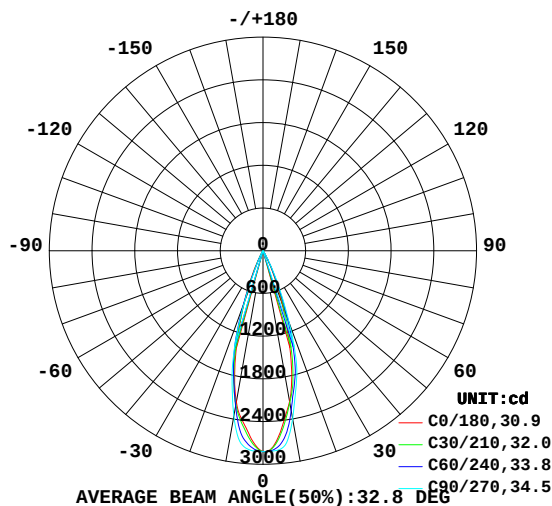


## LUMINAIRE PHOTOMETRIC TEST REPORT

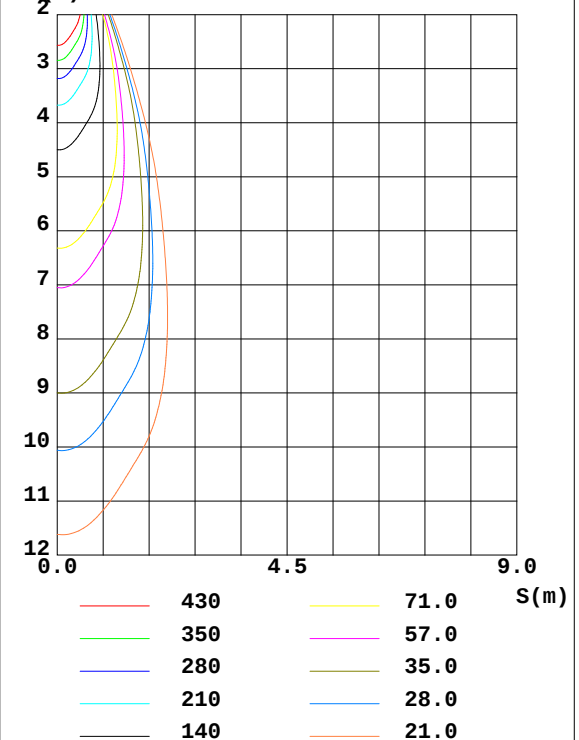
|                          |                     |                  |
|--------------------------|---------------------|------------------|
| NAME: VM060-VF62RA05-15W | TYPE: indoor lights | WEIGHT: 1        |
| SPEC.: 3000K-CRI90-38D   | DIM.:               | SERIAL No.:      |
| MFR.:                    | SUR.:               | Shielding Angle: |

| DATA OF LAMP     |                   | PHOTOMETRIC DATA Eff: 64.92 lm/W |        |                         |           |
|------------------|-------------------|----------------------------------|--------|-------------------------|-----------|
| MODEL            | BXRE-30G1000-C-7X | Imax(cd)                         | 2828   | S/MH(C0/180)            | 0.50      |
| NOMINAL POWER(W) | 15                | LOR(%)                           | 100.0  | S/MH(C90/270)           | 0.50      |
| RATED VOLTAGE(V) | 230               | TOTAL FLUX(lm)                   | 873.59 | $\eta$ UP, DN(C0-180)   | 1.2, 52.6 |
| NOMINAL FLUX(lm) | 873.587           | CIE CLASS                        | DIRECT | $\eta$ UP, DN(C180-360) | 1.3, 45.0 |
| LAMPS INSIDE     | 1                 | $\eta$ up(%)                     | 2.4    | CIBSE SHR NOM           | 0.50      |
| TEST VOLTAGE(V)  | 230               | $\eta$ down(%)                   | 97.6   | CIBSE SHR MAX           | 0.50      |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT: lx)



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature: 28DEG  
Operators: LGL  
Test Date: 2021-08-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.0.401  
Humidity: 65.0%  
Test Distance: 5.190m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

### ZONAL FLUX DIAGRAM:

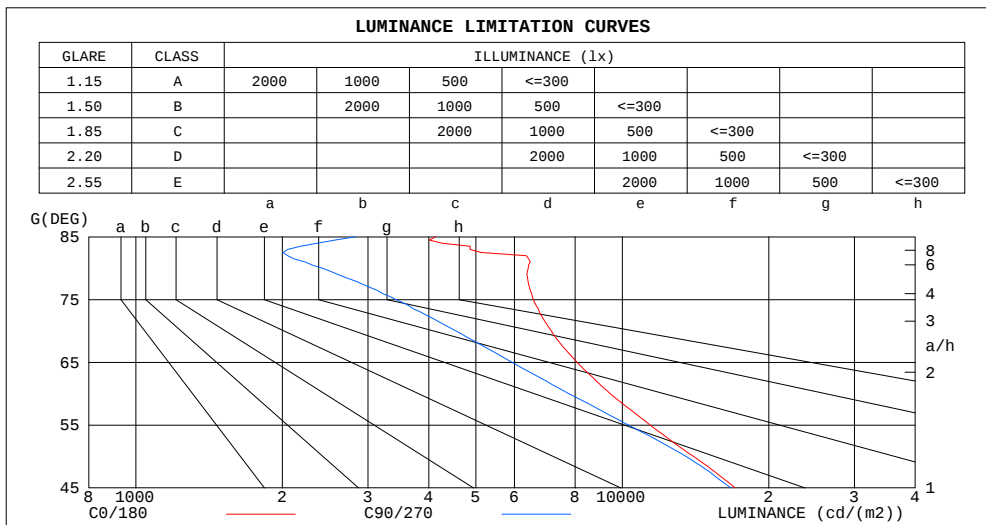
| $\gamma$ | C0                    | C45    | C90    | C135   | C180   | C225   | C270   | C315   | $\gamma$ | $\Phi$ zone | $\Phi$ total | %lum, lamp |
|----------|-----------------------|--------|--------|--------|--------|--------|--------|--------|----------|-------------|--------------|------------|
| 10       | 2150                  | 2225   | 2399   | 2267   | 2159   | 2175   | 2356   | 2089   | 0- 10    | 240.5       | 240.5        | 27.5, 27.5 |
| 20       | 778.1                 | 948.5  | 1091   | 1003   | 783.5  | 767.5  | 760.5  | 671.7  | 10- 20   | 426.3       | 666.8        | 76.3, 76.3 |
| 30       | 66.72                 | 89.06  | 110.6  | 120.0  | 57.93  | 49.79  | 51.26  | 47.32  | 20- 30   | 153.4       | 820.3        | 93.9, 93.9 |
| 40       | 11.37                 | 11.71  | 13.25  | 12.37  | 10.86  | 11.01  | 12.59  | 10.93  | 30- 40   | 17.87       | 838.1        | 95.9, 95.9 |
| 50       | 6.668                 | 6.350  | 6.463  | 6.222  | 5.755  | 5.835  | 6.267  | 6.088  | 40- 50   | 6.537       | 844.7        | 96.7, 96.7 |
| 60       | 3.496                 | 3.059  | 2.889  | 2.842  | 2.948  | 3.089  | 3.465  | 3.359  | 50- 60   | 4.020       | 848.7        | 97.1, 97.1 |
| 70       | 1.810                 | 1.347  | 1.157  | 1.213  | 1.420  | 1.547  | 1.707  | 1.742  | 60- 70   | 2.204       | 850.9        | 97.4, 97.4 |
| 80       | 0.8237                | 0.4450 | 0.3122 | 0.3828 | 0.5471 | 0.6292 | 0.6776 | 0.7294 | 70- 80   | 1.039       | 851.9        | 97.5, 97.5 |
| 90       | 0.1937                | 0.1923 | 0.1820 | 0.1883 | 0.1805 | 0.1725 | 0.1791 | 0.1706 | 80- 90   | 0.3356      | 852.3        | 97.6, 97.6 |
| 100      | 0.1999                | 0.2205 | 0.2043 | 0.2171 | 0.2240 | 0.2006 | 0.2188 | 0.1950 | 90-100   | 0.2117      | 852.5        | 97.6, 97.6 |
| 110      | 0.2177                | 0.2427 | 0.2342 | 0.2481 | 0.2553 | 0.2359 | 0.2654 | 0.2369 | 100-110  | 0.2338      | 852.7        | 97.6, 97.6 |
| 120      | 0.5842                | 0.5387 | 0.5250 | 0.5078 | 0.6413 | 0.7400 | 0.8212 | 0.7963 | 110-120  | 0.3639      | 853.1        | 97.7, 97.7 |
| 130      | 2.533                 | 2.453  | 2.469  | 2.287  | 2.633  | 2.941  | 3.162  | 3.091  | 120-130  | 1.317       | 854.4        | 97.8, 97.8 |
| 140      | 6.601                 | 6.389  | 6.339  | 6.144  | 6.730  | 7.040  | 7.207  | 7.280  | 130-140  | 3.502       | 857.9        | 98.2, 98.2 |
| 150      | 11.11                 | 10.78  | 10.67  | 10.64  | 11.29  | 11.42  | 11.52  | 11.57  | 140-150  | 5.592       | 863.5        | 98.8, 98.8 |
| 160      | 12.71                 | 12.71  | 12.71  | 12.96  | 13.04  | 13.08  | 12.96  | 12.83  | 150-160  | 5.689       | 869.2        | 99.5, 99.5 |
| 170      | 10.73                 | 10.57  | 10.86  | 11.07  | 11.12  | 10.90  | 10.62  | 10.30  | 160-170  | 3.448       | 872.6        | 99.9, 99.9 |
| 180      | 9.586                 | 9.737  | 9.586  | 9.724  | 9.599  | 9.750  | 9.595  | 9.715  | 170-180  | 0.9644      | 873.6        | 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: 2021-08-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.0.401  
Humidity: 65.0%  
Test Distance: 5.190m [K=1.0000]  
Remarks:

## LUMINANCE LIMITATION CURVES

|                          |                    |                  |
|--------------------------|--------------------|------------------|
| NAME: VM060-VF62RA05-15W | TYPE:indoor lights | WEIGHT:1         |
| SPEC.:3000K-CRI90-38D    | DIM.:              | SERIAL No.:      |
| MFR.:                    | SUR.:              | Shielding Angle: |



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G(DEG)            | C0/180 | C90/270 |
| 85                | 4131   | 2825    |
| 80                | 6405   | 2417    |
| 75                | 6561   | 3426    |
| 70                | 7145   | 4548    |
| 65                | 8070   | 5932    |
| 60                | 9442   | 7767    |
| 55                | 11409  | 10292   |
| 50                | 14007  | 13517   |
| 45                | 17047  | 16742   |

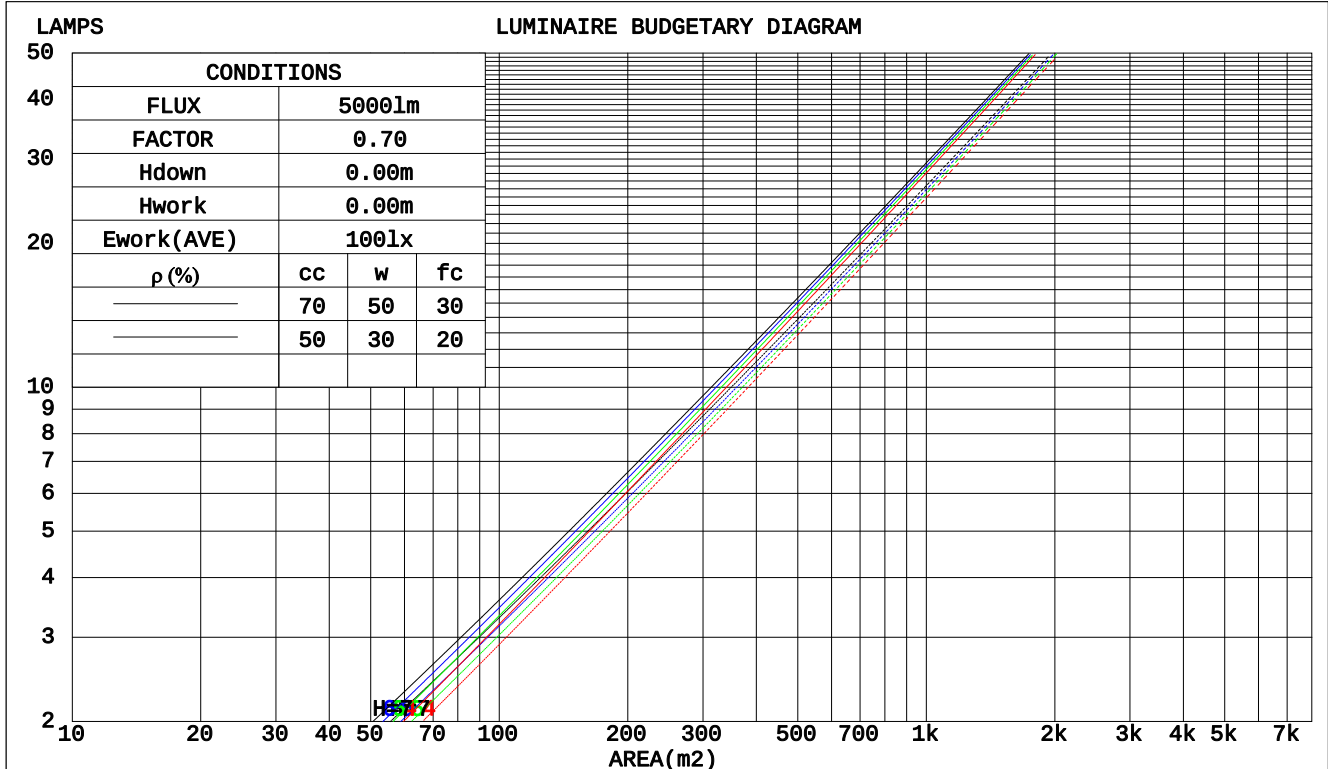
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:LGL  
 Test Date:2021-08-09

γ Range: 0 - 180DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.0.401  
 Humidity:65.0%  
 Test Distance:5.190m [K=1.0000]  
 Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|                          |                    |                  |
|--------------------------|--------------------|------------------|
| NAME: VM060-VF62RA05-15W | TYPE:indoor lights | WEIGHT:1         |
| SPEC.:3000K-CRI90-38D    | DIM.:              | SERIAL No.:      |
| MFR.:                    | SUR.:              | Shielding Angle: |

| $\rho_{CC}$ | 80%                   |      |      | 70%                             |      |      | 50%  |      |      | 30%  |      |      | 10% |     |     | 0   |
|-------------|-----------------------|------|------|---------------------------------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|
| $\rho_W$    | 50%                   | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50% | 30% | 10% | 0   |
| $\rho_{fc}$ | 20%                   |      |      | 20%                             |      |      | 20%  |      |      | 20%  |      |      | 20% |     |     | 0   |
| RCR         | RCR:Room Cavity Ratio |      |      | 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         | 1.12                  | 1.10 | 1.08 | 1.10                            | 1.08 | 1.06 | 1.05 | 1.04 | 1.02 | 1.01 | .00  | .99  | .97 | .96 | .96 | .94 |
| 2.0         | 1.06                  | 1.03 | 1.00 | 1.04                            | 1.02 | .99  | 1.01 | .99  | .97  | .98  | .96  | .94  | .95 | .93 | .92 | .90 |
| 3.0         | 1.01                  | .98  | .95  | .00                             | .96  | .94  | .97  | .94  | .92  | .94  | .92  | .90  | .92 | .90 | .89 | .87 |
| 4.0         | .97                   | .93  | .90  | .96                             | .92  | .89  | .93  | .90  | .88  | .91  | .89  | .87  | .89 | .87 | .85 | .84 |
| 5.0         | .93                   | .89  | .86  | .92                             | .88  | .85  | .90  | .87  | .84  | .88  | .86  | .83  | .87 | .84 | .82 | .81 |
| 6.0         | .90                   | .85  | .82  | .89                             | .85  | .82  | .87  | .84  | .81  | .86  | .83  | .80  | .84 | .82 | .80 | .78 |
| 7.0         | .86                   | .82  | .79  | .86                             | .82  | .79  | .84  | .81  | .78  | .83  | .80  | .78  | .82 | .79 | .77 | .76 |
| 8.0         | .83                   | .79  | .76  | .83                             | .79  | .76  | .82  | .78  | .75  | .81  | .77  | .75  | .80 | .77 | .75 | .74 |
| 9.0         | .81                   | .76  | .74  | .80                             | .76  | .73  | .79  | .76  | .73  | .78  | .75  | .73  | .77 | .74 | .72 | .71 |
| 10.0        | .78                   | .74  | .71  | .78                             | .74  | .71  | .77  | .73  | .71  | .76  | .73  | .70  | .75 | .72 | .70 | .69 |



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:LGL  
 Test Date:2021-08-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.0.401  
 Humidity:65.0%  
 Test Distance:5.190m [K=1.0000]  
 Remarks:

# WEC AND CCEC

|                          |                    |                  |
|--------------------------|--------------------|------------------|
| NAME: VM060-VF62RA05-15W | TYPE:indoor lights | WEIGHT:1         |
| SPEC.:3000K-CRI90-38D    | DIM.:              | SERIAL No.:      |
| MFR.:                    | SUR.:              | Shielding Angle: |

| ρcc  | 80%                   |      |      | 70%  |      |      | 50%                            |      |      | 30%  |      |      | 10%  |      |      | 0 |  |
|------|-----------------------|------|------|------|------|------|--------------------------------|------|------|------|------|------|------|------|------|---|--|
| ρw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                            | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |  |
| ρfc  | 20%                   |      |      | 20%  |      |      | 20%                            |      |      | 20%  |      |      | 20%  |      |      | 0 |  |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Wall Exitance Coeffcients(WEC) |      |      |      |      |      |      |      |      |   |  |
| 0.0  |                       |      |      |      |      |      |                                |      |      |      |      |      |      |      |      |   |  |
| 1.0  | .145                  | .082 | .026 | .137 | .078 | .025 | .123                           | .071 | .023 | .111 | .064 | .021 | .099 | .057 | .019 |   |  |
| 2.0  | .134                  | .074 | .023 | .128 | .071 | .022 | .116                           | .065 | .020 | .106 | .059 | .019 | .096 | .054 | .017 |   |  |
| 3.0  | .125                  | .067 | .020 | .120 | .064 | .019 | .110                           | .060 | .018 | .101 | .055 | .017 | .093 | .051 | .016 |   |  |
| 4.0  | .117                  | .061 | .018 | .113 | .059 | .017 | .105                           | .055 | .017 | .097 | .052 | .016 | .090 | .049 | .015 |   |  |
| 5.0  | .111                  | .056 | .016 | .107 | .055 | .016 | .100                           | .052 | .015 | .093 | .049 | .015 | .087 | .046 | .014 |   |  |
| 6.0  | .105                  | .053 | .015 | .102 | .051 | .015 | .095                           | .049 | .014 | .089 | .046 | .014 | .084 | .044 | .013 |   |  |
| 7.0  | .100                  | .049 | .014 | .097 | .048 | .014 | .091                           | .046 | .013 | .086 | .044 | .013 | .081 | .042 | .012 |   |  |
| 8.0  | .095                  | .047 | .013 | .093 | .046 | .013 | .088                           | .044 | .012 | .083 | .042 | .012 | .078 | .040 | .012 |   |  |
| 9.0  | .091                  | .044 | .012 | .089 | .043 | .012 | .084                           | .042 | .012 | .080 | .040 | .011 | .076 | .039 | .011 |   |  |
| 10.0 | .087                  | .042 | .012 | .085 | .041 | .011 | .081                           | .040 | .011 | .077 | .038 | .011 | .074 | .037 | .011 |   |  |

| $\rho_{cc}$ | 80%                   |      |      | 70%  |      |      | 50%                                        |      |      | 30%  |      |      | 10%  |      |      | 0 |
|-------------|-----------------------|------|------|------|------|------|--------------------------------------------|------|------|------|------|------|------|------|------|---|
| $\rho_w$    | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                                        | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| $\rho_{fc}$ | 20%                   |      |      | 20%  |      |      | 20%                                        |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR         | RCR:Room Cavity Ratio |      |      |      |      |      | Ceiling Cavity Exitance Coefficients(CCEC) |      |      |      |      |      |      |      |      |   |
| 0.0         | .209                  | .209 | .209 | .179 | .179 | .179 | .122                                       | .122 | .122 | .070 | .070 | .070 | .022 | .022 | .022 |   |
| 1.0         | .188                  | .176 | .166 | .161 | .151 | .143 | .110                                       | .104 | .099 | .063 | .060 | .058 | .020 | .019 | .019 |   |
| 2.0         | .170                  | .152 | .136 | .146 | .130 | .118 | .100                                       | .090 | .082 | .058 | .053 | .048 | .018 | .017 | .016 |   |
| 3.0         | .156                  | .132 | .114 | .133 | .114 | .099 | .092                                       | .079 | .069 | .053 | .046 | .041 | .017 | .015 | .013 |   |
| 4.0         | .143                  | .117 | .097 | .123 | .101 | .084 | .085                                       | .071 | .059 | .049 | .041 | .035 | .016 | .013 | .012 |   |
| 5.0         | .133                  | .105 | .084 | .114 | .091 | .073 | .079                                       | .063 | .052 | .046 | .037 | .031 | .015 | .012 | .010 |   |
| 6.0         | .125                  | .095 | .074 | .107 | .082 | .064 | .074                                       | .058 | .046 | .043 | .034 | .027 | .014 | .011 | .009 |   |
| 7.0         | .117                  | .087 | .066 | .101 | .075 | .057 | .070                                       | .053 | .041 | .040 | .031 | .024 | .013 | .010 | .008 |   |
| 8.0         | .111                  | .080 | .060 | .095 | .070 | .052 | .066                                       | .049 | .037 | .038 | .029 | .022 | .012 | .009 | .007 |   |
| 9.0         | .105                  | .075 | .054 | .091 | .065 | .047 | .063                                       | .046 | .034 | .037 | .027 | .020 | .012 | .009 | .007 |   |
| 10.0        | .101                  | .070 | .050 | .087 | .061 | .044 | .060                                       | .043 | .031 | .035 | .025 | .019 | .011 | .008 | .006 |   |

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:28DEG  
Operators:LGL  
Test Date:2021-08-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.0.401  
Humidity:65.0%  
Test Distance:5.190m [K=1.0000]  
Remarks:

### UGR(Unified Glare Rating) Table

|                                                    |     |     |     |     |     |                    |      |      |                  |      |      |
|----------------------------------------------------|-----|-----|-----|-----|-----|--------------------|------|------|------------------|------|------|
| NAME: VM060-VF62RA05-15W                           |     |     |     |     |     | TYPE:indoor lights |      |      | WEIGHT:1         |      |      |
| SPEC.:3000K-CRI90-38D                              |     |     |     |     |     | 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                                      |     |     |     |     |     | 11.1               | 11.7 | 11.3 | 11.9             | 12.1 | 12.3 |
| 3H                                                 |     |     |     |     |     | 11.6               | 12.2 | 11.8 | 12.4             | 12.7 | 12.4 |
| 4H                                                 |     |     |     |     |     | 11.8               | 12.4 | 12.1 | 12.6             | 12.9 | 12.4 |
| 6H                                                 |     |     |     |     |     | 12.0               | 12.5 | 12.3 | 12.8             | 13.1 | 12.4 |
| 8H                                                 |     |     |     |     |     | 12.1               | 12.6 | 12.4 | 12.9             | 13.2 | 12.3 |
| 12H                                                |     |     |     |     |     | 12.1               | 12.6 | 12.4 | 12.9             | 13.2 | 12.3 |
| 4H 2H                                              |     |     |     |     |     | 11.2               | 11.8 | 11.5 | 12.0             | 12.3 | 12.3 |
| 3H                                                 |     |     |     |     |     | 11.8               | 12.3 | 12.1 | 12.6             | 12.9 | 12.4 |
| 4H                                                 |     |     |     |     |     | 12.0               | 12.5 | 12.4 | 12.9             | 13.2 | 12.5 |
| 6H                                                 |     |     |     |     |     | 12.3               | 12.7 | 12.7 | 13.1             | 13.5 | 12.5 |
| 8H                                                 |     |     |     |     |     | 12.4               | 12.8 | 12.9 | 13.2             | 13.6 | 12.4 |
| 12H                                                |     |     |     |     |     | 12.5               | 12.8 | 12.9 | 13.2             | 13.7 | 12.4 |
| 8H 4H                                              |     |     |     |     |     | 12.0               | 12.4 | 12.4 | 12.8             | 13.2 | 12.4 |
| 6H                                                 |     |     |     |     |     | 12.3               | 12.7 | 12.8 | 13.1             | 13.6 | 12.4 |
| 8H                                                 |     |     |     |     |     | 12.5               | 12.8 | 13.0 | 13.2             | 13.7 | 12.4 |
| 12H                                                |     |     |     |     |     | 12.6               | 12.8 | 13.1 | 13.3             | 13.8 | 12.4 |
| 12H 4H                                             |     |     |     |     |     | 12.0               | 12.3 | 12.4 | 12.7             | 13.2 | 12.4 |
| 6H                                                 |     |     |     |     |     | 12.3               | 12.6 | 12.8 | 13.0             | 13.5 | 12.4 |
| 8H                                                 |     |     |     |     |     | 12.5               | 12.7 | 13.0 | 13.2             | 13.7 | 12.4 |
| Variations with the observer position at spacings: |     |     |     |     |     |                    |      |      |                  |      |      |
| S = 1.0H                                           |     |     |     |     |     | + 0.6 / - 0.7      |      |      | + 1.9 / - 1.8    |      |      |
| 1.5H                                               |     |     |     |     |     | + 0.6 / - 0.6      |      |      | + 3.0 / - 1.2    |      |      |
| 2.0H                                               |     |     |     |     |     | + 1.4 / - 1.2      |      |      | + 1.8 / - 1.6    |      |      |

CIE Pub.117, 873.6 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.5)

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:28DEG  
Operators:LGL  
Test Date:2021-08-09

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.0.401  
Humidity:65.0%  
Test Distance:5.190m [K=1.0000]  
Remarks:

# UTILIZATION FACTORS TABLE

|                          |                    |                  |
|--------------------------|--------------------|------------------|
| NAME: VM060-VF62RA05-15W | TYPE:indoor lights | WEIGHT:1         |
| SPEC.:3000K-CRI90-38D    | DIM.:              | SERIAL No.:      |
| MFR.:                    | SUR.:              | Shielding Angle: |

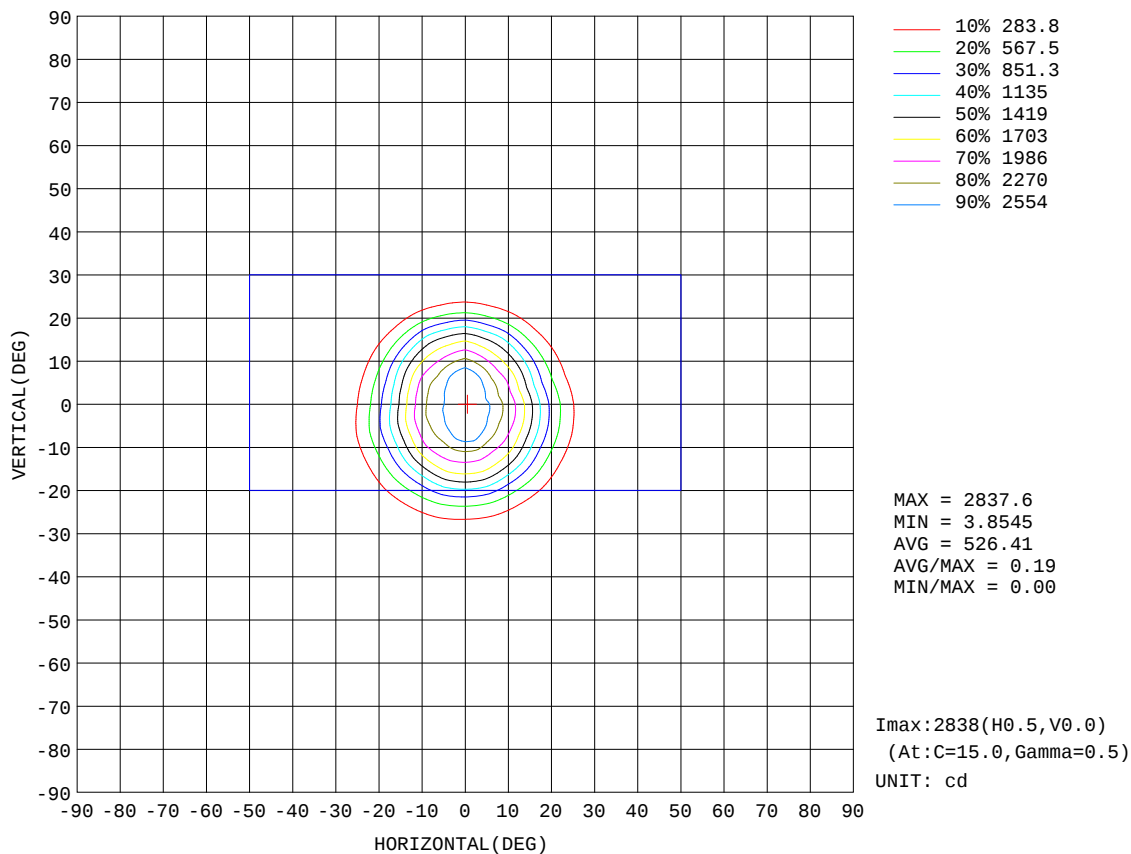
| REFLECTANCE                      |                                                 |     |     |     |     |     |     |     |     |        |
|----------------------------------|-------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|--------|
| Ceiling                          | 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                         | 89                                              | 83  | 80  | 89  | 83  | 80  | 88  | 83  | 79  | 76     |
| 0.80                             | 96                                              | 91  | 87  | 95  | 90  | 87  | 94  | 90  | 87  | 83     |
| 1.00                             | 100                                             | 95  | 91  | 99  | 94  | 91  | 97  | 94  | 90  | 86     |
| 1.25                             | 104                                             | 99  | 96  | 103 | 98  | 95  | 100 | 97  | 94  | 90     |
| 1.50                             | 106                                             | 102 | 99  | 105 | 101 | 98  | 102 | 99  | 97  | 92     |
| 2.00                             | 109                                             | 105 | 102 | 107 | 103 | 101 | 104 | 101 | 99  | 93     |
| 2.50                             | 110                                             | 107 | 104 | 108 | 105 | 103 | 105 | 102 | 100 | 94     |
| 3.00                             | 112                                             | 108 | 106 | 110 | 107 | 104 | 106 | 104 | 102 | 95     |
| 4.00                             | 114                                             | 111 | 109 | 111 | 109 | 107 | 107 | 106 | 104 | 96     |
| 5.00                             | 115                                             | 113 | 111 | 112 | 111 | 109 | 108 | 107 | 106 | 97     |
| ROOM INDEX                       | UF(total)                                       |     |     |     |     |     |     |     |     | Direct |
| According to DIN EN 13032-2 2004 |                                                 |     |     |     |     |     |     |     |     |        |
| Suspended                        |                                                 |     |     |     |     |     |     |     |     |        |
| SHRNM = 1.25                     |                                                 |     |     |     |     |     |     |     |     |        |

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:28DEG  
Operators:LGL  
Test Date:2021-08-09

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.0.401  
Humidity:65.0%  
Test Distance:5.190m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

|                          |                     |                  |
|--------------------------|---------------------|------------------|
| NAME: VM060-VF62RA05-15W | TYPE: indoor lights | WEIGHT: 1        |
| SPEC.: 3000K-CRI90-38D   | DIM.:               | SERIAL No.:      |
| MFR.:                    | SUR.:               | Shielding Angle: |

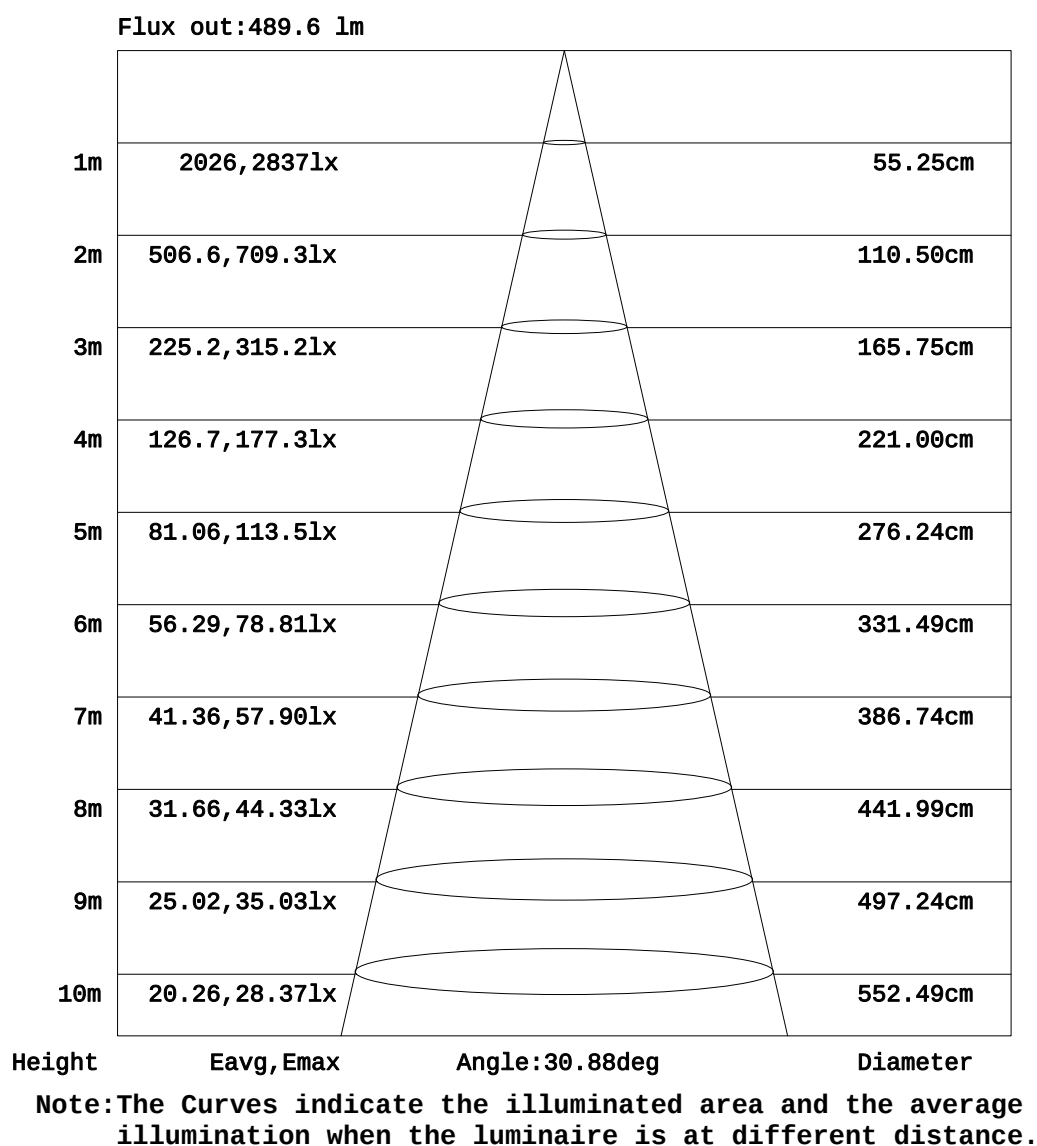


C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature: 28DEG  
 Operators: LGL  
 Test Date: 2021-08-09

γ Range: 0 - 180DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.0.401  
 Humidity: 65.0%  
 Test Distance: 5.190m [K=1.0000]  
 Remarks:

## AAI Figure

|                          |                    |                  |
|--------------------------|--------------------|------------------|
| NAME: VM060-VF62RA05-15W | TYPE:indoor lights | WEIGHT:1         |
| SPEC.:3000K-CRI90-38D    | DIM.:              | SERIAL No.:      |
| MFR.:                    | SUR.:              | Shielding Angle: |

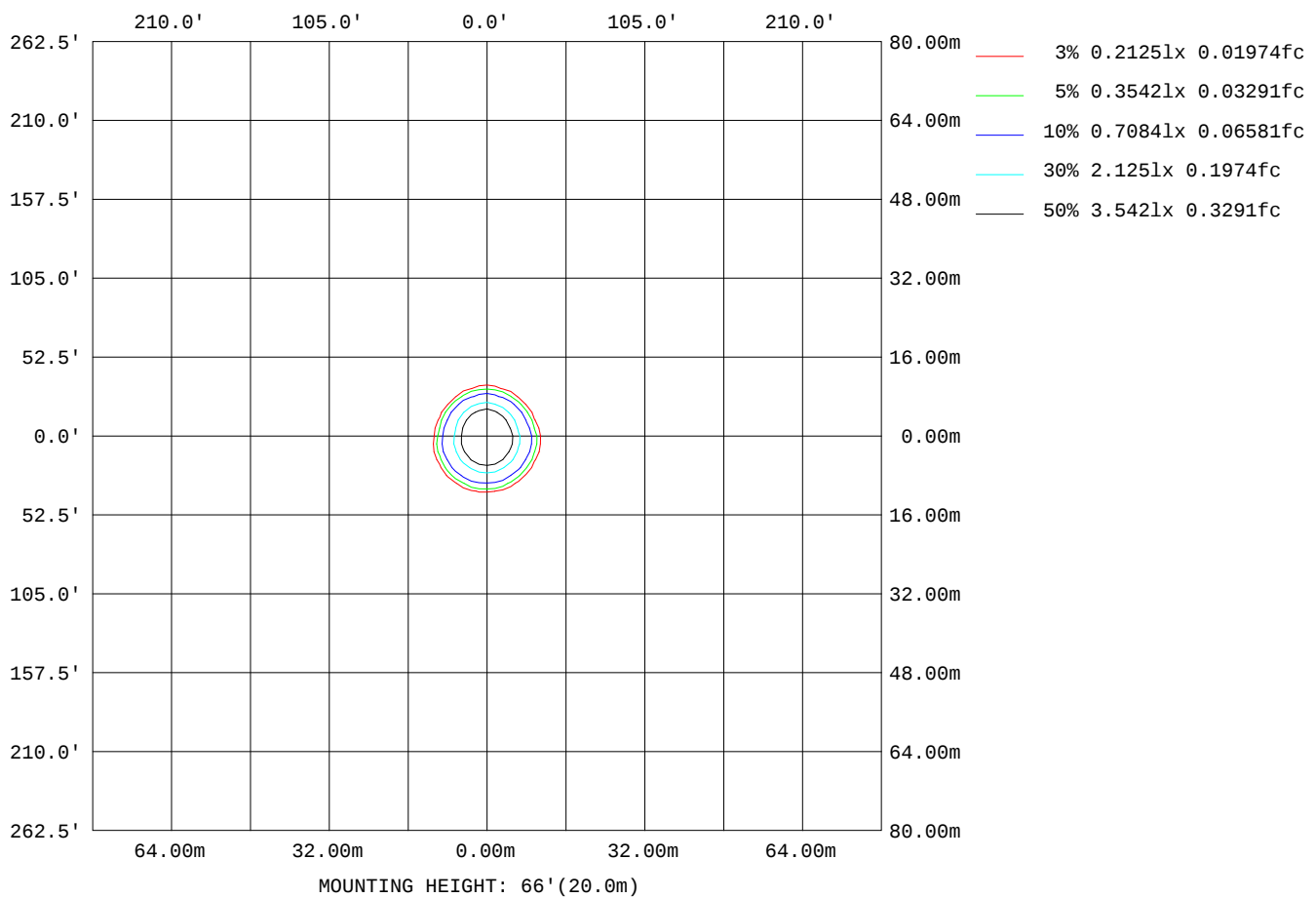


C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:LGL  
 Test Date:2021-08-09

γ Range: 0 - 180DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.0.401  
 Humidity:65.0%  
 Test Distance:5.190m [K=1.0000]  
 Remarks:

## ISOLUX DIAGRAM

|                          |                     |                  |
|--------------------------|---------------------|------------------|
| NAME: VM060-VF62RA05-15W | TYPE: indoor lights | WEIGHT: 1        |
| SPEC.: 3000K-CRI90-38D   | DIM.:               | SERIAL No.:      |
| MFR.:                    | SUR.:               | Shielding Angle: |



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature: 28DEG  
Operators: LGL  
Test Date: 2021-08-09

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.0.401  
Humidity: 65.0%  
Test Distance: 5.190m [K=1.0000]  
Remarks:

## LED Avg.L Report

|                          |                    |                  |
|--------------------------|--------------------|------------------|
| NAME: VM060-VF62RA05-15W | TYPE:indoor lights | WEIGHT:1         |
| SPEC.:3000K-CRI90-38D    | DIM.:              | SERIAL No.:      |
| MFR.:                    | SUR.:              | Shielding Angle: |

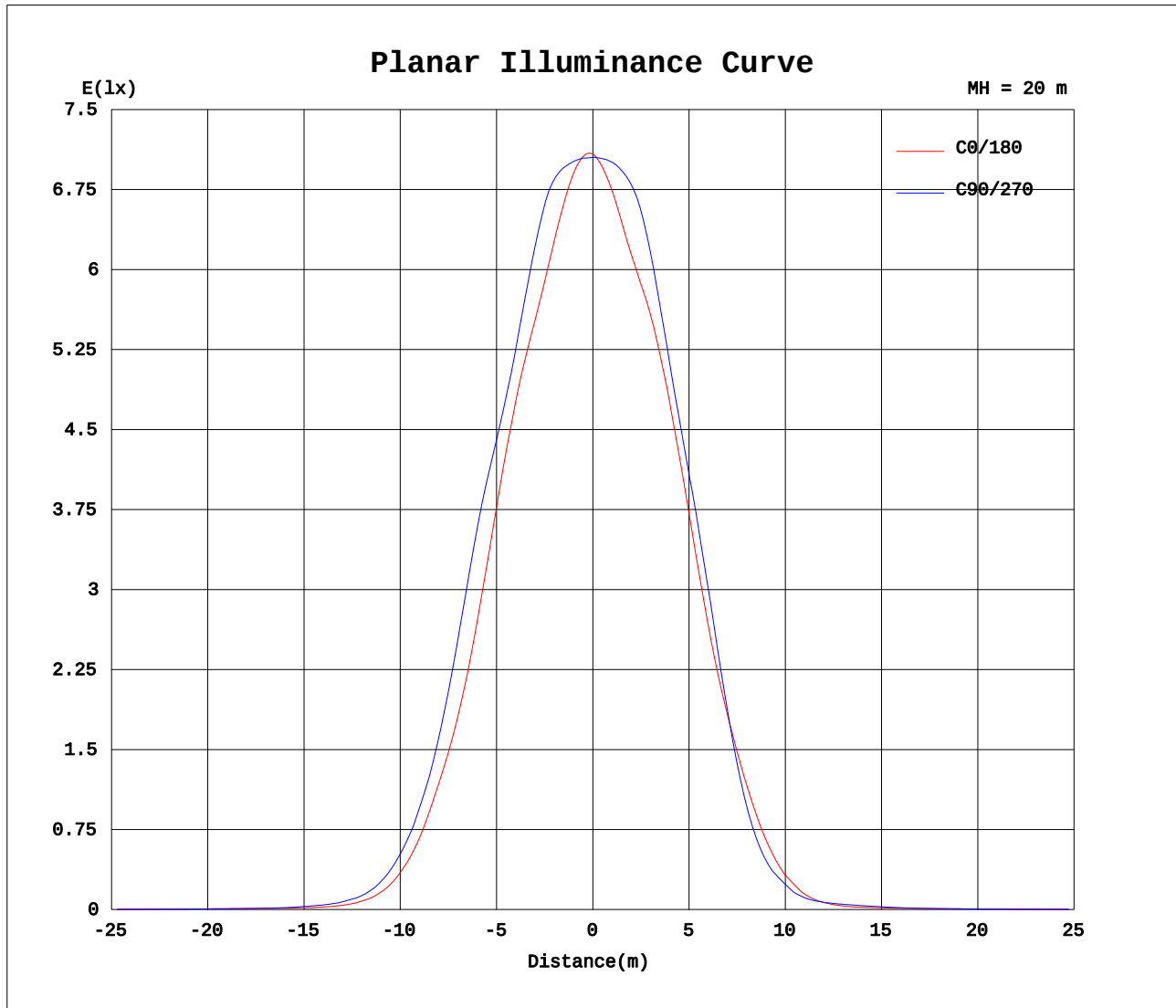
| AvgL           | cd/m2 |
|----------------|-------|
| L_0~180(65)av  | 7304  |
| L_0~180(75)av  | 5695  |
| L_0~180(85)av  | 3890  |
| L_90~270(65)av | 6913  |
| L_90~270(75)av | 4651  |
| L_90~270(85)av | 4167  |
| L_45(65)av     | 6862  |
| L_45(75)av     | 4908  |
| L_45(85)av     | 4232  |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:LGL  
 Test Date:2021-08-09

γ Range: 0 - 180DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE G0-2000B\_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: 2021-08-09

γ Range: 0 - 180DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE G0-2000B\_V1 SYSTEM V2.0.401  
 Humidity: 65.0%  
 Test Distance: 5.190m [K=1.0000]  
 Remarks:

# LUMINOUS DISTRIBUTION INTENSITY DATA

|                          |                    |                  |
|--------------------------|--------------------|------------------|
| NAME: VM060-VF62RA05-15W | TYPE:indoor lights | WEIGHT:1         |
| SPEC.:3000K-CRI90-38D    | 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                  | 2822 | 2822 | 2822 | 2822 | 2822 | 2822 | 2822 | 2822 | 2822 | 2822 | 2822 | 2822 | 2822 | 2822 | 2822 | 2822 | 2822 | 2822 | 2822 |
| 5                  | 2601 | 2624 | 2633 | 2693 | 2736 | 2789 | 2798 | 2771 | 2708 | 2666 | 2609 | 2592 | 2535 | 2543 | 2586 | 2628 | 2699 | 2750 | 2782 |
| 10                 | 2150 | 2173 | 2169 | 2225 | 2283 | 2396 | 2399 | 2371 | 2282 | 2267 | 2238 | 2232 | 2159 | 2167 | 2198 | 2175 | 2220 | 2284 | 2356 |
| 15                 | 1496 | 1558 | 1598 | 1708 | 1756 | 1822 | 1834 | 1845 | 1799 | 1756 | 1648 | 1607 | 1470 | 1469 | 1531 | 1567 | 1602 | 1601 | 1655 |
| 20                 | 778  | 831  | 857  | 948  | 994  | 1086 | 1091 | 1105 | 1033 | 1003 | 922  | 900  | 783  | 740  | 754  | 768  | 804  | 749  | 761  |
| 25                 | 293  | 329  | 337  | 375  | 380  | 417  | 420  | 447  | 432  | 434  | 392  | 375  | 282  | 246  | 233  | 212  | 211  | 193  | 196  |
| 30                 | 66.7 | 75.5 | 77.7 | 89.1 | 94.2 | 108  | 111  | 125  | 115  | 120  | 95.8 | 85.7 | 57.9 | 51.2 | 49.6 | 49.8 | 52.0 | 53.3 | 51.3 |
| 35                 | 18.1 | 19.9 | 21.9 | 26.4 | 29.7 | 33.1 | 32.9 | 33.3 | 30.6 | 27.4 | 21.8 | 19.0 | 16.1 | 16.1 | 18.8 | 22.4 | 26.2 | 27.2 | 27.4 |
| 40                 | 11.4 | 11.3 | 11.2 | 11.7 | 12.3 | 13.2 | 13.3 | 13.4 | 12.8 | 12.4 | 11.5 | 11.2 | 10.9 | 10.5 | 10.5 | 11.0 | 12.5 | 12.5 | 12.6 |
| 45                 | 8.93 | 8.74 | 8.38 | 8.45 | 8.56 | 8.78 | 8.81 | 8.94 | 8.80 | 8.70 | 8.38 | 8.36 | 8.14 | 7.92 | 7.78 | 7.70 | 7.97 | 8.06 | 8.16 |
| 50                 | 6.67 | 6.53 | 6.27 | 6.35 | 6.39 | 6.51 | 6.46 | 6.53 | 6.36 | 6.22 | 5.91 | 5.88 | 5.76 | 5.70 | 5.76 | 5.83 | 6.00 | 6.14 | 6.27 |
| 55                 | 4.85 | 4.67 | 4.44 | 4.43 | 4.43 | 4.47 | 4.39 | 4.42 | 4.29 | 4.21 | 4.06 | 4.12 | 4.12 | 4.11 | 4.18 | 4.27 | 4.45 | 4.58 | 4.72 |
| 60                 | 3.50 | 3.34 | 3.09 | 3.06 | 2.96 | 2.98 | 2.89 | 2.93 | 2.83 | 2.84 | 2.78 | 2.89 | 2.95 | 2.96 | 3.04 | 3.09 | 3.26 | 3.33 | 3.46 |
| 65                 | 2.53 | 2.37 | 2.14 | 2.06 | 1.96 | 1.94 | 1.86 | 1.89 | 1.85 | 1.89 | 1.89 | 2.00 | 2.06 | 2.10 | 2.17 | 2.22 | 2.35 | 2.40 | 2.48 |
| 70                 | 1.81 | 1.64 | 1.45 | 1.35 | 1.25 | 1.21 | 1.16 | 1.16 | 1.17 | 1.21 | 1.25 | 1.36 | 1.42 | 1.46 | 1.51 | 1.55 | 1.62 | 1.65 | 1.71 |
| 75                 | 1.26 | 1.10 | 0.94 | 0.83 | 0.74 | 0.69 | 0.66 | 0.67 | 0.69 | 0.73 | 0.79 | 0.87 | 0.93 | 0.97 | 1.00 | 1.03 | 1.06 | 1.09 | 1.13 |
| 80                 | 0.82 | 0.69 | 0.55 | 0.44 | 0.39 | 0.33 | 0.31 | 0.32 | 0.36 | 0.38 | 0.45 | 0.51 | 0.55 | 0.58 | 0.61 | 0.63 | 0.64 | 0.66 | 0.68 |
| 85                 | 0.27 | 0.30 | 0.28 | 0.23 | 0.22 | 0.19 | 0.18 | 0.20 | 0.21 | 0.21 | 0.26 | 0.27 | 0.24 | 0.28 | 0.29 | 0.31 | 0.31 | 0.33 | 0.36 |
| 90                 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.18 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.18 | 0.17 | 0.18 | 0.17 | 0.17 | 0.17 | 0.18 |
| 95                 | 0.19 | 0.21 | 0.19 | 0.20 | 0.19 | 0.21 | 0.19 | 0.21 | 0.19 | 0.21 | 0.19 | 0.21 | 0.20 | 0.18 | 0.20 | 0.18 | 0.19 | 0.18 | 0.19 |
| 100                | 0.20 | 0.22 | 0.20 | 0.22 | 0.20 | 0.22 | 0.20 | 0.22 | 0.21 | 0.22 | 0.20 | 0.22 | 0.22 | 0.20 | 0.21 | 0.20 | 0.21 | 0.20 | 0.22 |
| 105                | 0.21 | 0.22 | 0.21 | 0.23 | 0.21 | 0.23 | 0.21 | 0.23 | 0.21 | 0.23 | 0.21 | 0.23 | 0.24 | 0.21 | 0.23 | 0.21 | 0.23 | 0.21 | 0.23 |
| 110                | 0.22 | 0.24 | 0.22 | 0.24 | 0.23 | 0.25 | 0.23 | 0.25 | 0.24 | 0.25 | 0.23 | 0.24 | 0.26 | 0.23 | 0.25 | 0.24 | 0.26 | 0.24 | 0.27 |
| 115                | 0.29 | 0.30 | 0.28 | 0.30 | 0.28 | 0.31 | 0.29 | 0.31 | 0.28 | 0.30 | 0.28 | 0.30 | 0.34 | 0.33 | 0.36 | 0.35 | 0.38 | 0.38 | 0.40 |
| 120                | 0.58 | 0.56 | 0.55 | 0.54 | 0.54 | 0.53 | 0.53 | 0.52 | 0.51 | 0.51 | 0.51 | 0.53 | 0.64 | 0.67 | 0.69 | 0.74 | 0.77 | 0.81 | 0.82 |
| 125                | 1.28 | 1.21 | 1.24 | 1.20 | 1.25 | 1.20 | 1.23 | 1.16 | 1.17 | 1.11 | 1.14 | 1.12 | 1.34 | 1.44 | 1.47 | 1.59 | 1.62 | 1.73 | 1.72 |
| 130                | 2.53 | 2.47 | 2.48 | 2.45 | 2.50 | 2.46 | 2.47 | 2.39 | 2.37 | 2.29 | 2.31 | 2.30 | 2.63 | 2.73 | 2.80 | 2.94 | 3.02 | 3.14 | 3.16 |
| 135                | 4.35 | 4.24 | 4.28 | 4.23 | 4.29 | 4.21 | 4.24 | 4.13 | 4.11 | 4.01 | 4.05 | 4.03 | 4.45 | 4.60 | 4.67 | 4.83 | 4.90 | 5.02 | 5.05 |
| 140                | 6.60 | 6.47 | 6.48 | 6.39 | 6.42 | 6.32 | 6.34 | 6.22 | 6.22 | 6.14 | 6.23 | 6.24 | 6.73 | 6.89 | 6.91 | 7.04 | 7.07 | 7.19 | 7.21 |
| 145                | 9.01 | 8.86 | 8.81 | 8.68 | 8.67 | 8.56 | 8.56 | 8.45 | 8.50 | 8.46 | 8.57 | 8.63 | 9.13 | 9.26 | 9.26 | 9.34 | 9.34 | 9.45 | 9.48 |
| 150                | 11.1 | 11.0 | 10.9 | 10.8 | 10.7 | 10.7 | 10.7 | 10.6 | 10.6 | 10.6 | 10.8 | 10.8 | 11.3 | 11.4 | 11.4 | 11.4 | 11.4 | 11.5 | 11.5 |
| 155                | 12.5 | 12.4 | 12.3 | 12.2 | 12.2 | 12.2 | 12.2 | 12.2 | 12.2 | 12.3 | 12.4 | 12.4 | 12.7 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 |
| 160                | 12.7 | 12.7 | 12.6 | 12.7 | 12.7 | 12.7 | 12.7 | 12.8 | 12.9 | 13.0 | 12.9 | 12.9 | 13.0 | 13.1 | 13.0 | 13.1 | 13.1 | 13.0 | 13.0 |
| 165                | 12.0 | 12.0 | 11.9 | 12.0 | 12.1 | 12.2 | 12.3 | 12.4 | 12.4 | 12.4 | 12.4 | 12.5 | 12.4 | 12.4 | 12.4 | 12.3 | 12.2 | 12.2 | 12.1 |
| 170                | 10.7 | 10.7 | 10.6 | 10.6 | 10.6 | 10.7 | 10.9 | 11.0 | 11.0 | 11.1 | 11.2 | 11.2 | 11.1 | 11.1 | 11.1 | 10.9 | 10.8 | 10.7 | 10.6 |
| 175                | 9.61 | 9.58 | 9.57 | 9.68 | 9.73 | 9.67 | 9.69 | 9.79 | 9.90 | 10.1 | 10.1 | 9.98 | 9.94 | 10.0 | 10.1 | 10.1 | 9.94 | 9.80 | 9.68 |
| 180                | 9.59 | 9.57 | 9.61 | 9.74 | 9.61 | 9.55 | 9.59 | 9.54 | 9.57 | 9.72 | 9.57 | 9.46 | 9.60 | 9.58 | 9.62 | 9.75 | 9.62 | 9.55 | 9.59 |

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:28DEG  
Operators:LGL  
Test Date:2021-08-09

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.0.401  
Humidity:65.0%  
Test Distance:5.190m [K=1.0000]  
Remarks:

# LUMINOUS DISTRIBUTION INTENSITY DATA

|                          |                    |                  |
|--------------------------|--------------------|------------------|
| NAME: VM060-VF62RA05-15W | TYPE:indoor lights | WEIGHT:1         |
| SPEC.:3000K-CRI90-38D    | DIM.:              | SERIAL No.:      |
| MFR.:                    | SUR.:              | Shielding Angle: |

Table--2

UNIT: cd

| C (DEG)<br>γ (DEG) | 285  | 300  | 315  | 330  | 345  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------|------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 0                  | 2822 | 2822 | 2822 | 2822 | 2822 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5                  | 2754 | 2706 | 2633 | 2592 | 2548 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10                 | 2254 | 2168 | 2089 | 2101 | 2086 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15                 | 1551 | 1504 | 1462 | 1426 | 1379 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20                 | 702  | 718  | 672  | 670  | 666  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 25                 | 185  | 195  | 191  | 209  | 220  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30                 | 49.3 | 49.9 | 47.3 | 49.6 | 50.9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 35                 | 26.3 | 25.5 | 22.4 | 19.8 | 16.8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40                 | 12.0 | 11.9 | 10.9 | 10.8 | 10.9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 45                 | 7.98 | 7.94 | 7.81 | 8.13 | 8.55 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 50                 | 6.18 | 6.13 | 6.09 | 6.24 | 6.41 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 55                 | 4.66 | 4.64 | 4.57 | 4.63 | 4.71 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60                 | 3.43 | 3.43 | 3.36 | 3.41 | 3.43 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 65                 | 2.47 | 2.51 | 2.45 | 2.48 | 2.50 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 70                 | 1.71 | 1.76 | 1.74 | 1.77 | 1.79 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 75                 | 1.14 | 1.17 | 1.18 | 1.21 | 1.24 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 80                 | 0.70 | 0.71 | 0.73 | 0.76 | 0.79 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 85                 | 0.35 | 0.34 | 0.35 | 0.34 | 0.33 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 90                 | 0.18 | 0.17 | 0.17 | 0.17 | 0.17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 95                 | 0.17 | 0.19 | 0.17 | 0.19 | 0.17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100                | 0.20 | 0.21 | 0.19 | 0.21 | 0.20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 105                | 0.21 | 0.23 | 0.21 | 0.22 | 0.21 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 110                | 0.25 | 0.26 | 0.24 | 0.25 | 0.23 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 115                | 0.39 | 0.40 | 0.38 | 0.37 | 0.34 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 120                | 0.84 | 0.81 | 0.80 | 0.75 | 0.72 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 125                | 1.78 | 1.70 | 1.69 | 1.56 | 1.53 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 130                | 3.19 | 3.13 | 3.09 | 2.96 | 2.88 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 135                | 5.11 | 5.03 | 5.01 | 4.85 | 4.78 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 140                | 7.31 | 7.25 | 7.28 | 7.14 | 7.09 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 145                | 9.57 | 9.55 | 9.59 | 9.50 | 9.46 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 150                | 11.6 | 11.5 | 11.6 | 11.5 | 11.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 155                | 12.8 | 12.8 | 12.7 | 12.7 | 12.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 160                | 12.9 | 12.9 | 12.8 | 12.7 | 12.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 165                | 12.0 | 11.9 | 11.8 | 11.8 | 11.9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 170                | 10.5 | 10.4 | 10.3 | 10.3 | 10.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 175                | 9.64 | 9.68 | 9.64 | 9.40 | 9.39 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 180                | 9.53 | 9.58 | 9.71 | 9.57 | 9.44 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:28DEG  
Operators:LGL  
Test Date:2021-08-09

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE G0-2000B\_V1 SYSTEM V2.0.401  
Humidity:65.0%  
Test Distance:5.190m [K=1.0000]  
Remarks: