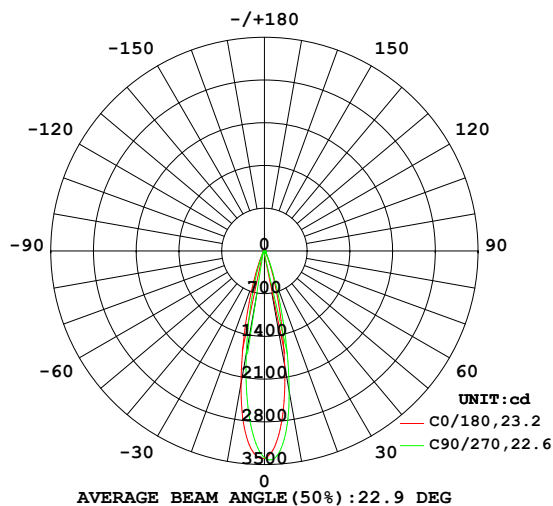


## LUMINAIRE PHOTOMETRIC TEST REPORT

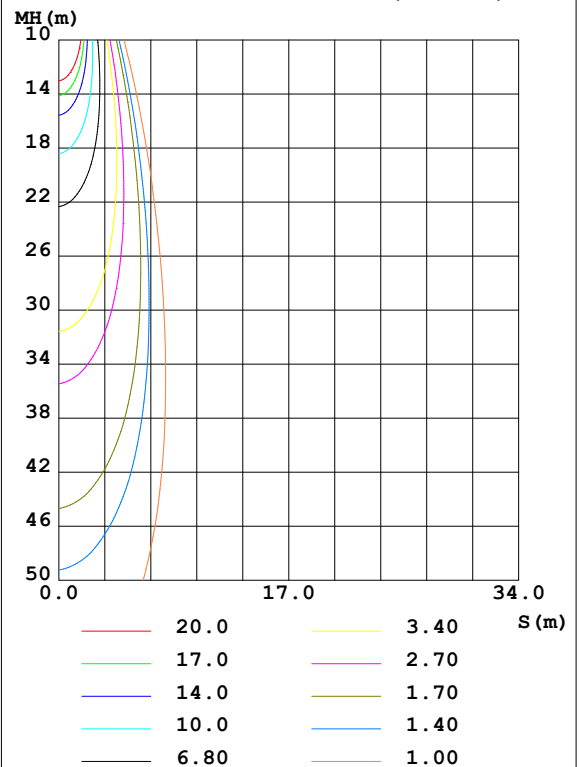
|                                                                                  |       |                  |
|----------------------------------------------------------------------------------|-------|------------------|
| Test:U:232.35V I:0.0658A P:8.6723W PF:0.5675 Freq:50.00Hz Lamp Flux:672.969x1 lm |       |                  |
| NAME: 89014LED                                                                   | TYPE: | WEIGHT:          |
| SPEC.:P-89014LED-8W3024-CI25031R90-HEK700                                        | DIM.: | SERIAL No.:      |
| MFR.: CETTIGA                                                                    | SUR.: | Shielding Angle: |

| DATA OF LAMP      |             | PHOTOMETRIC DATA Eff: 77.60 lm/W |        |                     |           |
|-------------------|-------------|----------------------------------|--------|---------------------|-----------|
| MODEL             | CLU701 1002 | I <sub>max</sub> (cd)            | 3425   | S/MH (C0/180)       | 0.41      |
| NOMINAL POWER (W) | 8W          | LOR (%)                          | 100.0  | S/MH (C90/270)      | 0.35      |
| RATED VOLTAGE (V) |             | TOTAL FLUX (lm)                  | 672.97 | η UP, DN (C0-180)   | 0.2, 51.2 |
| NOMINAL FLUX (lm) | 672.969     | CIE CLASS                        | DIRECT | η UP, DN (C180-360) | 0.1, 48.5 |
| LAMPS INSIDE      | 1           | η up (%)                         | 0.3    | CIBSE SHR NOM       | 0.00      |
| TEST VOLTAGE (V)  | 220.2       | η down (%)                       | 99.7   | 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: 2024-01-17

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.417  
Humidity: 65.0%  
Test Distance: 6.810m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

| $\gamma$ | C0                    | C90    | C180   | C270   |  |  |  |  | $\gamma$ | $\Phi$ zone | $\Phi$ total | %lum,lamp |
|----------|-----------------------|--------|--------|--------|--|--|--|--|----------|-------------|--------------|-----------|
| 10       | 1912                  | 2335   | 2209   | 1709   |  |  |  |  | 0- 10    | 256.3       | 256.3        | 38.1,38.1 |
| 20       | 375.1                 | 466.5  | 474.6  | 331.8  |  |  |  |  | 10- 20   | 282.4       | 538.7        | 80,80     |
| 30       | 68.63                 | 79.43  | 85.25  | 65.96  |  |  |  |  | 20- 30   | 84.76       | 623.4        | 92.6,92.6 |
| 40       | 25.64                 | 27.48  | 28.98  | 25.23  |  |  |  |  | 30- 40   | 26.92       | 650.4        | 96.6,96.6 |
| 50       | 11.68                 | 13.34  | 13.08  | 10.97  |  |  |  |  | 40- 50   | 14.49       | 664.9        | 98.8,98.8 |
| 60       | 2.277                 | 0.9046 | 2.113  | 1.126  |  |  |  |  | 50- 60   | 5.510       | 670.4        | 99.6,99.6 |
| 70       | 0.0262                | 0      | 0.0345 | 0.0035 |  |  |  |  | 60- 70   | 0.3765      | 670.7        | 99.7,99.7 |
| 80       | 0                     | 0      | 0      | 0      |  |  |  |  | 70- 80   | 0.0009      | 670.7        | 99.7,99.7 |
| 90       | 0                     | 0      | 0      | 0      |  |  |  |  | 80- 90   | 0           | 670.7        | 99.7,99.7 |
| 100      | 0                     | 0      | 0      | 0      |  |  |  |  | 90-100   | 0.0026      | 670.7        | 99.7,99.7 |
| 110      | 0.1550                | 0      | 0.1134 | 0.0121 |  |  |  |  | 100-110  | 0.0172      | 670.8        | 99.7,99.7 |
| 120      | 0                     | 0.0122 | 0.0070 | 0.0296 |  |  |  |  | 110-120  | 0.0601      | 670.8        | 99.7,99.7 |
| 130      | 0.0470                | 0.0628 | 0.0332 | 0.0662 |  |  |  |  | 120-130  | 0.0256      | 670.8        | 99.7,99.7 |
| 140      | 0.2614                | 0.2269 | 0.1116 | 0.1656 |  |  |  |  | 130-140  | 0.0801      | 670.9        | 99.7,99.7 |
| 150      | 1.214                 | 0.9261 | 0.4868 | 0.5977 |  |  |  |  | 140-150  | 0.2614      | 671.2        | 99.7,99.7 |
| 160      | 2.959                 | 2.682  | 1.702  | 2.040  |  |  |  |  | 150-160  | 0.6910      | 671.9        | 99.8,99.8 |
| 170      | 3.345                 | 3.467  | 2.771  | 2.837  |  |  |  |  | 160-170  | 0.7993      | 672.7        | 100,100   |
| 180      | 3.006                 | 3.057  | 3.005  | 3.057  |  |  |  |  | 170-180  | 0.2923      | 673.0        | 100,100   |
| DEG      | LUMINOUS INTENSITY:cd |        |        |        |  |  |  |  |          | UNIT:lm     |              |           |

Conical surface Flux(90deg): 658.68 lm

%lum = 97.9%

%lamp = 97.9%

Conical surface Flux(120deg): 670.36 lm

%lum = 99.6%

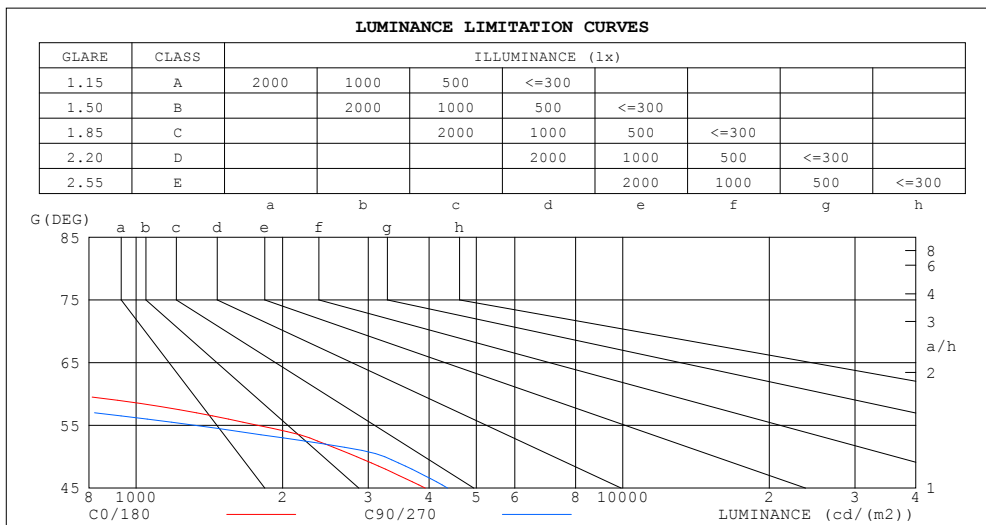
%lamp = 99.6%

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Xie Bi  
 Test Date:2024-01-17

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.417  
 Humidity:65.0%  
 Test Distance:6.810m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES

|                                                                                  |       |                  |
|----------------------------------------------------------------------------------|-------|------------------|
| Test:U:232.35V I:0.0658A P:8.6723W PF:0.5675 Freq:50.00Hz Lamp Flux:672.969x1 lm |       |                  |
| NAME: 89014LED                                                                   | TYPE: | WEIGHT:          |
| SPEC.:P-89014LED-8W3024-CI25031R90-HEK700                                        | DIM.: | SERIAL No.:      |
| MFR.: CETTIGA                                                                    | SUR.: | Shielding Angle: |



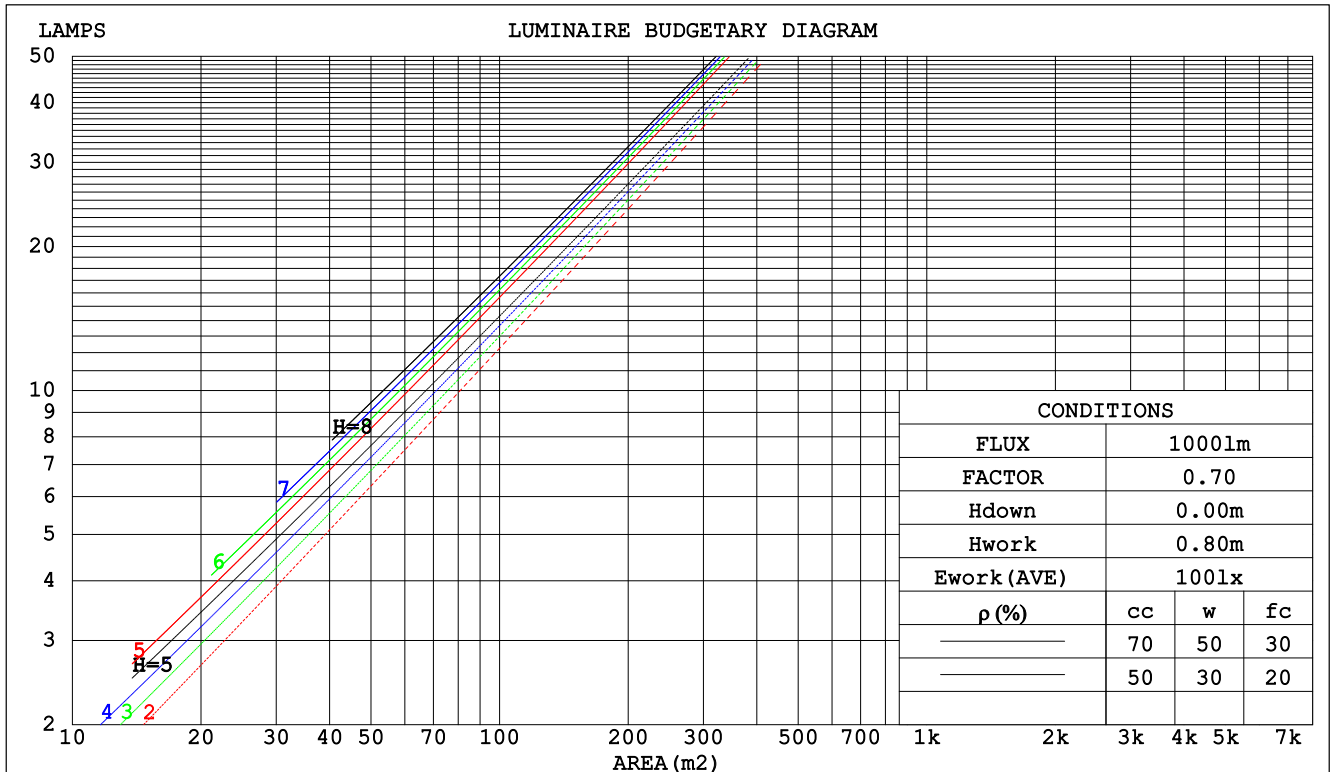
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Xie Bi  
Test Date:2024-01-17

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.417  
Humidity:65.0%  
Test Distance:6.810m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|                                                                                  |       |                  |
|----------------------------------------------------------------------------------|-------|------------------|
| Test:U:232.35V I:0.0658A P:8.6723W PF:0.5675 Freq:50.00Hz Lamp Flux:672.969x1 lm |       |                  |
| NAME: 89014LED                                                                   | TYPE: | WEIGHT:          |
| SPEC.:P-89014LED-8W3024-CI25031R90-HEK700                                        | DIM.: | SERIAL No.:      |
| MFR.: CETTIGA                                                                    | SUR.: | 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         | 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                            | 1.11 | 1.09 | 1.11 | 1.09 | 1.07 | 1.07 | 1.05 | 1.04 | 1.03 | 1.02 | 1.01 | .99  | .99  | .98  | .96 |
| 2.0         | 1.08                            | 1.05 | 1.02 | 1.06 | 1.03 | 1.01 | 1.03 | 1.01 | .99  | .00  | .98  | .97  | .97  | .96  | .95  | .93 |
| 3.0         | 1.03                            | .99  | .96  | 1.02 | .98  | .96  | .99  | .96  | .94  | .97  | .95  | .93  | .95  | .93  | .91  | .90 |
| 4.0         | .99                             | .95  | .92  | .98  | .94  | .91  | .96  | .93  | .90  | .94  | .91  | .89  | .92  | .90  | .88  | .87 |
| 5.0         | .95                             | .91  | .88  | .94  | .91  | .88  | .93  | .89  | .87  | .91  | .88  | .86  | .90  | .87  | .86  | .84 |
| 6.0         | .92                             | .88  | .85  | .91  | .87  | .85  | .90  | .87  | .84  | .89  | .86  | .84  | .88  | .85  | .83  | .82 |
| 7.0         | .89                             | .85  | .82  | .89  | .85  | .82  | .87  | .84  | .81  | .86  | .83  | .81  | .85  | .83  | .81  | .80 |
| 8.0         | .86                             | .82  | .80  | .86  | .82  | .79  | .85  | .82  | .79  | .84  | .81  | .79  | .83  | .80  | .78  | .77 |
| 9.0         | .84                             | .80  | .77  | .84  | .80  | .77  | .83  | .79  | .77  | .82  | .79  | .77  | .81  | .78  | .76  | .75 |
| 10.0        | .82                             | .78  | .75  | .81  | .78  | .75  | .81  | .77  | .75  | .80  | .77  | .75  | .79  | .77  | .74  | .74 |



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Xie Bi  
Test Date:2024-01-17

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.417  
Humidity:65.0%  
Test Distance:6.810m [K=1.0000]  
Remarks:

### WEC AND CCEC

|                                                                                  |  |  |       |  |                  |
|----------------------------------------------------------------------------------|--|--|-------|--|------------------|
| Test:U:232.35V I:0.0658A P:8.6723W PF:0.5675 Freq:50.00Hz Lamp Flux:672.969x1 lm |  |  |       |  |                  |
| NAME: 89014LED                                                                   |  |  | TYPE: |  | WEIGHT:          |
| SPEC.:P-89014LED-8W3024-CI25031R90-HEK700                                        |  |  | DIM.: |  | SERIAL No.:      |
| MFR.: CETTIGA                                                                    |  |  | SUR.: |  | 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 Coefficients(WEC) |      |      |      |      |      |      |      |      |   |  |
| 0.0  |                       |      |      |      |      |      |                                 |      |      |      |      |      |      |      |      |   |  |
| 1.0  | .137                  | .078 | .025 | .130 | .074 | .024 | .118                            | .067 | .022 | .106 | .061 | .020 | .095 | .055 | .018 |   |  |
| 2.0  | .127                  | .070 | .021 | .122 | .067 | .021 | .111                            | .062 | .019 | .102 | .057 | .018 | .093 | .052 | .017 |   |  |
| 3.0  | .119                  | .063 | .019 | .114 | .061 | .018 | .105                            | .057 | .017 | .097 | .053 | .016 | .090 | .050 | .015 |   |  |
| 4.0  | .111                  | .058 | .017 | .107 | .056 | .017 | .100                            | .053 | .016 | .093 | .050 | .015 | .087 | .047 | .014 |   |  |
| 5.0  | .105                  | .053 | .015 | .101 | .052 | .015 | .095                            | .049 | .015 | .089 | .047 | .014 | .084 | .045 | .013 |   |  |
| 6.0  | .099                  | .050 | .014 | .096 | .048 | .014 | .091                            | .046 | .014 | .086 | .044 | .013 | .081 | .043 | .013 |   |  |
| 7.0  | .094                  | .046 | .013 | .091 | .045 | .013 | .087                            | .044 | .013 | .082 | .042 | .012 | .078 | .041 | .012 |   |  |
| 8.0  | .089                  | .044 | .012 | .087 | .043 | .012 | .083                            | .041 | .012 | .079 | .040 | .012 | .075 | .039 | .011 |   |  |
| 9.0  | .085                  | .041 | .012 | .083 | .041 | .011 | .080                            | .039 | .011 | .076 | .038 | .011 | .073 | .037 | .011 |   |  |
| 10.0 | .081                  | .039 | .011 | .080 | .039 | .011 | .077                            | .037 | .011 | .073 | .036 | .010 | .071 | .035 | .010 |   |  |

| pcc  | 80%                   |      |      | 70%  |      |      | 50%                                         |      |      | 30%  |      |      | 10%  |      |      | 0 |
|------|-----------------------|------|------|------|------|------|---------------------------------------------|------|------|------|------|------|------|------|------|---|
| pw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                                         | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| pfc  | 20%                   |      |      | 20%  |      |      | 20%                                         |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Ceiling Cavity Exitance Coefficients (CCEC) |      |      |      |      |      |      |      |      |   |
| 0.0  | .193                  | .193 | .193 | .165 | .165 | .165 | .113                                        | .113 | .113 | .065 | .065 | .065 | .021 | .021 | .021 |   |
| 1.0  | .171                  | .160 | .151 | .146 | .138 | .130 | .100                                        | .095 | .090 | .058 | .055 | .052 | .018 | .018 | .017 |   |
| 2.0  | .153                  | .135 | .121 | .131 | .116 | .104 | .090                                        | .081 | .073 | .052 | .047 | .043 | .017 | .015 | .014 |   |
| 3.0  | .138                  | .116 | .098 | .118 | .100 | .085 | .081                                        | .069 | .060 | .047 | .041 | .035 | .015 | .013 | .012 |   |
| 4.0  | .125                  | .100 | .081 | .108 | .087 | .071 | .074                                        | .061 | .050 | .043 | .035 | .029 | .014 | .012 | .010 |   |
| 5.0  | .115                  | .088 | .068 | .099 | .076 | .060 | .068                                        | .053 | .042 | .039 | .031 | .025 | .013 | .010 | .008 |   |
| 6.0  | .106                  | .078 | .058 | .091 | .068 | .051 | .063                                        | .047 | .036 | .036 | .028 | .021 | .012 | .009 | .007 |   |
| 7.0  | .098                  | .070 | .050 | .085 | .061 | .044 | .058                                        | .043 | .031 | .034 | .025 | .018 | .011 | .008 | .006 |   |
| 8.0  | .092                  | .063 | .044 | .079 | .055 | .038 | .055                                        | .039 | .027 | .032 | .023 | .016 | .010 | .007 | .005 |   |
| 9.0  | .086                  | .058 | .038 | .074 | .050 | .033 | .051                                        | .035 | .024 | .030 | .021 | .014 | .010 | .007 | .005 |   |
| 10.0 | .081                  | .053 | .034 | .070 | .046 | .030 | .049                                        | .032 | .021 | .028 | .019 | .013 | .009 | .006 | .004 |   |

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Xie Bi  
Test Date:2024-01-17

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.417  
Humidity:65.0%  
Test Distance:6.810m [K=1.0000]  
Remarks:

### UGR(Unified Glare Rating) Table

|                                                                                  |     |                  |     |     |     |       |                |     |                  |     |     |
|----------------------------------------------------------------------------------|-----|------------------|-----|-----|-----|-------|----------------|-----|------------------|-----|-----|
| Test:U:232.35V I:0.0658A P:8.6723W PF:0.5675 Freq:50.00Hz Lamp Flux:672.969x1 lm |     |                  |     |     |     |       |                |     |                  |     |     |
| NAME.: 89014LED                                                                  |     |                  |     |     |     | TYPE: |                |     | WEIGHT:          |     |     |
| SPEC.:P-89014LED-8W3024-CI25031R90-HEK700                                        |     |                  |     |     |     | DIM.: |                |     | SERIAL No.:      |     |     |
| MFR.: CETTIGA                                                                    |     |                  |     |     |     | SUR.: |                |     | 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                                                                    |     | 8.7              | 9.4 | 8.9 | 9.5 | 9.7   | 8.9            | 9.5 | 9.1              | 9.7 | 9.8 |
|                                                                                  | 3H  | 8.6              | 9.2 | 8.8 | 9.4 | 9.6   | 8.7            | 9.3 | 9.0              | 9.5 | 9.7 |
|                                                                                  | 4H  | 8.5              | 9.1 | 8.7 | 9.3 | 9.5   | 8.7            | 9.2 | 8.9              | 9.4 | 9.7 |
|                                                                                  | 6H  | 8.4              | 8.9 | 8.7 | 9.2 | 9.4   | 8.6            | 9.1 | 8.9              | 9.3 | 9.6 |
|                                                                                  | 8H  | 8.4              | 8.9 | 8.7 | 9.1 | 9.4   | 8.5            | 9.0 | 8.8              | 9.3 | 9.6 |
|                                                                                  | 12H | 8.3              | 8.8 | 8.6 | 9.1 | 9.4   | 8.5            | 9.0 | 8.8              | 9.2 | 9.5 |
| 4H                                                                               | 2H  | 8.5              | 9.1 | 8.8 | 9.3 | 9.5   | 8.7            | 9.3 | 9.0              | 9.5 | 9.7 |
|                                                                                  | 3H  | 8.4              | 8.9 | 8.7 | 9.1 | 9.4   | 8.5            | 9.0 | 8.8              | 9.3 | 9.6 |
|                                                                                  | 4H  | 8.3              | 8.7 | 8.6 | 9.0 | 9.3   | 8.4            | 8.9 | 8.8              | 9.2 | 9.5 |
|                                                                                  | 6H  | 8.2              | 8.6 | 8.5 | 8.9 | 9.3   | 8.3            | 8.7 | 8.7              | 9.1 | 9.4 |
|                                                                                  | 8H  | 8.1              | 8.5 | 8.5 | 8.8 | 9.2   | 8.3            | 8.7 | 8.7              | 9.0 | 9.4 |
|                                                                                  | 12H | 8.1              | 8.4 | 8.5 | 8.8 | 9.2   | 8.2            | 8.6 | 8.6              | 8.9 | 9.3 |
| 8H                                                                               | 4H  | 8.1              | 8.5 | 8.5 | 8.8 | 9.2   | 8.3            | 8.7 | 8.7              | 9.0 | 9.4 |
|                                                                                  | 6H  | 8.0              | 8.3 | 8.4 | 8.7 | 9.1   | 8.2            | 8.5 | 8.6              | 8.9 | 9.3 |
|                                                                                  | 8H  | 7.9              | 8.2 | 8.4 | 8.6 | 9.1   | 8.1            | 8.4 | 8.5              | 8.8 | 9.2 |
|                                                                                  | 12H | 7.9              | 8.1 | 8.3 | 8.6 | 9.0   | 8.0            | 8.3 | 8.5              | 8.7 | 9.2 |
| 12H                                                                              | 4H  | 8.1              | 8.4 | 8.5 | 8.8 | 9.2   | 8.2            | 8.6 | 8.6              | 8.9 | 9.3 |
|                                                                                  | 6H  | 7.9              | 8.2 | 8.4 | 8.6 | 9.1   | 8.1            | 8.4 | 8.5              | 8.8 | 9.2 |
|                                                                                  | 8H  | 7.9              | 8.1 | 8.3 | 8.6 | 9.0   | 8.0            | 8.3 | 8.5              | 8.7 | 9.2 |
| Variations with the observer position at spacings:                               |     |                  |     |     |     |       |                |     |                  |     |     |
| S = 1.0H                                                                         |     | + 2.1 / - 5.4    |     |     |     |       | + 2.3 / - 8.1  |     |                  |     |     |
| 1.5H                                                                             |     | + 2.1 / - 3.7    |     |     |     |       | + 2.2 / - 4.7  |     |                  |     |     |
| 2.0H                                                                             |     | + 4.3 / -17.7    |     |     |     |       | + 4.9 / -19.2  |     |                  |     |     |

CIE Pub.117, 673.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.4)  
Area: 0.0064 m2

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Xie Bi  
Test Date:2024-01-17

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.417  
Humidity:65.0%  
Test Distance:6.810m [K=1.0000]  
Remarks:

## UTILIZATION FACTORS TABLE

|                                                                                  |       |                  |
|----------------------------------------------------------------------------------|-------|------------------|
| Test:U:232.35V I:0.0658A P:8.6723W PF:0.5675 Freq:50.00Hz Lamp Flux:672.969x1 lm |       |                  |
| NAME: 89014LED                                                                   | TYPE: | WEIGHT:          |
| SPEC.:P-89014LED-8W3024-CI25031R90-HEK700                                        | DIM.: | SERIAL No.:      |
| MFR.: CETTIGA                                                                    | SUR.: | Shielding Angle: |

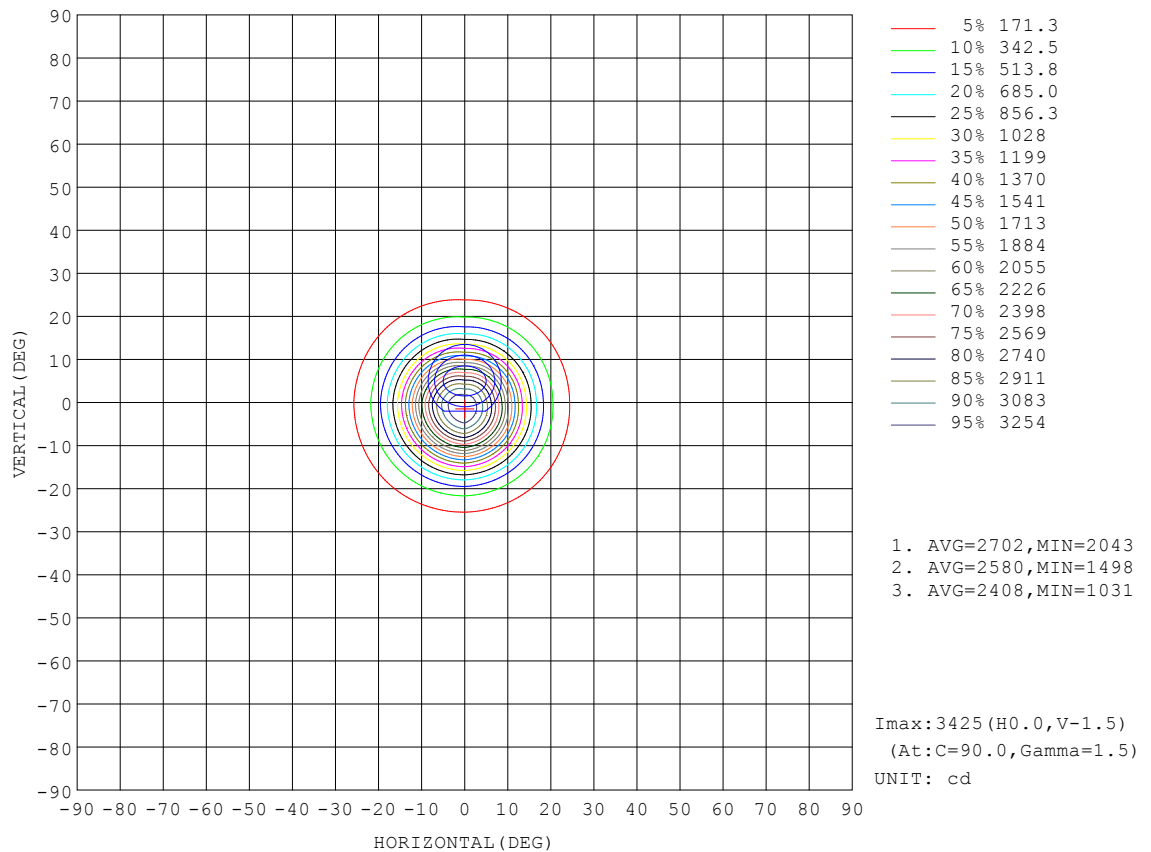
| REFLECTANCE                      |                                                      |     |           |     |     |     |     |               |     |        |
|----------------------------------|------------------------------------------------------|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| 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) $k(RI) \times RCR = 5$ |     |           |     |     |     |     |               |     |        |
| $k = 0.60$                       | 89                                                   | 83  | 80        | 89  | 83  | 80  | 88  | 83            | 80  | 76     |
| 0.80                             | 97                                                   | 91  | 88        | 96  | 91  | 88  | 95  | 90            | 87  | 84     |
| 1.00                             | 101                                                  | 95  | 92        | 100 | 95  | 92  | 98  | 95            | 91  | 88     |
| 1.25                             | 104                                                  | 100 | 96        | 103 | 99  | 96  | 101 | 98            | 95  | 91     |
| 1.50                             | 107                                                  | 103 | 99        | 106 | 102 | 99  | 104 | 100           | 98  | 94     |
| 2.00                             | 109                                                  | 105 | 102       | 108 | 104 | 102 | 105 | 102           | 100 | 95     |
| 2.50                             | 111                                                  | 107 | 105       | 109 | 106 | 104 | 106 | 104           | 102 | 96     |
| 3.00                             | 112                                                  | 109 | 107       | 110 | 108 | 105 | 107 | 105           | 103 | 97     |
| 4.00                             | 114                                                  | 112 | 110       | 112 | 110 | 108 | 109 | 107           | 105 | 98     |
| 5.00                             | 115                                                  | 113 | 112       | 113 | 111 | 110 | 109 | 108           | 107 | 99     |
| 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: 2024-01-17

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.417  
 Humidity: 65.0%  
 Test Distance: 6.810m [K=1.0000]  
 Remarks:

## ISOCANDELA DIAGRAM

|                                                                                  |       |                  |
|----------------------------------------------------------------------------------|-------|------------------|
| Test:U:232.35V I:0.0658A P:8.6723W PF:0.5675 Freq:50.00Hz Lamp Flux:672.969x1 lm |       |                  |
| NAME: 89014LED                                                                   | TYPE: | WEIGHT:          |
| SPEC.:P-89014LED-8W3024-CI25031R90-HEK700                                        | DIM.: | SERIAL No.:      |
| MFR.: CETTIGA                                                                    | SUR.: | Shielding Angle: |



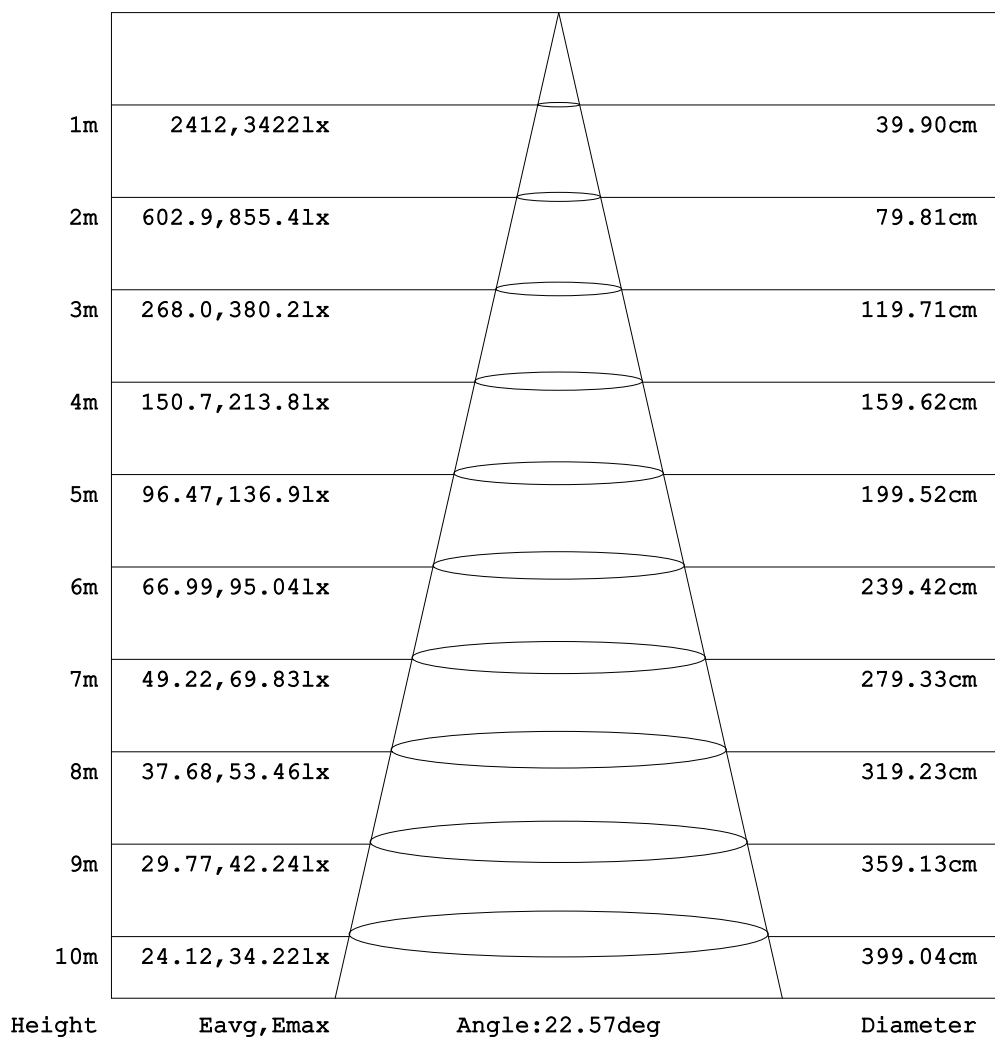
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Xie Bi  
Test Date:2024-01-17

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.417  
Humidity:65.0%  
Test Distance:6.810m [K=1.0000]  
Remarks:

## AAI Figure

|                                                                                  |       |                  |
|----------------------------------------------------------------------------------|-------|------------------|
| Test:U:232.35V I:0.0658A P:8.6723W PF:0.5675 Freq:50.00Hz Lamp Flux:672.969x1 lm |       |                  |
| NAME: 89014LED                                                                   | TYPE: | WEIGHT:          |
| SPEC.:P-89014LED-8W3024-CI25031R90-HEK700                                        | DIM.: | SERIAL No.:      |
| MFR.: CETTIGA                                                                    | SUR.: | Shielding Angle: |

Flux out:313.6 lm



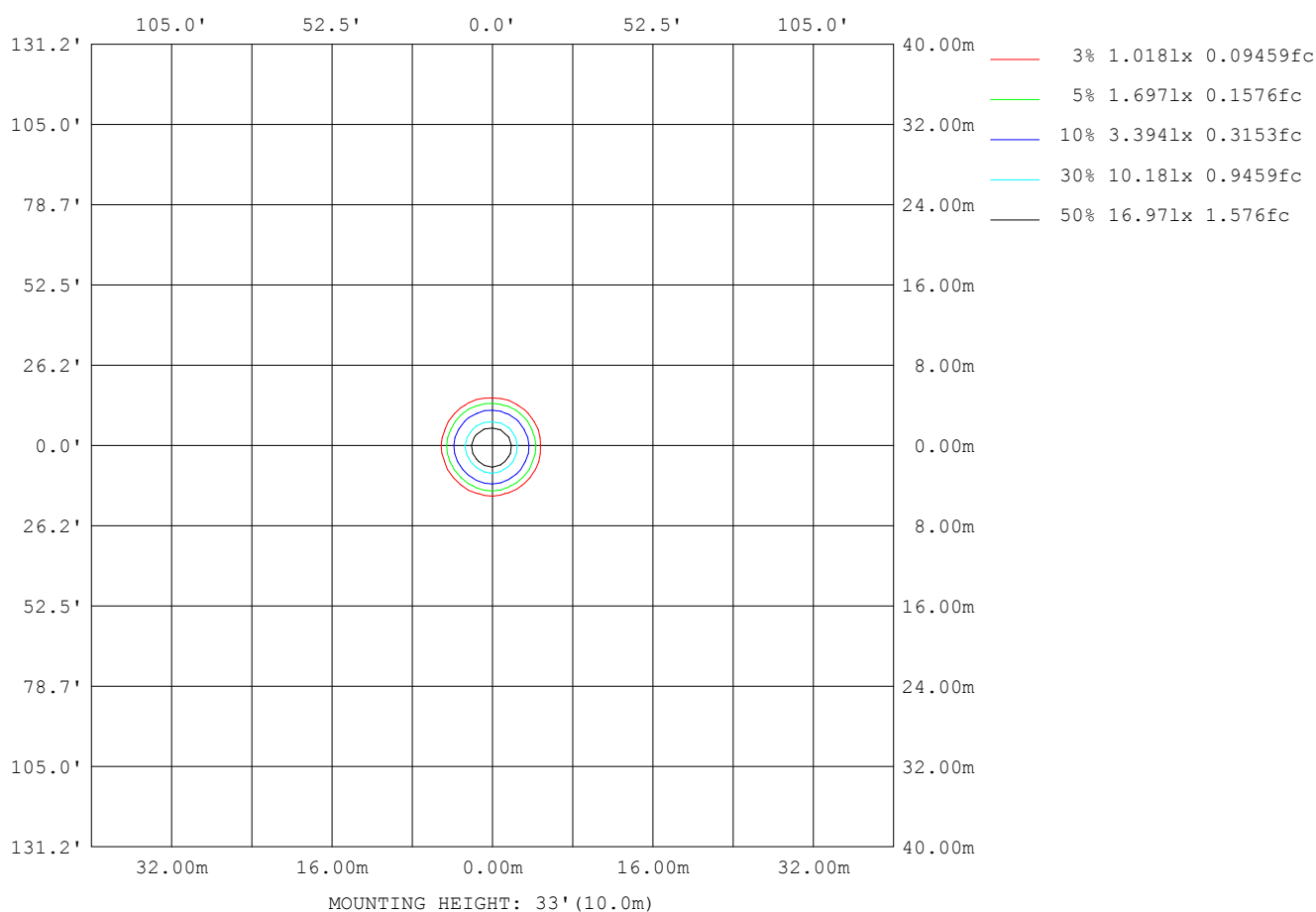
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Xie Bi  
Test Date: 2024-01-17

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.417  
Humidity: 65.0%  
Test Distance: 6.810m [K=1.0000]  
Remarks:

# ISOLUX DIAGRAM

|                                                                                  |       |                  |
|----------------------------------------------------------------------------------|-------|------------------|
| Test:U:232.35V I:0.0658A P:8.6723W PF:0.5675 Freq:50.00Hz Lamp Flux:672.969x1 lm |       |                  |
| NAME: 89014LED                                                                   | TYPE: | WEIGHT:          |
| SPEC.:P-89014LED-8W3024-CI25031R90-HEK700                                        | DIM.: | SERIAL No.:      |
| MFR.: CETTIGA                                                                    | SUR.: | Shielding Angle: |



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Xie Bi  
Test Date:2024-01-17

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.417  
Humidity:65.0%  
Test Distance:6.810m [K=1.0000]  
Remarks:

## LED Avg.L Report

|                                                                                  |       |                  |
|----------------------------------------------------------------------------------|-------|------------------|
| Test:U:232.35V I:0.0658A P:8.6723W PF:0.5675 Freq:50.00Hz Lamp Flux:672.969x1 lm |       |                  |
| NAME: 89014LED                                                                   | TYPE: | WEIGHT:          |
| SPEC.:P-89014LED-8W3024-CI25031R90-HEK700                                        | DIM.: | SERIAL No.:      |
| MFR.: CETTIGA                                                                    | SUR.: | Shielding Angle: |

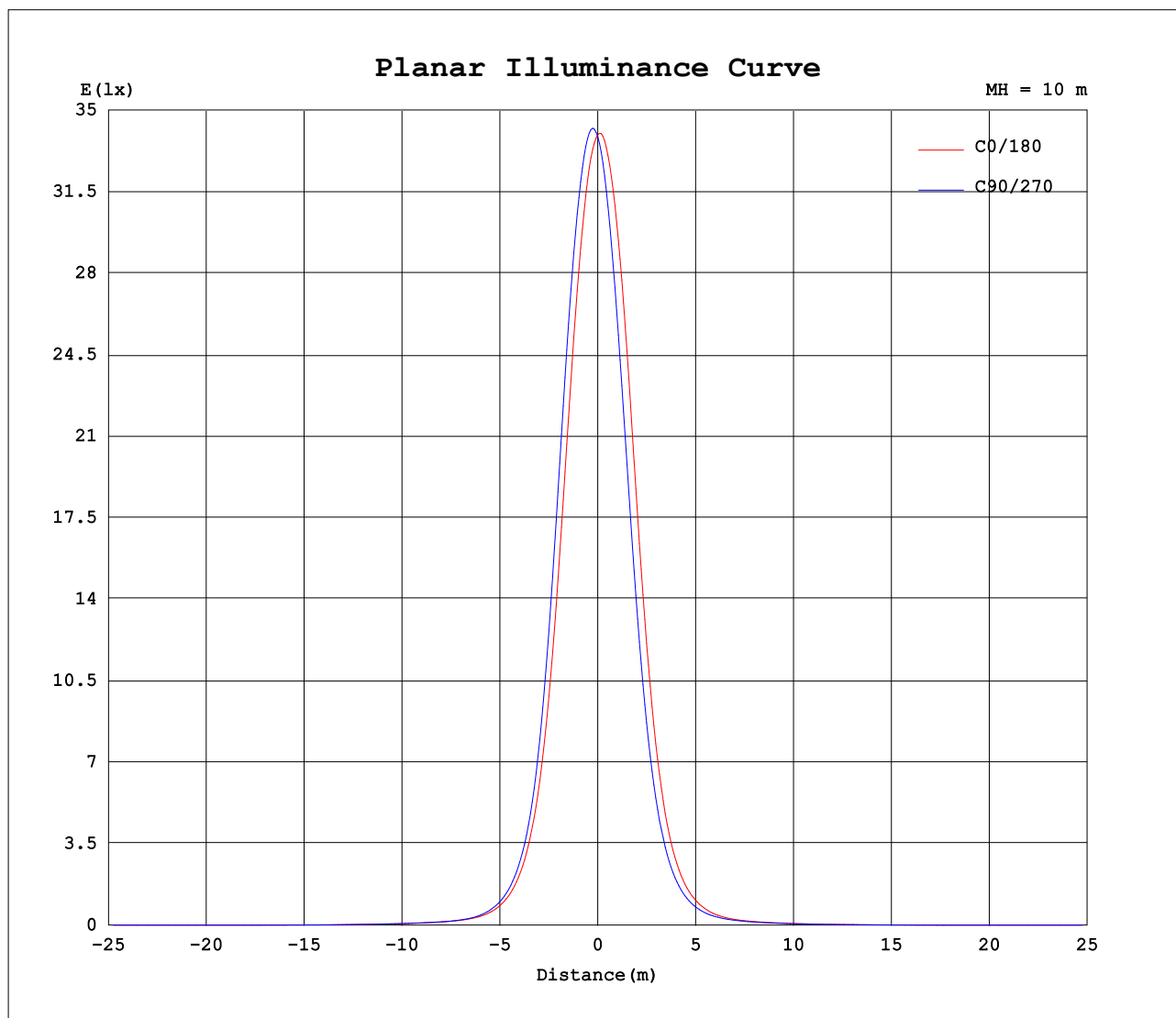
| AvgL             | cd/m2 |
|------------------|-------|
| L_0~180 (65) av  | 100   |
| L_0~180 (75) av  | 0     |
| L_0~180 (85) av  | 0     |
| L_90~270 (65) av | 55    |
| L_90~270 (75) av | 0     |
| L_90~270 (85) av | 0     |
| L_45 (65) av     | 72    |
| L_45 (75) av     | 0     |
| L_45 (85) av     | 0     |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Xie Bi  
Test Date:2024-01-17

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.417  
Humidity:65.0%  
Test Distance:6.810m [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: 2024-01-17

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.417  
Humidity: 65.0%  
Test Distance: 6.810m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

|                                                                                  |       |                  |
|----------------------------------------------------------------------------------|-------|------------------|
| Test:U:232.35V I:0.0658A P:8.6723W PF:0.5675 Freq:50.00Hz Lamp Flux:672.969x1 lm |       |                  |
| NAME: 89014LED                                                                   | TYPE: | WEIGHT:          |
| SPEC.:P-89014LED-8W3024-CI25031R90-HEK700                                        | DIM.: | SERIAL No.:      |
| MFR.: CETTIGA                                                                    | SUR.: | Shielding Angle: |

Table--1

UNIT: cd

| C (DEG)<br>γ (DEG) | 0    | 90   | 180  | 270  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 0                  | 3394 | 3384 | 3394 | 3384 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5                  | 2941 | 3228 | 3127 | 2770 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10                 | 1912 | 2335 | 2209 | 1709 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15                 | 915  | 1183 | 1139 | 804  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20                 | 375  | 467  | 475  | 332  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 25                 | 153  | 186  | 194  | 140  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30                 | 68.6 | 79.4 | 85.2 | 66.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 35                 | 38.3 | 40.7 | 44.7 | 37.9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40                 | 25.6 | 27.5 | 29.0 | 25.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 45                 | 17.8 | 19.8 | 19.9 | 17.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 50                 | 11.7 | 13.3 | 13.1 | 11.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 55                 | 6.53 | 4.85 | 6.51 | 5.11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60                 | 2.28 | 0.90 | 2.11 | 1.13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 65                 | 0.26 | 0.13 | 0.28 | 0.17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 70                 | 0.03 | 0.00 | 0.03 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 75                 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 80                 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 85                 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 90                 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 95                 | 0.00 | 0.00 | 0.00 | 0.02 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100                | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 105                | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 110                | 0.15 | 0.00 | 0.11 | 0.01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 115                | 0.20 | 0.00 | 0.16 | 0.02 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 120                | 0.00 | 0.01 | 0.01 | 0.03 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 125                | 0.02 | 0.03 | 0.02 | 0.04 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 130                | 0.05 | 0.06 | 0.03 | 0.07 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 135                | 0.11 | 0.12 | 0.06 | 0.10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 140                | 0.26 | 0.23 | 0.11 | 0.17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 145                | 0.59 | 0.48 | 0.23 | 0.29 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 150                | 1.21 | 0.93 | 0.49 | 0.60 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 155                | 2.11 | 1.77 | 0.99 | 1.27 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 160                | 2.96 | 2.68 | 1.70 | 2.04 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 165                | 3.38 | 3.31 | 2.37 | 2.60 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 170                | 3.34 | 3.47 | 2.77 | 2.84 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 175                | 3.10 | 3.24 | 2.90 | 2.84 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 180                | 3.01 | 3.06 | 3.00 | 3.06 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Xie Bi  
 Test Date:2024-01-17

γ Range: 0 - 180DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.417  
 Humidity:65.0%  
 Test Distance:6.810m [K=1.0000]  
 Remarks: