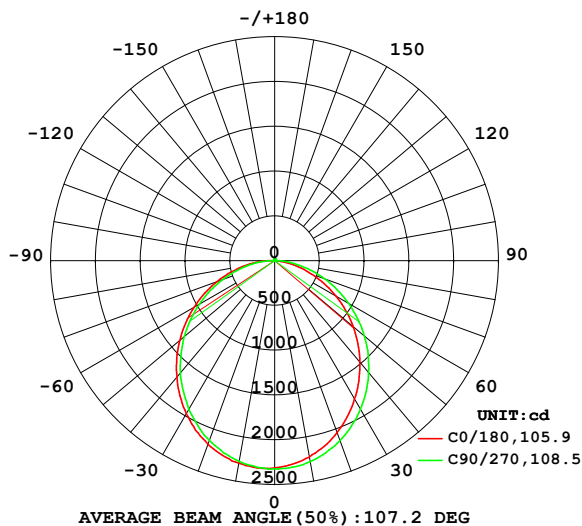


## LUMINAIRE PHOTOMETRIC TEST REPORT

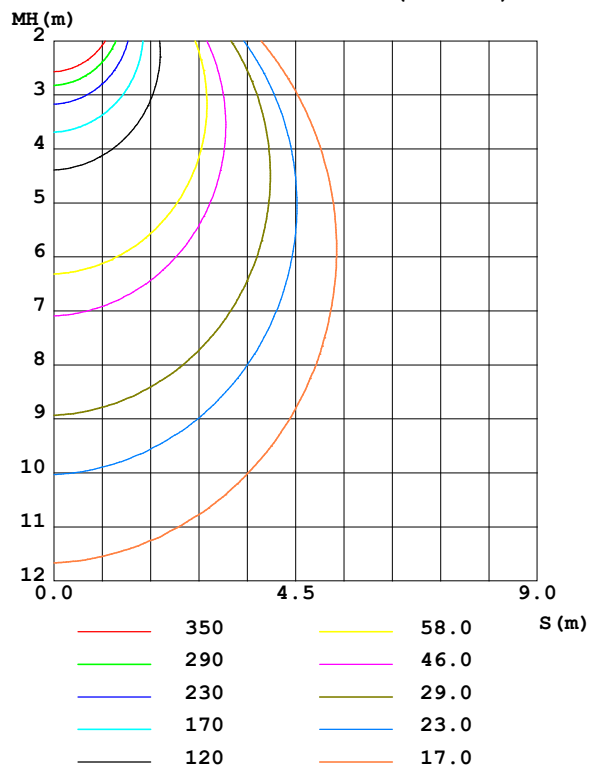
|                                                                                                                     |                 |                  |
|---------------------------------------------------------------------------------------------------------------------|-----------------|------------------|
| Test:U:120.14V I:0.3854A P:46.052W PF:0.9945 Freq:60.01Hz<br>UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:6374.24x1 lm |                 |                  |
| NAME: DB77E-4-50W-A5C3                                                                                              | TYPE: 50W       | WEIGHT:          |
| SPEC.: 4000K                                                                                                        | DIM.:           | SERIAL No.: 1    |
| MFR.:                                                                                                               | SUR.: 1.21*0.06 | Shielding Angle: |

| DATA OF LAMP     |                  | PHOTOMETRIC DATA Eff: 138.41 lm/W |        |                   |          |
|------------------|------------------|-----------------------------------|--------|-------------------|----------|
| MODEL            | DB77E-4-50W-A5C3 | I <sub>max</sub> (cd)             | 2334   | S/MH(C0/180)      | 1.16     |
| NOMINAL POWER(W) | 50               | LOR(%)                            | 100.0  | S/MH(C90/270)     | 1.23     |
| RATED VOLTAGE(V) | 120              | TOTAL FLUX(lm)                    | 6374.2 | η UP,DN(C0-180)   | 0.4,48.7 |
| NOMINAL FLUX(lm) | 6374.24          | CIE CLASS                         | DIRECT | η UP,DN(C180-360) | 0.5,50.4 |
| LAMPS INSIDE     | 1                | η up (%)                          | 1.0    | CIBSE SHR NOM     | 1.25     |
| TEST VOLTAGE(V)  | 120              | η down (%)                        | 99.0   | CIBSE SHR MAX     | 1.35     |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: DAMIN  
Test Date: 2023-07-20

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.461  
Humidity: 65.0%  
Test Distance: 9.680m [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       | 2227                  | 2245  | 2280  | 2303  | 2296  | 2295  | 2277  | 2250  | 0- 10    | 219.3       | 219.3        | 3.44,3.44  |
| 20       | 2042                  | 2077  | 2137  | 2180  | 2182  | 2166  | 2134  | 2086  | 10- 20   | 623.2       | 842.5        | 13.2,13.2  |
| 30       | 1785                  | 1837  | 1915  | 1970  | 1972  | 1962  | 1914  | 1841  | 20- 30   | 931.2       | 1774         | 27.8,27.8  |
| 40       | 1483                  | 1536  | 1633  | 1694  | 1700  | 1687  | 1634  | 1544  | 30- 40   | 1103        | 2876         | 45.1,45.1  |
| 50       | 1142                  | 1201  | 1307  | 1371  | 1384  | 1370  | 1316  | 1213  | 40- 50   | 1123        | 3999         | 62.7,62.7  |
| 60       | 789.5                 | 843.8 | 955.1 | 1018  | 1038  | 1028  | 971.9 | 862.3 | 50- 60   | 997.0       | 4996         | 78.4,78.4  |
| 70       | 440.3                 | 487.4 | 591.3 | 655.7 | 680.9 | 674.9 | 617.2 | 509.2 | 60- 70   | 751.8       | 5748         | 90.2,90.2  |
| 80       | 132.0                 | 166.3 | 253.1 | 308.5 | 341.0 | 335.0 | 284.9 | 189.4 | 70- 80   | 435.7       | 6184         | 97,97      |
| 90       | 2.804                 | 2.779 | 3.887 | 24.39 | 52.76 | 47.61 | 15.49 | 4.582 | 80- 90   | 128.6       | 6312         | 99,99      |
| 100      | 4.221                 | 4.128 | 3.986 | 3.559 | 4.996 | 5.633 | 6.384 | 6.513 | 90-100   | 6.239       | 6318         | 99.1,99.1  |
| 110      | 5.977                 | 5.865 | 5.835 | 5.197 | 7.003 | 7.770 | 8.668 | 8.681 | 100-110  | 6.224       | 6325         | 99.2,99.2  |
| 120      | 7.938                 | 8.139 | 7.873 | 7.039 | 9.127 | 9.999 | 10.89 | 10.86 | 110-120  | 7.829       | 6332         | 99.3,99.3  |
| 130      | 10.12                 | 10.10 | 10.11 | 9.116 | 11.31 | 12.20 | 13.04 | 13.01 | 120-130  | 8.976       | 6341         | 99.5,99.5  |
| 140      | 12.39                 | 12.53 | 12.47 | 11.47 | 13.56 | 14.55 | 15.16 | 15.15 | 130-140  | 9.471       | 6351         | 99.6,99.6  |
| 150      | 14.60                 | 14.77 | 14.61 | 13.76 | 15.62 | 16.42 | 16.81 | 16.83 | 140-150  | 9.034       | 6360         | 99.8,99.8  |
| 160      | 16.67                 | 16.71 | 16.56 | 16.54 | 17.24 | 17.84 | 18.05 | 17.95 | 150-160  | 7.521       | 6367         | 99.9,99.9  |
| 170      | 18.42                 | 18.29 | 18.12 | 17.92 | 18.60 | 18.79 | 18.81 | 18.62 | 160-170  | 5.027       | 6372         | 100,100    |
| 180      | 19.30                 | 19.19 | 19.04 | 18.90 | 19.32 | 19.19 | 19.06 | 18.91 | 170-180  | 1.783       | 6374         | 100,100    |
| DEG      | LUMINOUS INTENSITY:cd |       |       |       |       |       |       |       |          | UNIT:lm     |              |            |

Conical surface Flux(90deg): 3444.7 lm

%lum = 54.0%

%lamp = 54.0%

Conical surface Flux(130deg): 5408.5 lm

%lum = 84.8%

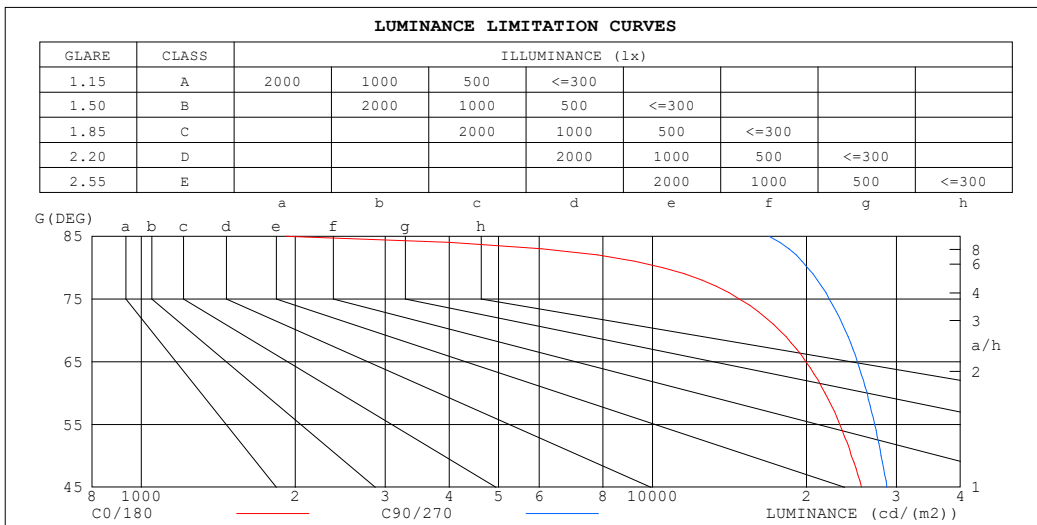
%lamp = 84.8%

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:DAMIN  
Test Date:2023-07-20

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:9.680m [K=1.0000]  
Remarks:

## LUMINANCE LIMITATION CURVES

|                                                                                                                     |                 |                  |
|---------------------------------------------------------------------------------------------------------------------|-----------------|------------------|
| Test:U:120.14V I:0.3854A P:46.052W PF:0.9945 Freq:60.01Hz<br>UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:6374.24x1 lm |                 |                  |
| NAME: DB77E-4-50W-A5C3                                                                                              | TYPE: 50W       | WEIGHT:          |
| SPEC.: 4000K                                                                                                        | DIM.:           | SERIAL No.: 1    |
| MFR.:                                                                                                               | SUR.: 1.21*0.06 | Shielding Angle: |



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G (DEG)           | C0/180 | C90/270 |
| 85                | 1919   | 16893   |
| 80                | 10473  | 20079   |
| 75                | 14775  | 22156   |
| 70                | 17734  | 23812   |
| 65                | 19949  | 25165   |
| 60                | 21748  | 26312   |
| 55                | 23241  | 27184   |
| 50                | 24479  | 28014   |
| 45                | 25634  | 28733   |

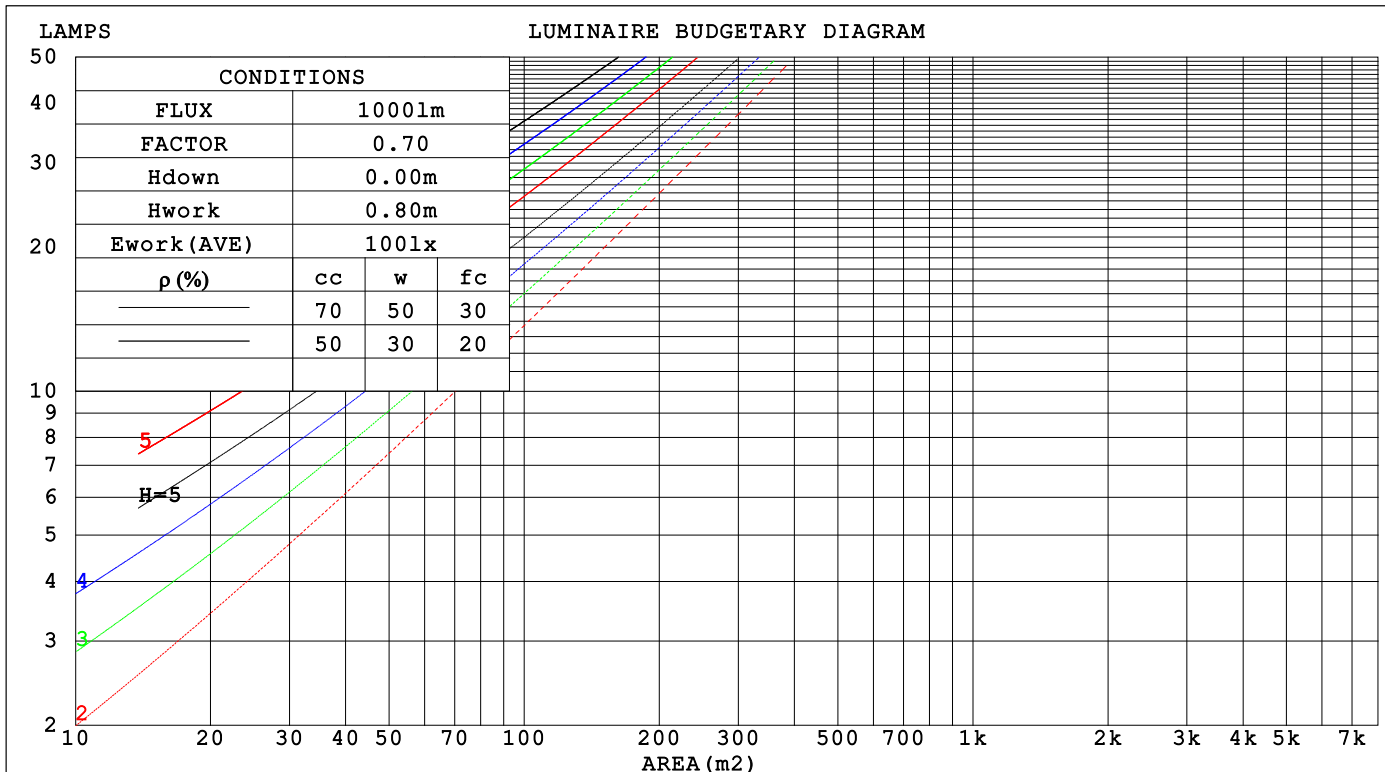
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:DAMIN  
Test Date:2023-07-20

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:9.680m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|                                                           |                 |                  |
|-----------------------------------------------------------|-----------------|------------------|
| Test:U:120.14V I:0.3854A P:46.052W PF:0.9945 Freq:60.01Hz |                 |                  |
| UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:6374.24x1 lm    |                 |                  |
| NAME: DB77E-4-50W-A5C3                                    | TYPE: 50W       | WEIGHT:          |
| SPEC.: 4000K                                              | DIM.:           | SERIAL No.: 1    |
| MFR.:                                                     | SUR.: 1.21*0.06 | 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 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:DAMIN  
Test Date:2023-07-20

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:9.680m [K=1.0000]  
Remarks:

### WEC AND CCEC

|                                                             |                 |                  |
|-------------------------------------------------------------|-----------------|------------------|
| Test:U:120.14V I:0.3854A P:46.052W PF:0.9945 Freq:60.01Hz   |                 |                  |
| UTHDi:0.00% ITHDi:0.00% KDisp:0      Lamp Flux:6374.24x1 lm |                 |                  |
| NAME: DB77E-4-50W-A5C3                                      | TYPE: 50W       | WEIGHT:          |
| SPEC.: 4000K                                                | DIM.:           | SERIAL No.: 1    |
| MFR.:                                                       | SUR.: 1.21*0.06 | 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  | .308                  | .175 | .056 | .301 | .172 | .055 | .287                            | .165 | .053 | .274 | .158 | .051 | .263 | .152 | .049 |   |  |
| 2.0  | .289                  | .159 | .049 | .283 | .156 | .048 | .271                            | .151 | .047 | .260 | .146 | .046 | .249 | .141 | .044 |   |  |
| 3.0  | .268                  | .142 | .043 | .262 | .140 | .042 | .251                            | .136 | .041 | .241 | .132 | .041 | .232 | .128 | .040 |   |  |
| 4.0  | .247                  | .128 | .038 | .242 | .127 | .037 | .232                            | .123 | .037 | .223 | .120 | .036 | .215 | .117 | .036 |   |  |
| 5.0  | .228                  | .116 | .034 | .224 | .115 | .033 | .215                            | .112 | .033 | .207 | .109 | .033 | .200 | .107 | .032 |   |  |
| 6.0  | .212                  | .106 | .030 | .208 | .105 | .030 | .200                            | .103 | .030 | .193 | .100 | .030 | .186 | .098 | .029 |   |  |
| 7.0  | .197                  | .098 | .028 | .194 | .097 | .028 | .187                            | .094 | .027 | .180 | .093 | .027 | .174 | .091 | .027 |   |  |
| 8.0  | .184                  | .090 | .025 | .181 | .089 | .025 | .175                            | .087 | .025 | .169 | .086 | .025 | .164 | .084 | .024 |   |  |
| 9.0  | .173                  | .084 | .023 | .170 | .083 | .023 | .164                            | .081 | .023 | .159 | .080 | .023 | .154 | .078 | .023 |   |  |
| 10.0 | .163                  | .078 | .022 | .160 | .077 | .022 | .155                            | .076 | .021 | .150 | .075 | .021 | .146 | .073 | .021 |   |  |

| 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  | .198                  | .198 | .198 | .169 | .169 | .169 | .115                                        | .115 | .115 | .066 | .066 | .066 | .021 | .021 | .021 |   |  |
| 1.0  | .188                  | .164 | .142 | .161 | .140 | .122 | .110                                        | .097 | .084 | .063 | .056 | .049 | .020 | .018 | .016 |   |  |
| 2.0  | .179                  | .139 | .106 | .154 | .120 | .091 | .105                                        | .083 | .064 | .061 | .048 | .037 | .019 | .016 | .012 |   |  |
| 3.0  | .172                  | .122 | .082 | .147 | .105 | .071 | .101                                        | .073 | .050 | .058 | .043 | .029 | .019 | .014 | .010 |   |  |
| 4.0  | .164                  | .109 | .066 | .141 | .094 | .058 | .097                                        | .065 | .041 | .056 | .038 | .024 | .018 | .012 | .008 |   |  |
| 5.0  | .156                  | .098 | .055 | .134 | .085 | .048 | .093                                        | .059 | .034 | .054 | .035 | .020 | .017 | .011 | .007 |   |  |
| 6.0  | .149                  | .090 | .047 | .128 | .078 | .041 | .089                                        | .054 | .029 | .051 | .032 | .017 | .017 | .010 | .006 |   |  |
| 7.0  | .143                  | .083 | .041 | .123 | .072 | .036 | .085                                        | .050 | .025 | .049 | .030 | .015 | .016 | .010 | .005 |   |  |
| 8.0  | .136                  | .077 | .037 | .117 | .067 | .032 | .081                                        | .047 | .023 | .047 | .028 | .013 | .015 | .009 | .004 |   |  |
| 9.0  | .130                  | .072 | .033 | .112 | .063 | .029 | .078                                        | .044 | .020 | .045 | .026 | .012 | .015 | .009 | .004 |   |  |
| 10.0 | .124                  | .068 | .030 | .107 | .059 | .026 | .074                                        | .041 | .019 | .043 | .025 | .011 | .014 | .008 | .004 |   |  |

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:DAMIN  
Test Date:2023-07-20

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:9.680m [K=1.0000]  
Remarks:

### UGR(Unified Glare Rating) Table

|                                                                                                                     |                  |      |      |      |                 |                |      |                  |      |      |
|---------------------------------------------------------------------------------------------------------------------|------------------|------|------|------|-----------------|----------------|------|------------------|------|------|
| Test:U:120.14V I:0.3854A P:46.052W PF:0.9945 Freq:60.01Hz<br>UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:6374.24x1 lm |                  |      |      |      |                 |                |      |                  |      |      |
| NAME: DB77E-4-50W-A5C3                                                                                              |                  |      |      |      | TYPE: 50W       |                |      | WEIGHT:          |      |      |
| SPEC.: 4000K                                                                                                        |                  |      |      |      | DIM.:           |                |      | SERIAL No.: 1    |      |      |
| MFR.:                                                                                                               |                  |      |      |      | SUR.: 1.21*0.06 |                |      | 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                                                                                                       | 23.3             | 24.8 | 23.6 | 25.0 | 25.2            | 24.0           | 25.5 | 24.3             | 25.7 | 25.9 |
| 3H                                                                                                                  | 24.5             | 25.9 | 24.8 | 26.1 | 26.4            | 25.5           | 26.9 | 25.8             | 27.1 | 27.4 |
| 4H                                                                                                                  | 24.9             | 26.2 | 25.2 | 26.5 | 26.7            | 26.1           | 27.4 | 26.4             | 27.7 | 27.9 |
| 6H                                                                                                                  | 25.1             | 26.3 | 25.4 | 26.6 | 26.9            | 26.5           | 27.8 | 26.9             | 28.0 | 28.3 |
| 8H                                                                                                                  | 25.1             | 26.3 | 25.4 | 26.6 | 26.9            | 26.7           | 27.8 | 27.0             | 28.1 | 28.5 |
| 12H                                                                                                                 | 25.0             | 26.2 | 25.4 | 26.5 | 26.8            | 26.7           | 27.9 | 27.1             | 28.2 | 28.5 |
| 4H 2H                                                                                                               | 23.9             | 25.2 | 24.2 | 25.5 | 25.7            | 24.4           | 25.8 | 24.8             | 26.0 | 26.3 |
| 3H                                                                                                                  | 25.2             | 26.4 | 25.6 | 26.7 | 27.0            | 26.1           | 27.3 | 26.5             | 27.6 | 27.9 |
| 4H                                                                                                                  | 25.7             | 26.8 | 26.1 | 27.1 | 27.5            | 26.8           | 27.9 | 27.2             | 28.2 | 28.6 |
| 6H                                                                                                                  | 26.0             | 27.0 | 26.4 | 27.3 | 27.7            | 27.4           | 28.3 | 27.8             | 28.7 | 29.1 |
| 8H                                                                                                                  | 26.0             | 26.9 | 26.5 | 27.3 | 27.7            | 27.6           | 28.4 | 28.0             | 28.8 | 29.2 |
| 12H                                                                                                                 | 26.0             | 26.8 | 26.5 | 27.2 | 27.6            | 27.7           | 28.5 | 28.1             | 28.9 | 29.3 |
| 8H 4H                                                                                                               | 26.0             | 26.8 | 26.4 | 27.2 | 27.6            | 26.9           | 27.8 | 27.4             | 28.2 | 28.6 |
| 6H                                                                                                                  | 26.3             | 27.1 | 26.8 | 27.5 | 27.9            | 27.6           | 28.3 | 28.1             | 28.8 | 29.2 |
| 8H                                                                                                                  | 26.4             | 27.1 | 26.9 | 27.5 | 28.0            | 27.9           | 28.5 | 28.3             | 28.9 | 29.4 |
| 12H                                                                                                                 | 26.4             | 26.9 | 26.9 | 27.4 | 27.9            | 28.0           | 28.6 | 28.5             | 29.1 | 29.6 |
| 12H 4H                                                                                                              | 26.0             | 26.8 | 26.4 | 27.2 | 27.6            | 26.9           | 27.7 | 27.4             | 28.1 | 28.6 |
| 6H                                                                                                                  | 26.4             | 27.0 | 26.9 | 27.5 | 27.9            | 27.6           | 28.3 | 28.1             | 28.7 | 29.2 |
| 8H                                                                                                                  | 26.5             | 27.0 | 27.0 | 27.5 | 28.0            | 27.9           | 28.4 | 28.4             | 28.9 | 29.4 |
| Variations with the observer position at spacings(CIE Pub.117):                                                     |                  |      |      |      |                 |                |      |                  |      |      |
| S = 1.0H                                                                                                            | + 0.2 / - 0.3    |      |      |      |                 | + 0.2 / - 0.2  |      |                  |      |      |
| 1.5H                                                                                                                | + 0.2 / - 0.4    |      |      |      |                 | + 0.1 / - 0.2  |      |                  |      |      |
| 2.0H                                                                                                                | + 0.3 / - 0.4    |      |      |      |                 | + 0.3 / - 0.4  |      |                  |      |      |

CIE Pub.117, 6374 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 6.4)  
Area: 0.0726 m2

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:DAMIN  
Test Date:2023-07-20

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:9.680m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

|                                                           |                 |                  |
|-----------------------------------------------------------|-----------------|------------------|
| Test:U:120.14V I:0.3854A P:46.052W PF:0.9945 Freq:60.01Hz |                 |                  |
| UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:6374.24x1 lm    |                 |                  |
| NAME: DB77E-4-50W-A5C3                                    | TYPE: 50W       | WEIGHT:          |
| SPEC.: 4000K                                              | DIM.:           | SERIAL No.: 1    |
| MFR.:                                                     | SUR.: 1.21*0.06 | Shielding Angle: |

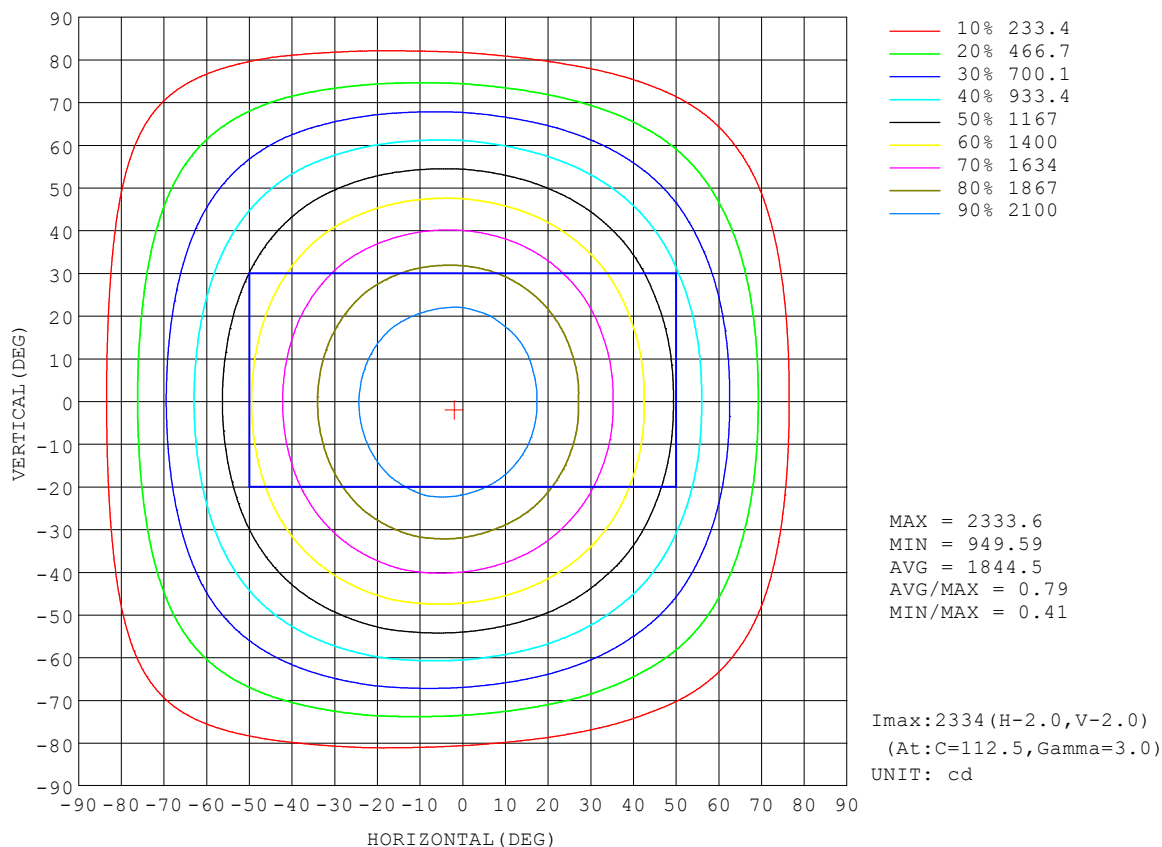
| REFLECTANCE                      |                                                      |     |           |     |     |     |     |               |     |        |
|----------------------------------|------------------------------------------------------|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| 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) $k(RI) \times RCR = 5$ |     |           |     |     |     |     |               |     |        |
| $k = 0.60$                       | 58                                                   | 46  | 39        | 57  | 46  | 39  | 56  | 46            | 39  | 33     |
| 0.80                             | 68                                                   | 56  | 49        | 67  | 56  | 49  | 65  | 55            | 48  | 41     |
| 1.00                             | 76                                                   | 65  | 58        | 75  | 64  | 58  | 73  | 66            | 57  | 50     |
| 1.25                             | 83                                                   | 73  | 66        | 82  | 72  | 65  | 79  | 70            | 64  | 57     |
| 1.50                             | 88                                                   | 78  | 71        | 86  | 77  | 71  | 83  | 75            | 70  | 62     |
| 2.00                             | 95                                                   | 86  | 80        | 93  | 85  | 79  | 89  | 83            | 78  | 70     |
| 2.50                             | 99                                                   | 91  | 85        | 97  | 90  | 84  | 93  | 87            | 82  | 74     |
| 3.00                             | 102                                                  | 95  | 90        | 100 | 94  | 89  | 96  | 91            | 86  | 78     |
| 4.00                             | 106                                                  | 100 | 96        | 104 | 99  | 94  | 99  | 95            | 91  | 82     |
| 5.00                             | 108                                                  | 104 | 100       | 106 | 102 | 98  | 101 | 98            | 95  | 85     |
| ROOM INDEX                       | UF (total)                                           |     |           |     |     |     |     |               |     | Direct |
| According to DIN EN 13032-2 2004 |                                                      |     | Suspended |     |     |     |     | SHRNOM = 1.25 |     |        |

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: DAMIN  
Test Date: 2023-07-20

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.461  
Humidity: 65.0%  
Test Distance: 9.680m [K=1.0000]  
Remarks:

# ISOCANDELA DIAGRAM

|                                                           |                 |                  |
|-----------------------------------------------------------|-----------------|------------------|
| Test:U:120.14V I:0.3854A P:46.052W PF:0.9945 Freq:60.01Hz |                 |                  |
| UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:6374.24x1 lm    |                 |                  |
| NAME: DB77E-4-50W-A5C3                                    | TYPE: 50W       | WEIGHT:          |
| SPEC.: 4000K                                              | DIM.:           | SERIAL No.: 1    |
| MFR.:                                                     | SUR.: 1.21*0.06 | Shielding Angle: |

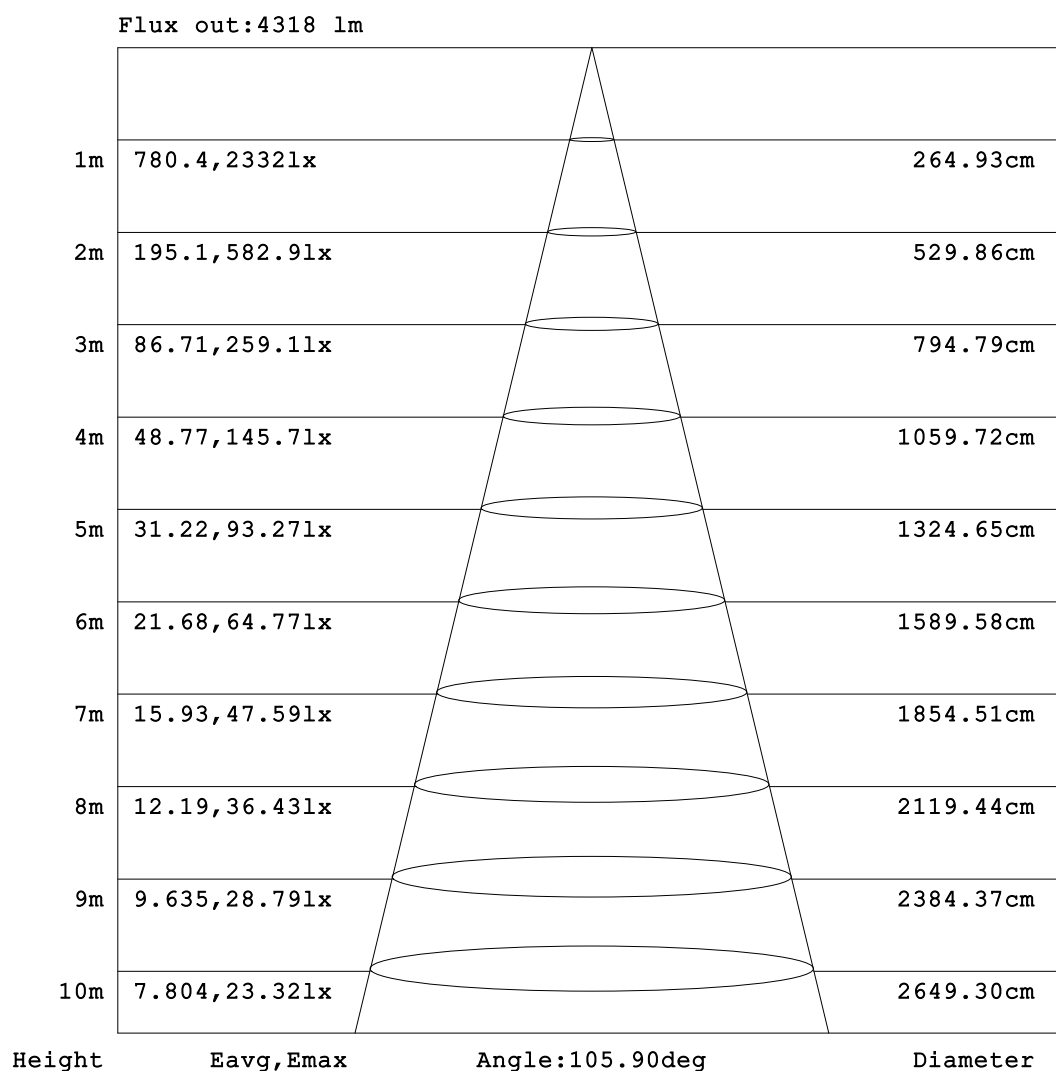


C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:DAMIN  
Test Date:2023-07-20

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:9.680m [K=1.0000]  
Remarks:

**AAI Figure**

|                                                                                                                     |                 |                  |
|---------------------------------------------------------------------------------------------------------------------|-----------------|------------------|
| Test:U:120.14V I:0.3854A P:46.052W PF:0.9945 Freq:60.01Hz<br>UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:6374.24x1 lm |                 |                  |
| NAME: DB77E-4-50W-A5C3                                                                                              | TYPE: 50W       | WEIGHT:          |
| SPEC.: 4000K                                                                                                        | DIM.:           | SERIAL No.: 1    |
| MFR.:                                                                                                               | SUR.: 1.21*0.06 | Shielding Angle: |



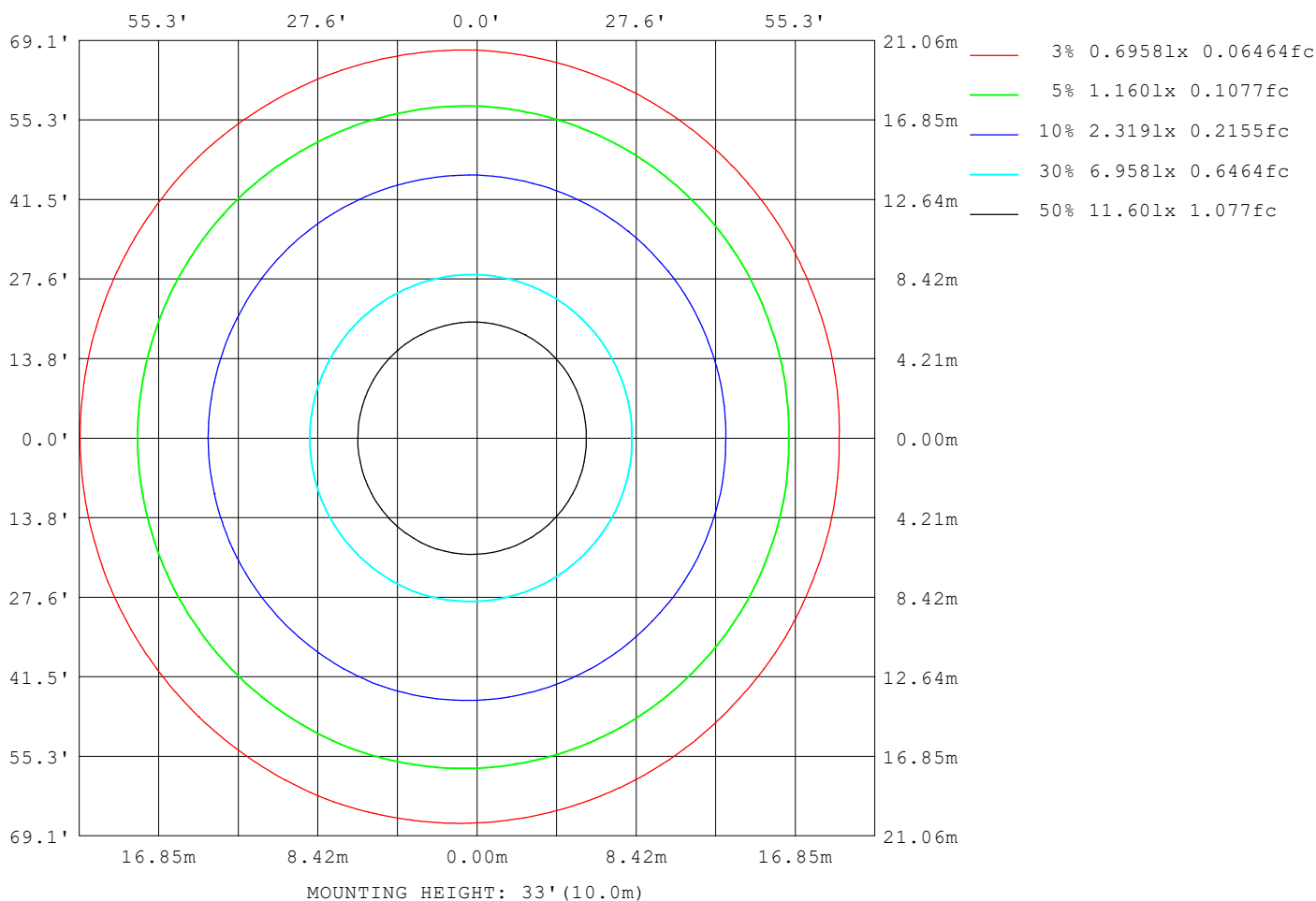
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators: DAMIN  
 Test Date: 2023-07-20

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.461  
 Humidity: 65.0%  
 Test Distance: 9.680m [K=1.0000]  
 Remarks:

# ISOLUX DIAGRAM

|                                                                                                                     |                 |                  |
|---------------------------------------------------------------------------------------------------------------------|-----------------|------------------|
| Test:U:120.14V I:0.3854A P:46.052W PF:0.9945 Freq:60.01Hz<br>UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:6374.24x1 lm |                 |                  |
| NAME: DB77E-4-50W-A5C3                                                                                              | TYPE: 50W       | WEIGHT:          |
| SPEC.: 4000K                                                                                                        | DIM.:           | SERIAL No.: 1    |
| MFR.:                                                                                                               | SUR.: 1.21*0.06 | Shielding Angle: |



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:DAMIN  
Test Date:2023-07-20

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:9.680m [K=1.0000]  
Remarks:

### LED Avg.L Report

|                                                                                                                     |                 |                  |
|---------------------------------------------------------------------------------------------------------------------|-----------------|------------------|
| Test:U:120.14V I:0.3854A P:46.052W PF:0.9945 Freq:60.01Hz<br>UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:6374.24x1 lm |                 |                  |
| NAME: DB77E-4-50W-A5C3                                                                                              | TYPE: 50W       | WEIGHT:          |
| SPEC.: 4000K                                                                                                        | DIM.:           | SERIAL No.: 1    |
| MFR.:                                                                                                               | SUR.: 1.21*0.06 | Shielding Angle: |

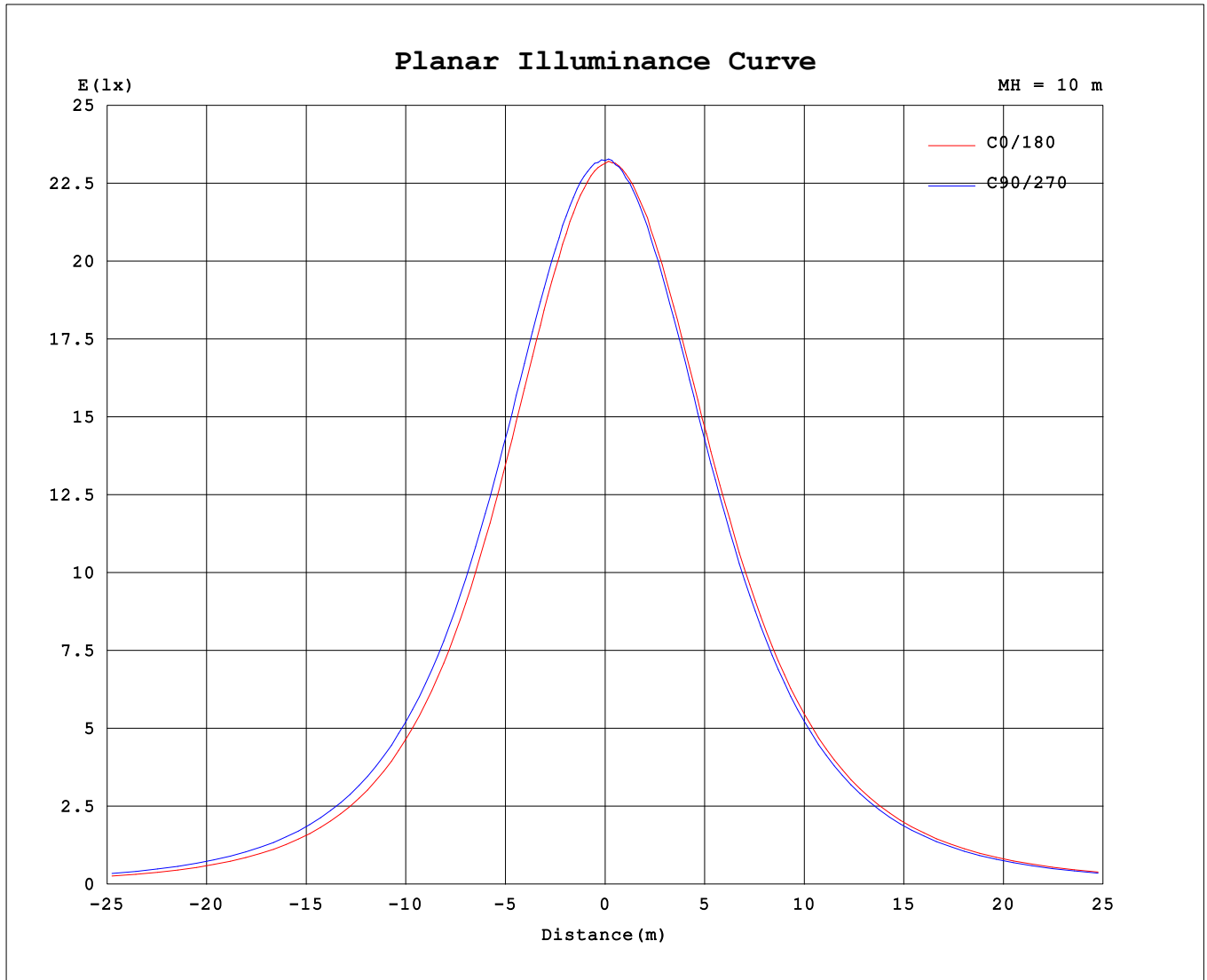
| AvgL             | cd/m2 |
|------------------|-------|
| L_0~180 (65) av  | 23987 |
| L_0~180 (75) av  | 20881 |
| L_0~180 (85) av  | 15792 |
| L_90~270 (65) av | 25527 |
| L_90~270 (75) av | 22956 |
| L_90~270 (85) av | 19414 |
| L_45 (65) av     | 24741 |
| L_45 (75) av     | 21808 |
| L_45 (85) av     | 16814 |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:DAMIN  
Test Date:2023-07-20

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:9.680m [K=1.0000]  
Remarks:

### Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators: DAMIN  
 Test Date: 2023-07-20

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.461  
 Humidity: 65.0%  
 Test Distance: 9.680m [K=1.0000]  
 Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

|                                                           |                 |                  |
|-----------------------------------------------------------|-----------------|------------------|
| Test:U:120.14V I:0.3854A P:46.052W PF:0.9945 Freq:60.01Hz |                 |                  |
| UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:6374.24x1 lm    |                 |                  |
| NAME: DB77E-4-50W-A5C3                                    | TYPE: 50W       | WEIGHT:          |
| SPEC.: 4000K                                              | DIM.:           | SERIAL No.: 1    |
| MFR.:                                                     | SUR.: 1.21*0.06 | Shielding Angle: |

Table--1

UNIT: cd

| C (DEG)<br>γ (DEG) | 0    | 22.5 | 45   | 67.5 | 90   | 112.5 | 135  | 157.5 | 180  | 202.5 | 225   | 247.5 | 270  | 292.5 | 315  | 337.5 |  |  |  |
|--------------------|------|------|------|------|------|-------|------|-------|------|-------|-------|-------|------|-------|------|-------|--|--|--|
| 0                  | 2314 | 2316 | 2321 | 2320 | 2324 | 2332  | 2330 | 2325  | 2314 | 2316  | 2321  | 2320  | 2324 | 2332  | 2330 | 2325  |  |  |  |
| 5                  | 2281 | 2286 | 2294 | 2301 | 2314 | 2327  | 2331 | 2327  | 2321 | 2320  | 2319  | 2313  | 2314 | 2310  | 2305 | 2293  |  |  |  |
| 10                 | 2227 | 2236 | 2245 | 2257 | 2280 | 2299  | 2303 | 2304  | 2296 | 2302  | 2295  | 2281  | 2277 | 2266  | 2250 | 2235  |  |  |  |
| 15                 | 2147 | 2158 | 2170 | 2192 | 2220 | 2244  | 2256 | 2257  | 2250 | 2247  | 2245  | 2230  | 2219 | 2198  | 2179 | 2158  |  |  |  |
| 20                 | 2042 | 2058 | 2077 | 2106 | 2137 | 2170  | 2180 | 2183  | 2182 | 2174  | 2166  | 2150  | 2134 | 2108  | 2086 | 2058  |  |  |  |
| 25                 | 1921 | 1939 | 1961 | 1998 | 2033 | 2073  | 2089 | 2088  | 2089 | 2081  | 2076  | 2050  | 2031 | 2004  | 1972 | 1943  |  |  |  |
| 30                 | 1785 | 1804 | 1837 | 1876 | 1915 | 1959  | 1970 | 1977  | 1972 | 1969  | 1962  | 1940  | 1914 | 1880  | 1841 | 1804  |  |  |  |
| 35                 | 1639 | 1660 | 1688 | 1739 | 1784 | 1824  | 1838 | 1844  | 1843 | 1838  | 1830  | 1806  | 1779 | 1745  | 1700 | 1660  |  |  |  |
| 40                 | 1483 | 1502 | 1536 | 1584 | 1633 | 1679  | 1694 | 1701  | 1700 | 1697  | 1687  | 1665  | 1634 | 1591  | 1544 | 1502  |  |  |  |
| 45                 | 1316 | 1335 | 1371 | 1424 | 1475 | 1519  | 1535 | 1545  | 1547 | 1542  | 1533  | 1509  | 1479 | 1433  | 1380 | 1337  |  |  |  |
| 50                 | 1142 | 1163 | 1201 | 1257 | 1307 | 1355  | 1371 | 1382  | 1384 | 1381  | 1370  | 1347  | 1316 | 1265  | 1213 | 1166  |  |  |  |
| 55                 | 968  | 986  | 1022 | 1081 | 1132 | 1180  | 1196 | 1209  | 1215 | 1210  | 1204  | 1178  | 1144 | 1093  | 1040 | 992   |  |  |  |
| 60                 | 789  | 808  | 844  | 899  | 955  | 999   | 1018 | 1032  | 1038 | 1034  | 1028  | 1004  | 972  | 917   | 862  | 813   |  |  |  |
| 65                 | 612  | 629  | 665  | 720  | 772  | 817   | 837  | 851   | 860  | 857   | 852   | 827   | 794  | 739   | 683  | 634   |  |  |  |
| 70                 | 440  | 455  | 487  | 541  | 591  | 635   | 656  | 671   | 681  | 680   | 675   | 650   | 617  | 563   | 509  | 463   |  |  |  |
| 75                 | 278  | 291  | 319  | 370  | 416  | 458   | 477  | 495   | 507  | 505   | 501   | 479   | 446  | 394   | 343  | 300   |  |  |  |
| 80                 | 132  | 141  | 166  | 211  | 253  | 290   | 308  | 328   | 341  | 339   | 335   | 314   | 285  | 235   | 189  | 152   |  |  |  |
| 85                 | 12.1 | 15.9 | 32.1 | 68.3 | 107  | 137   | 157  | 175   | 188  | 187   | 183   | 165   | 139  | 94.5  | 54.3 | 25.1  |  |  |  |
| 90                 | 2.80 | 2.81 | 2.78 | 3.00 | 3.89 | 9.53  | 24.4 | 40.3  | 52.8 | 52.1  | 47.6  | 33.2  | 15.5 | 4.94  | 4.58 | 4.43  |  |  |  |
| 95                 | 3.45 | 3.44 | 3.36 | 3.36 | 3.30 | 3.19  | 2.95 | 2.79  | 4.17 | 4.31  | 4.73  | 5.04  | 5.36 | 5.45  | 5.46 | 5.35  |  |  |  |
| 100                | 4.22 | 4.20 | 4.13 | 4.14 | 3.99 | 3.84  | 3.56 | 3.35  | 5.00 | 5.17  | 5.63  | 6.01  | 6.38 | 6.49  | 6.51 | 6.38  |  |  |  |
| 105                | 5.08 | 5.05 | 4.99 | 4.98 | 4.89 | 4.67  | 4.35 | 4.10  | 5.97 | 6.20  | 6.68  | 7.10  | 7.53 | 7.59  | 7.59 | 7.44  |  |  |  |
| 110                | 5.98 | 5.93 | 5.87 | 5.88 | 5.84 | 5.56  | 5.20 | 4.92  | 7.00 | 7.24  | 7.77  | 8.22  | 8.67 | 8.67  | 8.68 | 8.52  |  |  |  |
| 115                | 6.95 | 6.87 | 6.92 | 6.86 | 6.83 | 6.50  | 6.09 | 5.80  | 8.06 | 8.34  | 8.90  | 9.32  | 9.79 | 9.76  | 9.76 | 9.62  |  |  |  |
| 120                | 7.94 | 7.87 | 8.14 | 7.92 | 7.87 | 7.49  | 7.04 | 6.73  | 9.13 | 9.42  | 10.00 | 10.4  | 10.9 | 10.9  | 10.9 | 10.7  |  |  |  |
| 125                | 9.01 | 8.94 | 8.96 | 9.04 | 8.97 | 8.54  | 8.07 | 7.69  | 10.2 | 10.5  | 11.1  | 11.5  | 12.0 | 12.0  | 11.9 | 11.8  |  |  |  |
| 130                | 10.1 | 10.1 | 10.1 | 10.2 | 10.1 | 9.67  | 9.12 | 8.73  | 11.3 | 11.6  | 12.2  | 12.6  | 13.0 | 13.1  | 13.0 | 12.9  |  |  |  |
| 135                | 11.2 | 11.3 | 11.3 | 11.4 | 11.3 | 10.8  | 10.3 | 9.81  | 12.4 | 12.8  | 13.4  | 13.7  | 14.1 | 14.1  | 14.1 | 14.0  |  |  |  |
| 140                | 12.4 | 12.5 | 12.5 | 12.6 | 12.5 | 12.0  | 11.5 | 11.0  | 13.6 | 13.9  | 14.5  | 14.8  | 15.2 | 15.1  | 15.2 | 15.1  |  |  |  |
| 145                | 13.5 | 13.6 | 13.7 | 13.7 | 13.6 | 13.2  | 12.7 | 12.1  | 14.6 | 14.9  | 15.5  | 15.8  | 16.0 | 16.0  | 16.0 | 16.0  |  |  |  |
| 150                | 14.6 | 14.8 | 14.8 | 14.8 | 14.6 | 14.3  | 13.8 | 13.3  | 15.6 | 15.9  | 16.4  | 16.6  | 16.8 | 16.8  | 16.8 | 16.9  |  |  |  |
| 155                | 15.6 | 15.9 | 15.8 | 15.7 | 15.6 | 15.3  | 15.1 | 14.4  | 16.5 | 16.7  | 17.2  | 17.3  | 17.5 | 17.4  | 17.5 | 17.5  |  |  |  |
| 160                | 16.7 | 16.9 | 16.7 | 16.7 | 16.6 | 16.3  | 16.5 | 15.5  | 17.2 | 17.4  | 17.8  | 18.0  | 18.0 | 17.9  | 17.9 | 18.0  |  |  |  |
| 165                | 17.6 | 17.8 | 17.6 | 17.5 | 17.4 | 17.2  | 17.3 | 16.5  | 18.0 | 18.0  | 18.4  | 18.5  | 18.5 | 18.3  | 18.4 | 18.4  |  |  |  |
| 170                | 18.4 | 18.5 | 18.3 | 18.2 | 18.1 | 18.0  | 17.9 | 17.4  | 18.6 | 18.6  | 18.8  | 18.8  | 18.8 | 18.6  | 18.6 | 18.7  |  |  |  |
| 175                | 19.0 | 19.0 | 18.9 | 18.8 | 18.7 | 18.5  | 18.5 | 18.1  | 19.1 | 19.0  | 19.1  | 19.0  | 19.0 | 18.8  | 18.9 | 18.8  |  |  |  |
| 180                | 19.3 | 19.2 | 19.2 | 19.1 | 19.0 | 18.9  | 18.9 | 18.7  | 19.3 | 19.2  | 19.2  | 19.1  | 19.1 | 18.9  | 18.9 | 18.7  |  |  |  |

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:DAMIN  
Test Date:2023-07-20

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:9.680m [K=1.0000]  
Remarks: