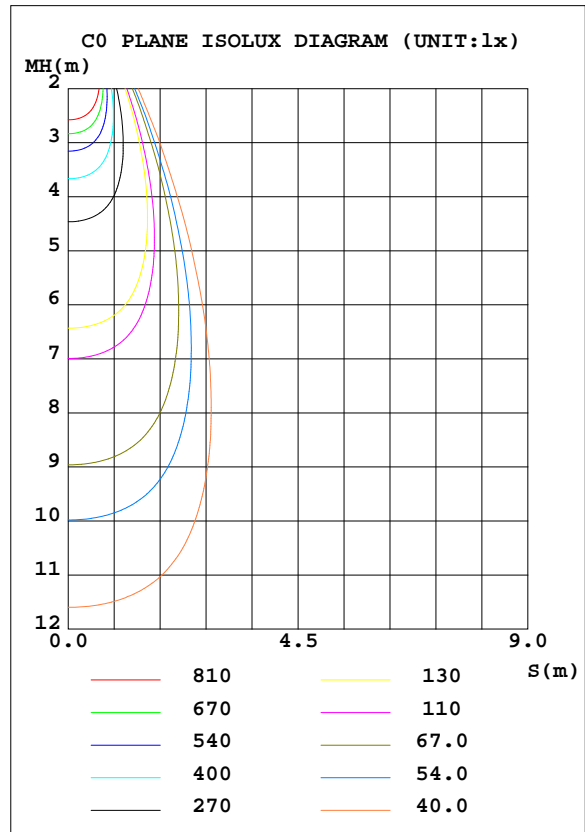
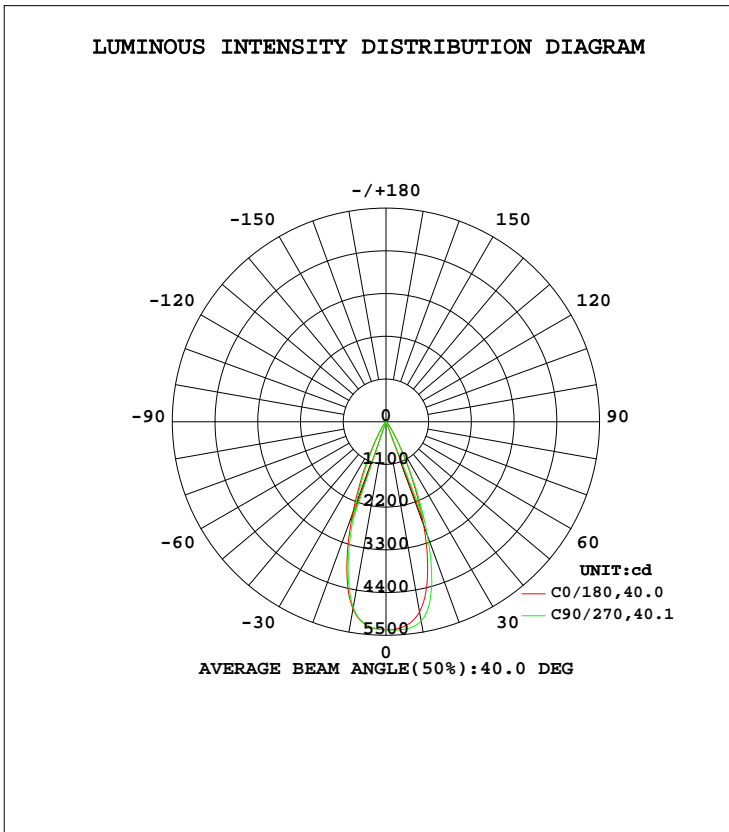


## LUMINAIRE PHOTOMETRIC TEST REPORT

|                              |       |                  |
|------------------------------|-------|------------------|
| NAME: VM090                  | TYPE: | WEIGHT:1         |
| SPEC.:BR 3000K 34W 90CRI 38D | DIM.: | SERIAL No.:      |
| MFR.:                        | SUR.: | Shielding Angle: |

| DATA OF LAMP     |         | PHOTOMETRIC DATA <span style="float: right;">Eff: 73.81 lm/W</span> |        |                    |          |
|------------------|---------|---|--------|--------------------|----------|
| MODEL            |         | I <sub>max</sub> (cd)   | 5368   | S/MH(C0/180)       | 0.60     |
| NOMINAL POWER(W) | 34      | LOR(%)  | 119.6  | S/MH(C90/270)      | 0.58     |
| RATED VOLTAGE(V) | 230     | TOTAL FLUX(lm)  | 2497.5 | η UP, DN(C0-180)   | 1.4,63.3 |
| NOMINAL FLUX(lm) | 2088.33 | CIE CLASS   | DIRECT | η UP, DN(C180-360) | 1.5,53.3 |
| LAMPS INSIDE     | 1       | η up(%)   | 2.9    | CIBSE SHR NOM      | 0.50     |
| TEST VOLTAGE(V)  | 230     | η down(%)   | 116.7  | CIBSE SHR MAX      | 0.65     |



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:HTJ  
 Test Date:2020-08-26

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:



ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

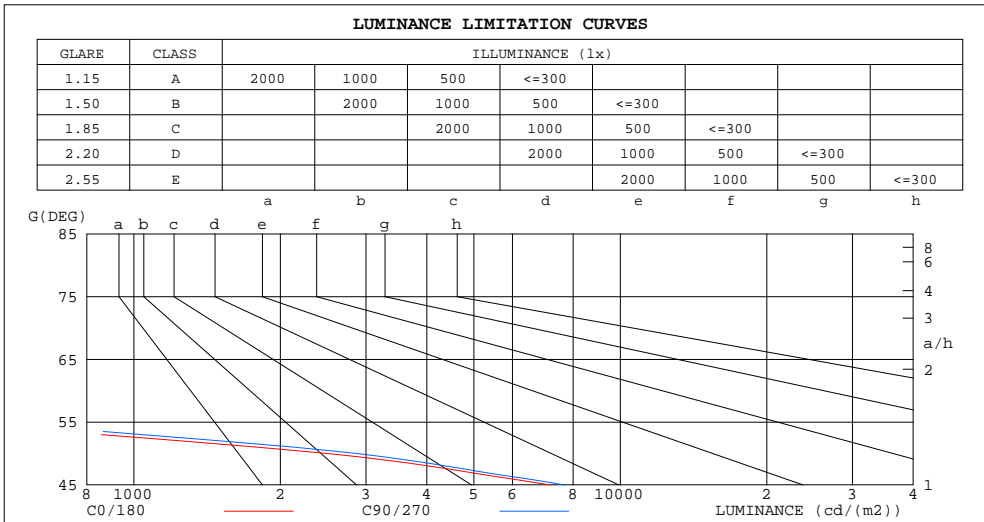
| γ   | C0                    | C45    | C90    | C135   | C180   | C225   | C270   | C315   | γ       | Φ zone  | Φ total | lum, lamp |
|-----|-----------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|-----------|
| 10  | 4971                  | 5163   | 5212   | 5078   | 4894   | 4827   | 4853   | 4902   | 0- 10   | 496.9   | 496.9   | 19.9,23.8 |
| 20  | 2839                  | 3147   | 3127   | 2829   | 2502   | 2293   | 2296   | 2516   | 10- 20  | 1096    | 1593    | 63.8,76.3 |
| 30  | 659.7                 | 743.1  | 671.7  | 567.9  | 483.2  | 433.4  | 415.4  | 510.7  | 20- 30  | 648.7   | 2242    | 89.8,107  |
| 40  | 112.3                 | 126.2  | 115.7  | 98.65  | 86.14  | 75.81  | 73.56  | 87.65  | 30- 40  | 154.4   | 2396    | 95.9,115  |
| 50  | 15.43                 | 19.47  | 17.82  | 13.76  | 9.256  | 6.844  | 7.001  | 9.233  | 40- 50  | 34.62   | 2431    | 97.3,116  |
| 60  | 2.311                 | 2.396  | 2.492  | 2.655  | 2.880  | 3.085  | 2.845  | 2.770  | 50- 60  | 4.122   | 2435    | 97.5,117  |
| 70  | 0.3758                | 0.3704 | 0.3736 | 0.3606 | 0.3214 | 0.3144 | 0.3206 | 0.3080 | 60- 70  | 1.004   | 2436    | 97.5,117  |
| 80  | 0.4051                | 0.3879 | 0.3933 | 0.3854 | 0.3589 | 0.3507 | 0.3582 | 0.3412 | 70- 80  | 0.3736  | 2436    | 97.5,117  |
| 90  | 0.4600                | 0.4542 | 0.4509 | 0.4497 | 0.4204 | 0.4124 | 0.4288 | 0.4032 | 80- 90  | 0.4376  | 2437    | 97.6,117  |
| 100 | 0.5303                | 0.5115 | 0.5060 | 0.5115 | 0.5307 | 0.5338 | 0.5438 | 0.5119 | 90-100  | 0.5121  | 2437    | 97.6,117  |
| 110 | 0.8269                | 0.7755 | 0.7663 | 0.8254 | 0.9718 | 1.024  | 0.9757 | 0.8782 | 100-110 | 0.6897  | 2438    | 97.6,117  |
| 120 | 2.620                 | 2.371  | 2.372  | 2.687  | 3.255  | 3.543  | 3.395  | 2.992  | 110-120 | 1.623   | 2439    | 97.7,117  |
| 130 | 8.469                 | 7.844  | 7.907  | 8.532  | 9.634  | 10.34  | 10.18  | 9.328  | 120-130 | 4.958   | 2444    | 97.9,117  |
| 140 | 18.14                 | 17.23  | 17.29  | 18.13  | 19.58  | 20.46  | 20.27  | 19.25  | 130-140 | 10.50   | 2455    | 98.3,118  |
| 150 | 28.89                 | 27.87  | 27.92  | 28.67  | 30.20  | 30.88  | 30.80  | 29.89  | 140-150 | 15.06   | 2470    | 98.9,118  |
| 160 | 34.91                 | 34.15  | 33.86  | 34.43  | 35.21  | 35.24  | 34.89  | 35.08  | 150-160 | 15.09   | 2485    | 99.5,119  |
| 170 | 32.06                 | 31.64  | 31.23  | 31.04  | 31.80  | 31.08  | 31.25  | 31.33  | 160-170 | 9.559   | 2495    | 99.9,119  |
| 180 | 29.97                 | 30.35  | 29.99  | 30.15  | 29.99  | 30.38  | 30.03  | 30.18  | 170-180 | 2.905   | 2497    | 100,120   |
| DEG | LUMINOUS INTENSITY:cd |        |        |        |        |        |        |        |         | UNIT:lm |         |           |

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:HTJ  
 Test Date:2020-08-26

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:

## LUMINANCE LIMITATION CURVES

|                              |       |                  |
|------------------------------|-------|------------------|
| NAME: VM090                  | TYPE: | WEIGHT:1         |
| SPEC.:BR 3000K 34W 90CRI 38D | DIM.: | SERIAL No.:      |
| MFR.:                        | SUR.: | Shielding Angle: |



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G(DEG)            | C0/180 | C90/270 |
| 85                | 527    | 495     |
| 80                | 242    | 234     |
| 75                | 152    | 149     |
| 70                | 114    | 113     |
| 65                | 158    | 325     |
| 60                | 480    | 515     |
| 55                | 523    | 541     |
| 50                | 2490   | 2865    |
| 45                | 7172   | 7673    |

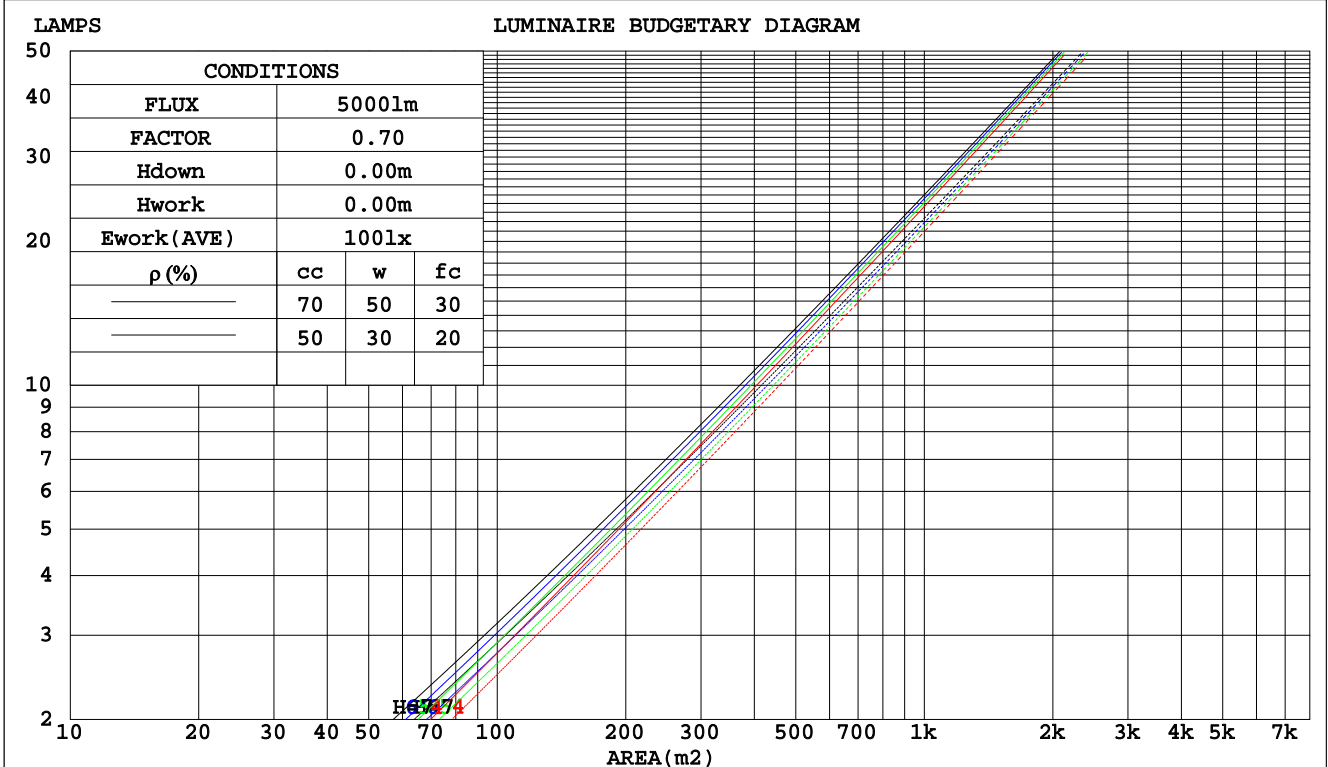
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature: 28DEG  
 Operators: HTJ  
 Test Date: 2020-08-26

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: VM090                  | TYPE: | WEIGHT:1         |
| SPEC.:BR 3000K 34W 90CRI 38D | 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  | 1.42                  | 1.42 | 1.42 | 1.38 | 1.38 | 1.38 | 1.31                            | 1.31 | 1.31 | 1.25 | 1.25 | 1.25 | 1.19 | 1.19 | 1.19 | 1.17 |
| 1.0  | 1.33                  | 1.31 | 1.28 | 1.30 | 1.28 | 1.26 | 1.25                            | 1.23 | 1.22 | 1.20 | 1.19 | 1.18 | 1.16 | 1.15 | 1.14 | 1.11 |
| 2.0  | 1.26                  | 1.22 | 1.18 | 1.24 | 1.20 | 1.17 | 1.19                            | 1.16 | 1.14 | 1.15 | 1.13 | 1.11 | 1.12 | 1.10 | 1.08 | 1.06 |
| 3.0  | 1.19                  | 1.14 | 1.10 | 1.17 | 1.13 | 1.09 | 1.14                            | 1.10 | 1.07 | 1.11 | 1.08 | 1.05 | 1.08 | 1.05 | 1.03 | 1.02 |
| 4.0  | 1.13                  | 1.08 | 1.04 | 1.12 | 1.07 | 1.03 | 1.09                            | 1.05 | 1.02 | 1.07 | 1.03 | 1.00 | 1.04 | 1.01 | .99  | .97  |
| 5.0  | 1.08                  | 1.02 | .98  | 1.07 | 1.02 | .98  | 1.05                            | 1.00 | .97  | 1.02 | .99  | .95  | 1.00 | .97  | .94  | .93  |
| 6.0  | 1.03                  | .97  | .93  | 1.02 | .97  | .93  | 1.00                            | .96  | .92  | .98  | .94  | .91  | .97  | .93  | .90  | .89  |
| 7.0  | .99                   | .93  | .89  | .98  | .92  | .89  | .96                             | .91  | .88  | .95  | .90  | .87  | .93  | .90  | .87  | .85  |
| 8.0  | .95                   | .89  | .85  | .94  | .89  | .85  | .93                             | .88  | .84  | .91  | .87  | .84  | .90  | .86  | .83  | .82  |
| 9.0  | .91                   | .85  | .81  | .90  | .85  | .81  | .89                             | .84  | .81  | .88  | .84  | .80  | .87  | .83  | .80  | .79  |
| 10.0 | .87                   | .82  | .78  | .87  | .82  | .78  | .86                             | .81  | .78  | .85  | .80  | .77  | .84  | .80  | .77  | .76  |



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:HTJ  
 Test Date:2020-08-26

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:



WEC AND CCEC

|                              |       |                  |
|------------------------------|-------|------------------|
| NAME: VM090                  | TYPE: | WEIGHT:1         |
| SPEC.:BR 3000K 34W 90CRI 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 Coefficients(WEC) |      |      |      |      |      |      |      |      |   |
| 0.0  |                       |      |      |      |      |      |                                 |      |      |      |      |      |      |      |      |   |
| 1.0  | .184                  | .104 | .033 | .175 | .100 | .032 | .158                            | .091 | .029 | .143 | .082 | .026 | .129 | .075 | .024 |   |
| 2.0  | .172                  | .094 | .029 | .165 | .091 | .028 | .151                            | .084 | .026 | .138 | .077 | .024 | .126 | .071 | .022 |   |
| 3.0  | .162                  | .086 | .026 | .156 | .083 | .025 | .144                            | .078 | .024 | .133 | .073 | .022 | .123 | .068 | .021 |   |
| 4.0  | .153                  | .080 | .023 | .148 | .077 | .023 | .137                            | .073 | .022 | .128 | .069 | .021 | .119 | .065 | .020 |   |
| 5.0  | .145                  | .074 | .021 | .140 | .072 | .021 | .132                            | .068 | .020 | .123 | .065 | .019 | .116 | .062 | .019 |   |
| 6.0  | .138                  | .069 | .020 | .134 | .068 | .019 | .126                            | .065 | .019 | .119 | .062 | .018 | .112 | .059 | .018 |   |
| 7.0  | .132                  | .065 | .018 | .128 | .064 | .018 | .121                            | .061 | .018 | .115 | .059 | .017 | .109 | .056 | .017 |   |
| 8.0  | .126                  | .062 | .017 | .123 | .060 | .017 | .117                            | .058 | .017 | .111 | .056 | .016 | .105 | .054 | .016 |   |
| 9.0  | .121                  | .058 | .016 | .118 | .058 | .016 | .112                            | .056 | .016 | .107 | .054 | .015 | .102 | .052 | .015 |   |
| 10.0 | .116                  | .056 | .015 | .114 | .055 | .015 | .109                            | .053 | .015 | .104 | .052 | .015 | .099 | .050 | .014 |   |

| ρcc  | 80%                   |      |      | 70%  |      |      | 50%  |      |      | 30%  |      |      | 10%  |      |      | 0 |
|------|-----------------------|------|------|------|------|------|--|------|------|------|------|------|------|------|------|---|
| ρw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| ρfc  | 20%                   |      |      | 20%  |      |      | 20%  |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Ceiling Cavity Exitance Coefficients(CCEC) |      |      |      |      |      |      |      |      |   |
| 0.0  | .250                  | .250 | .250 | .214 | .214 | .214 | .146                                       | .146 | .146 | .084 | .084 | .084 | .027 | .027 | .027 |   |
| 1.0  | .225                  | .211 | .198 | .193 | .181 | .170 | .132                                       | .124 | .118 | .076 | .072 | .068 | .024 | .023 | .022 |   |
| 2.0  | .205                  | .181 | .161 | .176 | .156 | .139 | .120                                       | .108 | .097 | .069 | .063 | .057 | .022 | .020 | .019 |   |
| 3.0  | .188                  | .158 | .134 | .162 | .137 | .116 | .111                                       | .095 | .082 | .064 | .055 | .048 | .021 | .018 | .016 |   |
| 4.0  | .175                  | .140 | .114 | .150 | .121 | .099 | .103                                       | .084 | .070 | .060 | .049 | .041 | .019 | .016 | .014 |   |
| 5.0  | .163                  | .126 | .099 | .140 | .109 | .086 | .096                                       | .076 | .061 | .056 | .045 | .036 | .018 | .015 | .012 |   |
| 6.0  | .153                  | .114 | .087 | .132 | .099 | .075 | .091                                       | .069 | .053 | .053 | .041 | .032 | .017 | .013 | .010 |   |
| 7.0  | .145                  | .105 | .077 | .125 | .091 | .067 | .086                                       | .064 | .048 | .050 | .038 | .028 | .016 | .012 | .009 |   |
| 8.0  | .138                  | .097 | .070 | .119 | .084 | .061 | .082                                       | .059 | .043 | .048 | .035 | .026 | .015 | .011 | .008 |   |
| 9.0  | .131                  | .091 | .063 | .113 | .079 | .055 | .078                                       | .055 | .039 | .046 | .033 | .023 | .015 | .011 | .008 |   |
| 10.0 | .126                  | .085 | .059 | .108 | .074 | .051 | .075                                       | .052 | .036 | .044 | .031 | .022 | .014 | .010 | .007 |   |

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:HTJ  
 Test Date:2020-08-26

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: VM090  |                  | TYPE: |      |      |      |                | WEIGHT:1         |      |      |      |  |
| SPEC.:BR 3000K 34W 90CRI 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                                      | 10.1             | 10.8  | 10.3 | 11.0 | 11.2 | 10.1           | 10.9             | 10.4 | 11.1 | 11.3 |  |
| 3H   | 9.9              | 10.6  | 10.2 | 10.8 | 11.0 | 10.0           | 10.7             | 10.3 | 10.9 | 11.1 |  |
| 4H   | 9.8              | 10.5  | 10.1 | 10.7 | 11.0 | 9.9            | 10.6             | 10.2 | 10.8 | 11.1 |  |
| 6H   | 9.7              | 10.3  | 10.0 | 10.6 | 10.9 | 9.8            | 10.4             | 10.1 | 10.7 | 11.0 |  |
| 8H   | 9.7              | 10.3  | 10.0 | 10.5 | 10.8 | 9.8            | 10.4             | 10.1 | 10.6 | 10.9 |  |
| 12H  | 9.6              | 10.2  | 10.0 | 10.5 | 10.8 | 9.7            | 10.3             | 10.1 | 10.6 | 10.9 |  |
| 4H 2H  | 9.8              | 10.5  | 10.1 | 10.7 | 11.0 | 9.9            | 10.6             | 10.2 | 10.8 | 11.1 |  |
| 3H   | 9.6              | 10.2  | 10.0 | 10.5 | 10.8 | 9.7            | 10.3             | 10.1 | 10.6 | 10.9 |  |
| 4H   | 9.5              | 10.0  | 9.9  | 10.4 | 10.7 | 9.6            | 10.1             | 10.0 | 10.5 | 10.8 |  |
| 6H   | 9.4              | 9.9   | 9.8  | 10.2 | 10.6 | 9.5            | 10.0             | 9.9  | 10.3 | 10.7 |  |
| 8H   | 9.4              | 9.8   | 9.8  | 10.2 | 10.6 | 9.5            | 9.9              | 9.9  | 10.3 | 10.7 |  |
| 12H  | 9.3              | 9.7   | 9.7  | 10.1 | 10.5 | 9.4            | 9.8              | 9.8  | 10.2 | 10.6 |  |
| 8H 4H  | 9.4              | 9.8   | 9.8  | 10.2 | 10.6 | 9.4            | 9.9              | 9.9  | 10.3 | 10.7 |  |
| 6H   | 9.2              | 9.6   | 9.7  | 10.0 | 10.5 | 9.3            | 9.7              | 9.8  | 10.1 | 10.6 |  |
| 8H   | 9.2              | 9.5   | 9.7  | 9.9  | 10.4 | 9.3            | 9.6              | 9.8  | 10.0 | 10.5 |  |
| 12H  | 9.1              | 9.4   | 9.6  | 9.9  | 10.4 | 9.2            | 9.5              | 9.7  | 10.0 | 10.5 |  |
| 12H 4H   | 9.3              | 9.7   | 9.7  | 10.1 | 10.5 | 9.4            | 9.8              | 9.8  | 10.2 | 10.6 |  |
| 6H   | 9.2              | 9.5   | 9.7  | 9.9  | 10.4 | 9.3            | 9.6              | 9.8  | 10.0 | 10.5 |  |
| 8H   | 9.1              | 9.4   | 9.6  | 9.9  | 10.4 | 9.2            | 9.5              | 9.7  | 10.0 | 10.5 |  |
| Variations with the observer position at spacings: |                  |       |      |      |      |                |                  |      |      |      |  |
| S = 1.0H   | + 3.0 / -15.8    |       |      |      |      | + 3.0 / -15.8  |                  |      |      |      |  |
| 1.5H   | + 5.2 / -15.5    |       |      |      |      | + 5.2 / -15.5  |                  |      |      |      |  |
| 2.0H   | + 7.0 / - 9.2    |       |      |      |      | + 7.0 / - 9.1  |                  |      |      |      |  |

CIE Pub.117, 2088 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.6)

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:HTJ  
 Test Date:2020-08-26

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: VM090                  | TYPE: | WEIGHT:1         |
| SPEC.:BR 3000K 34W 90CRI 38D | DIM.: | SERIAL No.:      |
| MFR.:                        | SUR.: | Shielding Angle: |

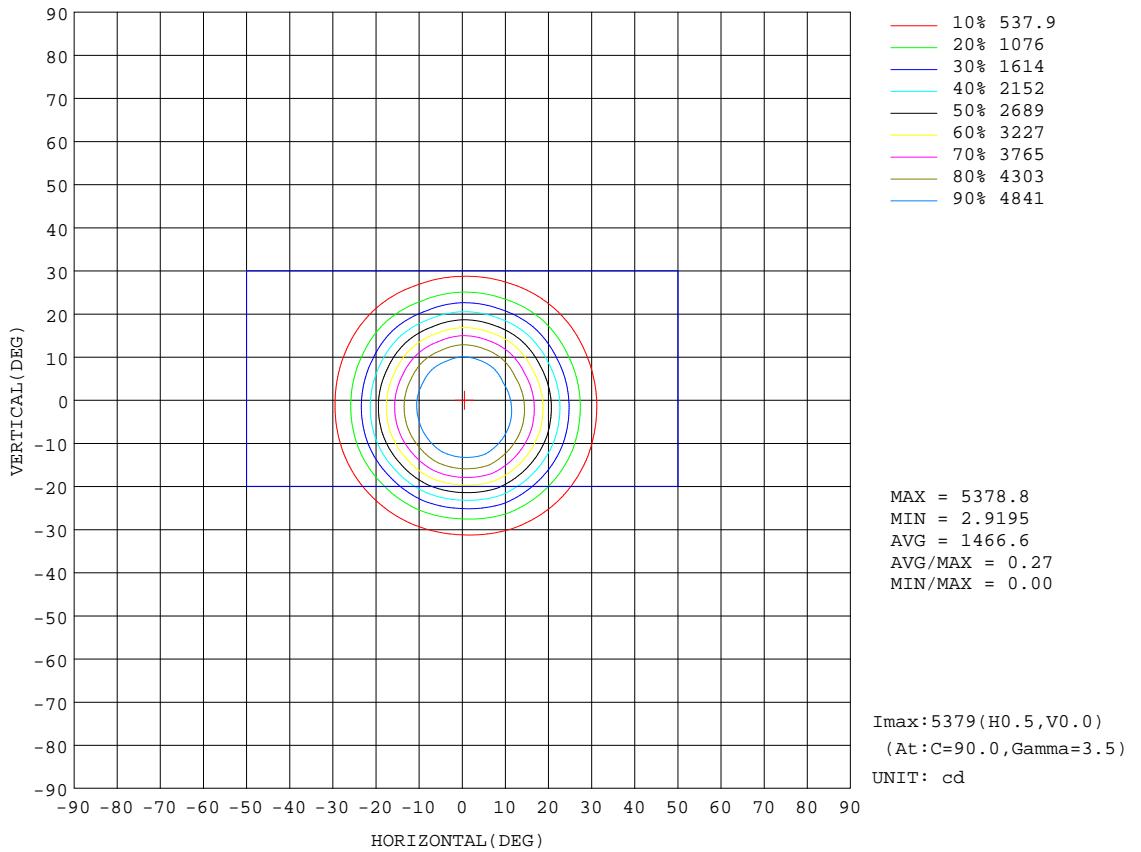
| REFLECTANCE                      |  |     |           |     |     |     |               |     |     |        |
|----------------------------------|--|-----|-----------|-----|-----|-----|---------------|-----|-----|--------|
| Ceiling                          | 0.8  | 0.8 | 0.8       | 0.7 | 0.7 | 0.7 | 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                         | 107  | 99  | 95        | 106 | 99  | 95  | 105           | 99  | 95  | 91     |
| 0.80                             | 115  | 109 | 104       | 114 | 108 | 104 | 112           | 107 | 104 | 99     |
| 1.00                             | 120  | 113 | 109       | 119 | 113 | 109 | 116           | 112 | 108 | 103    |
| 1.25                             | 124  | 118 | 114       | 123 | 117 | 114 | 120           | 116 | 113 | 108    |
| 1.50                             | 127  | 122 | 118       | 125 | 121 | 117 | 122           | 119 | 116 | 110    |
| 2.00                             | 130  | 125 | 122       | 128 | 124 | 121 | 124           | 121 | 118 | 112    |
| 2.50                             | 132  | 128 | 124       | 130 | 126 | 123 | 126           | 123 | 120 | 113    |
| 3.00                             | 134  | 130 | 127       | 131 | 128 | 125 | 127           | 124 | 122 | 114    |
| 4.00                             | 136  | 133 | 130       | 133 | 131 | 128 | 128           | 126 | 125 | 115    |
| 5.00                             | 137  | 135 | 133       | 134 | 132 | 131 | 129           | 128 | 126 | 116    |
| ROOM INDEX                       | UF(total)                                    |     |           |     |     |     |               |     |     | Direct |
| According to DIN EN 13032-2 2004 |  |     | Suspended |     |     |     | SHRNOM = 1.25 |     |     |        |

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:HTJ  
 Test Date:2020-08-26

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:

ISOCANDELA DIAGRAM

|                              |       |                  |
|------------------------------|-------|------------------|
| NAME: VM090                  | TYPE: | WEIGHT:1         |
| SPEC.:BR 3000K 34W 90CRI 38D | DIM.: | SERIAL No.:      |
| MFR.:                        | SUR.: | Shielding Angle: |

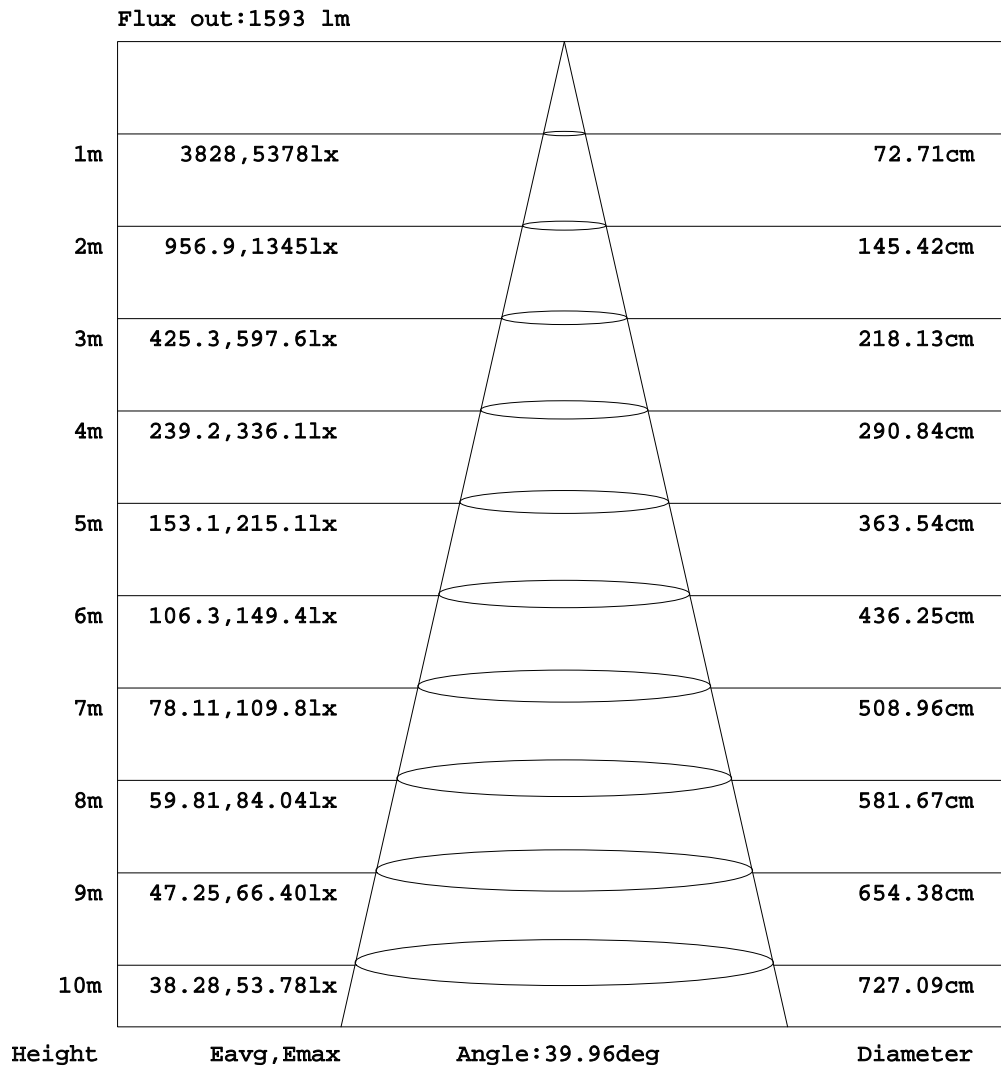


C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:HTJ  
 Test Date:2020-08-26

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: VM090                  | TYPE: | WEIGHT:1         |
| SPEC.:BR 3000K 34W 90CRI 38D | DIM.: | SERIAL No.:      |
| MFR.:                        | SUR.: | Shielding Angle: |



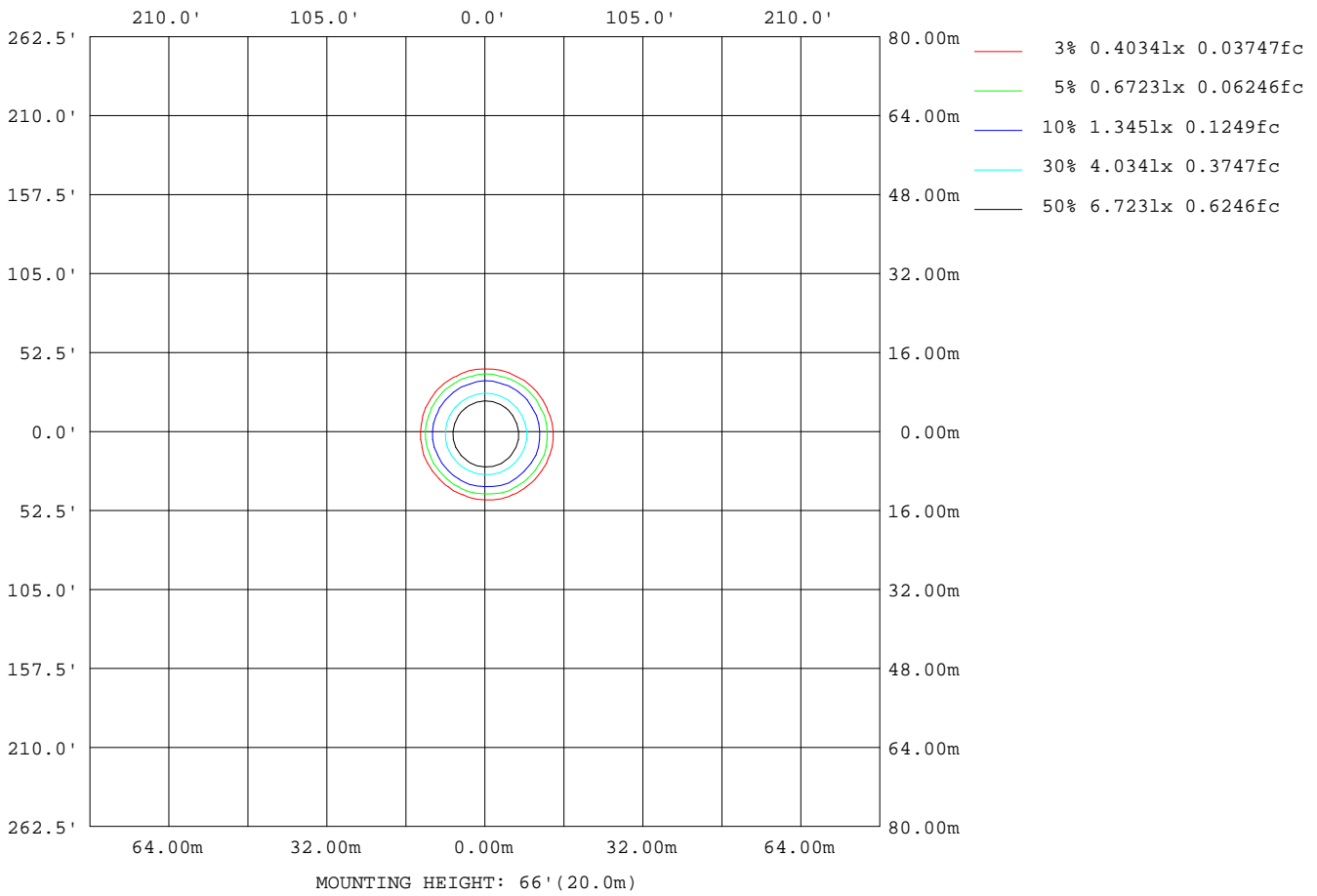
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:HTJ  
 Test Date:2020-08-26

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: VM090                  | TYPE: | WEIGHT:1         |
| SPEC.:BR 3000K 34W 90CRI 38D | DIM.: | SERIAL No.:      |
| MFR.:                        | SUR.: | Shielding Angle: |



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature: 28DEG  
 Operators: HTJ  
 Test Date: 2020-08-26

$\gamma$  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: VM090                  | TYPE: | WEIGHT:1         |
| SPEC.:BR 3000K 34W 90CRI 38D | DIM.: | SERIAL No.:      |
| MFR.:                        | SUR.: | Shielding Angle: |

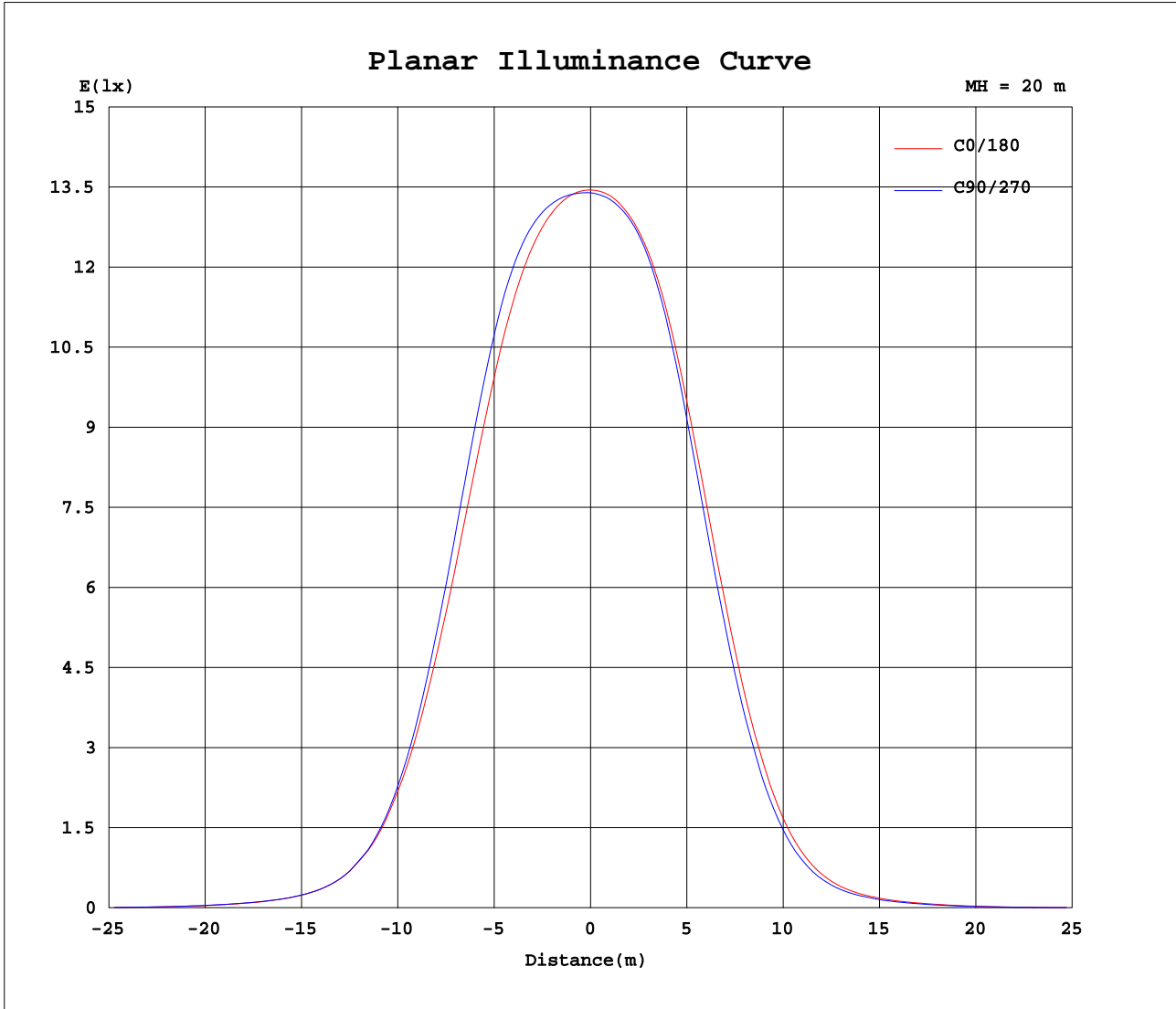
| AvgL           | cd/m2 |
|----------------|-------|
| L_0~180(65)av  | 122   |
| L_0~180(75)av  | 142   |
| L_0~180(85)av  | 490   |
| L_90~270(65)av | 201   |
| L_90~270(75)av | 142   |
| L_90~270(85)av | 476   |
| L_45(65)av     | 172   |
| L_45(75)av     | 139   |
| L_45(85)av     | 470   |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature:28DEG  
 Operators:HTJ  
 Test Date:2020-08-26

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: 22.5DEG  
Test Speed: MEDIUM  
Temperature: 28DEG  
Operators: HTJ  
Test Date: 2020-08-26

$\gamma$  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: VM090                  | TYPE: | WEIGHT:1         |
| SPEC.:BR 3000K 34W 90CRI 38D | DIM.: | SERIAL No.:      |
| MFR.:                        | SUR.: | Shielding Angle: |

Table--1

UNIT: cd

| C(DEG)<br>γ (DEG) | 0    | 22.5 | 45   | 67.5 | 90   | 112.5 | 135  | 157.5 | 180  | 202.5 | 225  | 247.5 | 270  | 292.5 | 315  | 337.5 |  |  |  |
|-------------------|------|------|------|------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|--|--|--|
| 0                 | 5360 | 5360 | 5360 | 5360 | 5360 | 5360  | 5360 | 5360  | 5360 | 5360  | 5360 | 5360  | 5360 | 5360  | 5360 | 5360  |  |  |  |
| 5                 | 5293 | 5321 | 5344 | 5363 | 5364 | 5356  | 5329 | 5304  | 5279 | 5260  | 5264 | 5262  | 5274 | 5275  | 5279 | 5275  |  |  |  |
| 10                | 4971 | 5075 | 5163 | 5228 | 5212 | 5177  | 5078 | 4987  | 4894 | 4823  | 4827 | 4802  | 4853 | 4862  | 4902 | 4900  |  |  |  |
| 15                | 4132 | 4318 | 4457 | 4583 | 4508 | 4433  | 4235 | 4089  | 3906 | 3748  | 3728 | 3664  | 3758 | 3785  | 3906 | 3960  |  |  |  |
| 20                | 2839 | 3036 | 3147 | 3259 | 3127 | 3043  | 2829 | 2700  | 2502 | 2331  | 2293 | 2208  | 2296 | 2348  | 2516 | 2620  |  |  |  |
| 25                | 1542 | 1689 | 1732 | 1790 | 1644 | 1591  | 1425 | 1367  | 1232 | 1126  | 1100 | 1029  | 1087 | 1131  | 1275 | 1376  |  |  |  |
| 30                | 660  | 732  | 743  | 758  | 672  | 631   | 568  | 533   | 483  | 444   | 433  | 396   | 415  | 439   | 511  | 582   |  |  |  |
| 35                | 256  | 285  | 287  | 288  | 257  | 240   | 215  | 207   | 190  | 177   | 173  | 158   | 164  | 172   | 197  | 221   |  |  |  |
| 40                | 112  | 126  | 126  | 128  | 116  | 109   | 98.7 | 94.4  | 86.1 | 79.0  | 75.8 | 70.4  | 73.6 | 77.9  | 87.7 | 97.3  |  |  |  |
| 45                | 48.9 | 55.6 | 57.5 | 58.2 | 52.5 | 49.6  | 43.8 | 40.4  | 35.2 | 31.0  | 29.4 | 27.5  | 29.1 | 30.7  | 35.0 | 40.3  |  |  |  |
| 50                | 15.4 | 18.7 | 19.5 | 20.2 | 17.8 | 16.8  | 13.8 | 11.9  | 9.26 | 7.17  | 6.84 | 6.37  | 7.00 | 7.37  | 9.23 | 11.3  |  |  |  |
| 55                | 2.89 | 3.15 | 3.34 | 3.34 | 3.00 | 3.00  | 2.98 | 3.25  | 3.49 | 3.61  | 3.96 | 3.95  | 3.75 | 3.51  | 3.41 | 2.99  |  |  |  |
| 60                | 2.31 | 2.24 | 2.40 | 2.45 | 2.49 | 2.65  | 2.66 | 2.89  | 2.88 | 2.77  | 3.08 | 2.96  | 2.84 | 2.69  | 2.77 | 2.31  |  |  |  |
| 65                | 0.65 | 1.01 | 1.31 | 1.48 | 1.33 | 1.31  | 0.88 | 0.60  | 0.35 | 0.32  | 0.31 | 0.32  | 0.32 | 0.31  | 0.31 | 0.35  |  |  |  |
| 70                | 0.38 | 0.37 | 0.37 | 0.37 | 0.37 | 0.37  | 0.36 | 0.37  | 0.32 | 0.32  | 0.31 | 0.32  | 0.32 | 0.31  | 0.31 | 0.32  |  |  |  |
| 75                | 0.38 | 0.39 | 0.37 | 0.39 | 0.37 | 0.39  | 0.36 | 0.39  | 0.33 | 0.32  | 0.33 | 0.32  | 0.34 | 0.31  | 0.32 | 0.32  |  |  |  |
| 80                | 0.41 | 0.41 | 0.39 | 0.41 | 0.39 | 0.41  | 0.39 | 0.41  | 0.36 | 0.34  | 0.35 | 0.34  | 0.36 | 0.33  | 0.34 | 0.33  |  |  |  |
| 85                | 0.44 | 0.44 | 0.42 | 0.44 | 0.42 | 0.43  | 0.42 | 0.44  | 0.38 | 0.36  | 0.38 | 0.36  | 0.38 | 0.36  | 0.37 | 0.35  |  |  |  |
| 90                | 0.46 | 0.47 | 0.45 | 0.46 | 0.45 | 0.46  | 0.45 | 0.46  | 0.42 | 0.39  | 0.41 | 0.40  | 0.43 | 0.39  | 0.40 | 0.38  |  |  |  |
| 95                | 0.49 | 0.50 | 0.48 | 0.49 | 0.47 | 0.49  | 0.47 | 0.49  | 0.46 | 0.45  | 0.46 | 0.45  | 0.47 | 0.45  | 0.45 | 0.42  |  |  |  |
| 100               | 0.53 | 0.54 | 0.51 | 0.53 | 0.51 | 0.53  | 0.51 | 0.54  | 0.53 | 0.52  | 0.53 | 0.52  | 0.54 | 0.51  | 0.51 | 0.48  |  |  |  |
| 105               | 0.62 | 0.62 | 0.59 | 0.60 | 0.58 | 0.60  | 0.60 | 0.64  | 0.67 | 0.67  | 0.68 | 0.68  | 0.67 | 0.63  | 0.62 | 0.61  |  |  |  |
| 110               | 0.83 | 0.81 | 0.78 | 0.77 | 0.77 | 0.79  | 0.83 | 0.88  | 0.97 | 1.02  | 1.02 | 1.03  | 0.98 | 0.93  | 0.88 | 0.86  |  |  |  |
| 115               | 1.39 | 1.30 | 1.26 | 1.22 | 1.25 | 1.28  | 1.41 | 1.50  | 1.71 | 1.85  | 1.84 | 1.91  | 1.74 | 1.67  | 1.53 | 1.51  |  |  |  |
| 120               | 2.62 | 2.46 | 2.37 | 2.29 | 2.37 | 2.46  | 2.69 | 2.87  | 3.26 | 3.49  | 3.54 | 3.65  | 3.39 | 3.25  | 2.99 | 2.89  |  |  |  |
| 125               | 4.95 | 4.65 | 4.53 | 4.38 | 4.55 | 4.67  | 5.02 | 5.30  | 5.88 | 6.27  | 6.40 | 6.54  | 6.22 | 6.00  | 5.59 | 5.37  |  |  |  |
| 130               | 8.47 | 8.00 | 7.84 | 7.63 | 7.91 | 8.05  | 8.53 | 8.87  | 9.63 | 10.1  | 10.3 | 10.5  | 10.2 | 9.87  | 9.33 | 8.98  |  |  |  |
| 135               | 13.0 | 12.4 | 12.2 | 11.9 | 12.3 | 12.5  | 13.0 | 13.4  | 14.3 | 14.9  | 15.1 | 15.5  | 15.0 | 14.6  | 14.0 | 13.7  |  |  |  |
| 140               | 18.1 | 17.5 | 17.2 | 17.0 | 17.3 | 17.5  | 18.1 | 18.6  | 19.6 | 20.2  | 20.5 | 20.8  | 20.3 | 19.9  | 19.2 | 18.9  |  |  |  |
| 145               | 23.6 | 23.0 | 22.6 | 22.4 | 22.7 | 22.9  | 23.5 | 24.1  | 25.1 | 25.7  | 25.9 | 26.2  | 25.8 | 25.4  | 24.7 | 24.4  |  |  |  |
| 150               | 28.9 | 28.2 | 27.9 | 27.6 | 27.9 | 28.1  | 28.7 | 29.2  | 30.2 | 30.7  | 30.9 | 31.1  | 30.8 | 30.5  | 29.9 | 29.5  |  |  |  |
| 155               | 32.9 | 32.4 | 32.1 | 31.8 | 32.0 | 32.2  | 32.6 | 33.0  | 33.8 | 34.1  | 34.3 | 34.2  | 34.1 | 33.9  | 33.7 | 33.4  |  |  |  |
| 160               | 34.9 | 34.5 | 34.2 | 33.9 | 33.9 | 33.9  | 34.4 | 34.7  | 35.2 | 35.4  | 35.2 | 34.7  | 34.9 | 34.9  | 35.1 | 35.1  |  |  |  |
| 165               | 34.5 | 34.1 | 33.7 | 33.6 | 33.3 | 33.3  | 33.5 | 34.0  | 34.5 | 34.2  | 33.7 | 33.2  | 33.5 | 33.7  | 33.9 | 34.1  |  |  |  |
| 170               | 32.1 | 31.7 | 31.6 | 31.7 | 31.2 | 31.1  | 31.0 | 31.4  | 31.8 | 31.6  | 31.1 | 30.8  | 31.3 | 31.4  | 31.3 | 31.4  |  |  |  |
| 175               | 30.1 | 30.1 | 30.4 | 30.1 | 29.7 | 29.5  | 29.9 | 29.7  | 29.9 | 30.3  | 30.2 | 29.8  | 29.8 | 30.2  | 30.4 | 29.8  |  |  |  |
| 180               | 30.0 | 30.0 | 30.3 | 30.0 | 30.0 | 30.0  | 30.2 | 29.6  | 30.0 | 30.0  | 30.4 | 30.0  | 30.0 | 30.0  | 30.2 | 29.6  |  |  |  |

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: MEDIUM  
 Temperature: 28DEG  
 Operators: HTJ  
 Test Date: 2020-08-26

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]  
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