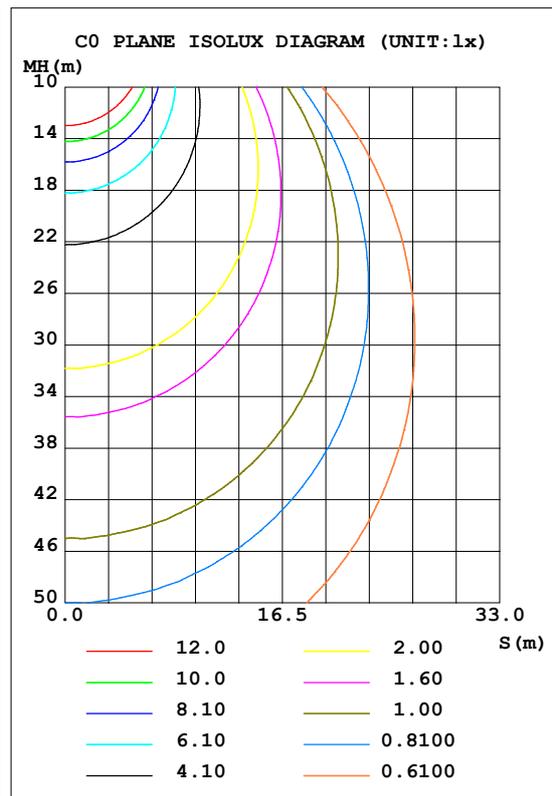
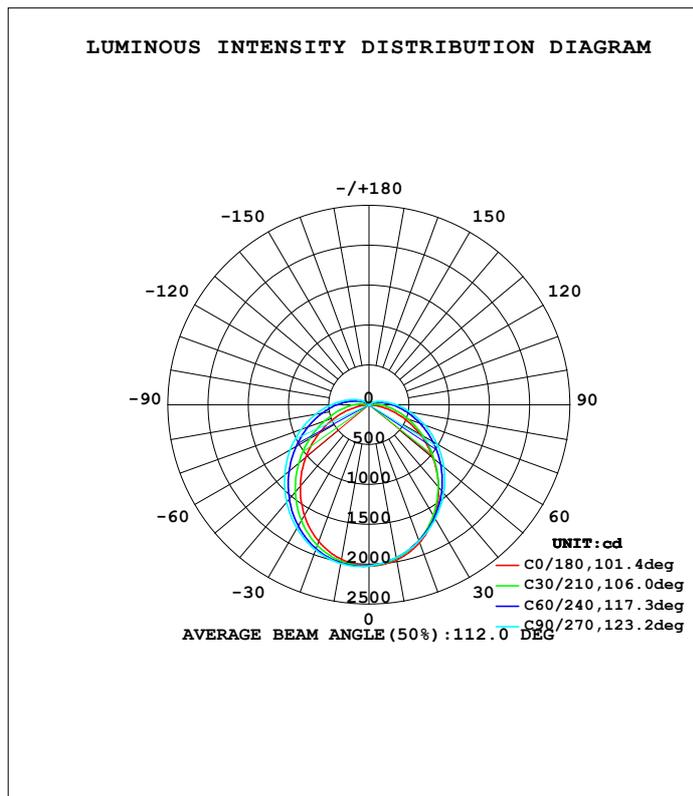


LUMINAIRE PHOTOMETRIC TEST REPORT

|                                                                |                 |                   |
|----------------------------------------------------------------|-----------------|-------------------|
| Test:U:230.1V I:0.2250A P:50.50W PF:0.9760 Lamp Flux:6501x1 lm |                 |                   |
| NAME: TP-15-50W                                                | TYPE:           | WEIGHT:           |
| SPEC.:                                                         | DIM.:           | SERIAL No.:       |
| MFR.:                                                          | SUR.:1.448*0.07 | PROTECTION ANGLE: |

| DATA OF LAMP      |           | PHOTOMETRIC DATA Eff: 128.73 lm/W |        |                     |           |
|-------------------|-----------|-----------------------------------|--------|---------------------|-----------|
| MODEL             | TP-15-50W | I <sub>max</sub> (cd)             | 2032   | S/MH (C0/180)       | 1.19      |
| NOMINAL POWER (W) | 50        | LOR (%)                           | 100.0  | S/MH (C90/270)      | 1.32      |
| RATED VOLTAGE (V) | 230       | TOTAL FLUX (lm)                   | 6501.0 | η UP, DN (C0-180)   | 2.5, 44.6 |
| NOMINAL FLUX (lm) | 6501      | CIE CLASS                         | DIRECT | η UP, DN (C180-360) | 3.8, 49.0 |
| LAMPS INSIDE      | 1         | η up (%)                          | 6.3    | CIBSE SHR NOM       | 1.25      |
| TEST VOLTAGE (V)  | 229.3     | η down (%)                        | 93.7   | CIBSE SHR MAX       | 1.35      |



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.7DEG  
 Operators: 华登  
 Test Date: 2020-08-24

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000H\_V1 SYSTEM V2.0.286  
 Humidity: 62.0%  
 Test Distance: 9.960m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

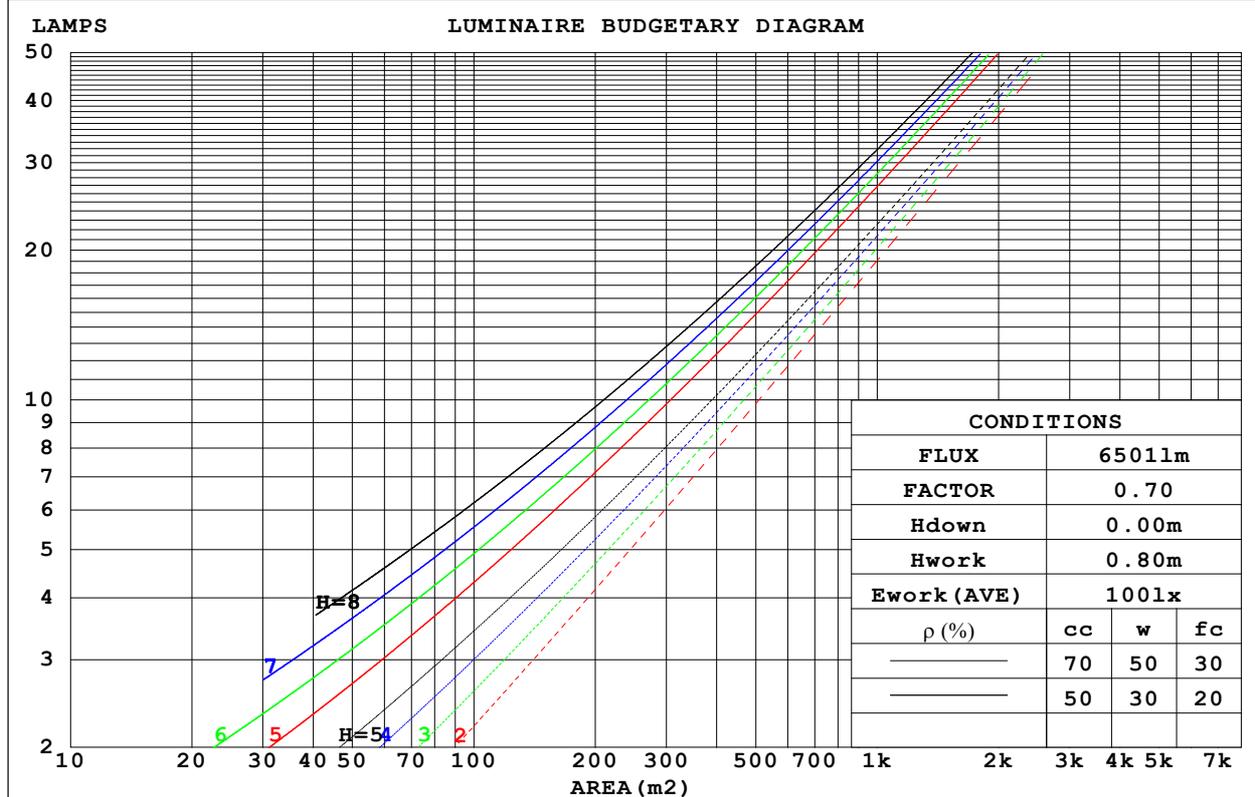
| $\gamma$ | C0                    | C45   | C90   | C135  | C180   | C225  | C270  | C315  | $\gamma$ | $\Phi$ zone | $\Phi$ total | %lum,lamp |
|----------|-----------------------|-------|-------|-------|--------|-------|-------|-------|----------|-------------|--------------|-----------|
| 10       | 1979                  | 1953  | 1949  | 1952  | 1968   | 2005  | 2020  | 2003  | 0- 10    | 190.9       | 190.9        | 2.94,2.94 |
| 20       | 1840                  | 1813  | 1820  | 1808  | 1826   | 1903  | 1941  | 1902  | 10- 20   | 543.4       | 734.2        | 11.3,11.3 |
| 30       | 1624                  | 1613  | 1650  | 1606  | 1604   | 1723  | 1791  | 1723  | 20- 30   | 815.0       | 1549         | 23.8,23.8 |
| 40       | 1348                  | 1372  | 1446  | 1367  | 1331   | 1487  | 1596  | 1488  | 30- 40   | 971.4       | 2521         | 38.8,38.8 |
| 50       | 1044                  | 1111  | 1217  | 1105  | 1025   | 1223  | 1370  | 1221  | 40- 50   | 1002        | 3523         | 54.2,54.2 |
| 60       | 729.8                 | 847.1 | 974.8 | 843.1 | 716.7  | 954.6 | 1132  | 951.7 | 50- 60   | 920.1       | 4443         | 68.3,68.3 |
| 70       | 426.1                 | 600.4 | 735.0 | 599.1 | 417.9  | 702.7 | 896.0 | 698.2 | 60- 70   | 754.7       | 5198         | 80,80     |
| 80       | 154.2                 | 390.4 | 515.5 | 391.7 | 150.4  | 483.7 | 671.0 | 478.2 | 70- 80   | 546.5       | 5744         | 88.4,88.4 |
| 90       | 0.9229                | 229.6 | 339.7 | 231.5 | 0.6814 | 308.9 | 471.4 | 302.7 | 80- 90   | 345.8       | 6090         | 93.7,93.7 |
| 100      | 0.8208                | 122.4 | 212.2 | 124.4 | 0.8324 | 174.7 | 311.0 | 177.7 | 90-100   | 202.1       | 6292         | 96.8,96.8 |
| 110      | 1.197                 | 58.49 | 124.4 | 58.99 | 1.170  | 95.05 | 188.7 | 96.06 | 100-110  | 111.5       | 6403         | 98.5,98.5 |
| 120      | 1.593                 | 23.73 | 66.33 | 21.56 | 1.600  | 43.69 | 110.5 | 47.88 | 110-120  | 56.46       | 6460         | 99.4,99.4 |
| 130      | 2.012                 | 7.804 | 29.76 | 6.964 | 2.061  | 17.97 | 60.25 | 20.45 | 120-130  | 25.20       | 6485         | 99.8,99.8 |
| 140      | 2.431                 | 3.022 | 10.11 | 2.951 | 2.394  | 6.843 | 26.99 | 7.530 | 130-140  | 9.705       | 6495         | 99.9,99.9 |
| 150      | 2.801                 | 3.002 | 3.402 | 2.930 | 2.721  | 3.278 | 9.099 | 3.156 | 140-150  | 3.420       | 6498         | 100,100   |
| 160      | 3.075                 | 3.254 | 3.298 | 3.177 | 2.995  | 3.012 | 3.351 | 2.951 | 150-160  | 1.523       | 6500         | 100,100   |
| 170      | 3.274                 | 3.400 | 3.530 | 3.333 | 3.226  | 3.270 | 3.358 | 3.193 | 160-170  | 0.9023      | 6501         | 100,100   |
| 180      | 3.333                 | 3.432 | 3.557 | 3.344 | 3.349  | 3.432 | 3.546 | 3.366 | 170-180  | 0.3192      | 6501         | 100,100   |
| DEG      | LUMINOUS INTENSITY:cd |       |       |       |        |       |       |       |          | UNIT:lm     |              |           |

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.7DEG  
 Operators: 华登  
 Test Date:2020-08-24

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000H\_V1 SYSTEM V2.0.286  
 Humidity:62.0%  
 Test Distance:9.960m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|             |                       |      |      |      |      |      |                                 |      |      |      |      |      |     |     |     |     |
|-------------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|-----|-----|-----|-----|
| $\rho_{cc}$ | 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         | 1.18                  | 1.18 | 1.18 | 1.14 | 1.14 | 1.14 | 1.08                            | 1.08 | 1.08 | 1.02 | 1.02 | 1.02 | .96 | .96 | .96 | .94 |
| 1.0         | 1.00                  | .95  | .91  | .97  | .93  | .89  | .92                             | .88  | .85  | .87  | .84  | .81  | .82 | .80 | .78 | .75 |
| 2.0         | .87                   | .79  | .73  | .84  | .77  | .72  | .79                             | .74  | .69  | .75  | .70  | .66  | .71 | .67 | .64 | .61 |
| 3.0         | .76                   | .67  | .60  | .74  | .66  | .59  | .70                             | .63  | .57  | .66  | .60  | .56  | .63 | .58 | .54 | .51 |
| 4.0         | .67                   | .58  | .51  | .65  | .57  | .50  | .62                             | .54  | .49  | .59  | .52  | .47  | .56 | .50 | .46 | .44 |
| 5.0         | .60                   | .50  | .44  | .58  | .49  | .43  | .55                             | .48  | .42  | .53  | .46  | .41  | .50 | .44 | .40 | .38 |
| 6.0         | .54                   | .44  | .38  | .52  | .44  | .37  | .50                             | .42  | .37  | .48  | .41  | .36  | .45 | .40 | .35 | .33 |
| 7.0         | .49                   | .40  | .33  | .47  | .39  | .33  | .45                             | .38  | .32  | .43  | .37  | .32  | .41 | .36 | .31 | .29 |
| 8.0         | .44                   | .36  | .30  | .43  | .35  | .29  | .41                             | .34  | .29  | .40  | .33  | .28  | .38 | .32 | .28 | .26 |
| 9.0         | .41                   | .32  | .27  | .40  | .32  | .26  | .38                             | .31  | .26  | .37  | .30  | .26  | .35 | .29 | .25 | .23 |
| 10.0        | .38                   | .30  | .24  | .37  | .29  | .24  | .35                             | .28  | .24  | .34  | .28  | .23  | .33 | .27 | .23 | .21 |



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.7DEG  
 Operators: 华登  
 Test Date: 2020-08-24

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000H\_V1 SYSTEM V2.0.286  
 Humidity: 62.0%  
 Test Distance: 9.960m [K=1.0000]  
 Remarks:

WEC AND CCEC

| $\rho_{cc}$ | 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 |      |      |      |      |      | Wall Exitance Coefficients(WEC) |      |      |      |      |      |      |      |      |   |
| 0.0         |                       |      |      |      |      |      |                                 |      |      |      |      |      |      |      |      |   |
| 1.0         | .352                  | .200 | .063 | .343 | .196 | .062 | .326                            | .187 | .060 | .310 | .179 | .057 | .296 | .172 | .055 |   |
| 2.0         | .314                  | .172 | .053 | .306 | .169 | .052 | .291                            | .162 | .050 | .277 | .155 | .049 | .264 | .149 | .047 |   |
| 3.0         | .284                  | .151 | .045 | .276 | .148 | .045 | .263                            | .142 | .043 | .250 | .137 | .042 | .239 | .132 | .041 |   |
| 4.0         | .258                  | .134 | .039 | .252 | .132 | .039 | .239                            | .127 | .038 | .228 | .122 | .037 | .218 | .118 | .036 |   |
| 5.0         | .236                  | .120 | .035 | .231 | .118 | .034 | .220                            | .114 | .034 | .209 | .110 | .033 | .200 | .107 | .032 |   |
| 6.0         | .218                  | .109 | .031 | .212 | .107 | .031 | .203                            | .104 | .030 | .193 | .101 | .030 | .185 | .097 | .029 |   |
| 7.0         | .202                  | .100 | .028 | .197 | .098 | .028 | .188                            | .095 | .027 | .180 | .092 | .027 | .172 | .089 | .026 |   |
| 8.0         | .188                  | .092 | .026 | .183 | .090 | .026 | .175                            | .088 | .025 | .168 | .085 | .025 | .161 | .082 | .024 |   |
| 9.0         | .175                  | .085 | .024 | .172 | .084 | .023 | .164                            | .081 | .023 | .157 | .079 | .023 | .151 | .077 | .022 |   |
| 10.0        | .165                  | .079 | .022 | .161 | .078 | .022 | .154                            | .076 | .021 | .148 | .073 | .021 | .142 | .071 | .020 |   |

| $\rho_{cc}$ | 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 |      |      |      |      |      | Ceiling Cavity Exitance Coefficients(CCEC) |      |      |      |      |      |      |      |      |   |
| 0.0         | .239                  | .239 | .239 | .204 | .204 | .204 | .139                                       | .139 | .139 | .080 | .080 | .080 | .026 | .026 | .026 |   |
| 1.0         | .232                  | .204 | .180 | .198 | .175 | .155 | .136                                       | .121 | .107 | .078 | .070 | .062 | .025 | .022 | .020 |   |
| 2.0         | .224                  | .181 | .144 | .192 | .156 | .125 | .132                                       | .108 | .087 | .076 | .063 | .051 | .024 | .020 | .017 |   |
| 3.0         | .216                  | .164 | .122 | .185 | .141 | .105 | .127                                       | .098 | .074 | .074 | .057 | .044 | .024 | .019 | .014 |   |
| 4.0         | .208                  | .151 | .106 | .179 | .130 | .092 | .123                                       | .091 | .065 | .071 | .053 | .039 | .023 | .017 | .013 |   |
| 5.0         | .201                  | .140 | .096 | .172 | .121 | .083 | .119                                       | .085 | .059 | .069 | .050 | .035 | .022 | .016 | .012 |   |
| 6.0         | .193                  | .132 | .088 | .166 | .114 | .077 | .115                                       | .080 | .054 | .067 | .047 | .032 | .021 | .015 | .011 |   |
| 7.0         | .186                  | .125 | .083 | .160 | .109 | .072 | .111                                       | .076 | .051 | .064 | .045 | .030 | .021 | .015 | .010 |   |
| 8.0         | .180                  | .120 | .078 | .155 | .104 | .068 | .107                                       | .073 | .048 | .062 | .043 | .029 | .020 | .014 | .010 |   |
| 9.0         | .173                  | .115 | .075 | .149 | .100 | .065 | .104                                       | .070 | .046 | .060 | .041 | .028 | .020 | .014 | .009 |   |
| 10.0        | .168                  | .110 | .072 | .145 | .096 | .063 | .100                                       | .068 | .045 | .058 | .040 | .027 | .019 | .013 | .009 |   |

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.7DEG  
 Operators: 华登  
 Test Date:2020-08-24

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000H\_V1 SYSTEM V2.0.286  
 Humidity:62.0%  
 Test Distance:9.960m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

|                                                    |                  |      |      |      |      |                |      |      |      |      |
|----------------------------------------------------|------------------|------|------|------|------|----------------|------|------|------|------|
| ceiling/cavity                                     | 0.7              | 0.7  | 0.5  | 0.5  | 0.3  | 0.7            | 0.7  | 0.5  | 0.5  | 0.3  |
| walls                                              | 0.5              | 0.3  | 0.5  | 0.3  | 0.3  | 0.5            | 0.3  | 0.5  | 0.3  | 0.3  |
| working plane                                      | 0.2              | 0.2  | 0.2  | 0.2  | 0.2  | 0.2            | 0.2  | 0.2  | 0.2  | 0.2  |
| Room dimensions                                    | Viewed crosswise |      |      |      |      | Viewed endwise |      |      |      |      |
| x = 2H y = 2H                                      | 21.4             | 22.9 | 21.8 | 23.2 | 23.5 | 22.7           | 24.1 | 23.0 | 24.5 | 24.8 |
| 3H                                                 | 22.7             | 24.1 | 23.1 | 24.4 | 24.8 | 24.8           | 26.1 | 25.1 | 26.5 | 26.8 |
| 4H                                                 | 23.2             | 24.5 | 23.6 | 24.9 | 25.3 | 25.8           | 27.1 | 26.2 | 27.5 | 27.9 |
| 6H                                                 | 23.5             | 24.8 | 24.0 | 25.1 | 25.6 | 27.0           | 28.2 | 27.4 | 28.6 | 29.0 |
| 8H                                                 | 23.6             | 24.8 | 24.0 | 25.2 | 25.6 | 27.6           | 28.7 | 28.0 | 29.1 | 29.6 |
| 12H                                                | 23.6             | 24.8 | 24.1 | 25.2 | 25.6 | 28.2           | 29.4 | 28.7 | 29.8 | 30.2 |
| 4H 2H                                              | 22.2             | 23.5 | 22.6 | 23.9 | 24.3 | 23.2           | 24.5 | 23.6 | 24.9 | 25.2 |
| 3H                                                 | 23.8             | 24.9 | 24.2 | 25.3 | 25.7 | 25.5           | 26.6 | 26.0 | 27.1 | 27.5 |
| 4H                                                 | 24.4             | 25.5 | 24.9 | 25.9 | 26.4 | 26.8           | 27.8 | 27.2 | 28.3 | 28.7 |
| 6H                                                 | 24.9             | 25.8 | 25.4 | 26.3 | 26.8 | 28.1           | 29.1 | 28.6 | 29.5 | 30.0 |
| 8H                                                 | 25.0             | 25.9 | 25.5 | 26.4 | 26.9 | 28.9           | 29.7 | 29.4 | 30.2 | 30.7 |
| 12H                                                | 25.1             | 25.9 | 25.6 | 26.4 | 26.9 | 29.7           | 30.5 | 30.2 | 31.0 | 31.5 |
| 8H 4H                                              | 25.1             | 25.9 | 25.6 | 26.4 | 27.0 | 27.1           | 27.9 | 27.6 | 28.4 | 28.9 |
| 6H                                                 | 25.8             | 26.6 | 26.4 | 27.1 | 27.6 | 28.7           | 29.4 | 29.2 | 29.9 | 30.5 |
| 8H                                                 | 26.1             | 26.8 | 26.7 | 27.3 | 27.9 | 29.6           | 30.3 | 30.2 | 30.8 | 31.4 |
| 12H                                                | 26.3             | 26.9 | 26.9 | 27.5 | 28.1 | 30.7           | 31.3 | 31.3 | 31.8 | 32.4 |
| 12H 4H                                             | 25.3             | 26.1 | 25.8 | 26.6 | 27.1 | 27.1           | 27.9 | 27.6 | 28.4 | 28.9 |
| 6H                                                 | 26.2             | 26.8 | 26.7 | 27.4 | 28.0 | 28.8           | 29.4 | 29.3 | 30.0 | 30.6 |
| 8H                                                 | 26.6             | 27.2 | 27.2 | 27.7 | 28.3 | 29.8           | 30.4 | 30.4 | 30.9 | 31.6 |
| Variations with the observer position at spacings: |                  |      |      |      |      |                |      |      |      |      |
| S = 1.0H                                           | + 0.1 / - 0.2    |      |      |      |      | + 0.1 / - 0.1  |      |      |      |      |
| 1.5H                                               | + 0.1 / - 0.2    |      |      |      |      | + 0.2 / - 0.3  |      |      |      |      |
| 2.0H                                               | + 0.1 / - 0.2    |      |      |      |      | + 0.2 / - 0.3  |      |      |      |      |

CIE Pub.117 Corrected 6501 lm Total Lamp Luminous Flux. (8log(F/F0) = 6.5)

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.7DEG  
 Operators: 华登  
 Test Date: 2020-08-24

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000H\_V1 SYSTEM V2.0.286  
 Humidity: 62.0%  
 Test Distance: 9.960m [K=1.0000]  
 Remarks:

UTILIZATION FACTORS TABLE

| 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) $k(RI) \times RCR = 5$ |     |           |     |     |     |               |     |     |        |
| $k = 0.60$                       | 54                                                   | 42  | 35        | 53  | 42  | 35  | 52            | 41  | 35  | 28     |
| 0.80                             | 64                                                   | 51  | 44        | 62  | 51  | 43  | 60            | 50  | 43  | 36     |
| 1.00                             | 71                                                   | 60  | 52        | 70  | 59  | 51  | 67            | 60  | 51  | 43     |
| 1.25                             | 78                                                   | 67  | 59        | 77  | 66  | 59  | 73            | 64  | 58  | 50     |
| 1.50                             | 83                                                   | 72  | 65        | 81  | 71  | 64  | 78            | 69  | 63  | 54     |
| 2.00                             | 90                                                   | 81  | 73        | 88  | 79  | 72  | 84            | 76  | 70  | 61     |
| 2.50                             | 94                                                   | 85  | 78        | 92  | 84  | 77  | 87            | 80  | 75  | 65     |
| 3.00                             | 98                                                   | 90  | 83        | 95  | 88  | 82  | 90            | 84  | 79  | 69     |
| 4.00                             | 102                                                  | 95  | 90        | 99  | 93  | 88  | 94            | 89  | 85  | 74     |
| 5.00                             | 105                                                  | 99  | 94        | 102 | 97  | 92  | 96            | 92  | 88  | 77     |
| 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: 25.7DEG  
 Operators: 华登  
 Test Date: 2020-08-24

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000H\_V1 SYSTEM V2.0.286  
 Humidity: 62.0%  
 Test Distance: 9.960m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

Conical surface Flux(90deg):

3025.4 lm

%lum = 46.5%

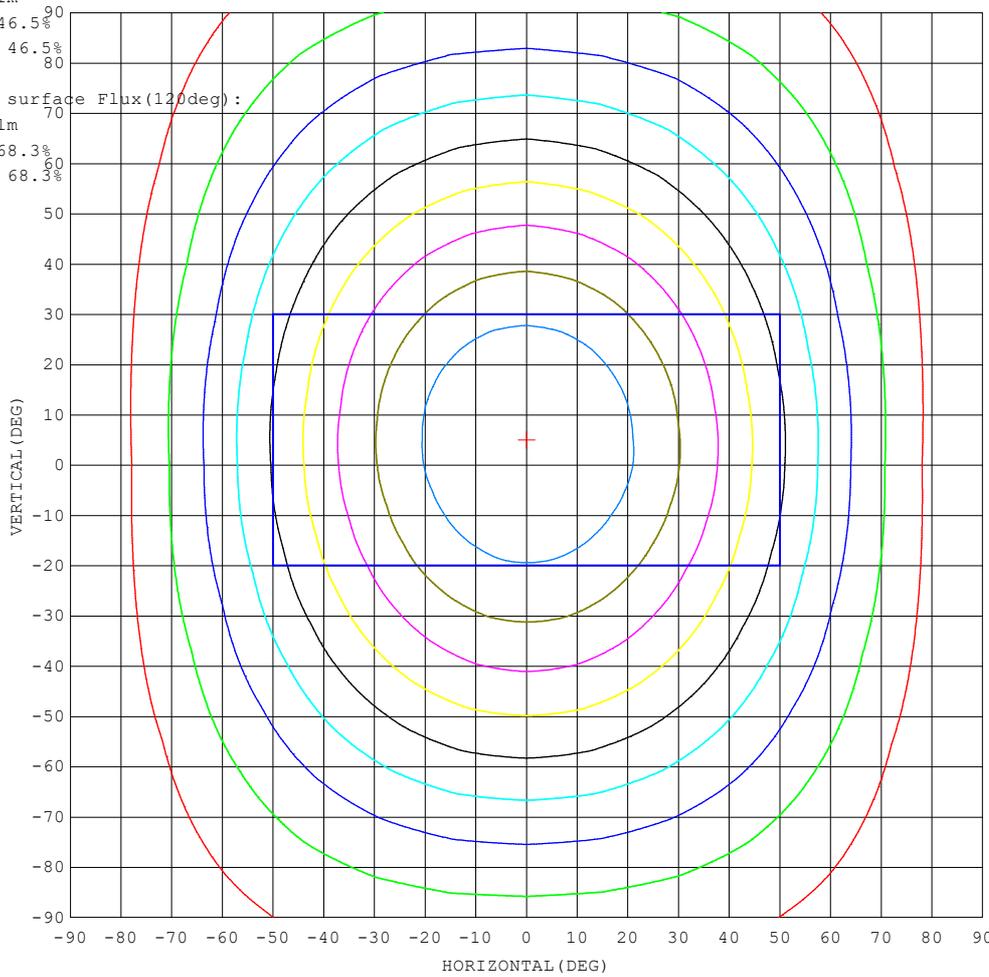
%lamp = 46.5%

Conical surface Flux(120deg):

4442.9 lm

%lum = 68.3%

%lamp = 68.3%



- 10% 202.9
- 20% 405.8
- 30% 608.7
- 40% 811.7
- 50% 1015
- 60% 1217
- 70% 1420
- 80% 1623
- 90% 1826

MAX = 2029.2  
 MIN = 922.10  
 AVG = 1604.2  
 AVG/MAX = 0.79  
 MIN/MAX = 0.45

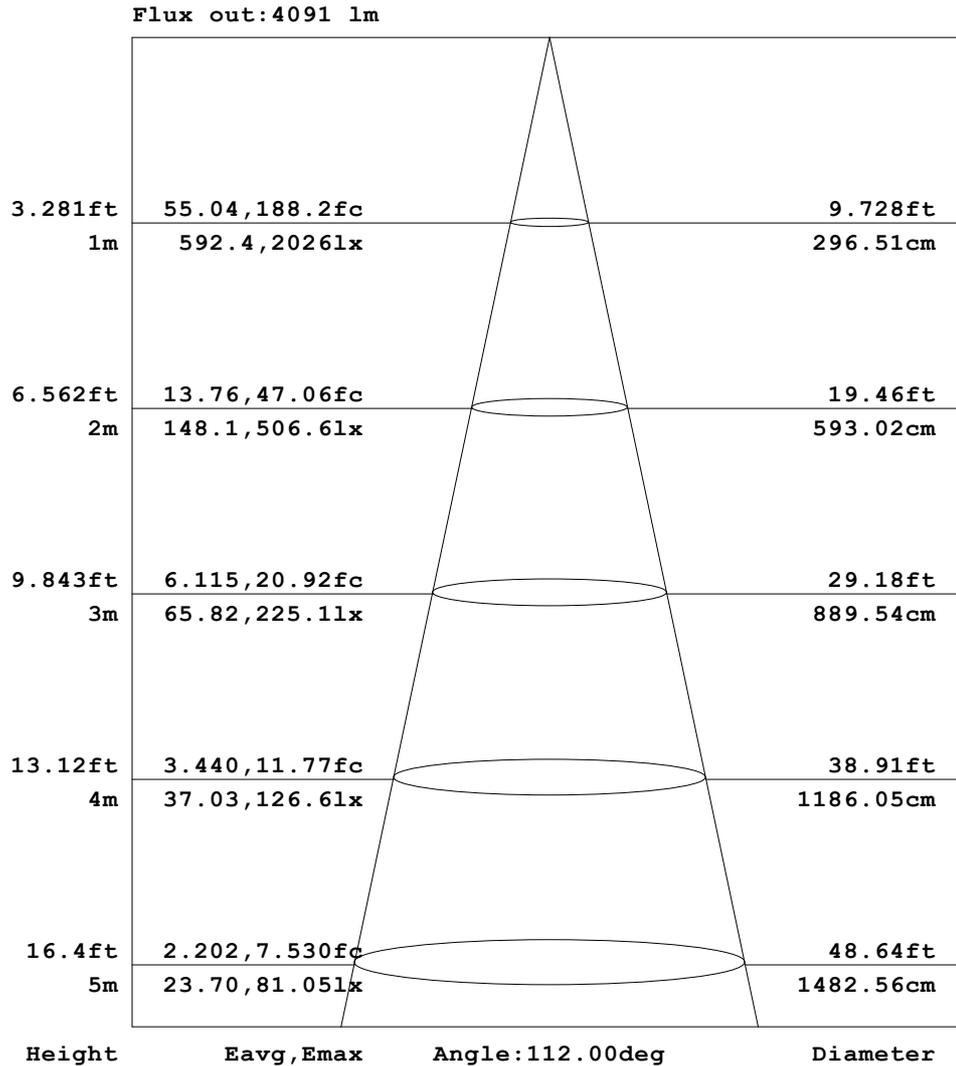
I<sub>max</sub>:2029 (H0.0,V5.0)  
 (At:C=270.0,Gamma=5.0)

UNIT: cd

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.7DEG  
 Operators: 华登  
 Test Date:2020-08-24

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000H\_V1 SYSTEM V2.0.286  
 Humidity:62.0%  
 Test Distance:9.960m [K=1.0000]  
 Remarks:

AAI Figure

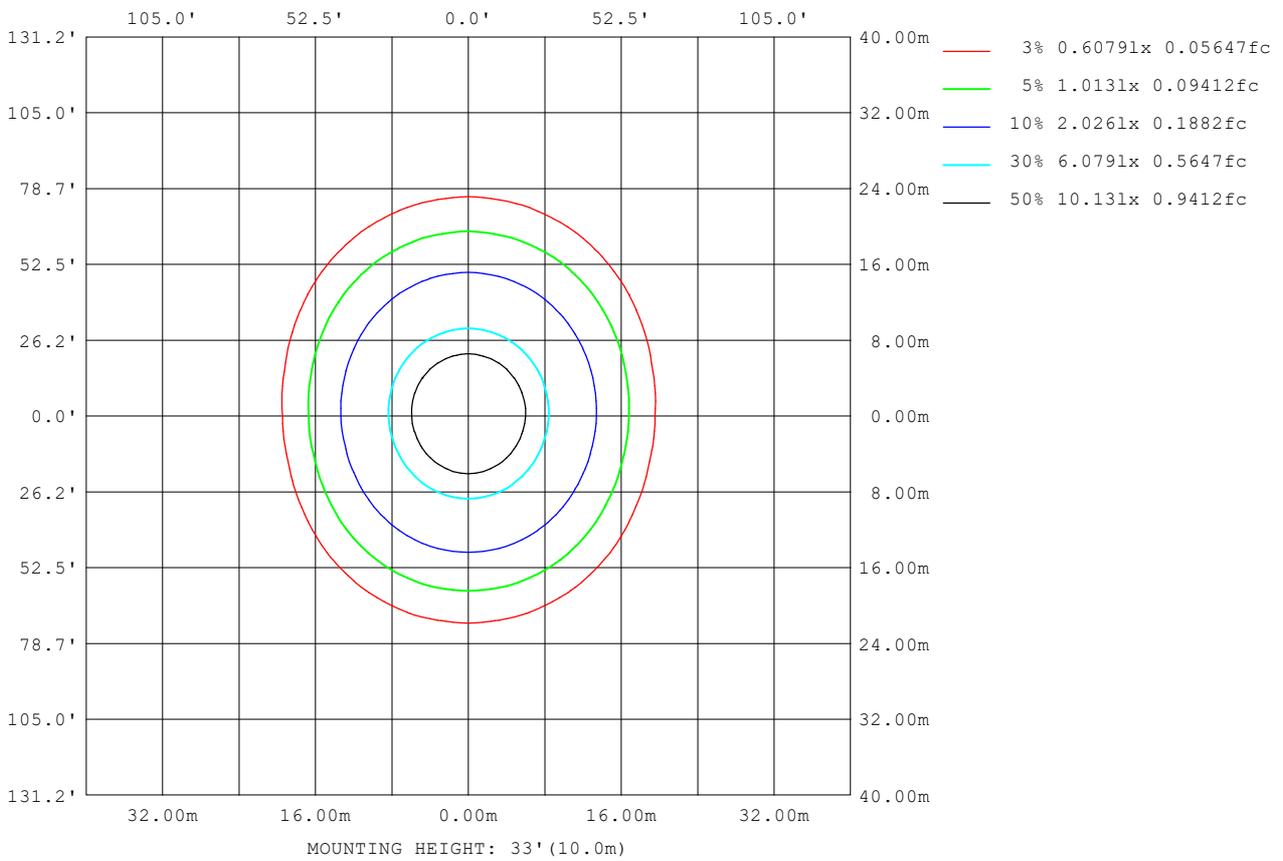


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.7DEG  
 Operators: 华登  
 Test Date: 2020-08-24

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000H\_V1 SYSTEM V2.0.286  
 Humidity: 62.0%  
 Test Distance: 9.960m [K=1.0000]  
 Remarks:

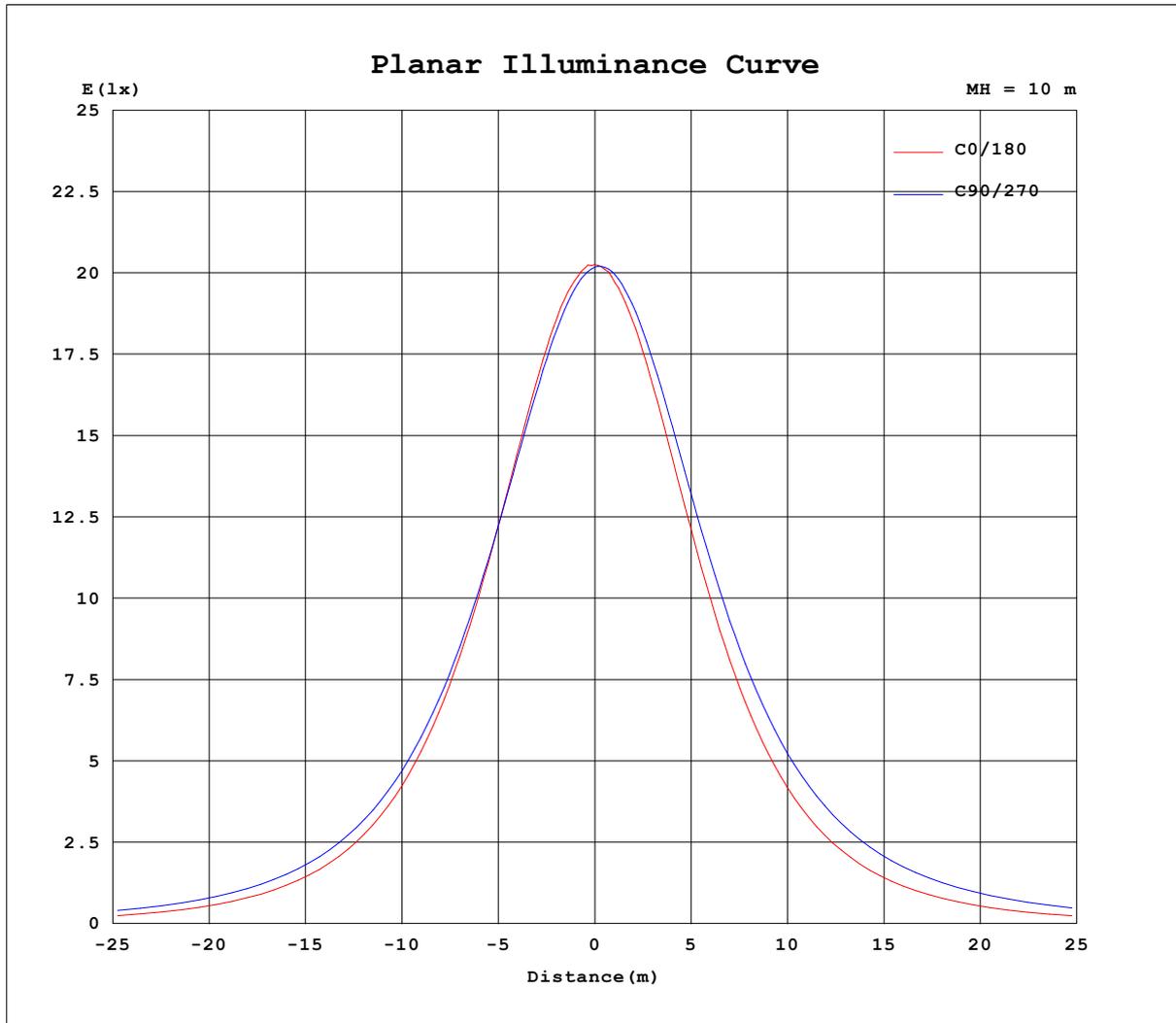
ISOLUX DIAGRAM



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.7DEG  
 Operators: 华登  
 Test Date: 2020-08-24

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000H\_V1 SYSTEM V2.0.286  
 Humidity: 62.0%  
 Test Distance: 9.960m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.7DEG  
 Operators: 华登  
 Test Date: 2020-08-24

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000H\_V1 SYSTEM V2.0.286  
 Humidity: 62.0%  
 Test Distance: 9.960m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

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                  | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 |
| 5                  | 2008 | 2005 | 2000 | 1997 | 1995 | 1993 | 1993 | 1993 | 1993 | 1996 | 1999 | 2003 | 2007 | 2010 | 2017 | 2023 | 2027 | 2029 | 2032 |
| 10                 | 1979 | 1967 | 1958 | 1953 | 1950 | 1949 | 1949 | 1949 | 1951 | 1952 | 1955 | 1961 | 1968 | 1977 | 1993 | 2005 | 2013 | 2018 | 2020 |
| 15                 | 1919 | 1906 | 1898 | 1892 | 1889 | 1890 | 1892 | 1890 | 1889 | 1890 | 1890 | 1898 | 1908 | 1924 | 1945 | 1963 | 1977 | 1986 | 1990 |
| 20                 | 1840 | 1824 | 1814 | 1813 | 1814 | 1818 | 1820 | 1819 | 1813 | 1808 | 1807 | 1815 | 1826 | 1848 | 1878 | 1903 | 1923 | 1935 | 1941 |
| 25                 | 1741 | 1724 | 1715 | 1719 | 1728 | 1737 | 1740 | 1736 | 1726 | 1715 | 1707 | 1710 | 1723 | 1749 | 1787 | 1821 | 1848 | 1866 | 1874 |
| 30                 | 1624 | 1605 | 1600 | 1613 | 1630 | 1646 | 1650 | 1643 | 1628 | 1606 | 1592 | 1590 | 1604 | 1636 | 1680 | 1723 | 1760 | 1782 | 1791 |
| 35                 | 1492 | 1473 | 1477 | 1497 | 1523 | 1545 | 1552 | 1544 | 1520 | 1490 | 1464 | 1460 | 1473 | 1507 | 1560 | 1609 | 1656 | 1685 | 1698 |
| 40                 | 1348 | 1334 | 1342 | 1372 | 1409 | 1438 | 1446 | 1436 | 1406 | 1367 | 1331 | 1319 | 1331 | 1368 | 1426 | 1487 | 1542 | 1580 | 1596 |
| 45                 | 1198 | 1184 | 1201 | 1243 | 1289 | 1323 | 1333 | 1322 | 1285 | 1237 | 1191 | 1169 | 1183 | 1220 | 1286 | 1356 | 1423 | 1466 | 1484 |
| 50                 | 1044 | 1033 | 1059 | 1111 | 1165 | 1205 | 1217 | 1204 | 1163 | 1105 | 1048 | 1019 | 1025 | 1070 | 1140 | 1223 | 1298 | 1349 | 1370 |
| 55                 | 886  | 880  | 914  | 977  | 1039 | 1082 | 1097 | 1084 | 1037 | 973  | 906  | 868  | 870  | 915  | 994  | 1087 | 1172 | 1229 | 1251 |
| 60                 | 730  | 729  | 775  | 847  | 914  | 960  | 975  | 961  | 913  | 843  | 766  | 718  | 717  | 763  | 852  | 955  | 1047 | 1109 | 1132 |
| 65                 | 576  | 583  | 640  | 720  | 791  | 838  | 854  | 840  | 791  | 718  | 633  | 573  | 567  | 615  | 713  | 825  | 924  | 990  | 1013 |
| 70                 | 426  | 443  | 514  | 600  | 674  | 719  | 735  | 722  | 674  | 599  | 509  | 436  | 418  | 473  | 584  | 703  | 805  | 872  | 896  |
| 75                 | 283  | 315  | 399  | 490  | 563  | 606  | 620  | 608  | 564  | 490  | 394  | 307  | 277  | 342  | 464  | 588  | 692  | 758  | 781  |
| 80                 | 154  | 202  | 298  | 390  | 461  | 501  | 515  | 504  | 463  | 392  | 295  | 196  | 150  | 227  | 357  | 484  | 585  | 649  | 671  |
| 85                 | 49.9 | 114  | 214  | 302  | 370  | 408  | 421  | 412  | 373  | 304  | 211  | 109  | 48.9 | 133  | 265  | 390  | 488  | 547  | 567  |
| 90                 | 0.92 | 56.5 | 146  | 230  | 292  | 327  | 340  | 330  | 295  | 232  | 144  | 52.6 | 0.68 | 70.8 | 192  | 309  | 399  | 453  | 471  |
| 95                 | 0.70 | 25.1 | 96.3 | 170  | 226  | 258  | 270  | 260  | 229  | 172  | 95.2 | 22.8 | 0.68 | 35.8 | 135  | 240  | 322  | 370  | 386  |
| 100                | 0.82 | 10.3 | 61.2 | 122  | 172  | 201  | 212  | 203  | 175  | 124  | 58.9 | 9.43 | 0.83 | 18.4 | 90.2 | 175  | 254  | 298  | 311  |
| 105                | 1.01 | 4.19 | 37.2 | 86.0 | 128  | 154  | 163  | 156  | 130  | 86.3 | 36.4 | 3.87 | 0.99 | 9.76 | 59.6 | 131  | 193  | 230  | 248  |
| 110                | 1.20 | 2.01 | 21.6 | 58.5 | 93.3 | 116  | 124  | 118  | 95.2 | 59.0 | 20.8 | 1.86 | 1.17 | 5.15 | 40.7 | 95.0 | 149  | 182  | 189  |
| 115                | 1.40 | 1.57 | 11.9 | 38.2 | 66.0 | 85.2 | 92.3 | 86.7 | 66.5 | 37.6 | 10.9 | 1.47 | 1.39 | 2.97 | 24.6 | 68.2 | 110  | 138  | 149  |
| 120                | 1.59 | 1.73 | 6.39 | 23.7 | 44.9 | 60.5 | 66.3 | 61.6 | 45.4 | 21.6 | 5.81 | 1.64 | 1.60 | 2.16 | 15.2 | 43.7 | 80.6 | 103  | 111  |
| 125                | 1.80 | 1.91 | 3.55 | 14.0 | 29.0 | 41.0 | 45.7 | 42.0 | 29.2 | 12.3 | 3.36 | 1.84 | 1.84 | 1.94 | 9.33 | 28.0 | 59.4 | 77.2 | 79.4 |
| 130                | 2.01 | 2.11 | 2.53 | 7.80 | 17.6 | 26.2 | 29.8 | 27.0 | 15.7 | 6.96 | 2.44 | 2.05 | 2.06 | 2.05 | 5.81 | 18.0 | 36.0 | 55.6 | 60.2 |
| 135                | 2.21 | 2.32 | 2.45 | 4.38 | 9.97 | 15.6 | 18.1 | 16.2 | 8.74 | 4.12 | 2.32 | 2.27 | 2.25 | 2.23 | 3.89 | 11.2 | 22.0 | 38.0 | 41.6 |
| 140                | 2.43 | 2.49 | 2.62 | 3.02 | 5.43 | 8.60 | 10.1 | 8.96 | 4.90 | 2.95 | 2.51 | 2.46 | 2.39 | 2.40 | 2.96 | 6.84 | 13.4 | 24.1 | 27.0 |
| 145                | 2.60 | 2.69 | 2.79 | 2.88 | 3.37 | 4.66 | 5.38 | 4.63 | 3.31 | 2.76 | 2.69 | 2.66 | 2.58 | 2.56 | 2.71 | 4.38 | 8.31 | 14.0 | 16.3 |
| 150                | 2.80 | 2.86 | 2.95 | 3.00 | 3.02 | 3.21 | 3.40 | 3.07 | 2.95 | 2.93 | 2.87 | 2.81 | 2.72 | 2.72 | 2.74 | 3.28 | 4.97 | 6.95 | 9.10 |
| 155                | 2.95 | 3.02 | 3.09 | 3.14 | 3.14 | 3.17 | 3.21 | 3.00 | 3.10 | 3.05 | 3.01 | 2.97 | 2.88 | 2.87 | 2.89 | 2.96 | 3.44 | 4.10 | 4.99 |
| 160                | 3.08 | 3.13 | 3.20 | 3.25 | 3.23 | 3.26 | 3.30 | 3.12 | 3.22 | 3.18 | 3.12 | 3.08 | 2.99 | 3.00 | 3.02 | 3.01 | 3.07 | 3.19 | 3.35 |
| 165                | 3.19 | 3.25 | 3.30 | 3.35 | 3.33 | 3.35 | 3.41 | 3.17 | 3.31 | 3.26 | 3.24 | 3.21 | 3.11 | 3.12 | 3.13 | 3.14 | 3.19 | 3.20 | 3.22 |
| 170                | 3.27 | 3.31 | 3.37 | 3.40 | 3.40 | 3.43 | 3.53 | 3.27 | 3.38 | 3.33 | 3.29 | 3.26 | 3.23 | 3.23 | 3.26 | 3.27 | 3.31 | 3.34 | 3.36 |
| 175                | 3.32 | 3.36 | 3.43 | 3.45 | 3.44 | 3.45 | 3.55 | 3.27 | 3.39 | 3.39 | 3.32 | 3.32 | 3.33 | 3.39 | 3.39 | 3.42 | 3.42 | 3.46 | 3.53 |
| 180                | 3.33 | 3.39 | 3.42 | 3.43 | 3.44 | 3.46 | 3.56 | 3.28 | 3.40 | 3.34 | 3.34 | 3.33 | 3.35 | 3.38 | 3.41 | 3.43 | 3.47 | 3.46 | 3.55 |

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.7DEG  
 Operators: 华登  
 Test Date: 2020-08-24

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000H\_V1 SYSTEM V2.0.286  
 Humidity: 62.0%  
 Test Distance: 9.960m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--2

UNIT: cd

| C (DEG)<br>γ (DEG) | 285  | 300  | 315  | 330  | 345  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------|------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 0                  | 2021 | 2021 | 2021 | 2021 | 2021 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5                  | 2029 | 2027 | 2025 | 2019 | 2015 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10                 | 2017 | 2014 | 2003 | 1996 | 1986 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15                 | 1984 | 1979 | 1964 | 1950 | 1934 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20                 | 1933 | 1922 | 1902 | 1882 | 1860 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 25                 | 1864 | 1849 | 1821 | 1793 | 1764 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30                 | 1781 | 1760 | 1723 | 1688 | 1653 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 35                 | 1684 | 1656 | 1610 | 1565 | 1521 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40                 | 1576 | 1542 | 1488 | 1432 | 1384 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 45                 | 1464 | 1423 | 1356 | 1291 | 1235 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 50                 | 1347 | 1298 | 1221 | 1146 | 1082 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 55                 | 1226 | 1172 | 1086 | 999  | 927  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60                 | 1106 | 1045 | 952  | 854  | 773  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 65                 | 985  | 922  | 822  | 715  | 622  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 70                 | 868  | 803  | 698  | 583  | 479  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 75                 | 754  | 689  | 583  | 463  | 345  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 80                 | 644  | 582  | 478  | 355  | 228  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 85                 | 542  | 483  | 384  | 262  | 134  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 90                 | 449  | 395  | 303  | 188  | 70.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 95                 | 366  | 316  | 234  | 132  | 34.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100                | 294  | 249  | 178  | 90.3 | 17.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 105                | 233  | 194  | 132  | 60.8 | 8.73 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 110                | 182  | 148  | 96.1 | 40.2 | 4.63 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 115                | 139  | 111  | 68.7 | 26.1 | 2.71 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 120                | 101  | 81.7 | 47.9 | 16.5 | 1.96 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 125                | 73.9 | 57.5 | 32.3 | 10.2 | 1.84 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 130                | 51.5 | 37.5 | 20.5 | 6.03 | 1.98 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 135                | 35.1 | 25.3 | 12.6 | 3.86 | 2.18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 140                | 22.9 | 16.0 | 7.53 | 2.84 | 2.35 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 145                | 13.6 | 9.27 | 4.59 | 2.56 | 2.50 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 150                | 7.44 | 5.23 | 3.16 | 2.65 | 2.66 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 155                | 4.10 | 3.38 | 2.84 | 2.79 | 2.82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 160                | 2.94 | 2.96 | 2.95 | 2.94 | 2.95 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 165                | 2.94 | 3.07 | 3.06 | 3.05 | 3.07 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 170                | 3.09 | 3.22 | 3.19 | 3.18 | 3.19 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 175                | 3.26 | 3.39 | 3.35 | 3.31 | 3.34 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 180                | 3.26 | 3.42 | 3.37 | 3.35 | 3.34 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.7DEG  
 Operators: 华登  
 Test Date: 2020-08-24

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000H\_V1 SYSTEM V2.0.286  
 Humidity: 62.0%  
 Test Distance: 9.960m [K=1.0000]  
 Remarks: