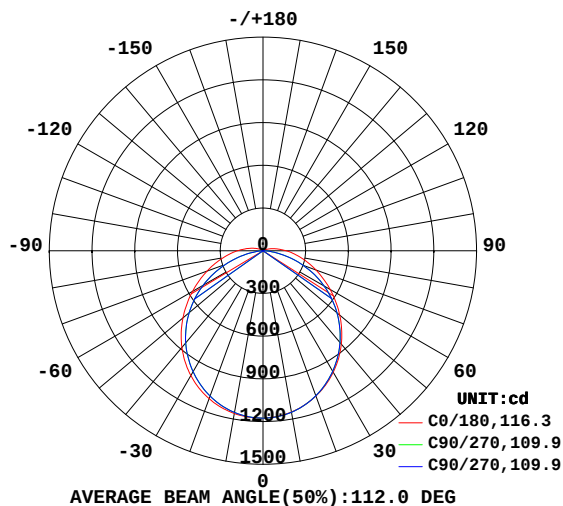


## LUMINAIRE PHOTOMETRIC TEST REPORT

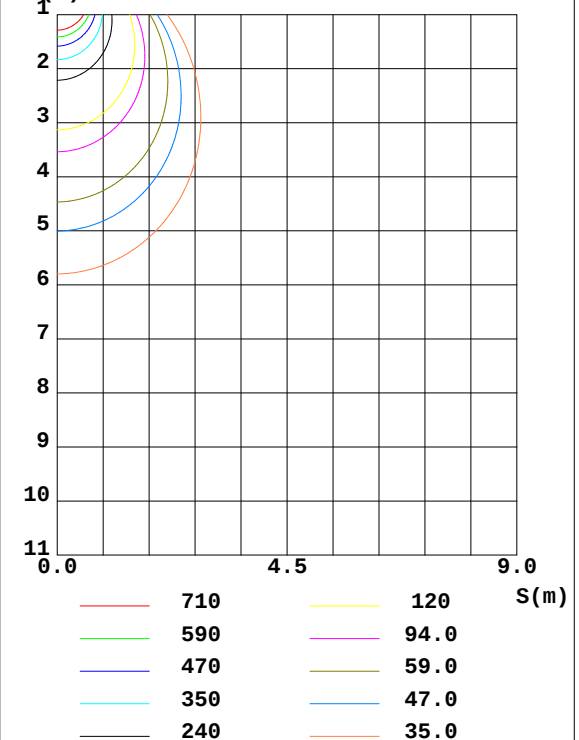
|                                                                                                                     |              |                         |
|---------------------------------------------------------------------------------------------------------------------|--------------|-------------------------|
| Test:U:230.72V I:0.1455A P:30.845W PF:0.9188 Freq:49.89Hz UTHDi:0.00% ITHDi:0.00% KDisp:0<br>Lamp Flux:3644.68x1 lm |              |                         |
| NAME: SLB-40W-CC                                                                                                    | TYPE: 30W    | WEIGHT:                 |
| SPEC.: 3000K                                                                                                        | DIM.:        | SERIAL No.: UP-IES4-R&D |
| MFR.:                                                                                                               | SUR.: 0.0756 | Shielding Angle:        |

| DATA OF LAMP     |            | PHOTOMETRIC DATA Eff: 118.16 lm/W |        |                    |           |
|------------------|------------|-----------------------------------|--------|--------------------|-----------|
| MODEL            | SLB-40W-CC | I <sub>max</sub> (cd)             | 1176   | S/MH(C0/180)       | 1.28      |
| NOMINAL POWER(W) | 30         | LOR(%)                            | 100.0  | S/MH(C90/270)      | 1.24      |
| RATED VOLTAGE(V) | 230        | TOTAL FLUX(lm)                    | 3644.7 | η UP, DN(C0-180)   | 1.9, 47.6 |
| NOMINAL FLUX(lm) | 3644.68    | CIE CLASS                         | DIRECT | η UP, DN(C180-360) | 2.2, 48.3 |
| LAMPS INSIDE     | 1          | η up(%)                           | 4.1    | CIBSE SHR NOM      | 1.25      |
| TEST VOLTAGE(V)  | 230        | η down(%)                         | 95.9   | CIBSE SHR MAX      | 1.35      |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:RD  
Test Date:2023-10-09

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-2000H\_V1 SYSTEM V2.00.446  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

| $\gamma$ | C0                    | C90   | C180  | C270  |  |  |  | $\gamma$ | $\Phi$ zone | $\Phi$ total | %lum, lamp |
|----------|-----------------------|-------|-------|-------|--|--|--|----------|-------------|--------------|------------|
| 10       | 1150                  | 1152  | 1161  | 1153  |  |  |  | 0- 10    | 111.2       | 111.2        | 3.05, 3.05 |
| 20       | 1086                  | 1084  | 1106  | 1087  |  |  |  | 10- 20   | 318.1       | 429.3        | 11.8, 11.8 |
| 30       | 986.4                 | 978.5 | 1013  | 981.4 |  |  |  | 20- 30   | 481.4       | 910.7        | 25, 25     |
| 40       | 855.8                 | 841.0 | 886.2 | 844.7 |  |  |  | 30- 40   | 579.8       | 1491         | 40.9, 40.9 |
| 50       | 703.4                 | 678.5 | 734.1 | 676.4 |  |  |  | 40- 50   | 601.7       | 2092         | 57.4, 57.4 |
| 60       | 545.2                 | 496.7 | 571.9 | 485.2 |  |  |  | 50- 60   | 547.6       | 2640         | 72.4, 72.4 |
| 70       | 396.3                 | 300.5 | 418.5 | 281.0 |  |  |  | 60- 70   | 432.2       | 3072         | 84.3, 84.3 |
| 80       | 267.2                 | 112.3 | 284.9 | 88.40 |  |  |  | 70- 80   | 281.3       | 3353         | 92, 92     |
| 90       | 161.9                 | 1.738 | 179.2 | 1.897 |  |  |  | 80- 90   | 141.0       | 3494         | 95.9, 95.9 |
| 100      | 84.87                 | 2.256 | 99.74 | 2.683 |  |  |  | 90-100   | 71.63       | 3566         | 97.8, 97.8 |
| 110      | 35.63                 | 3.612 | 46.22 | 4.088 |  |  |  | 100-110  | 35.84       | 3602         | 98.8, 98.8 |
| 120      | 13.00                 | 5.051 | 17.96 | 5.521 |  |  |  | 110-120  | 15.39       | 3617         | 99.2, 99.2 |
| 130      | 6.856                 | 6.517 | 7.658 | 6.998 |  |  |  | 120-130  | 7.496       | 3625         | 99.5, 99.5 |
| 140      | 7.996                 | 7.970 | 8.220 | 8.341 |  |  |  | 130-140  | 5.797       | 3631         | 99.6, 99.6 |
| 150      | 9.193                 | 9.231 | 9.366 | 9.477 |  |  |  | 140-150  | 5.478       | 3636         | 99.8, 99.8 |
| 160      | 10.27                 | 10.26 | 10.39 | 10.39 |  |  |  | 150-160  | 4.536       | 3641         | 99.9, 99.9 |
| 170      | 11.14                 | 10.98 | 11.21 | 11.00 |  |  |  | 160-170  | 3.028       | 3644         | 100, 100   |
| 180      | 11.53                 | 11.27 | 11.54 | 11.26 |  |  |  | 170-180  | 1.072       | 3645         | 100, 100   |
| DEG      | LUMINOUS INTENSITY:cd |       |       |       |  |  |  |          | UNIT:lm     |              |            |

Conical surface Flux(90deg): 1793.6 lm

%lum = 49.2%

%lamp = 49.2%

Conical surface Flux(120deg): 2639.9 lm

%lum = 72.4%

%lamp = 72.4%

0 - 45 DEG Zonal Flux:1793.6      %lum: 49.2%

0 - 60 DEG Zonal Flux:2639.9      %lum: 72.4%

All measured values may vary less than 35 %

from the average measured value in the 0 to 130 deg. zone: 16.0%

All measured values in the 0 to 130 deg. zone

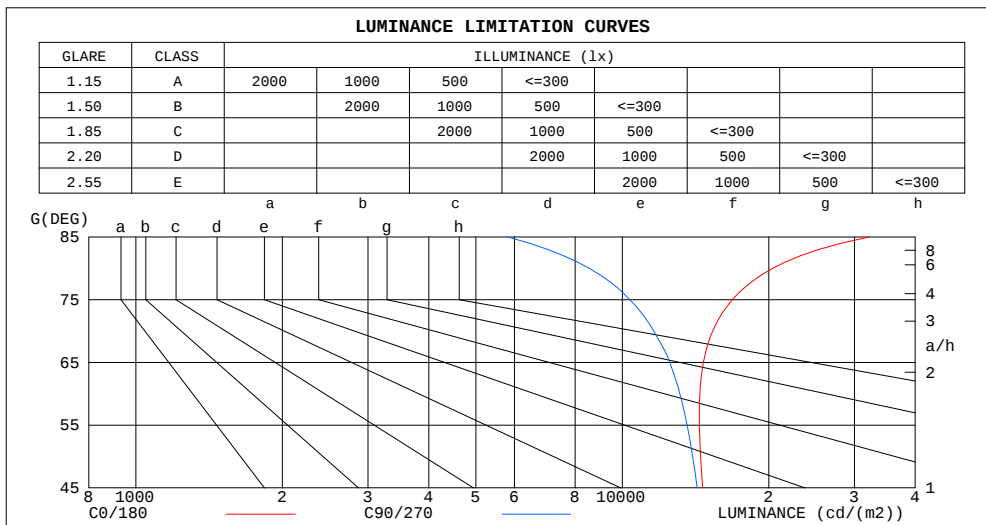
may vary less than 50% from the average value of itself: 23.7%

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:RD  
Test Date:2023-10-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE G0-2000H\_V1 SYSTEM V2.00.446  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks:

## LUMINANCE LIMITATION CURVES

|                                                                                                                     |              |                         |
|---------------------------------------------------------------------------------------------------------------------|--------------|-------------------------|
| Test:U:230.72V I:0.1455A P:30.845W PF:0.9188 Freq:49.89Hz UTHDi:0.00% ITHDi:0.00% KDisp:0<br>Lamp Flux:3644.68x1 lm |              |                         |
| NAME: SLB-40W-CC                                                                                                    | TYPE: 30W    | WEIGHT:                 |
| SPEC.: 3000K                                                                                                        | DIM.:        | SERIAL No.: UP-IES4-R&D |
| MFR.:                                                                                                               | SUR.: 0.0756 | Shielding Angle:        |



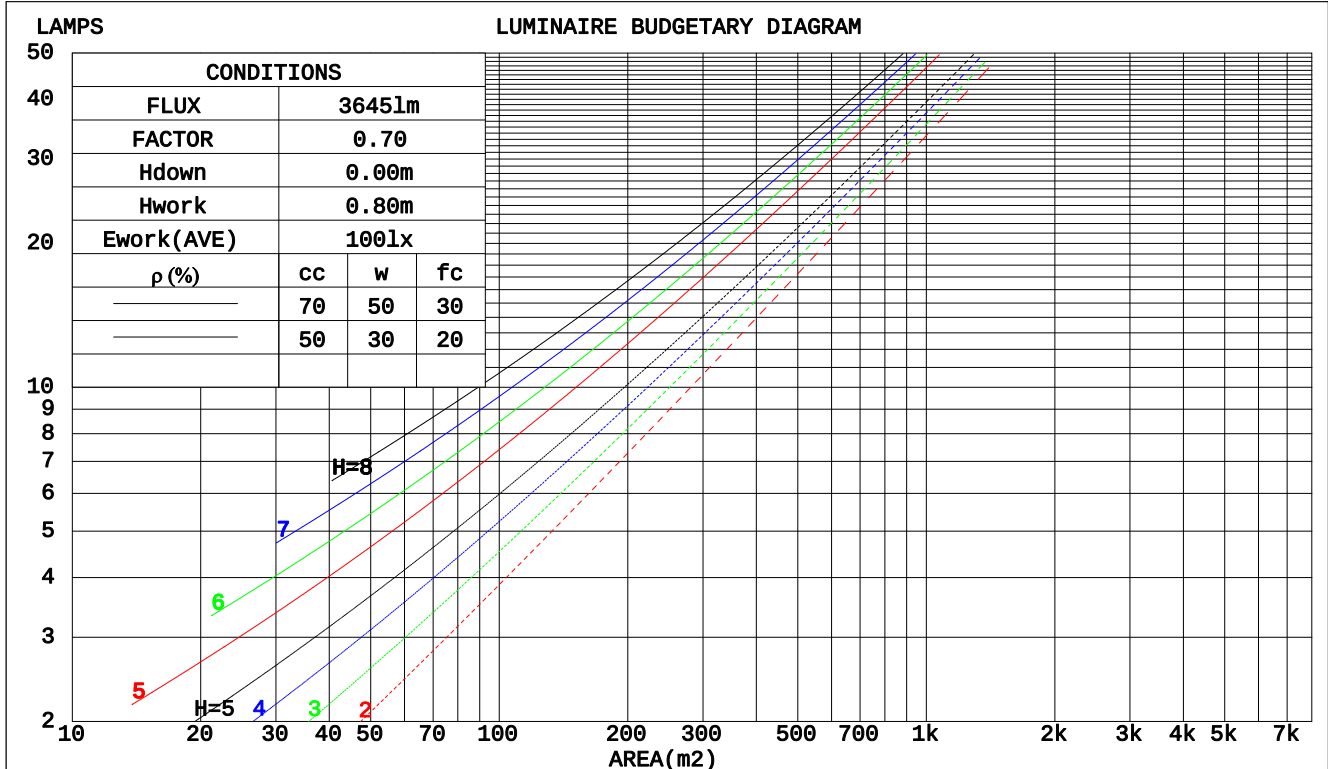
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:RD  
Test Date:2023-10-09

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-2000H\_V1 SYSTEM V2.00.446  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|                                                                                                                     |              |                         |
|---------------------------------------------------------------------------------------------------------------------|--------------|-------------------------|
| Test:U:230.72V I:0.1455A P:30.845W PF:0.9188 Freq:49.89Hz UTHDi:0.00% ITHDi:0.00% KDisp:0<br>Lamp Flux:3644.68x1 lm |              |                         |
| NAME: SLB-40W-CC                                                                                                    | TYPE: 30W    | WEIGHT:                 |
| SPEC.: 3000K                                                                                                        | DIM.:        | SERIAL No.: UP-IES4-R&D |
| MFR.:                                                                                                               | SUR.: 0.0756 | 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         | 1.18                  | 1.18 | 1.18 | 1.15                            | 1.15 | 1.15 | 1.09 | 1.09 | 1.09 | 1.03 | 1.03 | 1.03 | .98 | .98 | .98 | .96 |
| 1.0         | 1.02                  | .97  | .93  | .99                             | .95  | .91  | .94  | .90  | .87  | .89  | .86  | .84  | .85 | .83 | .81 | .78 |
| 2.0         | .88                   | .81  | .75  | .86                             | .79  | .74  | .82  | .76  | .71  | .78  | .73  | .69  | .74 | .70 | .67 | .64 |
| 3.0         | .77                   | .69  | .62  | .75                             | .67  | .61  | .72  | .65  | .59  | .68  | .63  | .58  | .65 | .60 | .56 | .54 |
| 4.0         | .68                   | .59  | .52  | .67                             | .58  | .52  | .64  | .56  | .51  | .61  | .54  | .49  | .58 | .53 | .48 | .46 |
| 5.0         | .61                   | .52  | .45  | .59                             | .51  | .44  | .57  | .49  | .44  | .54  | .48  | .43  | .52 | .46 | .42 | .40 |
| 6.0         | .55                   | .46  | .39  | .54                             | .45  | .39  | .51  | .44  | .38  | .49  | .43  | .37  | .47 | .41 | .37 | .35 |
| 7.0         | .50                   | .41  | .34  | .49                             | .40  | .34  | .47  | .39  | .34  | .45  | .38  | .33  | .43 | .37 | .33 | .31 |
| 8.0         | .45                   | .37  | .31  | .44                             | .36  | .30  | .43  | .35  | .30  | .41  | .34  | .30  | .40 | .34 | .29 | .27 |
| 9.0         | .41                   | .33  | .28  | .41                             | .33  | .27  | .39  | .32  | .27  | .38  | .31  | .27  | .37 | .31 | .26 | .24 |
| 10.0        | .38                   | .30  | .25  | .38                             | .30  | .25  | .36  | .29  | .24  | .35  | .29  | .24  | .34 | .28 | .24 | .22 |



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: RD  
Test Date: 2023-10-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE G0-2000H\_V1 SYSTEM V2.00.446  
Humidity: 65.0%  
Test Distance: 9.000m [K=1.0000]  
Remarks:

## WEC AND CCEC

|                                                                                                                     |  |  |              |  |                         |
|---------------------------------------------------------------------------------------------------------------------|--|--|--------------|--|-------------------------|
| Test:U:230.72V I:0.1455A P:30.845W PF:0.9188 Freq:49.89Hz UTHDi:0.00% ITHDi:0.00% KDisp:0<br>Lamp Flux:3644.68x1 lm |  |  |              |  |                         |
| NAME: SLB-40W-CC                                                                                                    |  |  | TYPE: 30W    |  | WEIGHT:                 |
| SPEC.: 3000K                                                                                                        |  |  | DIM.:        |  | SERIAL No.: UP-IES4-R&D |
| MFR.:                                                                                                               |  |  | SUR.: 0.0756 |  | 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         | .334                  | .190 | .060 | .326 | .186 | .059 | .310                            | .178 | .057 | .296 | .170 | .055 | .282 | .164 | .053 |   |  |
| 2.0         | .305                  | .167 | .051 | .297 | .164 | .050 | .283                            | .157 | .049 | .270 | .152 | .047 | .258 | .146 | .046 |   |  |
| 3.0         | .278                  | .148 | .044 | .271 | .145 | .044 | .259                            | .140 | .043 | .247 | .135 | .042 | .236 | .131 | .041 |   |  |
| 4.0         | .254                  | .132 | .039 | .248 | .130 | .038 | .237                            | .126 | .038 | .227 | .122 | .037 | .217 | .118 | .036 |   |  |
| 5.0         | .234                  | .119 | .035 | .229 | .117 | .034 | .219                            | .114 | .033 | .209 | .110 | .033 | .201 | .107 | .032 |   |  |
| 6.0         | .216                  | .108 | .031 | .211 | .107 | .031 | .202                            | .104 | .030 | .194 | .101 | .030 | .186 | .098 | .029 |   |  |
| 7.0         | .200                  | .099 | .028 | .196 | .098 | .028 | .188                            | .095 | .027 | .181 | .093 | .027 | .174 | .090 | .026 |   |  |
| 8.0         | .187                  | .091 | .026 | .183 | .090 | .025 | .176                            | .088 | .025 | .169 | .086 | .025 | .162 | .083 | .024 |   |  |
| 9.0         | .175                  | .085 | .024 | .171 | .084 | .023 | .165                            | .081 | .023 | .159 | .079 | .023 | .153 | .078 | .022 |   |  |
| 10.0        | .164                  | .079 | .022 | .161 | .078 | .022 | .155                            | .076 | .021 | .149 | .074 | .021 | .144 | .072 | .021 |   |  |

| $\rho_{cc}$ | 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         | .222                  | .222 | .222 | .190 | .190 | .190 | .129                                       | .129 | .129 | .074 | .074 | .074 | .024 | .024 | .024 |   |
| 1.0         | .214                  | .188 | .164 | .183 | .161 | .141 | .125                                       | .111 | .098 | .072 | .064 | .057 | .023 | .021 | .018 |   |
| 2.0         | .206                  | .164 | .128 | .176 | .141 | .111 | .121                                       | .098 | .077 | .070 | .057 | .045 | .022 | .018 | .015 |   |
| 3.0         | .198                  | .146 | .105 | .170 | .126 | .091 | .117                                       | .088 | .064 | .067 | .051 | .038 | .022 | .017 | .012 |   |
| 4.0         | .190                  | .133 | .090 | .163 | .115 | .078 | .112                                       | .080 | .055 | .065 | .047 | .032 | .021 | .015 | .011 |   |
| 5.0         | .183                  | .123 | .079 | .157 | .106 | .069 | .108                                       | .074 | .049 | .063 | .044 | .029 | .020 | .014 | .009 |   |
| 6.0         | .175                  | .115 | .071 | .151 | .099 | .062 | .104                                       | .070 | .044 | .060 | .041 | .026 | .019 | .013 | .009 |   |
| 7.0         | .169                  | .108 | .065 | .145 | .094 | .057 | .100                                       | .066 | .040 | .058 | .039 | .024 | .019 | .013 | .008 |   |
| 8.0         | .162                  | .102 | .061 | .139 | .089 | .053 | .096                                       | .062 | .038 | .056 | .037 | .023 | .018 | .012 | .007 |   |
| 9.0         | .156                  | .097 | .058 | .134 | .084 | .050 | .093                                       | .059 | .036 | .054 | .035 | .021 | .018 | .012 | .007 |   |
| 10.0        | .150                  | .093 | .055 | .129 | .081 | .048 | .090                                       | .057 | .034 | .052 | .034 | .020 | .017 | .011 | .007 |   |

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:RD  
Test Date:2023-10-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE G0-2000H\_V1 SYSTEM V2.00.446  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks:

## UGR(Unified Glare Rating) Table

|                                                                                                                     |               |                  |      |      |              |               |                |                         |      |      |      |
|---------------------------------------------------------------------------------------------------------------------|---------------|------------------|------|------|--------------|---------------|----------------|-------------------------|------|------|------|
| Test:U:230.72V I:0.1455A P:30.845W PF:0.9188 Freq:49.89Hz UTHdi:0.00% ITHDi:0.00% KDisp:0<br>Lamp Flux:3644.68x1 lm |               |                  |      |      |              |               |                |                         |      |      |      |
| NAME: SLB-40W-CC                                                                                                    |               |                  |      |      | TYPE: 30W    |               |                | WEIGHT:                 |      |      |      |
| SPEC.: 3000K                                                                                                        |               |                  |      |      | DIM.:        |               |                | SERIAL No.: UP-IES4-R&D |      |      |      |
| MFR.:                                                                                                               |               |                  |      |      | SUR.: 0.0756 |               |                | 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                                                                                                       | 21.9          | 23.3             | 22.2 | 23.6 | 23.9         | 21.6          | 23.0           | 21.9                    | 23.3 | 23.6 |      |
|                                                                                                                     | 3H            | 23.7             | 25.1 | 24.1 | 25.4         | 25.7          | 23.0           | 24.4                    | 23.4 | 24.7 | 25.0 |
|                                                                                                                     | 4H            | 24.7             | 26.0 | 25.1 | 26.3         | 26.7          | 23.6           | 24.9                    | 24.0 | 25.2 | 25.6 |
|                                                                                                                     | 6H            | 25.7             | 26.9 | 26.1 | 27.3         | 27.6          | 24.0           | 25.2                    | 24.4 | 25.5 | 25.9 |
|                                                                                                                     | 8H            | 26.2             | 27.4 | 26.6 | 27.8         | 28.1          | 24.1           | 25.2                    | 24.5 | 25.6 | 26.0 |
|                                                                                                                     | 12H           | 26.8             | 28.0 | 27.2 | 28.3         | 28.7          | 24.1           | 25.2                    | 24.5 | 25.6 | 26.0 |
| 4H                                                                                                                  | 2H            | 22.5             | 23.8 | 22.8 | 24.1         | 24.4          | 22.2           | 23.5                    | 22.6 | 23.9 | 24.2 |
|                                                                                                                     | 3H            | 24.5             | 25.7 | 24.9 | 26.0         | 26.4          | 23.9           | 25.1                    | 24.3 | 25.4 | 25.8 |
|                                                                                                                     | 4H            | 25.6             | 26.7 | 26.1 | 27.1         | 27.5          | 24.6           | 25.7                    | 25.1 | 26.1 | 26.5 |
|                                                                                                                     | 6H            | 26.8             | 27.7 | 27.3 | 28.2         | 28.6          | 25.1           | 26.1                    | 25.6 | 26.5 | 27.0 |
|                                                                                                                     | 8H            | 27.4             | 28.3 | 27.9 | 28.7         | 29.2          | 25.3           | 26.2                    | 25.8 | 26.6 | 27.1 |
|                                                                                                                     | 12H           | 28.1             | 29.0 | 28.6 | 29.4         | 29.9          | 25.4           | 26.2                    | 25.9 | 26.6 | 27.1 |
| 8H                                                                                                                  | 4H            | 25.9             | 26.8 | 26.4 | 27.2         | 27.7          | 25.0           | 25.9                    | 25.5 | 26.4 | 26.8 |
|                                                                                                                     | 6H            | 27.3             | 28.0 | 27.8 | 28.5         | 29.0          | 25.8           | 26.5                    | 26.3 | 27.0 | 27.5 |
|                                                                                                                     | 8H            | 28.1             | 28.7 | 28.6 | 29.2         | 29.8          | 26.0           | 26.7                    | 26.6 | 27.2 | 27.7 |
|                                                                                                                     | 12H           | 29.0             | 29.6 | 29.5 | 30.1         | 30.7          | 26.2           | 26.8                    | 26.8 | 27.3 | 27.9 |
| 12H                                                                                                                 | 4H            | 25.9             | 26.7 | 26.4 | 27.2         | 27.7          | 25.1           | 25.9                    | 25.6 | 26.4 | 26.9 |
|                                                                                                                     | 6H            | 27.4             | 28.0 | 27.9 | 28.5         | 29.1          | 25.9           | 26.6                    | 26.5 | 27.1 | 27.6 |
|                                                                                                                     | 8H            | 28.2             | 28.8 | 28.8 | 29.3         | 29.9          | 26.3           | 26.9                    | 26.8 | 27.4 | 27.9 |
| Variations with the observer position at spacings(CIE Pub.117):                                                     |               |                  |      |      |              |               |                |                         |      |      |      |
| S = 1.0H                                                                                                            | + 0.1 / - 0.1 |                  |      |      |              | + 0.1 / - 0.2 |                |                         |      |      |      |
| 1.5H                                                                                                                | + 0.2 / - 0.3 |                  |      |      |              | + 0.2 / - 0.3 |                |                         |      |      |      |
| 2.0H                                                                                                                | + 0.1 / - 0.3 |                  |      |      |              | + 0.2 / - 0.3 |                |                         |      |      |      |

CIE Pub.117, 3645 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = 4.5$ )  
Area: 0.0756 m<sup>2</sup>

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:RD  
Test Date:2023-10-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 $\gamma$  Test System:EVERFINE G0-2000H\_V1 SYSTEM V2.00.446  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

|                                                                                                                     |              |                         |
|---------------------------------------------------------------------------------------------------------------------|--------------|-------------------------|
| Test:U:230.72V I:0.1455A P:30.845W PF:0.9188 Freq:49.89Hz UTHDi:0.00% ITHDi:0.00% KDisp:0<br>Lamp Flux:3644.68x1 lm |              |                         |
| NAME: SLB-40W-CC                                                                                                    | TYPE: 30W    | WEIGHT:                 |
| SPEC.: 3000K                                                                                                        | DIM.:        | SERIAL No.: UP-IES4-R&D |
| MFR.:                                                                                                               | SUR.: 0.0756 | Shielding Angle:        |

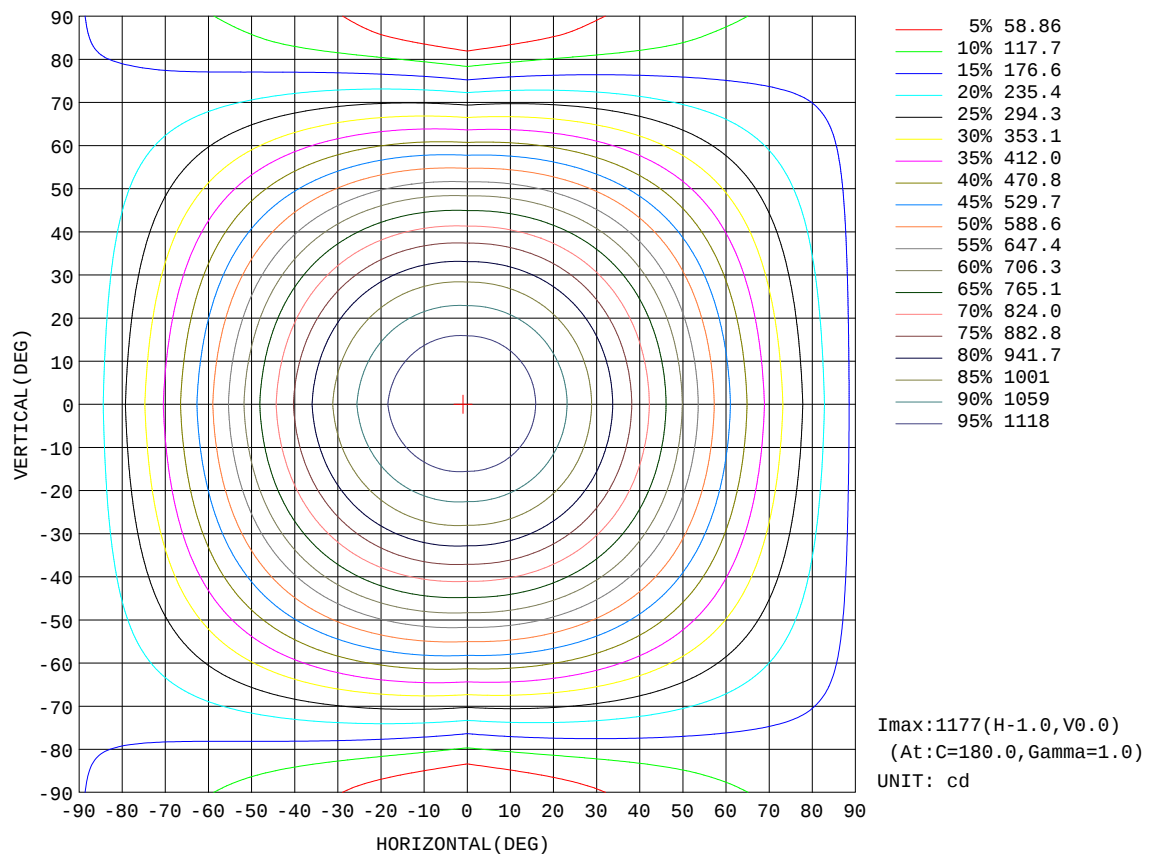
| REFLECTANCE                      |                                                     |     |           |     |     |     |     |               |     |        |
|----------------------------------|-----------------------------------------------------|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| 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) $k(RI) \times RCR = 5$ |     |           |     |     |     |     |               |     |        |
| $k = 0.60$                       | 55                                                  | 43  | 36        | 54  | 43  | 36  | 53  | 43            | 36  | 30     |
| 0.80                             | 65                                                  | 53  | 45        | 64  | 53  | 45  | 62  | 52            | 45  | 38     |
| 1.00                             | 73                                                  | 62  | 54        | 72  | 61  | 54  | 69  | 62            | 53  | 46     |
| 1.25                             | 80                                                  | 69  | 62        | 79  | 68  | 61  | 76  | 67            | 60  | 52     |
| 1.50                             | 85                                                  | 75  | 67        | 83  | 74  | 67  | 80  | 72            | 65  | 57     |
| 2.00                             | 92                                                  | 83  | 76        | 90  | 81  | 75  | 86  | 79            | 73  | 64     |
| 2.50                             | 96                                                  | 88  | 81        | 94  | 86  | 80  | 89  | 83            | 78  | 69     |
| 3.00                             | 100                                                 | 92  | 86        | 97  | 90  | 85  | 92  | 87            | 82  | 73     |
| 4.00                             | 104                                                 | 97  | 92        | 101 | 95  | 90  | 96  | 91            | 87  | 77     |
| 5.00                             | 106                                                 | 101 | 96        | 104 | 99  | 94  | 98  | 94            | 91  | 80     |
| ROOM INDEX                       | UF(total)                                           |     |           |     |     |     |     |               |     | Direct |
| According to DIN EN 13032-2 2004 |                                                     |     | Suspended |     |     |     |     | SHRNOM = 1.25 |     |        |

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:RD  
Test Date:2023-10-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE G0-2000H\_V1 SYSTEM V2.00.446  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

|                                                                                                                     |              |                         |
|---------------------------------------------------------------------------------------------------------------------|--------------|-------------------------|
| Test:U:230.72V I:0.1455A P:30.845W PF:0.9188 Freq:49.89Hz UTHDi:0.00% ITHDi:0.00% KDisp:0<br>Lamp Flux:3644.68x1 lm |              |                         |
| NAME: SLB-40W-CC                                                                                                    | TYPE: 30W    | WEIGHT:                 |
| SPEC.: 3000K                                                                                                        | DIM.:        | SERIAL No.: UP-IES4-R&D |
| MFR.:                                                                                                               | SUR.: 0.0756 | Shielding Angle:        |

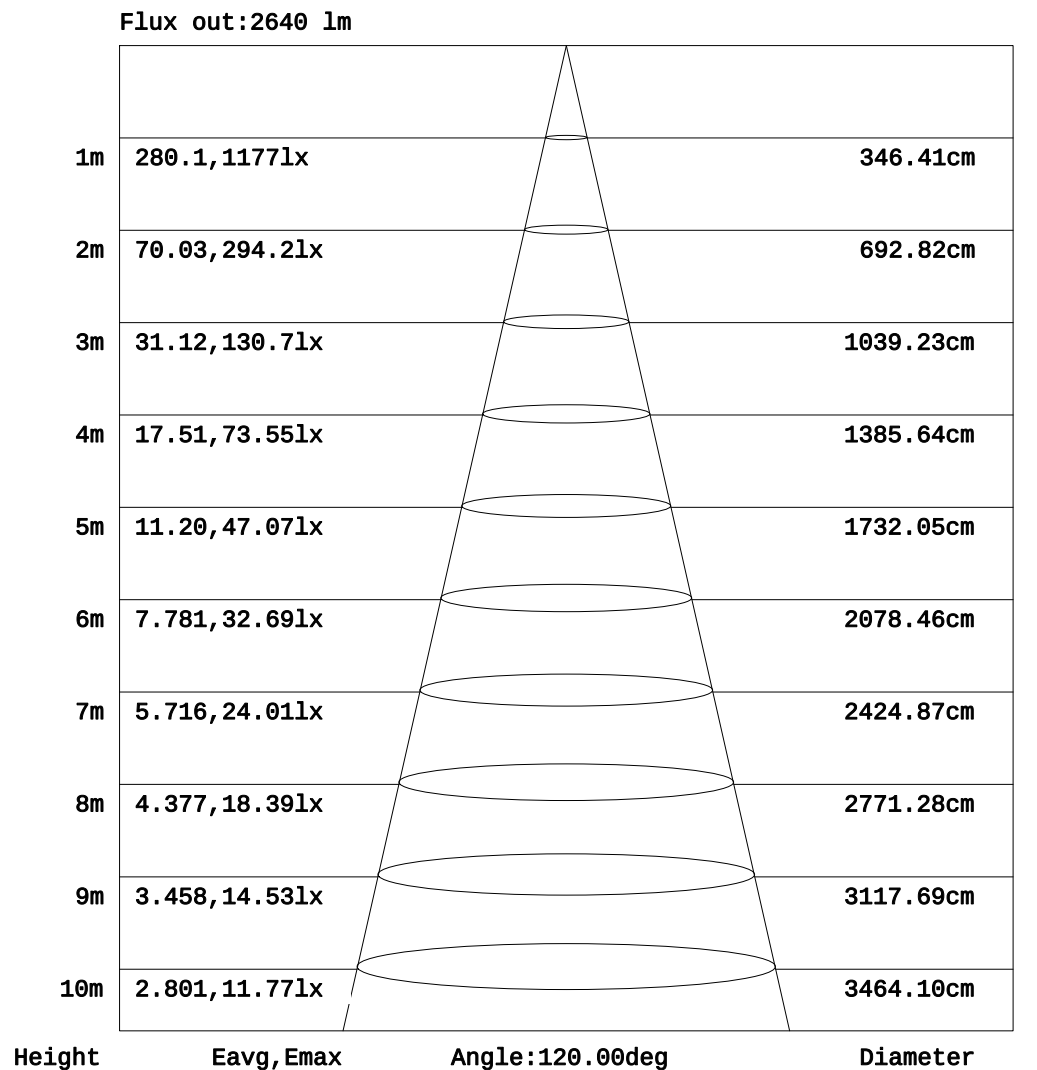


C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:RD  
Test Date:2023-10-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE G0-2000H\_V1 SYSTEM V2.00.446  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks:

## AAI Figure

|                                                                                                                     |              |                         |
|---------------------------------------------------------------------------------------------------------------------|--------------|-------------------------|
| Test:U:230.72V I:0.1455A P:30.845W PF:0.9188 Freq:49.89Hz UTHDi:0.00% ITHDi:0.00% KDisp:0<br>Lamp Flux:3644.68x1 lm |              |                         |
| NAME: SLB-40W-CC                                                                                                    | TYPE: 30W    | WEIGHT:                 |
| SPEC.: 3000K                                                                                                        | DIM.:        | SERIAL No.: UP-IES4-R&D |
| MFR.:                                                                                                               | SUR.: 0.0756 | Shielding Angle:        |



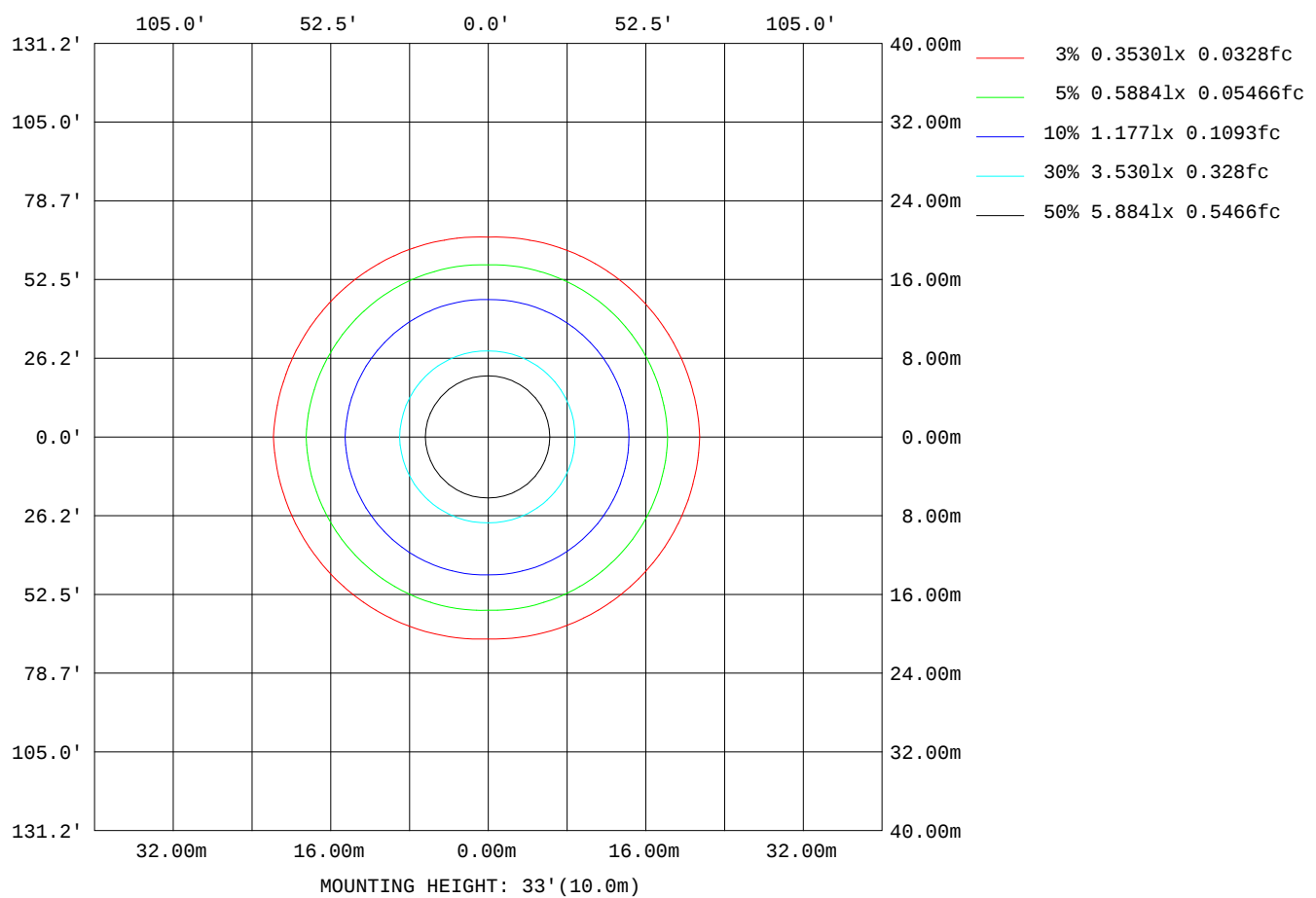
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:RD  
Test Date:2023-10-09

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-2000H\_V1 SYSTEM V2.00.446  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks:

## ISOLUX DIAGRAM

|                                                                                                                     |              |                         |
|---------------------------------------------------------------------------------------------------------------------|--------------|-------------------------|
| Test:U:230.72V I:0.1455A P:30.845W PF:0.9188 Freq:49.89Hz UTHDi:0.00% ITHDi:0.00% KDisp:0<br>Lamp Flux:3644.68x1 lm |              |                         |
| NAME: SLB-40W-CC                                                                                                    | TYPE: 30W    | WEIGHT:                 |
| SPEC.: 3000K                                                                                                        | DIM.:        | SERIAL No.: UP-IES4-R&D |
| MFR.:                                                                                                               | SUR.: 0.0756 | Shielding Angle:        |



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: RD  
Test Date: 2023-10-09

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE G0-2000H\_V1 SYSTEM V2.00.446  
Humidity: 65.0%  
Test Distance: 9.000m [K=1.0000]  
Remarks:

## LED Avg.L Report

|                                                                                                                     |              |                         |
|---------------------------------------------------------------------------------------------------------------------|--------------|-------------------------|
| Test:U:230.72V I:0.1455A P:30.845W PF:0.9188 Freq:49.89Hz UTHDi:0.00% ITHDi:0.00% KDisp:0<br>Lamp Flux:3644.68x1 lm |              |                         |
| NAME: SLB-40W-CC                                                                                                    | TYPE: 30W    | WEIGHT:                 |
| SPEC.: 3000K                                                                                                        | DIM.:        | SERIAL No.: UP-IES4-R&D |
| MFR.:                                                                                                               | SUR.: 0.0756 | Shielding Angle:        |

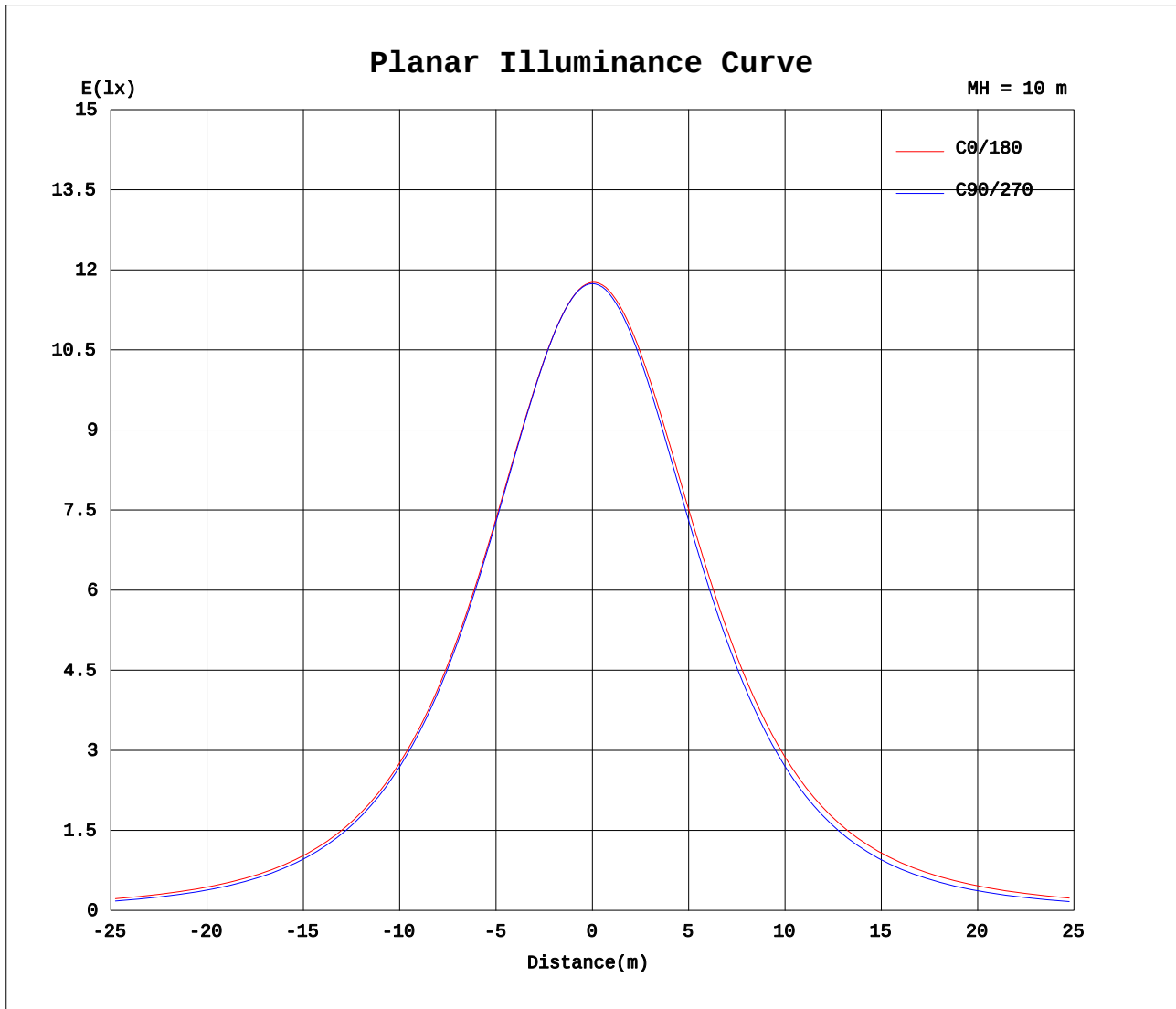
| AvgL           | cd/m2 |
|----------------|-------|
| L_0~180(65)av  | 15046 |
| L_0~180(75)av  | 17336 |
| L_0~180(85)av  | 33439 |
| L_90~270(65)av | 12274 |
| L_90~270(75)av | 9803  |
| L_90~270(85)av | 4468  |
| L_45(65)av     | 13338 |
| L_45(75)av     | 12664 |
| L_45(85)av     | 15424 |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:RD  
 Test Date:2023-10-09

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE G0-2000H\_V1 SYSTEM V2.00.446  
 Humidity:65.0%  
 Test Distance:9.000m [K=1.0000]  
 Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: RD  
Test Date: 2023-10-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE G0-2000H\_V1 SYSTEM V2.00.446  
Humidity: 65.0%  
Test Distance: 9.000m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

|                                                                                                                     |              |                         |
|---------------------------------------------------------------------------------------------------------------------|--------------|-------------------------|
| Test:U:230.72V I:0.1455A P:30.845W PF:0.9188 Freq:49.89Hz UTHDi:0.00% ITHDi:0.00% KDisp:0<br>Lamp Flux:3644.68x1 lm |              |                         |
| NAME: SLB-40W-CC                                                                                                    | TYPE: 30W    | WEIGHT:                 |
| SPEC.: 3000K                                                                                                        | DIM.:        | SERIAL No.: UP-IES4-R&D |
| MFR.:                                                                                                               | SUR.: 0.0756 | Shielding Angle:        |

Table--1

UNIT: cd

| C(°)  | 0    | 90   | 180  | 270  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------|------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| γ (°) | 0    | 1176 | 1176 | 1176 | 1176 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5     | 1168 | 1170 | 1173 | 1170 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10    | 1150 | 1152 | 1161 | 1153 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15    | 1123 | 1123 | 1138 | 1125 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20    | 1086 | 1084 | 1106 | 1087 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 25    | 1040 | 1036 | 1064 | 1039 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30    | 986  | 978  | 1013 | 981  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 35    | 925  | 913  | 953  | 917  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40    | 856  | 841  | 886  | 845  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 45    | 781  | 762  | 812  | 764  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 50    | 703  | 679  | 734  | 676  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 55    | 624  | 590  | 653  | 583  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60    | 545  | 497  | 572  | 485  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 65    | 469  | 400  | 493  | 384  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 70    | 396  | 301  | 418  | 281  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 75    | 329  | 203  | 349  | 181  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 80    | 267  | 112  | 285  | 88.4 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 85    | 212  | 38.4 | 229  | 20.5 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 90    | 162  | 1.74 | 179  | 1.90 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 95    | 120  | 1.64 | 136  | 2.03 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100   | 84.9 | 2.26 | 99.7 | 2.68 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 105   | 56.7 | 2.93 | 69.6 | 3.37 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 110   | 35.6 | 3.61 | 46.2 | 4.09 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 115   | 21.3 | 4.32 | 29.3 | 4.78 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 120   | 13.0 | 5.05 | 18.0 | 5.52 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 125   | 9.17 | 5.78 | 11.4 | 6.26 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 130   | 6.86 | 6.52 | 7.66 | 7.00 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 135   | 7.38 | 7.26 | 7.64 | 7.69 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 140   | 8.00 | 7.97 | 8.22 | 8.34 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 145   | 8.60 | 8.63 | 8.86 | 8.94 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 150   | 9.19 | 9.23 | 9.37 | 9.48 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 155   | 9.73 | 9.79 | 9.89 | 9.95 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 160   | 10.3 | 10.3 | 10.4 | 10.4 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 165   | 10.7 | 10.7 | 10.8 | 10.7 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 170   | 11.1 | 11.0 | 11.2 | 11.0 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 175   | 11.4 | 11.2 | 11.4 | 11.1 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 180   | 11.5 | 11.3 | 11.5 | 11.3 |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: RD  
 Test Date: 2023-10-09

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE G0-2000H\_V1 SYSTEM V2.00.446  
 Humidity: 65.0%  
 Test Distance: 9.000m [K=1.0000]  
 Remarks: