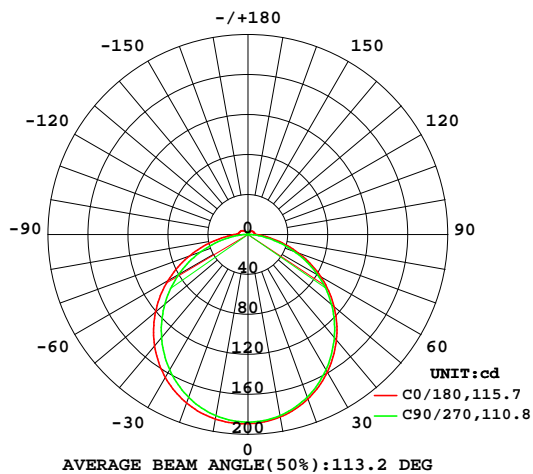


## LUMINAIRE PHOTOMETRIC TEST REPORT

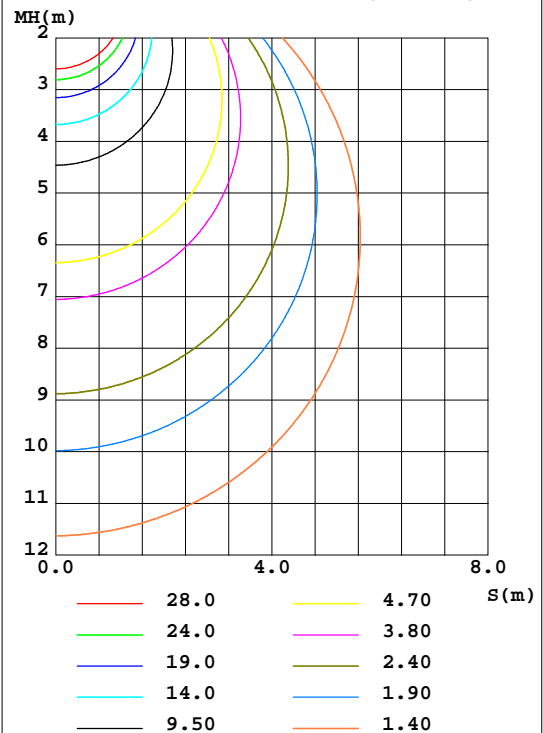
|   |                  |                  |
|---|------------------|------------------|
| Test:U:24.00V I:0.4160A P:9.980W PF:1.000 Freq:0Hz Lamp Flux:577.184x1 lm |                  |                  |
| NAME: NMT1312-Plus  | TYPE:            | WEIGHT:          |
| SPEC.:NMT1312-9DW24NSN050CC0100-Plus                                      | DIM.: 1000*13*12 | SERIAL No.:      |
| MFR.: COLORS  | SUR.:1000*13     | Shielding Angle: |

| DATA OF LAMP     |              | PHOTOMETRIC DATA Eff: 57.83 lm/W |        |                   |          |
|------------------|--------------|----------------------------------|--------|-------------------|----------|
| MODEL            | NMT1312-Plus | I <sub>max</sub> (cd)            | 189.3  | S/MH(C0/180)      | 1.30     |
| NOMINAL POWER(W) | 9.6          | LOR(%)                           | 100.0  | S/MH(C90/270)     | 1.24     |
| RATED VOLTAGE(V) | 24           | TOTAL FLUX(lm)                   | 577.18 | h UP,DN(C0-180)   | 2.1,47.4 |
| NOMINAL FLUX(lm) | 577.184      | CIE CLASS                        | DIRECT | h UP,DN(C180-360) | 2.3,48.2 |
| LAMPS INSIDE     | 1            | h up(%)                          | 4.4    | CIBSE SHR NOM     | 1.25     |
| TEST VOLTAGE(V)  | 24           | h down(%)                        | 95.6   | CIBSE SHR MAX     | 1.35     |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:COLORS  
 Test Date:2019-10-25

g Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:10.950m [K=1.0000]  
 Remarks:

## ZONAL FLUX DIAGRAM

### ZONAL FLUX DIAGRAM:

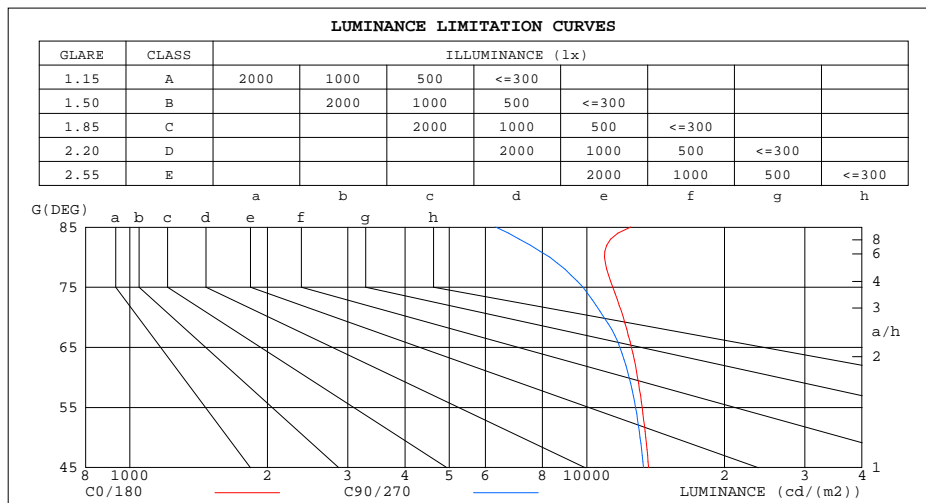
| g   | C0                    | C45   | C90    | C135  | C180  | C225  | C270   | C315  | g       | F zone  | F total | %lum,lamp |
|-----|-----------------------|-------|--------|-------|-------|-------|--------|-------|---------|---------|---------|-----------|
| 10  | 185.4                 | 183.8 | 184.0  | 185.2 | 187.5 | 185.4 | 184.1  | 183.6 | 0~ 10   | 17.80   | 17.80   | 3.08,3.08 |
| 20  | 175.1                 | 173.6 | 173.3  | 176.4 | 179.6 | 176.7 | 173.5  | 173.0 | 10~ 20  | 51.03   | 68.84   | 11.9,11.9 |
| 30  | 159.0                 | 157.4 | 156.2  | 161.4 | 165.3 | 161.6 | 156.5  | 156.5 | 20~ 30  | 77.38   | 146.2   | 25.3,25.3 |
| 40  | 137.8                 | 136.6 | 134.5  | 141.0 | 145.4 | 141.2 | 134.6  | 135.0 | 30~ 40  | 93.40   | 239.6   | 41.5,41.5 |
| 50  | 112.4                 | 111.9 | 109.3  | 116.4 | 120.8 | 116.1 | 108.7  | 109.5 | 40~ 50  | 97.29   | 336.9   | 58.4,58.4 |
| 60  | 83.89                 | 84.03 | 80.44  | 88.68 | 92.54 | 87.75 | 79.95  | 81.43 | 50~ 60  | 88.78   | 425.7   | 73.8,73.8 |
| 70  | 53.42                 | 53.54 | 48.46  | 58.21 | 61.93 | 57.12 | 49.75  | 51.54 | 60~ 70  | 68.97   | 494.7   | 85.7,85.7 |
| 80  | 24.68                 | 24.28 | 18.72  | 28.13 | 32.13 | 27.60 | 20.28  | 23.19 | 70~ 80  | 41.31   | 536.0   | 92.9,92.9 |
| 90  | 8.414                 | 7.589 | 1.659  | 9.697 | 13.26 | 9.699 | 1.876  | 6.828 | 80~ 90  | 15.70   | 551.7   | 95.6,95.6 |
| 100 | 6.908                 | 5.728 | 0.5077 | 7.212 | 9.583 | 7.269 | 0.3213 | 5.521 | 90~100  | 6.615   | 558.3   | 96.7,96.7 |
| 110 | 6.494                 | 4.415 | 0.8282 | 5.955 | 8.707 | 6.400 | 0.7492 | 4.611 | 100~110 | 5.349   | 563.6   | 97.7,97.7 |
| 120 | 6.046                 | 3.813 | 1.256  | 4.716 | 7.752 | 5.173 | 1.109  | 3.755 | 110~120 | 4.437   | 568.1   | 98.4,98.4 |
| 130 | 5.359                 | 3.373 | 1.622  | 2.341 | 6.450 | 2.378 | 1.416  | 3.153 | 120~130 | 3.427   | 571.5   | 99,99     |
| 140 | 4.484                 | 2.191 | 1.890  | 1.997 | 2.909 | 1.897 | 1.683  | 1.950 | 130~140 | 2.174   | 573.7   | 99.4,99.4 |
| 150 | 2.725                 | 2.331 | 2.104  | 2.251 | 2.151 | 2.177 | 1.958  | 2.011 | 140~150 | 1.401   | 575.1   | 99.6,99.6 |
| 160 | 2.945                 | 2.438 | 2.517  | 2.572 | 2.405 | 2.531 | 2.445  | 2.303 | 150~160 | 1.087   | 576.2   | 99.8,99.8 |
| 170 | 2.879                 | 2.853 | 2.865  | 2.819 | 2.518 | 2.745 | 2.866  | 2.778 | 160~170 | 0.7504  | 576.9   | 100,100   |
| 180 | 2.705                 | 3.193 | 3.186  | 3.179 | 2.732 | 3.166 | 3.213  | 3.186 | 170~180 | 0.2747  | 577.2   | 100,100   |
| DEG | LUMINOUS INTENSITY:cd |       |        |       |       |       |        |       |         | UNIT:lm |         |           |

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:COLORS  
 Test Date:2019-10-25

g Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:10.950m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES

|   |                  |                  |
|---|------------------|------------------|
| Test:U:24.00V I:0.4160A P:9.980W PF:1.000 Freq:0Hz Lamp Flux:577.184x1 lm |                  |                  |
| NAME: NMT1312-Plus  | TYPE:            | WEIGHT:          |
| SPEC.:NMT1312-9DW24NSN050CC0100-Plus                                      | DIM.: 1000*13*12 | SERIAL No.:      |
| MFR.: COLORS  | SUR.:1000*13     | Shielding Angle: |



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G(DEG)            | C0/180 | C90/270 |
| 85                | 12483  | 6317    |
| 80                | 10934  | 8294    |
| 75                | 11402  | 9807    |
| 70                | 12014  | 10899   |
| 65                | 12520  | 11820   |
| 60                | 12906  | 12375   |
| 55                | 13223  | 12787   |
| 50                | 13450  | 13078   |
| 45                | 13660  | 13302   |

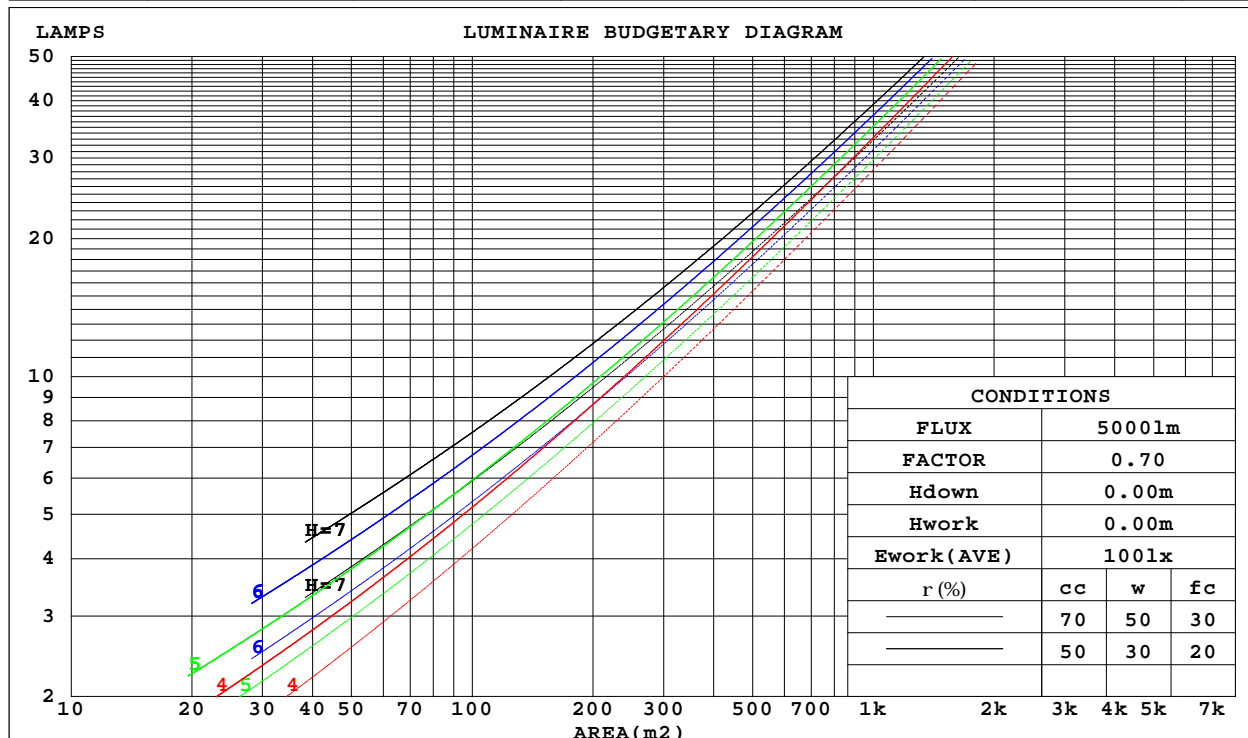
C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-10-25

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|   |                  |                  |
|---|------------------|------------------|
| Test:U:24.00V I:0.4160A P:9.980W PF:1.000 Freq:0Hz Lamp Flux:577.184x1 lm |                  |                  |
| NAME: NMT1312-Plus  | TYPE:            | WEIGHT:          |
| SPEC.:NMT1312-9DW24NSN050CC0100-Plus                                      | DIM.: 1000*13*12 | SERIAL No.:      |
| MFR.: COLORS  | SUR.:1000*13     | Shielding Angle: |

| r <sub>cc</sub> | 80%                   |      |      | 70%                             |      |      | 50%  |      |      | 30%  |      |      | 10% |     |     | 0   |
|-----------------|-----------------------|------|------|---------------------------------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|
| r <sub>w</sub>  | 50%                   | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50% | 30% | 10% | 0   |
| r <sub>fc</sub> | 20%                   |      |      | 20%                             |      |      | 20%  |      |      | 20%  |      |      | 20% |     |     | 0   |
| RCR             | RCR:Room Cavity Ratio |      |      | Coefficients of Utilization(CU) |      |      |      |      |      |      |      |      |     |     |     |     |
| 0.0             | 1.18                  | 1.18 | 1.18 | 1.15                            | 1.15 | 1.15 | 1.09 | 1.09 | 1.09 | 1.03 | 1.03 | 1.03 | .98 | .98 | .98 | .96 |
| 1.0             | 1.02                  | .98  | .94  | .90                             | .96  | .92  | .94  | .91  | .88  | .90  | .87  | .85  | .86 | .83 | .81 | .79 |
| 2.0             | .89                   | .82  | .76  | .87                             | .80  | .75  | .82  | .77  | .72  | .78  | .74  | .70  | .75 | .71 | .68 | .65 |
| 3.0             | .78                   | .70  | .63  | .76                             | .68  | .62  | .72  | .66  | .60  | .69  | .63  | .59  | .66 | .61 | .57 | .55 |
| 4.0             | .69                   | .60  | .53  | .67                             | .59  | .53  | .64  | .57  | .51  | .61  | .55  | .50  | .59 | .53 | .49 | .47 |
| 5.0             | .61                   | .52  | .46  | .60                             | .52  | .45  | .57  | .50  | .44  | .55  | .48  | .43  | .53 | .47 | .43 | .40 |
| 6.0             | .55                   | .46  | .40  | .54                             | .46  | .39  | .52  | .44  | .39  | .50  | .43  | .38  | .48 | .42 | .37 | .35 |
| 7.0             | .50                   | .41  | .35  | .49                             | .41  | .35  | .47  | .40  | .34  | .45  | .39  | .34  | .43 | .38 | .33 | .31 |
| 8.0             | .46                   | .37  | .31  | .45                             | .37  | .31  | .43  | .36  | .30  | .41  | .35  | .30  | .40 | .34 | .30 | .28 |
| 9.0             | .42                   | .34  | .28  | .41                             | .33  | .28  | .40  | .32  | .27  | .38  | .32  | .27  | .37 | .31 | .27 | .25 |
| 10.0            | .39                   | .31  | .25  | .38                             | .30  | .25  | .37  | .30  | .25  | .35  | .29  | .25  | .34 | .28 | .24 | .22 |



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-10-25

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:

## WEC AND CCEC

|   |                  |                  |
|---|------------------|------------------|
| Test:U:24.00V I:0.4160A P:9.980W PF:1.000 Freq:0Hz Lamp Flux:577.184x1 lm |                  |                  |
| NAME: NMT1312-Plus  | TYPE:            | WEIGHT:          |
| SPEC.:NMT1312-9DW24NSN050CC0100-Plus                                      | DIM.: 1000*13*12 | SERIAL No.:      |
| MFR.: COLORS  | SUR.:1000*13     | Shielding Angle: |

|      |                       |      |      |      |      |      |                                 |      |      |      |      |      |      |      |      |   |
|------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|
| rcc  | 80%                   |      |      | 70%  |      |      | 50%                             |      |      | 30%  |      |      | 10%  |      |      | 0 |
| rw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| rfc  | 20%                   |      |      | 20%  |      |      | 20%                             |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Wall Exitance Coefficients(WEC) |      |      |      |      |      |      |      |      |   |
| 0.0  |                       |      |      |      |      |      |                                 |      |      |      |      |      |      |      |      |   |
| 1.0  | .320                  | .182 | .058 | .312 | .178 | .056 | .296                            | .170 | .054 | .281 | .162 | .052 | .268 | .155 | .050 |   |
| 2.0  | .297                  | .163 | .050 | .289 | .159 | .049 | .275                            | .153 | .048 | .262 | .147 | .046 | .250 | .142 | .045 |   |
| 3.0  | .273                  | .145 | .043 | .266 | .143 | .043 | .254                            | .137 | .042 | .242 | .133 | .041 | .231 | .128 | .040 |   |
| 4.0  | .251                  | .130 | .038 | .245 | .128 | .038 | .234                            | .124 | .037 | .223 | .120 | .036 | .214 | .116 | .035 |   |
| 5.0  | .231                  | .118 | .034 | .226 | .116 | .034 | .216                            | .112 | .033 | .207 | .109 | .032 | .198 | .106 | .032 |   |
| 6.0  | .214                  | .107 | .031 | .209 | .106 | .030 | .200                            | .103 | .030 | .192 | .100 | .029 | .184 | .097 | .029 |   |
| 7.0  | .199                  | .098 | .028 | .195 | .097 | .028 | .187                            | .094 | .027 | .179 | .092 | .027 | .172 | .089 | .026 |   |
| 8.0  | .186                  | .091 | .026 | .182 | .090 | .025 | .174                            | .087 | .025 | .168 | .085 | .024 | .161 | .083 | .024 |   |
| 9.0  | .174                  | .084 | .023 | .170 | .083 | .023 | .164                            | .081 | .023 | .157 | .079 | .023 | .151 | .077 | .022 |   |
| 10.0 | .163                  | .078 | .022 | .160 | .077 | .022 | .154                            | .076 | .021 | .148 | .074 | .021 | .143 | .072 | .021 |   |

|      |                       |      |      |  |      |      |      |      |      |      |      |      |      |      |      |   |
|------|-----------------------|------|------|--|------|------|------|------|------|------|------|------|------|------|------|---|
| rcc  | 80%                   |      |      | 70%  |      |      | 50%  |      |      | 30%  |      |      | 10%  |      |      | 0 |
| rw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| rfc  | 20%                   |      |      | 20%  |      |      | 20%  |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR  | RCR:Room Cavity Ratio |      |      | Ceiling Cavity Exitance Coefficients(CCEC) |      |      |      |      |      |      |      |      |      |      |      |   |
| 0.0  | .224                  | .224 | .224 | .192                                       | .192 | .192 | .131 | .131 | .131 | .075 | .075 | .075 | .024 | .024 | .024 |   |
| 1.0  | .215                  | .190 | .168 | .184                                       | .163 | .144 | .126 | .112 | .100 | .072 | .065 | .058 | .023 | .021 | .019 |   |
| 2.0  | .207                  | .166 | .132 | .177                                       | .143 | .114 | .122 | .099 | .079 | .070 | .058 | .047 | .022 | .019 | .015 |   |
| 3.0  | .199                  | .149 | .108 | .171                                       | .128 | .094 | .117 | .089 | .066 | .068 | .052 | .039 | .022 | .017 | .013 |   |
| 4.0  | .192                  | .136 | .093 | .165                                       | .117 | .080 | .113 | .082 | .057 | .065 | .048 | .034 | .021 | .016 | .011 |   |
| 5.0  | .184                  | .125 | .082 | .158                                       | .108 | .071 | .109 | .076 | .050 | .063 | .044 | .030 | .020 | .015 | .010 |   |
| 6.0  | .177                  | .117 | .074 | .152                                       | .101 | .064 | .105 | .071 | .045 | .061 | .042 | .027 | .020 | .014 | .009 |   |
| 7.0  | .170                  | .110 | .068 | .147                                       | .095 | .059 | .101 | .067 | .042 | .059 | .039 | .025 | .019 | .013 | .008 |   |
| 8.0  | .164                  | .104 | .064 | .141                                       | .091 | .055 | .098 | .064 | .039 | .057 | .038 | .023 | .018 | .012 | .008 |   |
| 9.0  | .158                  | .100 | .060 | .136                                       | .086 | .052 | .094 | .061 | .037 | .055 | .036 | .022 | .018 | .012 | .007 |   |
| 10.0 | .152                  | .095 | .057 | .131                                       | .083 | .050 | .091 | .058 | .036 | .053 | .034 | .021 | .017 | .011 | .007 |   |

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-10-25

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:

## UGR(Unified Glare Rating) Table

|   |               |                  |      |      |                  |                |      |                  |      |      |      |
|---|---------------|------------------|------|------|------------------|----------------|------|------------------|------|------|------|
| Test:U:24.00V I:0.4160A P:9.980W PF:1.000 Freq:0Hz Lamp Flux:577.184x1 lm |               |                  |      |      |                  |                |      |                  |      |      |      |
| NAME: NMT1312-Plus  |               |                  |      |      | TYPE:            |                |      | WEIGHT:          |      |      |      |
| SPEC.:NMT1312-9DW24NSN050CC0100-Plus                                      |               |                  |      |      | DIM.: 1000*13*12 |                |      | SERIAL No.:      |      |      |      |
| MFR.: COLORS  |               |                  |      |      | SUR.:1000*13     |                |      | 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   | 23.5          | 24.9             | 23.8 | 25.2 | 25.5             | 23.3           | 24.8 | 23.6             | 25.1 | 25.4 |      |
|   | 3H            | 25.0             | 26.4 | 25.4 | 26.7             | 27.0           | 24.8 | 26.1             | 25.1 | 26.4 | 26.8 |
|   | 4H            | 25.7             | 27.0 | 26.0 | 27.3             | 27.6           | 25.3 | 26.6             | 25.7 | 26.9 | 27.3 |
|   | 6H            | 26.2             | 27.4 | 26.6 | 27.7             | 28.1           | 25.7 | 26.9             | 26.1 | 27.2 | 27.6 |
|   | 8H            | 26.4             | 27.5 | 26.8 | 27.9             | 28.3           | 25.8 | 26.9             | 26.2 | 27.3 | 27.7 |
|   | 12H           | 26.5             | 27.7 | 26.9 | 28.0             | 28.4           | 25.8 | 26.9             | 26.2 | 27.3 | 27.7 |
| 4H  | 2H            | 24.1             | 25.4 | 24.4 | 25.7             | 26.0           | 24.0 | 25.2             | 24.3 | 25.6 | 25.9 |
|   | 3H            | 25.8             | 26.9 | 26.2 | 27.3             | 27.7           | 25.6 | 26.7             | 26.0 | 27.1 | 27.5 |
|   | 4H            | 26.6             | 27.6 | 27.0 | 28.0             | 28.4           | 26.3 | 27.3             | 26.7 | 27.7 | 28.1 |
|   | 6H            | 27.2             | 28.1 | 27.7 | 28.6             | 29.0           | 26.7 | 27.7             | 27.2 | 28.1 | 28.6 |
|   | 8H            | 27.5             | 28.3 | 28.0 | 28.8             | 29.3           | 26.9 | 27.7             | 27.4 | 28.2 | 28.7 |
|   | 12H           | 27.7             | 28.5 | 28.2 | 29.0             | 29.5           | 27.0 | 27.8             | 27.5 | 28.2 | 28.7 |
| 8H  | 4H            | 26.8             | 27.7 | 27.3 | 28.1             | 28.6           | 26.6 | 27.4             | 27.1 | 27.9 | 28.4 |
|   | 6H            | 27.6             | 28.4 | 28.2 | 28.8             | 29.4           | 27.2 | 27.9             | 27.7 | 28.4 | 28.9 |
|   | 8H            | 28.0             | 28.6 | 28.5 | 29.1             | 29.7           | 27.5 | 28.1             | 28.0 | 28.6 | 29.1 |
|   | 12H           | 28.4             | 28.9 | 28.9 | 29.4             | 30.0           | 27.6 | 28.2             | 28.2 | 28.7 | 29.3 |
| 12H   | 4H            | 26.9             | 27.6 | 27.4 | 28.1             | 28.6           | 26.6 | 27.4             | 27.1 | 27.8 | 28.3 |
|   | 6H            | 27.7             | 28.3 | 28.2 | 28.8             | 29.4           | 27.3 | 27.9             | 27.8 | 28.4 | 29.0 |
|   | 8H            | 28.1             | 28.7 | 28.7 | 29.2             | 29.8           | 27.6 | 28.1             | 28.1 | 28.7 | 29.2 |
| Variations with the observer position at spacings:                        |               |                  |      |      |                  |                |      |                  |      |      |      |
| S = 1.0H  | + 0.1 / - 0.2 |                  |      |      | + 0.2 / - 0.2    |                |      |                  |      |      |      |
| 1.5H  | + 0.2 / - 0.3 |                  |      |      | + 0.2 / - 0.3    |                |      |                  |      |      |      |
| 2.0H  | + 0.1 / - 0.3 |                  |      |      | + 0.2 / - 0.4    |                |      |                  |      |      |      |

CIE Pub.117, 577.2 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.9)

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-10-25

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

|   |                  |                  |
|---|------------------|------------------|
| Test:U:24.00V I:0.4160A P:9.980W PF:1.000 Freq:0Hz Lamp Flux:577.184x1 lm |                  |                  |
| NAME: NMT1312-Plus  | TYPE:            | WEIGHT:          |
| SPEC.:NMT1312-9DW24NSN050CC0100-Plus                                      | DIM.: 1000*13*12 | SERIAL No.:      |
| MFR.: COLORS  | SUR.:1000*13     | Shielding Angle: |

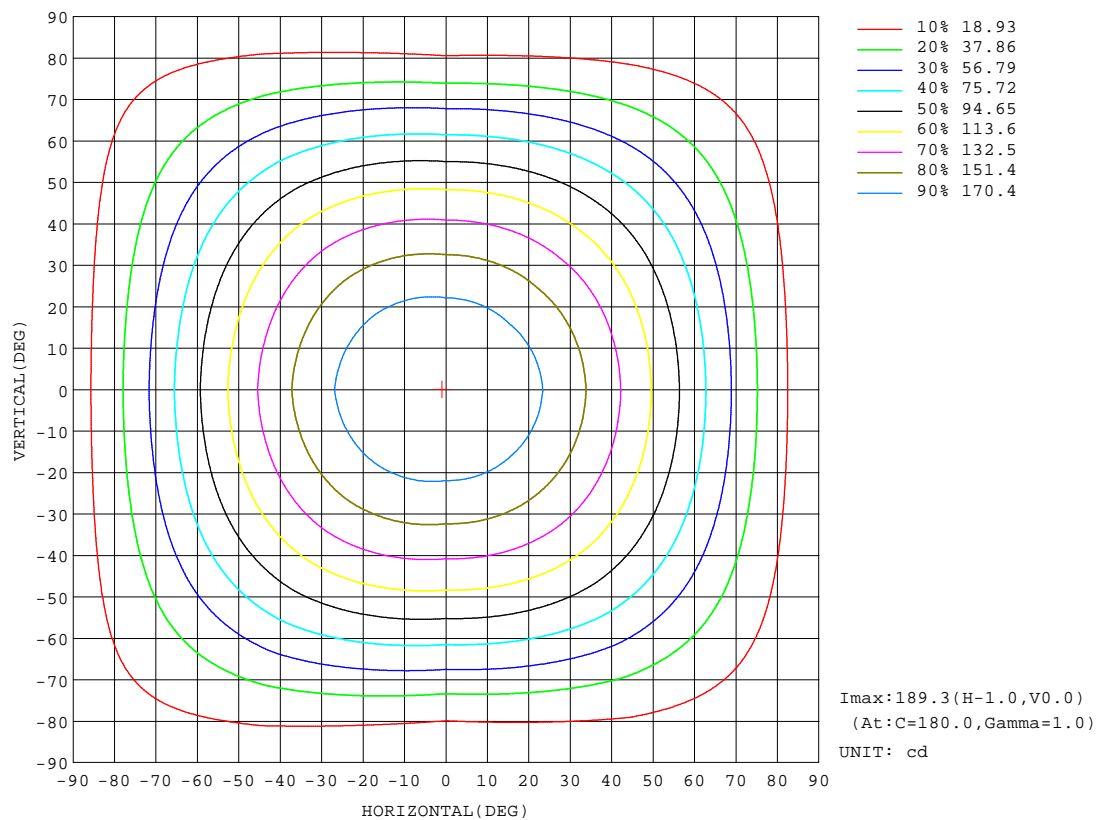
| REFLECTANCE                      |   |     |           |     |     |     |     |               |     |        |
|----------------------------------|---|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| Ceiling                          | 0.8   | 0.8 | 0.8       | 0.7 | 0.7 | 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                         | 56  | 44  | 37        | 55  | 44  | 37  | 53  | 43            | 36  | 30     |
| 0.80                             | 65  | 54  | 46        | 64  | 53  | 46  | 62  | 52            | 45  | 38     |
| 1.00                             | 74  | 62  | 55        | 72  | 62  | 54  | 70  | 63            | 54  | 46     |
| 1.25                             | 81  | 70  | 63        | 79  | 69  | 62  | 76  | 67            | 61  | 53     |
| 1.50                             | 86  | 76  | 68        | 84  | 74  | 68  | 80  | 72            | 66  | 58     |
| 2.00                             | 93  | 84  | 77        | 91  | 82  | 76  | 87  | 80            | 74  | 65     |
| 2.50                             | 97  | 89  | 82        | 94  | 87  | 81  | 90  | 84            | 79  | 70     |
| 3.00                             | 100   | 93  | 87        | 98  | 91  | 86  | 93  | 88            | 83  | 73     |
| 4.00                             | 104   | 98  | 93        | 102 | 96  | 92  | 97  | 92            | 88  | 78     |
| 5.00                             | 107   | 102 | 97        | 104 | 99  | 95  | 99  | 95            | 92  | 81     |
| 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: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-10-25

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

|   |                  |                  |
|---|------------------|------------------|
| Test:U:24.00V I:0.4160A P:9.980W PF:1.000 Freq:0Hz Lamp Flux:577.184x1 lm |                  |                  |
| NAME: NMT1312-Plus  | TYPE:            | WEIGHT:          |
| SPEC.:NMT1312-9DW24NSN050CC0100-Plus                                      | DIM.: 1000*13*12 | SERIAL No.:      |
| MFR.: COLORS  | SUR.:1000*13     | Shielding Angle: |



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-10-25

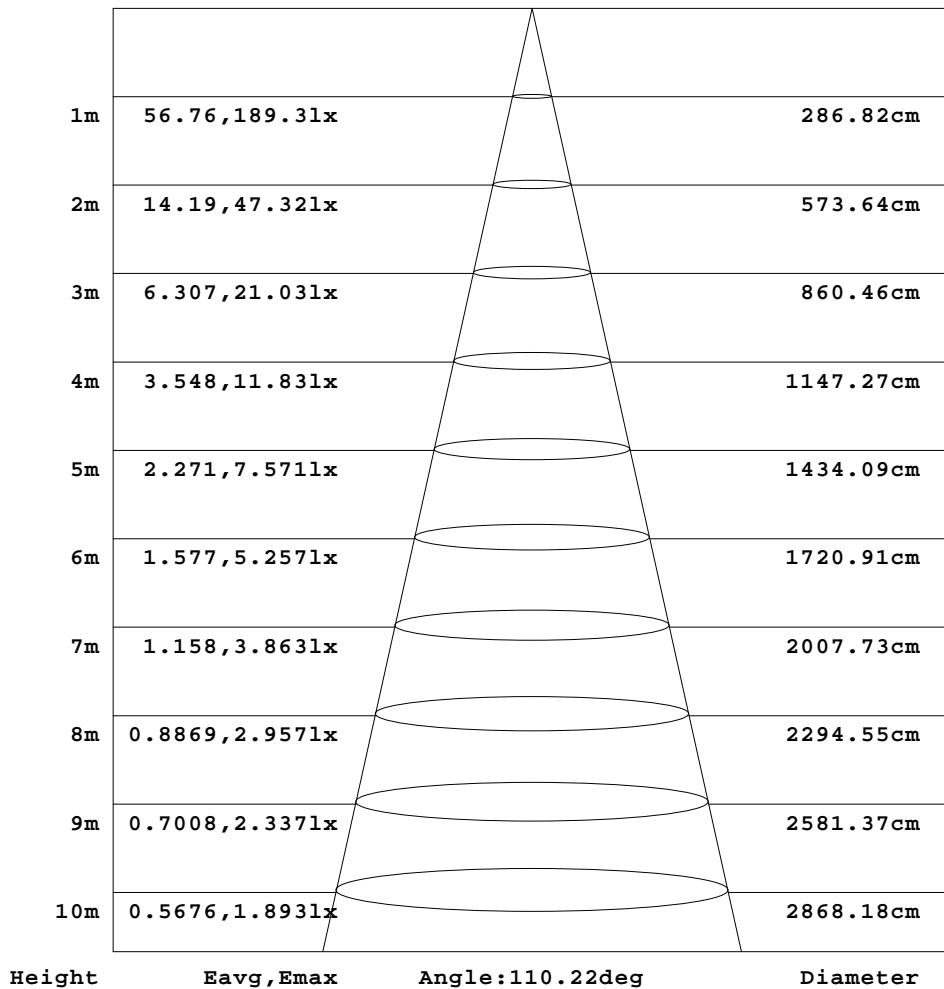
Range: 0 - 180DEG  
Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:



### AAI Figure

|   |                  |                  |
|---|------------------|------------------|
| Test:U:24.00V I:0.4160A P:9.980W PF:1.000 Freq:0Hz Lamp Flux:577.184x1 lm |                  |                  |
| NAME: NMT1312-Plus  | TYPE:            | WEIGHT:          |
| SPEC.:NMT1312-9DW24NSN050CC0100-Plus                                      | DIM.: 1000*13*12 | SERIAL No.:      |
| MFR.: COLORS  | SUR.:1000*13     | Shielding Angle: |

Flux out:392.0 lm



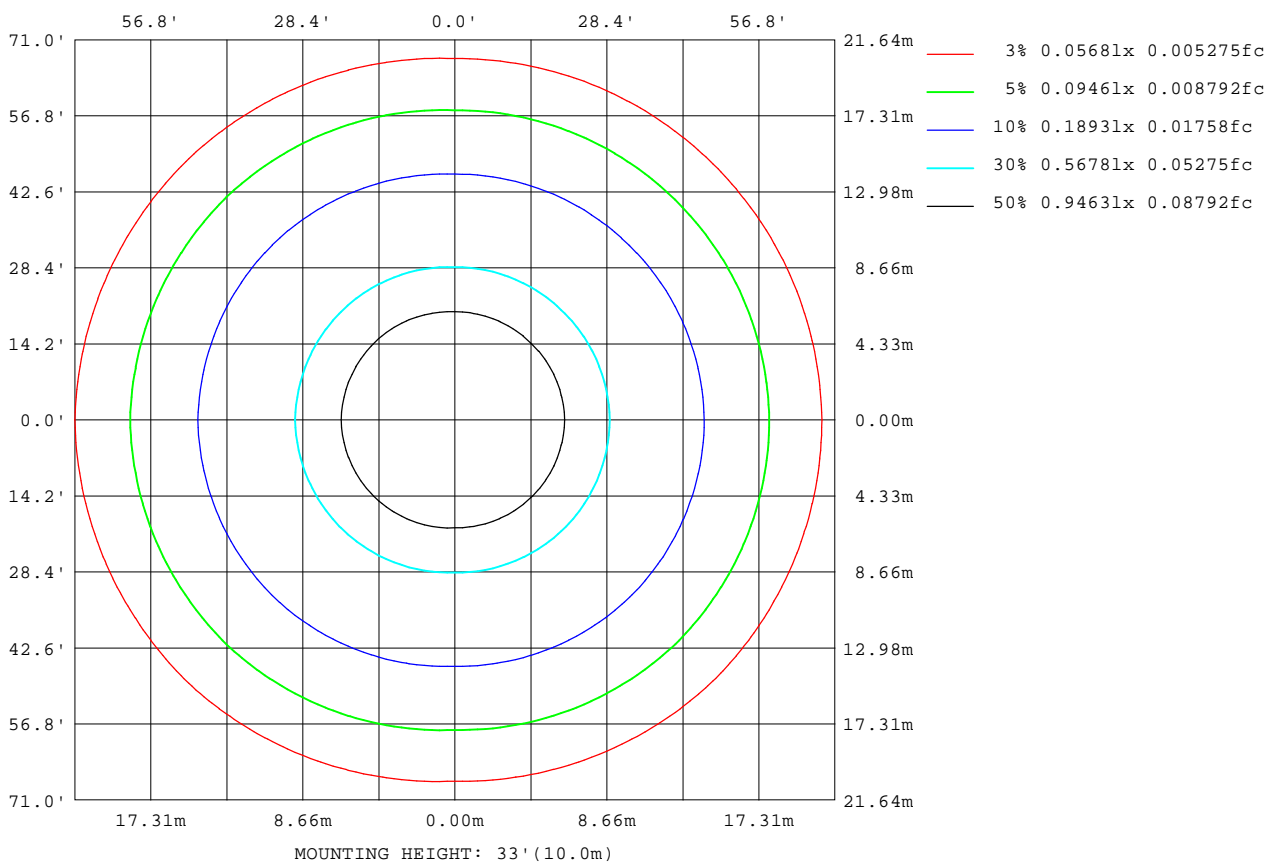
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-10-25

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:

# ISOLUX DIAGRAM

|   |                  |                  |
|---|------------------|------------------|
| Test:U:24.00V I:0.4160A P:9.980W PF:1.000 Freq:0Hz Lamp Flux:577.184x1 lm |                  |                  |
| NAME: NMT1312-Plus  | TYPE:            | WEIGHT:          |
| SPEC.:NMT1312-9DW24NSN050CC0100-Plus                                      | DIM.: 1000*13*12 | SERIAL No.:      |
| MFR.: COLORS  | SUR.:1000*13     | Shielding Angle: |



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-10-25

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:

### LED Avg.L Report

|   |                  |                  |
|---|------------------|------------------|
| Test:U:24.00V I:0.4160A P:9.980W PF:1.000 Freq:0Hz Lamp Flux:577.184x1 lm |                  |                  |
| NAME: NMT1312-Plus  | TYPE:            | WEIGHT:          |
| SPEC.:NMT1312-9DW24NSN050CC0100-Plus                                      | DIM.: 1000*13*12 | SERIAL No.:      |
| MFR.: COLORS  | SUR.:1000*13     | Shielding Angle: |

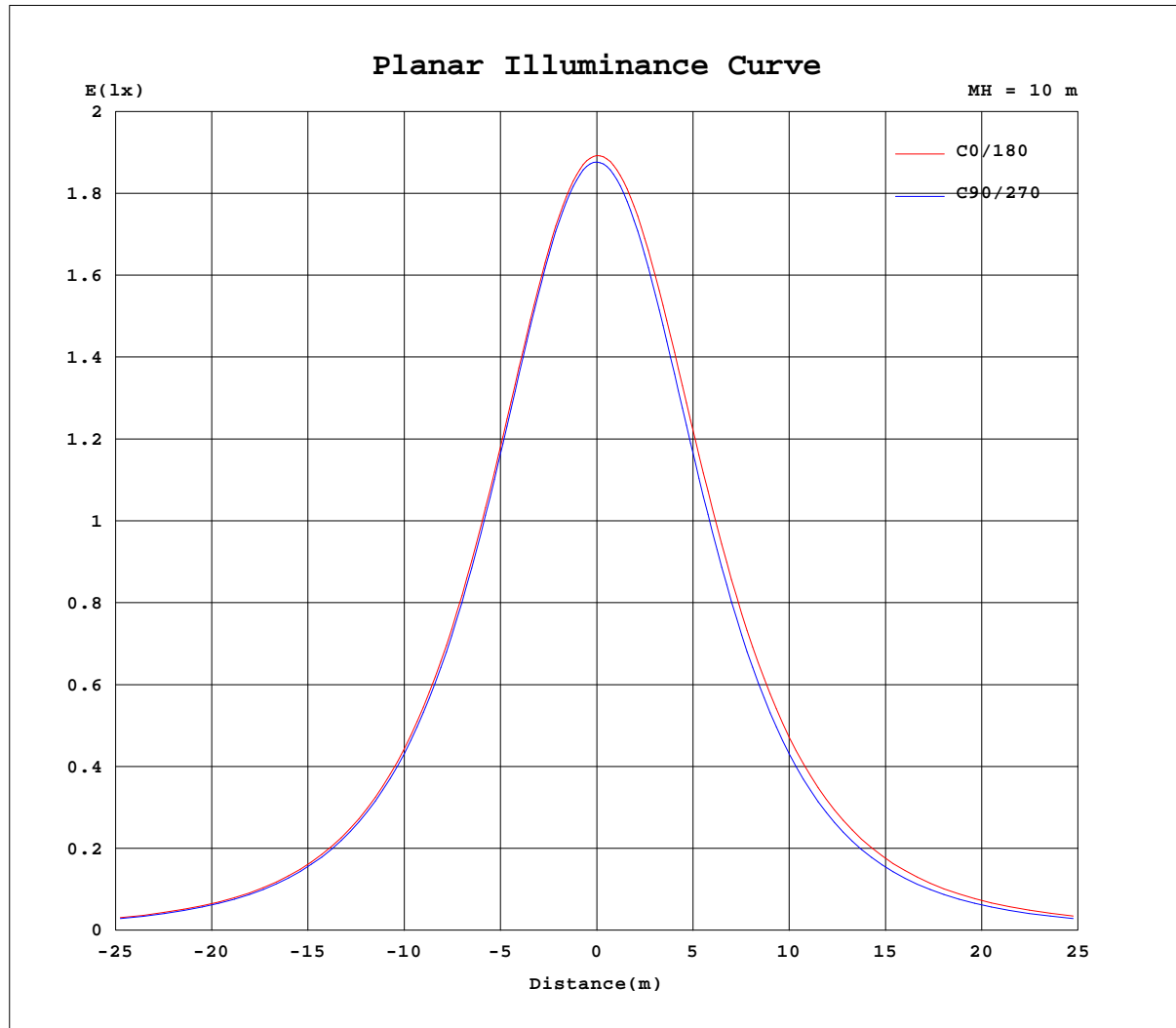
| AvgL           | cd/m2 |
|----------------|-------|
| L_0~180(65)av  | 13307 |
| L_0~180(75)av  | 12624 |
| L_0~180(85)av  | 15177 |
| L_90~270(65)av | 11834 |
| L_90~270(75)av | 10009 |
| L_90~270(85)av | 6945  |
| L_45(65)av     | 12824 |
| L_45(75)av     | 11854 |
| L_45(85)av     | 12789 |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-10-25

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: COLORS  
Test Date: 2019-10-25

deg Range: 0 - 180DEG  
Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity: 65.0%  
Test Distance: 10.950m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

|   |                  |                  |
|---|------------------|------------------|
| Test:U:24.00V I:0.4160A P:9.980W PF:1.000 Freq:0Hz Lamp Flux:577.184x1 lm |                  |                  |
| NAME: NMT1312-Plus  | TYPE:            | WEIGHT:          |
| SPEC.:NMT1312-9DW24NSN050CC0100-Plus                                      | DIM.: 1000*13*12 | SERIAL No.:      |
| MFR.: COLORS  | SUR.:1000*13     | Shielding Angle: |

Table--1

UNIT: cd

| C(DEG)<br>g (DEG) | 0    | 45   | 90   | 135  | 180  | 225  | 270  | 315  |  |  |  |  |  |  |  |  |  |  |
|-------------------|------|------|------|------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|
| 0                 | 189  | 188  | 188  | 188  | 189  | 188  | 188  | 188  |  |  |  |  |  |  |  |  |  |  |
| 5                 | 188  | 187  | 187  | 187  | 189  | 187  | 187  | 186  |  |  |  |  |  |  |  |  |  |  |
| 10                | 185  | 184  | 184  | 185  | 188  | 185  | 184  | 184  |  |  |  |  |  |  |  |  |  |  |
| 15                | 181  | 179  | 179  | 182  | 184  | 182  | 180  | 179  |  |  |  |  |  |  |  |  |  |  |
| 20                | 175  | 174  | 173  | 176  | 180  | 177  | 173  | 173  |  |  |  |  |  |  |  |  |  |  |
| 25                | 168  | 166  | 165  | 170  | 173  | 170  | 166  | 165  |  |  |  |  |  |  |  |  |  |  |
| 30                | 159  | 157  | 156  | 161  | 165  | 162  | 157  | 157  |  |  |  |  |  |  |  |  |  |  |
| 35                | 149  | 148  | 146  | 152  | 156  | 152  | 146  | 146  |  |  |  |  |  |  |  |  |  |  |
| 40                | 138  | 137  | 135  | 141  | 145  | 141  | 135  | 135  |  |  |  |  |  |  |  |  |  |  |
| 45                | 126  | 125  | 122  | 129  | 134  | 129  | 122  | 123  |  |  |  |  |  |  |  |  |  |  |
| 50                | 112  | 112  | 109  | 116  | 121  | 116  | 109  | 110  |  |  |  |  |  |  |  |  |  |  |
| 55                | 98.6 | 98.3 | 95.3 | 103  | 107  | 102  | 94.6 | 95.8 |  |  |  |  |  |  |  |  |  |  |
| 60                | 83.9 | 84.0 | 80.4 | 88.7 | 92.5 | 87.7 | 79.9 | 81.4 |  |  |  |  |  |  |  |  |  |  |
| 65                | 68.8 | 69.0 | 64.9 | 73.7 | 77.4 | 72.6 | 65.1 | 66.6 |  |  |  |  |  |  |  |  |  |  |
| 70                | 53.4 | 53.5 | 48.5 | 58.2 | 61.9 | 57.1 | 49.8 | 51.5 |  |  |  |  |  |  |  |  |  |  |
| 75                | 38.4 | 38.2 | 33.0 | 42.7 | 46.6 | 41.9 | 34.4 | 36.8 |  |  |  |  |  |  |  |  |  |  |
| 80                | 24.7 | 24.3 | 18.7 | 28.1 | 32.1 | 27.6 | 20.3 | 23.2 |  |  |  |  |  |  |  |  |  |  |
| 85                | 14.1 | 13.4 | 7.16 | 16.2 | 20.2 | 16.0 | 8.58 | 12.4 |  |  |  |  |  |  |  |  |  |  |
| 90                | 8.41 | 7.59 | 1.66 | 9.70 | 13.3 | 9.70 | 1.88 | 6.83 |  |  |  |  |  |  |  |  |  |  |
| 95                | 7.16 | 6.22 | 1.48 | 7.73 | 10.4 | 7.75 | 0.77 | 5.91 |  |  |  |  |  |  |  |  |  |  |
| 100               | 6.91 | 5.73 | 0.51 | 7.21 | 9.58 | 7.27 | 0.32 | 5.52 |  |  |  |  |  |  |  |  |  |  |
| 105               | 6.69 | 4.62 | 0.61 | 6.67 | 9.13 | 6.91 | 0.54 | 4.68 |  |  |  |  |  |  |  |  |  |  |
| 110               | 6.49 | 4.41 | 0.83 | 5.95 | 8.71 | 6.40 | 0.75 | 4.61 |  |  |  |  |  |  |  |  |  |  |
| 115               | 6.29 | 3.96 | 1.05 | 5.44 | 8.27 | 5.67 | 0.93 | 4.00 |  |  |  |  |  |  |  |  |  |  |
| 120               | 6.05 | 3.81 | 1.26 | 4.72 | 7.75 | 5.17 | 1.11 | 3.75 |  |  |  |  |  |  |  |  |  |  |
| 125               | 5.73 | 3.61 | 1.46 | 3.94 | 7.15 | 4.39 | 1.28 | 3.41 |  |  |  |  |  |  |  |  |  |  |
| 130               | 5.36 | 3.37 | 1.62 | 2.34 | 6.45 | 2.38 | 1.42 | 3.15 |  |  |  |  |  |  |  |  |  |  |
| 135               | 4.95 | 2.63 | 1.79 | 1.86 | 5.25 | 1.87 | 1.57 | 2.39 |  |  |  |  |  |  |  |  |  |  |
| 140               | 4.48 | 2.19 | 1.89 | 2.00 | 2.91 | 1.90 | 1.68 | 1.95 |  |  |  |  |  |  |  |  |  |  |
| 145               | 3.28 | 2.26 | 1.98 | 2.11 | 2.14 | 1.99 | 1.79 | 1.94 |  |  |  |  |  |  |  |  |  |  |
| 150               | 2.73 | 2.33 | 2.10 | 2.25 | 2.15 | 2.18 | 1.96 | 2.01 |  |  |  |  |  |  |  |  |  |  |
| 155               | 2.82 | 2.38 | 2.32 | 2.42 | 2.25 | 2.34 | 2.20 | 2.10 |  |  |  |  |  |  |  |  |  |  |
| 160               | 2.95 | 2.44 | 2.52 | 2.57 | 2.40 | 2.53 | 2.44 | 2.30 |  |  |  |  |  |  |  |  |  |  |
| 165               | 2.97 | 2.61 | 2.71 | 2.69 | 2.53 | 2.67 | 2.65 | 2.52 |  |  |  |  |  |  |  |  |  |  |
| 170               | 2.88 | 2.85 | 2.87 | 2.82 | 2.52 | 2.75 | 2.87 | 2.78 |  |  |  |  |  |  |  |  |  |  |
| 175               | 2.71 | 3.04 | 3.07 | 3.00 | 2.52 | 2.94 | 3.07 | 3.03 |  |  |  |  |  |  |  |  |  |  |
| 180               | 2.71 | 3.19 | 3.19 | 3.18 | 2.73 | 3.17 | 3.21 | 3.19 |  |  |  |  |  |  |  |  |  |  |

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:COLORS  
Test Date:2019-10-25

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.950m [K=1.0000]  
Remarks: