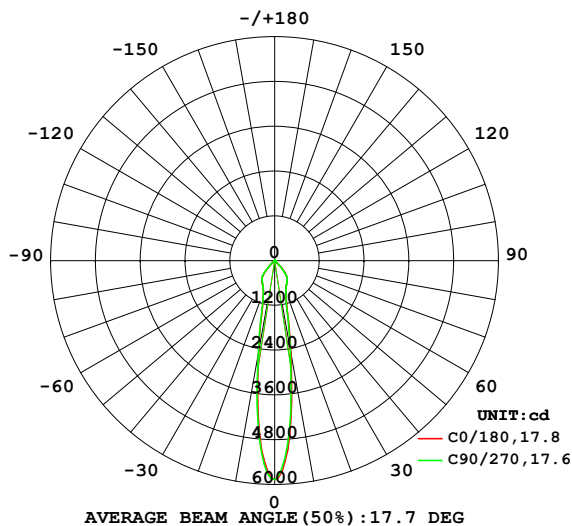


## LUMINAIRE PHOTOMETRIC TEST REPORT

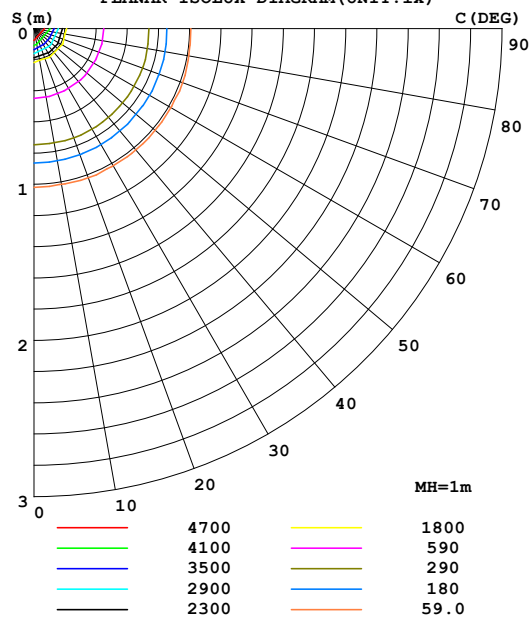
|  |            |                        |
|--|------------|------------------------|
| Test:U:240.4V I:0.0637A P:14.7W PF:0.9626 Freq:49.99Hz |            |                        |
| UTHDi:0.16% ITHDi:17.85% KDisp:0.9777                  |            | Lamp Flux:1648.57x1 lm |
| NAME: FUSION-MD23-AHD-018-COB-02SC 2700K RA90 15D      | 15W TYPE:  | WEIGHT:                |
| SPEC.:   | DIM.:      | SERIAL No.:            |
| MFR.: Norming lighting                                 | SUR.: 41mm | Shielding Angle:       |

| DATA OF LAMP     |         | PHOTOMETRIC DATA      |        |                    |          | Eff: 111.82 lm/W |
|------------------|---------|-----------------------|--------|--------------------|----------|------------------|
| MODEL            |         | I <sub>max</sub> (cd) | 5869   | S/MH (C0/180)      | 0.31     |                  |
| NOMINAL POWER(W) | 15      | LOR (%)               | 100.0  | S/MH (C90/270)     | 0.31     |                  |
| RATED VOLTAGE(V) | 240     | TOTAL FLUX(lm)        | 1648.6 | η UP,DN (C0-180)   | 0.0,49.4 |                  |
| NOMINAL FLUX(lm) | 1648.57 | CIE CLASS             | DIRECT | η UP,DN (C180-360) | 0.0,50.6 |                  |
| LAMPS INSIDE     | 1       | η up (%)              | 0.0    | CIBSE SHR NOM      | 0.00     |                  |
| TEST VOLTAGE(V)  | 240.39  | η down (%)            | 100.0  | CIBSE SHR MAX      | 0.30     |                  |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



PLANAR ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2024-10-16

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.453  
Humidity:65.0%  
Test Distance:3.090m [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       | 2520                  | 2427   | 2427   | 2503   | 2504   | 2558   | 2561   | 2547   | 0- 10    | 371.5       | 371.5        | 22.5,22.5  |
| 20       | 878.3                 | 880.0  | 881.8  | 892.0  | 895.9  | 899.9  | 900.2  | 885.3  | 10- 20   | 382.1       | 753.6        | 45.7,45.7  |
| 30       | 663.5                 | 663.3  | 663.4  | 664.7  | 676.6  | 673.9  | 668.4  | 662.3  | 20- 30   | 349.2       | 1103         | 66.9,66.9  |
| 40       | 444.4                 | 440.3  | 425.3  | 430.0  | 441.2  | 441.7  | 453.6  | 449.4  | 30- 40   | 363.0       | 1466         | 88.9,88.9  |
| 50       | 26.22                 | 26.28  | 24.67  | 27.53  | 31.00  | 32.77  | 34.71  | 30.45  | 40- 50   | 154.1       | 1620         | 98.3,98.3  |
| 60       | 8.405                 | 8.158  | 8.297  | 8.179  | 8.516  | 8.674  | 8.811  | 8.723  | 50- 60   | 12.49       | 1632         | 99,99      |
| 70       | 6.343                 | 5.932  | 6.064  | 6.118  | 6.472  | 6.498  | 6.622  | 6.539  | 60- 70   | 7.209       | 1640         | 99.5,99.5  |
| 80       | 4.708                 | 4.330  | 4.599  | 4.805  | 5.113  | 5.028  | 5.029  | 4.828  | 70- 80   | 5.813       | 1645         | 99.8,99.8  |
| 90       | 0.0591                | 0.0490 | 0.0676 | 0.0469 | 0.0479 | 0.0426 | 0.0538 | 0.0433 | 80- 90   | 3.088       | 1649         | 100,100    |
| 100      |                       |        |        |        |        |        |        |        | 90-100   |             |              |            |
| 110      |                       |        |        |        |        |        |        |        | 100-110  |             |              |            |
| 120      |                       |        |        |        |        |        |        |        | 110-120  |             |              |            |
| 130      |                       |        |        |        |        |        |        |        | 120-130  |             |              |            |
| 140      |                       |        |        |        |        |        |        |        | 130-140  |             |              |            |
| 150      |                       |        |        |        |        |        |        |        | 140-150  |             |              |            |
| 160      |                       |        |        |        |        |        |        |        | 150-160  |             |              |            |
| 170      |                       |        |        |        |        |        |        |        | 160-170  |             |              |            |
| 180      |                       |        |        |        |        |        |        |        | 170-180  |             |              |            |
| DEG      | LUMINOUS INTENSITY:cd |        |        |        |        |        |        |        |          | UNIT:lm     |              |            |

Conical surface Flux(90deg): 1581.9 lm

%lum = 96.0%

%lamp = 96.0%

Conical surface Flux(120deg): 1632.5 lm

%lum = 99.0%

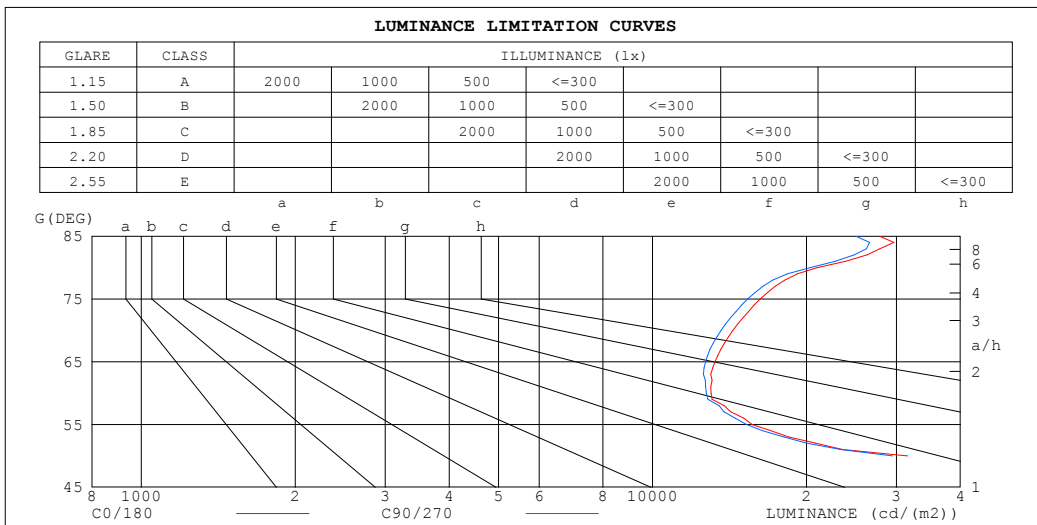
%lamp = 99.0%

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2024-10-16

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.453  
 Humidity:65.0%  
 Test Distance:3.090m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES

|  |  |  |                        |  |                  |
|--|--|--|------------------------|--|------------------|
| Test:U:240.4V I:0.0637A P:14.7W PF:0.9626 Freq:49.99Hz |  |  | Lamp Flux:1648.57x1 lm |  |                  |
| UTHDi:0.16% ITHDi:17.85% KDisp:0.9777                  |  |  |                        |  |                  |
| NAME: FUSION-MD23-AHD-018-COB-02SC 2700K RA90 15D      |  |  | 15WTYPE:               |  | WEIGHT:          |
| SPEC.:   |  |  | DIM.:                  |  | SERIAL No.:      |
| MFR.: Norming lighting                                 |  |  | SUR.: 41mm             |  | Shielding Angle: |



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G (DEG)           | C0/180 | C90/270 |
| 85                | 27830  | 25001   |
| 80                | 20984  | 20334   |
| 75                | 16234  | 15342   |
| 70                | 14354  | 13610   |
| 65                | 13247  | 12703   |
| 60                | 13011  | 12739   |
| 55                | 15667  | 15275   |
| 50                | 31569  | 29468   |
| 45                | 204793 | 189148  |

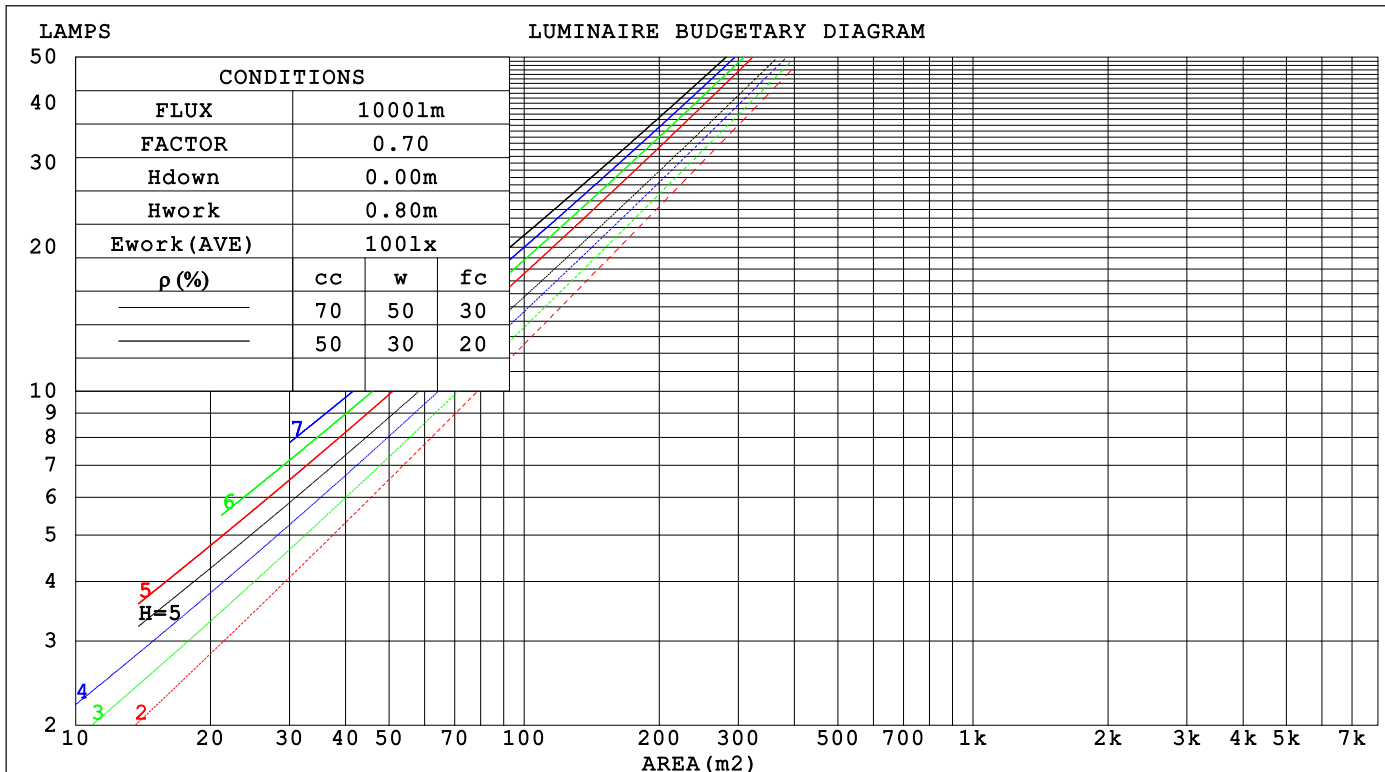
C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2024-10-16

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.453  
Humidity:65.0%  
Test Distance:3.090m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|  |            |                        |
|--|------------|------------------------|
| Test:U:240.4V I:0.0637A P:14.7W PF:0.9626 Freq:49.99Hz |            |                        |
| UTHDi:0.16% ITHDi:17.85% KDisp:0.9777                  |            | Lamp Flux:1648.57x1 lm |
| NAME: FUSION-MD23-AHD-018-COB-02SC 2700K RA90 15D      | 15WTYPE:   | WEIGHT:                |
| SPEC.:   | DIM.:      | SERIAL No.:            |
| MFR.: Norming lighting                                 | SUR.: 41mm | Shielding Angle:       |

| pcc  | 80%                   |      |      | 70%  |      |      | 50%  |      |      | 30%  |      |      | 10%  |      |      | 0                               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| pw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0                               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| pfc  | 20%                   |      |      | 20%  |      |      | 20%  |      |      | 20%  |      |      | 20%  |      |      | 0                               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      |      |      |      |      |      |      |      |      |      | Coefficients of Utilization(CU) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.0  | 1.19                  | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.11 | 1.11 | 1.11 | 1.06 | 1.06 | 1.06 | 1.02 | 1.02 | 1.02 | 1.00                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.0  | 1.11                  | 1.09 | 1.06 | 1.09 | 1.07 | 1.05 | 1.05 | 1.03 | 1.01 | 1.01 | .00  | .98  | .98  | .97  | .96  | .94                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.0  | 1.04                  | .00  | .96  | 1.02 | .98  | .95  | .99  | .96  | .93  | .96  | .93  | .91  | .93  | .91  | .89  | .88                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.0  | .97                   | .92  | .88  | .95  | .91  | .88  | .93  | .89  | .86  | .90  | .87  | .85  | .88  | .86  | .83  | .82                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4.0  | .91                   | .86  | .82  | .90  | .85  | .81  | .88  | .83  | .80  | .86  | .82  | .79  | .84  | .81  | .78  | .77                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5.0  | .86                   | .80  | .76  | .85  | .79  | .76  | .83  | .78  | .75  | .81  | .77  | .74  | .80  | .76  | .74  | .72                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6.0  | .81                   | .75  | .71  | .80  | .75  | .71  | .79  | .74  | .70  | .77  | .73  | .70  | .76  | .72  | .69  | .68                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7.0  | .76                   | .71  | .67  | .76  | .70  | .67  | .75  | .70  | .66  | .73  | .69  | .66  | .72  | .68  | .66  | .64                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8.0  | .73                   | .67  | .63  | .72  | .67  | .63  | .71  | .66  | .63  | .70  | .66  | .62  | .69  | .65  | .62  | .61                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9.0  | .69                   | .64  | .60  | .69  | .63  | .60  | .68  | .63  | .59  | .67  | .62  | .59  | .66  | .62  | .59  | .58                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10.0 | .66                   | .60  | .57  | .66  | .60  | .57  | .65  | .60  | .57  | .64  | .60  | .56  | .63  | .59  | .56  | .55                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2024-10-16

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.453  
Humidity:65.0%  
Test Distance:3.090m [K=1.0000]  
Remarks:

### WEC AND CCEC

|  |  |  |                                       |  |  |                        |  |  |
|--|--|--|---------------------------------------|--|--|------------------------|--|--|
| Test:U:240.4V I:0.0637A P:14.7W PF:0.9626 Freq:49.99Hz |  |  | UTHDi:0.16% ITHDi:17.85% KDisp:0.9777 |  |  | Lamp Flux:1648.57x1 lm |  |  |
| NAME: FUSION-MD23-AHD-018-COB-02SC 2700K RA90 15D      |  |  | 15WTYPE:                              |  |  | WEIGHT:                |  |  |
| SPEC.:   |  |  | DIM.:                                 |  |  | SERIAL No.:            |  |  |
| MFR.: Norming lighting                                 |  |  | SUR.: 41mm                            |  |  | Shielding Angle:       |  |  |

| pcc  | 80%                   |      |      | 70%  |      |      | 50%                             |      |      | 30%  |      |      | 10%  |      |      | 0 |  |
|------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|--|
| pw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |  |
| pfc  | 20%                   |      |      | 20%  |      |      | 20%                             |      |      | 20%  |      |      | 20%  |      |      | 0 |  |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Wall Exitance Coefficients(WEC) |      |      |      |      |      |      |      |      |   |  |
| 0.0  |                       |      |      |      |      |      |                                 |      |      |      |      |      |      |      |      |   |  |
| 1.0  | .175                  | .099 | .031 | .168 | .096 | .030 | .155                            | .089 | .028 | .144 | .083 | .027 | .133 | .077 | .025 |   |  |
| 2.0  | .166                  | .091 | .028 | .161 | .089 | .027 | .150                            | .083 | .026 | .140 | .079 | .025 | .131 | .074 | .023 |   |  |
| 3.0  | .158                  | .084 | .025 | .153 | .082 | .025 | .144                            | .078 | .024 | .136 | .074 | .023 | .128 | .071 | .022 |   |  |
| 4.0  | .150                  | .078 | .023 | .146 | .076 | .023 | .138                            | .073 | .022 | .131 | .070 | .021 | .124 | .067 | .021 |   |  |
| 5.0  | .142                  | .072 | .021 | .139 | .071 | .021 | .132                            | .069 | .020 | .126 | .066 | .020 | .120 | .064 | .019 |   |  |
| 6.0  | .135                  | .068 | .019 | .132 | .067 | .019 | .126                            | .065 | .019 | .121 | .063 | .018 | .116 | .061 | .018 |   |  |
| 7.0  | .129                  | .064 | .018 | .126 | .063 | .018 | .121                            | .061 | .018 | .116 | .059 | .017 | .111 | .058 | .017 |   |  |
| 8.0  | .123                  | .060 | .017 | .121 | .059 | .017 | .116                            | .058 | .017 | .112 | .056 | .016 | .107 | .055 | .016 |   |  |
| 9.0  | .117                  | .057 | .016 | .115 | .056 | .016 | .111                            | .055 | .016 | .107 | .054 | .015 | .104 | .053 | .015 |   |  |
| 10.0 | .112                  | .054 | .015 | .110 | .053 | .015 | .107                            | .052 | .015 | .103 | .051 | .015 | .100 | .050 | .014 |   |  |

| pcc  | 80%                   |      |      | 70%  |      |      | 50%   |      |      | 30%  |      |      | 10%  |      |      | 0 |  |
|------|-----------------------|------|------|------|------|------|---|------|------|------|------|------|------|------|------|---|--|
| pw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |  |
| pfc  | 20%                   |      |      | 20%  |      |      | 20%   |      |      | 20%  |      |      | 20%  |      |      | 0 |  |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Ceiling Cavity Exitance Coefficients (CCEC) |      |      |      |      |      |      |      |      |   |  |
| 0.0  | .190                  | .190 | .190 | .163 | .163 | .163 | .111  | .111 | .111 | .064 | .064 | .064 | .020 | .020 | .020 |   |  |
| 1.0  | .171                  | .157 | .145 | .146 | .135 | .125 | .100  | .093 | .086 | .058 | .054 | .050 | .018 | .017 | .016 |   |  |
| 2.0  | .156                  | .133 | .113 | .133 | .114 | .098 | .091  | .079 | .068 | .053 | .046 | .040 | .017 | .015 | .013 |   |  |
| 3.0  | .143                  | .114 | .090 | .122 | .098 | .078 | .084  | .068 | .055 | .049 | .040 | .032 | .016 | .013 | .011 |   |  |
| 4.0  | .132                  | .099 | .073 | .114 | .085 | .064 | .078  | .059 | .045 | .045 | .035 | .026 | .015 | .011 | .009 |   |  |
| 5.0  | .123                  | .087 | .060 | .106 | .075 | .052 | .073  | .053 | .037 | .042 | .031 | .022 | .014 | .010 | .007 |   |  |
| 6.0  | .116                  | .078 | .050 | .099 | .067 | .044 | .069  | .047 | .031 | .040 | .028 | .018 | .013 | .009 | .006 |   |  |
| 7.0  | .109                  | .070 | .043 | .094 | .061 | .037 | .065  | .043 | .026 | .038 | .025 | .016 | .012 | .008 | .005 |   |  |
| 8.0  | .103                  | .064 | .037 | .089 | .055 | .032 | .061  | .039 | .023 | .036 | .023 | .014 | .012 | .008 | .004 |   |  |
| 9.0  | .098                  | .058 | .032 | .084 | .051 | .028 | .058  | .036 | .020 | .034 | .021 | .012 | .011 | .007 | .004 |   |  |
| 10.0 | .093                  | .054 | .028 | .080 | .047 | .024 | .056  | .033 | .017 | .032 | .019 | .010 | .011 | .006 | .003 |   |  |

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2024-10-16

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.453  
Humidity:65.0%  
Test Distance:3.090m [K=1.0000]  
Remarks:

### UGR(Unified Glare Rating) Table

|   |                  |      |      |      |      |                |      |                  |      |      |
|---|------------------|------|------|------|------|----------------|------|------------------|------|------|
| Test:U:240.4V I:0.0637A P:14.7W PF:0.9626 Freq:49.99Hz<br>UTHDi:0.16% ITHDi:17.85% KDisp:0.9777Lamp Flux:1648.57x1 lm |                  |      |      |      |      |                |      |                  |      |      |
| NAME: FUSION-MD23-AHD-018-COB-02SC 2700K RA90 15D 15WTYPE:  |                  |      |      |      |      | WEIGHT:        |      |                  |      |      |
| SPEC.:  |                  |      |      |      |      | DIM.:          |      | SERIAL No.:      |      |      |
| MFR.: Norming lighting  |                  |      |      |      |      | SUR.: 41mm     |      | 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   | 26.7             | 27.6 | 26.9 | 27.7 | 27.9 | 26.5           | 27.4 | 26.7             | 27.6 | 27.8 |
| 3H  | 26.5             | 27.3 | 26.8 | 27.5 | 27.7 | 26.4           | 27.2 | 26.6             | 27.4 | 27.6 |
| 4H  | 26.4             | 27.2 | 26.7 | 27.5 | 27.7 | 26.3           | 27.1 | 26.6             | 27.3 | 27.5 |
| 6H  | 26.4             | 27.1 | 26.7 | 27.4 | 27.6 | 26.3           | 27.0 | 26.5             | 27.2 | 27.5 |
| 8H  | 26.4             | 27.1 | 26.7 | 27.3 | 27.6 | 26.2           | 27.0 | 26.5             | 27.2 | 27.5 |
| 12H   | 26.4             | 27.0 | 26.7 | 27.3 | 27.6 | 26.2           | 26.9 | 26.5             | 27.2 | 27.4 |
| 4H 2H   | 26.4             | 27.2 | 26.7 | 27.4 | 27.6 | 26.3           | 27.1 | 26.5             | 27.3 | 27.5 |
| 3H  | 26.3             | 27.0 | 26.6 | 27.2 | 27.5 | 26.1           | 26.8 | 26.4             | 27.1 | 27.4 |
| 4H  | 26.2             | 26.8 | 26.6 | 27.1 | 27.4 | 26.1           | 26.7 | 26.4             | 27.0 | 27.3 |
| 6H  | 26.2             | 26.7 | 26.5 | 27.0 | 27.4 | 26.0           | 26.6 | 26.4             | 26.9 | 27.3 |
| 8H  | 26.2             | 26.7 | 26.6 | 27.0 | 27.4 | 26.0           | 26.5 | 26.4             | 26.9 | 27.3 |
| 12H   | 26.2             | 26.6 | 26.6 | 27.0 | 27.4 | 26.0           | 26.5 | 26.4             | 26.9 | 27.3 |
| 8H 4H   | 26.1             | 26.6 | 26.5 | 26.9 | 27.3 | 25.9           | 26.5 | 26.3             | 26.8 | 27.2 |
| 6H  | 26.1             | 26.5 | 26.5 | 26.9 | 27.3 | 25.9           | 26.3 | 26.4             | 26.7 | 27.2 |
| 8H  | 26.1             | 26.5 | 26.5 | 26.9 | 27.3 | 26.0           | 26.3 | 26.4             | 26.7 | 27.2 |
| 12H   | 26.1             | 26.5 | 26.6 | 26.9 | 27.4 | 26.0           | 26.3 | 26.5             | 26.7 | 27.2 |
| 12H 4H  | 26.0             | 26.5 | 26.4 | 26.9 | 27.3 | 25.9           | 26.4 | 26.3             | 26.7 | 27.1 |
| 6H  | 26.0             | 26.4 | 26.5 | 26.8 | 27.3 | 25.9           | 26.3 | 26.3             | 26.7 | 27.1 |
| 8H  | 26.1             | 26.4 | 26.5 | 26.8 | 27.3 | 25.9           | 26.3 | 26.4             | 26.7 | 27.2 |
| Variations with the observer position at spacings(CIE Pub.117):   |                  |      |      |      |      |                |      |                  |      |      |
| S = 1.0H  | + 2.5 / - 9.2    |      |      |      |      | + 2.5 / - 9.2  |      |                  |      |      |
| 1.5H  | + 4.7 / - 9.3    |      |      |      |      | + 4.7 / - 9.2  |      |                  |      |      |
| 2.0H  | + 7.3 / - 3.7    |      |      |      |      | + 7.1 / - 3.5  |      |                  |      |      |

CIE Pub.117, 1649 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 1.7)  
Area: 0.0013 m2

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2024-10-16

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.453  
Humidity:65.0%  
Test Distance:3.090m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

|  |  |  |                                       |  |  |                        |  |  |
|--|--|--|---------------------------------------|--|--|------------------------|--|--|
| Test:U:240.4V I:0.0637A P:14.7W PF:0.9626 Freq:49.99Hz |  |  | UTHDi:0.16% ITHDi:17.85% KDisp:0.9777 |  |  | Lamp Flux:1648.57x1 lm |  |  |
| NAME: FUSION-MD23-AHD-018-COB-02SC 2700K RA90 15D      |  |  | 15WTYPE:                              |  |  | WEIGHT:                |  |  |
| SPEC.:   |  |  | DIM.:                                 |  |  | SERIAL No.:            |  |  |
| MFR.: Norming lighting                                 |  |  | SUR.: 41mm                            |  |  | Shielding Angle:       |  |  |

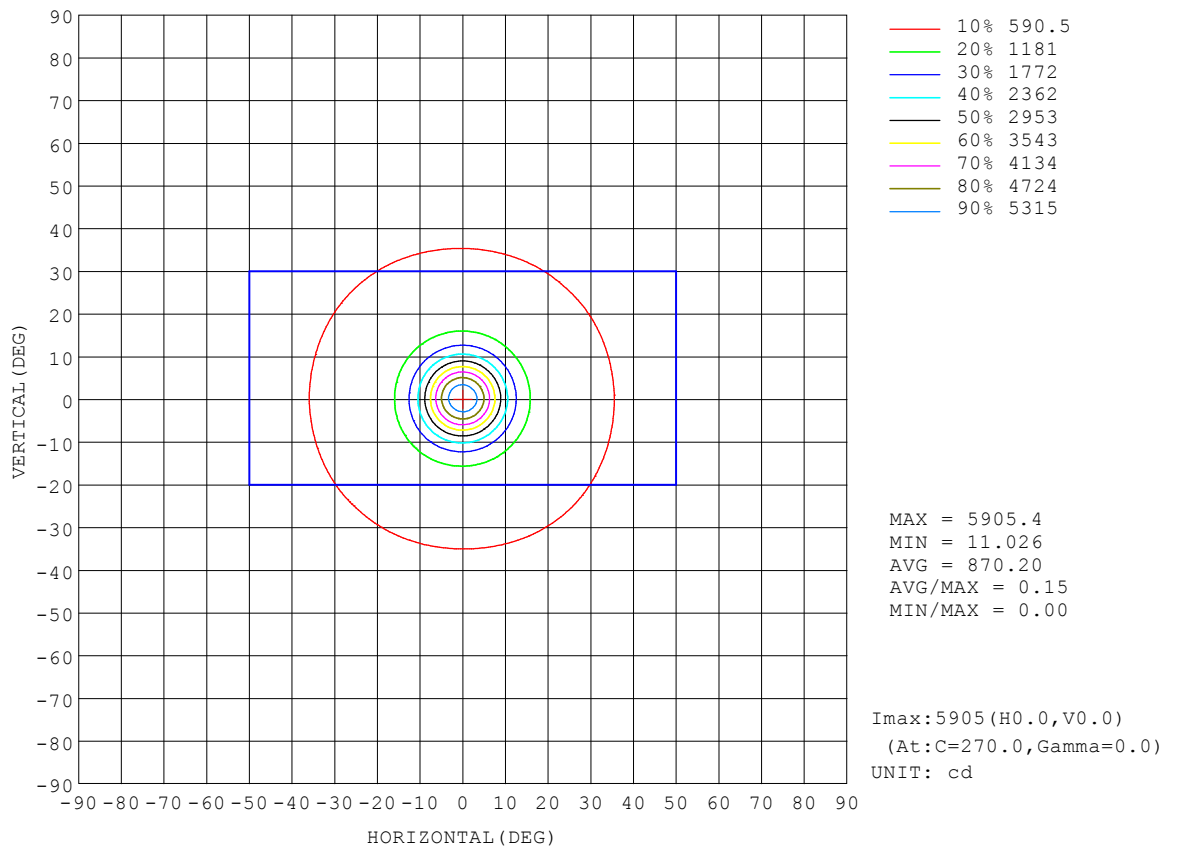
| REFLECTANCE                      |  |     |           |     |     |     |     |               |     |        |
|----------------------------------|--|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| Ceiling                          | 0.8  | 0.8 | 0.8       | 0.7 | 0.7 | 0.7 | 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) $k(RI) \times RCR = 5$ |     |           |     |     |     |     |               |     |        |
| $k = 0.60$                       | 85   | 78  | 74        | 84  | 78  | 74  | 83  | 77            | 74  | 70     |
| 0.80                             | 93   | 86  | 82        | 92  | 86  | 82  | 91  | 85            | 82  | 78     |
| 1.00                             | 98   | 92  | 88        | 97  | 91  | 87  | 95  | 91            | 87  | 83     |
| 1.25                             | 102  | 96  | 93        | 101 | 96  | 92  | 99  | 95            | 92  | 87     |
| 1.50                             | 105  | 100 | 96        | 104 | 99  | 96  | 101 | 98            | 95  | 90     |
| 2.00                             | 108  | 103 | 100       | 106 | 102 | 99  | 104 | 100           | 98  | 92     |
| 2.50                             | 110  | 106 | 102       | 108 | 104 | 101 | 105 | 102           | 100 | 94     |
| 3.00                             | 111  | 108 | 105       | 109 | 106 | 104 | 106 | 104           | 101 | 95     |
| 4.00                             | 113  | 110 | 108       | 111 | 109 | 107 | 108 | 106           | 104 | 97     |
| 5.00                             | 115  | 112 | 110       | 112 | 110 | 109 | 108 | 107           | 105 | 98     |
| ROOM INDEX                       | UF (total)   |     |           |     |     |     |     |               |     | Direct |
| According to DIN EN 13032-2 2004 |  |     | Suspended |     |     |     |     | SHRNOM = 1.25 |     |        |

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2024-10-16

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.453  
 Humidity: 65.0%  
 Test Distance: 3.090m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

|  |            |                        |
|--|------------|------------------------|
| Test:U:240.4V I:0.0637A P:14.7W PF:0.9626 Freq:49.99Hz |            |                        |
| UTHDi:0.16% ITHDi:17.85% KDisp:0.9777                  |            | Lamp Flux:1648.57x1 lm |
| NAME: FUSION-MD23-AHD-018-COB-02SC 2700K RA90 15D      | 15W TYPE:  | WEIGHT:                |
| SPEC.:   | DIM.:      | SERIAL No.:            |
| MFR.: Norming lighting                                 | SUR.: 41mm | Shielding Angle:       |



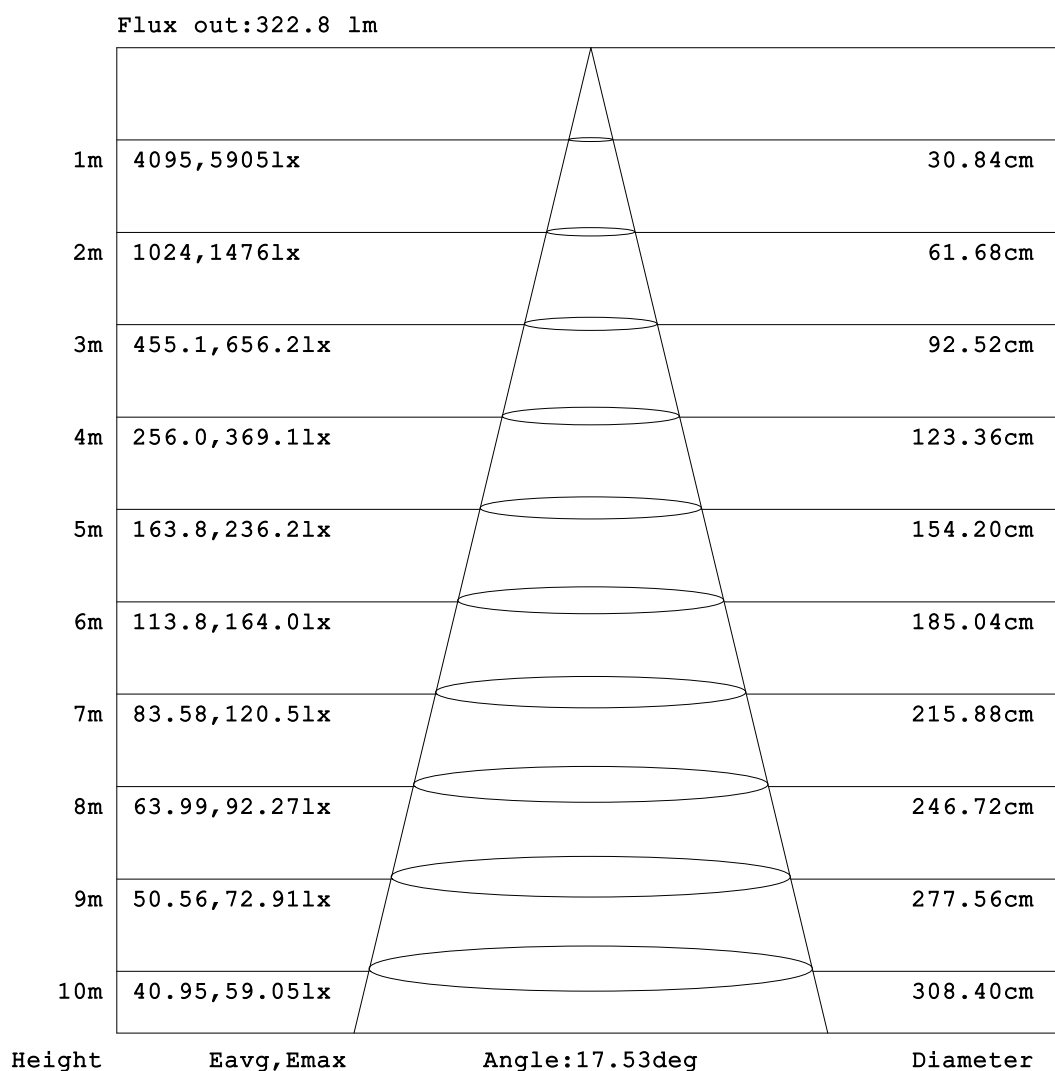
C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2024-10-16

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.453  
Humidity:65.0%  
Test Distance:3.090m [K=1.0000]  
Remarks:



AAI Figure

|  |            |                        |
|--|------------|------------------------|
| Test:U:240.4V I:0.0637A P:14.7W PF:0.9626 Freq:49.99Hz |            |                        |
| UTHDi:0.16% ITHDi:17.85% KDisp:0.9777                  |            | Lamp Flux:1648.57x1 lm |
| NAME: FUSION-MD23-AHD-018-COB-02SC 2700K RA90 15D      | 15W TYPE:  | WEIGHT:                |
| SPEC.:   | DIM.:      | SERIAL No.:            |
| MFR.: Norming lighting                                 | SUR.: 41mm | Shielding Angle:       |



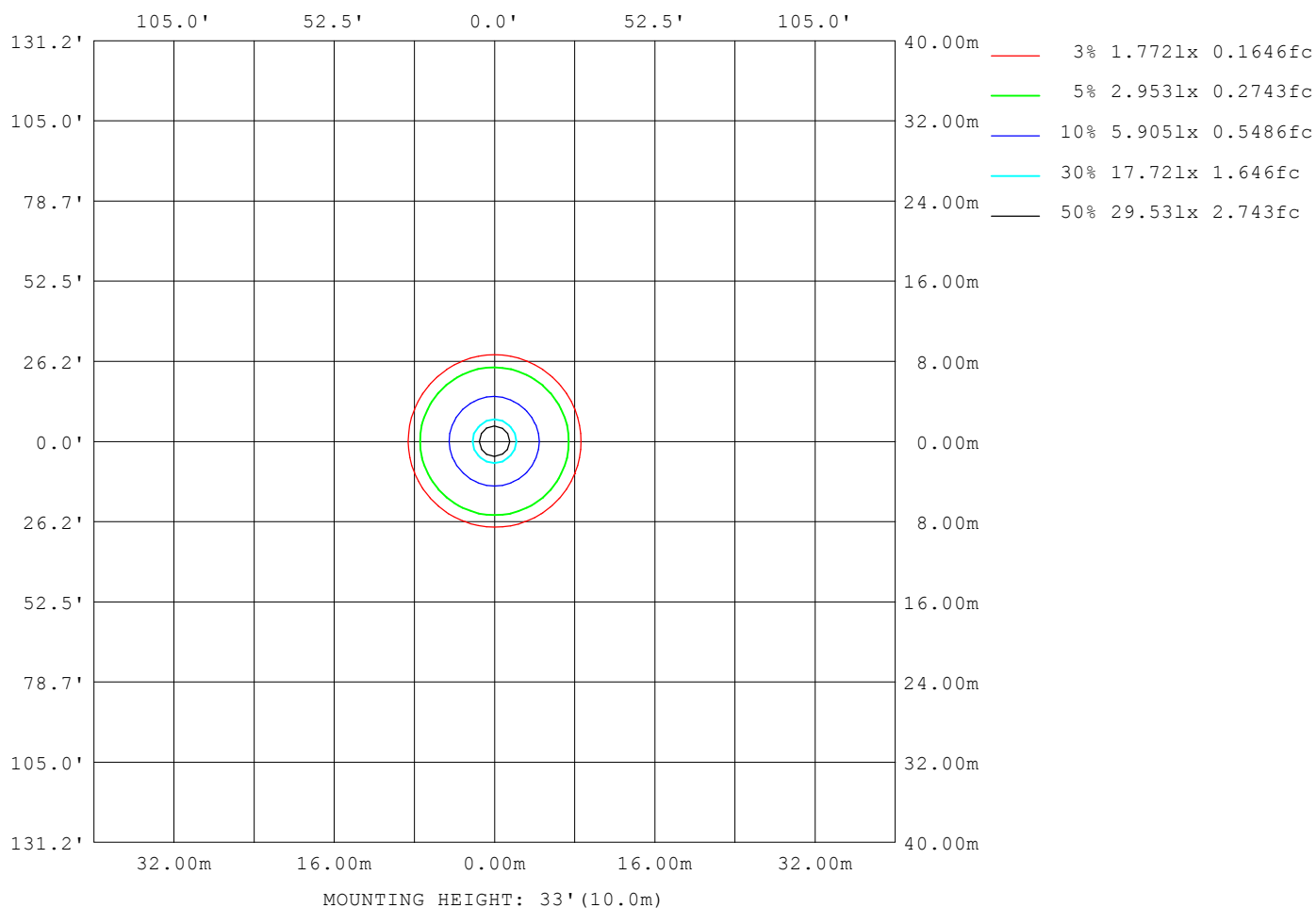
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2024-10-16

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.453  
Humidity: 65.0%  
Test Distance: 3.090m [K=1.0000]  
Remarks:

ISOLUX DIAGRAM

|  |            |                        |
|--|------------|------------------------|
| Test:U:240.4V I:0.0637A P:14.7W PF:0.9626 Freq:49.99Hz |            |                        |
| UTHDi:0.16% ITHDi:17.85% KDisp:0.9777                  |            | Lamp Flux:1648.57x1 lm |
| NAME: FUSION-MD23-AHD-018-COB-02SC 2700K RA90 15D      | 15WTYPE:   | WEIGHT:                |
| SPEC.:   | DIM.:      | SERIAL No.:            |
| MFR.: Norming lighting                                 | SUR.: 41mm | Shielding Angle:       |



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2024-10-16

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.453  
Humidity:65.0%  
Test Distance:3.090m [K=1.0000]  
Remarks:

### LED Avg.L Report

|  |            |                        |
|--|------------|------------------------|
| Test:U:240.4V I:0.0637A P:14.7W PF:0.9626 Freq:49.99Hz |            |                        |
| UTHDi:0.16% ITHDi:17.85% KDisp:0.9777                  |            | Lamp Flux:1648.57x1 lm |
| NAME: FUSION-MD23-AHD-018-COB-02SC 2700K RA90 15D 15W  | TYPE:      | WEIGHT:                |
| SPEC.:   | DIM.:      | SERIAL No.:            |
| MFR.: Norming lighting                                 | SUR.: 41mm | Shielding Angle:       |

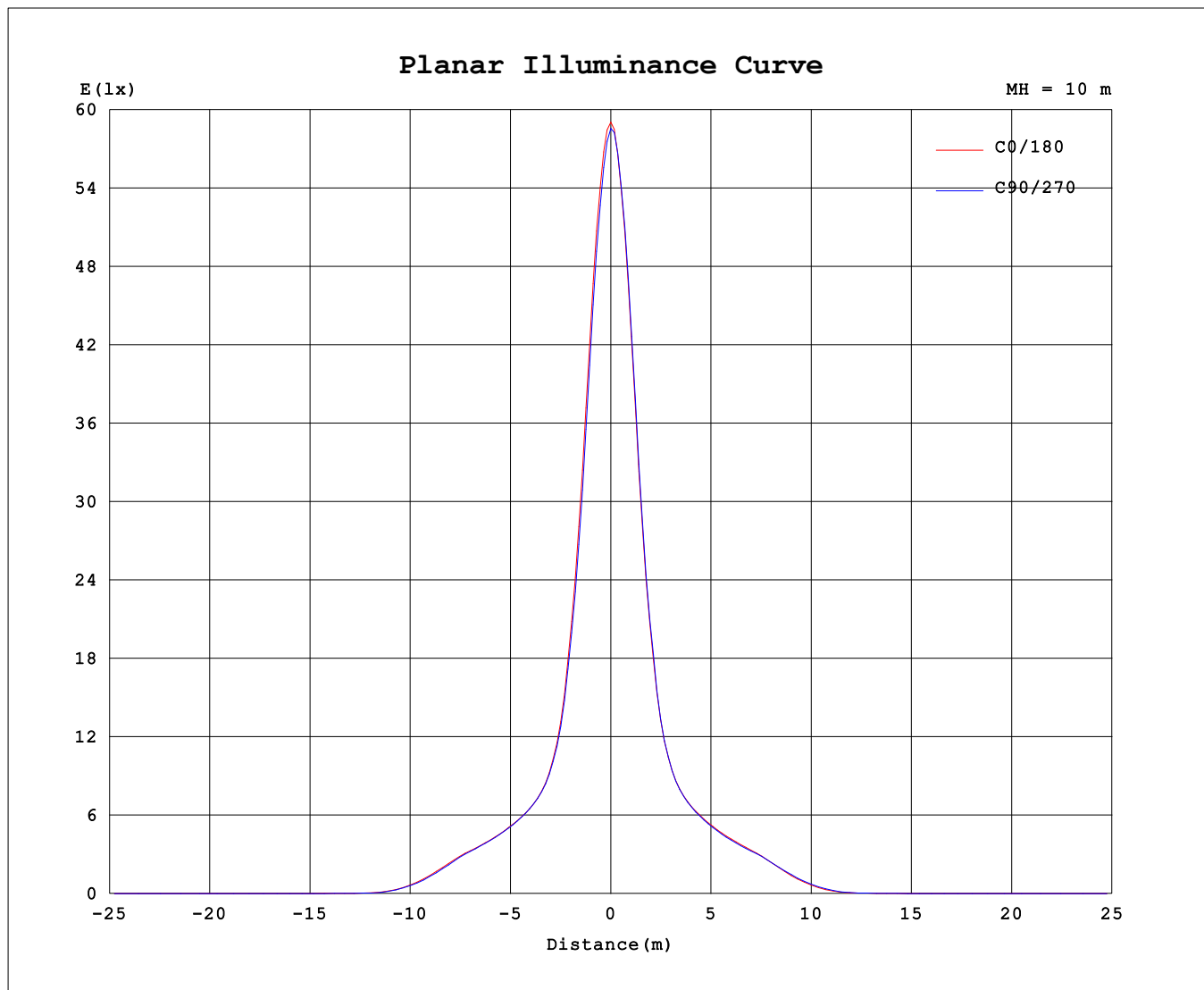
| AvgL             | cd/m2 |
|------------------|-------|
| L_0~180 (65) av  | 13218 |
| L_0~180 (75) av  | 16592 |
| L_0~180 (85) av  | 30780 |
| L_90~270 (65) av | 13196 |
| L_90~270 (75) av | 16275 |
| L_90~270 (85) av | 30103 |
| L_45 (65) av     | 13019 |
| L_45 (75) av     | 16207 |
| L_45 (85) av     | 29880 |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2024-10-16

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.453  
Humidity:65.0%  
Test Distance:3.090m [K=1.0000]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2024-10-16

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.453  
Humidity: 65.0%  
Test Distance: 3.090m [K=1.0000]  
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks:

```

### Photometric Data Table [cd]

| G/C  | 0.0    | 45.0   | 90.0   | 135.0  | 180.0  | 225.0  | 270.0  | 315.0  |
|------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.0  | 5869   | 5869   | 5869   | 5869   | 5869   | 5869   | 5869   | 5869   |
| 3.0  | 5396   | 5320   | 5300   | 5347   | 5385   | 5435   | 5453   | 5440   |
| 6.0  | 4248   | 4138   | 4119   | 4202   | 4257   | 4326   | 4345   | 4324   |
| 9.0  | 2898   | 2783   | 2781   | 2868   | 2883   | 2940   | 2949   | 2932   |
| 12.0 | 1898   | 1838   | 1841   | 1908   | 1901   | 1933   | 1957   | 1929   |
| 15.0 | 1275   | 1251   | 1257   | 1296   | 1290   | 1306   | 1305   | 1292   |
| 18.0 | 980.6  | 978.6  | 979.8  | 998.9  | 999.7  | 1004   | 1007   | 989.7  |
| 21.0 | 842.1  | 844.7  | 846.6  | 854.4  | 859.1  | 862.9  | 861.7  | 848.0  |
| 24.0 | 767.3  | 769.4  | 770.6  | 774.8  | 782.2  | 782.9  | 780.7  | 768.6  |
| 27.0 | 712.1  | 712.0  | 712.5  | 714.5  | 724.2  | 723.5  | 718.8  | 711.1  |
| 30.0 | 663.5  | 663.3  | 663.4  | 664.7  | 676.6  | 673.9  | 668.4  | 662.3  |
| 33.0 | 621.8  | 620.9  | 621.1  | 622.3  | 633.6  | 627.8  | 622.3  | 618.6  |
| 36.0 | 579.4  | 577.9  | 574.0  | 577.4  | 586.8  | 582.4  | 581.1  | 578.5  |
| 39.0 | 489.0  | 485.3  | 471.0  | 476.5  | 487.6  | 486.7  | 494.9  | 492.4  |
| 42.0 | 343.7  | 339.6  | 326.2  | 329.6  | 338.3  | 342.5  | 359.2  | 352.7  |
| 45.0 | 187.1  | 188.0  | 174.2  | 181.8  | 186.3  | 194.5  | 209.5  | 202.4  |
| 48.0 | 67.32  | 65.38  | 61.80  | 67.59  | 69.97  | 74.00  | 83.27  | 76.33  |
| 51.0 | 19.15  | 21.24  | 19.13  | 20.71  | 23.85  | 25.34  | 25.37  | 21.97  |
| 54.0 | 12.93  | 12.56  | 12.56  | 13.08  | 15.11  | 15.71  | 14.76  | 13.87  |
| 57.0 | 10.00  | 9.765  | 9.784  | 9.793  | 10.42  | 10.71  | 10.83  | 10.67  |
| 60.0 | 8.405  | 8.158  | 8.297  | 8.179  | 8.516  | 8.674  | 8.811  | 8.723  |
| 63.0 | 7.630  | 7.295  | 7.435  | 7.387  | 7.736  | 7.837  | 7.995  | 7.877  |
| 66.0 | 7.052  | 6.668  | 6.792  | 6.779  | 7.105  | 7.140  | 7.318  | 7.236  |
| 69.0 | 6.525  | 6.110  | 6.241  | 6.277  | 6.620  | 6.644  | 6.793  | 6.706  |
| 72.0 | 6.002  | 5.622  | 5.725  | 5.818  | 6.197  | 6.196  | 6.290  | 6.219  |
| 75.0 | 5.429  | 5.088  | 5.172  | 5.278  | 5.736  | 5.752  | 5.779  | 5.695  |
| 78.0 | 4.870  | 4.521  | 4.647  | 4.793  | 5.235  | 5.266  | 5.267  | 5.160  |
| 81.0 | 4.821  | 4.412  | 4.644  | 4.929  | 5.206  | 5.010  | 5.003  | 4.830  |
| 84.0 | 4.005  | 3.527  | 3.619  | 3.965  | 4.483  | 4.362  | 4.354  | 4.169  |
| 87.0 | 1.148  | 0.8125 | 0.8681 | 1.024  | 1.525  | 1.797  | 1.907  | 1.530  |
| 90.0 | 0.0591 | 0.0490 | 0.0676 | 0.0469 | 0.0479 | 0.0426 | 0.0538 | 0.0433 |

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2024-10-16

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.453  
Humidity:65.0%  
Test Distance:3.090m [K=1.0000]  
Remarks: