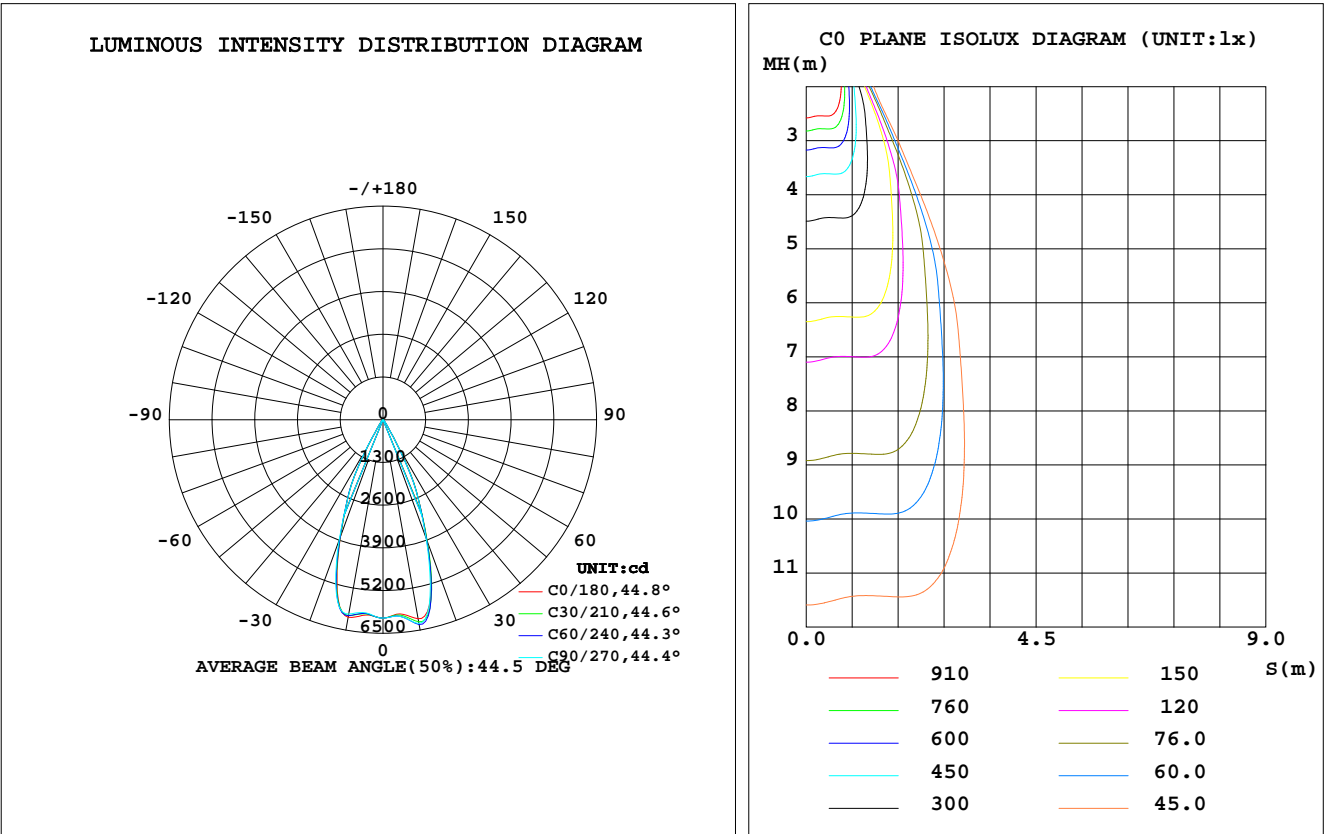


LUMINAIRE PHOTOMETRIC TEST REPORT

|   |        |                   |
|---|--------|-------------------|
| Test:U:226.6V I:0.1790A P:38.60W PF:0.9470 Lamp Flux:3521.51x1 lm |        |                   |
| NAME:   | TYPE:  | WEIGHT:           |
| DIM.:   | SPEC.: | SERIAL No.:       |
| MFR.: Rayconn   | SUR.:  | PROTECTION ANGLE: |

| DATA OF LAMP     |                   | PHOTOMETRIC DATA |        |                   |          | Eff: 91.23 lm/W |
|------------------|-------------------|------------------|--------|-------------------|----------|-----------------|
| MODEL            | TL12-40W-830-W-45 | Imax(cd)         | 6331   | S/MH(C0/180)      | 0.70     |                 |
| NOMINAL POWER(W) | 38                | LOR(%)           | 100.0  | S/MH(C90/270)     | 0.69     |                 |
| RATED VOLTAGE(V) | 226               | TOTAL FLUX(lm)   | 3521.5 | η UP,DN(C0-180)   | 1.3,49.0 |                 |
| NOMINAL FLUX(lm) | 3521.51           | CIE CLASS        | DIRECT | η UP,DN(C180-360) | 1.4,48.3 |                 |
| LAMPS INSIDE     | 1                 | η up(%)          | 2.7    | CIBSE SHR NOM     | 0.50     |                 |
| TEST VOLTAGE(V)  | 226.6             | η down(%)        | 97.3   | CIBSE SHR MAX     | 0.70     |                 |



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZhangXiao  
Test Date:2016-07-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:6.610m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

### ZONAL FLUX DIAGRAM:

| γ   | C0                    | C45   | C90   | C135  | C180  | C225  | C270  | C315  | γ       | Φ zone  | Φ total | lum, lamp |
|-----|-----------------------|-------|-------|-------|-------|-------|-------|-------|---------|---------|---------|-----------|
| 10  | 6149                  | 6301  | 6297  | 6229  | 6103  | 6054  | 6003  | 6079  | 0- 10   | 575.7   | 575.7   | 16.3,16.3 |
| 20  | 3927                  | 3995  | 3838  | 3802  | 3792  | 3760  | 3907  | 3822  | 10- 20  | 1474    | 2050    | 58.2,58.2 |
| 30  | 841.9                 | 887.8 | 814.0 | 879.8 | 900.9 | 865.9 | 960.1 | 864.4 | 20- 30  | 1057    | 3107    | 88.2,88.2 |
| 40  | 108.1                 | 114.3 | 112.1 | 125.0 | 121.2 | 110.1 | 110.0 | 107.6 | 30- 40  | 190.0   | 3297    | 93.6,93.6 |
| 50  | 42.65                 | 43.54 | 43.04 | 44.14 | 42.93 | 42.16 | 42.60 | 42.70 | 40- 50  | 52.76   | 3350    | 95.1,95.1 |
| 60  | 25.93                 | 26.08 | 25.76 | 26.00 | 25.29 | 25.49 | 26.05 | 25.87 | 50- 60  | 29.68   | 3380    | 96.96     |
| 70  | 17.82                 | 18.04 | 17.87 | 18.04 | 17.36 | 17.56 | 17.81 | 17.80 | 60- 70  | 21.33   | 3401    | 96.6,96.6 |
| 80  | 11.61                 | 11.78 | 11.63 | 11.77 | 11.96 | 12.06 | 12.16 | 12.14 | 70- 80  | 15.59   | 3417    | 97.97     |
| 90  | 6.839                 | 7.145 | 6.921 | 6.871 | 8.247 | 8.708 | 8.456 | 8.330 | 80- 90  | 10.59   | 3427    | 97.3,97.3 |
| 100 | 6.529                 | 6.657 | 6.548 | 6.497 | 8.574 | 8.816 | 8.633 | 8.612 | 90-100  | 8.332   | 3436    | 97.6,97.6 |
| 110 | 7.372                 | 7.343 | 7.380 | 7.308 | 9.507 | 9.611 | 9.525 | 9.580 | 100-110 | 8.317   | 3444    | 97.8,97.8 |
| 120 | 10.93                 | 10.83 | 10.99 | 10.87 | 12.41 | 12.56 | 12.41 | 12.45 | 110-120 | 9.766   | 3454    | 98.1,98.1 |
| 130 | 16.43                 | 16.32 | 16.48 | 16.40 | 17.26 | 17.44 | 17.26 | 17.28 | 120-130 | 12.68   | 3466    | 98.4,98.4 |
| 140 | 22.13                 | 22.05 | 22.18 | 22.15 | 22.75 | 22.85 | 22.73 | 22.77 | 130-140 | 15.16   | 3482    | 98.9,98.9 |
| 150 | 27.18                 | 27.19 | 27.25 | 27.20 | 27.57 | 27.62 | 27.60 | 27.64 | 140-150 | 15.68   | 3497    | 99.3,99.3 |
| 160 | 29.10                 | 29.11 | 29.13 | 29.15 | 29.46 | 29.46 | 29.47 | 29.49 | 150-160 | 13.25   | 3511    | 99.7,99.7 |
| 170 | 28.46                 | 28.45 | 28.43 | 28.40 | 28.70 | 28.69 | 28.66 | 28.73 | 160-170 | 8.219   | 3519    | 99.9,99.9 |
| 180 | 29.31                 | 29.31 | 29.27 | 29.25 | 29.32 | 29.30 | 29.27 | 29.26 | 170-180 | 2.738   | 3522    | 100,100   |
| DEG | LUMINOUS INTENSITY:cd |       |       |       |       |       |       |       |         | UNIT:lm |         |           |

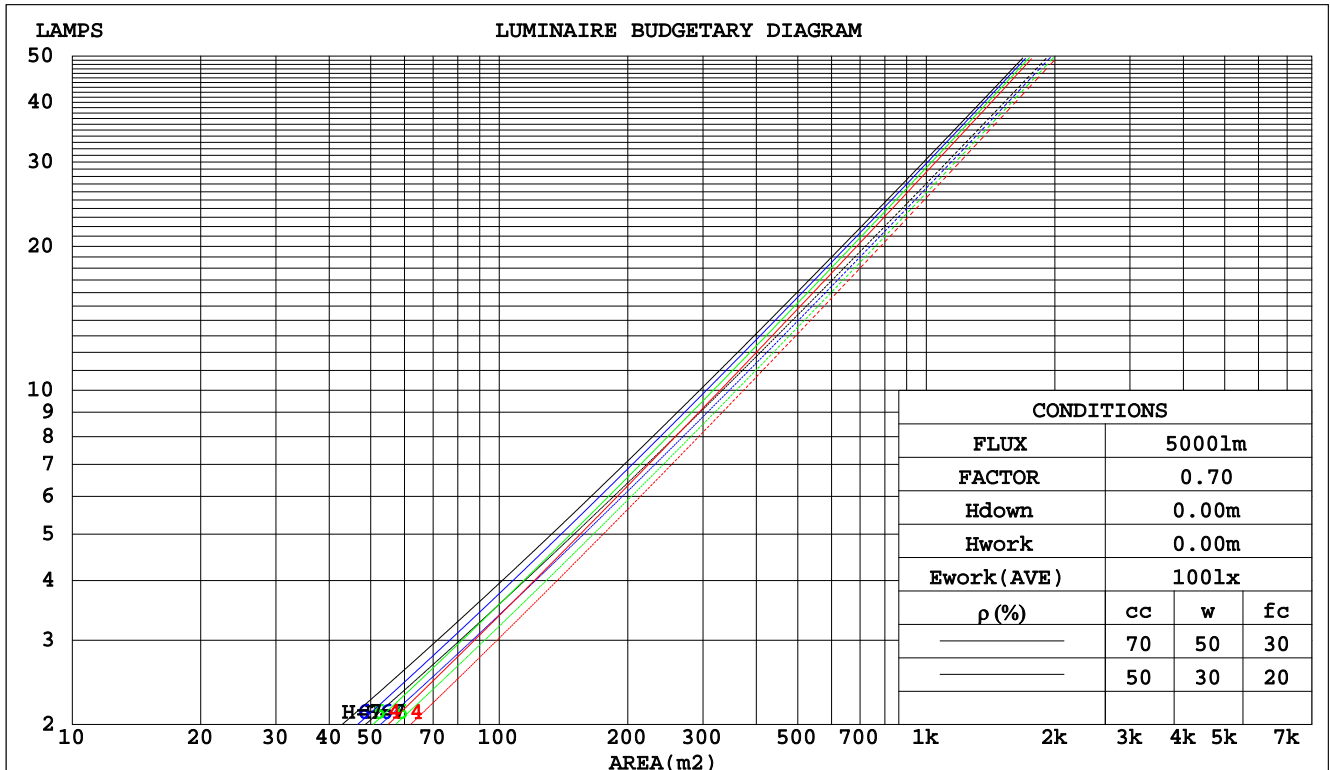
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZhangXiao  
Test Date:2016-07-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:6.610m [K=1.0000]  
Remarks:

### CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|  |        |                   |
|--|--------|-------------------|
| Test:U:226.6V I:0.1790A P:38.60W PF:0.9470 Lamp Flux:3521.51lx1 lm |        |                   |
| NAME:  | TYPE:  | WEIGHT:           |
| DIM.:  | SPEC.: | SERIAL No.:       |
| MFR.: Rayconn  | SUR.:  | PROTECTION 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 |      |      |      |      |      | Coefficients of Utilization(CU) |      |      |      |      |      |     |     |     |     |
| 0.0  | 1.18                  | 1.18 | 1.18 | 1.15 | 1.15 | 1.15 | 1.10                            | 1.10 | 1.10 | 1.04 | 1.04 | 1.04 | .00 | .00 | .00 | .97 |
| 1.0  | 1.11                  | 1.08 | 1.06 | 1.08 | 1.06 | 1.04 | 1.04                            | 1.02 | 1.01 | .00  | .98  | .97  | .96 | .95 | .94 | .92 |
| 2.0  | 1.04                  | 1.01 | .97  | 1.02 | .99  | .96  | .99                             | .96  | .94  | .95  | .93  | .91  | .92 | .91 | .89 | .87 |
| 3.0  | .98                   | .94  | .90  | .97  | .93  | .89  | .94                             | .90  | .88  | .91  | .88  | .86  | .89 | .86 | .84 | .83 |
| 4.0  | .93                   | .88  | .85  | .92  | .87  | .84  | .89                             | .86  | .83  | .87  | .84  | .81  | .85 | .82 | .80 | .79 |
| 5.0  | .88                   | .83  | .80  | .87  | .83  | .79  | .85                             | .81  | .78  | .83  | .80  | .77  | .82 | .79 | .76 | .75 |
| 6.0  | .84                   | .79  | .75  | .83  | .78  | .75  | .82                             | .77  | .74  | .80  | .76  | .74  | .79 | .75 | .73 | .72 |
| 7.0  | .80                   | .75  | .72  | .80  | .75  | .71  | .78                             | .74  | .71  | .77  | .73  | .70  | .75 | .72 | .70 | .68 |
| 8.0  | .77                   | .72  | .68  | .76  | .71  | .68  | .75                             | .71  | .67  | .74  | .70  | .67  | .73 | .69 | .67 | .65 |
| 9.0  | .73                   | .68  | .65  | .73  | .68  | .65  | .72                             | .67  | .64  | .71  | .67  | .64  | .70 | .66 | .64 | .63 |
| 10.0 | .70                   | .65  | .62  | .70  | .65  | .62  | .69                             | .65  | .62  | .68  | .64  | .61  | .67 | .64 | .61 | .60 |



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZhangXiao  
Test Date:2016-07-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:6.610m [K=1.0000]  
Remarks:

# WEC AND CCEC

|   |        |                   |
|---|--------|-------------------|
| Test:U:226.6V I:0.1790A P:38.60W PF:0.9470 Lamp Flux:3521.51x1 lm |        |                   |
| NAME:   | TYPE:  | WEIGHT:           |
| DIM.:   | SPEC.: | SERIAL No.:       |
| MFR.: Rayconn   | SUR.:  | PROTECTION 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  | .165                  | .094 | .030 | .158 | .090 | .029 | .144                            | .082 | .026 | .131 | .075 | .024 | .119 | .069 | .022 |   |  |
| 2.0  | .154                  | .084 | .026 | .148 | .081 | .025 | .136                            | .076 | .023 | .125 | .070 | .022 | .115 | .065 | .020 |   |  |
| 3.0  | .144                  | .077 | .023 | .139 | .074 | .022 | .129                            | .070 | .021 | .120 | .066 | .020 | .111 | .061 | .019 |   |  |
| 4.0  | .136                  | .071 | .021 | .131 | .069 | .020 | .123                            | .065 | .019 | .115 | .062 | .019 | .107 | .058 | .018 |   |  |
| 5.0  | .129                  | .066 | .019 | .125 | .064 | .019 | .117                            | .061 | .018 | .110 | .058 | .017 | .103 | .055 | .017 |   |  |
| 6.0  | .122                  | .061 | .018 | .119 | .060 | .017 | .112                            | .057 | .017 | .106 | .055 | .016 | .100 | .053 | .016 |   |  |
| 7.0  | .117                  | .058 | .016 | .113 | .056 | .016 | .107                            | .054 | .016 | .102 | .052 | .015 | .096 | .050 | .015 |   |  |
| 8.0  | .111                  | .054 | .015 | .109 | .053 | .015 | .103                            | .052 | .015 | .098 | .050 | .014 | .093 | .048 | .014 |   |  |
| 9.0  | .107                  | .052 | .014 | .104 | .051 | .014 | .099                            | .049 | .014 | .095 | .047 | .014 | .090 | .046 | .013 |   |  |
| 10.0 | .102                  | .049 | .014 | .100 | .048 | .013 | .096                            | .047 | .013 | .092 | .045 | .013 | .088 | .044 | .013 |   |  |

| 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  | .211                  | .211 | .211 | .180 | .180 | .180 | .123                                       | .123 | .123 | .071 | .071 | .071 | .023 | .023 | .023 |   |  |
| 1.0  | .191                  | .178 | .166 | .163 | .153 | .143 | .112                                       | .105 | .099 | .064 | .061 | .058 | .021 | .020 | .019 |   |  |
| 2.0  | .175                  | .153 | .135 | .150 | .132 | .117 | .102                                       | .091 | .082 | .059 | .053 | .048 | .019 | .017 | .016 |   |  |
| 3.0  | .161                  | .134 | .113 | .138 | .116 | .098 | .095                                       | .080 | .069 | .055 | .047 | .040 | .018 | .015 | .013 |   |  |
| 4.0  | .150                  | .119 | .096 | .129 | .103 | .083 | .088                                       | .072 | .059 | .051 | .042 | .035 | .016 | .014 | .011 |   |  |
| 5.0  | .140                  | .108 | .083 | .121 | .093 | .072 | .083                                       | .065 | .051 | .048 | .038 | .030 | .016 | .012 | .010 |   |  |
| 6.0  | .132                  | .098 | .073 | .114 | .085 | .064 | .078                                       | .059 | .045 | .046 | .035 | .027 | .015 | .011 | .009 |   |  |
| 7.0  | .125                  | .090 | .065 | .108 | .078 | .057 | .075                                       | .055 | .040 | .043 | .032 | .024 | .014 | .011 | .008 |   |  |
| 8.0  | .119                  | .084 | .059 | .103 | .073 | .052 | .071                                       | .051 | .037 | .041 | .030 | .022 | .013 | .010 | .007 |   |  |
| 9.0  | .114                  | .078 | .054 | .098 | .068 | .047 | .068                                       | .048 | .034 | .040 | .028 | .020 | .013 | .009 | .007 |   |  |
| 10.0 | .110                  | .074 | .050 | .094 | .064 | .044 | .065                                       | .045 | .031 | .038 | .027 | .019 | .012 | .009 | .006 |   |  |

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZhangXiao  
Test Date:2016-07-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:6.610m [K=1.0000]  
Remarks:

### Uncorrected UGR Table

|   |               |                  |      |      |        |               |                |                   |      |      |      |
|---|---------------|------------------|------|------|--------|---------------|----------------|-------------------|------|------|------|
| Test:U:226.6V I:0.1790A P:38.60W PF:0.9470 Lamp Flux:3521.51x1 lm |               |                  |      |      |        |               |                |                   |      |      |      |
| NAME:   |               |                  |      |      | TYPE:  |               |                | WEIGHT:           |      |      |      |
| DIM.:   |               |                  |      |      | SPEC.: |               |                | SERIAL No.:       |      |      |      |
| MFR.: Rayconn   |               |                  |      |      | SUR.:  |               |                | PROTECTION 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   | 12H           | 12.1             | 12.9 | 12.3 | 13.1   | 13.3          | 12.1           | 12.9              | 12.4 | 13.1 | 13.3 |
|   | 3H            | 12.7             | 13.4 | 13.0 | 13.7   | 13.9          | 12.8           | 13.5              | 13.0 | 13.7 | 14.0 |
|   | 4H            | 13.1             | 13.8 | 13.4 | 14.1   | 14.3          | 13.2           | 13.9              | 13.5 | 14.1 | 14.4 |
|   | 6H            | 13.6             | 14.3 | 14.0 | 14.6   | 14.9          | 13.7           | 14.3              | 14.0 | 14.6 | 14.9 |
|   | 8H            | 13.9             | 14.6 | 14.3 | 14.9   | 15.2          | 14.0           | 14.6              | 14.3 | 14.9 | 15.2 |
|   | 12H           | 14.3             | 14.9 | 14.7 | 15.2   | 15.5          | 14.3           | 14.9              | 14.7 | 15.3 | 15.6 |
| 4H  | 2H            | 12.2             | 12.9 | 12.5 | 13.1   | 13.4          | 12.2           | 12.9              | 12.5 | 13.2 | 13.5 |
|   | 3H            | 13.1             | 13.7 | 13.4 | 14.0   | 14.3          | 13.1           | 13.7              | 13.5 | 14.0 | 14.3 |
|   | 4H            | 13.7             | 14.2 | 14.1 | 14.6   | 14.9          | 13.7           | 14.3              | 14.1 | 14.6 | 15.0 |
|   | 6H            | 14.4             | 14.9 | 14.8 | 15.3   | 15.7          | 14.4           | 14.9              | 14.9 | 15.3 | 15.7 |
|   | 8H            | 14.8             | 15.3 | 15.3 | 15.7   | 16.1          | 14.9           | 15.3              | 15.3 | 15.7 | 16.1 |
|   | 12H           | 15.3             | 15.7 | 15.8 | 16.2   | 16.6          | 15.3           | 15.8              | 15.8 | 16.2 | 16.6 |
| 8H  | 4H            | 13.9             | 14.4 | 14.3 | 14.8   | 15.2          | 13.9           | 14.4              | 14.4 | 14.8 | 15.2 |
|   | 6H            | 14.9             | 15.2 | 15.3 | 15.7   | 16.1          | 14.9           | 15.3              | 15.4 | 15.7 | 16.2 |
|   | 8H            | 15.4             | 15.8 | 15.9 | 16.2   | 16.7          | 15.5           | 15.8              | 16.0 | 16.3 | 16.8 |
|   | 12H           | 16.1             | 16.4 | 16.7 | 16.9   | 17.4          | 16.2           | 16.4              | 16.7 | 16.9 | 17.5 |
| 12H   | 4H            | 13.9             | 14.4 | 14.4 | 14.8   | 15.2          | 14.0           | 14.4              | 14.4 | 14.8 | 15.2 |
|   | 6H            | 15.0             | 15.3 | 15.5 | 15.8   | 16.3          | 15.0           | 15.3              | 15.5 | 15.8 | 16.3 |
|   | 8H            | 15.7             | 15.9 | 16.2 | 16.4   | 17.0          | 15.7           | 15.9              | 16.2 | 16.4 | 17.0 |
| Variations with the observer position at spacings:                |               |                  |      |      |        |               |                |                   |      |      |      |
| S = 1.0H  | + 0.6 / - 0.6 |                  |      |      |        | + 0.6 / - 0.6 |                |                   |      |      |      |
| 1.5H  | + 1.2 / - 0.5 |                  |      |      |        | + 1.3 / - 0.5 |                |                   |      |      |      |
| 2.0H  | + 0.4 / - 0.2 |                  |      |      |        | + 0.4 / - 0.2 |                |                   |      |      |      |

CIE Pub.117 Corrected 3522 lm Total Lamp Luminous Flux.(8log(F/F0) = 4.4)

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZhangXiao  
Test Date:2016-07-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:6.610m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

|   |        |                   |
|---|--------|-------------------|
| Test:U:226.6V I:0.1790A P:38.60W PF:0.9470 Lamp Flux:3521.51x1 lm |        |                   |
| NAME:   | TYPE:  | WEIGHT:           |
| DIM.:   | SPEC.: | SERIAL No.:       |
| MFR.: Rayconn   | SUR.:  | PROTECTION ANGLE: |

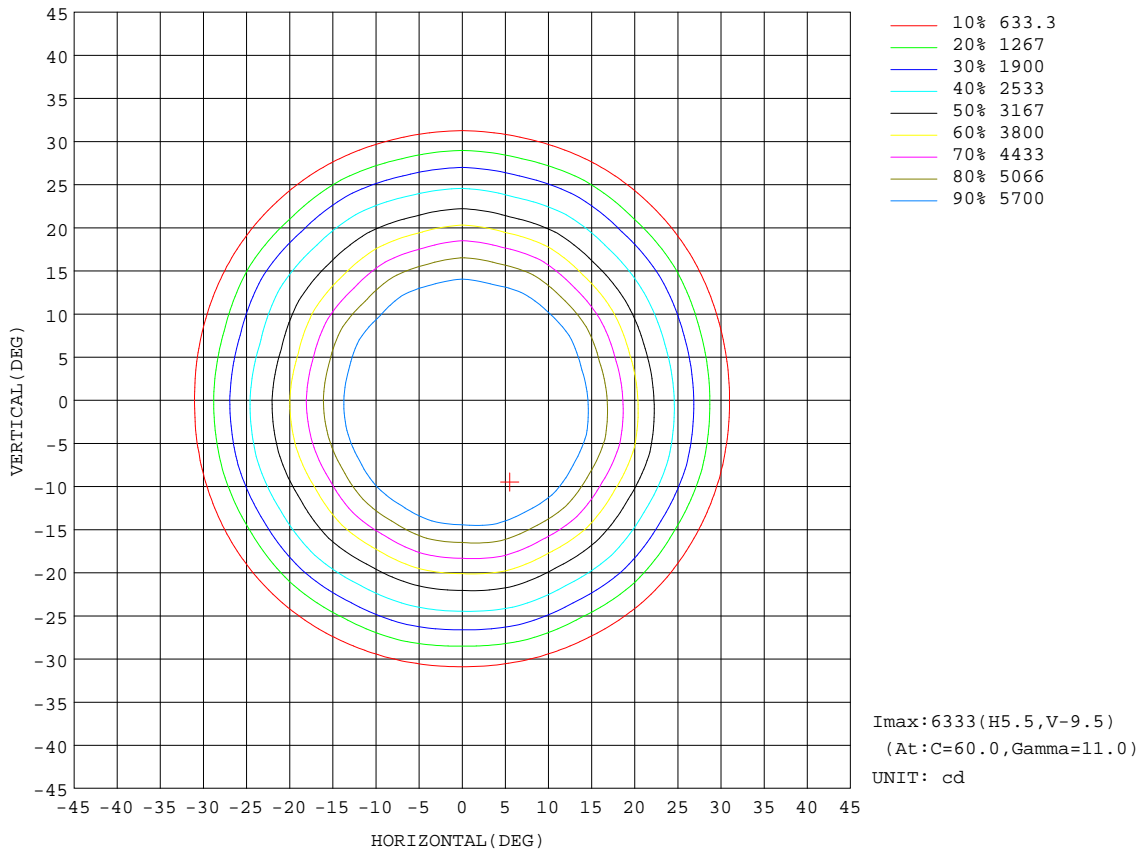
| REFLECTANCE                      |   |     |           |     |     |     |     |               |     |        |
|----------------------------------|---|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| Ceiling                          | 0.8   | 0.8 | 0.8       | 0.7 | 0.7 | 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) $k(RI) \times RCR = 5$ |     |           |     |     |     |     |               |     |        |
| $k = 0.60$                       | 88  | 82  | 78        | 87  | 81  | 78  | 86  | 81            | 78  | 74     |
| 0.80                             | 95  | 89  | 85        | 94  | 89  | 85  | 93  | 88            | 85  | 81     |
| 1.00                             | 99  | 93  | 90        | 98  | 93  | 89  | 96  | 92            | 89  | 85     |
| 1.25                             | 103   | 97  | 94        | 101 | 97  | 94  | 99  | 95            | 93  | 88     |
| 1.50                             | 105   | 101 | 97        | 104 | 100 | 97  | 101 | 98            | 95  | 90     |
| 2.00                             | 108   | 104 | 100       | 106 | 102 | 99  | 103 | 100           | 98  | 92     |
| 2.50                             | 109   | 106 | 103       | 108 | 104 | 102 | 104 | 101           | 99  | 93     |
| 3.00                             | 111   | 108 | 105       | 109 | 106 | 103 | 105 | 103           | 101 | 94     |
| 4.00                             | 113   | 110 | 108       | 111 | 108 | 106 | 107 | 105           | 103 | 95     |
| 5.00                             | 114   | 112 | 110       | 112 | 110 | 108 | 108 | 106           | 105 | 96     |
| 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:ZhangXiao  
Test Date:2016-07-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 $\gamma$  Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:6.610m [K=1.0000]  
Remarks:

ISOCANDELA DIAGRAM

|   |        |                   |
|---|--------|-------------------|
| Test:U:226.6V I:0.1790A P:38.60W PF:0.9470 Lamp Flux:3521.51x1 lm |        |                   |
| NAME:   | TYPE:  | WEIGHT:           |
| DIM.:   | SPEC.: | SERIAL No.:       |
| MFR.: Rayconn   | SUR.:  | PROTECTION ANGLE: |

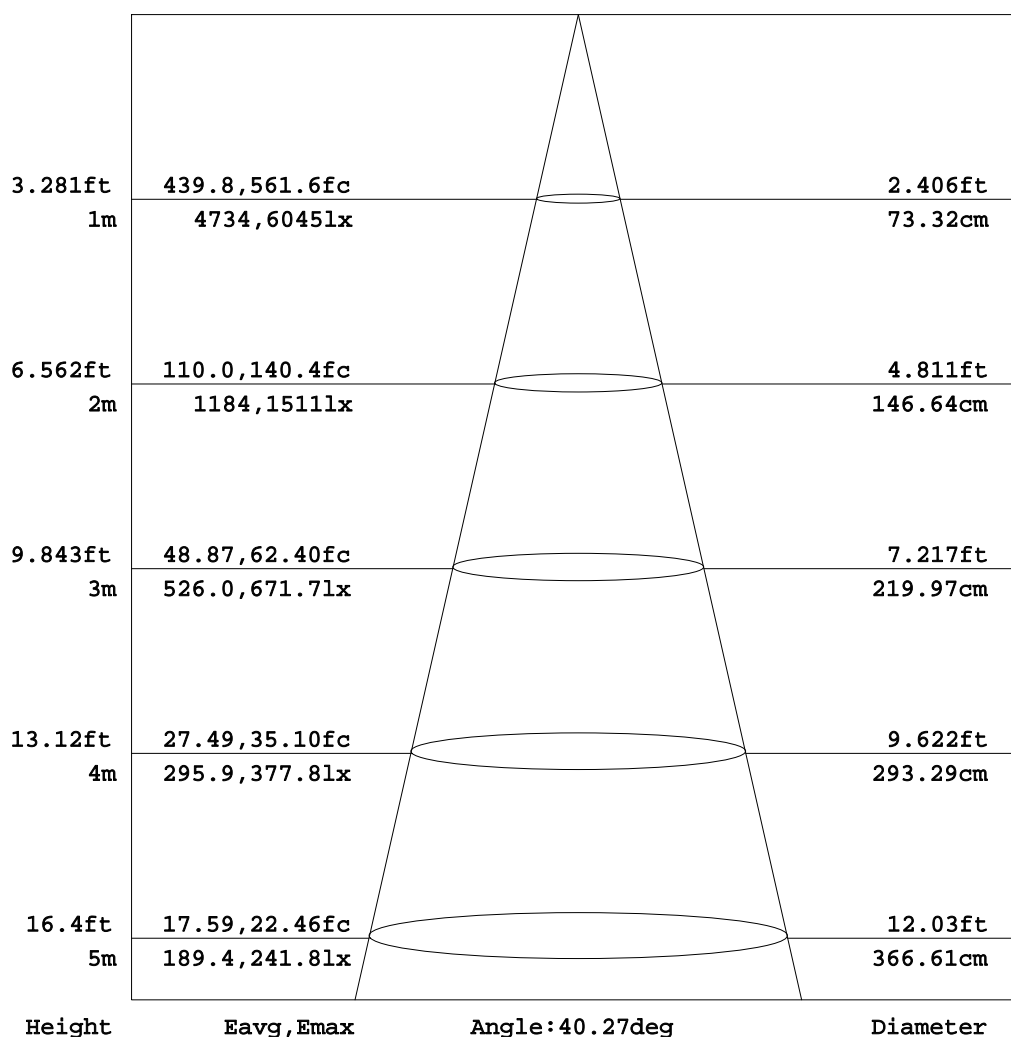


|                      |  |
|----------------------|--|
| C Range: 0 - 360DEG  | γ Range: 0 - 180DEG                              |
| C Interval: 15.0DEG  | γ Interval: 1.0DEG                               |
| Test Speed: HIGH     | Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265 |
| Temperature:25.3DEG  | Humidity:65.0%                                   |
| Operators:ZhangXiao  | Test Distance:6.610m [K=1.0000]                  |
| Test Date:2016-07-26 | Remarks:   |

### AAI Figure

|   |        |                   |
|---|--------|-------------------|
| Test:U:226.6V I:0.1790A P:38.60W PF:0.9470 Lamp Flux:3521.51x1 lm |        |                   |
| NAME:   | TYPE:  | WEIGHT:           |
| DIM.:   | SPEC.: | SERIAL No.:       |
| MFR.: Rayconn   | SUR.:  | PROTECTION ANGLE: |

Flux out:2192 lm



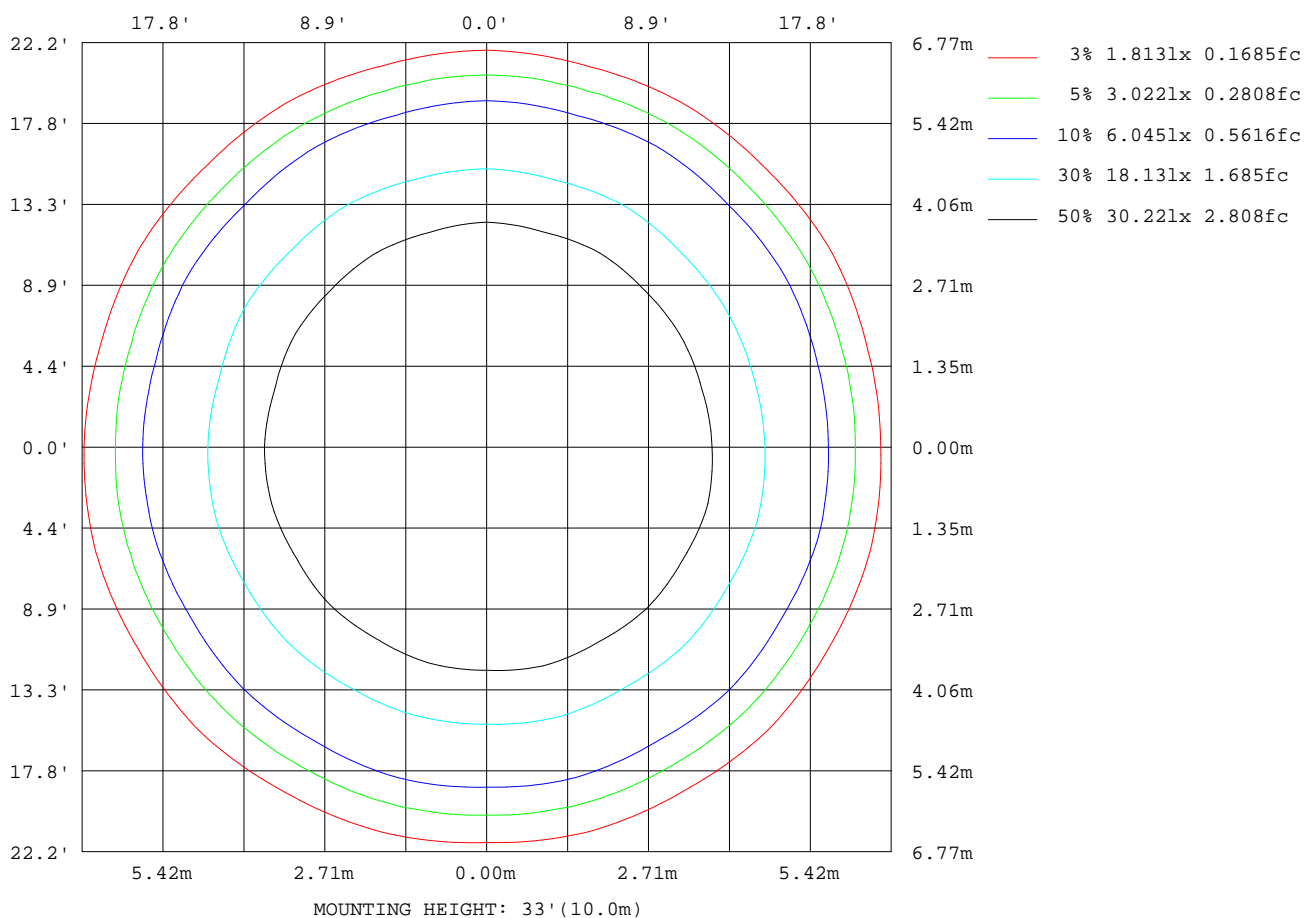
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZhangXiao  
Test Date:2016-07-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:6.610m [K=1.0000]  
Remarks:

# ISOLUX DIAGRAM

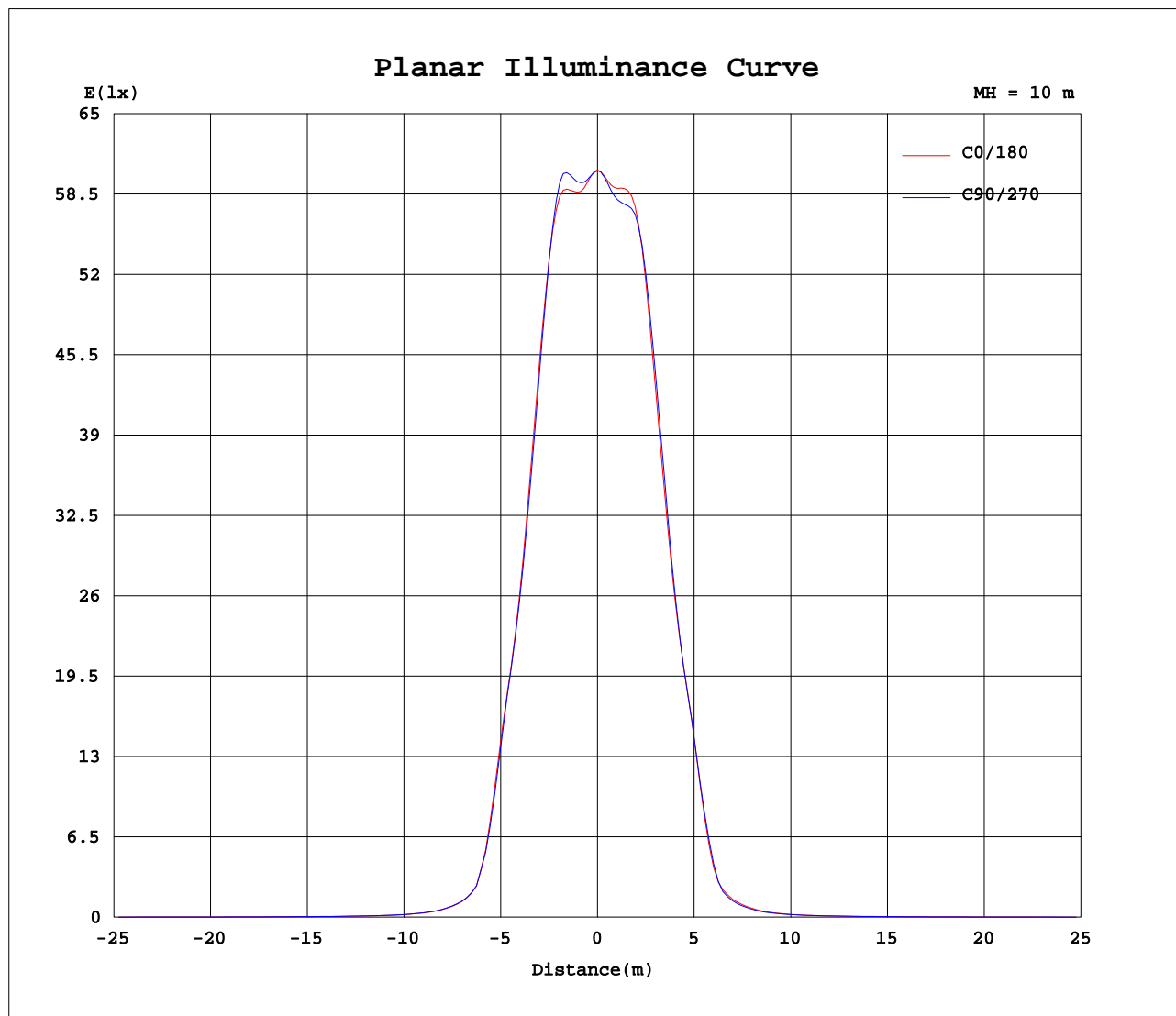
|   |        |                   |
|---|--------|-------------------|
| Test:U:226.6V I:0.1790A P:38.60W PF:0.9470 Lamp Flux:3521.51x1 lm |        |                   |
| NAME:   | TYPE:  | WEIGHT:           |
| DIM.:   | SPEC.: | SERIAL No.:       |
| MFR.: Rayconn   | SUR.:  | PROTECTION ANGLE: |



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: ZhangXiao  
Test Date: 2016-07-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity: 65.0%  
Test Distance: 6.610m [K=1.0000]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: ZhangXiao  
Test Date: 2016-07-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity: 65.0%  
Test Distance: 6.610m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

|   |  |  |  |  |  |  |  |  |  |        |  |  |  |  |                   |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|--------|--|--|--|--|-------------------|--|--|--|--|
| Test:U:226.6V I:0.1790A P:38.60W PF:0.9470 Lamp Flux:3521.51x1 lm |  |  |  |  |  |  |  |  |  |        |  |  |  |  |                   |  |  |  |  |
| NAME:   |  |  |  |  |  |  |  |  |  | TYPE:  |  |  |  |  | WEIGHT:           |  |  |  |  |
| DIM.:   |  |  |  |  |  |  |  |  |  | SPEC.: |  |  |  |  | SERIAL No.:       |  |  |  |  |
| MFR.: Rayconn   |  |  |  |  |  |  |  |  |  | SUR.:  |  |  |  |  | PROTECTION ANGLE: |  |  |  |  |

Table--1

UNIT: cd

| C(DEG)<br>γ (DEG) | 0    | 15   | 30   | 45   | 60   | 75   | 90   | 105  | 120  | 135  | 150  | 165  | 180  | 195  | 210  | 225  | 240  | 255  | 270  |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0                 | 6037 | 6037 | 6037 | 6037 | 6037 | 6037 | 6037 | 6037 | 6037 | 6037 | 6037 | 6037 | 6037 | 6037 | 6037 | 6037 | 6037 | 6037 | 6037 |
| 5                 | 5930 | 5941 | 5966 | 5986 | 6006 | 6004 | 6010 | 5999 | 5995 | 5992 | 5990 | 5972 | 5964 | 5949 | 5933 | 5923 | 5918 | 5916 | 5901 |
| 10                | 6149 | 6171 | 6243 | 6301 | 6325 | 6316 | 6297 | 6261 | 6245 | 6229 | 6189 | 6152 | 6103 | 6074 | 6047 | 6054 | 6054 | 6037 | 6003 |
| 15                | 5590 | 5677 | 5660 | 5729 | 5653 | 5658 | 5540 | 5544 | 5441 | 5442 | 5366 | 5394 | 5383 | 5354 | 5424 | 5358 | 5461 | 5420 | 5488 |
| 20                | 3927 | 4029 | 3956 | 3995 | 3895 | 3935 | 3838 | 3846 | 3759 | 3802 | 3732 | 3800 | 3792 | 3704 | 3802 | 3760 | 3842 | 3797 | 3907 |
| 25                | 2428 | 2481 | 2431 | 2471 | 2403 | 2455 | 2403 | 2421 | 2389 | 2445 | 2421 | 2473 | 2442 | 2380 | 2452 | 2409 | 2455 | 2401 | 2428 |
| 30                | 842  | 893  | 828  | 888  | 807  | 863  | 814  | 866  | 820  | 880  | 843  | 902  | 901  | 853  | 921  | 866  | 937  | 903  | 960  |
| 35                | 232  | 244  | 240  | 248  | 240  | 246  | 237  | 251  | 252  | 269  | 265  | 272  | 262  | 250  | 253  | 240  | 245  | 234  | 240  |
| 40                | 108  | 112  | 112  | 114  | 113  | 115  | 112  | 116  | 119  | 125  | 124  | 126  | 121  | 115  | 114  | 110  | 111  | 108  | 110  |
| 45                | 62.3 | 63.8 | 63.6 | 64.6 | 64.0 | 64.6 | 63.4 | 65.0 | 65.6 | 68.3 | 68.6 | 68.9 | 66.6 | 64.2 | 64.6 | 62.5 | 63.3 | 62.1 | 62.9 |
| 50                | 42.7 | 43.0 | 43.2 | 43.5 | 43.4 | 43.6 | 43.0 | 43.5 | 43.5 | 44.1 | 43.8 | 44.0 | 42.9 | 42.4 | 42.9 | 42.2 | 42.5 | 42.2 | 42.6 |
| 55                | 32.5 | 32.7 | 32.8 | 32.9 | 32.7 | 32.8 | 32.6 | 32.7 | 32.5 | 32.8 | 32.5 | 32.6 | 32.0 | 32.0 | 32.5 | 32.1 | 32.3 | 32.1 | 32.7 |
| 60                | 25.9 | 26.1 | 26.0 | 26.1 | 25.8 | 26.0 | 25.8 | 26.0 | 25.8 | 26.0 | 25.7 | 26.0 | 25.3 | 25.3 | 25.7 | 25.5 | 25.8 | 25.7 | 26.0 |
| 65                | 21.5 | 21.6 | 21.7 | 21.7 | 21.6 | 21.7 | 21.6 | 21.7 | 21.6 | 21.7 | 21.6 | 21.6 | 20.9 | 21.0 | 21.3 | 21.1 | 21.3 | 21.3 | 21.5 |
| 70                | 17.8 | 17.9 | 18.0 | 18.0 | 17.9 | 18.0 | 17.9 | 18.0 | 17.9 | 18.0 | 17.9 | 18.0 | 17.4 | 17.4 | 17.6 | 17.6 | 17.6 | 17.6 | 17.8 |
| 75                | 14.6 | 14.7 | 14.8 | 14.9 | 14.7 | 14.8 | 14.7 | 14.7 | 14.7 | 14.8 | 14.7 | 14.8 | 14.5 | 14.5 | 14.7 | 14.7 | 14.7 | 14.7 | 14.9 |
| 80                | 11.6 | 11.7 | 11.7 | 11.8 | 11.7 | 11.7 | 11.6 | 11.7 | 11.7 | 11.8 | 11.7 | 11.7 | 12.0 | 12.0 | 12.1 | 12.1 | 12.1 | 12.0 | 12.2 |
| 85                | 8.99 | 9.07 | 10.8 | 9.59 | 9.22 | 9.14 | 9.09 | 9.09 | 9.02 | 9.09 | 8.99 | 9.08 | 9.91 | 9.88 | 11.6 | 11.5 | 10.0 | 9.83 | 9.94 |
| 90                | 6.84 | 6.86 | 7.38 | 7.15 | 7.06 | 6.86 | 6.92 | 6.82 | 6.81 | 6.87 | 6.84 | 6.92 | 8.25 | 8.28 | 9.02 | 8.71 | 8.55 | 8.39 | 8.46 |
| 95                | 6.64 | 6.63 | 7.16 | 6.92 | 6.82 | 6.64 | 6.73 | 6.62 | 6.63 | 6.62 | 6.63 | 6.66 | 8.40 | 8.42 | 9.07 | 8.77 | 8.60 | 8.48 | 8.58 |
| 100               | 6.53 | 6.52 | 6.73 | 6.66 | 6.62 | 6.53 | 6.55 | 6.50 | 6.51 | 6.50 | 6.52 | 6.55 | 8.57 | 8.59 | 8.90 | 8.82 | 8.66 | 8.62 | 8.63 |
| 105               | 6.65 | 6.64 | 6.75 | 6.70 | 6.70 | 6.65 | 6.66 | 6.62 | 6.63 | 6.62 | 6.64 | 6.66 | 8.85 | 8.88 | 8.92 | 8.94 | 8.91 | 8.91 | 8.90 |
| 110               | 7.37 | 7.33 | 7.41 | 7.34 | 7.39 | 7.34 | 7.38 | 7.31 | 7.35 | 7.31 | 7.39 | 7.34 | 9.51 | 9.56 | 9.55 | 9.61 | 9.52 | 9.57 | 9.52 |
| 115               | 8.80 | 8.73 | 8.82 | 8.72 | 8.82 | 8.75 | 8.84 | 8.73 | 8.81 | 8.73 | 8.84 | 8.75 | 10.7 | 10.7 | 10.7 | 10.8 | 10.7 | 10.7 | 10.7 |
| 120               | 10.9 | 10.8 | 10.9 | 10.8 | 10.9 | 10.9 | 11.0 | 10.9 | 11.0 | 10.9 | 11.0 | 10.9 | 12.4 | 12.5 | 12.5 | 12.6 | 12.4 | 12.5 | 12.4 |
| 125               | 13.6 | 13.5 | 13.6 | 13.5 | 13.6 | 13.5 | 13.6 | 13.5 | 13.6 | 13.5 | 13.7 | 13.6 | 14.7 | 14.8 | 14.8 | 14.9 | 14.7 | 14.8 | 14.7 |
| 130               | 16.4 | 16.3 | 16.4 | 16.3 | 16.4 | 16.4 | 16.5 | 16.4 | 16.5 | 16.4 | 16.6 | 16.4 | 17.3 | 17.4 | 17.3 | 17.4 | 17.3 | 17.4 | 17.3 |
| 135               | 19.3 | 19.2 | 19.3 | 19.2 | 19.3 | 19.2 | 19.3 | 19.2 | 19.4 | 19.3 | 19.4 | 19.3 | 20.0 | 20.1 | 20.0 | 20.1 | 20.0 | 20.1 | 20.0 |
| 140               | 22.1 | 22.0 | 22.1 | 22.1 | 22.2 | 22.1 | 22.2 | 22.1 | 22.2 | 22.1 | 22.3 | 22.2 | 22.7 | 22.8 | 22.7 | 22.8 | 22.8 | 22.9 | 22.7 |
| 145               | 24.9 | 24.8 | 24.9 | 24.8 | 24.9 | 24.8 | 24.9 | 24.9 | 25.0 | 24.9 | 25.0 | 24.9 | 25.4 | 25.5 | 25.4 | 25.4 | 25.4 | 25.5 | 25.4 |
| 150               | 27.2 | 27.1 | 27.2 | 27.2 | 27.2 | 27.2 | 27.3 | 27.2 | 27.3 | 27.2 | 27.2 | 27.2 | 27.6 | 27.7 | 27.5 | 27.6 | 27.6 | 27.7 | 27.6 |
| 155               | 28.6 | 28.6 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 | 29.0 | 29.0 | 29.0 | 29.0 | 29.0 | 29.0 | 29.0 |
| 160               | 29.1 | 29.1 | 29.1 | 29.1 | 29.1 | 29.1 | 29.1 | 29.1 | 29.1 | 29.2 | 29.1 | 29.1 | 29.5 | 29.4 | 29.5 | 29.5 | 29.5 | 29.5 | 29.5 |
| 165               | 28.8 | 28.8 | 28.8 | 28.8 | 28.8 | 28.8 | 28.8 | 28.8 | 28.8 | 28.8 | 28.7 | 28.8 | 29.2 | 29.1 | 29.1 | 29.1 | 29.1 | 29.1 | 29.1 |
| 170               | 28.5 | 28.4 | 28.5 | 28.5 | 28.4 | 28.4 | 28.4 | 28.4 | 28.4 | 28.4 | 28.4 | 28.4 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 |
| 175               | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 | 28.9 | 28.9 | 28.9 | 28.9 | 28.8 | 28.8 | 28.8 |
| 180               | 29.3 | 29.3 | 29.3 | 29.3 | 29.3 | 29.3 | 29.3 | 29.3 | 29.2 | 29.3 | 29.3 | 29.3 | 29.3 | 29.3 | 29.3 | 29.3 | 29.3 | 29.3 | 29.3 |

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZhangXiao  
Test Date:2016-07-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:6.610m [K=1.0000]  
Remarks:

# LUMINOUS DISTRIBUTION INTENSITY DATA

|   |        |                   |
|---|--------|-------------------|
| Test:U:226.6V I:0.1790A P:38.60W PF:0.9470 Lamp Flux:3521.51x1 lm |        |                   |
| NAME:   | TYPE:  | WEIGHT:           |
| DIM.:   | SPEC.: | SERIAL No.:       |
| MFR.: Rayconn   | SUR.:  | PROTECTION ANGLE: |

Table--2

UNIT: cd

| C(DEG)<br>γ (DEG) | 285  | 300  | 315  | 330  | 345  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------|------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 0                 | 6037 | 6037 | 6037 | 6037 | 6037 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5                 | 5885 | 5887 | 5894 | 5894 | 5903 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10                | 6001 | 6020 | 6079 | 6101 | 6114 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15                | 5447 | 5535 | 5514 | 5580 | 5527 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20                | 3816 | 3908 | 3822 | 3873 | 3835 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 25                | 2368 | 2419 | 2353 | 2378 | 2376 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30                | 897  | 939  | 864  | 903  | 840  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 35                | 229  | 238  | 233  | 241  | 230  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40                | 106  | 110  | 108  | 111  | 107  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 45                | 61.5 | 62.8 | 61.9 | 63.9 | 62.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 50                | 42.2 | 42.8 | 42.7 | 43.5 | 42.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 55                | 32.4 | 32.7 | 32.6 | 33.1 | 32.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60                | 25.9 | 26.1 | 25.9 | 26.2 | 25.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 65                | 21.4 | 21.5 | 21.4 | 21.6 | 21.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 70                | 17.7 | 17.8 | 17.8 | 17.9 | 17.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 75                | 14.8 | 14.9 | 14.8 | 14.9 | 14.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 80                | 12.1 | 12.1 | 12.1 | 12.2 | 12.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 85                | 9.87 | 9.92 | 9.89 | 9.96 | 9.94 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 90                | 8.42 | 8.35 | 8.33 | 8.29 | 8.29 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 95                | 8.54 | 8.48 | 8.46 | 8.42 | 8.43 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100               | 8.64 | 8.61 | 8.61 | 8.59 | 8.60 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 105               | 8.93 | 8.88 | 8.91 | 8.87 | 8.91 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 110               | 9.59 | 9.54 | 9.58 | 9.52 | 9.57 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 115               | 10.8 | 10.7 | 10.7 | 10.7 | 10.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 120               | 12.5 | 12.4 | 12.5 | 12.4 | 12.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 125               | 14.8 | 14.7 | 14.7 | 14.6 | 14.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 130               | 17.3 | 17.2 | 17.3 | 17.2 | 17.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 135               | 20.1 | 19.9 | 20.0 | 19.9 | 20.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 140               | 22.8 | 22.7 | 22.8 | 22.7 | 22.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 145               | 25.4 | 25.3 | 25.4 | 25.3 | 25.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 150               | 27.6 | 27.5 | 27.6 | 27.6 | 27.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 155               | 29.0 | 29.0 | 29.0 | 29.0 | 29.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 160               | 29.5 | 29.5 | 29.5 | 29.4 | 29.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 165               | 29.2 | 29.2 | 29.2 | 29.2 | 29.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 170               | 28.7 | 28.7 | 28.7 | 28.7 | 28.8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 175               | 28.8 | 28.8 | 28.8 | 28.8 | 28.9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 180               | 29.3 | 29.3 | 29.3 | 29.3 | 29.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:ZhangXiao  
Test Date:2016-07-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.265  
Humidity:65.0%  
Test Distance:6.610m [K=1.0000]  
Remarks: