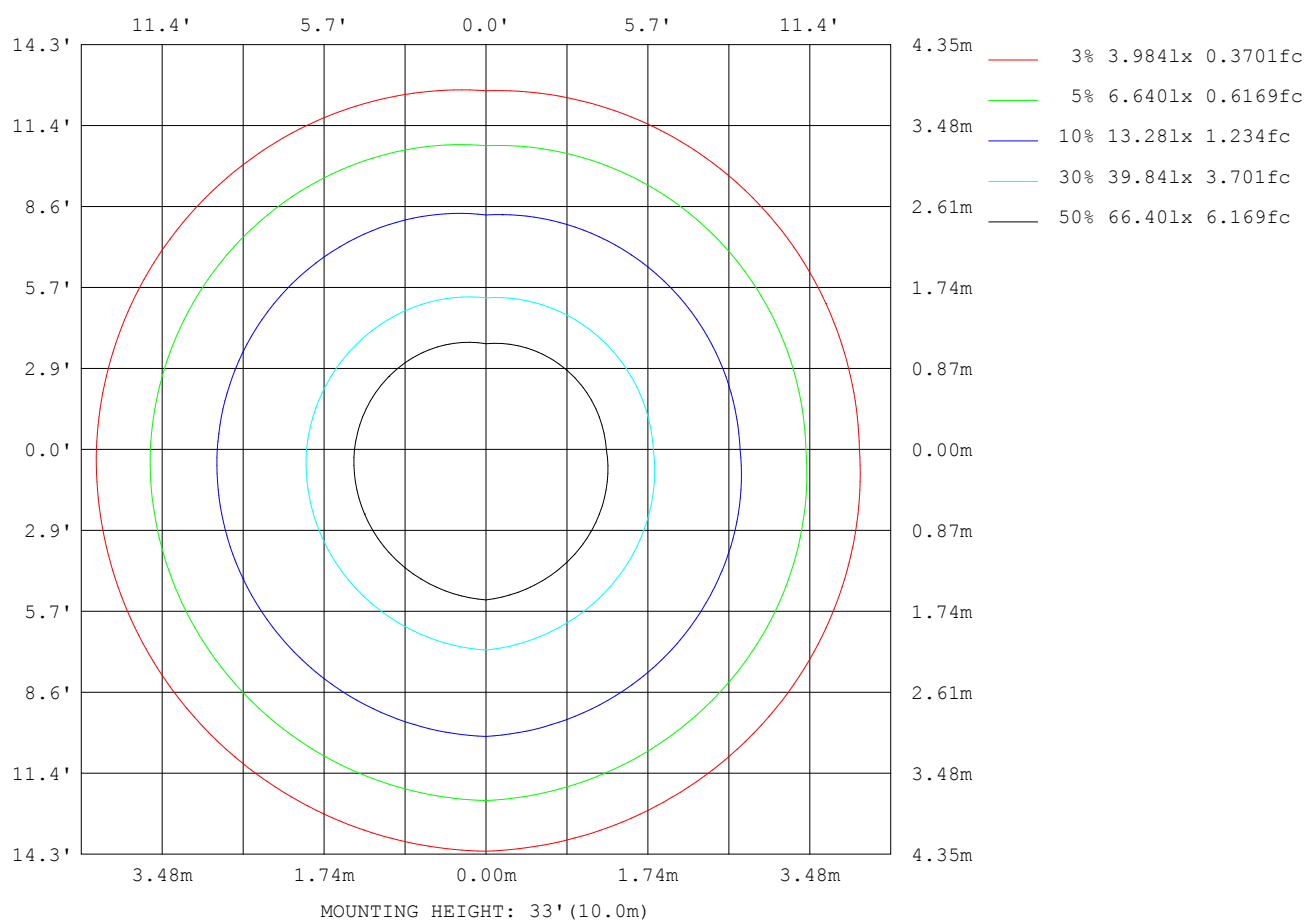
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Xie Bi  
 Test Date:2019-12-18

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:6.900m [K=1.0000]  
 Remarks:

## ISOLUX DIAGRAM

|                                                                                |             |                  |
|--------------------------------------------------------------------------------|-------------|------------------|
| Test:U:221.0V I:0.1191A P:24.91W PF:0.9467 Freq:59.98Hz Lamp Flux:1508.63x1 lm |             |                  |
| NAME: W11162LED                                                                | TYPE:       | WEIGHT:          |
| SPEC.: P-W11162LED-25W2715-CI60037R90-LDK100                                   | DIM.:       | SERIAL No.:      |
| MFR.: CETTIGA                                                                  | SUR.:0.0001 | Shielding Angle: |



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Xie Bi  
Test Date:2019-12-18

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:6.900m [K=1.0000]  
Remarks:

## LED Avg.L Report

|                                                                                |             |                  |
|--------------------------------------------------------------------------------|-------------|------------------|
| Test:U:221.0V I:0.1191A P:24.91W PF:0.9467 Freq:59.98Hz Lamp Flux:1508.63x1 lm |             |                  |
| NAME: W11162LED                                                                | TYPE:       | WEIGHT:          |
| SPEC.:P-W11162LED-25W2715-CI60037R90-LDK100                                    | DIM.:       | SERIAL No.:      |
| MFR.: CETTIGA                                                                  | SUR.:0.0001 | Shielding Angle: |

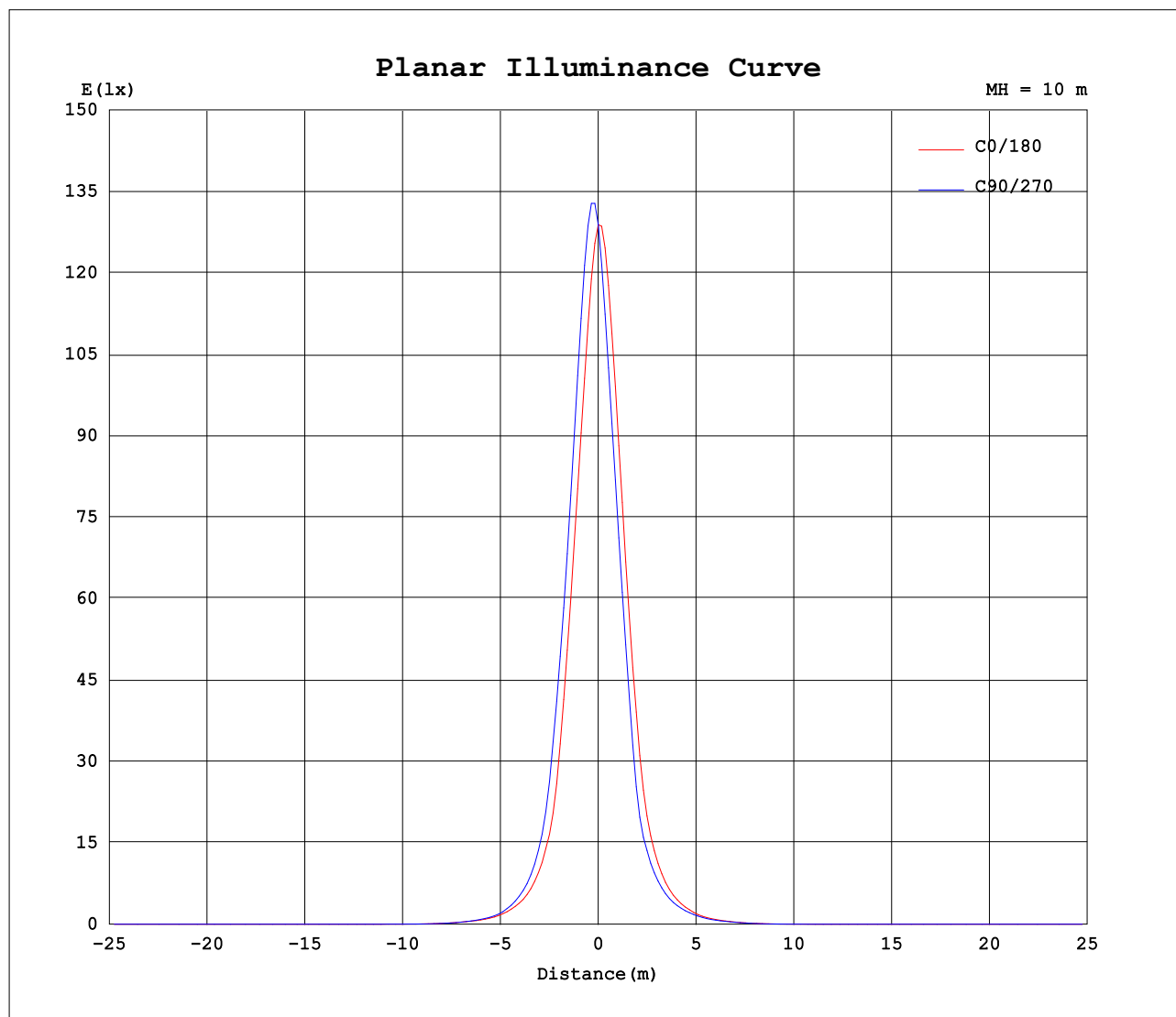
| AvgL             | cd/m2 |
|------------------|-------|
| L_0~180 (65) av  | 32    |
| L_0~180 (75) av  | 36    |
| L_0~180 (85) av  | 72    |
| L_90~270 (65) av | 315   |
| L_90~270 (75) av | 209   |
| L_90~270 (85) av | 111   |
| L_45 (65) av     | 209   |
| L_45 (75) av     | 144   |
| L_45 (85) av     | 97    |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Xie Bi  
Test Date:2019-12-18

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:6.900m [K=1.0000]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Xie Bi  
Test Date: 2019-12-18

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 65.0%  
Test Distance: 6.900m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

|                                                                                |             |                  |
|--------------------------------------------------------------------------------|-------------|------------------|
| Test:U:221.0V I:0.1191A P:24.91W PF:0.9467 Freq:59.98Hz Lamp Flux:1508.63x1 lm |             |                  |
| NAME: W11162LED                                                                | TYPE:       | WEIGHT:          |
| SPEC.:P-W11162LED-25W2715-CI60037R90-LDK100                                    | DIM.:       | SERIAL No.:      |
| MFR.: CETTIGA                                                                  | SUR.:0.0001 | Shielding Angle: |

Table--1

UNIT: ×10cd

| C (DEG)<br>γ (DEG) | 0    | 90   | 180  | 270  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 0                  | 1289 | 1288 | 1289 | 1288 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5                  | 915  | 1129 | 1002 | 828  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10                 | 433  | 610  | 495  | 346  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15                 | 155  | 231  | 181  | 125  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20                 | 66.0 | 90.2 | 77.3 | 57.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 25                 | 31.0 | 38.7 | 35.8 | 28.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30                 | 14.4 | 16.6 | 15.9 | 13.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 35                 | 7.14 | 7.08 | 7.26 | 6.51 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40                 | 2.36 | 2.24 | 2.30 | 2.01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 45                 | 0.66 | 0.66 | 0.66 | 0.57 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 50                 | 0.30 | 0.24 | 0.28 | 0.20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 55                 | 0.11 | 0.18 | 0.09 | 0.03 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60                 | 0.02 | 0.16 | 0.01 | 0.02 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 65                 | 0.01 | 0.15 | 0.01 | 0.01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 70                 | 0.01 | 0.24 | 0.01 | 0.01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 75                 | 0.01 | 0.06 | 0.01 | 0.01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 80                 | 0.00 | 0.00 | 0.01 | 0.01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 85                 | 0.00 | 0.01 | 0.00 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 90                 | 0.00 | 0.01 | 0.00 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 95                 | 0.00 | 0.01 | 0.00 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100                | 0.00 | 0.02 | 0.00 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 105                | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 110                | 0.00 | 0.00 | 0.01 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 115                | 0.00 | 0.04 | 0.01 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 120                | 0.00 | 0.01 | 0.01 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 125                | 0.00 | 0.01 | 0.01 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 130                | 0.01 | 0.01 | 0.01 | 0.01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 135                | 0.02 | 0.02 | 0.02 | 0.01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 140                | 0.05 | 0.04 | 0.03 | 0.03 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 145                | 0.11 | 0.09 | 0.05 | 0.06 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 150                | 0.25 | 0.19 | 0.10 | 0.13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 155                | 0.48 | 0.39 | 0.21 | 0.28 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 160                | 0.75 | 0.67 | 0.42 | 0.51 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 165                | 0.90 | 0.88 | 0.64 | 0.70 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 170                | 0.86 | 0.90 | 0.75 | 0.73 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 175                | 0.74 | 0.78 | 0.72 | 0.68 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 180                | 0.70 | 0.70 | 0.70 | 0.70 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Xie Bi  
Test Date:2019-12-18

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:6.900m [K=1.0000]  
Remarks: