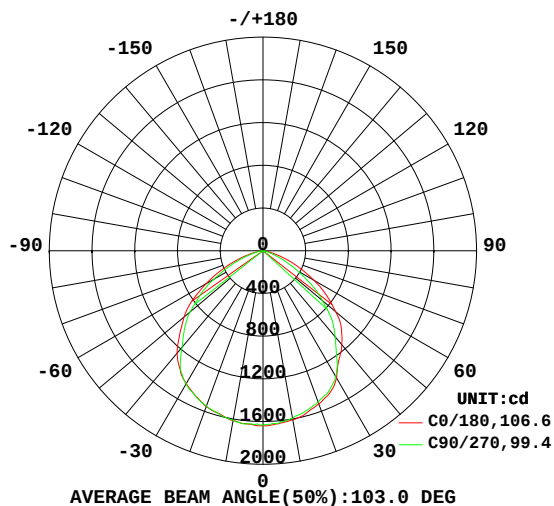


## LUMINAIRE PHOTOMETRIC TEST REPORT

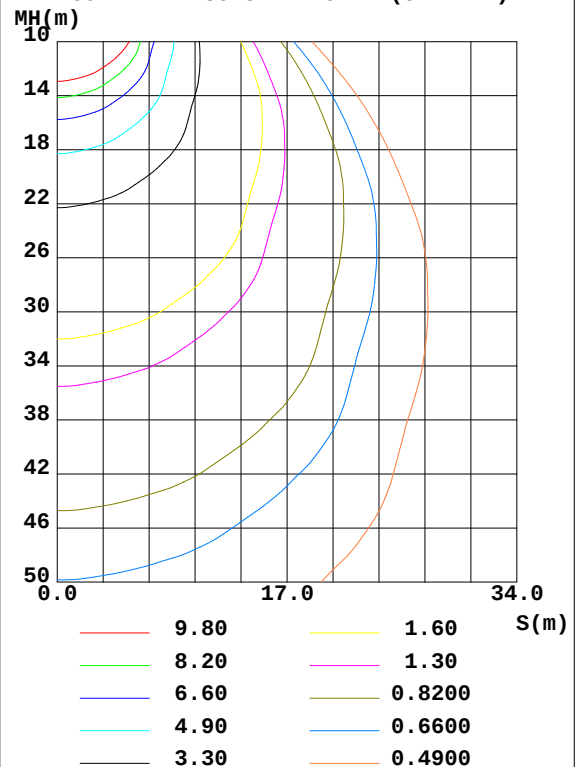
|                                                                                  |                |                  |
|----------------------------------------------------------------------------------|----------------|------------------|
| Test:U:231.83V I:0.1679A P:38.185W PF:0.9812 Freq:49.99Hz Lamp Flux:4031.47x1 lm |                |                  |
| NAME: SFS009-BKTC3832S01                                                         | TYPE:          | WEIGHT:          |
| SPEC.: black RA80 3000K+5700K                                                    | DIM.:          | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 150*80mm | Shielding Angle: |

| DATA OF LAMP     |                | PHOTOMETRIC DATA Eff: 105.58 lm/W |        |                    |           |
|------------------|----------------|-----------------------------------|--------|--------------------|-----------|
| MODEL            | 2835 168 5700K | I <sub>max</sub> (cd)             | 1641   | S/MH(C0/180)       | 1.31      |
| NOMINAL POWER(W) | 38             | LOR(%)                            | 100.0  | S/MH(C90/270)      | 1.30      |
| RATED VOLTAGE(V) | 220-240        | TOTAL FLUX(lm)                    | 4031.5 | η UP, DN(C0-180)   | 0.8, 46.8 |
| NOMINAL FLUX(lm) | 4031.47        | CIE CLASS                         | DIRECT | η UP, DN(C180-360) | 0.8, 51.7 |
| LAMPS INSIDE     | 1              | η up(%)                           | 1.6    | CIBSE SHR NOM      | 1.25      |
| TEST VOLTAGE(V)  | 220            | η down(%)                         | 98.4   | 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:25DEG  
Operators:  
Test Date:2025-06-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity:65.0%  
Test Distance:7.880m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

### ZONAL FLUX DIAGRAM:

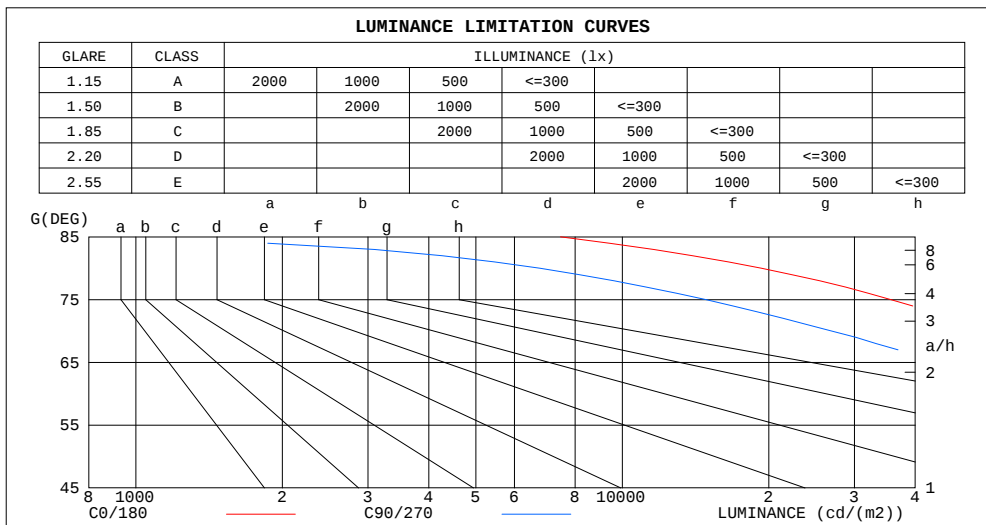
| $\gamma$ | C0                    | C45   | C90   | C135  | C180  | C225   | C270   | C315  | $\gamma$ | $\Phi$ zone | $\Phi$ total | %lum, lamp |
|----------|-----------------------|-------|-------|-------|-------|--------|--------|-------|----------|-------------|--------------|------------|
| 10       | 1607                  | 1604  | 1593  | 1596  | 1614  | 1612   | 1611   | 1608  | 0- 10    | 154.5       | 154.5        | 3.83, 3.83 |
| 20       | 1527                  | 1510  | 1509  | 1507  | 1553  | 1548   | 1547   | 1546  | 10- 20   | 444.5       | 599.0        | 14.9, 14.9 |
| 30       | 1375                  | 1381  | 1360  | 1390  | 1437  | 1430   | 1441   | 1422  | 20- 30   | 680.2       | 1279         | 31.7, 31.7 |
| 40       | 1149                  | 1130  | 1052  | 1196  | 1252  | 1276   | 1177   | 1216  | 30- 40   | 812.5       | 2092         | 51.9, 51.9 |
| 50       | 888.7                 | 780.2 | 728.5 | 843.4 | 965.1 | 958.2  | 893.4  | 896.1 | 40- 50   | 794.3       | 2886         | 71.6, 71.6 |
| 60       | 547.9                 | 419.4 | 372.3 | 463.9 | 611.0 | 581.9  | 531.0  | 549.7 | 50- 60   | 622.6       | 3509         | 87, 87     |
| 70       | 225.9                 | 145.5 | 110.4 | 164.1 | 268.8 | 236.4  | 207.0  | 220.0 | 60- 70   | 339.0       | 3848         | 95.4, 95.4 |
| 80       | 40.23                 | 21.94 | 14.10 | 25.41 | 50.82 | 50.40  | 36.31  | 47.56 | 70- 80   | 109.1       | 3957         | 98.1, 98.1 |
| 90       | 1.239                 | 1.216 | 1.051 | 1.120 | 1.260 | 0.9336 | 0.8185 | 1.067 | 80- 90   | 12.17       | 3969         | 98.4, 98.4 |
| 100      | 3.213                 | 3.125 | 2.781 | 2.896 | 3.099 | 2.377  | 2.101  | 2.681 | 90-100   | 1.991       | 3971         | 98.5, 98.5 |
| 110      | 6.519                 | 6.322 | 5.835 | 5.954 | 6.237 | 5.066  | 4.638  | 5.567 | 100-110  | 4.408       | 3975         | 98.6, 98.6 |
| 120      | 10.28                 | 10.10 | 9.573 | 9.633 | 10.02 | 8.622  | 8.162  | 9.311 | 110-120  | 7.506       | 3983         | 98.8, 98.8 |
| 130      | 13.62                 | 13.48 | 13.22 | 13.12 | 13.43 | 12.22  | 11.87  | 12.91 | 120-130  | 10.05       | 3993         | 99, 99     |
| 140      | 16.14                 | 16.27 | 16.47 | 16.03 | 16.15 | 15.32  | 15.23  | 15.78 | 130-140  | 11.18       | 4004         | 99.3, 99.3 |
| 150      | 18.01                 | 18.41 | 18.81 | 18.32 | 18.37 | 17.98  | 17.86  | 18.28 | 140-150  | 10.71       | 4015         | 99.6, 99.6 |
| 160      | 19.76                 | 19.99 | 20.51 | 20.04 | 20.09 | 19.79  | 20.06  | 19.87 | 150-160  | 8.831       | 4023         | 99.8, 99.8 |
| 170      | 21.23                 | 21.73 | 21.90 | 21.78 | 21.67 | 21.61  | 21.41  | 21.38 | 160-170  | 5.874       | 4029         | 99.9, 99.9 |
| 180      | 22.74                 | 23.37 | 22.77 | 23.13 | 22.77 | 23.38  | 22.80  | 23.10 | 170-180  | 2.113       | 4031         | 100, 100   |
| DEG      | LUMINOUS INTENSITY:cd |       |       |       |       |        |        |       |          | UNIT:lm     |              |            |

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2025-06-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity:65.0%  
Test Distance:7.880m [K=1.0000]  
Remarks:

## LUMINANCE LIMITATION CURVES

|                                                                                  |                |                  |
|----------------------------------------------------------------------------------|----------------|------------------|
| Test:U:231.83V I:0.1679A P:38.185W PF:0.9812 Freq:49.99Hz Lamp Flux:4031.47x1 lm |                |                  |
| NAME: SFS009-BKTC3832S01                                                         | TYPE:          | WEIGHT:          |
| SPEC.: black RA80 3000K+5700K                                                    | DIM.:          | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 150*80mm | Shielding Angle: |



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G(DEG)            | C0/180 | C90/270 |
| 85                | 7465   | 704     |
| 80                | 19305  | 6765    |
| 75                | 35599  | 14840   |
| 70                | 55034  | 26890   |
| 65                | 74295  | 43883   |
| 60                | 91313  | 62048   |
| 55                | 105232 | 80315   |
| 50                | 115217 | 94451   |
| 45                | 122476 | 107860  |

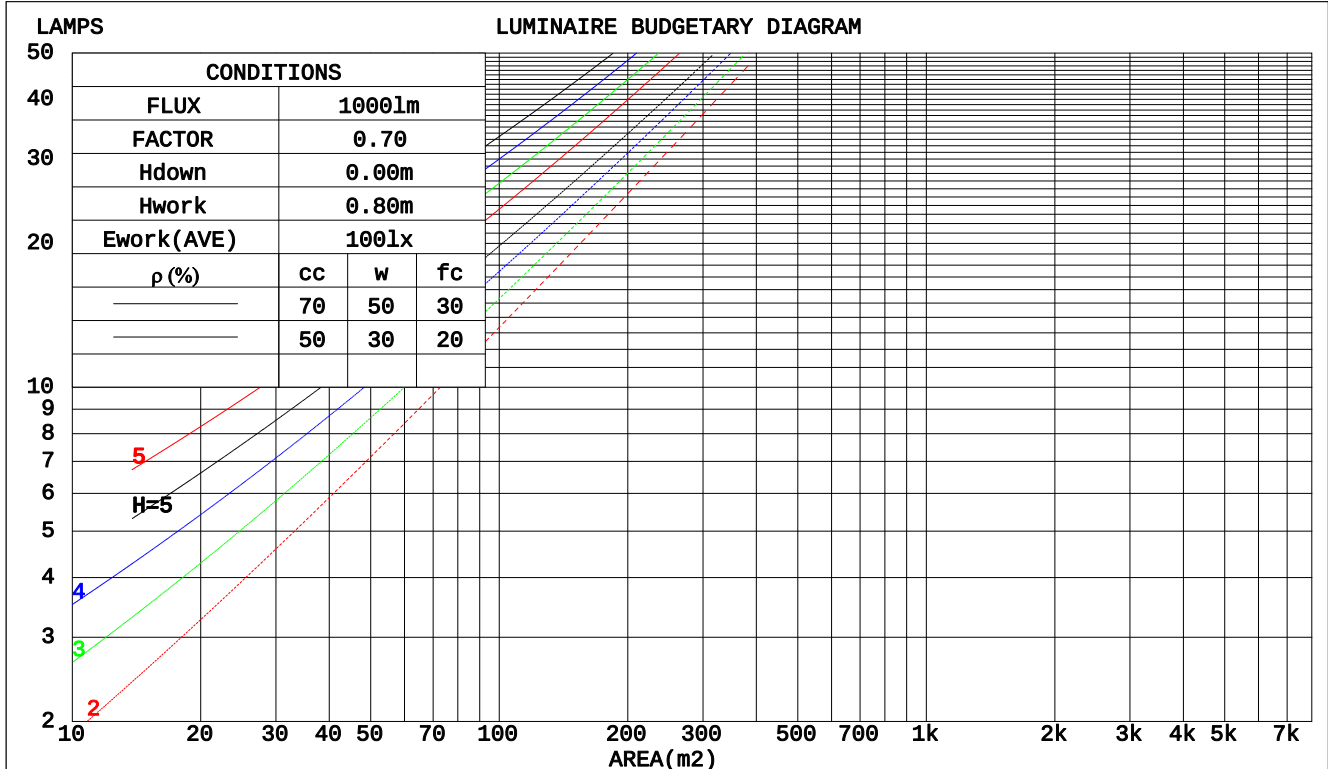
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25DEG  
Operators:  
Test Date: 2025-06-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity: 65.0%  
Test Distance: 7.880m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|                                                                                  |                |                  |
|----------------------------------------------------------------------------------|----------------|------------------|
| Test:U:231.83V I:0.1679A P:38.185W PF:0.9812 Freq:49.99Hz Lamp Flux:4031.47x1 lm |                |                  |
| NAME: SFS009-BKTC3832S01                                                         | TYPE:          | WEIGHT:          |
| SPEC.: black RA80 3000K+5700K                                                    | DIM.:          | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 150*80mm | Shielding Angle: |

| $\rho_{CC}$ | 80%                   |      |      | 70%  |      |      | 50%                             |      |      | 30%  |      |      | 10%  |      |      | 0   |
|-------------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|-----|
| $\rho_W$    | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0   |
| $\rho_{fc}$ | 20%                   |      |      | 20%  |      |      | 20%                             |      |      | 20%  |      |      | 20%  |      |      | 0   |
| RCR         | RCR:Room Cavity Ratio |      |      |      |      |      | Coefficients of Utilization(CU) |      |      |      |      |      |      |      |      |     |
| 0.0         | 1.19                  | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.10                            | 1.10 | 1.10 | 1.05 | 1.05 | 1.05 | 1.01 | 1.01 | 1.01 | .98 |
| 1.0         | 1.06                  | 1.02 | .99  | 1.04 | 1.00 | .97  | .99                             | .97  | .94  | .95  | .93  | .91  | .91  | .90  | .88  | .86 |
| 2.0         | .94                   | .88  | .83  | .92  | .87  | .82  | .88                             | .84  | .80  | .85  | .81  | .78  | .82  | .79  | .76  | .74 |
| 3.0         | .84                   | .76  | .70  | .82  | .75  | .70  | .79                             | .73  | .68  | .76  | .71  | .67  | .73  | .69  | .66  | .63 |
| 4.0         | .75                   | .67  | .60  | .73  | .66  | .60  | .71                             | .64  | .59  | .68  | .63  | .58  | .66  | .61  | .57  | .55 |
| 5.0         | .67                   | .59  | .53  | .66  | .58  | .52  | .64                             | .57  | .52  | .62  | .56  | .51  | .60  | .54  | .50  | .48 |
| 6.0         | .61                   | .52  | .46  | .60  | .52  | .46  | .58                             | .51  | .45  | .56  | .50  | .45  | .54  | .49  | .44  | .42 |
| 7.0         | .55                   | .47  | .41  | .54  | .46  | .41  | .53                             | .46  | .40  | .51  | .45  | .40  | .50  | .44  | .40  | .38 |
| 8.0         | .50                   | .42  | .37  | .50  | .42  | .37  | .48                             | .41  | .36  | .47  | .41  | .36  | .46  | .40  | .36  | .34 |
| 9.0         | .46                   | .38  | .33  | .46  | .38  | .33  | .44                             | .38  | .33  | .43  | .37  | .33  | .42  | .36  | .32  | .30 |
| 10.0        | .43                   | .35  | .30  | .42  | .35  | .30  | .41                             | .34  | .30  | .40  | .34  | .30  | .39  | .33  | .29  | .28 |



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25DEG  
Operators:  
Test Date: 2025-06-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity: 65.0%  
Test Distance: 7.880m [K=1.0000]  
Remarks:

### WEC AND CCEC

|                                                                                  |  |  |                |  |                  |
|----------------------------------------------------------------------------------|--|--|----------------|--|------------------|
| Test:U:231.83V I:0.1679A P:38.185W PF:0.9812 Freq:49.99Hz Lamp Flux:4031.47x1 lm |  |  |                |  |                  |
| NAME: SFS009-BKTC3832S01                                                         |  |  | TYPE:          |  | WEIGHT:          |
| SPEC.: black RA80 3000K+5700K                                                    |  |  | DIM.:          |  | SERIAL No.:      |
| MFR.:                                                                            |  |  | SUR.: 150*80mm |  | Shielding Angle: |

| $\rho_{cc}$ | 80%                   |      |      | 70%  |      |      | 50%                             |      |      | 30%  |      |      | 10%  |      |      | 0 |
|-------------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|
| $\rho_w$    | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| $\rho_{fc}$ | 20%                   |      |      | 20%  |      |      | 20%                             |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR         | RCR:Room Cavity Ratio |      |      |      |      |      | Wall Exitance Coefficients(WEC) |      |      |      |      |      |      |      |      |   |
| 0.0         |                       |      |      |      |      |      |                                 |      |      |      |      |      |      |      |      |   |
| 1.0         | .261                  | .148 | .047 | .253 | .144 | .046 | .239                            | .137 | .044 | .226 | .131 | .042 | .215 | .124 | .040 |   |
| 2.0         | .254                  | .139 | .043 | .248 | .136 | .042 | .235                            | .131 | .041 | .224 | .126 | .039 | .214 | .121 | .038 |   |
| 3.0         | .241                  | .128 | .038 | .235 | .126 | .038 | .224                            | .122 | .037 | .214 | .118 | .036 | .205 | .114 | .035 |   |
| 4.0         | .226                  | .118 | .035 | .221 | .116 | .034 | .212                            | .112 | .034 | .203 | .109 | .033 | .195 | .106 | .032 |   |
| 5.0         | .212                  | .108 | .031 | .208 | .107 | .031 | .199                            | .104 | .031 | .191 | .101 | .030 | .184 | .098 | .030 |   |
| 6.0         | .199                  | .100 | .029 | .195 | .099 | .028 | .187                            | .096 | .028 | .180 | .094 | .028 | .174 | .091 | .027 |   |
| 7.0         | .187                  | .092 | .026 | .183 | .091 | .026 | .177                            | .089 | .026 | .170 | .087 | .025 | .164 | .085 | .025 |   |
| 8.0         | .176                  | .086 | .024 | .173 | .085 | .024 | .166                            | .083 | .024 | .161 | .081 | .023 | .155 | .080 | .023 |   |
| 9.0         | .166                  | .080 | .022 | .163 | .079 | .022 | .157                            | .078 | .022 | .152 | .076 | .022 | .147 | .075 | .022 |   |
| 10.0        | .157                  | .075 | .021 | .154 | .074 | .021 | .149                            | .073 | .021 | .144 | .072 | .020 | .140 | .070 | .020 |   |

| ρcc  | 80%                   |      |      | 70%  |      |      | 50%                                        |      |      | 30%  |      |      | 10%  |      |      | 0 |
|------|-----------------------|------|------|------|------|------|--------------------------------------------|------|------|------|------|------|------|------|------|---|
| ρw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                                        | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| ρfc  | 20%                   |      |      | 20%  |      |      | 20%                                        |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Ceiling Cavity Exitance Coefficients(CCEC) |      |      |      |      |      |      |      |      |   |
| 0.0  | .202                  | .202 | .202 | .173 | .173 | .173 | .118                                       | .118 | .118 | .068 | .068 | .068 | .022 | .022 | .022 |   |
| 1.0  | .189                  | .169 | .150 | .162 | .145 | .129 | .111                                       | .099 | .089 | .064 | .058 | .052 | .020 | .019 | .017 |   |
| 2.0  | .179                  | .144 | .115 | .154 | .124 | .099 | .105                                       | .086 | .069 | .061 | .050 | .041 | .019 | .016 | .013 |   |
| 3.0  | .171                  | .126 | .090 | .147 | .109 | .078 | .101                                       | .076 | .055 | .058 | .044 | .032 | .019 | .014 | .011 |   |
| 4.0  | .163                  | .113 | .074 | .140 | .097 | .064 | .096                                       | .068 | .045 | .056 | .040 | .027 | .018 | .013 | .009 |   |
| 5.0  | .156                  | .102 | .062 | .134 | .088 | .054 | .092                                       | .062 | .038 | .054 | .036 | .023 | .017 | .012 | .007 |   |
| 6.0  | .150                  | .094 | .053 | .129 | .081 | .047 | .089                                       | .057 | .033 | .051 | .033 | .020 | .017 | .011 | .006 |   |
| 7.0  | .143                  | .087 | .047 | .123 | .075 | .041 | .085                                       | .053 | .029 | .049 | .031 | .017 | .016 | .010 | .006 |   |
| 8.0  | .137                  | .081 | .042 | .118 | .070 | .037 | .082                                       | .049 | .026 | .048 | .029 | .016 | .015 | .010 | .005 |   |
| 9.0  | .132                  | .076 | .038 | .113 | .066 | .034 | .078                                       | .046 | .024 | .046 | .027 | .014 | .015 | .009 | .005 |   |
| 10.0 | .126                  | .072 | .035 | .109 | .062 | .031 | .075                                       | .044 | .022 | .044 | .026 | .013 | .014 | .009 | .004 |   |

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2025-06-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity:65.0%  
Test Distance:7.880m [K=1.0000]  
Remarks:

### UGR(Unified Glare Rating) Table

|                                                                                  |               |                  |      |      |                |               |                |                  |      |      |      |
|----------------------------------------------------------------------------------|---------------|------------------|------|------|----------------|---------------|----------------|------------------|------|------|------|
| Test:U:231.83V I:0.1679A P:38.185W PF:0.9812 Freq:49.99Hz Lamp Flux:4031.47x1 lm |               |                  |      |      |                |               |                |                  |      |      |      |
| NAME: SFS009-BKTC3832S01                                                         |               |                  |      |      | TYPE:          |               |                | WEIGHT:          |      |      |      |
| SPEC.: black RA80 3000K+5700K                                                    |               |                  |      |      | DIM.:          |               |                | SERIAL No.:      |      |      |      |
| MFR.:                                                                            |               |                  |      |      | SUR.: 150*80mm |               |                | 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                                                                    | 23.6          | 25.0             | 23.9 | 25.3 | 25.5           | 22.4          | 23.8           | 22.7             | 24.0 | 24.2 |      |
|                                                                                  | 3H            | 24.3             | 25.6 | 24.6 | 25.8           | 26.1          | 22.6           | 23.9             | 23.0 | 24.2 | 24.4 |
|                                                                                  | 4H            | 24.4             | 25.6 | 24.7 | 25.9           | 26.1          | 22.6           | 23.8             | 22.9 | 24.1 | 24.4 |
|                                                                                  | 6H            | 24.4             | 25.5 | 24.7 | 25.8           | 26.1          | 22.5           | 23.6             | 22.9 | 23.9 | 24.2 |
|                                                                                  | 8H            | 24.3             | 25.4 | 24.7 | 25.7           | 26.0          | 22.5           | 23.6             | 22.8 | 23.9 | 24.2 |
|                                                                                  | 12H           | 24.3             | 25.3 | 24.6 | 25.6           | 26.0          | 22.4           | 23.5             | 22.8 | 23.8 | 24.1 |
| 4H                                                                               | 2H            | 23.8             | 25.0 | 24.1 | 25.2           | 25.5          | 22.7           | 23.9             | 23.0 | 24.2 | 24.4 |
|                                                                                  | 3H            | 24.5             | 25.5 | 24.8 | 25.8           | 26.2          | 23.0           | 24.0             | 23.4 | 24.4 | 24.7 |
|                                                                                  | 4H            | 24.6             | 25.6 | 25.0 | 25.9           | 26.3          | 23.0           | 23.9             | 23.4 | 24.3 | 24.6 |
|                                                                                  | 6H            | 24.6             | 25.5 | 25.1 | 25.8           | 26.2          | 22.9           | 23.8             | 23.4 | 24.1 | 24.5 |
|                                                                                  | 8H            | 24.6             | 25.4 | 25.0 | 25.8           | 26.2          | 22.9           | 23.7             | 23.3 | 24.0 | 24.5 |
|                                                                                  | 12H           | 24.6             | 25.3 | 25.0 | 25.7           | 26.1          | 22.8           | 23.5             | 23.3 | 24.0 | 24.4 |
| 8H                                                                               | 4H            | 24.5             | 25.3 | 25.0 | 25.7           | 26.1          | 23.0           | 23.7             | 23.4 | 24.1 | 24.5 |
|                                                                                  | 6H            | 24.6             | 25.2 | 25.1 | 25.6           | 26.1          | 22.9           | 23.5             | 23.4 | 24.0 | 24.4 |
|                                                                                  | 8H            | 24.6             | 25.1 | 25.1 | 25.6           | 26.1          | 22.9           | 23.4             | 23.4 | 23.9 | 24.4 |
|                                                                                  | 12H           | 24.5             | 25.0 | 25.0 | 25.5           | 26.0          | 22.8           | 23.3             | 23.3 | 23.8 | 24.3 |
| 12H                                                                              | 4H            | 24.5             | 25.2 | 24.9 | 25.6           | 26.0          | 22.9           | 23.6             | 23.4 | 24.0 | 24.5 |
|                                                                                  | 6H            | 24.5             | 25.1 | 25.0 | 25.5           | 26.0          | 22.9           | 23.4             | 23.4 | 23.9 | 24.4 |
|                                                                                  | 8H            | 24.5             | 25.0 | 25.0 | 25.5           | 26.0          | 22.9           | 23.3             | 23.4 | 23.8 | 24.3 |
| Variations with the observer position at spacings(CIE Pub.117):                  |               |                  |      |      |                |               |                |                  |      |      |      |
| S = 1.0H                                                                         | + 0.4 / - 0.5 |                  |      |      |                | + 0.7 / - 0.9 |                |                  |      |      |      |
| 1.5H                                                                             | + 0.3 / - 0.6 |                  |      |      |                | + 0.3 / - 0.5 |                |                  |      |      |      |
| 2.0H                                                                             | + 1.1 / - 1.5 |                  |      |      |                | + 1.2 / - 1.8 |                |                  |      |      |      |

CIE Pub.117, 4031 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 4.8)  
Area: 0.012 m2

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2025-06-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity:65.0%  
Test Distance:7.880m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

|                                                                                  |                |                  |
|----------------------------------------------------------------------------------|----------------|------------------|
| Test:U:231.83V I:0.1679A P:38.185W PF:0.9812 Freq:49.99Hz Lamp Flux:4031.47x1 lm |                |                  |
| NAME: SFS009-BKTC3832S01                                                         | TYPE:          | WEIGHT:          |
| SPEC.: black RA80 3000K+5700K                                                    | DIM.:          | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 150*80mm | Shielding Angle: |

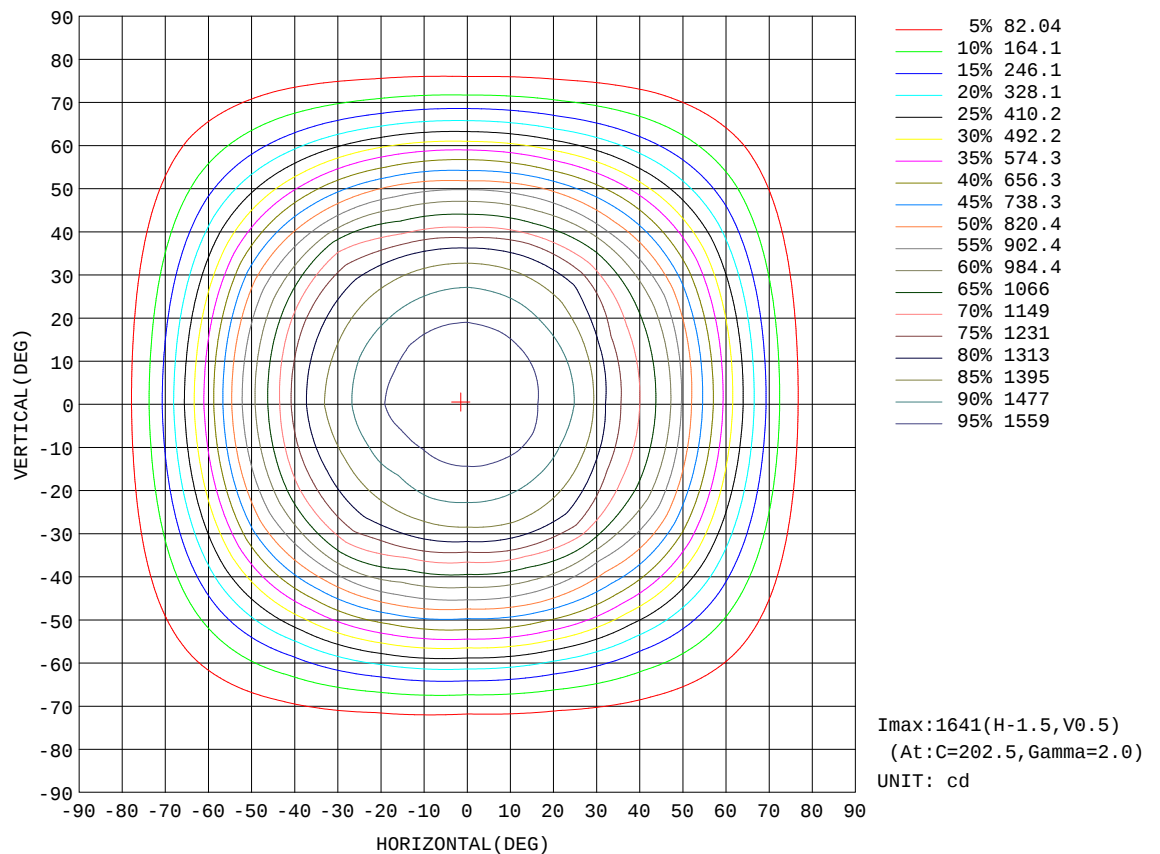
| REFLECTANCE                      |                                                     |     |           |     |     |     |     |               |     |        |
|----------------------------------|-----------------------------------------------------|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| 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                         | 61                                                  | 50  | 44        | 60  | 50  | 44  | 59  | 49            | 43  | 37     |
| 0.80                             | 72                                                  | 61  | 54        | 71  | 61  | 54  | 69  | 60            | 54  | 47     |
| 1.00                             | 80                                                  | 70  | 64        | 79  | 70  | 63  | 77  | 71            | 63  | 56     |
| 1.25                             | 87                                                  | 78  | 72        | 86  | 77  | 71  | 83  | 76            | 70  | 64     |
| 1.50                             | 92                                                  | 83  | 77        | 90  | 82  | 77  | 87  | 81            | 76  | 68     |
| 2.00                             | 98                                                  | 91  | 85        | 97  | 90  | 85  | 93  | 87            | 83  | 75     |
| 2.50                             | 102                                                 | 95  | 90        | 100 | 94  | 89  | 96  | 91            | 87  | 79     |
| 3.00                             | 105                                                 | 99  | 94        | 102 | 97  | 93  | 98  | 94            | 91  | 82     |
| 4.00                             | 108                                                 | 103 | 99        | 106 | 101 | 98  | 101 | 98            | 95  | 86     |
| 5.00                             | 110                                                 | 106 | 103       | 108 | 104 | 101 | 103 | 100           | 97  | 88     |
| 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:25DEG  
Operators:  
Test Date:2025-06-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity:65.0%  
Test Distance:7.880m [K=1.0000]  
Remarks:

# ISOCANDELA DIAGRAM

|                                                                                  |                |                  |
|----------------------------------------------------------------------------------|----------------|------------------|
| Test:U:231.83V I:0.1679A P:38.185W PF:0.9812 Freq:49.99Hz Lamp Flux:4031.47x1 lm |                |                  |
| NAME: SFS009-BKTC3832S01                                                         | TYPE:          | WEIGHT:          |
| SPEC.: black RA80 3000K+5700K                                                    | DIM.:          | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 150*80mm | Shielding Angle: |

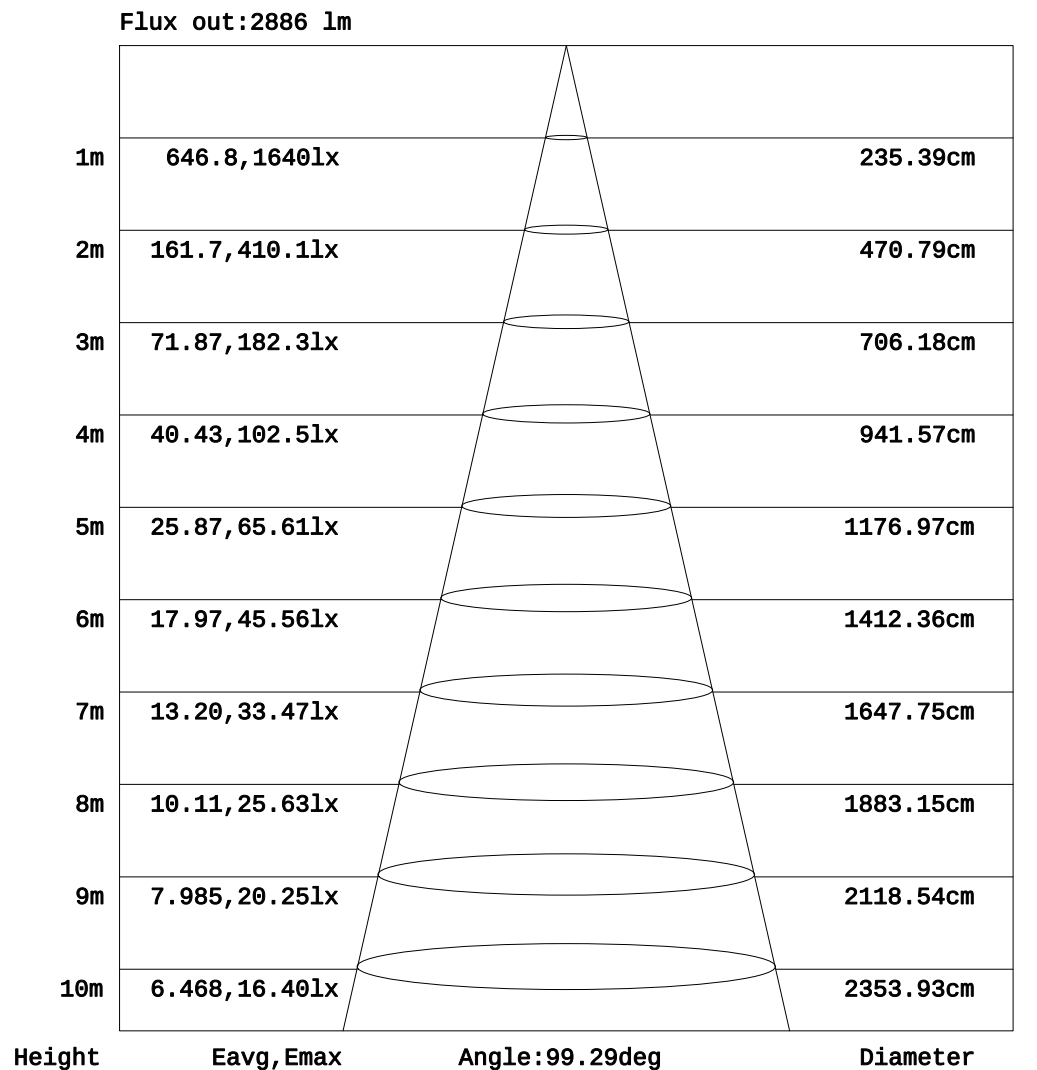


C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2025-06-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity:65.0%  
Test Distance:7.880m [K=1.0000]  
Remarks:

### AAI Figure

|                                                                                  |                |                  |
|----------------------------------------------------------------------------------|----------------|------------------|
| Test:U:231.83V I:0.1679A P:38.185W PF:0.9812 Freq:49.99Hz Lamp Flux:4031.47x1 lm |                |                  |
| NAME: SFS009-BKTC3832S01                                                         | TYPE:          | WEIGHT:          |
| SPEC.: black RA80 3000K+5700K                                                    | DIM.:          | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 150*80mm | Shielding Angle: |



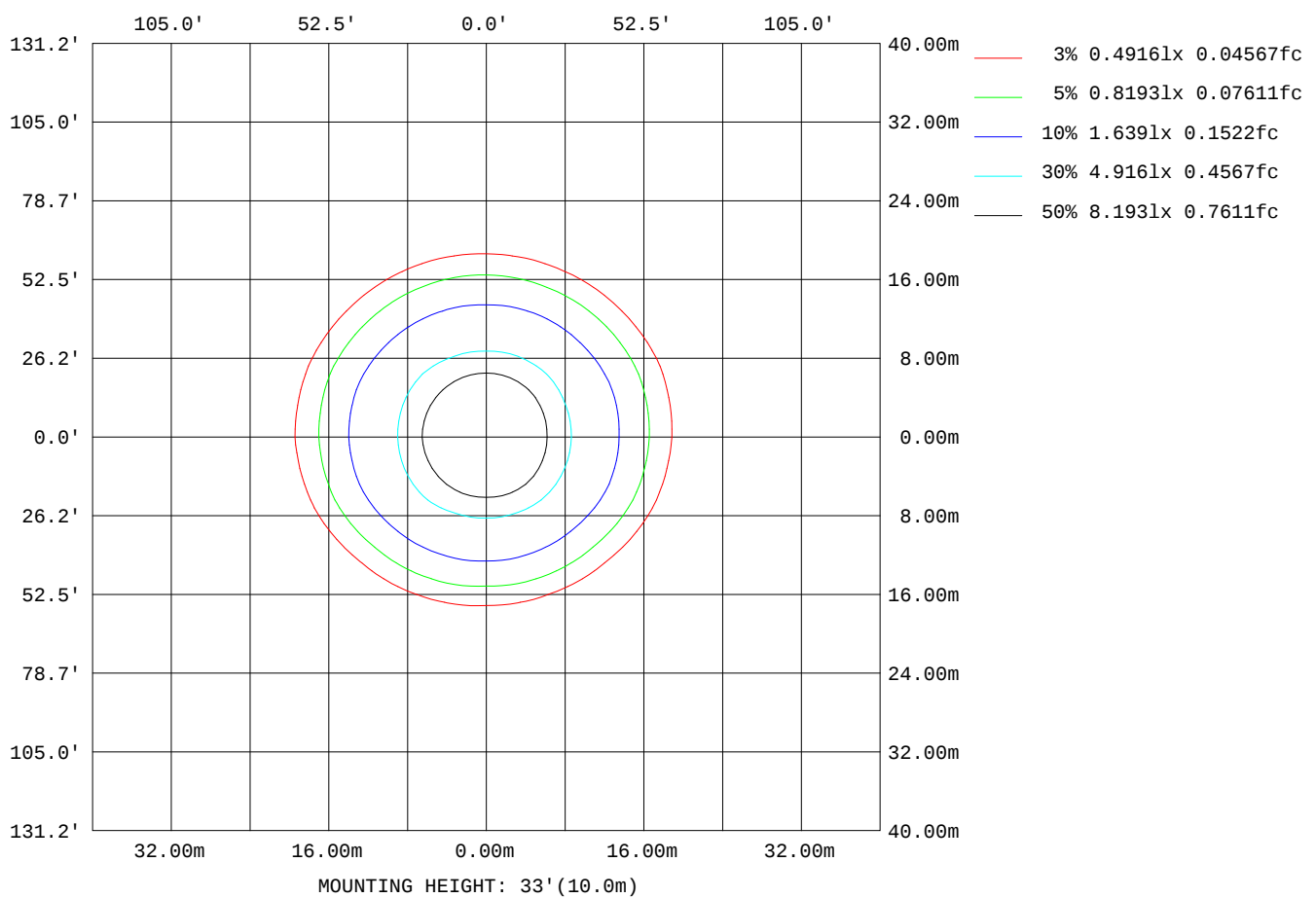
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2025-06-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity:65.0%  
Test Distance:7.880m [K=1.0000]  
Remarks:

# ISOLUX DIAGRAM

|                                                                                  |                |                  |
|----------------------------------------------------------------------------------|----------------|------------------|
| Test:U:231.83V I:0.1679A P:38.185W PF:0.9812 Freq:49.99Hz Lamp Flux:4031.47x1 lm |                |                  |
| NAME: SFS009-BKTC3832S01                                                         | TYPE:          | WEIGHT:          |
| SPEC.: black RA80 3000K+5700K                                                    | DIM.:          | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 150*80mm | Shielding Angle: |



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2025-06-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity:65.0%  
Test Distance:7.880m [K=1.0000]  
Remarks:

## LED Avg.L Report

|                                                                                  |                |                  |
|----------------------------------------------------------------------------------|----------------|------------------|
| Test:U:231.83V I:0.1679A P:38.185W PF:0.9812 Freq:49.99Hz Lamp Flux:4031.47x1 lm |                |                  |
| NAME: SFS009-BKTC3832S01                                                         | TYPE:          | WEIGHT:          |
| SPEC.: black RA80 3000K+5700K                                                    | DIM.:          | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 150*80mm | Shielding Angle: |

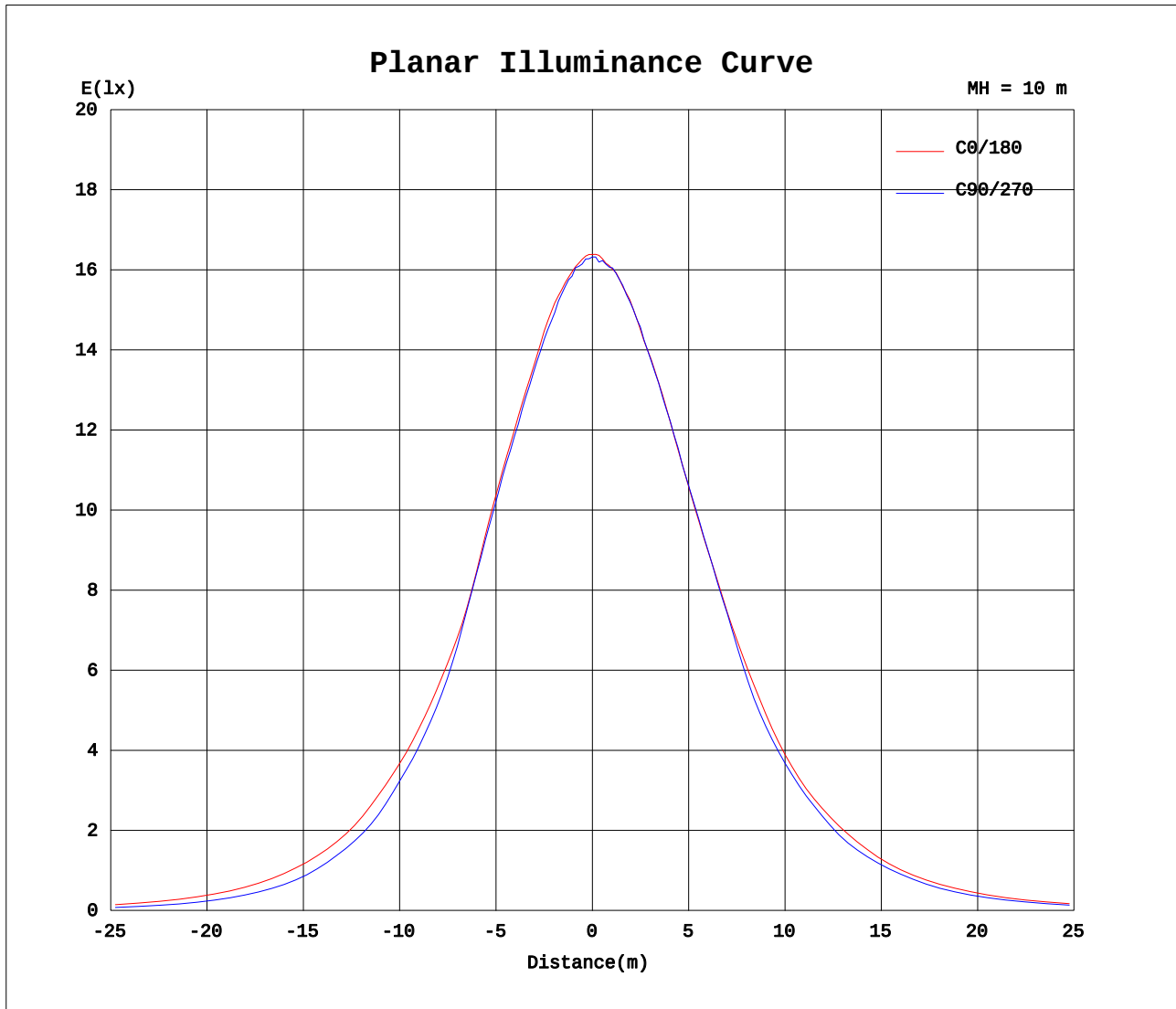
| AvgL           | cd/m2 |
|----------------|-------|
| L_0~180(65)av  | 79608 |
| L_0~180(75)av  | 39685 |
| L_0~180(85)av  | 8635  |
| L_90~270(65)av | 56598 |
| L_90~270(75)av | 23054 |
| L_90~270(85)av | 4358  |
| L_45(65)av     | 64518 |
| L_45(75)av     | 31243 |
| L_45(85)av     | 6572  |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2025-06-26

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
 Humidity:65.0%  
 Test Distance:7.880m [K=1.0000]  
 Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25DEG  
Operators:  
Test Date: 2025-06-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity: 65.0%  
Test Distance: 7.880m [K=1.0000]  
Remarks:

# LUMINOUS DISTRIBUTION INTENSITY DATA

|                                                                                  |                |                  |
|----------------------------------------------------------------------------------|----------------|------------------|
| Test:U:231.83V I:0.1679A P:38.185W PF:0.9812 Freq:49.99Hz Lamp Flux:4031.47x1 lm |                |                  |
| NAME: SFS009-BKTC3832S01                                                         | TYPE:          | WEIGHT:          |
| SPEC.: black RA80 3000K+5700K                                                    | DIM.:          | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 150*80mm | 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                 | 1639 | 1638 | 1636 | 1636 | 1632 | 1633  | 1633 | 1633  | 1639 | 1638  | 1636 | 1636  | 1632 | 1633  | 1633 | 1633  |  |  |  |
| 5                 | 1626 | 1624 | 1619 | 1624 | 1624 | 1619  | 1613 | 1626  | 1629 | 1629  | 1632 | 1626  | 1625 | 1625  | 1633 | 1618  |  |  |  |
| 10                | 1607 | 1606 | 1604 | 1594 | 1593 | 1593  | 1596 | 1599  | 1614 | 1612  | 1612 | 1619  | 1611 | 1613  | 1608 | 1611  |  |  |  |
| 15                | 1573 | 1574 | 1564 | 1557 | 1553 | 1554  | 1555 | 1569  | 1580 | 1585  | 1589 | 1593  | 1582 | 1589  | 1582 | 1584  |  |  |  |
| 20                | 1527 | 1521 | 1510 | 1511 | 1509 | 1512  | 1507 | 1535  | 1553 | 1549  | 1548 | 1548  | 1547 | 1543  | 1546 | 1531  |  |  |  |
| 25                | 1474 | 1453 | 1449 | 1450 | 1456 | 1452  | 1457 | 1472  | 1498 | 1496  | 1499 | 1499  | 1496 | 1487  | 1481 | 1478  |  |  |  |
| 30                | 1375 | 1375 | 1381 | 1383 | 1360 | 1373  | 1390 | 1407  | 1437 | 1439  | 1430 | 1437  | 1441 | 1429  | 1422 | 1396  |  |  |  |
| 35                | 1242 | 1243 | 1282 | 1247 | 1201 | 1252  | 1309 | 1324  | 1355 | 1362  | 1364 | 1354  | 1350 | 1349  | 1338 | 1266  |  |  |  |
| 40                | 1149 | 1135 | 1130 | 1067 | 1052 | 1081  | 1196 | 1221  | 1252 | 1263  | 1276 | 1212  | 1177 | 1210  | 1216 | 1162  |  |  |  |
| 45                | 1039 | 1018 | 941  | 925  | 915  | 943   | 1031 | 1080  | 1102 | 1133  | 1148 | 1058  | 1041 | 1044  | 1064 | 1052  |  |  |  |
| 50                | 889  | 875  | 780  | 751  | 729  | 772   | 843  | 929   | 965  | 980   | 958  | 910   | 893  | 897   | 896  | 928   |  |  |  |
| 55                | 724  | 691  | 610  | 569  | 553  | 592   | 656  | 761   | 805  | 823   | 774  | 731   | 712  | 713   | 730  | 749   |  |  |  |
| 60                | 548  | 503  | 419  | 381  | 372  | 407   | 464  | 560   | 611  | 626   | 582  | 554   | 531  | 527   | 550  | 575   |  |  |  |
| 65                | 377  | 327  | 260  | 230  | 223  | 246   | 290  | 373   | 431  | 429   | 393  | 364   | 352  | 347   | 365  | 391   |  |  |  |
| 70                | 226  | 188  | 145  | 120  | 110  | 129   | 164  | 219   | 269  | 263   | 236  | 216   | 207  | 206   | 220  | 237   |  |  |  |
| 75                | 111  | 91.2 | 67.7 | 50.8 | 46.1 | 55.0  | 77.3 | 108   | 136  | 138   | 126  | 106   | 97.1 | 102   | 117  | 121   |  |  |  |
| 80                | 40.2 | 34.4 | 21.9 | 16.0 | 14.1 | 17.1  | 25.4 | 41.4  | 50.8 | 58.1  | 50.4 | 39.6  | 36.3 | 39.0  | 47.6 | 50.2  |  |  |  |
| 85                | 7.81 | 6.08 | 2.60 | 1.10 | 0.74 | 1.31  | 3.09 | 7.82  | 10.3 | 14.3  | 11.0 | 8.92  | 8.38 | 8.87  | 10.8 | 12.7  |  |  |  |
| 90                | 1.24 | 1.31 | 1.22 | 1.14 | 1.05 | 1.09  | 1.12 | 1.20  | 1.26 | 1.07  | 0.93 | 0.79  | 0.82 | 0.86  | 1.07 | 1.25  |  |  |  |
| 95                | 2.03 | 2.12 | 1.98 | 1.86 | 1.74 | 1.77  | 1.83 | 1.92  | 2.01 | 1.74  | 1.52 | 1.32  | 1.33 | 1.43  | 1.72 | 2.03  |  |  |  |
| 100               | 3.21 | 3.29 | 3.13 | 2.92 | 2.78 | 2.79  | 2.90 | 3.00  | 3.10 | 2.74  | 2.38 | 2.10  | 2.10 | 2.27  | 2.68 | 3.13  |  |  |  |
| 105               | 4.74 | 4.79 | 4.59 | 4.32 | 4.16 | 4.14  | 4.27 | 4.42  | 4.52 | 4.06  | 3.57 | 3.24  | 3.21 | 3.46  | 3.96 | 4.58  |  |  |  |
| 110               | 6.52 | 6.55 | 6.32 | 6.01 | 5.83 | 5.80  | 5.95 | 6.10  | 6.24 | 5.67  | 5.07 | 4.67  | 4.64 | 4.95  | 5.57 | 6.31  |  |  |  |
| 115               | 8.43 | 8.44 | 8.20 | 7.84 | 7.67 | 7.59  | 7.77 | 7.92  | 8.10 | 7.46  | 6.79 | 6.35  | 6.33 | 6.67  | 7.40 | 8.23  |  |  |  |
| 120               | 10.3 | 10.3 | 10.1 | 9.73 | 9.57 | 9.48  | 9.63 | 9.80  | 10.0 | 9.34  | 8.62 | 8.18  | 8.16 | 8.55  | 9.31 | 10.2  |  |  |  |
| 125               | 12.1 | 12.0 | 11.9 | 11.5 | 11.4 | 11.3  | 11.4 | 11.5  | 11.8 | 11.1  | 10.5 | 10.0  | 10.1 | 10.4  | 11.1 | 12.0  |  |  |  |
| 130               | 13.6 | 13.6 | 13.5 | 13.2 | 13.2 | 13.0  | 13.1 | 13.1  | 13.4 | 12.8  | 12.2 | 11.8  | 11.9 | 12.1  | 12.9 | 13.6  |  |  |  |
| 135               | 15.0 | 15.0 | 15.0 | 14.8 | 14.9 | 14.7  | 14.7 | 14.6  | 14.9 | 14.3  | 13.9 | 13.5  | 13.5 | 13.8  | 14.5 | 15.1  |  |  |  |
| 140               | 16.1 | 16.1 | 16.3 | 16.3 | 16.5 | 16.2  | 16.0 | 15.9  | 16.1 | 15.7  | 15.3 | 15.1  | 15.2 | 15.5  | 15.8 | 16.3  |  |  |  |
| 145               | 17.1 | 17.1 | 17.4 | 17.6 | 17.9 | 17.5  | 17.2 | 17.1  | 17.3 | 16.9  | 16.7 | 16.5  | 16.8 | 16.7  | 17.1 | 17.2  |  |  |  |
| 150               | 18.0 | 18.0 | 18.4 | 18.6 | 18.8 | 18.4  | 18.3 | 18.2  | 18.4 | 17.9  | 18.0 | 17.6  | 17.9 | 17.8  | 18.3 | 18.1  |  |  |  |
| 155               | 18.9 | 19.0 | 19.2 | 19.5 | 19.7 | 19.4  | 19.2 | 19.2  | 19.3 | 18.9  | 19.0 | 18.9  | 19.1 | 19.0  | 19.2 | 19.0  |  |  |  |
| 160               | 19.8 | 19.8 | 20.0 | 20.4 | 20.5 | 20.3  | 20.0 | 20.1  | 20.1 | 19.8  | 19.8 | 19.9  | 20.1 | 19.9  | 19.9 | 19.8  |  |  |  |
| 165               | 20.5 | 20.6 | 20.9 | 21.2 | 21.2 | 21.1  | 20.9 | 21.0  | 20.9 | 20.8  | 20.6 | 20.7  | 20.8 | 20.7  | 20.6 | 20.6  |  |  |  |
| 170               | 21.2 | 21.3 | 21.7 | 22.1 | 21.9 | 21.8  | 21.8 | 21.9  | 21.7 | 21.9  | 21.6 | 21.4  | 21.4 | 21.4  | 21.4 | 21.4  |  |  |  |
| 175               | 22.0 | 22.2 | 22.7 | 22.7 | 22.3 | 22.3  | 22.6 | 22.6  | 22.3 | 22.7  | 22.8 | 22.3  | 22.0 | 22.2  | 22.4 | 22.2  |  |  |  |
| 180               | 22.7 | 22.9 | 23.4 | 23.0 | 22.8 | 22.8  | 23.1 | 22.9  | 22.8 | 22.9  | 23.4 | 23.0  | 22.8 | 22.8  | 23.1 | 22.9  |  |  |  |

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2025-06-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity:65.0%  
Test Distance:7.880m [K=1.0000]  
Remarks: