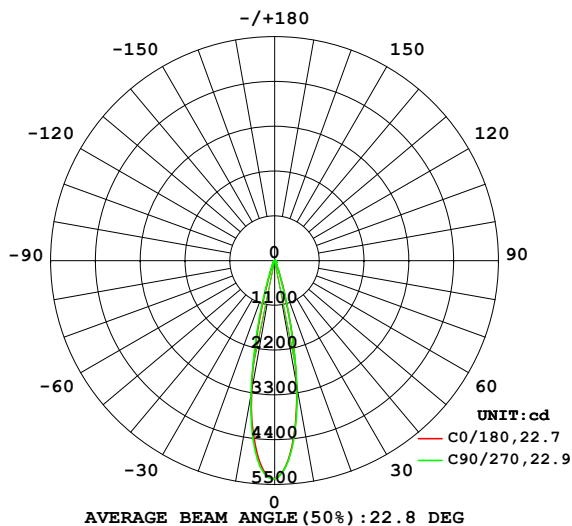


## LUMINAIRE PHOTOMETRIC TEST REPORT

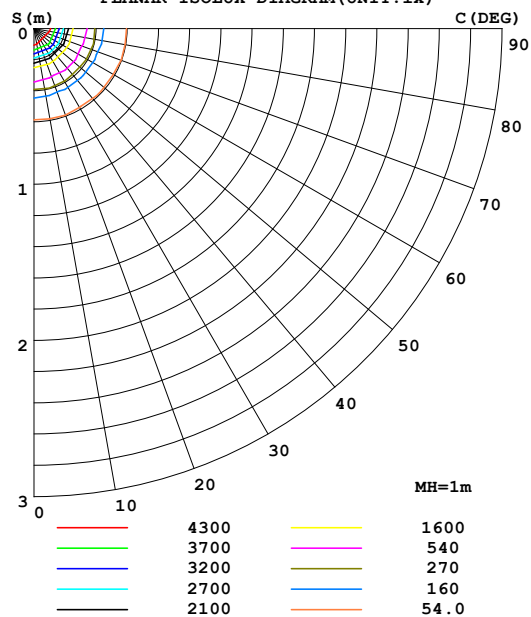
|   |            |                  |
|---|------------|------------------|
| Test:U:240.3V I:0.0441A P:9.9W PF:0.9330 Freq:49.99Hz       |            |                  |
| UTHDi:0.18% ITHDi:18.56% KDisp:0.9495 Lamp Flux:946.67x1 lm |            |                  |
| NAME: MD10-10-XX-04 4000K RA90 24D                          | TYPE:      | WEIGHT:          |
| SPEC.:  | DIM.:      | SERIAL No.:      |
| MFR.: Norming Lighting                                      | SUR.: 41mm | Shielding Angle: |

| DATA OF LAMP     |        | PHOTOMETRIC DATA      |        |                    |          | Eff: 95.66 lm/W |
|------------------|--------|-----------------------|--------|--------------------|----------|-----------------|
| MODEL            |        | I <sub>max</sub> (cd) | 5362   | S/MH (C0/180)      | 0.37     |                 |
| NOMINAL POWER(W) | 10     | LOR (%)               | 100.0  | S/MH (C90/270)     | 0.38     |                 |
| RATED VOLTAGE(V) | 240    | TOTAL FLUX(lm)        | 946.67 | η UP,DN (C0-180)   | 0.0,48.8 |                 |
| NOMINAL FLUX(lm) | 946.67 | CIE CLASS             | DIRECT | η UP,DN (C180-360) | 0.0,51.2 |                 |
| LAMPS INSIDE     | 1      | η up (%)              | 0.0    | CIBSE SHR NOM      | 0.00     |                 |
| TEST VOLTAGE(V)  | 240.24 | 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:2023-12-21

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       | 3130                  | 3085   | 3145   | 3220   | 3293   | 3384   | 3377   | 3240   | 0- 10    | 406.1       | 406.1        | 42.9,42.9  |
| 20       | 393.9                 | 389.4  | 395.3  | 391.7  | 386.8  | 422.1  | 451.5  | 418.9  | 10- 20   | 389.2       | 795.4        | 84,84      |
| 30       | 84.19                 | 87.21  | 89.64  | 86.81  | 85.37  | 92.44  | 95.91  | 89.35  | 20- 30   | 84.96       | 880.3        | 93,93      |
| 40       | 33.57                 | 34.35  | 34.46  | 35.07  | 34.87  | 35.42  | 35.87  | 34.65  | 30- 40   | 34.40       | 914.7        | 96.6,96.6  |
| 50       | 15.45                 | 15.41  | 15.61  | 15.88  | 16.11  | 15.90  | 15.98  | 15.30  | 40- 50   | 18.59       | 933.3        | 98.6,98.6  |
| 60       | 4.541                 | 4.667  | 4.873  | 4.965  | 4.916  | 4.874  | 4.883  | 4.557  | 50- 60   | 8.465       | 941.8        | 99.5,99.5  |
| 70       | 1.961                 | 2.018  | 2.145  | 2.165  | 2.179  | 2.217  | 2.232  | 2.042  | 60- 70   | 3.175       | 944.9        | 99.8,99.8  |
| 80       | 0.7262                | 0.7301 | 0.7314 | 0.7702 | 0.8114 | 0.8172 | 0.7402 | 0.7100 | 70- 80   | 1.470       | 946.4        | 100,100    |
| 90       | 0.0407                | 0.0270 | 0.0463 | 0.0268 | 0.0285 | 0.0257 | 0.0325 | 0.0200 | 80- 90   | 0.2507      | 946.7        | 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): 925.41 lm

%lum = 97.8%

%lamp = 97.8%

Conical surface Flux(120deg): 941.77 lm

%lum = 99.5%

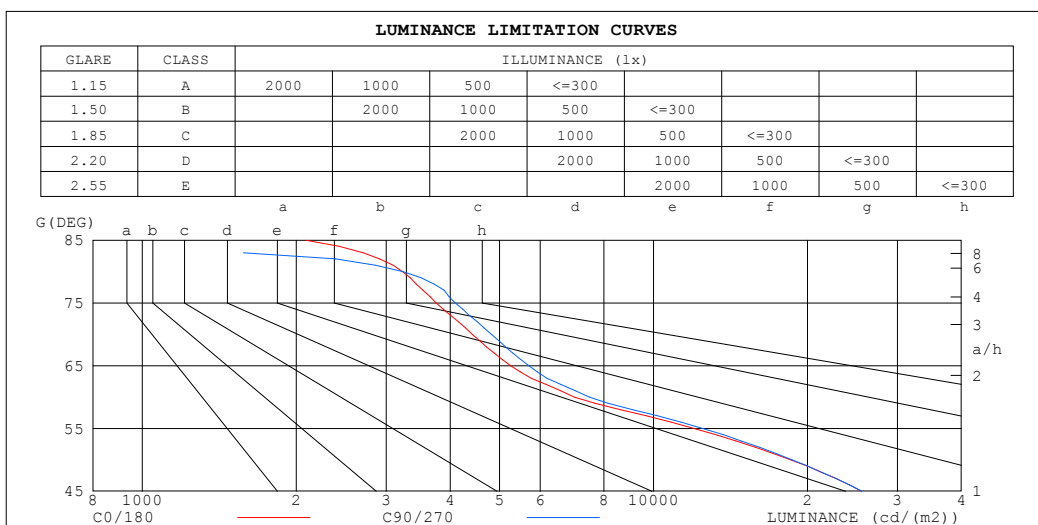
%lamp = 99.5%

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2023-12-21

$\gamma$  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:240.3V I:0.0441A P:9.9W PF:0.9330 Freq:49.99Hz       |            |                  |
| UTHDi:0.18% ITHDi:18.56% KDisp:0.9495 Lamp Flux:946.67x1 lm |            |                  |
| NAME: MD10-10-XX-04 4000K RA90 24D                          | TYPE:      | WEIGHT:          |
| SPEC.:  | DIM.:      | SERIAL No.:      |
| MFR.: Norming Lighting                                      | SUR.: 41mm | Shielding Angle: |



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G (DEG)           | C0/180 | C90/270 |
| 85                | 2091   | 448     |
| 80                | 3226   | 3238    |
| 75                | 3753   | 4093    |
| 70                | 4424   | 4821    |
| 65                | 5257   | 5702    |
| 60                | 7007   | 7493    |
| 55                | 12001  | 12488   |
| 50                | 18548  | 18668   |
| 45                | 25533  | 25614   |

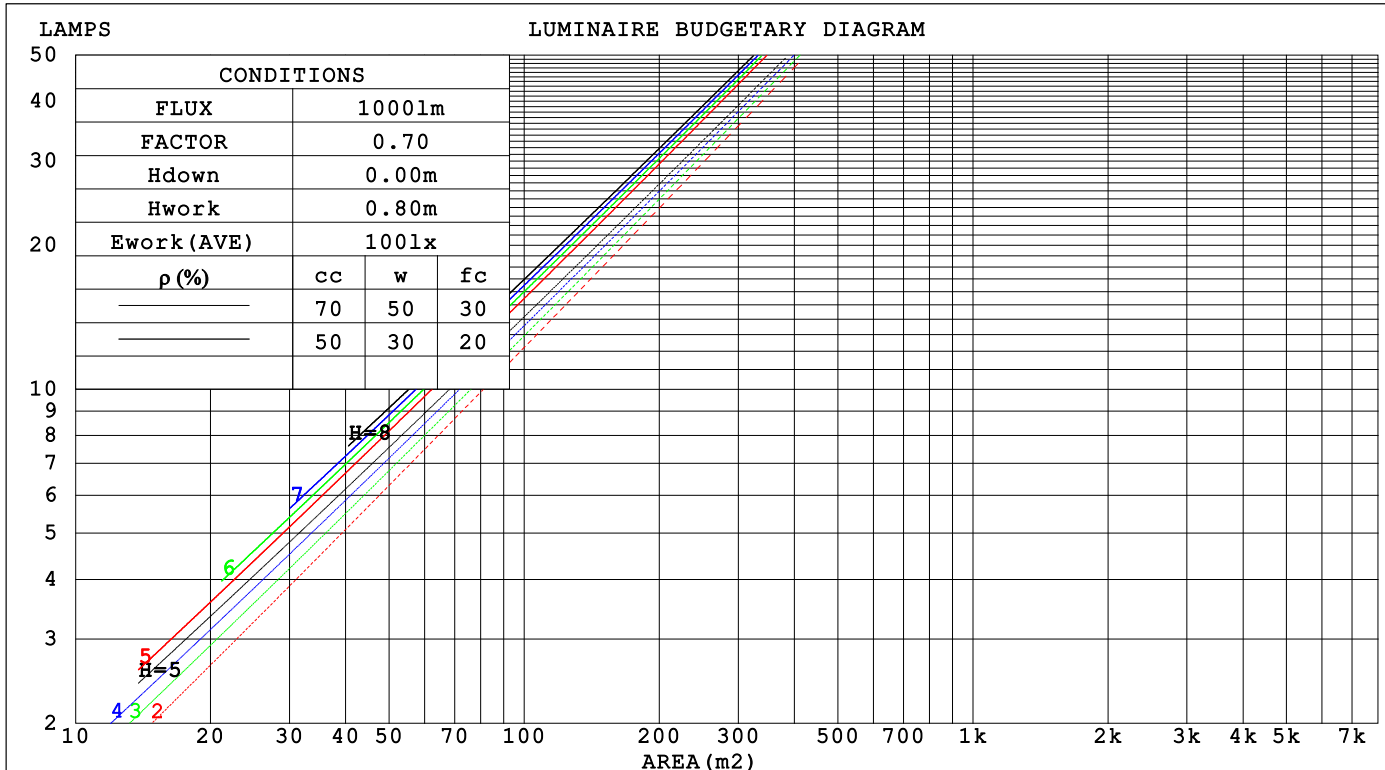
C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2023-12-21

$\gamma$  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:240.3V I:0.0441A P:9.9W PF:0.9330 Freq:49.99Hz |            |                  |
| UTHDi:0.18% ITHDi:18.56% KDisp:0.9495                 |            |                  |
| Lamp Flux:946.67x1 lm                                 |            |                  |
| NAME: MD10-10-XX-04 4000K RA90 24D                    | TYPE:      | 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  | 1.13   | 1.11 | 1.09 | 1.11 | 1.09 | 1.08 | 1.07 | 1.06 | 1.04 | 1.03 | 1.02 | 1.01 | .00  | .99  | .98  | .97  |
| 2.0  | 1.08   | 1.05 | 1.03 | 1.06 | 1.04 | 1.01 | 1.03 | 1.01 | .99  | 1.00 | .99  | .97  | .98  | .96  | .95  | .94  |
| 3.0  | 1.04   | 1.00 | .97  | 1.02 | .99  | .96  | .00  | .97  | .95  | .97  | .95  | .94  | .95  | .94  | .92  | .91  |
| 4.0  | .00  | .96  | .93  | .99  | .95  | .92  | .97  | .94  | .91  | .95  | .92  | .90  | .93  | .91  | .89  | .88  |
| 5.0  | .96  | .92  | .89  | .95  | .92  | .89  | .94  | .91  | .88  | .92  | .90  | .88  | .91  | .89  | .87  | .86  |
| 6.0  | .93  | .89  | .86  | .93  | .89  | .86  | .91  | .88  | .86  | .90  | .87  | .85  | .89  | .87  | .85  | .84  |
| 7.0  | .91  | .87  | .84  | .90  | .86  | .84  | .89  | .86  | .83  | .88  | .85  | .83  | .87  | .84  | .82  | .81  |
| 8.0  | .88  | .84  | .82  | .88  | .84  | .81  | .87  | .83  | .81  | .86  | .83  | .81  | .85  | .82  | .80  | .80  |
| 9.0  | .86  | .82  | .79  | .85  | .82  | .79  | .85  | .81  | .79  | .84  | .81  | .79  | .83  | .81  | .79  | .78  |
| 10.0 | .84  | .80  | .78  | .83  | .80  | .77  | .83  | .80  | .77  | .82  | .79  | .77  | .82  | .79  | .77  | .76  |



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2023-12-21

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:240.3V I:0.0441A P:9.9W PF:0.9330 Freq:49.99Hz |  |  | UTHDi:0.18% ITHDi:18.56% KDisp:0.9495 |  |  | Lamp Flux:946.67x1 lm |  |  |
| NAME: MD10-10-XX-04 4000K RA90 24D                    |  |  | TYPE:                                 |  |  | 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  | .134                  | .076 | .024 | .128 | .073 | .023 | .115                            | .066 | .021 | .104 | .060 | .019 | .093 | .054 | .017 |   |  |
| 2.0  | .124                  | .068 | .021 | .119 | .065 | .020 | .108                            | .060 | .019 | .099 | .056 | .017 | .090 | .051 | .016 |   |  |
| 3.0  | .115                  | .061 | .018 | .111 | .059 | .018 | .102                            | .055 | .017 | .094 | .052 | .016 | .087 | .048 | .015 |   |  |
| 4.0  | .108                  | .056 | .016 | .104 | .054 | .016 | .097                            | .051 | .015 | .090 | .048 | .015 | .084 | .046 | .014 |   |  |
| 5.0  | .101                  | .051 | .015 | .098 | .050 | .015 | .092                            | .048 | .014 | .086 | .045 | .013 | .081 | .043 | .013 |   |  |
| 6.0  | .095                  | .048 | .014 | .092 | .047 | .013 | .087                            | .045 | .013 | .082 | .043 | .013 | .078 | .041 | .012 |   |  |
| 7.0  | .090                  | .044 | .013 | .087 | .044 | .012 | .083                            | .042 | .012 | .079 | .040 | .012 | .075 | .039 | .011 |   |  |
| 8.0  | .085                  | .042 | .012 | .083 | .041 | .012 | .079                            | .040 | .011 | .076 | .038 | .011 | .072 | .037 | .011 |   |  |
| 9.0  | .081                  | .039 | .011 | .079 | .039 | .011 | .076                            | .038 | .011 | .073 | .036 | .010 | .070 | .035 | .010 |   |  |
| 10.0 | .078                  | .037 | .010 | .076 | .037 | .010 | .073                            | .036 | .010 | .070 | .035 | .010 | .067 | .034 | .010 |   |  |

| 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  | .168                  | .158 | .148 | .144 | .135 | .128 | .098  | .093 | .088 | .057 | .054 | .051 | .018 | .017 | .017 |   |  |
| 2.0  | .150                  | .133 | .118 | .128 | .114 | .102 | .088  | .079 | .071 | .051 | .046 | .042 | .016 | .015 | .014 |   |  |
| 3.0  | .135                  | .113 | .096 | .115 | .098 | .083 | .079  | .068 | .058 | .046 | .040 | .034 | .015 | .013 | .011 |   |  |
| 4.0  | .122                  | .098 | .079 | .105 | .085 | .069 | .072  | .059 | .049 | .042 | .035 | .029 | .013 | .011 | .009 |   |  |
| 5.0  | .111                  | .085 | .066 | .095 | .074 | .058 | .066  | .052 | .041 | .038 | .030 | .024 | .012 | .010 | .008 |   |  |
| 6.0  | .102                  | .075 | .056 | .088 | .065 | .049 | .061  | .046 | .035 | .035 | .027 | .021 | .011 | .009 | .007 |   |  |
| 7.0  | .094                  | .067 | .048 | .081 | .058 | .042 | .056  | .041 | .030 | .033 | .024 | .018 | .011 | .008 | .006 |   |  |
| 8.0  | .088                  | .060 | .042 | .075 | .052 | .036 | .052  | .037 | .026 | .030 | .022 | .015 | .010 | .007 | .005 |   |  |
| 9.0  | .082                  | .055 | .036 | .070 | .047 | .032 | .049  | .033 | .022 | .028 | .020 | .013 | .009 | .006 | .004 |   |  |
| 10.0 | .077                  | .050 | .032 | .066 | .043 | .028 | .046  | .030 | .020 | .027 | .018 | .012 | .009 | .006 | .004 |   |  |

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2023-12-21

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:240.3V I:0.0441A P:9.9W PF:0.9330 Freq:49.99Hz<br>UTHDi:0.18% ITHDi:18.56% KDisp:0.9495 Lamp Flux:946.67x1 lm |                  |      |      |      |            |                |      |                  |      |      |
| NAME: MD10-10-XX-04 4000K RA90 24D   |                  |      |      |      | TYPE:      |                |      | 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  | 13.8             | 14.4 | 13.9 | 14.5 | 14.7       | 13.9           | 14.5 | 14.1             | 14.7 | 14.8 |
| 3H   | 13.8             | 14.4 | 14.1 | 14.6 | 14.8       | 14.0           | 14.6 | 14.2             | 14.7 | 14.9 |
| 4H   | 13.8             | 14.4 | 14.1 | 14.6 | 14.8       | 14.0           | 14.6 | 14.2             | 14.8 | 15.0 |
| 6H   | 13.8             | 14.4 | 14.1 | 14.6 | 14.8       | 14.0           | 14.5 | 14.3             | 14.7 | 15.0 |
| 8H   | 13.8             | 14.3 | 14.1 | 14.6 | 14.8       | 14.0           | 14.5 | 14.3             | 14.7 | 15.0 |
| 12H  | 13.8             | 14.3 | 14.1 | 14.5 | 14.8       | 13.9           | 14.4 | 14.2             | 14.7 | 14.9 |
| 4H 2H  | 13.7             | 14.3 | 14.0 | 14.5 | 14.7       | 13.8           | 14.4 | 14.1             | 14.6 | 14.8 |
| 3H   | 13.8             | 14.3 | 14.1 | 14.6 | 14.8       | 14.0           | 14.5 | 14.3             | 14.7 | 15.0 |
| 4H   | 13.9             | 14.3 | 14.2 | 14.6 | 14.9       | 14.0           | 14.5 | 14.4             | 14.8 | 15.1 |
| 6H   | 13.9             | 14.3 | 14.3 | 14.6 | 15.0       | 14.1           | 14.5 | 14.4             | 14.8 | 15.1 |
| 8H   | 13.9             | 14.3 | 14.3 | 14.6 | 15.0       | 14.0           | 14.4 | 14.4             | 14.8 | 15.1 |
| 12H  | 13.8             | 14.2 | 14.2 | 14.6 | 14.9       | 14.0           | 14.3 | 14.4             | 14.7 | 15.1 |
| 8H 4H  | 13.8             | 14.2 | 14.2 | 14.5 | 14.9       | 14.0           | 14.3 | 14.3             | 14.7 | 15.0 |
| 6H   | 13.8             | 14.2 | 14.3 | 14.5 | 15.0       | 14.0           | 14.3 | 14.4             | 14.7 | 15.1 |
| 8H   | 13.8             | 14.1 | 14.3 | 14.5 | 15.0       | 14.0           | 14.3 | 14.4             | 14.7 | 15.1 |
| 12H  | 13.8             | 14.1 | 14.3 | 14.5 | 15.0       | 13.9           | 14.2 | 14.4             | 14.6 | 15.1 |
| 12H 4H   | 13.8             | 14.1 | 14.2 | 14.5 | 14.9       | 13.9           | 14.3 | 14.3             | 14.6 | 15.0 |
| 6H   | 13.8             | 14.1 | 14.2 | 14.5 | 14.9       | 14.0           | 14.2 | 14.4             | 14.7 | 15.1 |
| 8H   | 13.8             | 14.0 | 14.3 | 14.5 | 15.0       | 13.9           | 14.2 | 14.4             | 14.6 | 15.1 |
| Variations with the observer position at spacings(CIE Pub.117):  |                  |      |      |      |            |                |      |                  |      |      |
| S = 1.0H   | + 1.5 / - 2.6    |      |      |      |            | + 1.5 / - 2.6  |      |                  |      |      |
| 1.5H   | + 1.8 / - 2.0    |      |      |      |            | + 2.0 / - 2.0  |      |                  |      |      |
| 2.0H   | + 3.3 / - 3.3    |      |      |      |            | + 3.2 / - 3.2  |      |                  |      |      |

CIE Pub.117, 946.7 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = -0.2)  
Area: 0.0013 m2

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2023-12-21

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:240.3V I:0.0441A P:9.9W PF:0.9330 Freq:49.99Hz       |            |                  |
| UTHDi:0.18% ITHDi:18.56% KDisp:0.9495 Lamp Flux:946.67x1 lm |            |                  |
| NAME: MD10-10-XX-04 4000K RA90 24D                          | TYPE:      | WEIGHT:          |
| SPEC.:  | DIM.:      | SERIAL No.:      |
| MFR.: Norming Lighting                                      | SUR.: 41mm | Shielding Angle: |

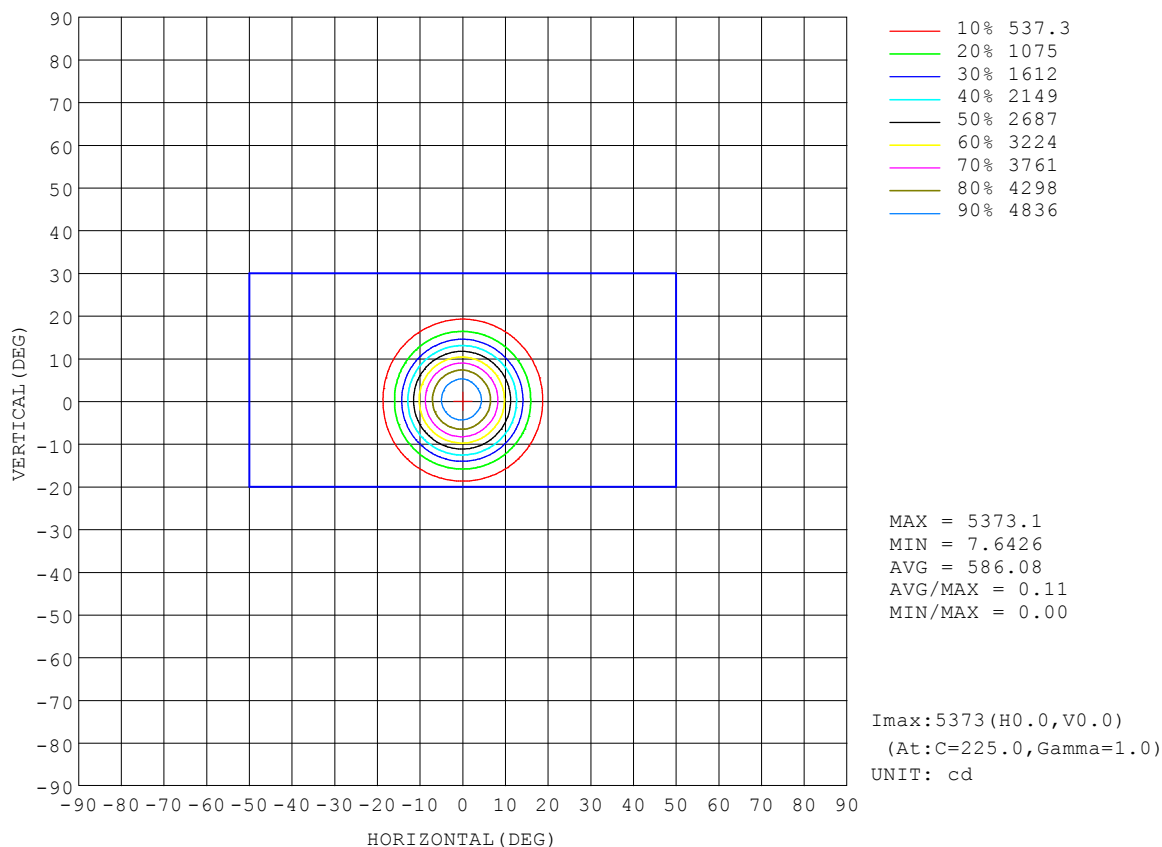
| REFLECTANCE                      |  |     |           |     |     |     |     |               |     |        |
|----------------------------------|--|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| Ceiling                          | 0.8  | 0.8 | 0.8       | 0.7 | 0.7 | 0.7 | 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) $k(RI) \times RCR = 5$ |     |           |     |     |     |     |               |     |        |
| $k = 0.60$                       | 89   | 83  | 80        | 89  | 83  | 80  | 88  | 83            | 80  | 76     |
| 0.80                             | 97   | 91  | 88        | 96  | 91  | 88  | 95  | 90            | 87  | 84     |
| 1.00                             | 101  | 95  | 92        | 100 | 95  | 92  | 98  | 95            | 91  | 87     |
| 1.25                             | 104  | 99  | 96        | 103 | 99  | 96  | 101 | 98            | 95  | 91     |
| 1.50                             | 107  | 102 | 99        | 106 | 102 | 99  | 104 | 100           | 98  | 93     |
| 2.00                             | 109  | 105 | 102       | 108 | 104 | 102 | 105 | 102           | 100 | 95     |
| 2.50                             | 111  | 107 | 104       | 109 | 106 | 104 | 106 | 104           | 102 | 96     |
| 3.00                             | 112  | 109 | 107       | 111 | 108 | 105 | 107 | 105           | 103 | 97     |
| 4.00                             | 114  | 112 | 110       | 112 | 110 | 108 | 109 | 107           | 105 | 98     |
| 5.00                             | 115  | 113 | 112       | 113 | 112 | 110 | 109 | 108           | 107 | 99     |
| 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: 2023-12-21

$\gamma$  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:240.3V I:0.0441A P:9.9W PF:0.9330 Freq:49.99Hz       |            |                  |
| UTHDi:0.18% ITHDi:18.56% KDisp:0.9495 Lamp Flux:946.67x1 lm |            |                  |
| NAME: MD10-10-XX-04 4000K RA90 24D                          | TYPE:      | WEIGHT:          |
| SPEC.:  | DIM.:      | SERIAL No.:      |
| MFR.: Norming Lighting                                      | SUR.: 41mm | Shielding Angle: |



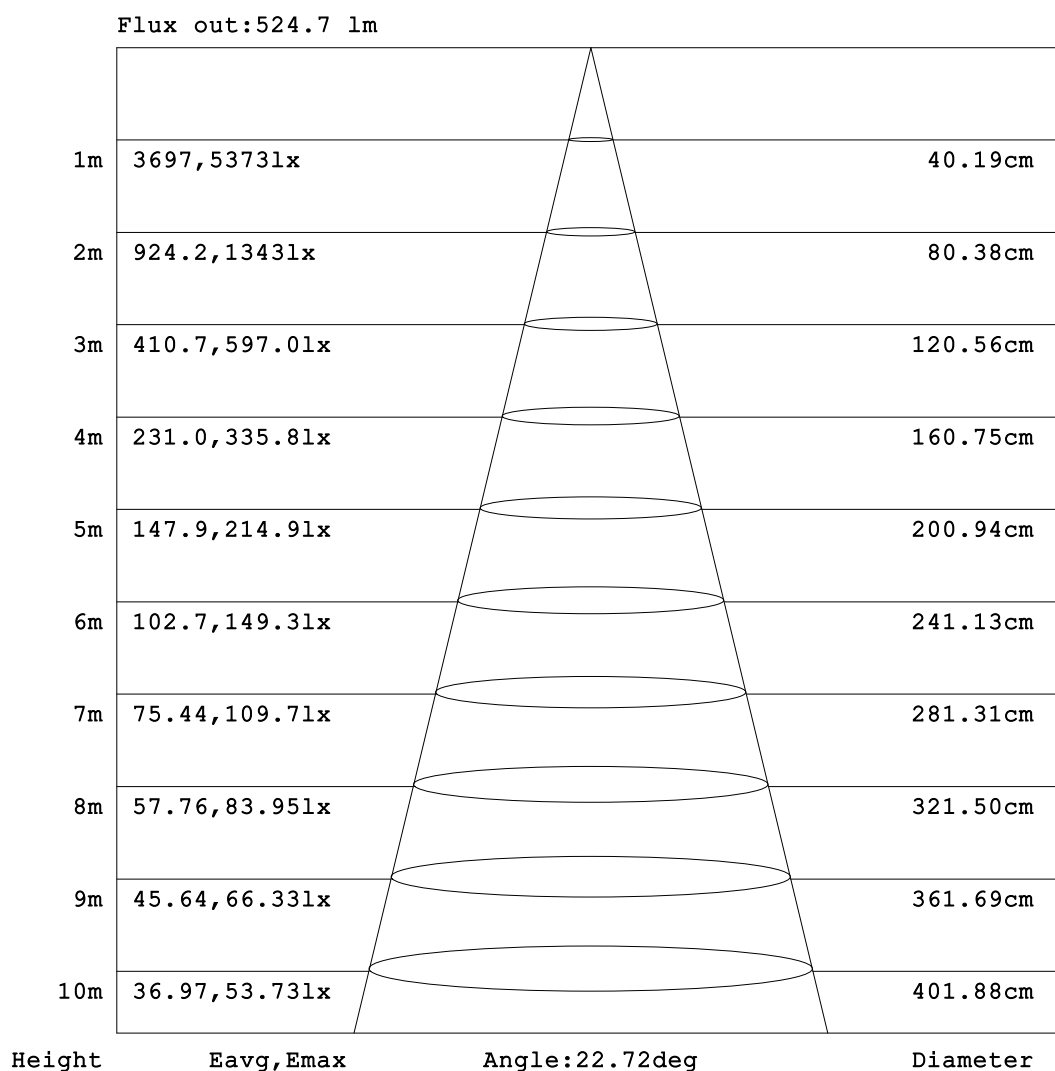
C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2023-12-21

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:240.3V I:0.0441A P:9.9W PF:0.9330 Freq:49.99Hz       |            |                  |
| UTHDi:0.18% ITHDi:18.56% KDisp:0.9495 Lamp Flux:946.67x1 lm |            |                  |
| NAME: MD10-10-XX-04 4000K RA90 24D                          | TYPE:      | WEIGHT:          |
| SPEC.:  | DIM.:      | SERIAL No.:      |
| MFR.: Norming Lighting                                      | SUR.: 41mm | Shielding Angle: |



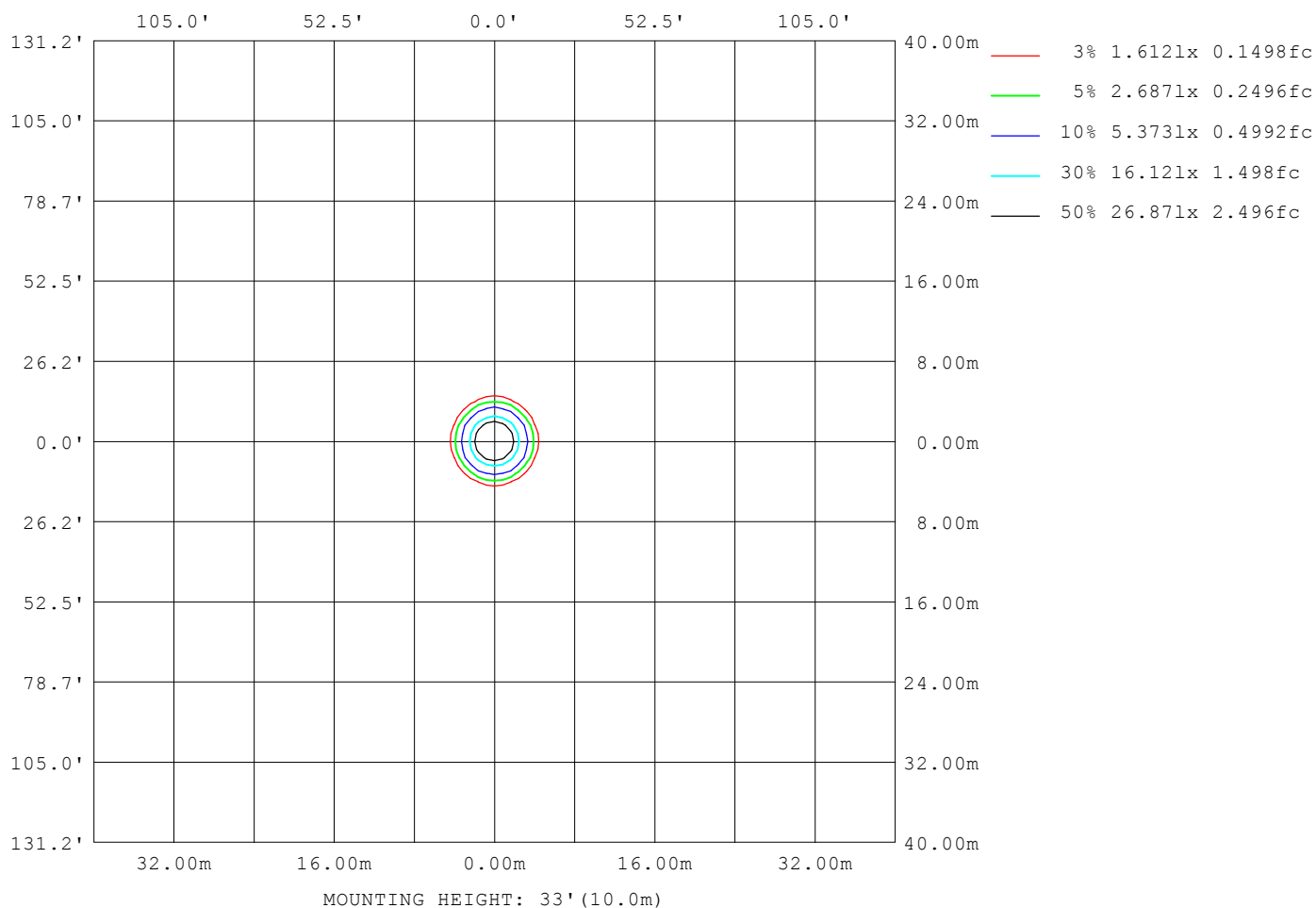
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2023-12-21

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:240.3V I:0.0441A P:9.9W PF:0.9330 Freq:49.99Hz       |            |                  |
| UTHDi:0.18% ITHDi:18.56% KDisp:0.9495 Lamp Flux:946.67x1 lm |            |                  |
| NAME: MD10-10-XX-04 4000K RA90 24D                          | 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:2023-12-21

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:240.3V I:0.0441A P:9.9W PF:0.9330 Freq:49.99Hz       |            |                  |
| UTHDi:0.18% ITHDi:18.56% KDisp:0.9495 Lamp Flux:946.67x1 lm |            |                  |
| NAME: MD10-10-XX-04 4000K RA90 24D                          | TYPE:      | WEIGHT:          |
| SPEC.:  | DIM.:      | SERIAL No.:      |
| MFR.: Norming Lighting                                      | SUR.: 41mm | Shielding Angle: |

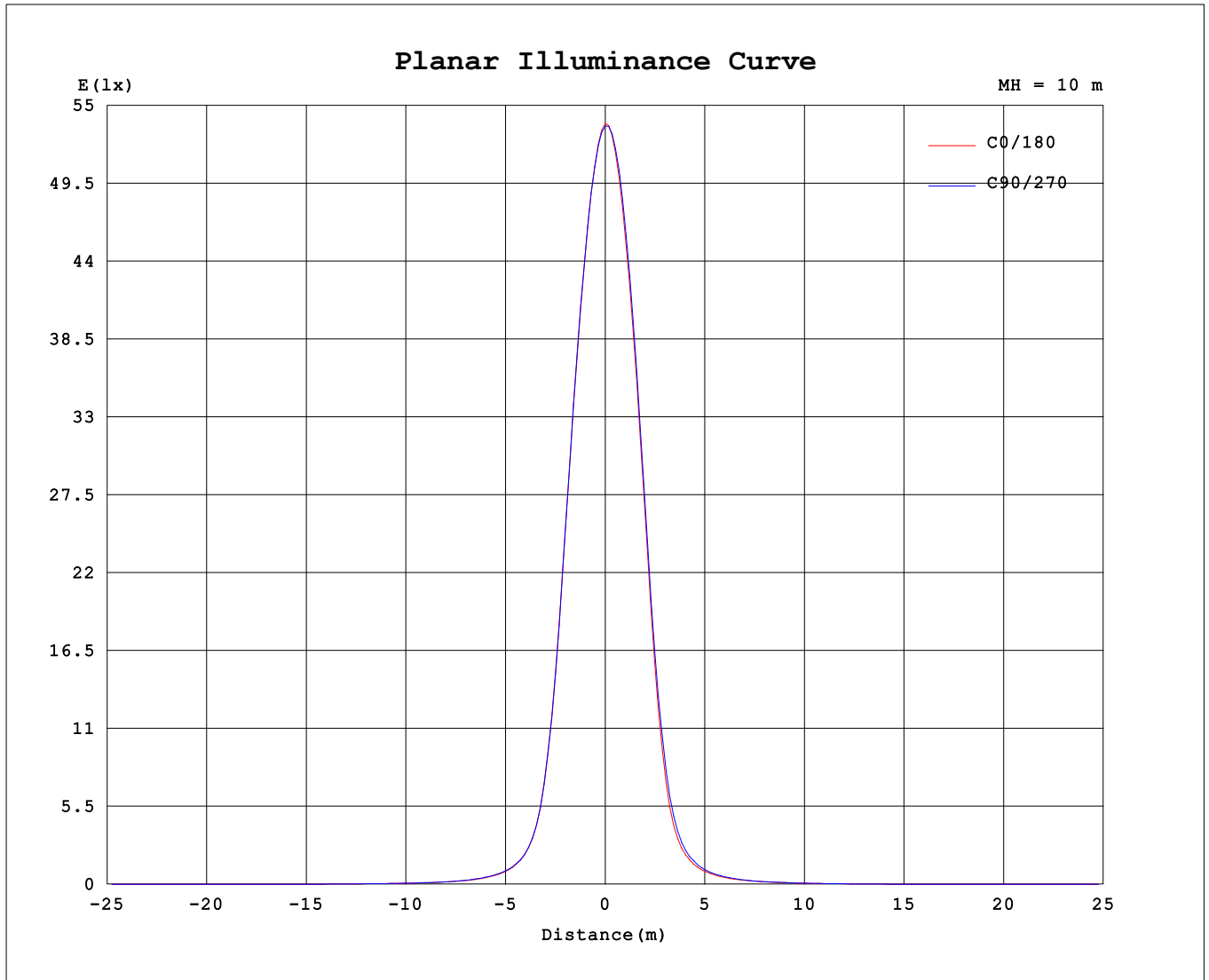
| AvgL             | cd/m2 |
|------------------|-------|
| L_0~180 (65) av  | 5505  |
| L_0~180 (75) av  | 3990  |
| L_0~180 (85) av  | 2316  |
| L_90~270 (65) av | 5803  |
| L_90~270 (75) av | 4201  |
| L_90~270 (85) av | 403   |
| L_45 (65) av     | 5634  |
| L_45 (75) av     | 4043  |
| L_45 (85) av     | 264   |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2023-12-21

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: 2023-12-21

$\gamma$  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  | 5357   | 5357   | 5357   | 5357   | 5357   | 5357   | 5357   | 5357   |
| 3.0  | 5077   | 5050   | 5089   | 5141   | 5169   | 5213   | 5218   | 5144   |
| 6.0  | 4426   | 4382   | 4449   | 4529   | 4580   | 4658   | 4666   | 4534   |
| 9.0  | 3494   | 3446   | 3518   | 3602   | 3671   | 3760   | 3753   | 3610   |
| 12.0 | 2371   | 2325   | 2368   | 2414   | 2484   | 2565   | 2569   | 2450   |
| 15.0 | 1320   | 1290   | 1309   | 1332   | 1359   | 1421   | 1464   | 1377   |
| 18.0 | 636.6  | 624.4  | 633.2  | 631.7  | 630.9  | 684.7  | 723.0  | 674.1  |
| 21.0 | 318.1  | 316.5  | 321.7  | 319.0  | 312.9  | 341.3  | 364.5  | 338.2  |
| 24.0 | 186.4  | 188.7  | 192.6  | 190.0  | 185.1  | 201.0  | 217.0  | 197.9  |
| 27.0 | 121.3  | 124.6  | 127.5  | 124.8  | 122.2  | 132.1  | 138.5  | 128.5  |
| 30.0 | 84.19  | 87.21  | 89.64  | 86.81  | 85.37  | 92.44  | 95.91  | 89.35  |
| 33.0 | 60.72  | 63.47  | 64.84  | 62.99  | 62.04  | 66.29  | 68.42  | 64.34  |
| 36.0 | 45.90  | 47.93  | 48.32  | 47.94  | 47.44  | 49.65  | 50.56  | 48.36  |
| 39.0 | 36.16  | 37.23  | 37.34  | 37.84  | 37.57  | 38.44  | 38.93  | 37.57  |
| 42.0 | 29.07  | 29.35  | 29.51  | 30.13  | 30.15  | 30.30  | 30.64  | 29.62  |
| 45.0 | 23.40  | 23.38  | 23.56  | 23.97  | 24.20  | 24.05  | 24.22  | 23.45  |
| 48.0 | 18.50  | 18.40  | 18.57  | 18.88  | 19.19  | 18.95  | 19.08  | 18.37  |
| 51.0 | 13.99  | 13.98  | 14.22  | 14.45  | 14.67  | 14.47  | 14.55  | 13.88  |
| 54.0 | 10.08  | 10.13  | 10.47  | 10.62  | 10.73  | 10.55  | 10.62  | 10.04  |
| 57.0 | 6.830  | 6.896  | 7.208  | 7.345  | 7.303  | 7.221  | 7.240  | 6.781  |
| 60.0 | 4.541  | 4.667  | 4.873  | 4.965  | 4.916  | 4.874  | 4.883  | 4.557  |
| 63.0 | 3.391  | 3.490  | 3.654  | 3.718  | 3.698  | 3.746  | 3.771  | 3.479  |
| 66.0 | 2.664  | 2.761  | 2.906  | 2.954  | 2.935  | 2.992  | 3.010  | 2.769  |
| 69.0 | 2.119  | 2.184  | 2.320  | 2.344  | 2.343  | 2.387  | 2.407  | 2.205  |
| 72.0 | 1.661  | 1.702  | 1.815  | 1.835  | 1.855  | 1.885  | 1.893  | 1.728  |
| 75.0 | 1.259  | 1.296  | 1.378  | 1.400  | 1.426  | 1.445  | 1.449  | 1.300  |
| 78.0 | 0.9258 | 0.9659 | 1.007  | 1.022  | 1.047  | 1.078  | 1.001  | 0.9514 |
| 81.0 | 0.6281 | 0.6099 | 0.5819 | 0.6335 | 0.6984 | 0.6737 | 0.5912 | 0.5837 |
| 84.0 | 0.3291 | 0.1904 | 0.0520 | 0.2202 | 0.3949 | 0.2212 | 0.0437 | 0.1596 |
| 87.0 | 0.0558 | 0.0247 | 0.0431 | 0.0251 | 0.0452 | 0.0206 | 0.0424 | 0.0206 |
| 90.0 | 0.0407 | 0.0270 | 0.0463 | 0.0268 | 0.0285 | 0.0257 | 0.0325 | 0.0200 |

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2023-12-21

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: