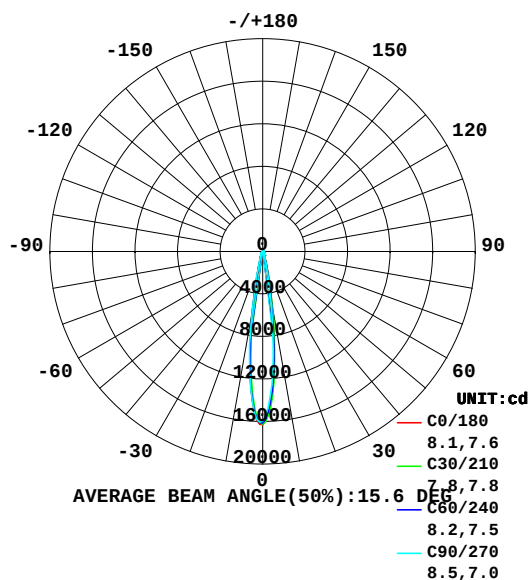


LUMINAIRE PHOTOMETRIC TEST REPORT

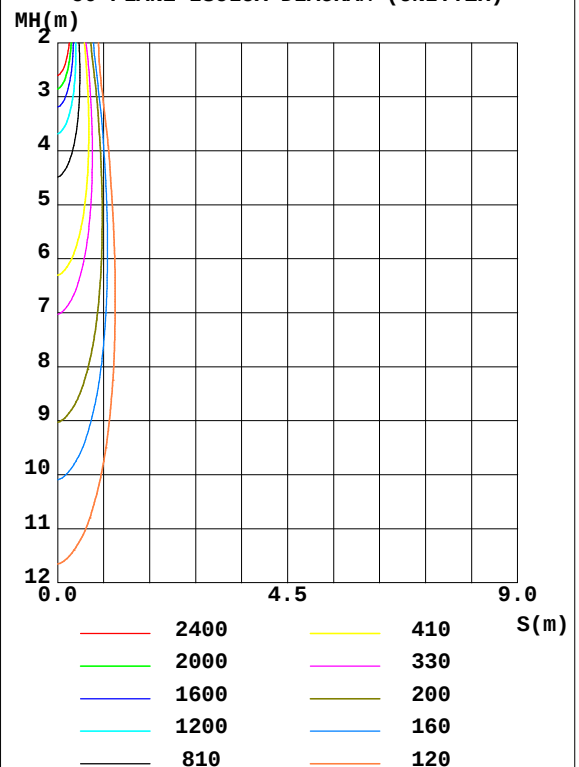
|                                                                                  |           |  |
|----------------------------------------------------------------------------------|-----------|--|
| Test:U:220.60V I:0.1110A P:23.300W PF:0.9450 Freq:50.00Hz Lamp Flux:2110.92x1 lm |           |  |
| NAME: PS-TL25W40KD1580RA-D                                                       | TYPE: LED |  |
| MFR.:                                                                            |           |  |
|                                                                                  |           |  |

| DATA OF LAMP     |                      | PHOTOMETRIC DATA Eff: 90.60 lm/W |        |                         |           |
|------------------|----------------------|----------------------------------|--------|-------------------------|-----------|
| MODEL            | PS-TL25W40KD1580RA-D | Imax(cd)                         | 16294  | S/MH(C0/180)            | 0.26      |
| NOMINAL POWER(W) | 25                   | LOR(%)                           | 100.0  | S/MH(C90/270)           | 0.25      |
| RATED VOLTAGE(V) | 220                  | TOTAL FLUX(lm)                   | 2110.9 | $\eta$ UP, DN(C0-180)   | 1.6, 43.5 |
| NOMINAL FLUX(lm) | 2110.92              | CIE CLASS                        | DIRECT | $\eta$ UP, DN(C180-360) | 1.7, 53.1 |
| LAMPS INSIDE     | 1                    | $\eta$ up(%)                     | 3.4    | CIBSE SHR NOM           | 0.00      |
| TEST VOLTAGE(V)  | 220.6                | $\eta$ down(%)                   | 96.6   | CIBSE SHR MAX           | 1.00      |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT: lx)



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2018-11-10

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.0.406.11  
Humidity: 65.0%  
Test Distance: 8.000m [K=0.7063]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

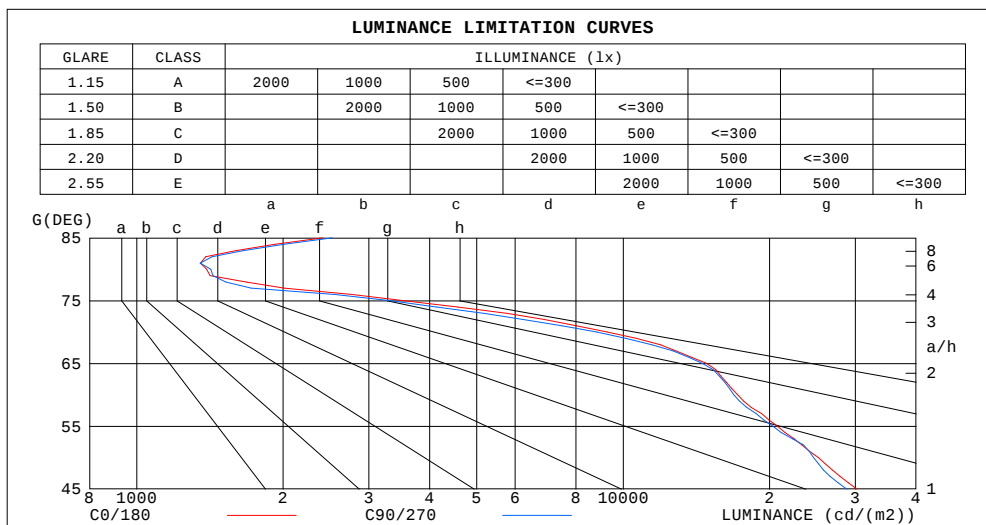
| $\gamma$ | C0                       | C45    | C90    | C135   | C180   | C225   | C270   | C315   | $\gamma$ | $\Phi$ zone | $\Phi$ total | %lum, lamp |
|----------|--------------------------|--------|--------|--------|--------|--------|--------|--------|----------|-------------|--------------|------------|
| 10       | 510.8                    | 508.5  | 420.0  | 351.8  | 551.0  | 518.8  | 576.9  | 700.7  | 0- 10    | 925.3       | 925.3        | 43.8,43.8  |
| 20       | 70.48                    | 67.47  | 58.68  | 54.95  | 67.53  | 68.29  | 73.37  | 84.82  | 10- 20   | 524.4       | 1450         | 68.7,68.7  |
| 30       | 34.21                    | 33.80  | 31.29  | 28.47  | 32.90  | 35.28  | 37.34  | 39.52  | 20- 30   | 216.7       | 1666         | 78.9,78.9  |
| 40       | 17.70                    | 17.25  | 16.58  | 14.93  | 16.64  | 17.34  | 18.74  | 20.04  | 30- 40   | 154.4       | 1821         | 86.3,86.3  |
| 50       | 9.709                    | 9.802  | 9.493  | 9.086  | 10.09  | 10.15  | 10.48  | 11.13  | 40- 50   | 101.1       | 1922         | 91,91      |
| 60       | 5.153                    | 5.205  | 5.063  | 4.822  | 5.385  | 5.459  | 5.497  | 5.785  | 50- 60   | 66.60       | 1988         | 94.2,94.2  |
| 70       | 1.901                    | 1.972  | 1.807  | 1.552  | 2.389  | 2.408  | 2.567  | 2.682  | 60- 70   | 37.88       | 2026         | 96,96      |
| 80       | 0.1450                   | 0.1500 | 0.1479 | 0.1402 | 0.5832 | 0.5721 | 0.5676 | 0.5707 | 70- 80   | 10.04       | 2036         | 96.5,96.5  |
| 90       | 0.1546                   | 0.1558 | 0.1621 | 0.1655 | 0.5504 | 0.5447 | 0.5387 | 0.5393 | 80- 90   | 3.715       | 2040         | 96.6,96.6  |
| 100      | 0.2091                   | 0.2132 | 0.2214 | 0.2281 | 0.5251 | 0.5203 | 0.5166 | 0.5181 | 90-100   | 3.926       | 2044         | 96.8,96.8  |
| 110      | 0.3678                   | 0.3744 | 0.4019 | 0.4262 | 0.5912 | 0.5888 | 0.5725 | 0.5605 | 100-110  | 4.358       | 2048         | 97,97      |
| 120      | 0.7793                   | 0.7995 | 0.8578 | 0.8878 | 0.8895 | 0.8905 | 0.8571 | 0.8230 | 110-120  | 6.374       | 2055         | 97.3,97.3  |
| 130      | 1.304                    | 1.313  | 1.349  | 1.383  | 1.138  | 1.128  | 1.108  | 1.097  | 120-130  | 9.454       | 2064         | 97.8,97.8  |
| 140      | 1.738                    | 1.737  | 1.761  | 1.806  | 1.575  | 1.568  | 1.501  | 1.443  | 130-140  | 10.84       | 2075         | 98.3,98.3  |
| 150      | 2.253                    | 2.245  | 2.193  | 2.334  | 2.310  | 2.292  | 2.154  | 2.176  | 140-150  | 12.14       | 2087         | 98.9,98.9  |
| 160      | 2.984                    | 2.947  | 2.707  | 3.018  | 3.008  | 2.930  | 2.615  | 2.846  | 150-160  | 11.79       | 2099         | 99.4,99.4  |
| 170      | 3.585                    | 3.449  | 3.167  | 3.332  | 3.507  | 3.269  | 3.002  | 3.282  | 160-170  | 8.947       | 2108         | 99.9,99.9  |
| 180      | 2.871                    | 2.676  | 2.530  | 2.630  | 2.876  | 2.679  | 2.525  | 2.631  | 170-180  | 2.972       | 2111         | 100,100    |
| DEG      | LUMINOUS INTENSITY:×10cd |        |        |        |        |        |        |        |          | UNIT:lm     |              |            |

**C Range: 0 - 360DEG**  
**C Interval: 30.0DEG**  
**Test Speed: HIGH**  
**Temperature:25.3DEG**  
**Operators:DAMIN**  
**Test Date:2018-11-10**

**$\gamma$  Range: 0 - 180DEG**  
 **$\gamma$  Interval: 1.0DEG**  
**Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.0.406.11**  
**Humidity:65.0%**  
**Test Distance:8.000m [K=0.7063]**  
**Remarks:**

## LUMINANCE LIMITATION CURVES

|                                                                                  |           |  |
|----------------------------------------------------------------------------------|-----------|--|
| Test:U:220.60V I:0.1110A P:23.300W PF:0.9450 Freq:50.00Hz Lamp Flux:2110.92x1 lm |           |  |
| NAME: PS-TL25W40KD1580RA-D                                                       | TYPE: LED |  |
| MFR.:                                                                            |           |  |
|                                                                                  |           |  |



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G(DEG)            | C0/180 | C90/270 |
| 85                | 2412   | 2522    |
| 80                | 1391   | 1419    |
| 75                | 3530   | 3310    |
| 70                | 9264   | 8807    |
| 65                | 14829  | 14541   |
| 60                | 17175  | 16878   |
| 55                | 20754  | 20300   |
| 50                | 25175  | 24613   |
| 45                | 30229  | 28817   |

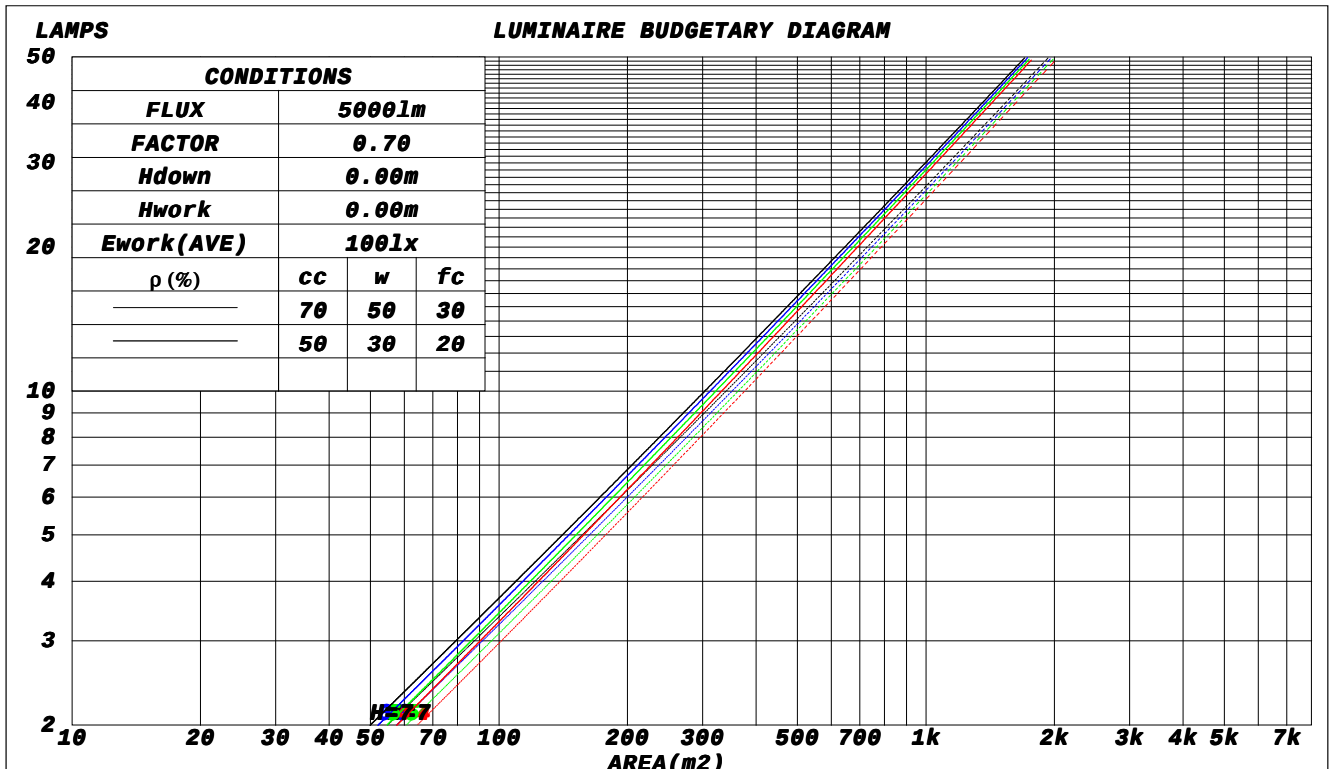
**C Range: 0 - 360DEG**  
**C Interval: 30.0DEG**  
**Test Speed: HIGH**  
**Temperature: 25.3DEG**  
**Operators: DAMIN**  
**Test Date: 2018-11-10**

**γ Range: 0 - 180DEG**  
**γ Interval: 1.0DEG**  
**Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.0.406.11**  
**Humidity: 65.0%**  
**Test Distance: 8.000m [K=0.7063]**  
**Remarks:**

# CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|                                                                                  |          |  |
|----------------------------------------------------------------------------------|----------|--|
| Test:U:220.60V I:0.1110A P:23.300W PF:0.9450 Freq:50.00Hz Lamp Flux:2110.92x1 lm |          |  |
| NAME: PS-TL25W40KD1580RA-D                                                       | TYPE:LED |  |
| MFR.:                                                                            |          |  |
|                                                                                  |          |  |

| $\rho_{CC}$ | 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 | 1.04 | 1.04 | 1.04 | .99 | .99 | .99 | .97 |
| 1.0         | 1.11                  | 1.09 | 1.07 | 1.09 | 1.07 | 1.05 | 1.04                            | 1.03 | 1.01 | .99  | .99  | .98  | .96 | .95 | .94 | .92 |
| 2.0         | 1.05                  | 1.01 | .99  | 1.03 | .99  | .97  | .99                             | .97  | .95  | .96  | .94  | .92  | .93 | .91 | .90 | .88 |
| 3.0         | .99                   | .95  | .92  | .98  | .94  | .91  | .95                             | .92  | .89  | .92  | .90  | .88  | .90 | .88 | .86 | .84 |
| 4.0         | .95                   | .90  | .87  | .94  | .90  | .86  | .91                             | .88  | .85  | .89  | .86  | .84  | .87 | .84 | .82 | .81 |
| 5.0         | .91                   | .86  | .83  | .90  | .86  | .82  | .88                             | .84  | .81  | .86  | .83  | .80  | .84 | .82 | .79 | .78 |
| 6.0         | .88                   | .83  | .80  | .87  | .82  | .79  | .85                             | .81  | .78  | .83  | .80  | .78  | .82 | .79 | .77 | .76 |
| 7.0         | .85                   | .80  | .77  | .84  | .79  | .76  | .82                             | .79  | .76  | .81  | .78  | .75  | .80 | .77 | .75 | .73 |
| 8.0         | .82                   | .77  | .74  | .81  | .77  | .74  | .80                             | .76  | .73  | .79  | .75  | .73  | .78 | .75 | .73 | .71 |
| 9.0         | .79                   | .75  | .72  | .79  | .75  | .72  | .78                             | .74  | .71  | .77  | .73  | .71  | .76 | .73 | .71 | .70 |
| 10.0        | .77                   | .73  | .70  | .77  | .73  | .70  | .76                             | .72  | .70  | .75  | .72  | .69  | .74 | .71 | .69 | .68 |



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2018-11-10

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.406.11  
Humidity:65.0%  
Test Distance:8.000m [K=0.7063]  
Remarks:

**WEC AND CCEC**

|                                                                                  |  |  |  |  |  |           |  |  |  |  |  |
|----------------------------------------------------------------------------------|--|--|--|--|--|-----------|--|--|--|--|--|
| Test:U:220.60V I:0.1110A P:23.300W PF:0.9450 Freq:50.00Hz Lamp Flux:2110.92x1 lm |  |  |  |  |  |           |  |  |  |  |  |
| NAME: PS-TL25W40KD1580RA-D                                                       |  |  |  |  |  | TYPE: LED |  |  |  |  |  |
| MFR.:                                                                            |  |  |  |  |  |           |  |  |  |  |  |
|                                                                                  |  |  |  |  |  |           |  |  |  |  |  |

| $\rho_{CC}$ | 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         | .156                  | .089 | .028 | .148 | .085 | .027 | .134                            | .077 | .025 | .121 | .070 | .022 | .108 | .063 | .020 |   |  |
| 2.0         | .146                  | .080 | .024 | .139 | .077 | .024 | .127                            | .071 | .022 | .116 | .065 | .020 | .105 | .060 | .019 |   |  |
| 3.0         | .136                  | .072 | .022 | .130 | .070 | .021 | .120                            | .065 | .020 | .110 | .060 | .019 | .101 | .056 | .017 |   |  |
| 4.0         | .126                  | .066 | .019 | .122 | .064 | .019 | .113                            | .060 | .018 | .104 | .056 | .017 | .097 | .053 | .016 |   |  |
| 5.0         | .118                  | .060 | .017 | .114 | .059 | .017 | .106                            | .055 | .016 | .099 | .052 | .016 | .092 | .049 | .015 |   |  |
| 6.0         | .111                  | .056 | .016 | .107 | .054 | .016 | .101                            | .052 | .015 | .094 | .049 | .014 | .088 | .046 | .014 |   |  |
| 7.0         | .104                  | .052 | .015 | .101 | .050 | .014 | .095                            | .048 | .014 | .090 | .046 | .013 | .084 | .044 | .013 |   |  |
| 8.0         | .099                  | .048 | .014 | .096 | .047 | .013 | .090                            | .045 | .013 | .085 | .043 | .012 | .081 | .041 | .012 |   |  |
| 9.0         | .093                  | .045 | .013 | .091 | .044 | .012 | .086                            | .043 | .012 | .081 | .041 | .012 | .077 | .039 | .011 |   |  |
| 10.0        | .089                  | .042 | .012 | .086 | .042 | .012 | .082                            | .040 | .011 | .078 | .039 | .011 | .074 | .037 | .011 |   |  |

| $\rho_{CC}$ | 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         | .216                  | .216 | .216 | .185 | .185 | .185 | .126                                       | .126 | .126 | .072 | .072 | .072 | .023 | .023 | .023 |   |
| 1.0         | .195                  | .183 | .172 | .167 | .157 | .148 | .114                                       | .108 | .103 | .066 | .063 | .060 | .021 | .020 | .019 |   |
| 2.0         | .179                  | .159 | .142 | .153 | .136 | .122 | .105                                       | .094 | .085 | .060 | .055 | .050 | .019 | .018 | .016 |   |
| 3.0         | .165                  | .139 | .119 | .141 | .120 | .103 | .097                                       | .084 | .073 | .056 | .049 | .043 | .018 | .016 | .014 |   |
| 4.0         | .153                  | .124 | .103 | .131 | .108 | .089 | .090                                       | .075 | .063 | .052 | .044 | .037 | .017 | .014 | .012 |   |
| 5.0         | .143                  | .112 | .090 | .122 | .097 | .078 | .084                                       | .068 | .055 | .049 | .040 | .033 | .016 | .013 | .011 |   |
| 6.0         | .134                  | .103 | .080 | .115 | .089 | .070 | .079                                       | .062 | .049 | .046 | .037 | .029 | .015 | .012 | .010 |   |
| 7.0         | .126                  | .095 | .073 | .109 | .082 | .063 | .075                                       | .058 | .045 | .044 | .034 | .027 | .014 | .011 | .009 |   |
| 8.0         | .120                  | .088 | .066 | .103 | .076 | .058 | .071                                       | .054 | .041 | .041 | .032 | .024 | .013 | .010 | .008 |   |
| 9.0         | .114                  | .082 | .061 | .098 | .071 | .053 | .068                                       | .050 | .038 | .040 | .030 | .023 | .013 | .010 | .007 |   |
| 10.0        | .108                  | .078 | .057 | .093 | .067 | .050 | .065                                       | .047 | .035 | .038 | .028 | .021 | .012 | .009 | .007 |   |

**C Range: 0 - 360DEG**  
**C Interval: 30.0DEG**  
**Test Speed: HIGH**  
**Temperature: 25.3DEG**  
**Operators: DAMIN**  
**Test Date: 2018-11-10**

**$\gamma$  Range: 0 - 180DEG**  
 **$\gamma$  Interval: 1.0DEG**  
**Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.406.11**  
**Humidity: 65.0%**  
**Test Distance: 8.000m [K=0.7063]**  
**Remarks:**

**UGR(Unified Glare Rating) Table**

|                                                                                  |                         |             |             |             |             |                       |             |             |             |             |
|----------------------------------------------------------------------------------|-------------------------|-------------|-------------|-------------|-------------|-----------------------|-------------|-------------|-------------|-------------|
| Test:U:220.60V I:0.1110A P:23.300W PF:0.9450 Freq:50.00Hz Lamp Flux:2110.92x1 lm |                         |             |             |             |             |                       |             |             |             |             |
| NAME: PS-TL25W40KD1580RA-D                                                       |                         |             |             |             | TYPE: LED   |                       |             |             |             |             |
| MFR.:                                                                            |                         |             |             |             |             |                       |             |             |             |             |
|                                                                                  |                         |             |             |             |             |                       |             |             |             |             |
| <b>ceiling/cavity</b>                                                            | <b>0.7</b>              | <b>0.7</b>  | <b>0.5</b>  | <b>0.5</b>  | <b>0.3</b>  | <b>0.7</b>            | <b>0.7</b>  | <b>0.5</b>  | <b>0.5</b>  | <b>0.3</b>  |
| <b>walls</b>                                                                     | <b>0.5</b>              | <b>0.3</b>  | <b>0.5</b>  | <b>0.3</b>  | <b>0.3</b>  | <b>0.5</b>            | <b>0.3</b>  | <b>0.5</b>  | <b>0.3</b>  | <b>0.3</b>  |
| <b>working plane</b>                                                             | <b>0.2</b>              | <b>0.2</b>  | <b>0.2</b>  | <b>0.2</b>  | <b>0.2</b>  | <b>0.2</b>            | <b>0.2</b>  | <b>0.2</b>  | <b>0.2</b>  | <b>0.2</b>  |
| <b>Room dimensions</b>                                                           | <b>Viewed crosswise</b> |             |             |             |             | <b>Viewed endwise</b> |             |             |             |             |
| <b>x = 2H y = 2H</b>                                                             | <b>15.9</b>             | <b>16.6</b> | <b>16.1</b> | <b>16.8</b> | <b>17.0</b> | <b>15.7</b>           | <b>16.4</b> | <b>16.0</b> | <b>16.6</b> | <b>16.8</b> |
| <b>3H</b>                                                                        | <b>16.3</b>             | <b>17.0</b> | <b>16.6</b> | <b>17.3</b> | <b>17.5</b> | <b>16.2</b>           | <b>16.8</b> | <b>16.5</b> | <b>17.1</b> | <b>17.3</b> |
| <b>4H</b>                                                                        | <b>16.3</b>             | <b>17.0</b> | <b>16.6</b> | <b>17.2</b> | <b>17.5</b> | <b>16.1</b>           | <b>16.8</b> | <b>16.4</b> | <b>17.0</b> | <b>17.3</b> |
| <b>6H</b>                                                                        | <b>16.2</b>             | <b>16.8</b> | <b>16.6</b> | <b>17.1</b> | <b>17.4</b> | <b>16.0</b>           | <b>16.6</b> | <b>16.4</b> | <b>16.9</b> | <b>17.2</b> |
| <b>8H</b>                                                                        | <b>16.2</b>             | <b>16.8</b> | <b>16.5</b> | <b>17.1</b> | <b>17.4</b> | <b>16.0</b>           | <b>16.6</b> | <b>16.3</b> | <b>16.9</b> | <b>17.2</b> |
| <b>12H</b>                                                                       | <b>16.1</b>             | <b>16.7</b> | <b>16.5</b> | <b>17.0</b> | <b>17.4</b> | <b>15.9</b>           | <b>16.5</b> | <b>16.3</b> | <b>16.8</b> | <b>17.2</b> |
| <b>4H 2H</b>                                                                     | <b>16.1</b>             | <b>16.8</b> | <b>16.5</b> | <b>17.0</b> | <b>17.3</b> | <b>16.0</b>           | <b>16.6</b> | <b>16.3</b> | <b>16.9</b> | <b>17.2</b> |
| <b>3H</b>                                                                        | <b>16.7</b>             | <b>17.2</b> | <b>17.0</b> | <b>17.5</b> | <b>17.9</b> | <b>16.5</b>           | <b>17.0</b> | <b>16.8</b> | <b>17.4</b> | <b>17.7</b> |
| <b>4H</b>                                                                        | <b>16.6</b>             | <b>17.1</b> | <b>17.0</b> | <b>17.5</b> | <b>17.9</b> | <b>16.4</b>           | <b>17.0</b> | <b>16.8</b> | <b>17.3</b> | <b>17.7</b> |
| <b>6H</b>                                                                        | <b>16.5</b>             | <b>17.0</b> | <b>17.0</b> | <b>17.4</b> | <b>17.8</b> | <b>16.3</b>           | <b>16.8</b> | <b>16.8</b> | <b>17.2</b> | <b>17.6</b> |
| <b>8H</b>                                                                        | <b>16.5</b>             | <b>16.9</b> | <b>16.9</b> | <b>17.3</b> | <b>17.7</b> | <b>16.3</b>           | <b>16.7</b> | <b>16.7</b> | <b>17.1</b> | <b>17.6</b> |
| <b>12H</b>                                                                       | <b>16.4</b>             | <b>16.8</b> | <b>16.9</b> | <b>17.2</b> | <b>17.7</b> | <b>16.2</b>           | <b>16.6</b> | <b>16.7</b> | <b>17.1</b> | <b>17.5</b> |
| <b>8H 4H</b>                                                                     | <b>16.5</b>             | <b>16.9</b> | <b>17.0</b> | <b>17.3</b> | <b>17.8</b> | <b>16.3</b>           | <b>16.8</b> | <b>16.8</b> | <b>17.2</b> | <b>17.6</b> |
| <b>6H</b>                                                                        | <b>16.4</b>             | <b>16.8</b> | <b>16.9</b> | <b>17.2</b> | <b>17.7</b> | <b>16.2</b>           | <b>16.6</b> | <b>16.7</b> | <b>17.0</b> | <b>17.5</b> |
| <b>8H</b>                                                                        | <b>16.4</b>             | <b>16.7</b> | <b>16.9</b> | <b>17.1</b> | <b>17.6</b> | <b>16.2</b>           | <b>16.5</b> | <b>16.7</b> | <b>17.0</b> | <b>17.5</b> |
| <b>12H</b>                                                                       | <b>16.3</b>             | <b>16.6</b> | <b>16.8</b> | <b>17.1</b> | <b>17.6</b> | <b>16.1</b>           | <b>16.4</b> | <b>16.6</b> | <b>16.9</b> | <b>17.4</b> |
| <b>12H 4H</b>                                                                    | <b>16.5</b>             | <b>16.8</b> | <b>16.9</b> | <b>17.3</b> | <b>17.7</b> | <b>16.3</b>           | <b>16.7</b> | <b>16.7</b> | <b>17.1</b> | <b>17.6</b> |
| <b>6H</b>                                                                        | <b>16.3</b>             | <b>16.7</b> | <b>16.8</b> | <b>17.1</b> | <b>17.6</b> | <b>16.2</b>           | <b>16.5</b> | <b>16.7</b> | <b>17.0</b> | <b>17.5</b> |
| <b>8H</b>                                                                        | <b>16.3</b>             | <b>16.6</b> | <b>16.8</b> | <b>17.1</b> | <b>17.6</b> | <b>16.1</b>           | <b>16.4</b> | <b>16.6</b> | <b>16.9</b> | <b>17.4</b> |
| <b>Variations with the observer position at spacings:</b>                        |                         |             |             |             |             |                       |             |             |             |             |
| <b>S = 1.0H</b>                                                                  | <b>+ 0.9 / - 1.2</b>    |             |             |             |             | <b>+ 0.8 / - 1.2</b>  |             |             |             |             |
| <b>1.5H</b>                                                                      | <b>+ 0.9 / - 0.7</b>    |             |             |             |             | <b>+ 0.8 / - 0.6</b>  |             |             |             |             |
| <b>2.0H</b>                                                                      | <b>+ 1.4 / - 1.2</b>    |             |             |             |             | <b>+ 1.2 / - 1.1</b>  |             |             |             |             |

CIE Pub.117, 2111 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 2.6$ )

**C Range: 0 - 360DEG**  
**C Interval: 30.0DEG**  
**Test Speed: HIGH**  
**Temperature: 25.3DEG**  
**Operators: DAMIN**  
**Test Date: 2018-11-10**

**$\gamma$  Range: 0 - 180DEG**  
 **$\gamma$  Interval: 1.0DEG**  
**Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.406.11**  
**Humidity: 65.0%**  
**Test Distance: 8.000m [K=0.7063]**  
**Remarks:**

**UTILIZATION FACTORS TABLE**

|                                                                                  |           |  |
|----------------------------------------------------------------------------------|-----------|--|
| Test:U:220.60V I:0.1110A P:23.300W PF:0.9450 Freq:50.00Hz Lamp Flux:2110.92x1 lm |           |  |
| NAME: PS-TL25W40KD1580RA-D                                                       | TYPE: LED |  |
| MFR.:                                                                            |           |  |
|                                                                                  |           |  |

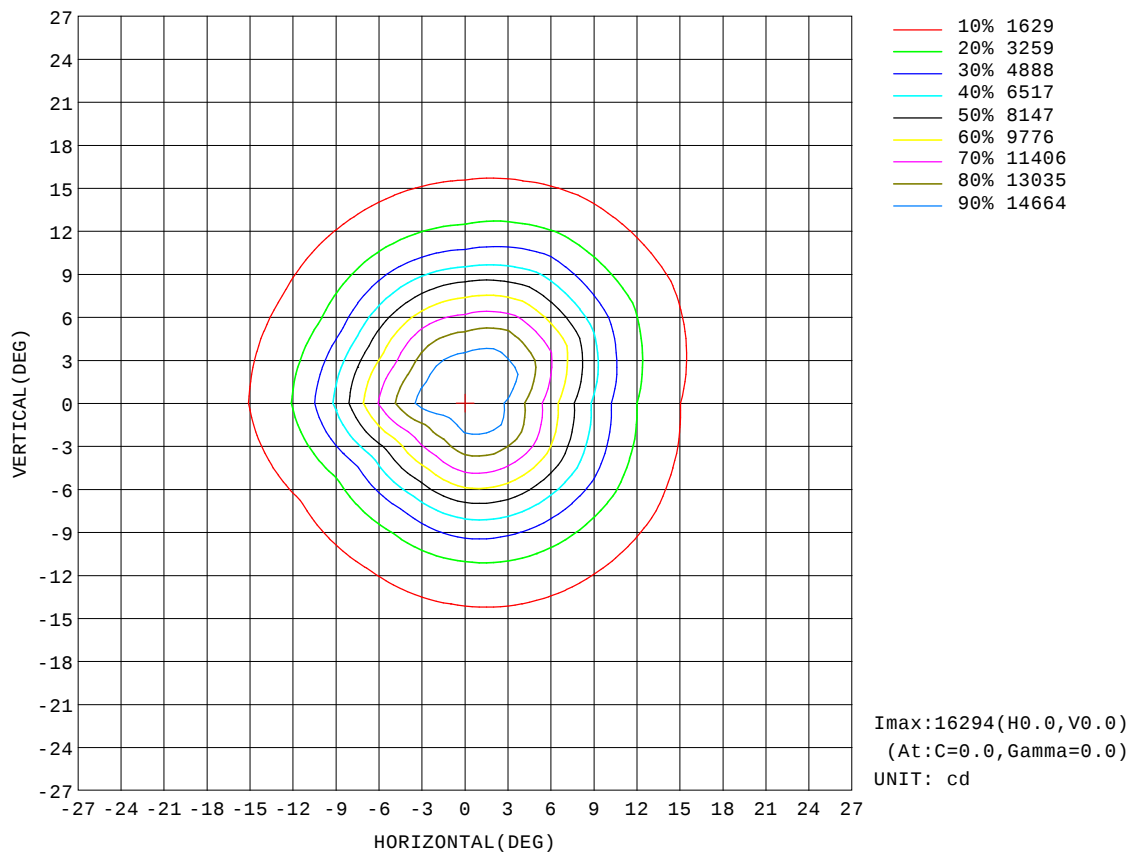
| REFLECTANCE                      |                                                     |     |           |     |     |     |     |               |     |        |
|----------------------------------|-----------------------------------------------------|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| 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) $k(RI) \times RCR = 5$ |     |           |     |     |     |     |               |     |        |
| $k = 0.60$                       | 83                                                  | 76  | 72        | 82  | 76  | 72  | 81  | 75            | 72  | 68     |
| 0.80                             | 91                                                  | 84  | 80        | 90  | 84  | 80  | 88  | 83            | 79  | 75     |
| 1.00                             | 96                                                  | 89  | 85        | 95  | 89  | 85  | 93  | 88            | 84  | 80     |
| 1.25                             | 100                                                 | 94  | 90        | 99  | 93  | 90  | 96  | 92            | 89  | 84     |
| 1.50                             | 103                                                 | 98  | 94        | 101 | 97  | 93  | 99  | 95            | 92  | 86     |
| 2.00                             | 106                                                 | 101 | 98        | 104 | 100 | 97  | 101 | 98            | 95  | 89     |
| 2.50                             | 108                                                 | 104 | 100       | 106 | 102 | 99  | 102 | 99            | 97  | 90     |
| 3.00                             | 110                                                 | 106 | 103       | 108 | 104 | 102 | 104 | 101           | 99  | 91     |
| 4.00                             | 112                                                 | 109 | 106       | 110 | 107 | 105 | 105 | 103           | 102 | 93     |
| 5.00                             | 113                                                 | 111 | 109       | 111 | 109 | 107 | 106 | 105           | 103 | 94     |
| ROOM INDEX                       | UF(total)                                           |     |           |     |     |     |     |               |     | Direct |
| According to DIN EN 13032-2 2004 |                                                     |     | Suspended |     |     |     |     | SHRNOM = 1.25 |     |        |

**C Range: 0 - 360DEG**  
**C Interval: 30.0DEG**  
**Test Speed: HIGH**  
**Temperature: 25.3DEG**  
**Operators: DAMIN**  
**Test Date: 2018-11-10**

**$\gamma$  Range: 0 - 180DEG**  
 **$\gamma$  Interval: 1.0DEG**  
**Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.0.406.11**  
**Humidity: 65.0%**  
**Test Distance: 8.000m [K=0.7063]**  
**Remarks:**

## ISOCANDELA DIAGRAM

|                                                                                  |           |  |
|----------------------------------------------------------------------------------|-----------|--|
| Test:U:220.60V I:0.1110A P:23.300W PF:0.9450 Freq:50.00Hz Lamp Flux:2110.92x1 lm |           |  |
| NAME: PS-TL25W40KD1580RA-D                                                       | TYPE: LED |  |
| MFR.:                                                                            |           |  |
|                                                                                  |           |  |

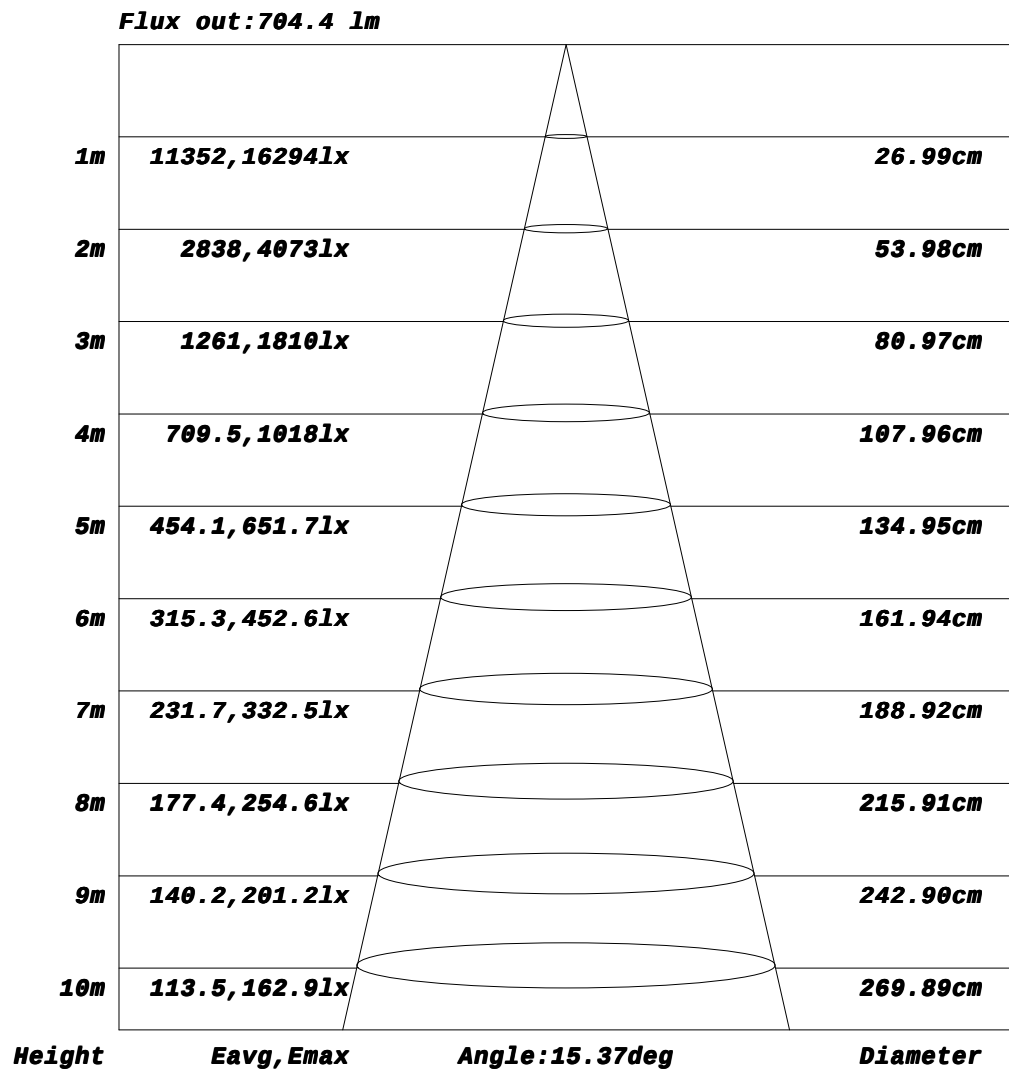


C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2018-11-10

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.0.406.11  
Humidity:65.0%  
Test Distance:8.000m [K=0.7063]  
Remarks:

### AAI Figure

|                                                                                  |           |  |
|----------------------------------------------------------------------------------|-----------|--|
| Test:U:220.60V I:0.1110A P:23.300W PF:0.9450 Freq:50.00Hz Lamp Flux:2110.92x1 lm |           |  |
| NAME: PS-TL25W40KD1580RA-D                                                       | TYPE: LED |  |
| MFR.:                                                                            |           |  |
|                                                                                  |           |  |



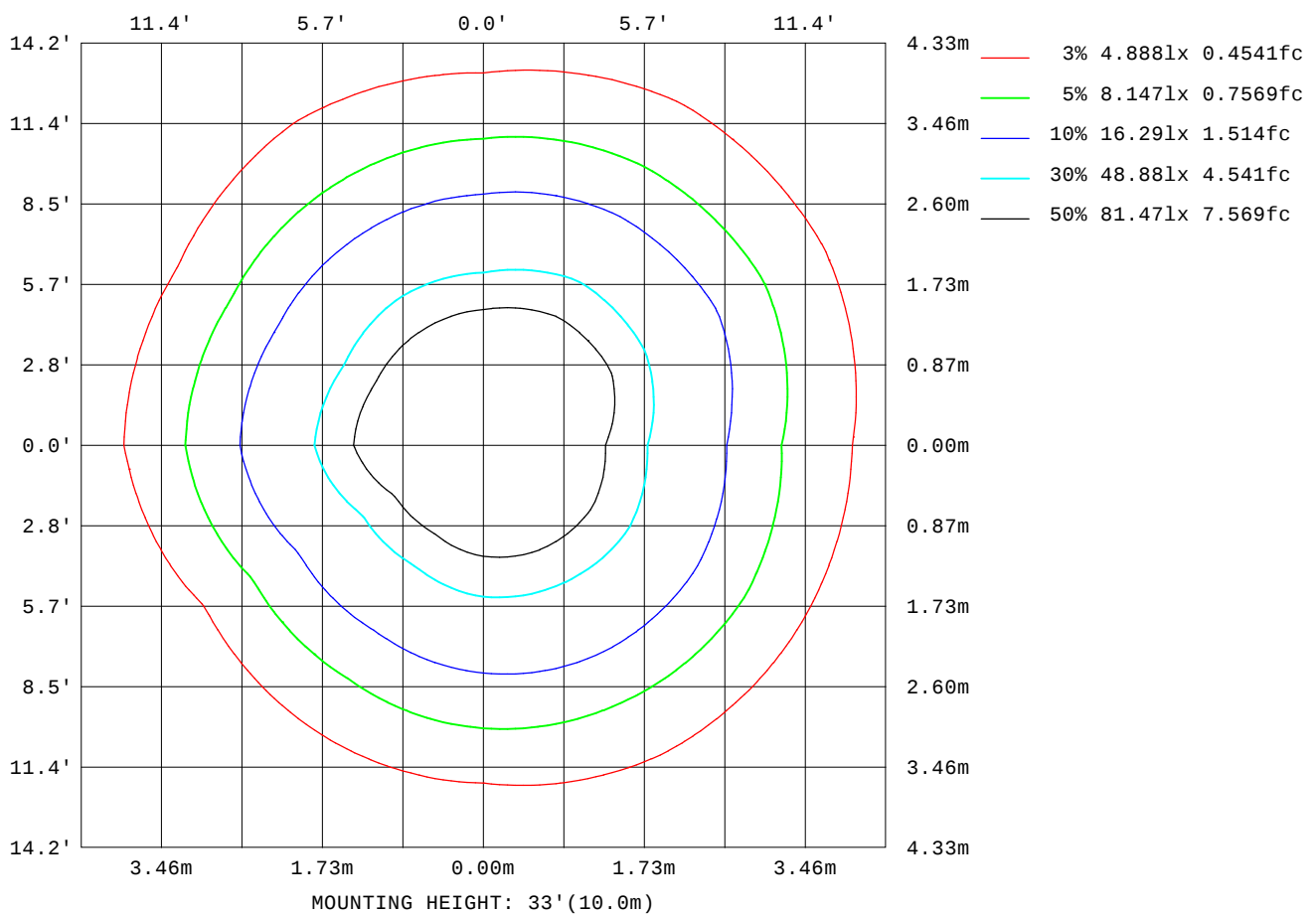
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2018-11-10

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.0.406.11  
Humidity: 65.0%  
Test Distance: 8.000m [K=0.7063]  
Remarks:

# ISOLUX DIAGRAM

|                                                                                  |           |  |
|----------------------------------------------------------------------------------|-----------|--|
| Test:U:220.60V I:0.1110A P:23.300W PF:0.9450 Freq:50.00Hz Lamp Flux:2110.92x1 lm |           |  |
| NAME: PS-TL25W40KD1580RA-D                                                       | TYPE: LED |  |
| MFR.:                                                                            |           |  |
|                                                                                  |           |  |



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2018-11-10

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.0.406.11  
Humidity: 65.0%  
Test Distance: 8.000m [K=0.7063]  
Remarks:

## LED Avg.L Report

|                                                                                  |           |  |
|----------------------------------------------------------------------------------|-----------|--|
| Test:U:220.60V I:0.1110A P:23.300W PF:0.9450 Freq:50.00Hz Lamp Flux:2110.92x1 lm |           |  |
| NAME: PS-TL25W40KD1580RA-D                                                       | TYPE: LED |  |
| MFR.:                                                                            |           |  |
|                                                                                  |           |  |

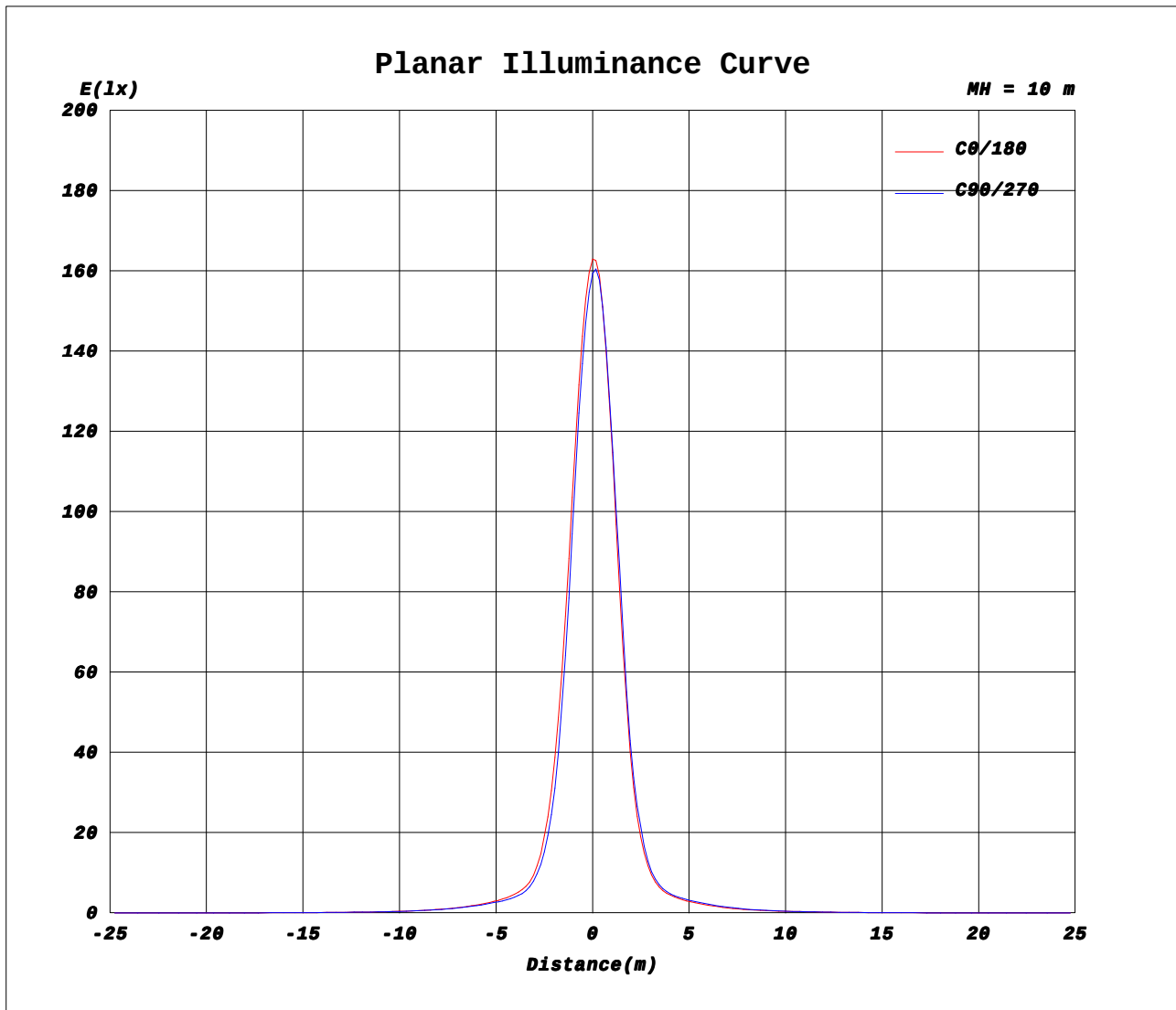
| AvgL           | cd/m2 |
|----------------|-------|
| L_0~180(65)av  | 15443 |
| L_0~180(75)av  | 5121  |
| L_0~180(85)av  | 6472  |
| L_90~270(65)av | 15479 |
| L_90~270(75)av | 5204  |
| L_90~270(85)av | 6360  |
| L_45(65)av     | 15484 |
| L_45(75)av     | 5143  |
| L_45(85)av     | 6385  |

Standard: GB/T 29293-2012

**C Range: 0 - 360DEG**  
**C Interval: 30.0DEG**  
**Test Speed: HIGH**  
**Temperature: 25.3DEG**  
**Operators: DAMIN**  
**Test Date: 2018-11-10**

**γ Range: 0 - 180DEG**  
**γ Interval: 1.0DEG**  
**Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.0.406.11**  
**Humidity: 65.0%**  
**Test Distance: 8.000m [K=0.7063]**  
**Remarks:**

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2018-11-10

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.0.406.11  
Humidity: 65.0%  
Test Distance: 8.000m [K=0.7063]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

|                                                                                  |          |  |
|----------------------------------------------------------------------------------|----------|--|
| Test:U:220.60V I:0.1110A P:23.300W PF:0.9450 Freq:50.00Hz Lamp Flux:2110.92x1 lm |          |  |
| NAME: PS-TL25W40KD1580RA-D                                                       | TYPE:LED |  |
| MFR.:                                                                            |          |  |
|                                                                                  |          |  |

Table--1

UNIT: ×10cd

| C (DEG)<br>γ (DEG) | 0    | 30   | 60   | 90   | 120  | 150  | 180  | 210  | 240  | 270  | 300  | 330  |  |  |  |  |  |  |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|--|--|--|
| 0                  | 1629 | 1626 | 1609 | 1594 | 1574 | 1589 | 1629 | 1626 | 1609 | 1594 | 1574 | 1589 |  |  |  |  |  |  |
| 5                  | 1195 | 1234 | 1178 | 1115 | 1015 | 1028 | 1287 | 1222 | 1281 | 1302 | 1410 | 1392 |  |  |  |  |  |  |
| 10                 | 511  | 538  | 479  | 420  | 352  | 352  | 551  | 482  | 555  | 577  | 709  | 693  |  |  |  |  |  |  |
| 15                 | 164  | 172  | 154  | 135  | 115  | 111  | 166  | 153  | 167  | 185  | 232  | 236  |  |  |  |  |  |  |
| 20                 | 70.5 | 69.3 | 65.6 | 58.7 | 56.5 | 53.4 | 67.5 | 64.7 | 71.9 | 73.4 | 83.9 | 85.7 |  |  |  |  |  |  |
| 25                 | 47.3 | 46.0 | 46.3 | 41.0 | 39.6 | 36.9 | 45.0 | 45.4 | 50.2 | 49.3 | 54.5 | 53.3 |  |  |  |  |  |  |
| 30                 | 34.2 | 33.8 | 33.8 | 31.3 | 28.8 | 28.2 | 32.9 | 34.4 | 36.2 | 37.3 | 39.8 | 39.2 |  |  |  |  |  |  |
| 35                 | 24.4 | 24.5 | 23.7 | 23.1 | 20.3 | 20.9 | 23.5 | 25.0 | 24.6 | 26.7 | 28.5 | 28.2 |  |  |  |  |  |  |
| 40                 | 17.7 | 17.8 | 16.7 | 16.6 | 14.7 | 15.2 | 16.6 | 17.6 | 17.1 | 18.7 | 19.7 | 20.3 |  |  |  |  |  |  |
| 45                 | 12.8 | 13.1 | 12.5 | 12.2 | 11.4 | 11.4 | 12.7 | 12.9 | 12.9 | 13.6 | 13.9 | 14.7 |  |  |  |  |  |  |
| 50                 | 9.71 | 9.96 | 9.65 | 9.49 | 9.36 | 8.82 | 10.1 | 10.0 | 10.3 | 10.5 | 11.0 | 11.2 |  |  |  |  |  |  |
| 55                 | 7.14 | 7.25 | 7.10 | 6.99 | 6.68 | 6.47 | 7.28 | 7.34 | 7.58 | 7.51 | 8.19 | 8.40 |  |  |  |  |  |  |
| 60                 | 5.15 | 5.22 | 5.19 | 5.06 | 4.88 | 4.76 | 5.39 | 5.37 | 5.55 | 5.50 | 5.75 | 5.82 |  |  |  |  |  |  |
| 65                 | 3.76 | 3.85 | 3.81 | 3.69 | 3.47 | 3.39 | 4.07 | 4.07 | 4.17 | 4.16 | 4.30 | 4.34 |  |  |  |  |  |  |
| 70                 | 1.90 | 2.01 | 1.93 | 1.81 | 1.55 | 1.55 | 2.39 | 2.34 | 2.48 | 2.57 | 2.68 | 2.69 |  |  |  |  |  |  |
| 75                 | 0.55 | 0.59 | 0.55 | 0.51 | 0.43 | 0.46 | 1.04 | 0.98 | 1.04 | 1.10 | 1.17 | 1.18 |  |  |  |  |  |  |
| 80                 | 0.14 | 0.15 | 0.15 | 0.15 | 0.14 | 0.14 | 0.58 | 0.58 | 0.57 | 0.57 | 0.57 | 0.57 |  |  |  |  |  |  |
| 85                 | 0.13 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.55 | 0.55 | 0.54 | 0.53 | 0.53 | 0.53 |  |  |  |  |  |  |
| 90                 | 0.15 | 0.15 | 0.16 | 0.16 | 0.17 | 0.16 | 0.55 | 0.55 | 0.54 | 0.54 | 0.54 | 0.54 |  |  |  |  |  |  |
| 95                 | 0.18 | 0.18 | 0.18 | 0.19 | 0.19 | 0.19 | 0.54 | 0.54 | 0.53 | 0.53 | 0.53 | 0.53 |  |  |  |  |  |  |
| 100                | 0.21 | 0.21 | 0.22 | 0.22 | 0.23 | 0.23 | 0.53 | 0.52 | 0.52 | 0.52 | 0.52 | 0.52 |  |  |  |  |  |  |
| 105                | 0.27 | 0.27 | 0.27 | 0.29 | 0.30 | 0.30 | 0.54 | 0.54 | 0.53 | 0.52 | 0.52 | 0.52 |  |  |  |  |  |  |
| 110                | 0.37 | 0.37 | 0.38 | 0.40 | 0.43 | 0.43 | 0.59 | 0.59 | 0.58 | 0.57 | 0.56 | 0.56 |  |  |  |  |  |  |
| 115                | 0.54 | 0.54 | 0.56 | 0.60 | 0.63 | 0.62 | 0.71 | 0.71 | 0.70 | 0.68 | 0.65 | 0.65 |  |  |  |  |  |  |
| 120                | 0.78 | 0.78 | 0.82 | 0.86 | 0.90 | 0.88 | 0.89 | 0.90 | 0.88 | 0.86 | 0.82 | 0.82 |  |  |  |  |  |  |
| 125                | 1.05 | 1.05 | 1.09 | 1.12 | 1.16 | 1.14 | 1.06 | 1.06 | 1.05 | 1.03 | 1.00 | 1.01 |  |  |  |  |  |  |
| 130                | 1.30 | 1.30 | 1.33 | 1.35 | 1.39 | 1.38 | 1.14 | 1.14 | 1.12 | 1.11 | 1.10 | 1.10 |  |  |  |  |  |  |
| 135                | 1.53 | 1.52 | 1.54 | 1.55 | 1.59 | 1.59 | 1.26 | 1.27 | 1.24 | 1.22 | 1.18 | 1.19 |  |  |  |  |  |  |
| 140                | 1.74 | 1.73 | 1.74 | 1.76 | 1.80 | 1.81 | 1.58 | 1.59 | 1.55 | 1.50 | 1.44 | 1.44 |  |  |  |  |  |  |
| 145                | 1.97 | 1.97 | 1.98 | 1.98 | 2.04 | 2.06 | 1.96 | 1.97 | 1.93 | 1.87 | 1.82 | 1.82 |  |  |  |  |  |  |
| 150                | 2.25 | 2.24 | 2.25 | 2.19 | 2.32 | 2.35 | 2.31 | 2.31 | 2.27 | 2.15 | 2.17 | 2.18 |  |  |  |  |  |  |
| 155                | 2.59 | 2.58 | 2.58 | 2.42 | 2.64 | 2.70 | 2.65 | 2.65 | 2.58 | 2.37 | 2.50 | 2.51 |  |  |  |  |  |  |
| 160                | 2.98 | 2.96 | 2.93 | 2.71 | 2.95 | 3.08 | 3.01 | 2.99 | 2.87 | 2.62 | 2.83 | 2.86 |  |  |  |  |  |  |
| 165                | 3.38 | 3.35 | 3.26 | 3.02 | 3.20 | 3.42 | 3.35 | 3.30 | 3.10 | 2.88 | 3.11 | 3.20 |  |  |  |  |  |  |
| 170                | 3.59 | 3.53 | 3.37 | 3.17 | 3.21 | 3.46 | 3.51 | 3.39 | 3.15 | 3.00 | 3.21 | 3.36 |  |  |  |  |  |  |
| 175                | 3.24 | 3.17 | 2.98 | 2.82 | 2.77 | 2.99 | 3.19 | 3.04 | 2.83 | 2.75 | 2.91 | 3.07 |  |  |  |  |  |  |
| 180                | 2.87 | 2.76 | 2.59 | 2.53 | 2.55 | 2.71 | 2.88 | 2.76 | 2.60 | 2.53 | 2.56 | 2.71 |  |  |  |  |  |  |

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2018-11-10

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.0.406.11  
Humidity: 65.0%  
Test Distance: 8.000m [K=0.7063]  
Remarks: