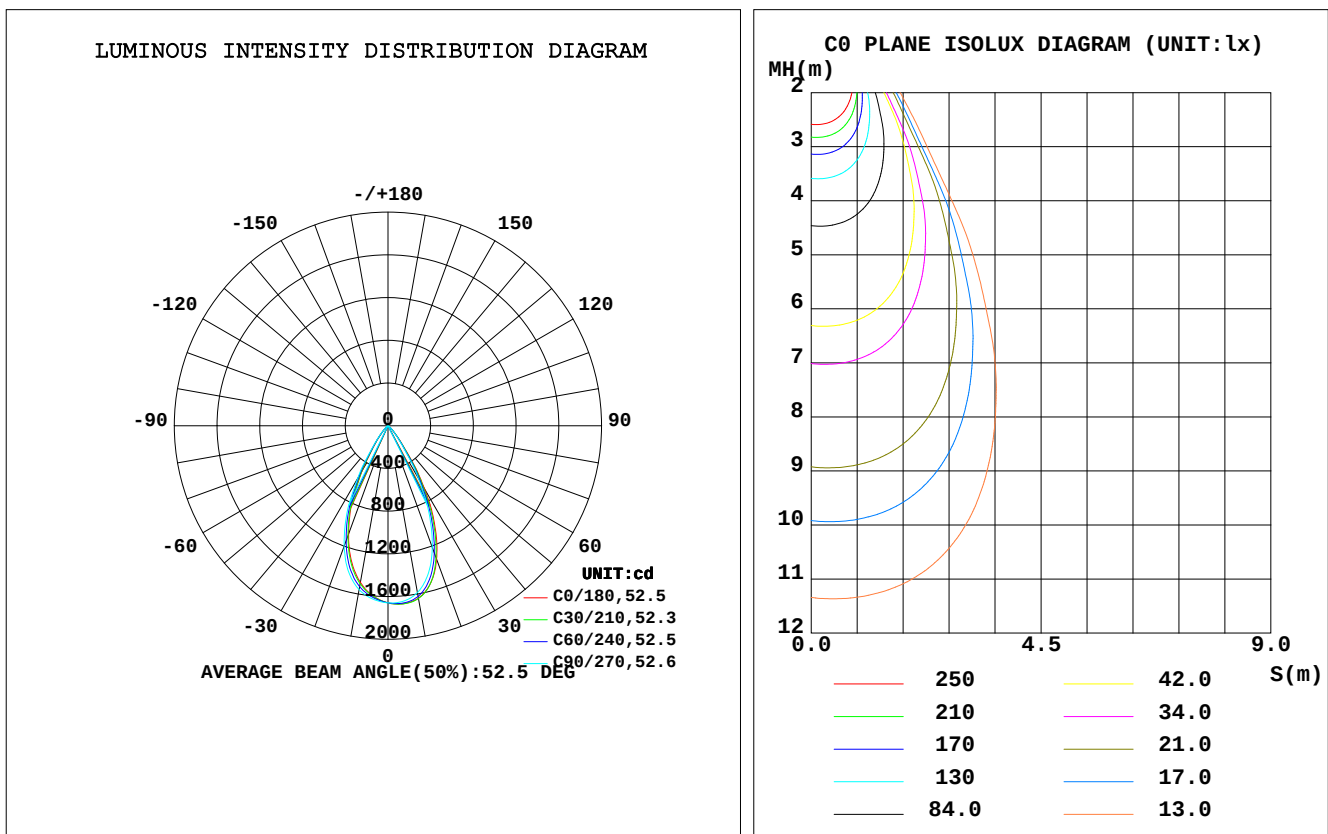


## LUMINAIRE PHOTOMETRIC TEST REPORT

|                          |                     |                  |
|--------------------------|---------------------|------------------|
| NAME: VM060-VF62RF02-15W | TYPE: indoor lights | WEIGHT: 1        |
| SPEC.: 3000K-CRI90-55D   | DIM.:               | SERIAL No.:      |
| MFR.:                    | SUR.:               | Shielding Angle: |

| DATA OF LAMP     |                   | PHOTOMETRIC DATA |        |                         |           | Eff: 93.84 lm/W |
|------------------|-------------------|------------------|--------|-------------------------|-----------|-----------------|
| MODEL            | BXRE-30G1000-C-7X | Imax(cd)         | 1676   | S/MH(C0/180)            | 0.75      |                 |
| NOMINAL POWER(W) | 15                | LOR(%)           | 100.0  | S/MH(C90/270)           | 0.79      |                 |
| RATED VOLTAGE(V) | 230               | TOTAL FLUX(lm)   | 1264.5 | $\eta$ UP, DN(C0-180)   | 1.2, 49.8 |                 |
| NOMINAL FLUX(lm) | 1264.51           | CIE CLASS        | DIRECT | $\eta$ UP, DN(C180-360) | 1.2, 47.9 |                 |
| LAMPS INSIDE     | 1                 | $\eta$ up(%)     | 2.4    | CIBSE SHR NOM           | 0.75      |                 |
| TEST VOLTAGE(V)  | 230               | $\eta$ down(%)   | 97.6   | CIBSE SHR MAX           | 0.85      |                 |



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature: 28DEG  
 Operators: LGL  
 Test Date: 2021-08-10

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.401  
 Humidity: 65.0%  
 Test Distance: 5.190m [K=1.0000]  
 Remarks:

## ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

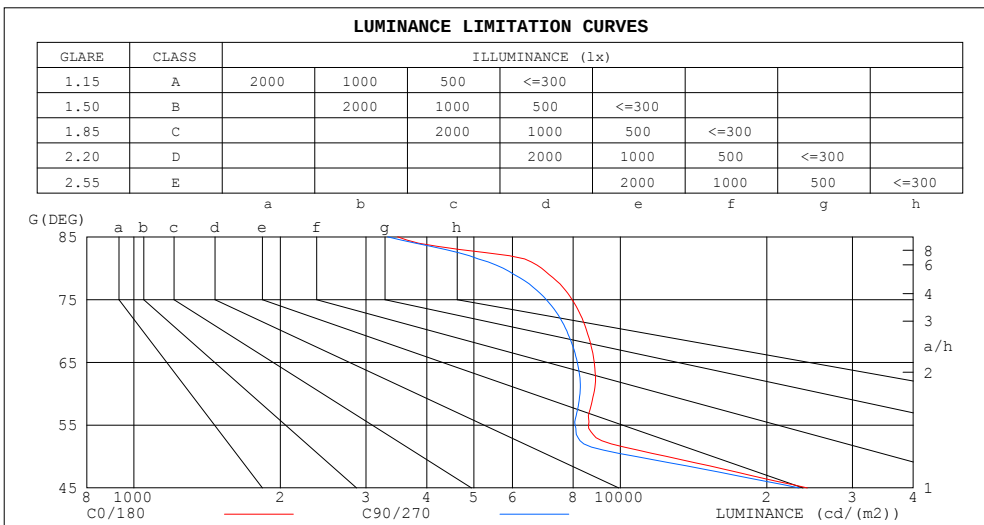
| $\gamma$ | C0                    | C45    | C90    | C135   | C180   | C225   | C270   | C315   | $\gamma$ | $\Phi$ zone | $\Phi$ total | %lum, lamp |
|----------|-----------------------|--------|--------|--------|--------|--------|--------|--------|----------|-------------|--------------|------------|
| 10       | 1639                  | 1639   | 1586   | 1533   | 1489   | 1511   | 1558   | 1603   | 0- 10    | 154.3       | 154.3        | 12.2,12.2  |
| 20       | 1331                  | 1306   | 1213   | 1144   | 1082   | 1110   | 1201   | 1277   | 10- 20   | 396.2       | 550.4        | 43.5,43.5  |
| 30       | 689.2                 | 647.1  | 575.1  | 528.9  | 482.4  | 507.5  | 569.1  | 632.3  | 20- 30   | 410.8       | 961.2        | 76,76      |
| 40       | 143.7                 | 144.3  | 130.2  | 119.1  | 110.0  | 112.1  | 126.4  | 129.9  | 30- 40   | 187.0       | 1148         | 90.8,90.8  |
| 50       | 29.66                 | 29.55  | 25.86  | 22.43  | 20.98  | 21.85  | 25.69  | 26.78  | 40- 50   | 48.17       | 1196         | 94.6,94.6  |
| 60       | 16.35                 | 16.06  | 15.45  | 15.28  | 15.27  | 15.54  | 15.93  | 16.10  | 50- 60   | 16.37       | 1213         | 95.9,95.9  |
| 70       | 10.82                 | 10.59  | 9.934  | 9.705  | 9.464  | 9.750  | 10.23  | 10.48  | 60- 70   | 12.94       | 1226         | 96.9,96.9  |
| 80       | 4.435                 | 4.258  | 3.733  | 3.473  | 3.085  | 3.307  | 3.759  | 4.075  | 70- 80   | 7.317       | 1233         | 97.5,97.5  |
| 90       | 0.3313                | 0.3219 | 0.3274 | 0.3703 | 0.3112 | 0.2954 | 0.2986 | 0.3637 | 80- 90   | 1.539       | 1235         | 97.6,97.6  |
| 100      | 0.4118                | 0.4322 | 0.4222 | 0.4768 | 0.4539 | 0.4230 | 0.4315 | 0.3901 | 90-100   | 0.3974      | 1235         | 97.7,97.7  |
| 110      | 0.8188                | 0.8492 | 0.9058 | 0.9806 | 1.031  | 0.9888 | 0.9188 | 0.8705 | 100-110  | 0.6506      | 1236         | 97.7,97.7  |
| 120      | 2.169                 | 2.223  | 2.457  | 2.620  | 2.775  | 2.694  | 2.440  | 2.384  | 110-120  | 1.565       | 1237         | 97.8,97.8  |
| 130      | 4.734                 | 4.861  | 5.255  | 5.564  | 5.840  | 5.666  | 5.272  | 4.959  | 120-130  | 3.365       | 1241         | 98.1,98.1  |
| 140      | 8.235                 | 8.366  | 8.875  | 9.286  | 9.629  | 9.406  | 8.926  | 8.536  | 130-140  | 5.423       | 1246         | 98.5,98.5  |
| 150      | 11.74                 | 11.80  | 12.31  | 12.61  | 12.91  | 12.74  | 12.38  | 11.94  | 140-150  | 6.661       | 1253         | 99.1,99.1  |
| 160      | 14.01                 | 14.17  | 14.50  | 14.53  | 14.53  | 14.52  | 14.53  | 14.17  | 150-160  | 6.205       | 1259         | 99.5,99.5  |
| 170      | 15.28                 | 15.20  | 15.34  | 15.32  | 15.42  | 15.36  | 15.36  | 15.25  | 160-170  | 4.204       | 1263         | 99.9,99.9  |
| 180      | 16.28                 | 16.38  | 16.15  | 16.38  | 16.31  | 16.37  | 16.16  | 16.37  | 170-180  | 1.497       | 1265         | 100,100    |
| DEG      | LUMINOUS INTENSITY:cd |        |        |        |        |        |        |        |          | UNIT:lm     |              |            |

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:LGL  
 Test Date:2021-08-10

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.401  
 Humidity:65.0%  
 Test Distance:5.190m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES

|                          |                    |                  |
|--------------------------|--------------------|------------------|
| NAME: VM060-VF62RF02-15W | TYPE:indoor lights | WEIGHT:1         |
| SPEC.:3000K-CRI90-55D    | DIM.:              | SERIAL No.:      |
| MFR.:                    | SUR.:              | Shielding Angle: |



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G (DEG)           | C0/180 | C90/270 |
| 85                | 3485   | 3323    |
| 80                | 6889   | 5745    |
| 75                | 7957   | 7044    |
| 70                | 8532   | 7762    |
| 65                | 8836   | 8158    |
| 60                | 8819   | 8260    |
| 55                | 8603   | 8071    |
| 50                | 12447  | 10750   |
| 45                | 24229  | 23300   |

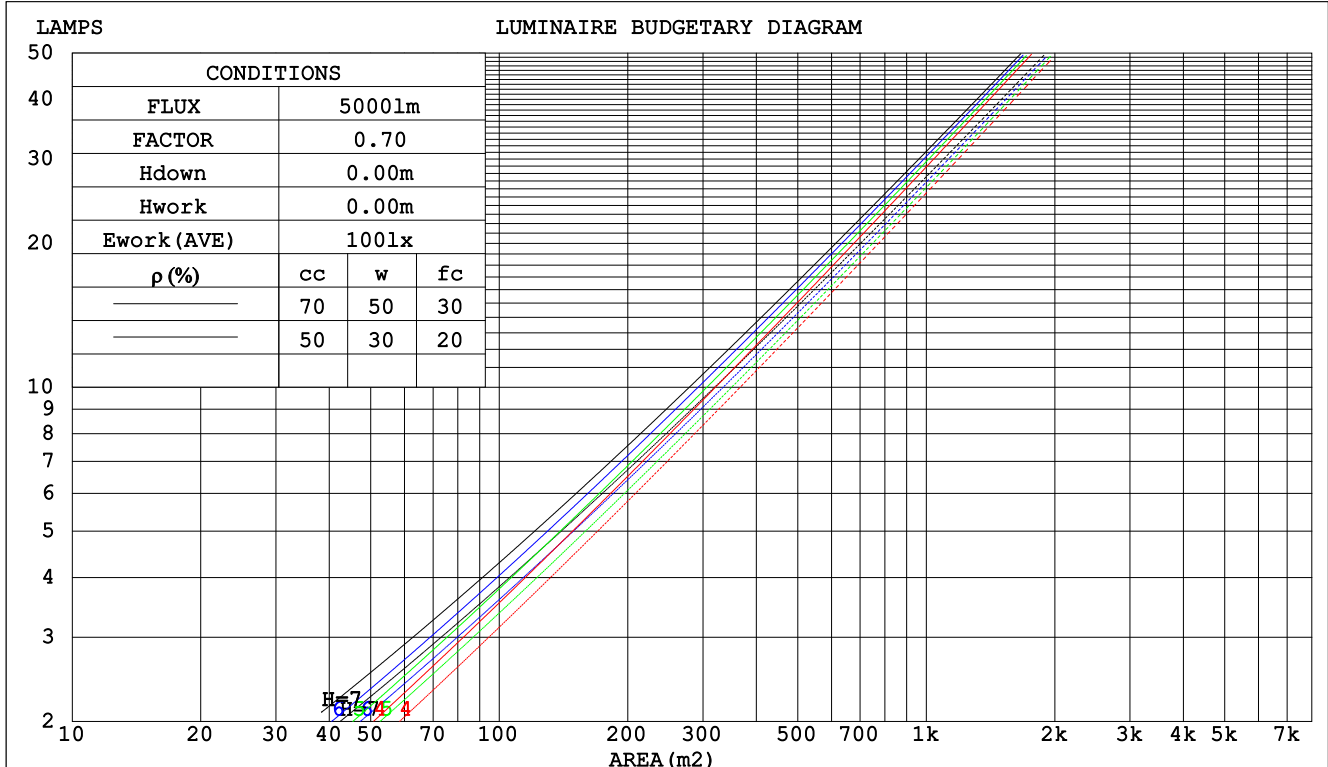
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:LGL  
 Test Date:2021-08-10

γ Range: 0 - 180DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.401  
 Humidity:65.0%  
 Test Distance:5.190m [K=1.0000]  
 Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|                          |                    |                  |
|--------------------------|--------------------|------------------|
| NAME: VM060-VF62RF02-15W | TYPE:indoor lights | WEIGHT:1         |
| SPEC.:3000K-CRI90-55D    | DIM.:              | SERIAL No.:      |
| MFR.:                    | SUR.:              | Shielding Angle: |

| pcc  | 80%                   |      |      | 70%  |      |      | 50%                             |      |      | 30%  |      |      | 10% |     |     | 0   |
|------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|-----|-----|-----|-----|
| pw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50% | 30% | 10% | 0   |
| pfc  | 20%                   |      |      | 20%  |      |      | 20%                             |      |      | 20%  |      |      | 20% |     |     | 0   |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Coefficients of Utilization(CU) |      |      |      |      |      |     |     |     |     |
| 0.0  | 1.18                  | 1.18 | 1.18 | 1.15 | 1.15 | 1.15 | 1.10                            | 1.10 | 1.10 | 1.05 | 1.05 | 1.05 | .00 | .00 | .00 | .98 |
| 1.0  | 1.10                  | 1.08 | 1.05 | 1.08 | 1.06 | 1.04 | 1.03                            | 1.02 | .00  | .99  | .98  | .97  | .95 | .94 | .93 | .91 |
| 2.0  | 1.03                  | .99  | .95  | 1.01 | .97  | .94  | .97                             | .94  | .92  | .94  | .91  | .89  | .91 | .89 | .87 | .85 |
| 3.0  | .96                   | .91  | .87  | .94  | .90  | .86  | .91                             | .88  | .85  | .89  | .86  | .83  | .86 | .84 | .81 | .80 |
| 4.0  | .90                   | .85  | .80  | .89  | .84  | .80  | .86                             | .82  | .79  | .84  | .80  | .77  | .82 | .79 | .76 | .75 |
| 5.0  | .85                   | .79  | .75  | .83  | .78  | .74  | .81                             | .77  | .73  | .80  | .76  | .73  | .78 | .74 | .72 | .70 |
| 6.0  | .80                   | .74  | .70  | .79  | .73  | .69  | .77                             | .72  | .69  | .75  | .71  | .68  | .74 | .70 | .67 | .66 |
| 7.0  | .75                   | .69  | .65  | .74  | .69  | .65  | .73                             | .68  | .65  | .72  | .67  | .64  | .70 | .67 | .64 | .62 |
| 8.0  | .71                   | .65  | .61  | .71  | .65  | .61  | .69                             | .64  | .61  | .68  | .64  | .61  | .67 | .63 | .60 | .59 |
| 9.0  | .68                   | .62  | .58  | .67  | .62  | .58  | .66                             | .61  | .58  | .65  | .60  | .57  | .64 | .60 | .57 | .56 |
| 10.0 | .64                   | .59  | .55  | .64  | .58  | .55  | .63                             | .58  | .54  | .62  | .57  | .54  | .61 | .57 | .54 | .53 |



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:28DEG  
Operators:LGL  
Test Date:2021-08-10

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.401  
Humidity:65.0%  
Test Distance:5.190m [K=1.0000]  
Remarks:

### WEC AND CCEC

|                          |                    |                  |
|--------------------------|--------------------|------------------|
| NAME: VM060-VF62RF02-15W | TYPE:indoor lights | WEIGHT:1         |
| SPEC.:3000K-CRI90-55D    | DIM.:              | SERIAL No.:      |
| MFR.:                    | SUR.:              | Shielding Angle: |

| pcc  | 80%                   |      |      | 70%  |      |      | 50%                              |      |      | 30%  |      |      | 10%  |      |      | 0 |  |
|------|-----------------------|------|------|------|------|------|----------------------------------|------|------|------|------|------|------|------|------|---|--|
| pw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                              | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |  |
| pfc  | 20%                   |      |      | 20%  |      |      | 20%                              |      |      | 20%  |      |      | 20%  |      |      | 0 |  |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Wall Exitance Coefficients (WEC) |      |      |      |      |      |      |      |      |   |  |
| 0.0  |                       |      |      |      |      |      |                                  |      |      |      |      |      |      |      |      |   |  |
| 1.0  | .178                  | .101 | .032 | .171 | .098 | .031 | .157                             | .090 | .029 | .144 | .083 | .027 | .132 | .077 | .025 |   |  |
| 2.0  | .169                  | .093 | .028 | .163 | .090 | .028 | .151                             | .084 | .026 | .140 | .079 | .025 | .130 | .074 | .023 |   |  |
| 3.0  | .160                  | .085 | .026 | .155 | .083 | .025 | .145                             | .078 | .024 | .135 | .074 | .023 | .126 | .070 | .022 |   |  |
| 4.0  | .152                  | .079 | .023 | .147 | .077 | .023 | .138                             | .073 | .022 | .130 | .070 | .021 | .122 | .066 | .020 |   |  |
| 5.0  | .144                  | .073 | .021 | .140 | .072 | .021 | .132                             | .069 | .020 | .125 | .066 | .020 | .118 | .063 | .019 |   |  |
| 6.0  | .137                  | .069 | .020 | .133 | .067 | .019 | .127                             | .065 | .019 | .120 | .062 | .018 | .114 | .060 | .018 |   |  |
| 7.0  | .131                  | .065 | .018 | .128 | .064 | .018 | .121                             | .061 | .018 | .116 | .059 | .017 | .110 | .057 | .017 |   |  |
| 8.0  | .125                  | .061 | .017 | .122 | .060 | .017 | .117                             | .058 | .017 | .111 | .056 | .016 | .106 | .055 | .016 |   |  |
| 9.0  | .120                  | .058 | .016 | .117 | .057 | .016 | .112                             | .055 | .016 | .107 | .054 | .015 | .103 | .052 | .015 |   |  |
| 10.0 | .115                  | .055 | .015 | .112 | .054 | .015 | .108                             | .053 | .015 | .103 | .051 | .015 | .099 | .050 | .014 |   |  |

| pcc  | 80%                   |      |      | 70%  |      |      | 50%                                        |      |      | 30%  |      |      | 10%  |      |      | 0 |
|------|-----------------------|------|------|------|------|------|--------------------------------------------|------|------|------|------|------|------|------|------|---|
| pw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                                        | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| pfc  | 20%                   |      |      | 20%  |      |      | 20%                                        |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Ceiling Cavity Exitance Coefficients(CCEC) |      |      |      |      |      |      |      |      |   |
| 0.0  | .209                  | .209 | .209 | .178 | .178 | .178 | .122                                       | .122 | .122 | .070 | .070 | .070 | .022 | .022 | .022 |   |
| 1.0  | .189                  | .176 | .163 | .162 | .151 | .140 | .111                                       | .104 | .097 | .064 | .060 | .056 | .020 | .019 | .018 |   |
| 2.0  | .174                  | .151 | .131 | .149 | .130 | .113 | .102                                       | .090 | .079 | .059 | .052 | .046 | .019 | .017 | .015 |   |
| 3.0  | .162                  | .132 | .108 | .139 | .114 | .094 | .095                                       | .079 | .066 | .055 | .046 | .039 | .018 | .015 | .013 |   |
| 4.0  | .151                  | .117 | .091 | .130 | .101 | .079 | .089                                       | .071 | .056 | .052 | .041 | .033 | .017 | .013 | .011 |   |
| 5.0  | .143                  | .106 | .079 | .122 | .091 | .068 | .084                                       | .064 | .048 | .049 | .038 | .029 | .016 | .012 | .009 |   |
| 6.0  | .135                  | .096 | .069 | .116 | .084 | .060 | .080                                       | .058 | .042 | .046 | .034 | .025 | .015 | .011 | .008 |   |
| 7.0  | .128                  | .089 | .061 | .110 | .077 | .053 | .076                                       | .054 | .038 | .044 | .032 | .022 | .014 | .010 | .007 |   |
| 8.0  | .123                  | .083 | .055 | .106 | .072 | .048 | .073                                       | .050 | .034 | .042 | .030 | .020 | .014 | .010 | .007 |   |
| 9.0  | .117                  | .077 | .050 | .101 | .067 | .044 | .070                                       | .047 | .031 | .041 | .028 | .019 | .013 | .009 | .006 |   |
| 10.0 | .113                  | .073 | .046 | .097 | .063 | .041 | .068                                       | .045 | .029 | .039 | .026 | .017 | .013 | .009 | .006 |   |

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:28DEG  
Operators:LGL  
Test Date:2021-08-10

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.401  
Humidity:65.0%  
Test Distance:5.190m [K=1.0000]  
Remarks:

## UGR(Unified Glare Rating) Table

|                                                    |               |      |      |      |      |                    |      |      |                  |      |  |
|----------------------------------------------------|---------------|------|------|------|------|--------------------|------|------|------------------|------|--|
| NAME: VM060-VF62RF02-15W                           |               |      |      |      |      | TYPE:indoor lights |      |      | WEIGHT:1         |      |  |
| SPEC.:3000K-CRI90-55D                              |               |      |      |      |      | DIM.:              |      |      | SERIAL No.:      |      |  |
| MFR.:                                              |               |      |      |      |      | SUR.:              |      |      | 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                                      | 19.0          | 20.0 | 19.3 | 20.2 | 20.4 | 18.1               | 19.1 | 18.4 | 19.3             | 19.5 |  |
| 3H                                                 | 19.1          | 20.0 | 19.4 | 20.2 | 20.4 | 18.3               | 19.1 | 18.5 | 19.3             | 19.6 |  |
| 4H                                                 | 19.2          | 20.0 | 19.5 | 20.2 | 20.5 | 18.3               | 19.1 | 18.6 | 19.4             | 19.6 |  |
| 6H                                                 | 19.2          | 19.9 | 19.5 | 20.2 | 20.5 | 18.3               | 19.1 | 18.7 | 19.4             | 19.6 |  |
| 8H                                                 | 19.2          | 19.9 | 19.5 | 20.2 | 20.5 | 18.3               | 19.0 | 18.7 | 19.3             | 19.6 |  |
| 12H                                                | 19.2          | 19.8 | 19.5 | 20.1 | 20.5 | 18.3               | 19.0 | 18.6 | 19.3             | 19.6 |  |
| 4H 2H                                              | 18.9          | 19.7 | 19.2 | 19.9 | 20.2 | 18.0               | 18.8 | 18.3 | 19.1             | 19.3 |  |
| 3H                                                 | 19.0          | 19.7 | 19.4 | 20.0 | 20.4 | 18.2               | 18.9 | 18.6 | 19.2             | 19.5 |  |
| 4H                                                 | 19.2          | 19.8 | 19.5 | 20.1 | 20.5 | 18.4               | 19.0 | 18.7 | 19.3             | 19.7 |  |
| 6H                                                 | 19.3          | 19.8 | 19.7 | 20.2 | 20.6 | 18.4               | 19.0 | 18.9 | 19.4             | 19.8 |  |
| 8H                                                 | 19.3          | 19.8 | 19.7 | 20.2 | 20.6 | 18.5               | 19.0 | 18.9 | 19.3             | 19.8 |  |
| 12H                                                | 19.2          | 19.7 | 19.7 | 20.1 | 20.6 | 18.4               | 18.9 | 18.9 | 19.3             | 19.7 |  |
| 8H 4H                                              | 19.1          | 19.6 | 19.5 | 20.0 | 20.4 | 18.3               | 18.8 | 18.8 | 19.2             | 19.7 |  |
| 6H                                                 | 19.3          | 19.7 | 19.7 | 20.1 | 20.6 | 18.5               | 18.9 | 19.0 | 19.3             | 19.8 |  |
| 8H                                                 | 19.3          | 19.7 | 19.8 | 20.1 | 20.6 | 18.5               | 18.9 | 19.0 | 19.3             | 19.8 |  |
| 12H                                                | 19.3          | 19.6 | 19.8 | 20.1 | 20.6 | 18.5               | 18.8 | 19.0 | 19.3             | 19.8 |  |
| 12H 4H                                             | 19.1          | 19.5 | 19.5 | 20.0 | 20.4 | 18.3               | 18.8 | 18.8 | 19.2             | 19.6 |  |
| 6H                                                 | 19.2          | 19.6 | 19.7 | 20.1 | 20.5 | 18.5               | 18.8 | 18.9 | 19.3             | 19.8 |  |
| 8H                                                 | 19.3          | 19.6 | 19.8 | 20.1 | 20.6 | 18.5               | 18.8 | 19.0 | 19.3             | 19.8 |  |
| Variations with the observer position at spacings: |               |      |      |      |      |                    |      |      |                  |      |  |
| S = 1.0H                                           | + 2.2 / - 2.8 |      |      |      |      | + 1.9 / - 2.7      |      |      |                  |      |  |
| 1.5H                                               | + 4.2 / - 2.8 |      |      |      |      | + 3.7 / - 2.8      |      |      |                  |      |  |
| 2.0H                                               | + 2.5 / - 0.8 |      |      |      |      | + 2.6 / - 0.8      |      |      |                  |      |  |

CIE Pub.117, 1265 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.8)

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:28DEG  
Operators:LGL  
Test Date:2021-08-10

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.401  
Humidity:65.0%  
Test Distance:5.190m [K=1.0000]  
Remarks:

## UTILIZATION FACTORS TABLE

|                          |                    |                  |
|--------------------------|--------------------|------------------|
| NAME: VM060-VF62RF02-15W | TYPE:indoor lights | WEIGHT:1         |
| SPEC.:3000K-CRI90-55D    | DIM.:              | SERIAL No.:      |
| MFR.:                    | SUR.:              | Shielding Angle: |

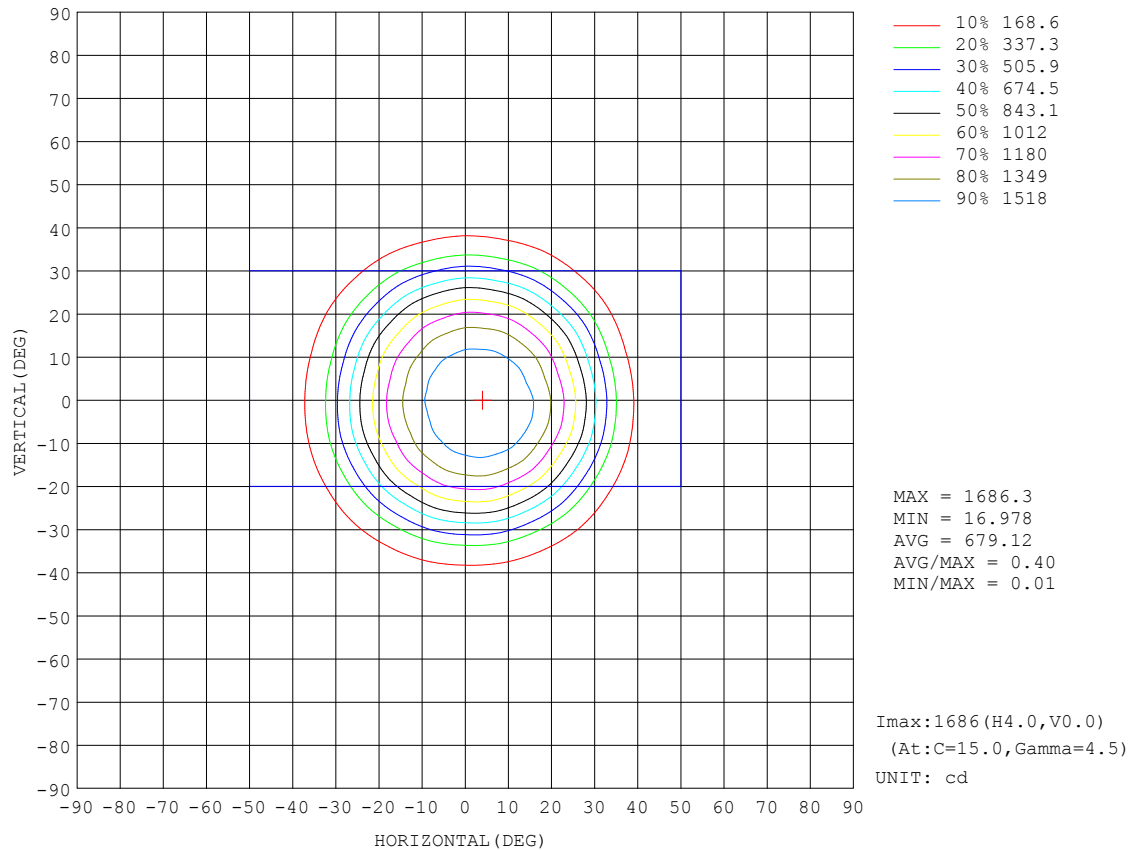
| REFLECTANCE                      |                                                  |     |     |     |     |     |     |     |     |        |
|----------------------------------|--------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|--------|
| Ceiling                          | 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) x RCR = 5 |     |     |     |     |     |     |     |     |        |
| k = 0.60                         | 86                                               | 79  | 76  | 85  | 79  | 75  | 84  | 79  | 75  | 72     |
| 0.80                             | 93                                               | 87  | 84  | 93  | 87  | 83  | 91  | 86  | 83  | 79     |
| 1.00                             | 98                                               | 92  | 88  | 97  | 91  | 88  | 95  | 91  | 87  | 83     |
| 1.25                             | 102                                              | 96  | 93  | 101 | 96  | 92  | 98  | 94  | 91  | 87     |
| 1.50                             | 105                                              | 100 | 96  | 103 | 99  | 96  | 101 | 97  | 94  | 89     |
| 2.00                             | 107                                              | 103 | 100 | 106 | 102 | 99  | 103 | 99  | 97  | 91     |
| 2.50                             | 109                                              | 105 | 102 | 107 | 104 | 101 | 104 | 101 | 99  | 92     |
| 3.00                             | 111                                              | 107 | 104 | 109 | 106 | 103 | 105 | 103 | 101 | 93     |
| 4.00                             | 113                                              | 110 | 108 | 111 | 108 | 106 | 107 | 105 | 103 | 95     |
| 5.00                             | 114                                              | 112 | 110 | 112 | 110 | 108 | 107 | 106 | 105 | 96     |
| ROOM INDEX                       | UF(total)                                        |     |     |     |     |     |     |     |     | Direct |
| According to DIN EN 13032-2 2004 |                                                  |     |     |     |     |     |     |     |     |        |
| Suspended                        |                                                  |     |     |     |     |     |     |     |     |        |
| SHRNOM = 1.25                    |                                                  |     |     |     |     |     |     |     |     |        |

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:LGL  
 Test Date:2021-08-10

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 $\gamma$  Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.401  
 Humidity:65.0%  
 Test Distance:5.190m [K=1.0000]  
 Remarks:

## ISOCANDELA DIAGRAM

|                          |                     |                  |
|--------------------------|---------------------|------------------|
| NAME: VM060-VF62RF02-15W | TYPE: indoor lights | WEIGHT: 1        |
| SPEC.: 3000K-CRI90-55D   | DIM.:               | SERIAL No.:      |
| MFR.:                    | SUR.:               | Shielding Angle: |



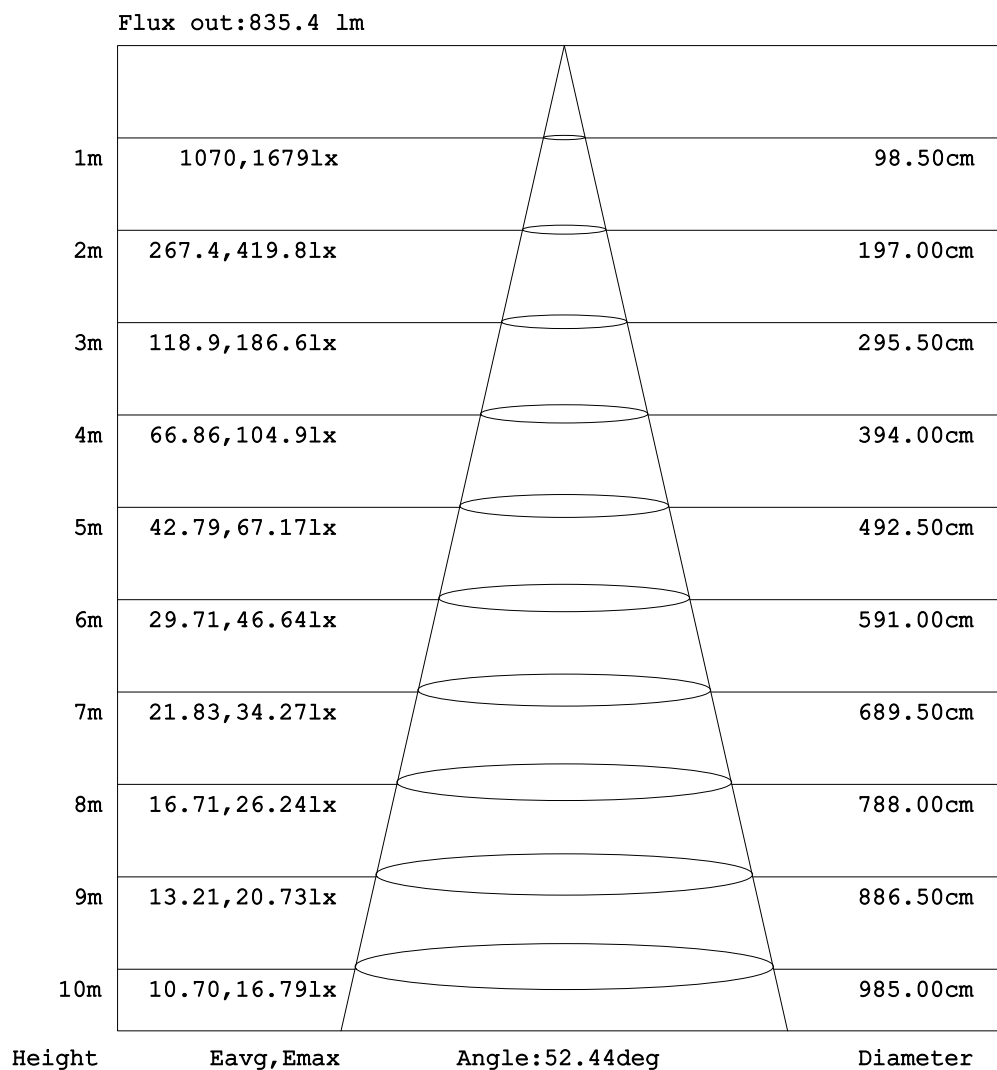
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature: 28DEG  
Operators: LGL  
Test Date: 2021-08-10

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.401  
Humidity: 65.0%  
Test Distance: 5.190m [K=1.0000]  
Remarks:



## AAI Figure

|                          |                    |                  |
|--------------------------|--------------------|------------------|
| NAME: VM060-VF62RF02-15W | TYPE:indoor lights | WEIGHT:1         |
| SPEC.:3000K-CRI90-55D    | DIM.:              | SERIAL No.:      |
| MFR.:                    | SUR.:              | Shielding Angle: |



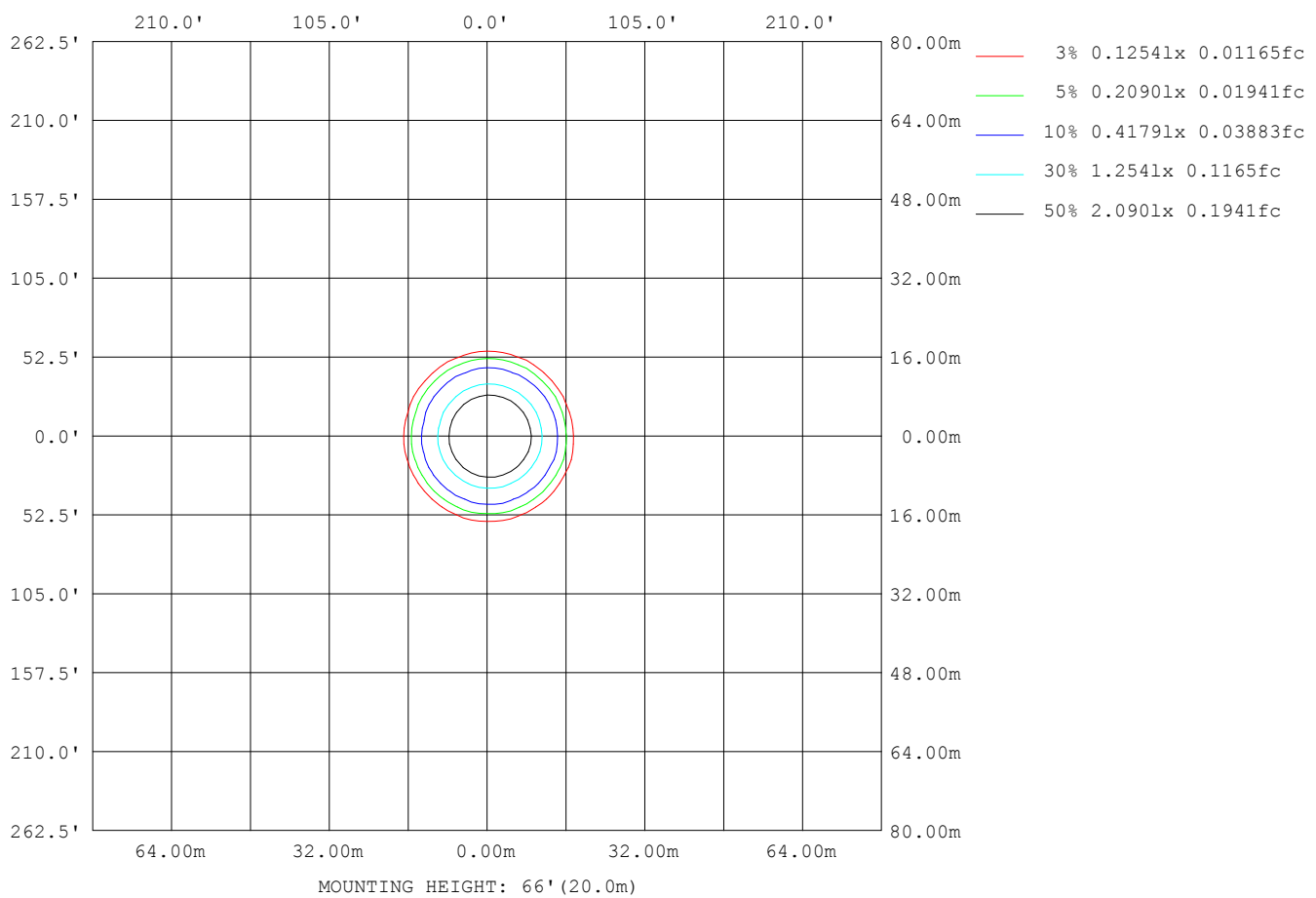
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:LGL  
 Test Date:2021-08-10

γ Range: 0 - 180DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.401  
 Humidity:65.0%  
 Test Distance:5.190m [K=1.0000]  
 Remarks:

## ISOLUX DIAGRAM

|                          |                     |                  |
|--------------------------|---------------------|------------------|
| NAME: VM060-VF62RF02-15W | TYPE: indoor lights | WEIGHT: 1        |
| SPEC.: 3000K-CRI90-55D   | DIM.:               | SERIAL No.:      |
| MFR.:                    | SUR.:               | Shielding Angle: |



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature: 28DEG  
Operators: LGL  
Test Date: 2021-08-10

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.401  
Humidity: 65.0%  
Test Distance: 5.190m [K=1.0000]  
Remarks:

## LED Avg.L Report

|                          |                    |                  |
|--------------------------|--------------------|------------------|
| NAME: VM060-VF62RF02-15W | TYPE:indoor lights | WEIGHT:1         |
| SPEC.:3000K-CRI90-55D    | DIM.:              | SERIAL No.:      |
| MFR.:                    | SUR.:              | Shielding Angle: |

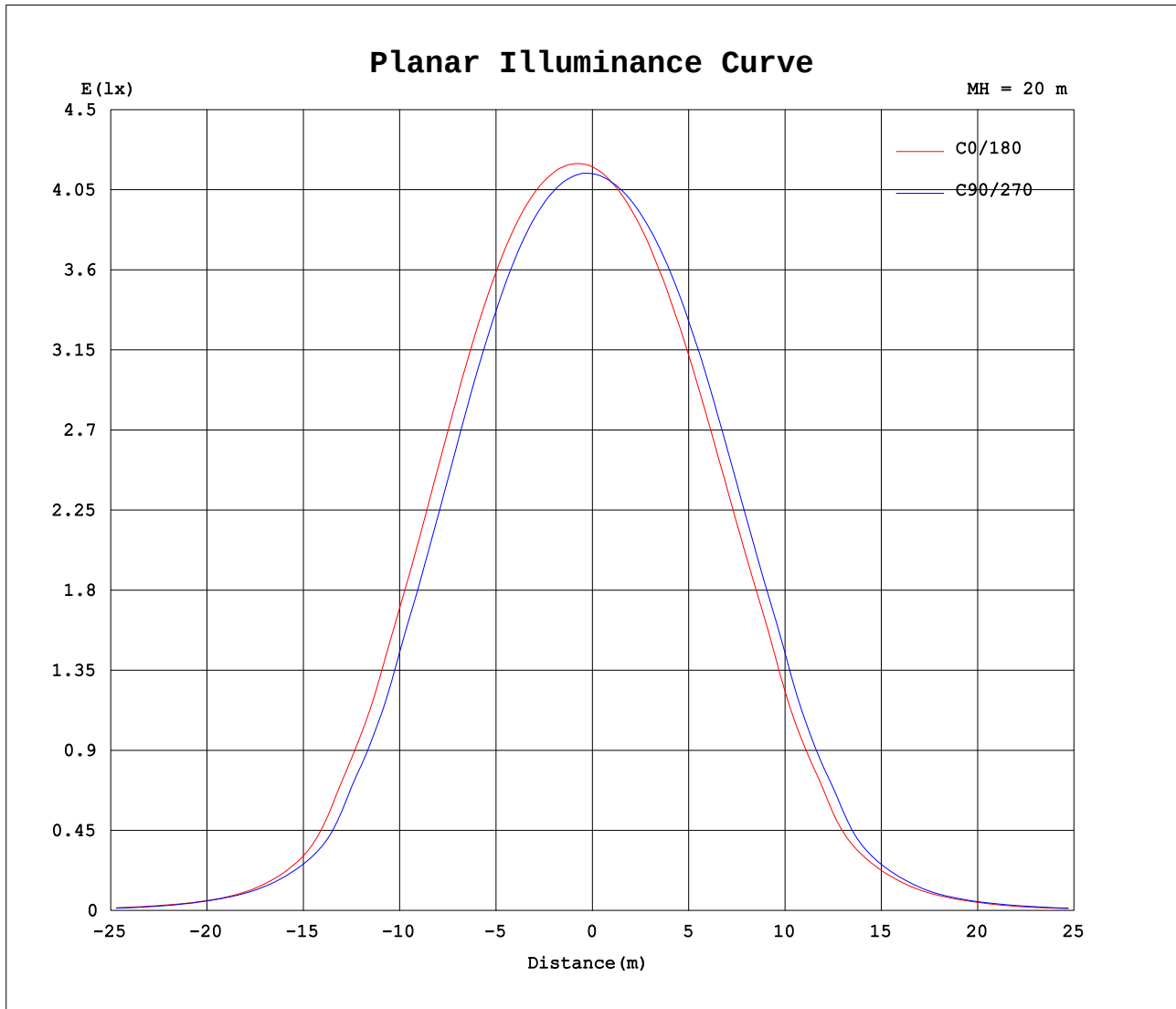
| AvgL           | cd/m2 |
|----------------|-------|
| L_0~180(65)av  | 8349  |
| L_0~180(75)av  | 7193  |
| L_0~180(85)av  | 2794  |
| L_90~270(65)av | 8288  |
| L_90~270(75)av | 7148  |
| L_90~270(85)av | 3185  |
| L_45(65)av     | 8324  |
| L_45(75)av     | 7181  |
| L_45(85)av     | 3380  |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:28DEG  
Operators:LGL  
Test Date:2021-08-10

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.401  
Humidity:65.0%  
Test Distance:5.190m [K=1.0000]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature: 28DEG  
 Operators: LGL  
 Test Date: 2021-08-10

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.401  
 Humidity: 65.0%  
 Test Distance: 5.190m [K=1.0000]  
 Remarks:

# LUMINOUS DISTRIBUTION INTENSITY DATA

|                          |                    |                  |
|--------------------------|--------------------|------------------|
| NAME: VM060-VF62RF02-15W | TYPE:indoor lights | WEIGHT:1         |
| SPEC.:3000K-CRI90-55D    | DIM.:              | SERIAL No.:      |
| MFR.:                    | SUR.:              | Shielding Angle: |

Table--1

UNIT: cd

| C(DEG)<br>γ (DEG) | 0    | 15   | 30   | 45   | 60   | 75   | 90   | 105  | 120  | 135  | 150  | 165  | 180  | 195  | 210  | 225  | 240  | 255  | 270  |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0                 | 1658 | 1658 | 1658 | 1658 | 1658 | 1658 | 1658 | 1658 | 1658 | 1658 | 1658 | 1658 | 1658 | 1658 | 1658 | 1658 | 1658 | 1658 | 1658 |
| 5                 | 1673 | 1676 | 1674 | 1672 | 1666 | 1660 | 1649 | 1641 | 1629 | 1621 | 1611 | 1607 | 1600 | 1599 | 1603 | 1607 | 1614 | 1620 | 1630 |
| 10                | 1639 | 1646 | 1643 | 1639 | 1623 | 1608 | 1586 | 1571 | 1547 | 1533 | 1511 | 1504 | 1489 | 1489 | 1502 | 1511 | 1530 | 1541 | 1558 |
| 15                | 1532 | 1543 | 1532 | 1525 | 1495 | 1478 | 1444 | 1426 | 1393 | 1377 | 1346 | 1338 | 1318 | 1313 | 1335 | 1348 | 1379 | 1393 | 1421 |
| 20                | 1331 | 1339 | 1314 | 1306 | 1267 | 1251 | 1213 | 1198 | 1159 | 1144 | 1113 | 1107 | 1082 | 1075 | 1098 | 1110 | 1147 | 1164 | 1201 |
| 25                | 1042 | 1047 | 1010 | 1001 | 964  | 953  | 917  | 906  | 870  | 861  | 831  | 828  | 797  | 791  | 819  | 831  | 868  | 883  | 916  |
| 30                | 689  | 694  | 658  | 647  | 615  | 604  | 575  | 562  | 536  | 529  | 510  | 507  | 482  | 477  | 496  | 507  | 535  | 544  | 569  |
| 35                | 338  | 344  | 318  | 312  | 290  | 284  | 266  | 263  | 251  | 248  | 239  | 237  | 226  | 224  | 235  | 239  | 252  | 254  | 267  |
| 40                | 144  | 150  | 143  | 144  | 137  | 137  | 130  | 130  | 121  | 119  | 114  | 115  | 110  | 109  | 113  | 112  | 117  | 119  | 126  |
| 45                | 63.5 | 67.0 | 66.0 | 66.6 | 64.7 | 64.0 | 61.7 | 60.3 | 55.8 | 54.4 | 52.0 | 53.2 | 51.7 | 51.6 | 53.0 | 51.7 | 53.7 | 54.5 | 57.2 |
| 50                | 29.7 | 30.8 | 29.5 | 29.5 | 28.1 | 27.6 | 25.9 | 25.1 | 23.0 | 22.4 | 21.3 | 21.7 | 21.0 | 20.9 | 21.8 | 21.9 | 23.3 | 24.1 | 25.7 |
| 55                | 18.3 | 18.3 | 18.1 | 18.0 | 17.8 | 17.7 | 17.3 | 17.2 | 17.1 | 17.1 | 17.0 | 17.1 | 17.2 | 17.2 | 17.3 | 17.4 | 17.6 | 17.6 | 17.8 |
| 60                | 16.3 | 16.4 | 16.1 | 16.1 | 15.8 | 15.7 | 15.5 | 15.4 | 15.3 | 15.3 | 15.2 | 15.3 | 15.3 | 15.3 | 15.5 | 15.5 | 15.7 | 15.8 | 15.9 |
| 65                | 13.8 | 13.9 | 13.6 | 13.6 | 13.3 | 13.2 | 12.9 | 12.8 | 12.7 | 12.7 | 12.5 | 12.6 | 12.5 | 12.6 | 12.8 | 12.8 | 13.0 | 13.1 | 13.3 |
| 70                | 10.8 | 10.9 | 10.6 | 10.6 | 10.3 | 10.2 | 9.93 | 9.86 | 9.70 | 9.70 | 9.53 | 9.60 | 9.46 | 9.48 | 9.70 | 9.75 | 9.99 | 10.0 | 10.2 |
| 75                | 7.64 | 7.68 | 7.47 | 7.42 | 7.16 | 7.08 | 6.82 | 6.76 | 6.59 | 6.57 | 6.39 | 6.45 | 6.28 | 6.26 | 6.48 | 6.51 | 6.74 | 6.77 | 7.01 |
| 80                | 4.44 | 4.48 | 4.30 | 4.26 | 4.03 | 3.95 | 3.73 | 3.66 | 3.52 | 3.47 | 3.32 | 3.35 | 3.08 | 2.86 | 3.28 | 3.31 | 3.51 | 3.55 | 3.76 |
| 85                | 1.13 | 1.55 | 1.40 | 1.41 | 1.25 | 1.22 | 1.08 | 1.06 | 1.00 | 0.97 | 0.88 | 0.88 | 0.69 | 0.58 | 0.78 | 0.79 | 0.87 | 0.89 | 0.99 |
| 90                | 0.33 | 0.37 | 0.33 | 0.32 | 0.32 | 0.32 | 0.33 | 0.33 | 0.38 | 0.37 | 0.36 | 0.36 | 0.31 | 0.30 | 0.30 | 0.30 | 0.30 | 0.29 | 0.30 |
| 95                | 0.34 | 0.36 | 0.34 | 0.36 | 0.34 | 0.36 | 0.35 | 0.37 | 0.39 | 0.39 | 0.36 | 0.40 | 0.36 | 0.34 | 0.36 | 0.34 | 0.35 | 0.33 | 0.35 |
| 100               | 0.41 | 0.43 | 0.41 | 0.43 | 0.41 | 0.44 | 0.42 | 0.45 | 0.45 | 0.48 | 0.44 | 0.46 | 0.45 | 0.43 | 0.45 | 0.42 | 0.44 | 0.42 | 0.43 |
| 105               | 0.55 | 0.56 | 0.55 | 0.57 | 0.56 | 0.58 | 0.59 | 0.60 | 0.60 | 0.62 | 0.61 | 0.63 | 0.64 | 0.63 | 0.63 | 0.61 | 0.61 | 0.59 | 0.59 |
| 110               | 0.82 | 0.83 | 0.83 | 0.85 | 0.87 | 0.88 | 0.91 | 0.92 | 0.97 | 0.98 | 0.99 | 0.99 | 1.03 | 1.03 | 1.00 | 0.99 | 0.96 | 0.94 | 0.92 |
| 115               | 1.34 | 1.33 | 1.37 | 1.38 | 1.44 | 1.46 | 1.52 | 1.53 | 1.62 | 1.62 | 1.68 | 1.67 | 1.73 | 1.75 | 1.68 | 1.67 | 1.60 | 1.58 | 1.51 |
| 120               | 2.17 | 2.14 | 2.21 | 2.22 | 2.32 | 2.35 | 2.46 | 2.48 | 2.61 | 2.62 | 2.71 | 2.70 | 2.77 | 2.80 | 2.71 | 2.69 | 2.57 | 2.55 | 2.44 |
| 125               | 3.31 | 3.29 | 3.37 | 3.39 | 3.53 | 3.59 | 3.72 | 3.78 | 3.91 | 3.96 | 4.06 | 4.09 | 4.17 | 4.17 | 4.08 | 4.03 | 3.90 | 3.84 | 3.72 |
| 130               | 4.73 | 4.73 | 4.81 | 4.86 | 5.00 | 5.10 | 5.26 | 5.35 | 5.50 | 5.56 | 5.71 | 5.74 | 5.84 | 5.84 | 5.73 | 5.67 | 5.51 | 5.42 | 5.27 |
| 135               | 6.41 | 6.41 | 6.48 | 6.55 | 6.70 | 6.83 | 7.02 | 7.13 | 7.30 | 7.38 | 7.54 | 7.59 | 7.70 | 7.70 | 7.58 | 7.50 | 7.33 | 7.23 | 7.05 |
| 140               | 8.23 | 8.23 | 8.29 | 8.37 | 8.53 | 8.68 | 8.88 | 9.01 | 9.18 | 9.29 | 9.44 | 9.51 | 9.63 | 9.62 | 9.49 | 9.41 | 9.24 | 9.13 | 8.93 |
| 145               | 10.0 | 10.0 | 10.1 | 10.2 | 10.3 | 10.5 | 10.7 | 10.8 | 11.0 | 11.1 | 11.2 | 11.3 | 11.4 | 11.4 | 11.3 | 11.2 | 11.0 | 11.0 | 10.8 |
| 150               | 11.7 | 11.7 | 11.8 | 11.8 | 12.0 | 12.1 | 12.3 | 12.4 | 12.5 | 12.6 | 12.8 | 12.8 | 12.9 | 12.9 | 12.8 | 12.7 | 12.6 | 12.6 | 12.4 |
| 155               | 13.1 | 13.0 | 13.1 | 13.2 | 13.3 | 13.4 | 13.6 | 13.7 | 13.7 | 13.8 | 13.9 | 13.9 | 14.0 | 14.0 | 13.9 | 13.9 | 13.8 | 13.8 | 13.7 |
| 160               | 14.0 | 14.0 | 14.0 | 14.2 | 14.3 | 14.4 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.5 | 14.6 | 14.5 |
| 165               | 14.7 | 14.7 | 14.6 | 14.7 | 14.9 | 15.0 | 15.1 | 15.1 | 14.9 | 14.9 | 14.9 | 15.0 | 15.0 | 15.0 | 15.0 | 14.9 | 14.9 | 15.0 | 15.1 |
| 170               | 15.3 | 15.2 | 15.2 | 15.2 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 | 15.5 | 15.5 | 15.4 | 15.5 | 15.5 | 15.4 | 15.3 | 15.3 | 15.4 |
| 175               | 15.8 | 15.8 | 15.8 | 15.9 | 15.9 | 15.8 | 15.7 | 15.7 | 15.8 | 16.0 | 16.0 | 16.0 | 15.9 | 16.0 | 16.1 | 16.1 | 15.9 | 15.8 | 15.8 |
| 180               | 16.3 | 16.3 | 16.2 | 16.4 | 16.2 | 16.1 | 16.2 | 16.1 | 16.2 | 16.4 | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 | 16.4 | 16.3 | 16.1 | 16.2 |

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:28DEG  
Operators:LGL  
Test Date:2021-08-10

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.401  
Humidity:65.0%  
Test Distance:5.190m [K=1.0000]  
Remarks:

# LUMINOUS DISTRIBUTION INTENSITY DATA

|                          |                    |                  |
|--------------------------|--------------------|------------------|
| NAME: VM060-VF62RF02-15W | TYPE:indoor lights | WEIGHT:1         |
| SPEC.:3000K-CRI90-55D    | DIM.:              | SERIAL No.:      |
| MFR.:                    | SUR.:              | Shielding Angle: |

Table--2

UNIT: cd

| C(DEG)<br>γ (DEG) | 285  | 300  | 315  | 330  | 345  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------|------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 0                 | 1658 | 1658 | 1658 | 1658 | 1658 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5                 | 1636 | 1645 | 1652 | 1661 | 1666 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10                | 1571 | 1590 | 1603 | 1620 | 1627 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15                | 1437 | 1467 | 1486 | 1512 | 1517 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20                | 1218 | 1260 | 1277 | 1311 | 1312 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 25                | 931  | 969  | 986  | 1021 | 1022 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30                | 582  | 615  | 632  | 666  | 666  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 35                | 270  | 291  | 295  | 318  | 315  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40                | 125  | 134  | 130  | 138  | 134  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 45                | 56.3 | 57.8 | 57.3 | 58.6 | 58.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 50                | 25.7 | 26.7 | 26.8 | 27.9 | 27.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 55                | 17.8 | 18.0 | 18.0 | 18.1 | 18.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60                | 15.9 | 16.1 | 16.1 | 16.2 | 16.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 65                | 13.3 | 13.5 | 13.5 | 13.7 | 13.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 70                | 10.2 | 10.5 | 10.5 | 10.7 | 10.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 75                | 7.03 | 7.29 | 7.29 | 7.48 | 7.43 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 80                | 3.80 | 4.04 | 4.08 | 4.26 | 4.25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 85                | 1.02 | 1.21 | 1.24 | 1.39 | 1.14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 90                | 0.29 | 0.35 | 0.36 | 0.32 | 0.38 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 95                | 0.32 | 0.34 | 0.38 | 0.37 | 0.40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100               | 0.40 | 0.41 | 0.39 | 0.41 | 0.43 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 105               | 0.57 | 0.57 | 0.55 | 0.56 | 0.54 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 110               | 0.90 | 0.87 | 0.87 | 0.87 | 0.85 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 115               | 1.50 | 1.45 | 1.48 | 1.46 | 1.41 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 120               | 2.42 | 2.32 | 2.38 | 2.30 | 2.27 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 125               | 3.66 | 3.53 | 3.56 | 3.46 | 3.43 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 130               | 5.18 | 5.04 | 4.96 | 4.92 | 4.85 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 135               | 6.93 | 6.79 | 6.68 | 6.55 | 6.54 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 140               | 8.79 | 8.62 | 8.54 | 8.37 | 8.36 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 145               | 10.6 | 10.4 | 10.3 | 10.2 | 10.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 150               | 12.2 | 12.0 | 11.9 | 11.8 | 11.8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 155               | 13.5 | 13.4 | 13.2 | 13.1 | 13.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 160               | 14.4 | 14.3 | 14.2 | 14.0 | 14.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 165               | 15.0 | 14.9 | 14.7 | 14.7 | 14.8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 170               | 15.4 | 15.3 | 15.2 | 15.2 | 15.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 175               | 15.8 | 16.0 | 16.0 | 15.9 | 15.9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 180               | 16.1 | 16.2 | 16.4 | 16.3 | 16.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:28DEG  
Operators:LGL  
Test Date:2021-08-10

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.401  
Humidity:65.0%  
Test Distance:5.190m [K=1.0000]  
Remarks: