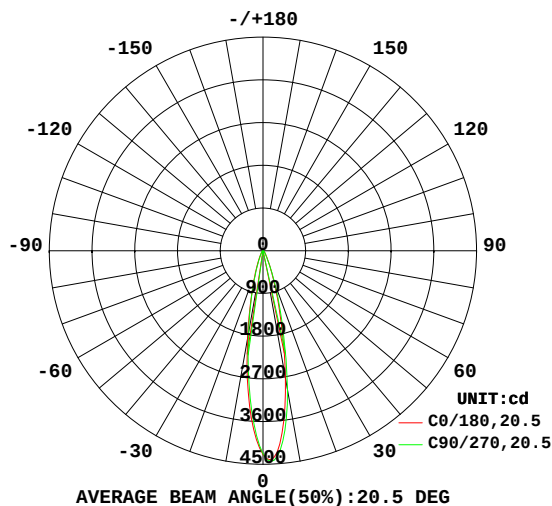


## LUMINAIRE PHOTOMETRIC TEST REPORT

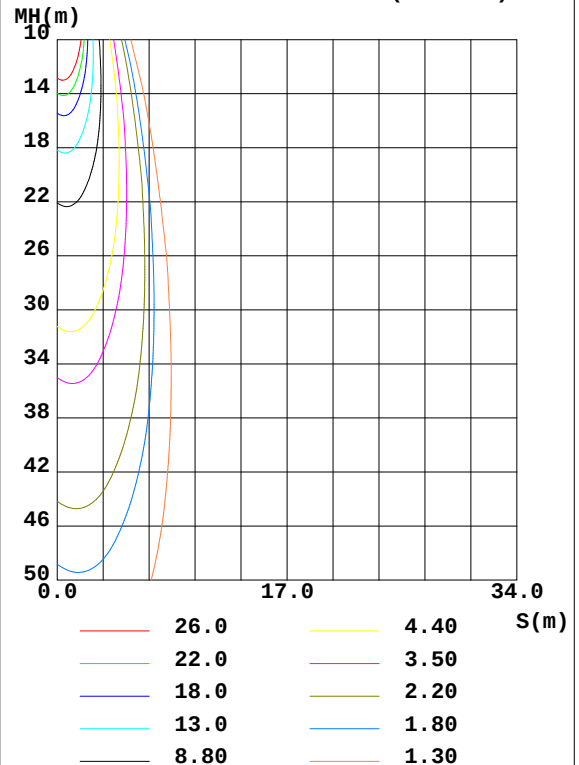
|                                                                                  |            |                  |
|----------------------------------------------------------------------------------|------------|------------------|
| Test:U:220.55V I:0.0486A P:10.210W PF:0.9521 Freq:50.01Hz Lamp Flux:903.071x1 lm |            |                  |
| NAME: DL1541-BKTC10C02                                                           | TYPE:      | WEIGHT:          |
| SPEC.: black RA90 3000K+5000K                                                    | DIM.:      | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 90mm | Shielding Angle: |

| DATA OF LAMP     |         | PHOTOMETRIC DATA Eff: 88.45 lm/W |        |                    |           |
|------------------|---------|----------------------------------|--------|--------------------|-----------|
| MODEL            | 4000K   | I <sub>max</sub> (cd)            | 4580   | S/MH(C0/180)       | 0.31      |
| NOMINAL POWER(W) | 10      | LOR(%)                           | 100.0  | S/MH(C90/270)      | 0.29      |
| RATED VOLTAGE(V) | 220-240 | TOTAL FLUX(lm)                   | 903.07 | η UP, DN(C0-180)   | 0.0, 58.1 |
| NOMINAL FLUX(lm) | 903.071 | CIE CLASS                        | DIRECT | η UP, DN(C180-360) | 0.0, 41.9 |
| LAMPS INSIDE     | 1       | η up(%)                          | 0.0    | CIBSE SHR NOM      | 0.00      |
| TEST VOLTAGE(V)  | 220     | η down(%)                        | 100.0  | CIBSE SHR MAX      | 1.00      |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT: lx)



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25DEG  
 Operators:  
 Test Date: 2023-11-24

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
 Humidity: 65.0%  
 Test Distance: 7.450m [K=1.0000]  
 Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

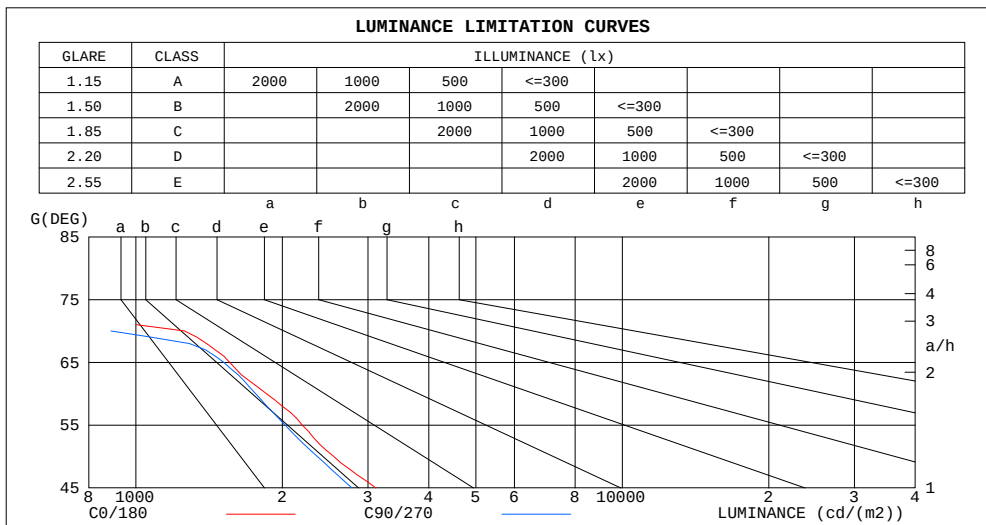
| $\gamma$ | C0                    | C45    | C90    | C135   | C180   | C225   | C270   | C315   | $\gamma$ | $\Phi$ zone | $\Phi$ total | %lum, lamp |
|----------|-----------------------|--------|--------|--------|--------|--------|--------|--------|----------|-------------|--------------|------------|
| 10       | 2732                  | 3237   | 2974   | 2289   | 1866   | 1678   | 1762   | 2135   | 0- 10    | 305.7       | 305.7        | 33.8, 33.8 |
| 20       | 654.1                 | 808.1  | 721.1  | 528.3  | 429.1  | 378.4  | 390.4  | 504.1  | 10- 20   | 336.2       | 641.8        | 71.1, 71.1 |
| 30       | 165.8                 | 182.0  | 156.1  | 128.1  | 116.6  | 106.5  | 113.5  | 136.4  | 20- 30   | 127.3       | 769.2        | 85.2, 85.2 |
| 40       | 75.82                 | 78.58  | 66.71  | 52.41  | 48.05  | 47.82  | 55.35  | 65.46  | 30- 40   | 56.74       | 825.9        | 91.5, 91.5 |
| 50       | 41.74                 | 43.64  | 38.61  | 28.99  | 26.36  | 27.16  | 31.94  | 37.68  | 40- 50   | 35.51       | 861.4        | 95.4, 95.4 |
| 60       | 23.60                 | 25.03  | 22.43  | 18.10  | 16.83  | 16.82  | 18.37  | 20.63  | 50- 60   | 23.96       | 885.4        | 98, 98     |
| 70       | 10.96                 | 9.930  | 7.735  | 6.150  | 6.430  | 7.545  | 8.565  | 9.583  | 60- 70   | 14.42       | 899.8        | 99.6, 99.6 |
| 80       | 0.3609                | 0.4384 | 0.2912 | 0.1631 | 0.0383 | 0.0497 | 0.1150 | 0.2381 | 70- 80   | 3.217       | 903.0        | 100, 100   |
| 90       | 0.0347                | 0.0347 | 0.0347 | 0.0425 | 0      | 0.0039 | 0      | 0      | 80- 90   | 0.0548      | 903.1        | 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    |              |            |

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25DEG  
 Operators:  
 Test Date: 2023-11-24

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
 Humidity: 65.0%  
 Test Distance: 7.450m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES

|                                                                                  |            |                  |
|----------------------------------------------------------------------------------|------------|------------------|
| Test:U:220.55V I:0.0486A P:10.210W PF:0.9521 Freq:50.01Hz Lamp Flux:903.071x1 lm |            |                  |
| NAME: DL1541-BKTC10C02                                                           | TYPE:      | WEIGHT:          |
| SPEC.: black RA90 3000K+5000K                                                    | DIM.:      | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 90mm | Shielding Angle: |



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G(DEG)            | C0/180 | C90/270 |
| 85                | 26     | 21      |
| 80                | 82     | 66      |
| 75                | 483    | 485     |
| 70                | 1259   | 889     |
| 65                | 1559   | 1516    |
| 60                | 1855   | 1763    |
| 55                | 2197   | 2027    |
| 50                | 2551   | 2360    |
| 45                | 3113   | 2782    |

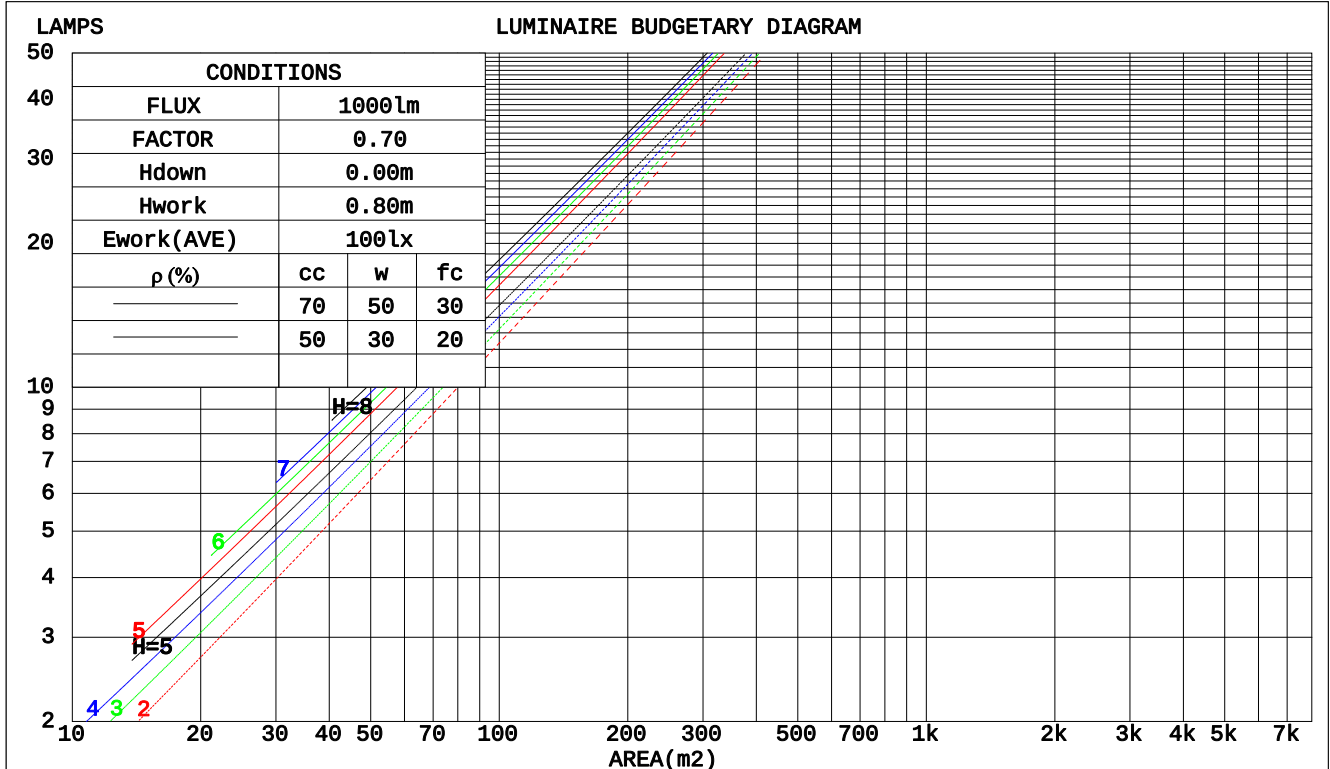
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25DEG  
Operators:  
Test Date: 2023-11-24

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity: 65.0%  
Test Distance: 7.450m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|                                                                                  |            |                  |
|----------------------------------------------------------------------------------|------------|------------------|
| Test:U:220.55V I:0.0486A P:10.210W PF:0.9521 Freq:50.01Hz Lamp Flux:903.071x1 lm |            |                  |
| NAME: DL1541-BKTC10C02                                                           | TYPE:      | WEIGHT:          |
| SPEC.: black RA90 3000K+5000K                                                    | DIM.:      | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 90mm | Shielding Angle: |

| $\rho_{CC}$           | 80%                             |      |      | 70%  |      |      | 50%  |      |      | 30%  |      |      | 10%  |      |      | 0   |
|-----------------------|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| $\rho_W$              | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0   |
| $\rho_{fc}$           | 20%                             |      |      | 20%  |      |      | 20%  |      |      | 20%  |      |      | 20%  |      |      | 0   |
| RCR                   | Coefficients of Utilization(CU) |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     |
| RCR:Room Cavity Ratio |                                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     |
| 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 | .00 |
| 1.0                   | 1.12                            | 1.10 | 1.08 | 1.10 | 1.08 | 1.06 | 1.06 | 1.04 | 1.03 | 1.02 | 1.01 | .00  | .99  | .98  | .97  | .95 |
| 2.0                   | 1.06                            | 1.02 | .00  | 1.04 | 1.01 | .98  | 1.01 | .99  | .96  | .98  | .96  | .94  | .95  | .94  | .92  | .91 |
| 3.0                   | 1.00                            | .96  | .93  | .99  | .95  | .92  | .97  | .93  | .91  | .94  | .92  | .90  | .92  | .90  | .88  | .87 |
| 4.0                   | .96                             | .91  | .88  | .95  | .91  | .87  | .93  | .89  | .86  | .91  | .88  | .85  | .89  | .87  | .84  | .83 |
| 5.0                   | .92                             | .87  | .84  | .91  | .86  | .83  | .89  | .85  | .82  | .88  | .84  | .82  | .86  | .83  | .81  | .80 |
| 6.0                   | .88                             | .83  | .80  | .87  | .83  | .80  | .86  | .82  | .79  | .85  | .81  | .79  | .83  | .80  | .78  | .77 |
| 7.0                   | .85                             | .80  | .77  | .84  | .80  | .77  | .83  | .79  | .76  | .82  | .78  | .76  | .81  | .78  | .75  | .74 |
| 8.0                   | .82                             | .77  | .74  | .81  | .77  | .74  | .80  | .76  | .74  | .79  | .76  | .73  | .79  | .75  | .73  | .72 |
| 9.0                   | .79                             | .75  | .72  | .79  | .74  | .71  | .78  | .74  | .71  | .77  | .74  | .71  | .76  | .73  | .71  | .70 |
| 10.0                  | .77                             | .72  | .69  | .76  | .72  | .69  | .76  | .72  | .69  | .75  | .71  | .69  | .74  | .71  | .69  | .68 |



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25DEG  
Operators:  
Test Date: 2023-11-24

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity: 65.0%  
Test Distance: 7.450m [K=1.0000]  
Remarks:

### WEC AND CCEC

|                                                                                  |  |  |            |  |                  |
|----------------------------------------------------------------------------------|--|--|------------|--|------------------|
| Test:U:220.55V I:0.0486A P:10.210W PF:0.9521 Freq:50.01Hz Lamp Flux:903.071x1 lm |  |  |            |  |                  |
| NAME: DL1541-BKTC10C02                                                           |  |  | TYPE:      |  | WEIGHT:          |
| SPEC.: black RA90 3000K+5000K                                                    |  |  | DIM.:      |  | SERIAL No.:      |
| MFR.:                                                                            |  |  | SUR.: 90mm |  | Shielding Angle: |

| $\rho_{cc}$ | 80%                   |      |      | 70%  |      |      | 50%                             |      |      | 30%  |      |      | 10%  |      |      | 0 |
|-------------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|
| $\rho_w$    | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| $\rho_{fc}$ | 20%                   |      |      | 20%  |      |      | 20%                             |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR         | RCR:Room Cavity Ratio |      |      |      |      |      | Wall Exitance Coefficients(WEC) |      |      |      |      |      |      |      |      |   |
| 0.0         |                       |      |      |      |      |      |                                 |      |      |      |      |      |      |      |      |   |
| 1.0         | .153                  | .087 | .028 | .146 | .084 | .027 | .134                            | .077 | .025 | .122 | .071 | .023 | .112 | .065 | .021 |   |
| 2.0         | .144                  | .079 | .024 | .138 | .076 | .023 | .128                            | .071 | .022 | .118 | .066 | .021 | .110 | .062 | .020 |   |
| 3.0         | .135                  | .072 | .021 | .130 | .070 | .021 | .121                            | .066 | .020 | .113 | .062 | .019 | .106 | .059 | .018 |   |
| 4.0         | .126                  | .066 | .019 | .122 | .064 | .019 | .115                            | .061 | .018 | .108 | .058 | .018 | .102 | .055 | .017 |   |
| 5.0         | .119                  | .061 | .018 | .115 | .059 | .017 | .109                            | .057 | .017 | .103 | .054 | .016 | .098 | .052 | .016 |   |
| 6.0         | .112                  | .056 | .016 | .109 | .055 | .016 | .104                            | .053 | .015 | .099 | .051 | .015 | .094 | .049 | .015 |   |
| 7.0         | .106                  | .052 | .015 | .103 | .052 | .015 | .099                            | .050 | .014 | .094 | .048 | .014 | .090 | .047 | .014 |   |
| 8.0         | .101                  | .049 | .014 | .098 | .048 | .014 | .094                            | .047 | .013 | .090 | .046 | .013 | .086 | .044 | .013 |   |
| 9.0         | .096                  | .046 | .013 | .094 | .046 | .013 | .090                            | .045 | .013 | .087 | .043 | .012 | .083 | .042 | .012 |   |
| 10.0        | .091                  | .044 | .012 | .090 | .043 | .012 | .086                            | .042 | .012 | .083 | .041 | .012 | .080 | .040 | .012 |   |

| ρcc  | 80%                   |      |      | 70%  |      |      | 50%                                        |      |      | 30%  |      |      | 10%  |      |      | 0 |
|------|-----------------------|------|------|------|------|------|--------------------------------------------|------|------|------|------|------|------|------|------|---|
| ρw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                                        | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| ρfc  | 20%                   |      |      | 20%  |      |      | 20%                                        |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Ceiling Cavity Exitance Coefficients(CCEC) |      |      |      |      |      |      |      |      |   |
| 0.0  | .190                  | .190 | .190 | .163 | .163 | .163 | .111                                       | .111 | .111 | .064 | .064 | .064 | .020 | .020 | .020 |   |
| 1.0  | .169                  | .158 | .147 | .145 | .135 | .126 | .099                                       | .093 | .087 | .057 | .054 | .051 | .018 | .017 | .016 |   |
| 2.0  | .153                  | .133 | .116 | .131 | .114 | .100 | .090                                       | .079 | .070 | .052 | .046 | .041 | .017 | .015 | .013 |   |
| 3.0  | .138                  | .113 | .093 | .119 | .098 | .081 | .081                                       | .068 | .057 | .047 | .040 | .033 | .015 | .013 | .011 |   |
| 4.0  | .127                  | .098 | .077 | .109 | .085 | .067 | .075                                       | .059 | .047 | .043 | .035 | .028 | .014 | .011 | .009 |   |
| 5.0  | .116                  | .086 | .064 | .100 | .075 | .055 | .069                                       | .052 | .039 | .040 | .031 | .023 | .013 | .010 | .008 |   |
| 6.0  | .108                  | .076 | .054 | .093 | .066 | .047 | .064                                       | .046 | .033 | .037 | .027 | .020 | .012 | .009 | .007 |   |
| 7.0  | .100                  | .068 | .046 | .086 | .059 | .040 | .060                                       | .042 | .028 | .035 | .024 | .017 | .011 | .008 | .006 |   |
| 8.0  | .094                  | .062 | .040 | .081 | .053 | .034 | .056                                       | .038 | .024 | .033 | .022 | .015 | .011 | .007 | .005 |   |
| 9.0  | .088                  | .056 | .034 | .076 | .049 | .030 | .053                                       | .034 | .021 | .031 | .020 | .013 | .010 | .007 | .004 |   |
| 10.0 | .083                  | .051 | .030 | .072 | .045 | .026 | .050                                       | .031 | .019 | .029 | .019 | .011 | .009 | .006 | .004 |   |

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2023-11-24

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity:65.0%  
Test Distance:7.450m [K=1.0000]  
Remarks:

### UGR(Unified Glare Rating) Table

|                                                                                  |                  |      |      |      |            |                |      |                  |      |      |
|----------------------------------------------------------------------------------|------------------|------|------|------|------------|----------------|------|------------------|------|------|
| Test:U:220.55V I:0.0486A P:10.210W PF:0.9521 Freq:50.01Hz Lamp Flux:903.071x1 lm |                  |      |      |      |            |                |      |                  |      |      |
| NAME: DL1541-BKTC10C02                                                           |                  |      |      |      | TYPE:      |                |      | WEIGHT:          |      |      |
| SPEC.: black RA90 3000K+5000K                                                    |                  |      |      |      | DIM.:      |                |      | SERIAL No.:      |      |      |
| MFR.:                                                                            |                  |      |      |      | SUR.: 90mm |                |      | 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                                                                    | 11.4             | 12.1 | 11.6 | 12.3 | 12.4       | 11.0           | 11.8 | 11.2             | 11.9 | 12.1 |
| 3H                                                                               | 11.9             | 12.6 | 12.2 | 12.8 | 13.0       | 11.5           | 12.2 | 11.8             | 12.4 | 12.6 |
| 4H                                                                               | 11.9             | 12.6 | 12.2 | 12.8 | 13.0       | 11.5           | 12.2 | 11.8             | 12.4 | 12.6 |
| 6H                                                                               | 11.9             | 12.5 | 12.2 | 12.7 | 13.0       | 11.5           | 12.1 | 11.8             | 12.3 | 12.6 |
| 8H                                                                               | 11.8             | 12.4 | 12.1 | 12.7 | 12.9       | 11.4           | 12.0 | 11.7             | 12.3 | 12.5 |
| 12H                                                                              | 11.8             | 12.4 | 12.1 | 12.6 | 12.9       | 11.4           | 12.0 | 11.7             | 12.2 | 12.5 |
| 4H 2H                                                                            | 11.7             | 12.3 | 11.9 | 12.5 | 12.8       | 11.4           | 12.0 | 11.7             | 12.3 | 12.5 |
| 3H                                                                               | 12.3             | 12.9 | 12.6 | 13.2 | 13.4       | 12.0           | 12.5 | 12.3             | 12.8 | 13.1 |
| 4H                                                                               | 12.3             | 12.9 | 12.7 | 13.2 | 13.5       | 12.0           | 12.5 | 12.3             | 12.8 | 13.1 |
| 6H                                                                               | 12.2             | 12.7 | 12.6 | 13.0 | 13.4       | 11.9           | 12.4 | 12.3             | 12.7 | 13.0 |
| 8H                                                                               | 12.2             | 12.6 | 12.6 | 13.0 | 13.3       | 11.8           | 12.3 | 12.2             | 12.6 | 13.0 |
| 12H                                                                              | 12.1             | 12.5 | 12.5 | 12.9 | 13.3       | 11.8           | 12.2 | 12.2             | 12.5 | 12.9 |
| 8H 4H                                                                            | 12.2             | 12.7 | 12.6 | 13.0 | 13.4       | 11.9           | 12.3 | 12.3             | 12.7 | 13.0 |
| 6H                                                                               | 12.2             | 12.5 | 12.6 | 12.9 | 13.3       | 11.8           | 12.2 | 12.2             | 12.6 | 13.0 |
| 8H                                                                               | 12.1             | 12.4 | 12.5 | 12.8 | 13.3       | 11.7           | 12.1 | 12.2             | 12.5 | 12.9 |
| 12H                                                                              | 12.0             | 12.3 | 12.5 | 12.8 | 13.2       | 11.7           | 12.0 | 12.1             | 12.4 | 12.9 |
| 12H 4H                                                                           | 12.2             | 12.6 | 12.6 | 13.0 | 13.3       | 11.8           | 12.2 | 12.2             | 12.6 | 13.0 |
| 6H                                                                               | 12.1             | 12.4 | 12.5 | 12.8 | 13.3       | 11.7           | 12.1 | 12.2             | 12.5 | 12.9 |
| 8H                                                                               | 12.0             | 12.3 | 12.5 | 12.8 | 13.2       | 11.7           | 12.0 | 12.1             | 12.4 | 12.9 |
| Variations with the observer position at spacings(CIE Pub.117):                  |                  |      |      |      |            |                |      |                  |      |      |
| S = 1.0H                                                                         | + 0.8 / - 1.0    |      |      |      |            | + 0.8 / - 1.1  |      |                  |      |      |
| 1.5H                                                                             | + 0.9 / - 0.8    |      |      |      |            | + 0.8 / - 1.0  |      |                  |      |      |
| 2.0H                                                                             | + 1.2 / - 1.0    |      |      |      |            | + 1.0 / - 1.0  |      |                  |      |      |

CIE Pub.117, 903.1 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.4)  
Area: 0.02545 m2

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2023-11-24

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity:65.0%  
Test Distance:7.450m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

|                                                                                  |            |                  |
|----------------------------------------------------------------------------------|------------|------------------|
| Test:U:220.55V I:0.0486A P:10.210W PF:0.9521 Freq:50.01Hz Lamp Flux:903.071x1 lm |            |                  |
| NAME: DL1541-BKTC10C02                                                           | TYPE:      | WEIGHT:          |
| SPEC.: black RA90 3000K+5000K                                                    | DIM.:      | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 90mm | Shielding Angle: |

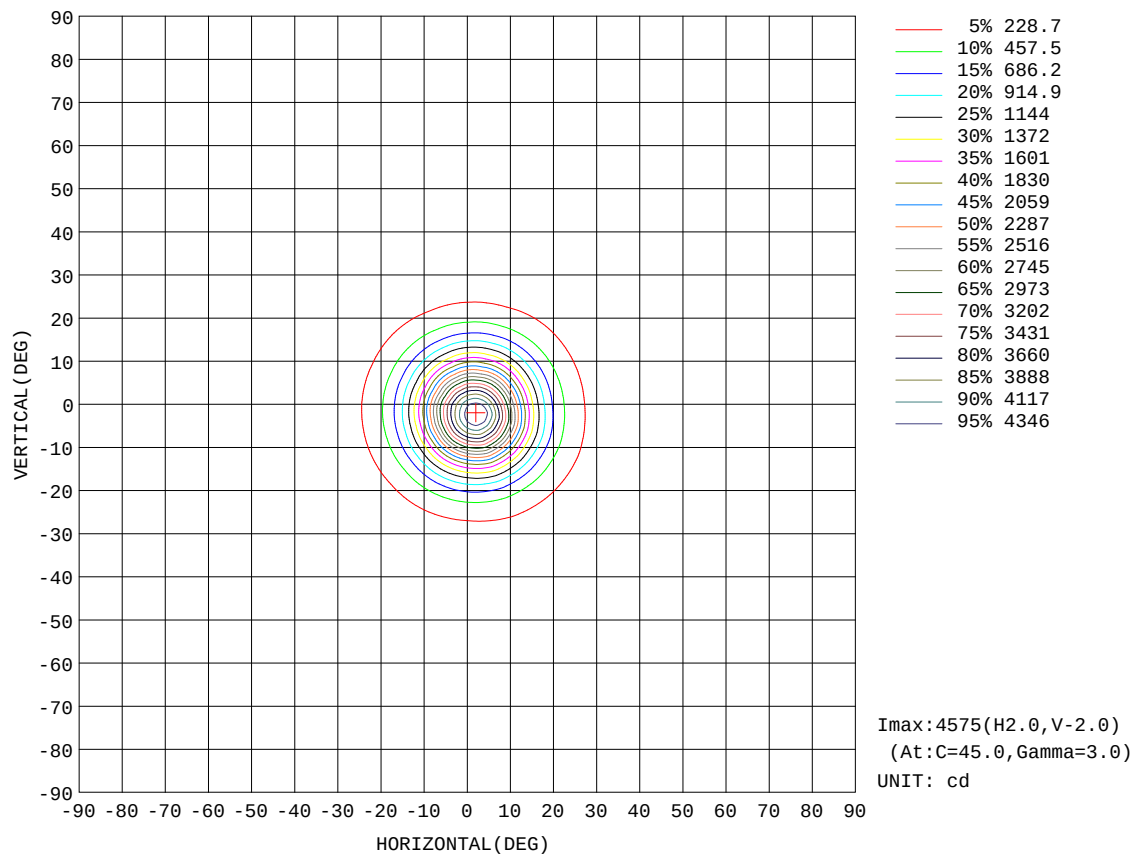
| REFLECTANCE                      |                                                     |     |           |     |     |     |     |               |     |        |
|----------------------------------|-----------------------------------------------------|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| 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) $k(RI) \times RCR = 5$ |     |           |     |     |     |     |               |     |        |
| $k = 0.60$                       | 86                                                  | 80  | 76        | 86  | 79  | 76  | 85  | 79            | 76  | 72     |
| 0.80                             | 94                                                  | 88  | 84        | 93  | 87  | 84  | 92  | 87            | 83  | 79     |
| 1.00                             | 98                                                  | 92  | 89        | 97  | 92  | 88  | 96  | 92            | 88  | 84     |
| 1.25                             | 102                                                 | 97  | 93        | 101 | 96  | 93  | 99  | 95            | 92  | 88     |
| 1.50                             | 105                                                 | 100 | 97        | 104 | 100 | 96  | 102 | 98            | 95  | 91     |
| 2.00                             | 108                                                 | 104 | 100       | 107 | 103 | 100 | 104 | 101           | 98  | 93     |
| 2.50                             | 110                                                 | 106 | 103       | 108 | 105 | 102 | 105 | 102           | 100 | 94     |
| 3.00                             | 111                                                 | 108 | 105       | 110 | 107 | 104 | 106 | 104           | 102 | 95     |
| 4.00                             | 114                                                 | 111 | 108       | 112 | 109 | 107 | 108 | 106           | 104 | 97     |
| 5.00                             | 115                                                 | 113 | 111       | 113 | 111 | 109 | 109 | 107           | 106 | 98     |
| ROOM INDEX                       | UF(total)                                           |     |           |     |     |     |     |               |     | Direct |
| According to DIN EN 13032-2 2004 |                                                     |     | Suspended |     |     |     |     | SHRNOM = 1.25 |     |        |

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2023-11-24

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity:65.0%  
Test Distance:7.450m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

|                                                                                  |            |                  |
|----------------------------------------------------------------------------------|------------|------------------|
| Test:U:220.55V I:0.0486A P:10.210W PF:0.9521 Freq:50.01Hz Lamp Flux:903.071x1 lm |            |                  |
| NAME: DL1541-BKTC10C02                                                           | TYPE:      | WEIGHT:          |
| SPEC.: black RA90 3000K+5000K                                                    | DIM.:      | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 90mm | Shielding Angle: |



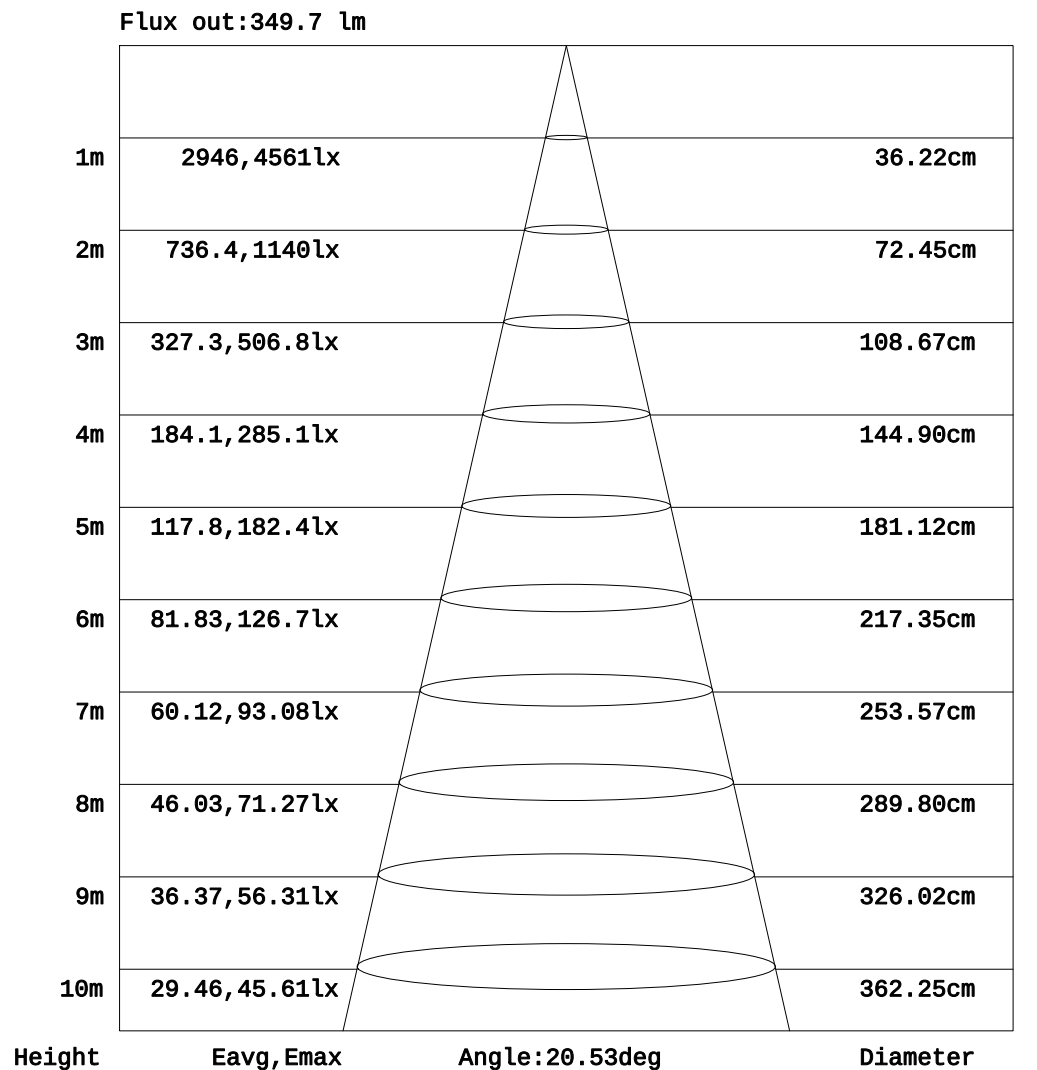
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25DEG  
Operators:  
Test Date: 2023-11-24

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity: 65.0%  
Test Distance: 7.450m [K=1.0000]  
Remarks:



### AAI Figure

|                                                                                  |            |                  |
|----------------------------------------------------------------------------------|------------|------------------|
| Test:U:220.55V I:0.0486A P:10.210W PF:0.9521 Freq:50.01Hz Lamp Flux:903.07lx1 lm |            |                  |
| NAME: DL1541-BKTC10C02                                                           | TYPE:      | WEIGHT:          |
| SPEC.: black RA90 3000K+5000K                                                    | DIM.:      | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 90mm | Shielding Angle: |



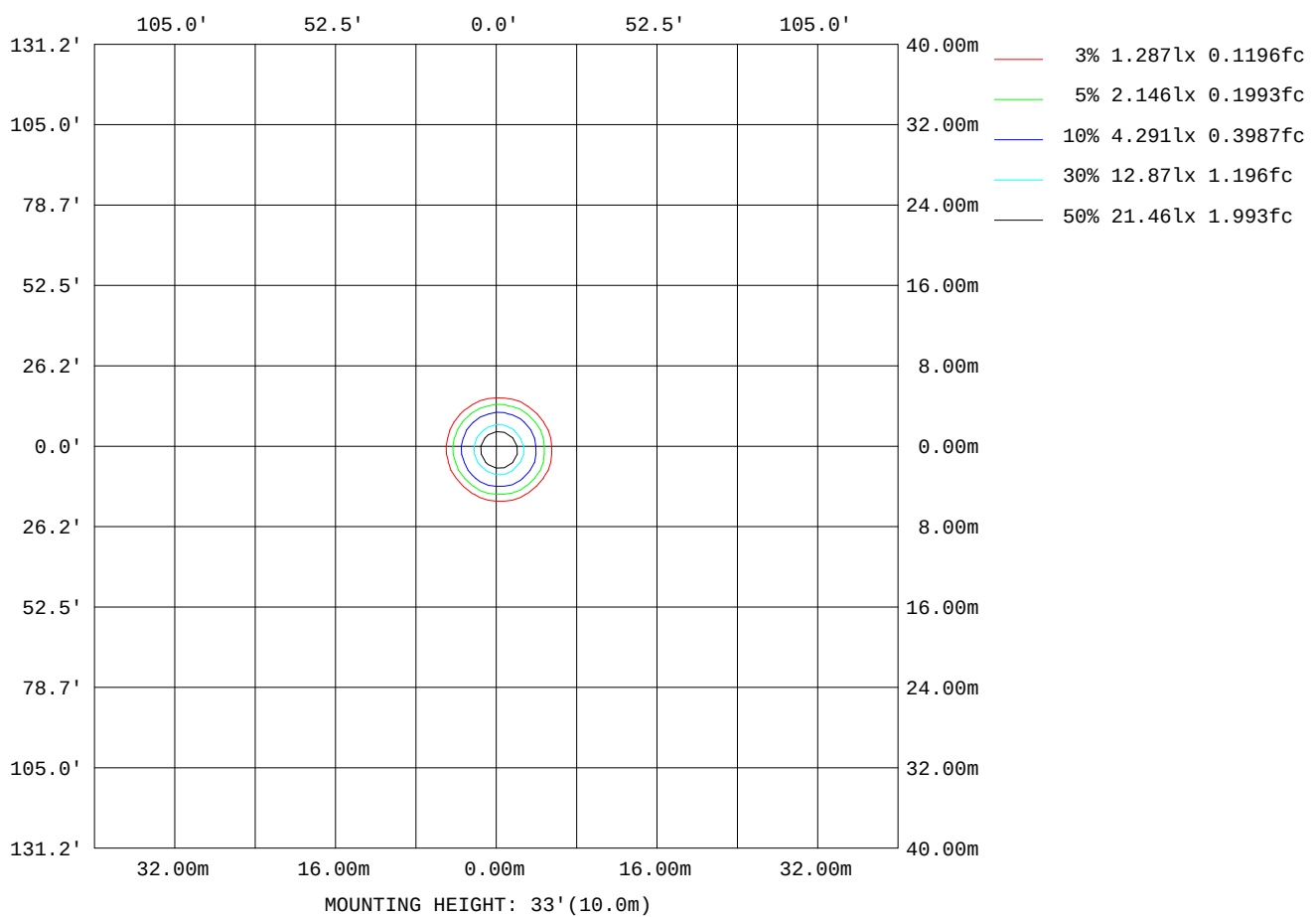
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2023-11-24

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity:65.0%  
Test Distance:7.450m [K=1.0000]  
Remarks:

# ISOLUX DIAGRAM

|                                                                                  |            |                  |
|----------------------------------------------------------------------------------|------------|------------------|
| Test:U:220.55V I:0.0486A P:10.210W PF:0.9521 Freq:50.01Hz Lamp Flux:903.071x1 lm |            |                  |
| NAME: DL1541-BKTC10C02                                                           | TYPE:      | WEIGHT:          |
| SPEC.: black RA90 3000K+5000K                                                    | DIM.:      | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 90mm | Shielding Angle: |



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2023-11-24

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity:65.0%  
Test Distance:7.450m [K=1.0000]  
Remarks:

## LED Avg.L Report

|                                                                                  |            |                  |
|----------------------------------------------------------------------------------|------------|------------------|
| Test:U:220.55V I:0.0486A P:10.210W PF:0.9521 Freq:50.01Hz Lamp Flux:903.071x1 lm |            |                  |
| NAME: DL1541-BKTC10C02                                                           | TYPE:      | WEIGHT:          |
| SPEC.: black RA90 3000K+5000K                                                    | DIM.:      | SERIAL No.:      |
| MFR.:                                                                            | SUR.: 90mm | Shielding Angle: |

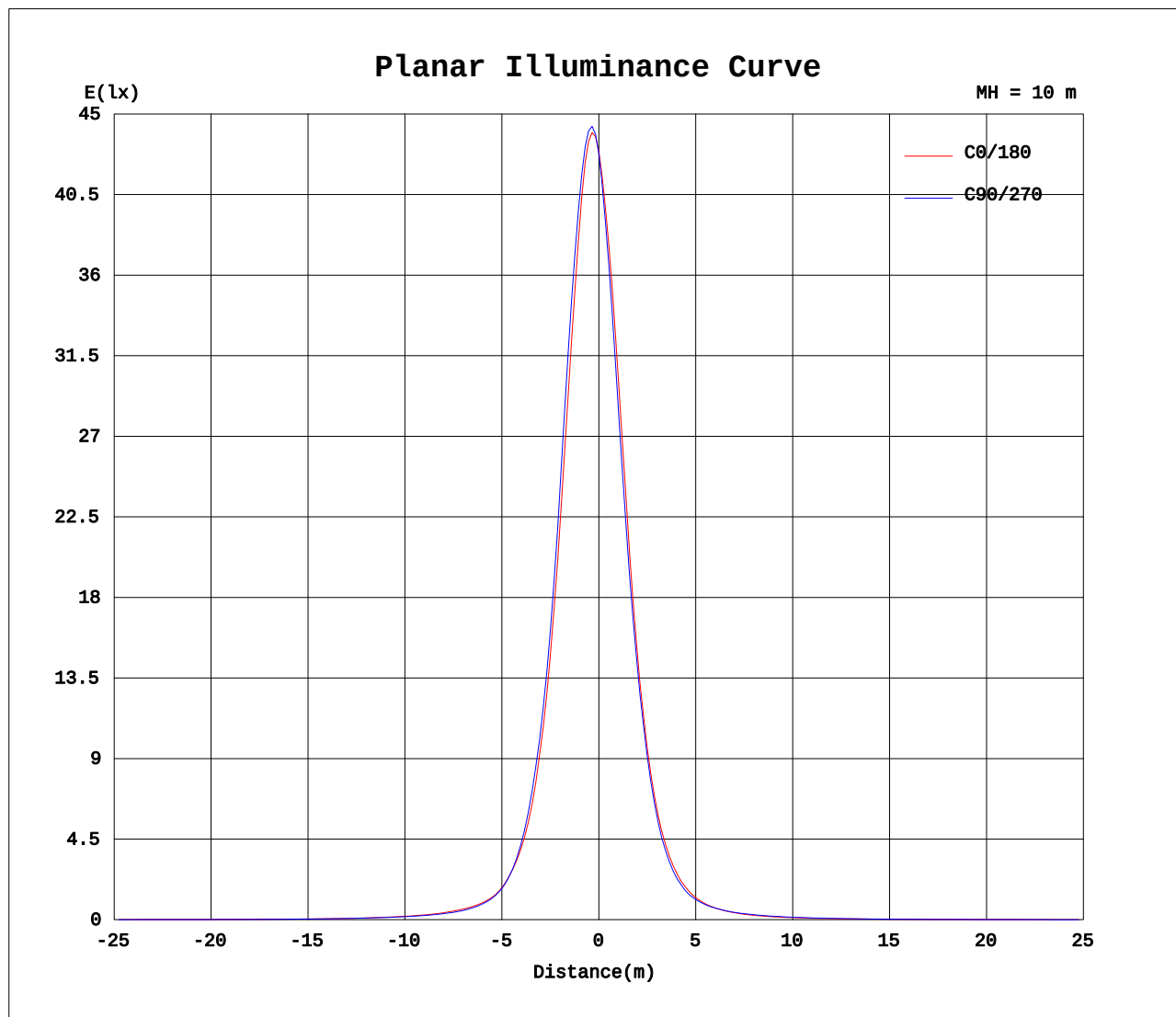
| AvgL           | cd/m2 |
|----------------|-------|
| L_0~180(65)av  | 1367  |
| L_0~180(75)av  | 395   |
| L_0~180(85)av  | 13    |
| L_90~270(65)av | 1385  |
| L_90~270(75)av | 426   |
| L_90~270(85)av | 10    |
| L_45(65)av     | 1355  |
| L_45(75)av     | 406   |
| L_45(85)av     | 11    |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2023-11-24

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
 Humidity:65.0%  
 Test Distance:7.450m [K=1.0000]  
 Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25DEG  
Operators:  
Test Date: 2023-11-24

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.00.428  
Humidity: 65.0%  
Test Distance: 7.450m [K=1.0000]  
Remarks:

```

Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

```