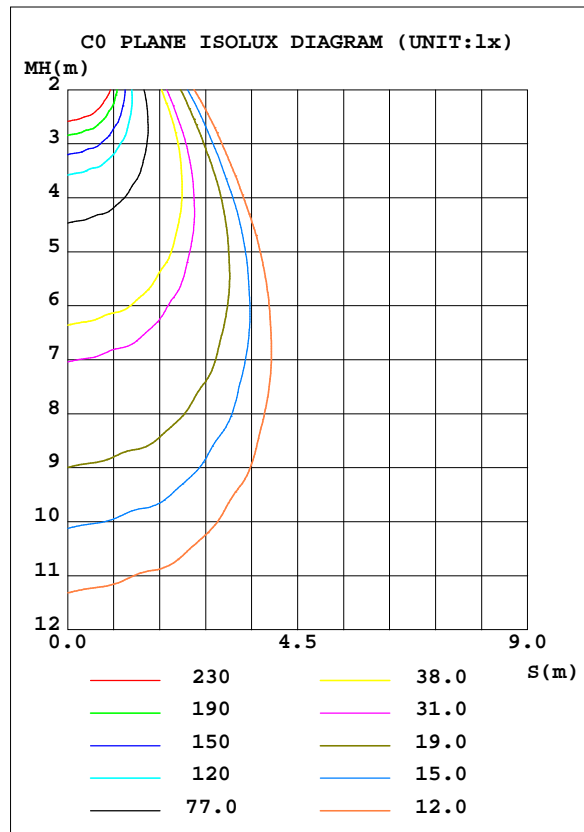
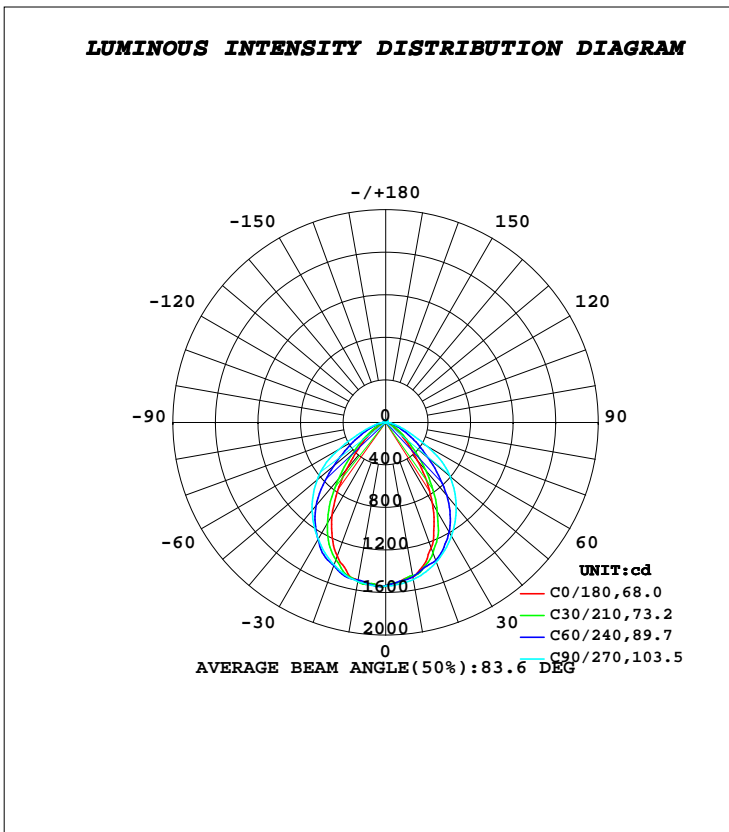


**LUMINAIRE PHOTOMETRIC TEST REPORT**

|   |                   |  |
|---|-------------------|--|
| Test:U:221.70V I:0.0930A P:19.500W PF:0.9480 Freq:50.00Hz |                   |  |
| Lamp Flux:2866x1 lm                                       |                   |  |
| Name: NS51-600MM-20W                                      | Type: LED         |  |
| MFR.: Lumega Group  | DIM.: 600*65*50mm |  |
|   | SUR.: 590*65mm    |  |

| DATA OF LAMP     |      | PHOTOMETRIC DATA Eff: 146.97 lm/W |        |                    |          |
|------------------|------|-----------------------------------|--------|--------------------|----------|
| MODEL            |      | I <sub>max</sub> (cd)             | 1547   | S/MH(C0/180)       | 0.96     |
| NOMINAL POWER(W) | 20   | LOR(%)                            | 100.0  | S/MH(C90/270)      | 1.20     |
| RATED VOLTAGE(V) | 220  | TOTAL FLUX(lm)                    | 2866.0 | η UP, DN(C0-180)   | 1.6,46.3 |
| NOMINAL FLUX(lm) | 2866 | CIE CLASS                         | DIRECT | η UP, DN(C180-360) | 1.7,50.4 |
| LAMPS INSIDE     | 1    | η up(%)                           | 3.3    | CIBSE SHR NOM      | 1.00     |
| TEST VOLTAGE(V)  | 221  | η down(%)                         | 96.7   | CIBSE SHR MAX      | 1.15     |



**C Range: 0 - 360DEG**  
**C Interval: 30.0DEG**  
**Test Speed: HIGH**  
**Temperature:25.3DEG**  
**Operators:DAMIN**  
**Test Date:2022-05-24**

**γ Range: 0 - 180DEG**  
**γ Interval: 1.0DEG**  
**Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.443**  
**Humidity:65.0%**  
**Test Distance:8.000m [K=0.7063]**  
**Remarks:**

**ZONAL FLUX DIAGRAM**

**ZONAL FLUX DIAGRAM:**

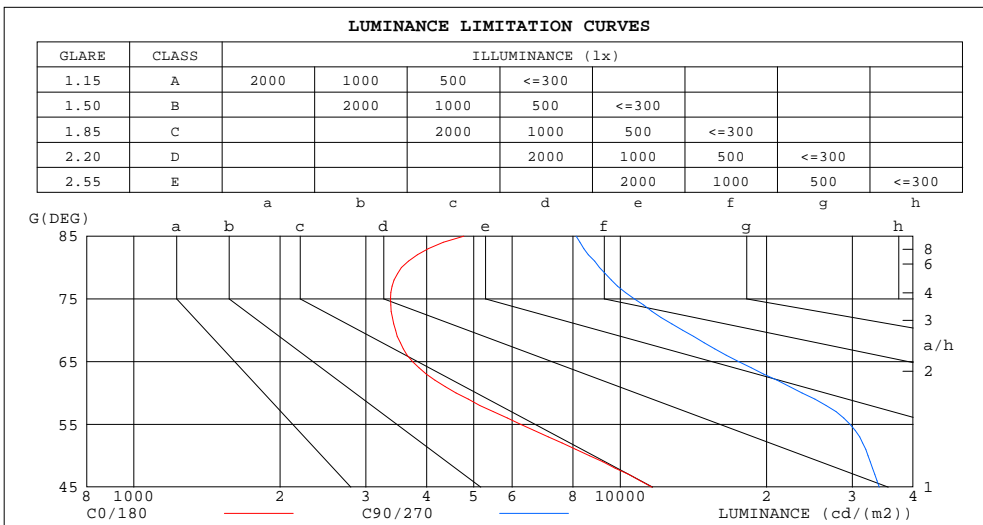
| $\gamma$ | C0                    | C45   | C90   | C135  | C180  | C225  | C270  | C315  | $\gamma$ | $\Phi$ zone | $\Phi$ total | %lum,lamp |
|----------|-----------------------|-------|-------|-------|-------|-------|-------|-------|----------|-------------|--------------|-----------|
| 10       | 1476                  | 1468  | 1500  | 1494  | 1506  | 1511  | 1518  | 1485  | 0- 10    | 144.2       | 144.2        | 5.03,5.03 |
| 20       | 1256                  | 1341  | 1396  | 1362  | 1335  | 1403  | 1424  | 1376  | 10- 20   | 405.9       | 550.1        | 19.2,19.2 |
| 30       | 881.9                 | 1084  | 1237  | 1116  | 1014  | 1186  | 1269  | 1145  | 20- 30   | 577.0       | 1127         | 39.3,39.3 |
| 40       | 467.7                 | 740.4 | 1032  | 761.5 | 573.8 | 855.0 | 1078  | 810.2 | 30- 40   | 599.1       | 1726         | 60.2,60.2 |
| 50       | 211.2                 | 402.5 | 789.4 | 412.8 | 264.2 | 490.0 | 843.0 | 461.5 | 40- 50   | 478.5       | 2205         | 76.9,76.9 |
| 60       | 87.41                 | 198.8 | 449.6 | 194.7 | 102.8 | 239.6 | 513.9 | 231.6 | 50- 60   | 311.3       | 2516         | 87.8,87.8 |
| 70       | 44.90                 | 86.30 | 174.8 | 81.69 | 46.04 | 102.1 | 198.8 | 104.4 | 60- 70   | 159.7       | 2676         | 93.4,93.4 |
| 80       | 23.44                 | 35.43 | 59.83 | 32.57 | 24.78 | 42.21 | 68.69 | 44.63 | 70- 80   | 70.45       | 2746         | 95.8,95.8 |
| 90       | 9.809                 | 9.080 | 5.003 | 9.224 | 12.24 | 12.06 | 8.692 | 14.17 | 80- 90   | 25.89       | 2772         | 96.7,96.7 |
| 100      | 10.17                 | 9.122 | 6.453 | 9.822 | 12.44 | 11.45 | 8.320 | 10.80 | 90-100   | 10.28       | 2782         | 97.1,97.1 |
| 110      | 11.91                 | 11.23 | 8.990 | 11.51 | 13.84 | 13.24 | 10.67 | 12.85 | 100-110  | 11.61       | 2794         | 97.5,97.5 |
| 120      | 13.29                 | 13.38 | 12.10 | 13.73 | 14.60 | 15.03 | 13.44 | 14.70 | 110-120  | 12.77       | 2807         | 97.9,97.9 |
| 130      | 15.93                 | 15.80 | 15.29 | 16.51 | 16.75 | 17.50 | 16.44 | 16.69 | 120-130  | 13.58       | 2820         | 98.4,98.4 |
| 140      | 18.77                 | 18.08 | 18.17 | 19.30 | 19.36 | 20.04 | 19.06 | 18.73 | 130-140  | 13.70       | 2834         | 98.9,98.9 |
| 150      | 21.08                 | 20.29 | 20.84 | 21.64 | 21.63 | 22.09 | 21.39 | 20.48 | 140-150  | 12.59       | 2847         | 99.3,99.3 |
| 160      | 22.98                 | 22.73 | 23.31 | 23.47 | 22.95 | 23.75 | 23.51 | 22.36 | 150-160  | 10.23       | 2857         | 99.7,99.7 |
| 170      | 25.20                 | 25.15 | 25.39 | 25.28 | 24.88 | 25.28 | 25.26 | 24.40 | 160-170  | 6.801       | 2864         | 99.9,99.9 |
| 180      | 26.16                 | 26.29 | 26.34 | 25.82 | 26.17 | 26.27 | 26.32 | 25.83 | 170-180  | 2.441       | 2866         | 100,100   |
| DEG      | LUMINOUS INTENSITY:cd |       |       |       |       |       |       |       |          | UNIT:lm     |              |           |

**C Range: 0 - 360DEG**  
**C Interval: 30.0DEG**  
**Test Speed: HIGH**  
**Temperature:25.3DEG**  
**Operators:DAMIN**  
**Test Date:2022-05-24**

**$\gamma$  Range: 0 - 180DEG**  
 **$\gamma$  Interval: 1.0DEG**  
**Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.443**  
**Humidity:65.0%**  
**Test Distance:8.000m [K=0.7063]**  
**Remarks:**

**LUMINANCE LIMITATION CURVES**

|   |                   |  |
|---|-------------------|--|
| Test:U:221.70V I:0.0930A P:19.500W PF:0.9480 Freq:50.00Hz |                   |  |
| Lamp Flux:2866x1 lm                                       |                   |  |
| Name: NS51-600MM-20W                                      | Type: LED         |  |
| MFR.: Lumega Group  | DIM.: 600*65*50mm |  |
|   | SUR.: 590*65mm    |  |



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G(DEG)            | C0/180 | C90/270 |
| 85                | 4770   | 8121    |
| 80                | 3552   | 9068    |
| 75                | 3371   | 10695   |
| 70                | 3455   | 13449   |
| 65                | 3743   | 17529   |
| 60                | 4601   | 23663   |
| 55                | 6247   | 29716   |
| 50                | 8646   | 32317   |
| 45                | 11635  | 34082   |

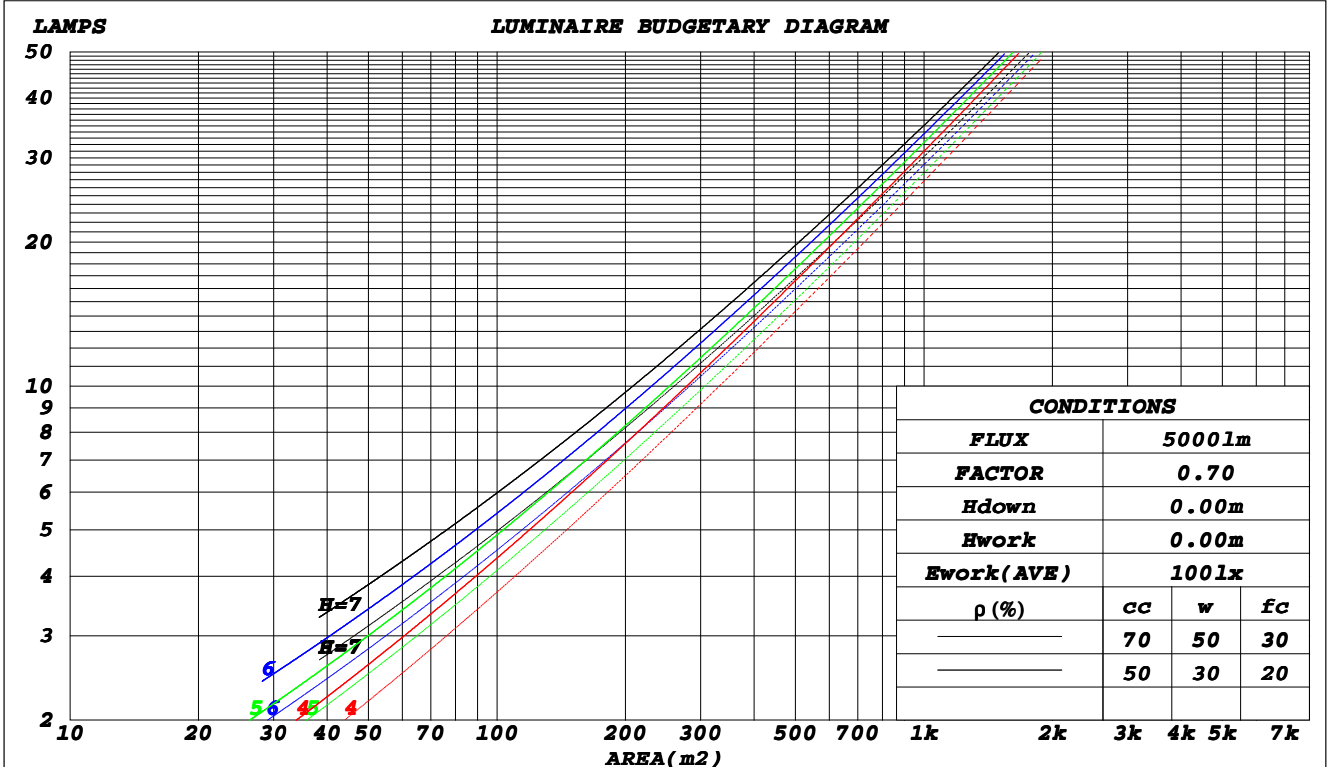
**C Range: 0 - 360DEG**  
**C Interval: 30.0DEG**  
**Test Speed: HIGH**  
**Temperature: 25.3DEG**  
**Operators: DAMIN**  
**Test Date: 2022-05-24**

**γ Range: 0 - 180DEG**  
**γ Interval: 1.0DEG**  
**Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.443**  
**Humidity: 65.0%**  
**Test Distance: 8.000m [K=0.7063]**  
**Remarks:**

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

|   |                   |  |
|---|-------------------|--|
| Test:U:221.70V I:0.0930A P:19.500W PF:0.9480 Freq:50.00Hz |                   |  |
| Lamp Flux:2866x1 lm                                       |                   |  |
| Name: NS51-600MM-20W                                      | Type: LED         |  |
| MFR.: Lumega Group  | DIM.: 600*65*50mm |  |
|   | SUR.: 590*65mm    |  |

| $\rho_{cc}$ | 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   |
| <b>RCR</b>  | <b>RCR:Room Cavity Ratio</b> |      |      |      |      |      | <b>Coefficients of Utilization(CU)</b> |      |      |      |      |      |     |     |     |     |
| 0.0         | 1.18                         | 1.18 | 1.18 | 1.15 | 1.15 | 1.15 | 1.09                                   | 1.09 | 1.09 | 1.04 | 1.04 | 1.04 | .99 | .99 | .99 | .97 |
| 1.0         | 1.06                         | 1.03 | .90  | 1.04 | 1.01 | .98  | .99                                    | .96  | .94  | .95  | .93  | .91  | .91 | .89 | .88 | .85 |
| 2.0         | .95                          | .90  | .85  | .93  | .88  | .84  | .89                                    | .85  | .81  | .86  | .82  | .79  | .82 | .79 | .77 | .75 |
| 3.0         | .86                          | .79  | .73  | .84  | .78  | .73  | .81                                    | .75  | .71  | .78  | .73  | .69  | .75 | .71 | .68 | .66 |
| 4.0         | .77                          | .70  | .64  | .76  | .69  | .64  | .73                                    | .67  | .62  | .71  | .65  | .61  | .68 | .64 | .60 | .58 |
| 5.0         | .70                          | .63  | .57  | .69  | .62  | .56  | .67                                    | .60  | .56  | .65  | .59  | .55  | .62 | .58 | .54 | .52 |
| 6.0         | .64                          | .56  | .51  | .63  | .56  | .50  | .61                                    | .55  | .50  | .59  | .54  | .49  | .57 | .52 | .49 | .47 |
| 7.0         | .59                          | .51  | .46  | .58  | .51  | .45  | .56                                    | .50  | .45  | .55  | .49  | .44  | .53 | .48 | .44 | .42 |
| 8.0         | .54                          | .47  | .41  | .53  | .46  | .41  | .52                                    | .45  | .41  | .51  | .45  | .40  | .49 | .44 | .40 | .38 |
| 9.0         | .50                          | .43  | .38  | .50  | .42  | .38  | .48                                    | .42  | .37  | .47  | .41  | .37  | .46 | .41 | .37 | .35 |
| 10.0        | .47                          | .39  | .35  | .46  | .39  | .35  | .45                                    | .39  | .34  | .44  | .38  | .34  | .43 | .38 | .34 | .32 |



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2022-05-24

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.443  
 Humidity: 65.0%  
 Test Distance: 8.000m [K=0.7063]  
 Remarks:

**WEC AND CCEC**

|   |                   |  |
|---|-------------------|--|
| Test:U:221.70V I:0.0930A P:19.500W PF:0.9480 Freq:50.00Hz |                   |  |
| Lamp Flux:2866x1 lm                                       |                   |  |
| Name: NS51-600MM-20W                                      | Type: LED         |  |
| MFR.: Lumega Group  | DIM.: 600*65*50mm |  |
|   | SUR.: 590*65mm    |  |

| $\rho_{cc}$ | 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 |
| <b>RCR</b>  | <b>RCR:Room Cavity Ratio</b> |      |      |      |      |      | <b>Wall Exitance Coefficients(WEC)</b> |      |      |      |      |      |      |      |      |   |
| 0.0         |                              |      |      |      |      |      |  |      |      |      |      |      |      |      |      |   |
| 1.0         | .249                         | .141 | .045 | .241 | .137 | .044 | .226                                   | .130 | .041 | .212 | .122 | .039 | .200 | .116 | .037 |   |
| 2.0         | .238                         | .130 | .040 | .231 | .127 | .039 | .218                                   | .121 | .038 | .206 | .116 | .036 | .195 | .110 | .035 |   |
| 3.0         | .224                         | .119 | .036 | .218 | .117 | .035 | .207                                   | .112 | .034 | .196 | .108 | .033 | .186 | .103 | .032 |   |
| 4.0         | .211                         | .109 | .032 | .205 | .107 | .032 | .195                                   | .104 | .031 | .186 | .100 | .030 | .177 | .096 | .029 |   |
| 5.0         | .198                         | .101 | .029 | .193 | .099 | .029 | .184                                   | .096 | .028 | .176 | .093 | .028 | .168 | .090 | .027 |   |
| 6.0         | .186                         | .093 | .027 | .182 | .092 | .026 | .174                                   | .089 | .026 | .166 | .086 | .025 | .159 | .084 | .025 |   |
| 7.0         | .175                         | .087 | .025 | .171 | .085 | .024 | .164                                   | .083 | .024 | .157 | .081 | .023 | .151 | .078 | .023 |   |
| 8.0         | .165                         | .081 | .023 | .162 | .080 | .023 | .155                                   | .078 | .022 | .149 | .076 | .022 | .143 | .074 | .021 |   |
| 9.0         | .156                         | .076 | .021 | .153 | .075 | .021 | .147                                   | .073 | .021 | .142 | .071 | .020 | .136 | .069 | .020 |   |
| 10.0        | .148                         | .071 | .020 | .145 | .070 | .020 | .140                                   | .069 | .019 | .135 | .067 | .019 | .130 | .065 | .019 |   |

| $\rho_{cc}$ | 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 |
| <b>RCR</b>  | <b>RCR:Room Cavity Ratio</b> |      |      |      |      |      | <b>Ceiling Cavity Exitance Coefficients(CCEC)</b> |      |      |      |      |      |      |      |      |   |
| 0.0         | .215                         | .215 | .215 | .184 | .184 | .184 | .126  | .126 | .126 | .072 | .072 | .072 | .023 | .023 | .023 |   |
| 1.0         | .201                         | .182 | .164 | .172 | .156 | .141 | .118  | .107 | .098 | .068 | .062 | .057 | .022 | .020 | .018 |   |
| 2.0         | .190                         | .158 | .130 | .163 | .136 | .112 | .112  | .094 | .078 | .064 | .055 | .046 | .021 | .018 | .015 |   |
| 3.0         | .181                         | .139 | .106 | .155 | .120 | .092 | .107  | .084 | .065 | .062 | .049 | .038 | .020 | .016 | .012 |   |
| 4.0         | .173                         | .126 | .090 | .148 | .109 | .078 | .102  | .076 | .055 | .059 | .044 | .032 | .019 | .014 | .011 |   |
| 5.0         | .166                         | .115 | .078 | .142 | .099 | .068 | .098  | .070 | .048 | .057 | .041 | .028 | .018 | .013 | .009 |   |
| 6.0         | .159                         | .106 | .069 | .136 | .092 | .060 | .094  | .065 | .042 | .055 | .038 | .025 | .018 | .012 | .008 |   |
| 7.0         | .152                         | .099 | .062 | .131 | .086 | .054 | .091  | .060 | .038 | .053 | .036 | .023 | .017 | .012 | .008 |   |
| 8.0         | .146                         | .094 | .057 | .126 | .081 | .050 | .087  | .057 | .035 | .051 | .034 | .021 | .016 | .011 | .007 |   |
| 9.0         | .141                         | .089 | .053 | .121 | .077 | .046 | .084  | .054 | .033 | .049 | .032 | .020 | .016 | .010 | .007 |   |
| 10.0        | .136                         | .084 | .050 | .117 | .073 | .044 | .081  | .052 | .031 | .047 | .030 | .019 | .015 | .010 | .006 |   |

**C Range: 0 - 360DEG**  
**C Interval: 30.0DEG**  
**Test Speed: HIGH**  
**Temperature:25.3DEG**  
**Operators:DAMIN**  
**Test Date:2022-05-24**

**$\gamma$  Range: 0 - 180DEG**  
 **$\gamma$  Interval: 1.0DEG**  
**Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.443**  
**Humidity:65.0%**  
**Test Distance:8.000m [K=0.7063]**  
**Remarks:**

**UGR(Unified Glare Rating) Table**

|   |                   |  |
|---|-------------------|--|
| Test:U:221.70V I:0.0930A P:19.500W PF:0.9480 Freq:50.00Hz |                   |  |
| Lamp Flux:2866x1 lm                                       |                   |  |
| Name: NS51-600MM-20W                                      | Type: LED         |  |
| MFR.: Lumega Group  | DIM.: 600*65*50mm |  |
|   | SUR.: 590*65mm    |  |

| 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 |      |      |      |      |
| <b>x = 2H y = 2H</b>   | 17.9             | 19.1 | 18.2 | 19.4 | 19.6 | 23.4           | 24.7 | 23.7 | 24.9 | 25.2 |
| 3H   | 18.0             | 19.2 | 18.4 | 19.5 | 19.8 | 24.1           | 25.2 | 24.4 | 25.5 | 25.8 |
| 4H   | 18.1             | 19.2 | 18.5 | 19.5 | 19.8 | 24.3           | 25.4 | 24.6 | 25.6 | 26.0 |
| 6H   | 18.2             | 19.2 | 18.6 | 19.6 | 19.9 | 24.4           | 25.4 | 24.7 | 25.7 | 26.1 |
| 8H   | 18.3             | 19.3 | 18.7 | 19.6 | 19.9 | 24.4           | 25.4 | 24.8 | 25.7 | 26.1 |
| 12H  | 18.3             | 19.3 | 18.7 | 19.6 | 20.0 | 24.4           | 25.4 | 24.8 | 25.7 | 26.1 |
| <b>4H 2H</b>   | 18.5             | 19.6 | 18.9 | 19.9 | 20.2 | 23.3           | 24.4 | 23.7 | 24.7 | 25.0 |
| 3H   | 18.8             | 19.7 | 19.2 | 20.1 | 20.4 | 24.1           | 25.0 | 24.5 | 25.4 | 25.7 |
| 4H   | 18.9             | 19.8 | 19.3 | 20.1 | 20.5 | 24.4           | 25.2 | 24.8 | 25.6 | 26.0 |
| 6H   | 19.1             | 19.8 | 19.5 | 20.2 | 20.7 | 24.6           | 25.3 | 25.0 | 25.7 | 26.2 |
| 8H   | 19.2             | 19.9 | 19.6 | 20.3 | 20.7 | 24.7           | 25.4 | 25.1 | 25.8 | 26.2 |
| 12H  | 19.3             | 19.9 | 19.7 | 20.3 | 20.8 | 24.7           | 25.4 | 25.2 | 25.8 | 26.3 |
| <b>8H 4H</b>   | 19.2             | 19.9 | 19.6 | 20.3 | 20.7 | 24.3           | 25.0 | 24.7 | 25.4 | 25.9 |
| 6H   | 19.4             | 20.0 | 19.9 | 20.4 | 20.9 | 24.6           | 25.2 | 25.1 | 25.6 | 26.1 |
| 8H   | 19.6             | 20.1 | 20.1 | 20.5 | 21.1 | 24.7           | 25.2 | 25.2 | 25.7 | 26.2 |
| 12H  | 19.7             | 20.2 | 20.3 | 20.7 | 21.2 | 24.9           | 25.3 | 25.4 | 25.8 | 26.3 |
| <b>12H 4H</b>  | 19.2             | 19.8 | 19.7 | 20.3 | 20.8 | 24.2           | 24.9 | 24.7 | 25.3 | 25.8 |
| 6H   | 19.5             | 20.0 | 20.0 | 20.5 | 21.0 | 24.6           | 25.1 | 25.1 | 25.6 | 26.1 |
| 8H   | 19.7             | 20.1 | 20.2 | 20.6 | 21.2 | 24.7           | 25.2 | 25.3 | 25.7 | 26.2 |
| <b>Variations with the observer position at spacings(CIE Pub.117):</b> |                  |      |      |      |      |                |      |      |      |      |
| <b>S = 1.0H</b>  | + 1.0 / - 1.5    |      |      |      |      | + 0.3 / - 0.4  |      |      |      |      |
| 1.5H   | + 0.8 / - 1.2    |      |      |      |      | + 0.9 / - 1.1  |      |      |      |      |
| 2.0H   | + 1.3 / - 1.7    |      |      |      |      | + 1.9 / - 2.2  |      |      |      |      |

CIE Pub.117, 2866 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 3.7)  
 Area: 0.038 m2

**C Range: 0 - 360DEG**  
**C Interval: 30.0DEG**  
**Test Speed: HIGH**  
**Temperature:25.3DEG**  
**Operators:DAMIN**  
**Test Date:2022-05-24**

**γ Range: 0 - 180DEG**  
**γ Interval: 1.0DEG**  
**Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.443**  
**Humidity:65.0%**  
**Test Distance:8.000m [K=0.7063]**  
**Remarks:**

**UTILIZATION FACTORS TABLE**

|   |                   |  |
|---|-------------------|--|
| Test:U:221.70V I:0.0930A P:19.500W PF:0.9480 Freq:50.00Hz |                   |  |
| Lamp Flux:2866x1 lm                                       |                   |  |
| Name: NS51-600MM-20W                                      | Type: LED         |  |
| MFR.: Lumega Group  | DIM.: 600*65*50mm |  |
|   | SUR.: 590*65mm    |  |

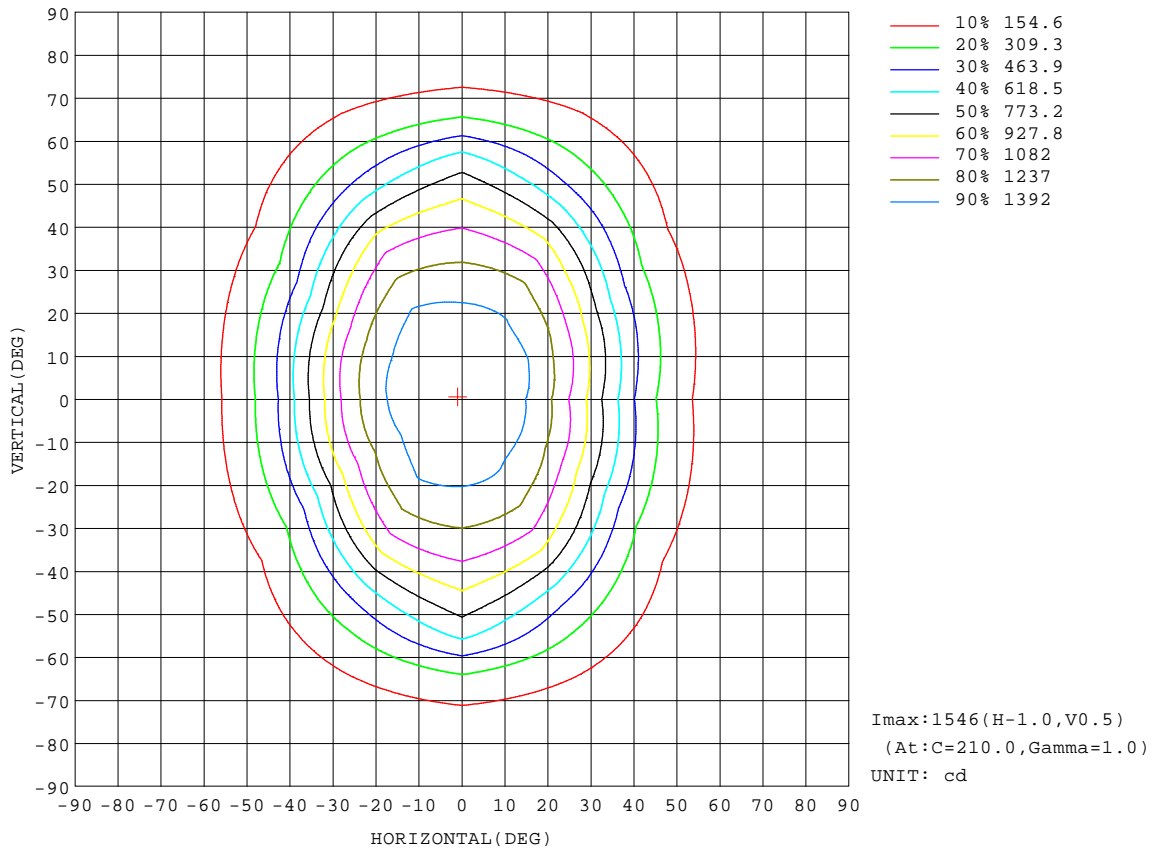
| REFLECTANCE                             |   |     |                  |     |     |     |                      |     |     |               |
|---|---|-----|------------------|-----|-----|-----|----------------------|-----|-----|---------------|
| Ceiling                                 | 0.8   | 0.8 | 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             |
| <b>ROOM INDEX</b>                       | <b>UTILIZATION FACTORS(PERCENT) <math>k(RI) \times RCR = 5</math></b> |     |                  |     |     |     |                      |     |     |               |
| <b>k = 0.60</b>                         | 66  | 57  | 51               | 66  | 56  | 51  | 64                   | 56  | 50  | 45            |
| <b>0.80</b>                             | 76  | 67  | 61               | 75  | 66  | 60  | 73                   | 65  | 60  | 54            |
| <b>1.00</b>                             | 84  | 75  | 69               | 83  | 74  | 69  | 80                   | 75  | 68  | 62            |
| <b>1.25</b>                             | 90  | 82  | 76               | 89  | 81  | 75  | 86                   | 79  | 74  | 68            |
| <b>1.50</b>                             | 94  | 87  | 81               | 93  | 86  | 80  | 90                   | 84  | 79  | 72            |
| <b>2.00</b>                             | 100   | 93  | 88               | 98  | 92  | 87  | 94                   | 89  | 85  | 78            |
| <b>2.50</b>                             | 103   | 97  | 92               | 101 | 95  | 91  | 97                   | 92  | 88  | 80            |
| <b>3.00</b>                             | 105   | 100 | 96               | 103 | 98  | 94  | 99                   | 95  | 92  | 83            |
| <b>4.00</b>                             | 108   | 104 | 100              | 106 | 102 | 99  | 101                  | 98  | 95  | 86            |
| <b>5.00</b>                             | 110   | 106 | 103              | 108 | 104 | 101 | 103                  | 100 | 98  | 88            |
| <b>ROOM INDEX</b>                       | <b>UF(total)</b>  |     |                  |     |     |     |                      |     |     | <b>Direct</b> |
| <b>According to DIN EN 13032-2 2004</b> |   |     | <b>Suspended</b> |     |     |     | <b>SHRNOM = 1.25</b> |     |     |               |

**C Range: 0 - 360DEG**  
**C Interval: 30.0DEG**  
**Test Speed: HIGH**  
**Temperature:25.3DEG**  
**Operators:DAMIN**  
**Test Date:2022-05-24**

**$\gamma$  Range: 0 - 180DEG**  
 **$\gamma$  Interval: 1.0DEG**  
**Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.443**  
**Humidity:65.0%**  
**Test Distance:8.000m [K=0.7063]**  
**Remarks:**

**ISOCANDELA DIAGRAM**

|   |                   |  |
|---|-------------------|--|
| Test:U:221.70V I:0.0930A P:19.500W PF:0.9480 Freq:50.00Hz |                   |  |
| Lamp Flux:2866x1 lm                                       |                   |  |
| Name: NS51-600MM-20W                                      | Type: LED         |  |
| MFR.: Lumega Group  | DIM.: 600*65*50mm |  |
|   | SUR.: 590*65mm    |  |



**C Range: 0 - 360DEG**  
**C Interval: 30.0DEG**  
**Test Speed: HIGH**  
**Temperature: 25.3DEG**  
**Operators: DAMIN**  
**Test Date: 2022-05-24**

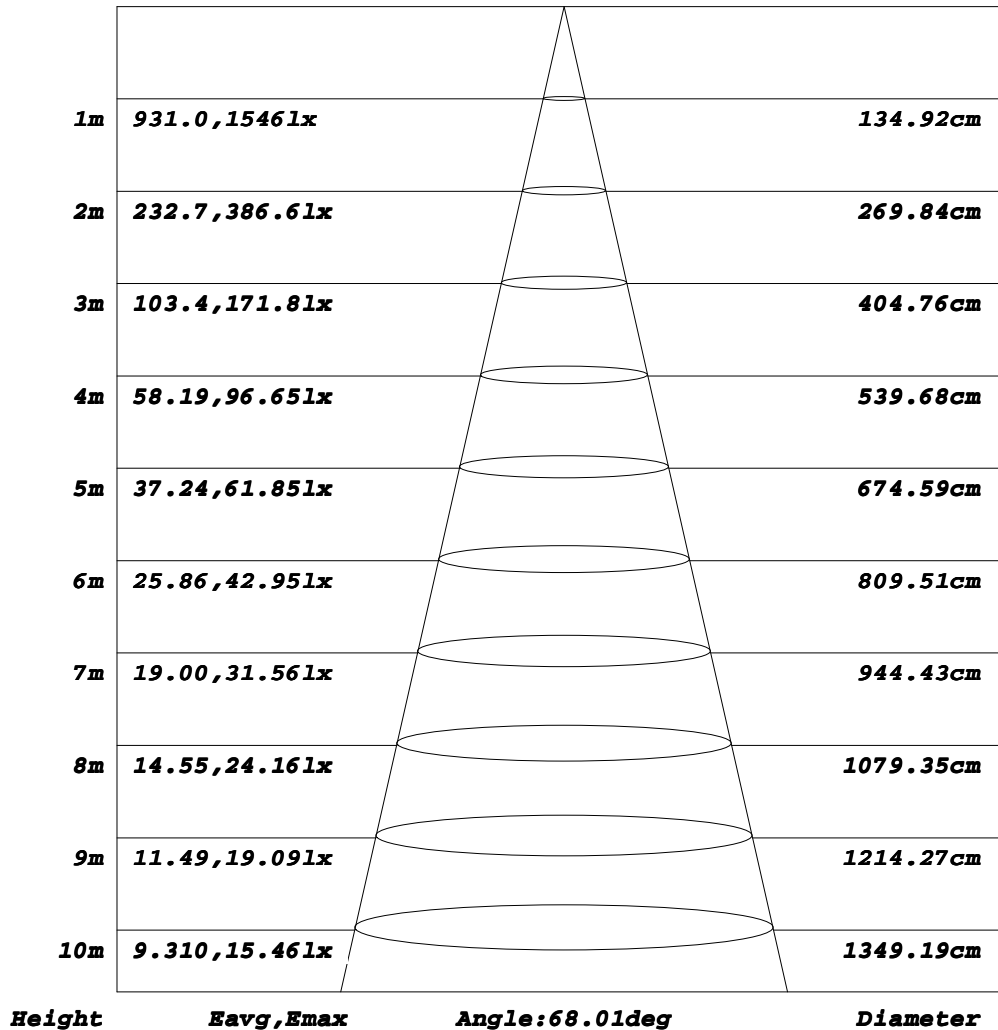
**γ Range: 0 - 180DEG**  
**γ Interval: 1.0DEG**  
**Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.443**  
**Humidity: 65.0%**  
**Test Distance: 8.000m [K=0.7063]**  
**Remarks:**



**AAI Figure**

|   |                   |  |
|---|-------------------|--|
| Test:U:221.70V I:0.0930A P:19.500W PF:0.9480 Freq:50.00Hz |                   |  |
| Lamp Flux:2866x1 lm                                       |                   |  |
| Name: NS51-600MM-20W                                      | Type: LED         |  |
| MFR.: Lumega Group  | DIM.: 600*65*50mm |  |
|   | SUR.: 590*65mm    |  |

**Flux out:1434 lm**



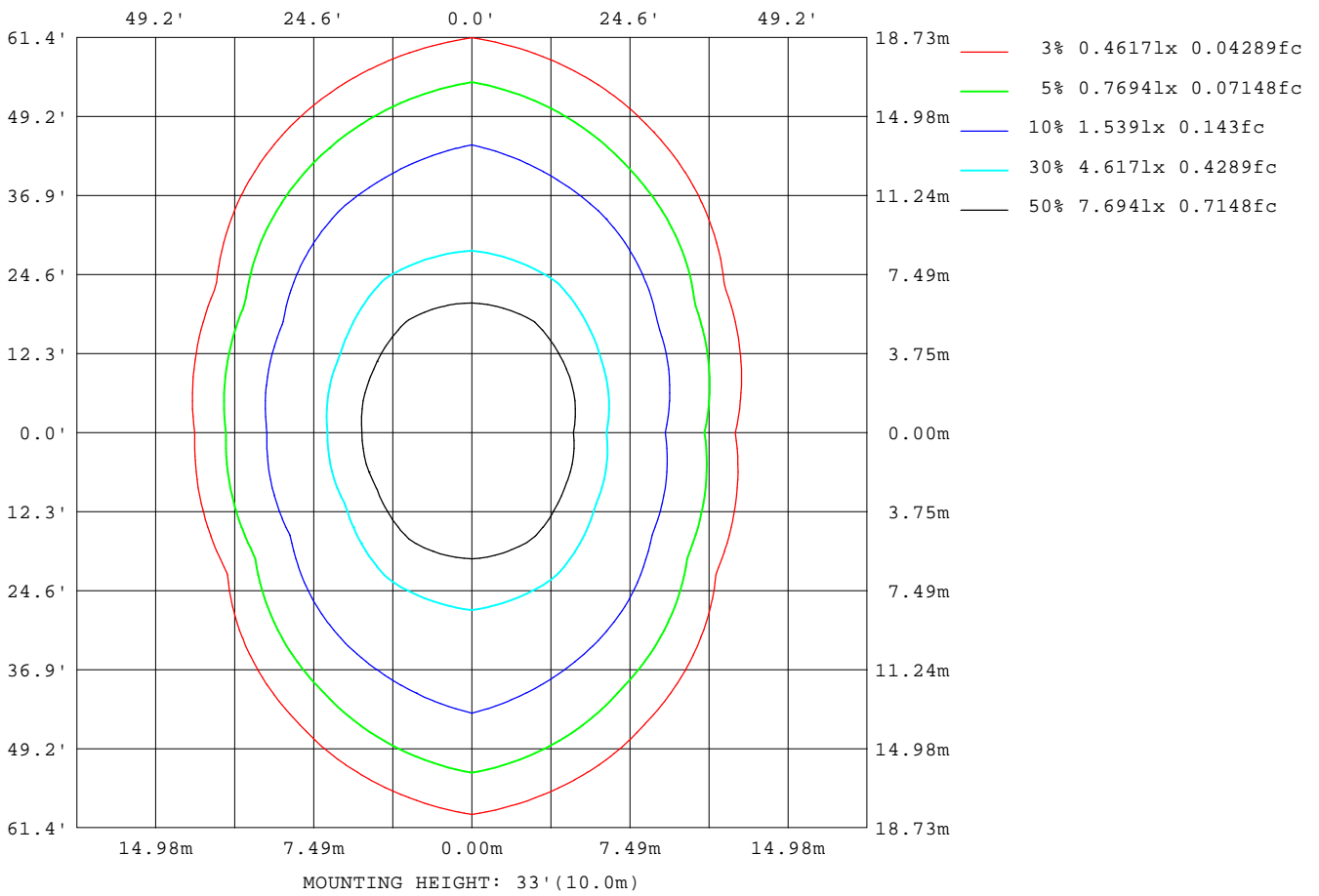
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2022-05-24

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.443  
 Humidity:65.0%  
 Test Distance:8.000m [K=0.7063]  
 Remarks:

**ISOLUX DIAGRAM**

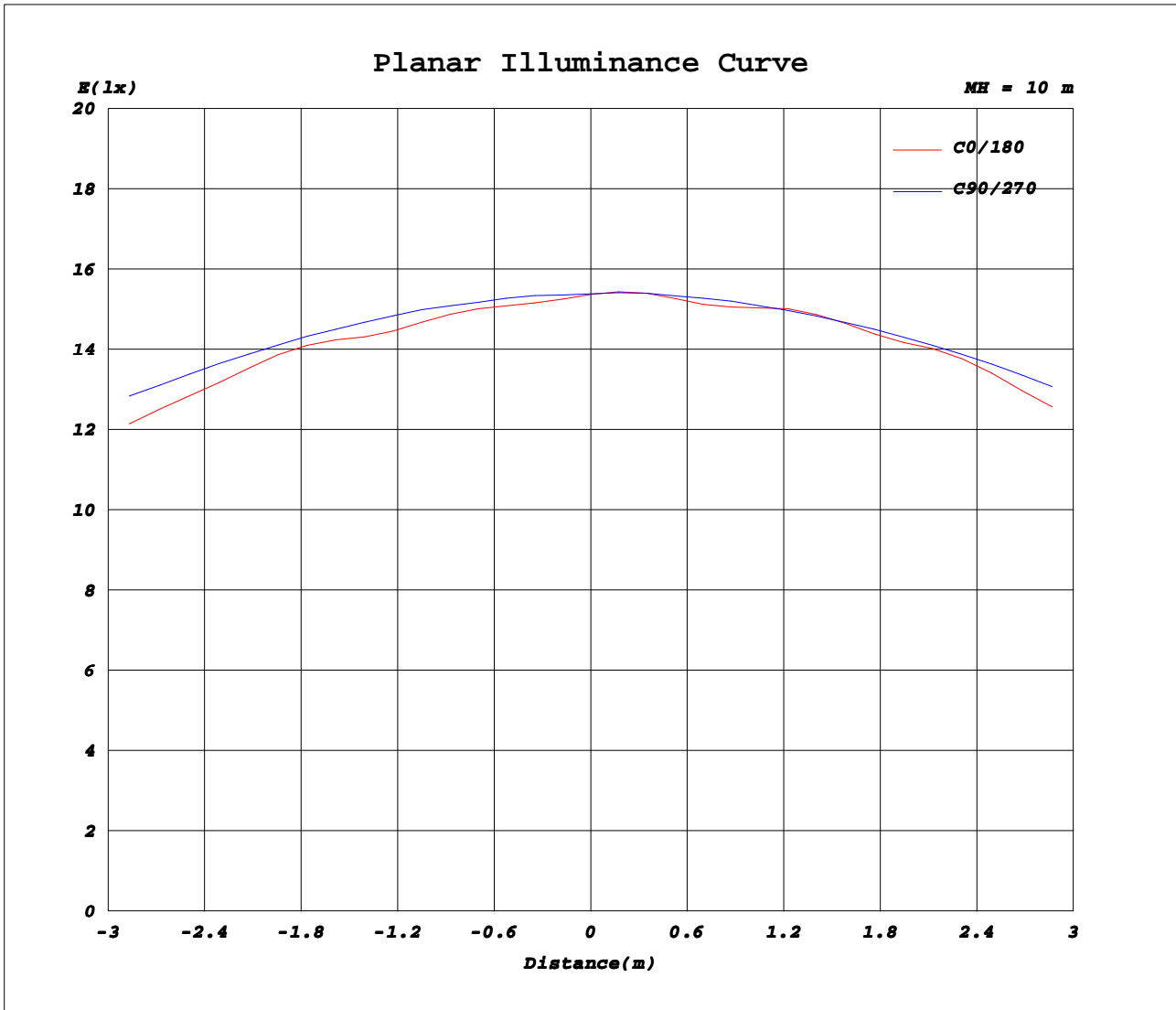
|   |                   |  |
|---|-------------------|--|
| Test:U:221.70V I:0.0930A P:19.500W PF:0.9480 Freq:50.00Hz |                   |  |
| Lamp Flux:2866x1 lm                                       |                   |  |
| Name: NS51-600MM-20W                                      | Type: LED         |  |
| MFR.: Lumega Group  | DIM.: 600*65*50mm |  |
|   | SUR.: 590*65mm    |  |



**C Range: 0 - 360DEG**  
**C Interval: 30.0DEG**  
**Test Speed: HIGH**  
**Temperature: 25.3DEG**  
**Operators: DAMIN**  
**Test Date: 2022-05-24**

**γ Range: 0 - 180DEG**  
**γ Interval: 1.0DEG**  
**Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.443**  
**Humidity: 65.0%**  
**Test Distance: 8.000m [K=0.7063]**  
**Remarks:**

**Planar Illuminance Curve**



**C Range: 0 - 360DEG**  
**C Interval: 30.0DEG**  
**Test Speed: HIGH**  
**Temperature: 25.3DEG**  
**Operators: DAMIN**  
**Test Date: 2022-05-24**

**γ Range: 0 - 180DEG**  
**γ Interval: 1.0DEG**  
**Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.443**  
**Humidity: 65.0%**  
**Test Distance: 8.000m [K=0.7063]**  
**Remarks:**

**LUMINOUS DISTRIBUTION INTENSITY DATA**

|   |                   |  |
|---|-------------------|--|
| Test:U:221.70V I:0.0930A P:19.500W PF:0.9480 Freq:50.00Hz |                   |  |
| Lamp Flux:2866x1 lm                                       |                   |  |
| Name: NS51-600MM-20W                                      | Type: LED         |  |
| MFR.: Lumega Group  | DIM.: 600*65*50mm |  |
|   | SUR.: 590*65mm    |  |

Table--1

UNIT: cd

| C(DEG)<br>γ (DEG) | 0    | 30   | 60   | 90   | 120  | 150  | 180  | 210  | 240  | 270  | 300  | 330  |  |  |  |  |  |  |  |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|--|--|--|--|
| 0                 | 1537 | 1537 | 1535 | 1539 | 1536 | 1537 | 1537 | 1537 | 1535 | 1539 | 1536 | 1537 |  |  |  |  |  |  |  |
| 5                 | 1505 | 1507 | 1499 | 1526 | 1506 | 1522 | 1523 | 1520 | 1534 | 1538 | 1524 | 1510 |  |  |  |  |  |  |  |
| 10                | 1476 | 1462 | 1474 | 1500 | 1499 | 1488 | 1506 | 1518 | 1505 | 1518 | 1495 | 1475 |  |  |  |  |  |  |  |
| 15                | 1388 | 1406 | 1413 | 1454 | 1453 | 1422 | 1440 | 1475 | 1495 | 1483 | 1456 | 1448 |  |  |  |  |  |  |  |
| 20                | 1256 | 1302 | 1380 | 1396 | 1402 | 1322 | 1335 | 1373 | 1433 | 1424 | 1400 | 1353 |  |  |  |  |  |  |  |
| 25                | 1076 | 1167 | 1295 | 1322 | 1319 | 1192 | 1193 | 1261 | 1377 | 1354 | 1347 | 1222 |  |  |  |  |  |  |  |
| 30                | 882  | 974  | 1193 | 1237 | 1212 | 1019 | 1014 | 1097 | 1274 | 1269 | 1247 | 1043 |  |  |  |  |  |  |  |
| 35                | 672  | 780  | 1058 | 1140 | 1083 | 814  | 794  | 909  | 1158 | 1177 | 1122 | 852  |  |  |  |  |  |  |  |
| 40                | 468  | 586  | 895  | 1032 | 916  | 607  | 574  | 692  | 1018 | 1078 | 972  | 648  |  |  |  |  |  |  |  |
| 45                | 313  | 408  | 702  | 916  | 722  | 420  | 390  | 492  | 836  | 964  | 789  | 464  |  |  |  |  |  |  |  |
| 50                | 211  | 278  | 527  | 789  | 543  | 282  | 264  | 337  | 643  | 843  | 606  | 317  |  |  |  |  |  |  |  |
| 55                | 136  | 185  | 387  | 648  | 395  | 184  | 168  | 222  | 471  | 705  | 444  | 213  |  |  |  |  |  |  |  |
| 60                | 87.4 | 120  | 277  | 450  | 272  | 117  | 103  | 143  | 336  | 514  | 323  | 140  |  |  |  |  |  |  |  |
| 65                | 60.1 | 78.8 | 185  | 282  | 179  | 73.8 | 65.4 | 91.6 | 226  | 328  | 223  | 92.2 |  |  |  |  |  |  |  |
| 70                | 44.9 | 51.9 | 121  | 175  | 116  | 47.5 | 46.0 | 58.3 | 146  | 199  | 148  | 61.2 |  |  |  |  |  |  |  |
| 75                | 33.2 | 34.9 | 77.2 | 105  | 73.0 | 31.6 | 33.8 | 38.9 | 92.9 | 120  | 95.6 | 41.6 |  |  |  |  |  |  |  |
| 80                | 23.4 | 24.1 | 46.8 | 59.8 | 43.4 | 21.7 | 24.8 | 27.0 | 57.4 | 68.7 | 59.9 | 29.4 |  |  |  |  |  |  |  |
| 85                | 15.8 | 15.8 | 24.8 | 26.9 | 22.0 | 14.1 | 17.8 | 18.7 | 32.1 | 33.8 | 35.0 | 20.7 |  |  |  |  |  |  |  |
| 90                | 9.81 | 9.88 | 8.28 | 5.00 | 8.35 | 10.1 | 12.2 | 12.3 | 11.8 | 8.69 | 14.8 | 13.6 |  |  |  |  |  |  |  |
| 95                | 8.87 | 8.97 | 8.04 | 5.75 | 8.32 | 9.31 | 11.0 | 11.3 | 10.3 | 7.73 | 9.94 | 10.3 |  |  |  |  |  |  |  |
| 100               | 10.2 | 9.73 | 8.52 | 6.45 | 9.03 | 10.6 | 12.4 | 12.2 | 10.7 | 8.32 | 10.5 | 11.1 |  |  |  |  |  |  |  |
| 105               | 11.0 | 10.6 | 9.59 | 7.64 | 10.1 | 11.3 | 13.4 | 13.0 | 11.8 | 9.43 | 11.4 | 12.3 |  |  |  |  |  |  |  |
| 110               | 11.9 | 11.6 | 10.8 | 8.99 | 11.2 | 11.8 | 13.8 | 13.6 | 12.9 | 10.7 | 12.5 | 13.2 |  |  |  |  |  |  |  |
| 115               | 12.6 | 12.6 | 12.0 | 10.5 | 12.5 | 12.6 | 14.0 | 14.2 | 13.9 | 12.0 | 13.4 | 14.1 |  |  |  |  |  |  |  |
| 120               | 13.3 | 13.5 | 13.2 | 12.1 | 13.8 | 13.6 | 14.6 | 15.0 | 15.0 | 13.4 | 14.5 | 14.9 |  |  |  |  |  |  |  |
| 125               | 14.5 | 14.7 | 14.4 | 13.7 | 15.2 | 14.9 | 15.6 | 16.1 | 16.3 | 15.0 | 15.6 | 15.8 |  |  |  |  |  |  |  |
| 130               | 15.9 | 16.0 | 15.6 | 15.3 | 16.7 | 16.4 | 16.7 | 17.3 | 17.6 | 16.4 | 16.6 | 16.8 |  |  |  |  |  |  |  |
| 135               | 17.4 | 17.3 | 16.6 | 16.8 | 18.0 | 17.8 | 18.0 | 18.7 | 18.9 | 17.8 | 17.5 | 18.0 |  |  |  |  |  |  |  |
| 140               | 18.8 | 18.4 | 17.8 | 18.2 | 19.3 | 19.3 | 19.4 | 20.0 | 20.1 | 19.1 | 18.5 | 19.0 |  |  |  |  |  |  |  |
| 145               | 20.0 | 19.4 | 18.9 | 19.5 | 20.5 | 20.6 | 20.6 | 21.2 | 21.2 | 20.3 | 19.4 | 19.7 |  |  |  |  |  |  |  |
| 150               | 21.1 | 20.4 | 20.2 | 20.8 | 21.6 | 21.7 | 21.6 | 22.2 | 22.0 | 21.4 | 20.4 | 20.6 |  |  |  |  |  |  |  |
| 155               | 22.0 | 21.5 | 21.5 | 22.1 | 22.6 | 22.6 | 22.5 | 23.0 | 23.0 | 22.5 | 21.4 | 21.3 |  |  |  |  |  |  |  |
| 160               | 23.0 | 22.6 | 22.8 | 23.3 | 23.5 | 23.4 | 22.9 | 23.6 | 23.9 | 23.5 | 22.5 | 22.2 |  |  |  |  |  |  |  |
| 165               | 24.0 | 23.8 | 24.1 | 24.4 | 24.5 | 24.3 | 23.8 | 24.1 | 24.8 | 24.4 | 23.6 | 23.2 |  |  |  |  |  |  |  |
| 170               | 25.2 | 25.1 | 25.2 | 25.4 | 25.5 | 25.0 | 24.9 | 24.9 | 25.6 | 25.3 | 24.6 | 24.2 |  |  |  |  |  |  |  |
| 175               | 26.1 | 25.9 | 26.1 | 26.2 | 26.2 | 25.8 | 25.6 | 25.7 | 26.2 | 25.9 | 25.4 | 25.1 |  |  |  |  |  |  |  |
| 180               | 26.2 | 26.1 | 26.4 | 26.3 | 26.0 | 25.7 | 26.2 | 26.1 | 26.5 | 26.3 | 26.0 | 25.7 |  |  |  |  |  |  |  |

**C Range: 0 - 360DEG**  
**C Interval: 30.0DEG**  
**Test Speed: HIGH**  
**Temperature:25.3DEG**  
**Operators:DAMIN**  
**Test Date:2022-05-24**

**γ Range: 0 - 180DEG**  
**γ Interval: 1.0DEG**  
**Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.443**  
**Humidity:65.0%**  
**Test Distance:8.000m [K=0.7063]**  
**Remarks:**