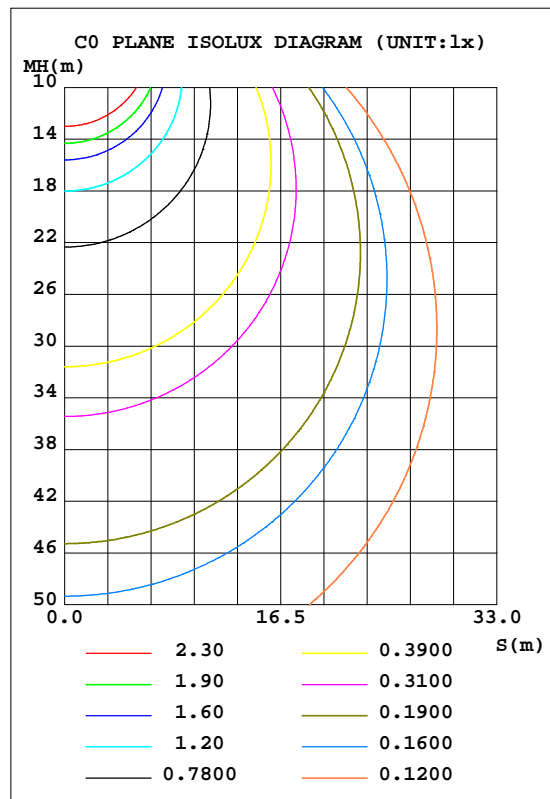
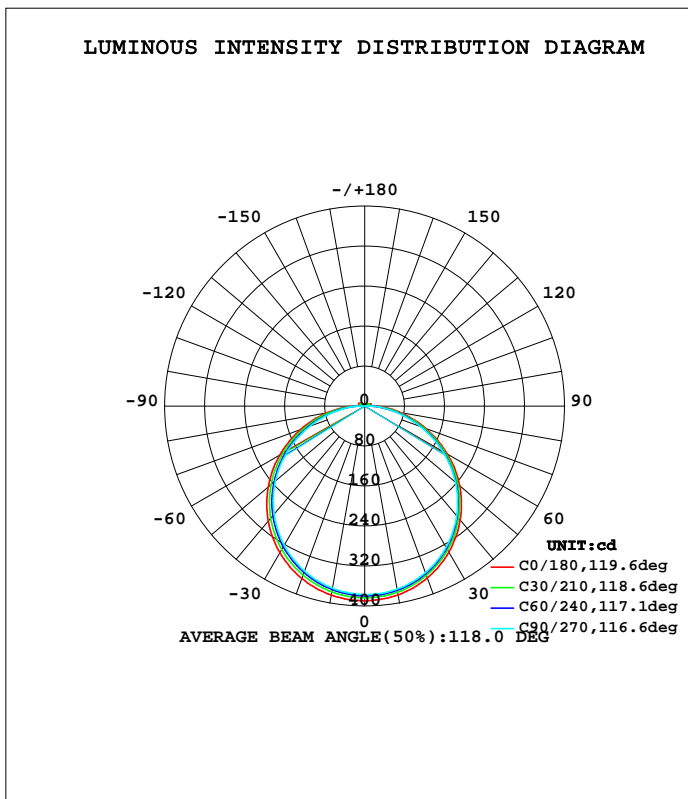


**LUMINAIRE PHOTOMETRIC TEST REPORT**

|   |              |                   |
|---|--------------|-------------------|
| Test:U:229.9V I:0.1474A P:18.26W PF:0.5390 Lamp Flux:1237.06x1 lm |              |                   |
| NAME: BH15-02100  | TYPE:SMD LED | WEIGHT:           |
| SPEC.:  | DIM.:        | SERIAL No.:1      |
| MFR.:   | SUR.:        | PROTECTION ANGLE: |

| DATA OF LAMP     |            | PHOTOMETRIC DATA      |        |                    |          |
|------------------|------------|-----------------------|--------|--------------------|----------|
| MODEL            | BH15-02100 | I <sub>max</sub> (cd) | 389.5  | S/MH(C0/180)       | 1.30     |
| NOMINAL POWER(W) | 18.8       | LOR(%)                | 97.2   | S/MH(C90/270)      | 1.27     |
| RATED VOLTAGE(V) | 230        | TOTAL FLUX(lm)        | 1202.1 | η UP, DN(C0-180)   | 1.1,47.8 |
| NOMINAL FLUX(lm) | 1237.06    | CIE CLASS             | DIRECT | η UP, DN(C180-360) | 1.0,47.3 |
| LAMPS INSIDE     | 1          | η up(%)               | 2.1    | CIBSE SHR NOM      | 1.25     |
| TEST VOLTAGE(V)  | 230        | η down(%)             | 95.1   | CIBSE SHR MAX      | 1.35     |



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2018-09-05

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.290  
Humidity:65.0%  
Test Distance:12.300m [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       | 383.6                 | 376.2  | 372.0  | 370.0  | 384.0  | 374.8  | 370.1  | 368.3  | 0- 10    | 35.92       | 35.92        | 2.99,2.9   |
| 20       | 366.2                 | 359.1  | 354.9  | 353.8  | 367.2  | 356.8  | 351.6  | 350.5  | 10- 20   | 103.4       | 139.3        | 11.6,11.3  |
| 30       | 337.3                 | 330.4  | 326.2  | 326.2  | 339.2  | 327.9  | 322.0  | 321.7  | 20- 30   | 158.2       | 297.5        | 24.8,24.1  |
| 40       | 297.6                 | 290.7  | 286.7  | 288.1  | 300.5  | 288.6  | 282.2  | 282.6  | 30- 40   | 193.5       | 491.1        | 40.8,39.7  |
| 50       | 248.2                 | 241.3  | 237.4  | 240.2  | 252.3  | 240.0  | 233.2  | 234.3  | 40- 50   | 204.6       | 695.7        | 57.9,56.2  |
| 60       | 190.9                 | 184.1  | 180.2  | 184.6  | 196.3  | 184.0  | 176.6  | 178.5  | 50- 60   | 190.0       | 885.7        | 73.7,71.6  |
| 70       | 129.5                 | 122.4  | 118.1  | 124.3  | 135.7  | 123.4  | 115.5  | 118.5  | 60- 70   | 151.9       | 1038         | 86.3,83.9  |
| 80       | 71.40                 | 62.08  | 57.56  | 65.30  | 76.25  | 64.08  | 56.52  | 60.26  | 70- 80   | 98.04       | 1136         | 94.5,91.8  |
| 90       | 19.83                 | 13.54  | 12.73  | 12.90  | 17.97  | 12.56  | 12.84  | 12.02  | 80- 90   | 40.47       | 1176         | 97.8,95.1  |
| 100      | 2.807                 | 1.072  | 1.166  | 2.164  | 4.422  | 2.514  | 1.484  | 0.8998 | 90-100   | 4.890       | 1181         | 98.2,95.5  |
| 110      | 10.77                 | 5.372  | 1.553  | 6.860  | 13.25  | 6.171  | 1.337  | 6.179  | 100-110  | 4.552       | 1186         | 98.6,95.8  |
| 120      | 10.03                 | 4.625  | 2.218  | 5.705  | 11.26  | 5.252  | 1.924  | 4.532  | 110-120  | 6.149       | 1192         | 99.1,96.3  |
| 130      | 7.206                 | 3.848  | 2.246  | 4.511  | 8.194  | 4.294  | 2.294  | 3.772  | 120-130  | 4.494       | 1196         | 99.5,96.7  |
| 140      | 4.940                 | 2.654  | 1.934  | 3.212  | 5.607  | 3.224  | 2.027  | 2.474  | 130-140  | 3.018       | 1199         | 99.8,96.9  |
| 150      | 3.044                 | 2.018  | 1.441  | 2.264  | 3.667  | 2.550  | 1.536  | 2.001  | 140-150  | 1.719       | 1201         | 99.9,97.1  |
| 160      | 1.555                 | 1.165  | 1.166  | 1.175  | 1.846  | 1.138  | 1.033  | 1.091  | 150-160  | 0.8527      | 1202         | 100,97.1   |
| 170      | 0.7203                | 0.7958 | 0.6359 | 0.7141 | 0.7298 | 0.7394 | 0.6445 | 0.7017 | 160-170  | 0.2727      | 1202         | 100,97.2   |
| 180      | 0.7677                | 0.8246 | 0.7961 | 0.7961 | 0.7772 | 0.8151 | 0.7866 | 0.7961 | 170-180  | 0.0676      | 1202         | 100,97.2   |
| DEG      | LUMINOUS INTENSITY:cd |        |        |        |        |        |        |        |          | UNIT:lm     |              |            |

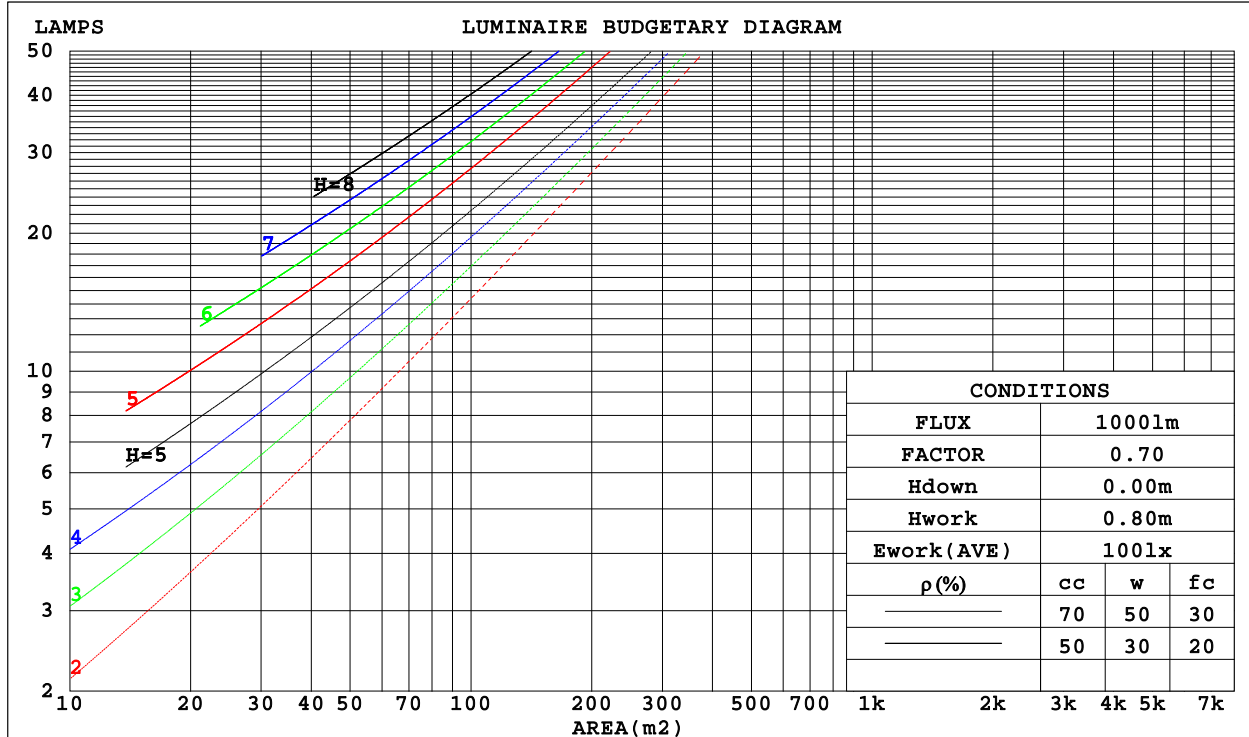
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2018-09-05

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.290  
 Humidity:65.0%  
 Test Distance:12.300m [K=1.0000]  
 Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

|   |          |                   |
|---|----------|-------------------|
| Test:U:229.9V I:0.1474A P:18.26W PF:0.5390 Lamp Flux:1237.06x1 lm |          |                   |
| NAME: BH15-02100  | TYPE:LED | WEIGHT:           |
| SPEC.:  | DIM.:    | SERIAL No.:1      |
| MFR.:   | SUR.:    | PROTECTION 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         | 1.15                  | 1.15 | 1.15 | 1.12 | 1.12 | 1.12 | 1.07                            | 1.07 | 1.07 | 1.02 | 1.02 | 1.02 | .97 | .97 | .97 | .95 |
| 1.0         | .99                   | .95  | .91  | .97  | .93  | .89  | .92                             | .89  | .86  | .88  | .85  | .83  | .84 | .82 | .80 | .78 |
| 2.0         | .86                   | .79  | .73  | .84  | .77  | .72  | .80                             | .75  | .70  | .76  | .72  | .68  | .73 | .69 | .66 | .64 |
| 3.0         | .75                   | .67  | .60  | .73  | .66  | .59  | .70                             | .64  | .58  | .67  | .62  | .57  | .64 | .60 | .56 | .53 |
| 4.0         | .66                   | .57  | .51  | .65  | .57  | .50  | .62                             | .55  | .49  | .60  | .53  | .48  | .57 | .52 | .47 | .45 |
| 5.0         | .59                   | .50  | .43  | .58  | .49  | .43  | .55                             | .48  | .42  | .53  | .47  | .42  | .51 | .46 | .41 | .39 |
| 6.0         | .53                   | .44  | .38  | .52  | .44  | .37  | .50                             | .43  | .37  | .48  | .41  | .36  | .46 | .41 | .36 | .34 |
| 7.0         | .48                   | .39  | .33  | .47  | .39  | .33  | .45                             | .38  | .33  | .44  | .37  | .32  | .42 | .36 | .32 | .30 |
| 8.0         | .44                   | .35  | .29  | .43  | .35  | .29  | .41                             | .34  | .29  | .40  | .34  | .29  | .39 | .33 | .28 | .26 |
| 9.0         | .40                   | .32  | .26  | .39  | .32  | .26  | .38                             | .31  | .26  | .37  | .30  | .26  | .36 | .30 | .26 | .24 |
| 10.0        | .37                   | .29  | .24  | .36  | .29  | .24  | .35                             | .28  | .24  | .34  | .28  | .23  | .33 | .27 | .23 | .21 |



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2018-09-05

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.290  
 Humidity:65.0%  
 Test Distance:12.300m [K=1.0000]  
 Remarks:

**WEC AND CCEC**

|   |          |                   |
|---|----------|-------------------|
| Test:U:229.9V I:0.1474A P:18.26W PF:0.5390 Lamp Flux:1237.06x1 lm |          |                   |
| NAME: BH15-02100  | TYPE:LED | WEIGHT:           |
| SPEC.:  | DIM.:    | SERIAL No.:1      |
| MFR.:   | SUR.:    | PROTECTION 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  | .324                  | .184 | .058 | .316 | .180 | .057 | .302                            | .173 | .055 | .289 | .167 | .054 | .277 | .161 | .052 |   |
| 2.0  | .298                  | .163 | .050 | .291 | .160 | .049 | .278                            | .155 | .048 | .267 | .150 | .047 | .256 | .145 | .046 |   |
| 3.0  | .272                  | .145 | .043 | .266 | .143 | .043 | .255                            | .138 | .042 | .245 | .134 | .041 | .235 | .130 | .040 |   |
| 4.0  | .249                  | .130 | .038 | .244 | .128 | .038 | .234                            | .124 | .037 | .225 | .121 | .036 | .216 | .117 | .036 |   |
| 5.0  | .229                  | .117 | .034 | .225 | .115 | .034 | .216                            | .112 | .033 | .207 | .109 | .033 | .200 | .107 | .032 |   |
| 6.0  | .212                  | .106 | .030 | .208 | .105 | .030 | .200                            | .102 | .030 | .192 | .100 | .029 | .185 | .098 | .029 |   |
| 7.0  | .197                  | .097 | .028 | .193 | .096 | .027 | .186                            | .094 | .027 | .179 | .092 | .027 | .173 | .090 | .026 |   |
| 8.0  | .183                  | .090 | .025 | .180 | .089 | .025 | .173                            | .087 | .025 | .167 | .085 | .024 | .162 | .083 | .024 |   |
| 9.0  | .171                  | .083 | .023 | .168 | .082 | .023 | .162                            | .080 | .023 | .157 | .079 | .023 | .152 | .077 | .022 |   |
| 10.0 | .161                  | .077 | .021 | .158 | .076 | .021 | .153                            | .075 | .021 | .148 | .073 | .021 | .143 | .072 | .021 |   |

| 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  | .201                  | .201 | .201 | .172 | .172 | .172 | .117                                       | .117 | .117 | .067 | .067 | .067 | .022 | .022 | .022 |   |
| 1.0  | .193                  | .168 | .145 | .165 | .144 | .125 | .113                                       | .099 | .086 | .065 | .057 | .050 | .021 | .018 | .016 |   |
| 2.0  | .186                  | .144 | .110 | .159 | .124 | .095 | .109                                       | .086 | .066 | .063 | .050 | .039 | .020 | .016 | .013 |   |
| 3.0  | .178                  | .127 | .087 | .153 | .110 | .076 | .105                                       | .076 | .053 | .061 | .045 | .031 | .019 | .014 | .010 |   |
| 4.0  | .171                  | .115 | .072 | .146 | .099 | .063 | .101                                       | .069 | .044 | .058 | .040 | .026 | .019 | .013 | .009 |   |
| 5.0  | .163                  | .105 | .061 | .140 | .091 | .053 | .097                                       | .063 | .038 | .056 | .037 | .022 | .018 | .012 | .007 |   |
| 6.0  | .156                  | .097 | .054 | .134 | .084 | .047 | .093                                       | .059 | .033 | .054 | .034 | .020 | .017 | .011 | .007 |   |
| 7.0  | .149                  | .090 | .048 | .129 | .078 | .042 | .089                                       | .055 | .030 | .052 | .032 | .018 | .017 | .011 | .006 |   |
| 8.0  | .143                  | .084 | .044 | .123 | .073 | .038 | .085                                       | .051 | .027 | .050 | .030 | .016 | .016 | .010 | .005 |   |
| 9.0  | .137                  | .080 | .041 | .118 | .069 | .036 | .082                                       | .049 | .025 | .048 | .029 | .015 | .015 | .009 | .005 |   |
| 10.0 | .131                  | .075 | .038 | .113 | .066 | .033 | .079                                       | .046 | .024 | .046 | .027 | .014 | .015 | .009 | .005 |   |

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2018-09-05

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.290  
 Humidity:65.0%  
 Test Distance:12.300m [K=1.0000]  
 Remarks:

**UGR(Unified Glare Rating) Table**

|   |                  |      |      |      |               |                |      |                   |      |      |
|---|------------------|------|------|------|---------------|----------------|------|-------------------|------|------|
| Test:U:229.9V I:0.1474A P:18.26W PF:0.5390 Lamp Flux:1237.06x1 lm |                  |      |      |      |               |                |      |                   |      |      |
| NAME: BH15-02100  |                  |      |      |      | TYPE: SMD LED |                |      | WEIGHT:           |      |      |
| SPEC.:  |                  |      |      |      | DIM.:         |                |      | SERIAL No.:1      |      |      |
| MFR.:   |                  |      |      |      | SUR.:         |                |      | PROTECTION 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   | 17.5             | 19.0 | 17.8 | 19.3 | 19.5          | 17.2           | 18.8 | 17.5              | 19.0 | 19.3 |
| 3H  | 19.3             | 20.7 | 19.6 | 21.0 | 21.2          | 18.9           | 20.3 | 19.2              | 20.6 | 20.9 |
| 4H  | 20.1             | 21.4 | 20.4 | 21.7 | 22.0          | 19.6           | 20.9 | 19.9              | 21.2 | 21.5 |
| 6H  | 20.8             | 22.0 | 21.1 | 22.4 | 22.7          | 20.2           | 21.4 | 20.5              | 21.8 | 22.1 |
| 8H  | 21.1             | 22.3 | 21.5 | 22.7 | 23.0          | 20.4           | 21.6 | 20.8              | 22.0 | 22.3 |
| 12H   | 21.4             | 22.6 | 21.8 | 22.9 | 23.3          | 20.6           | 21.8 | 21.0              | 22.1 | 22.5 |
| 4H 2H   | 18.1             | 19.5 | 18.5 | 19.8 | 20.1          | 17.9           | 19.3 | 18.3              | 19.6 | 19.9 |
| 3H  | 20.1             | 21.3 | 20.5 | 21.6 | 21.9          | 19.8           | 20.9 | 20.1              | 21.3 | 21.6 |
| 4H  | 21.0             | 22.1 | 21.4 | 22.5 | 22.8          | 20.6           | 21.7 | 21.0              | 22.0 | 22.4 |
| 6H  | 21.9             | 22.9 | 22.3 | 23.2 | 23.7          | 21.3           | 22.3 | 21.7              | 22.7 | 23.1 |
| 8H  | 22.3             | 23.2 | 22.7 | 23.6 | 24.0          | 21.6           | 22.5 | 22.0              | 22.9 | 23.3 |
| 12H   | 22.7             | 23.5 | 23.2 | 23.9 | 24.4          | 21.9           | 22.7 | 22.3              | 23.1 | 23.6 |
| 8H 4H   | 21.3             | 22.2 | 21.8 | 22.6 | 23.1          | 21.0           | 21.9 | 21.4              | 22.3 | 22.7 |
| 6H  | 22.4             | 23.1 | 22.9 | 23.6 | 24.1          | 21.8           | 22.6 | 22.3              | 23.0 | 23.5 |
| 8H  | 22.9             | 23.6 | 23.4 | 24.1 | 24.6          | 22.3           | 22.9 | 22.7              | 23.4 | 23.9 |
| 12H   | 23.5             | 24.0 | 24.0 | 24.5 | 25.1          | 22.6           | 23.2 | 23.1              | 23.7 | 24.2 |
| 12H 4H  | 21.3             | 22.2 | 21.8 | 22.6 | 23.1          | 21.0           | 21.8 | 21.5              | 22.3 | 22.7 |
| 6H  | 22.5             | 23.1 | 23.0 | 23.6 | 24.1          | 22.0           | 22.6 | 22.5              | 23.1 | 23.6 |
| 8H  | 23.1             | 23.6 | 23.6 | 24.1 | 24.7          | 22.4           | 23.0 | 22.9              | 23.5 | 24.0 |
| Variations with the observer position at spacings:                |                  |      |      |      |               |                |      |                   |      |      |
| S = 1.0H  | + 0.1 / - 0.2    |      |      |      |               | + 0.1 / - 0.2  |      |                   |      |      |
| 1.5H  | + 0.2 / - 0.3    |      |      |      |               | + 0.2 / - 0.3  |      |                   |      |      |
| 2.0H  | + 0.1 / - 0.3    |      |      |      |               | + 0.1 / - 0.3  |      |                   |      |      |

CIE Pub.117 Corrected 1237 lm Total Lamp Luminous Flux.(8log(F/F0) = 0.7)

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2018-09-05

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.290  
Humidity: 65.0%  
Test Distance: 12.300m [K=1.0000]  
Remarks:

**UTILIZATION FACTORS TABLE**

|   |               |                   |
|---|---------------|-------------------|
| Test:U:229.9V I:0.1474A P:18.26W PF:0.5390 Lamp Flux:1237.06x1 lm |               |                   |
| NAME: BH15-02100  | TYPE: SMD LED | WEIGHT:           |
| SPEC.:  | DIM.:         | SERIAL No.: 1     |
| MFR.:   | SUR.:         | PROTECTION 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                         | 54   | 42  | 35        | 53  | 42  | 35  | 52            | 41  | 35  | 29     |
| 0.80                             | 63   | 52  | 44        | 62  | 51  | 44  | 60            | 50  | 44  | 37     |
| 1.00                             | 71   | 60  | 53        | 70  | 60  | 53  | 68            | 61  | 52  | 45     |
| 1.25                             | 78   | 68  | 60        | 77  | 67  | 60  | 74            | 65  | 59  | 51     |
| 1.50                             | 83   | 73  | 66        | 81  | 72  | 65  | 78            | 70  | 64  | 56     |
| 2.00                             | 90   | 81  | 75        | 88  | 80  | 74  | 84            | 78  | 72  | 64     |
| 2.50                             | 94   | 86  | 80        | 92  | 84  | 79  | 88            | 82  | 77  | 68     |
| 3.00                             | 97   | 90  | 84        | 95  | 89  | 83  | 91            | 85  | 81  | 72     |
| 4.00                             | 102  | 96  | 91        | 99  | 94  | 89  | 94            | 90  | 86  | 77     |
| 5.00                             | 104  | 99  | 95        | 101 | 97  | 93  | 97            | 93  | 90  | 80     |
| 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: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2018-09-05

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.290  
 Humidity: 65.0%  
 Test Distance: 12.300m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

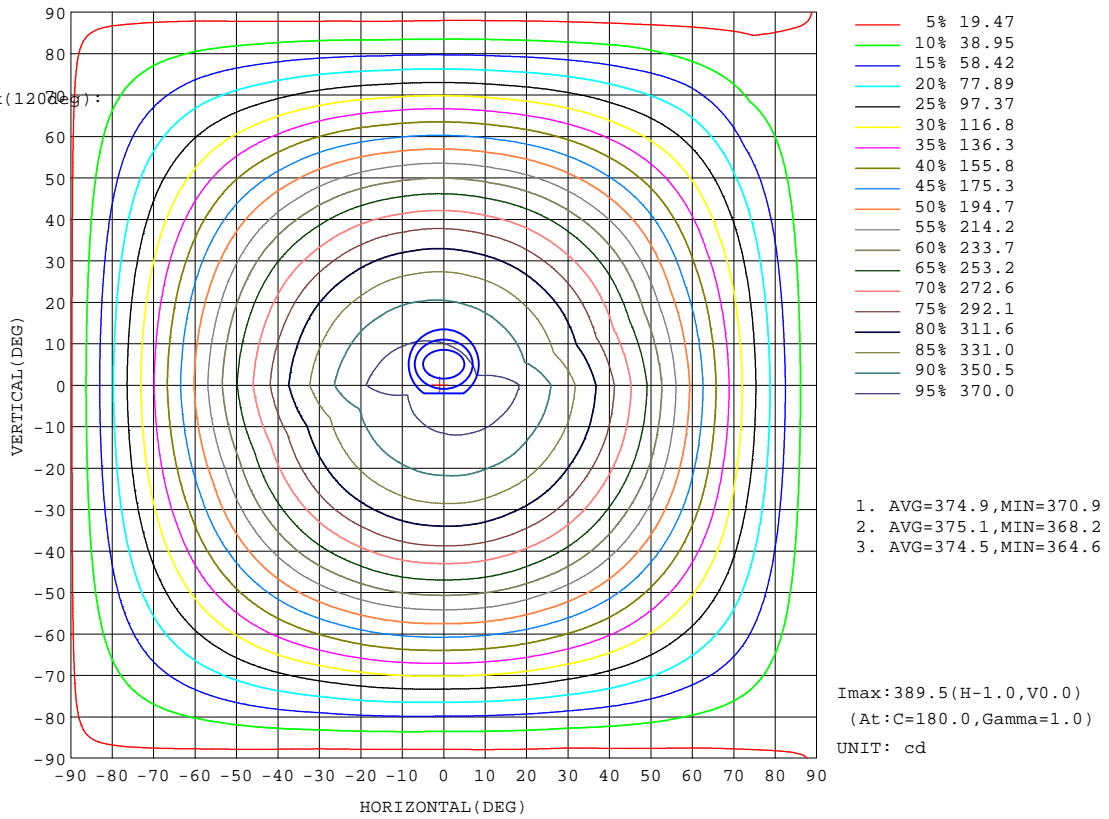
|   |               |                   |
|---|---------------|-------------------|
| Test:U:229.9V I:0.1474A P:18.26W PF:0.5390 Lamp Flux:1237.06x1 lm |               |                   |
| NAME: BH15-02100  | TYPE: SMD LED | WEIGHT:           |
| SPEC.:  | DIM.:         | SERIAL No.: 1     |
| MFR.:   | SUR.:         | PROTECTION ANGLE: |

Conical surface Flux(90deg):

593.6 lm  
%lum = 49.4%  
%lamp = 48.0%

Conical surface Flux(120deg):

885.67 lm  
%lum = 73.7%  
%lamp = 71.6%



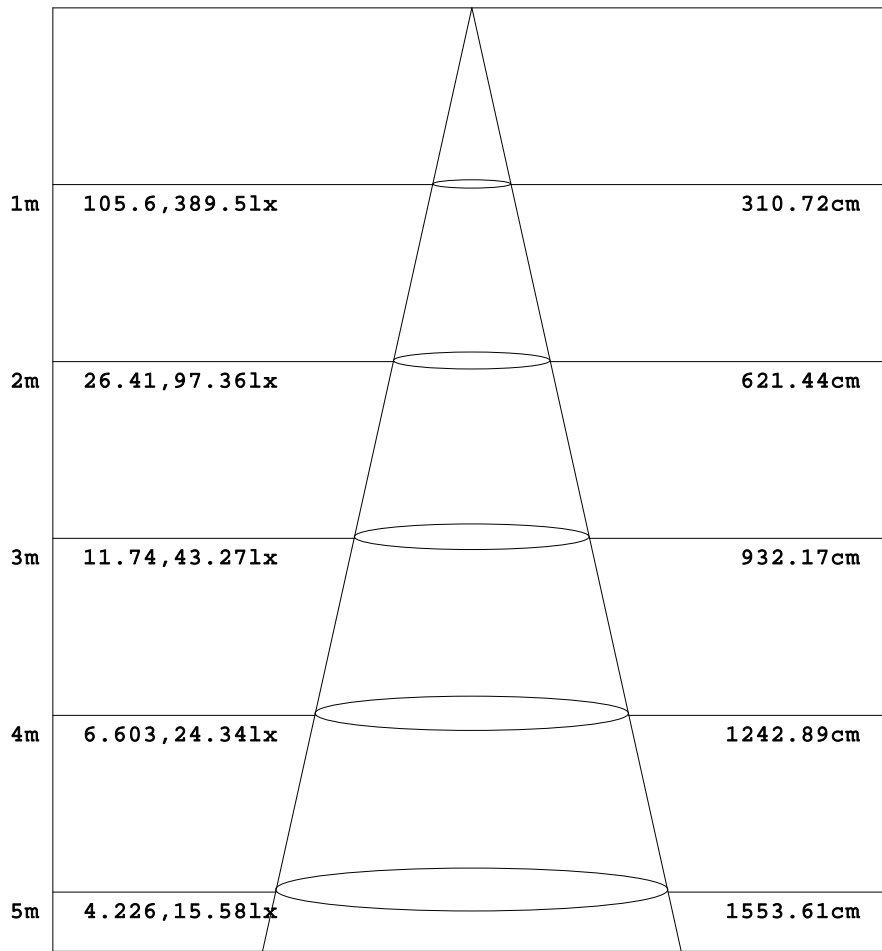
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2018-09-05

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.290  
Humidity: 65.0%  
Test Distance: 12.300m [K=1.0000]  
Remarks:

**AAI Figure**

|   |              |                   |
|---|--------------|-------------------|
| Test:U:229.9V I:0.1474A P:18.26W PF:0.5390 Lamp Flux:1237.06x1 lm |              |                   |
| NAME: BH15-02100  | TYPE:SMD LED | WEIGHT:           |
| SPEC.:  | DIM.:        | SERIAL No.:1      |
| MFR.:   | SUR.:        | PROTECTION ANGLE: |

Flux out:850.0 lm



Height                      Eavg, Emax                      Angle: 114.46deg                      Diameter

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

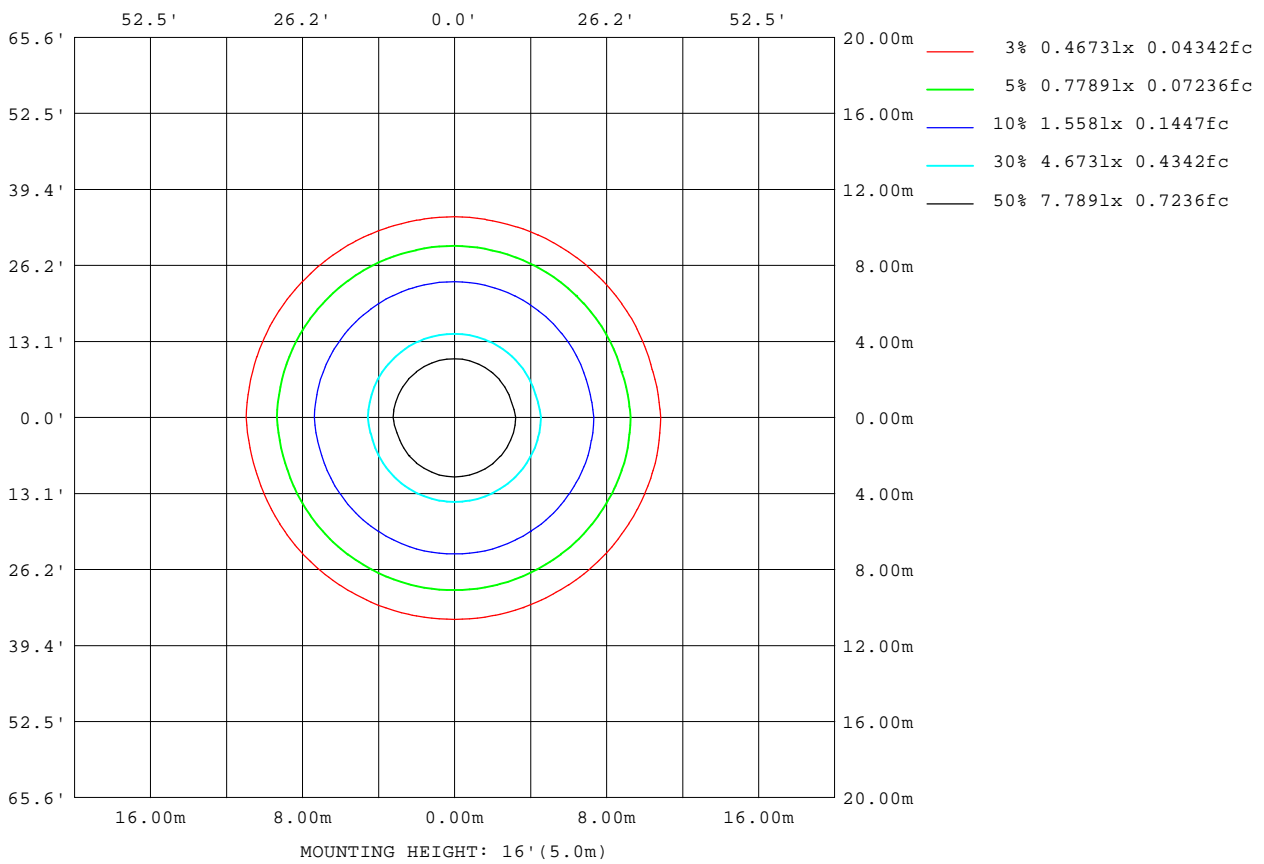
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2018-09-05

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.290  
Humidity: 65.0%  
Test Distance: 12.300m [K=1.0000]  
Remarks:



**ISOLUX DIAGRAM**

|   |              |                   |
|---|--------------|-------------------|
| Test:U:229.9V I:0.1474A P:18.26W PF:0.5390 Lamp Flux:1237.06x1 lm |              |                   |
| NAME: BH15-02100  | TYPE:SMD LED | WEIGHT:           |
| SPEC.:  | DIM.:        | SERIAL No.:1      |
| MFR.:   | SUR.:        | PROTECTION ANGLE: |



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2018-09-05

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.290  
 Humidity:65.0%  
 Test Distance:12.300m [K=1.0000]  
 Remarks:

**LED Avg.L Report**

|   |               |                   |
|---|---------------|-------------------|
| Test:U:229.9V I:0.1474A P:18.26W PF:0.5390 Lamp Flux:1237.06x1 lm |               |                   |
| NAME: BH15-02100  | TYPE: SMD LED | WEIGHT:           |
| SPEC.:  | DIM.:         | SERIAL No.:1      |
| MFR.:   | SUR.:         | PROTECTION ANGLE: |

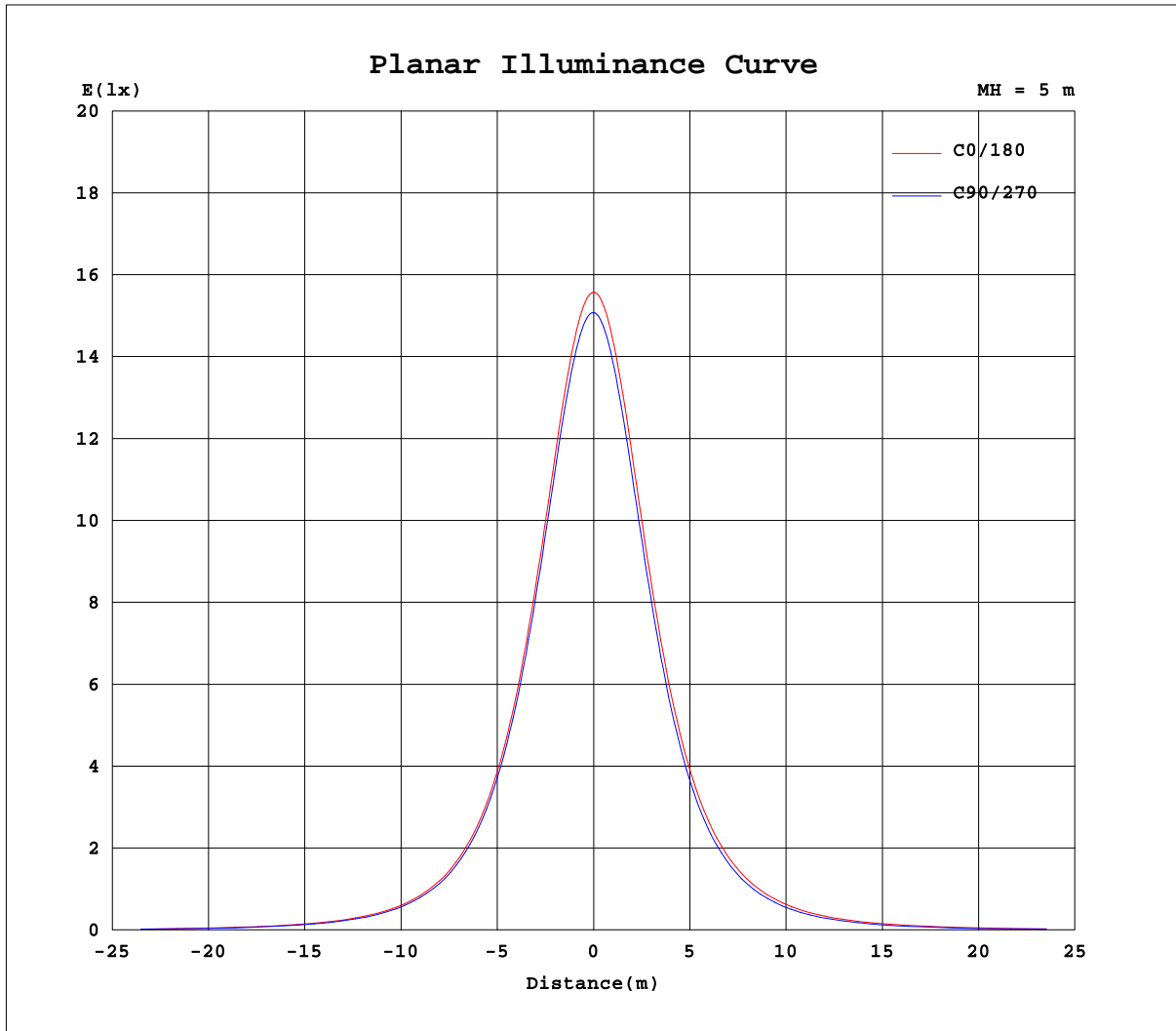
| AvgL           | cd/m2 |
|----------------|-------|
| L_0~180(65)av  | 3864  |
| L_0~180(75)av  | 3962  |
| L_0~180(85)av  | 5268  |
| L_90~270(65)av | 3500  |
| L_90~270(75)av | 3326  |
| L_90~270(85)av | 3642  |
| L_45(65)av     | 3615  |
| L_45(75)av     | 3554  |
| L_45(85)av     | 4099  |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2018-09-05

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.290  
 Humidity: 65.0%  
 Test Distance: 12.300m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2018-09-05

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.290  
 Humidity: 65.0%  
 Test Distance: 12.300m [K=1.0000]  
 Remarks:

**LUMINOUS DISTRIBUTION INTENSITY DATA**

|   |              |                   |
|---|--------------|-------------------|
| Test:U:229.9V I:0.1474A P:18.26W PF:0.5390 Lamp Flux:1237.06x1 lm |              |                   |
| NAME: BH15-02100  | TYPE:SMD LED | WEIGHT:           |
| SPEC.:  | DIM.:        | SERIAL No.:1      |
| MFR.:   | SUR.:        | PROTECTION 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                 | 389  | 386  | 384  | 381  | 380  | 378  | 377  | 376  | 375  | 375  | 374  | 374  | 389  | 386  | 384  | 381  | 380  | 378  | 377  |
| 5                 | 388  | 385  | 382  | 380  | 379  | 377  | 376  | 375  | 374  | 374  | 373  | 373  | 388  | 385  | 382  | 380  | 378  | 376  | 375  |
| 10                | 384  | 381  | 378  | 376  | 374  | 373  | 372  | 371  | 371  | 370  | 369  | 369  | 384  | 380  | 377  | 375  | 373  | 371  | 370  |
| 15                | 376  | 374  | 371  | 369  | 367  | 366  | 365  | 364  | 364  | 363  | 363  | 362  | 377  | 373  | 370  | 367  | 365  | 363  | 362  |
| 20                | 366  | 364  | 361  | 359  | 357  | 356  | 355  | 355  | 354  | 354  | 353  | 353  | 367  | 363  | 360  | 357  | 355  | 353  | 352  |
| 25                | 353  | 351  | 348  | 346  | 344  | 343  | 342  | 342  | 341  | 341  | 341  | 341  | 355  | 350  | 347  | 344  | 341  | 339  | 338  |
| 30                | 337  | 335  | 332  | 330  | 328  | 327  | 326  | 326  | 326  | 326  | 326  | 326  | 339  | 335  | 332  | 328  | 325  | 323  | 322  |
| 35                | 319  | 317  | 314  | 312  | 310  | 309  | 308  | 308  | 308  | 308  | 308  | 309  | 321  | 317  | 313  | 309  | 307  | 304  | 303  |
| 40                | 298  | 296  | 292  | 291  | 288  | 288  | 287  | 287  | 287  | 288  | 288  | 289  | 301  | 296  | 293  | 289  | 286  | 283  | 282  |
| 45                | 274  | 272  | 269  | 267  | 265  | 264  | 263  | 264  | 264  | 265  | 266  | 267  | 278  | 273  | 270  | 265  | 263  | 260  | 259  |
| 50                | 248  | 247  | 243  | 241  | 239  | 238  | 237  | 238  | 239  | 240  | 241  | 242  | 252  | 248  | 245  | 240  | 237  | 234  | 233  |
| 55                | 220  | 219  | 215  | 214  | 211  | 210  | 210  | 211  | 211  | 213  | 215  | 216  | 225  | 221  | 218  | 213  | 210  | 207  | 206  |
| 60                | 191  | 190  | 186  | 184  | 181  | 181  | 180  | 181  | 182  | 185  | 186  | 188  | 196  | 192  | 189  | 184  | 181  | 178  | 177  |
| 65                | 160  | 159  | 156  | 154  | 151  | 150  | 149  | 151  | 152  | 155  | 157  | 159  | 166  | 163  | 159  | 154  | 151  | 147  | 146  |
| 70                | 130  | 128  | 125  | 122  | 119  | 119  | 118  | 120  | 121  | 124  | 127  | 130  | 136  | 132  | 129  | 123  | 120  | 116  | 116  |
| 75                | 99.4 | 98.1 | 94.5 | 91.8 | 88.6 | 87.4 | 87.0 | 88.7 | 90.4 | 94.2 | 97.3 | 101  | 106  | 102  | 98.5 | 93.0 | 89.3 | 85.9 | 85.1 |
| 80                | 71.4 | 69.5 | 65.1 | 62.1 | 59.1 | 58.0 | 57.6 | 59.2 | 61.2 | 65.3 | 68.6 | 72.1 | 76.2 | 73.0 | 69.3 | 64.1 | 60.3 | 57.1 | 56.5 |
| 85                | 45.1 | 41.8 | 37.9 | 35.3 | 32.6 | 32.4 | 31.8 | 32.8 | 34.1 | 37.1 | 39.8 | 43.4 | 46.8 | 43.4 | 40.2 | 36.2 | 33.9 | 31.6 | 31.6 |
| 90                | 19.8 | 17.5 | 15.1 | 13.5 | 12.3 | 12.9 | 12.7 | 12.3 | 11.8 | 12.9 | 14.3 | 16.1 | 18.0 | 15.7 | 14.4 | 12.6 | 11.9 | 12.0 | 12.8 |
| 95                | 4.01 | 3.54 | 2.50 | 1.97 | 2.73 | 3.85 | 4.13 | 3.70 | 2.47 | 1.33 | 1.40 | 1.71 | 2.05 | 1.51 | 1.34 | 1.58 | 2.85 | 3.79 | 4.22 |
| 100               | 2.81 | 1.42 | 0.73 | 1.07 | 1.71 | 1.12 | 1.17 | 1.00 | 2.41 | 2.16 | 2.28 | 3.17 | 4.42 | 3.03 | 2.18 | 2.51 | 2.69 | 1.36 | 1.48 |
| 105               | 7.45 | 6.23 | 4.86 | 4.01 | 2.00 | 0.48 | 0.66 | 0.47 | 3.18 | 6.07 | 7.46 | 8.91 | 10.4 | 9.29 | 7.52 | 5.91 | 2.53 | 0.79 | 0.76 |
| 110               | 10.8 | 9.98 | 8.36 | 5.37 | 1.89 | 1.63 | 1.55 | 1.79 | 2.91 | 6.86 | 10.1 | 11.7 | 13.3 | 12.4 | 10.2 | 6.17 | 2.50 | 1.95 | 1.34 |
| 115               | 11.7 | 10.6 | 8.23 | 5.01 | 2.72 | 2.08 | 1.99 | 2.29 | 3.60 | 6.36 | 9.35 | 11.4 | 13.0 | 11.8 | 9.44 | 5.79 | 3.38 | 2.40 | 1.70 |
| 120               | 10.0 | 9.23 | 7.35 | 4.62 | 2.94 | 2.35 | 2.22 | 2.50 | 3.64 | 5.70 | 8.35 | 10.0 | 11.3 | 10.3 | 8.44 | 5.25 | 3.45 | 2.63 | 1.92 |
| 125               | 8.57 | 7.94 | 6.42 | 4.26 | 2.92 | 2.44 | 2.29 | 2.55 | 3.47 | 5.09 | 7.29 | 8.70 | 9.66 | 8.90 | 7.37 | 4.82 | 3.37 | 2.68 | 2.13 |
| 130               | 7.21 | 6.77 | 5.46 | 3.85 | 2.76 | 2.31 | 2.25 | 2.45 | 3.19 | 4.51 | 6.28 | 7.41 | 8.19 | 7.61 | 6.30 | 4.29 | 3.16 | 2.62 | 2.29 |
| 135               | 6.01 | 5.72 | 4.59 | 3.34 | 2.34 | 2.08 | 2.09 | 2.26 | 2.95 | 3.90 | 5.26 | 6.29 | 6.94 | 6.48 | 5.20 | 3.71 | 2.93 | 2.44 | 2.16 |
| 140               | 4.94 | 4.72 | 3.60 | 2.65 | 2.17 | 1.98 | 1.93 | 2.10 | 2.56 | 3.21 | 4.30 | 5.06 | 5.61 | 5.16 | 4.22 | 3.22 | 2.43 | 2.24 | 2.03 |
| 145               | 3.88 | 3.69 | 3.08 | 2.37 | 1.78 | 1.78 | 1.77 | 1.80 | 2.08 | 2.71 | 3.55 | 4.08 | 4.43 | 4.14 | 3.48 | 2.73 | 2.09 | 1.84 | 1.72 |
| 150               | 3.04 | 2.95 | 2.46 | 2.02 | 1.67 | 1.50 | 1.44 | 1.43 | 1.77 | 2.26 | 2.87 | 3.27 | 3.67 | 3.58 | 2.84 | 2.55 | 1.83 | 1.77 | 1.54 |
| 155               | 2.27 | 2.19 | 1.86 | 1.59 | 1.21 | 1.23 | 1.22 | 1.34 | 1.36 | 1.85 | 2.43 | 2.50 | 2.98 | 2.81 | 2.21 | 2.13 | 1.33 | 1.70 | 1.39 |
| 160               | 1.56 | 1.51 | 1.35 | 1.17 | 0.94 | 0.93 | 1.17 | 1.25 | 1.05 | 1.17 | 1.71 | 1.83 | 1.85 | 1.68 | 1.45 | 1.14 | 0.99 | 1.00 | 1.03 |
| 165               | 1.05 | 1.07 | 1.02 | 0.95 | 0.90 | 0.75 | 0.95 | 0.96 | 0.88 | 0.68 | 0.93 | 1.08 | 1.18 | 1.10 | 0.92 | 0.77 | 0.76 | 0.72 | 0.79 |
| 170               | 0.72 | 0.72 | 0.75 | 0.80 | 0.68 | 0.64 | 0.64 | 0.66 | 0.66 | 0.71 | 0.73 | 0.69 | 0.73 | 0.74 | 0.76 | 0.74 | 0.74 | 0.67 | 0.64 |
| 175               | 0.70 | 0.72 | 0.69 | 0.69 | 0.67 | 0.65 | 0.66 | 0.67 | 0.69 | 0.73 | 0.73 | 0.71 | 0.73 | 0.75 | 0.78 | 0.73 | 0.72 | 0.71 | 0.67 |
| 180               | 0.77 | 0.77 | 0.80 | 0.82 | 0.81 | 0.80 | 0.80 | 0.80 | 0.78 | 0.80 | 0.78 | 0.77 | 0.78 | 0.76 | 0.80 | 0.82 | 0.82 | 0.80 | 0.79 |

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2018-09-05

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.290  
Humidity:65.0%  
Test Distance:12.300m [K=1.0000]  
Remarks:

**LUMINOUS DISTRIBUTION INTENSITY DATA**

|   |              |                   |
|---|--------------|-------------------|
| Test:U:229.9V I:0.1474A P:18.26W PF:0.5390 Lamp Flux:1237.06x1 lm |              |                   |
| NAME: BH15-02100  | TYPE:SMD LED | WEIGHT:           |
| SPEC.:  | DIM.:        | SERIAL No.:1      |
| MFR.:   | SUR.:        | PROTECTION ANGLE: |

Table--2

UNIT: cd

| C(DEG)<br>γ (DEG) | 285  | 300  | 315  | 330  | 345  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------|------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 0                 | 376  | 375  | 375  | 374  | 374  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5                 | 374  | 374  | 373  | 373  | 372  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10                | 369  | 369  | 368  | 368  | 368  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15                | 361  | 361  | 361  | 361  | 361  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20                | 351  | 351  | 350  | 351  | 351  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 25                | 337  | 337  | 337  | 338  | 339  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30                | 321  | 321  | 322  | 323  | 323  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 35                | 302  | 303  | 303  | 305  | 305  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40                | 281  | 282  | 283  | 284  | 285  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 45                | 258  | 259  | 260  | 261  | 262  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 50                | 232  | 233  | 234  | 236  | 237  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 55                | 205  | 206  | 207  | 210  | 211  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60                | 176  | 177  | 178  | 181  | 183  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 65                | 146  | 147  | 149  | 152  | 153  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 70                | 115  | 117  | 119  | 122  | 123  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 75                | 84.9 | 86.8 | 88.9 | 92.3 | 94.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 80                | 56.6 | 58.3 | 60.3 | 64.0 | 63.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 85                | 32.0 | 32.6 | 34.3 | 33.5 | 34.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 90                | 12.7 | 12.4 | 12.0 | 13.4 | 15.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 95                | 3.63 | 2.56 | 1.79 | 2.73 | 3.62 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100               | 1.34 | 1.80 | 0.90 | 0.81 | 1.71 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 105               | 0.42 | 2.81 | 4.23 | 4.91 | 6.30 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 110               | 1.13 | 2.62 | 6.18 | 8.39 | 9.67 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 115               | 1.62 | 2.91 | 5.73 | 8.39 | 10.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 120               | 1.45 | 2.46 | 4.53 | 7.03 | 8.67 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 125               | 1.68 | 2.01 | 3.35 | 4.15 | 6.67 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 130               | 1.55 | 2.12 | 3.77 | 5.36 | 5.06 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 135               | 1.79 | 1.80 | 2.99 | 4.39 | 5.48 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 140               | 2.02 | 1.80 | 2.47 | 3.62 | 4.43 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 145               | 1.64 | 1.92 | 1.96 | 1.88 | 3.26 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 150               | 1.41 | 1.70 | 2.00 | 2.53 | 2.15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 155               | 1.40 | 1.51 | 1.57 | 1.91 | 2.11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 160               | 1.03 | 1.08 | 1.09 | 1.37 | 1.48 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 165               | 0.75 | 0.76 | 0.78 | 1.00 | 1.13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 170               | 0.64 | 0.66 | 0.70 | 0.68 | 0.68 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 175               | 0.67 | 0.65 | 0.66 | 0.69 | 0.72 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 180               | 0.81 | 0.80 | 0.80 | 0.79 | 0.76 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2018-09-05

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.290  
 Humidity:65.0%  
 Test Distance:12.300m [K=1.0000]  
 Remarks:

## Spectrum Test Report

Sample : 18W 3000K  
 Specification : BH15-02100  
 Sample No. : 1  
 Manufacturer :

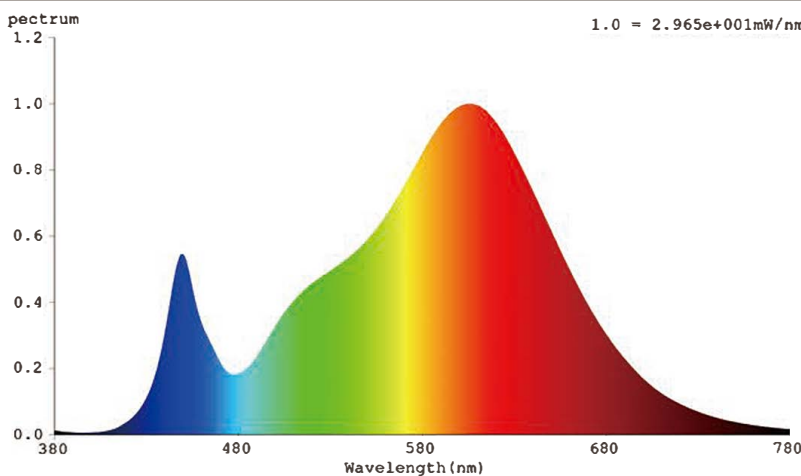
Date : 2018-12-04  
 Sam. Status : 230V/50HZ  
 Instrument : HaasSuite(EVERFINE)  
 Test by : DAMIN  
 Assessor : damin

### Test Condition

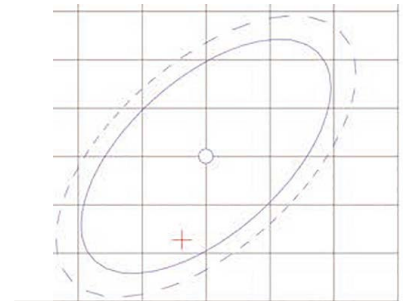
Temperature : 25.3Deg  
 WL Range : 380nm-780nm  
 Test Mode : Fast Test

RH : 65.0%  
 IP : 56178 (86%)  
 T : 102 ms  
 Sensitivity : High

### Spectrum



3.8 SDCM



x=0.437 y=0.405 3000K/NEC

Spectral Distribution

CIE1931 Chromaticity Diagram

### Colorimetric Parameters

Chromaticity Coordinate:  $x = 0.4351$   $y = 0.3964$  /  $u' = 0.2527$   $v' = 0.5180$  ( $duv = -2.86e-03$ )

CCT= 2967K Prcp WL: Ld=584.0nm Purity=49.6%

Peak WL: Lp=606nm FWHM: =128.5nm Ratio:R=23.5% G=73.8% B=2.6%

Render Index: Ra = 84.4 CRI = 79.9 AvgR = 79.7

R1 =83 R2 =92 R3 =96 R4 =83 R5 =84 R6 =91 R7 =83

R8 =62 R9 =15 R10=83 R11=83 R12=78 R13=86 R14=99 R15=77

LEVEL:OUT

### Photometric & Radiometric Parameters

Flux = 1433.5 lm Eff. : 75.00 lm/W Fe = 4.4944 W

### Electrical parameters

V = 229.8 V I = 0.1541 A P = 19.11 W PF = 0.5399 F=49.99 Hz

## Spectrum Test Report

Sample : 18W 6500K  
 Specification :BH15-02130  
 Sample No. :1  
 Manufacturer :

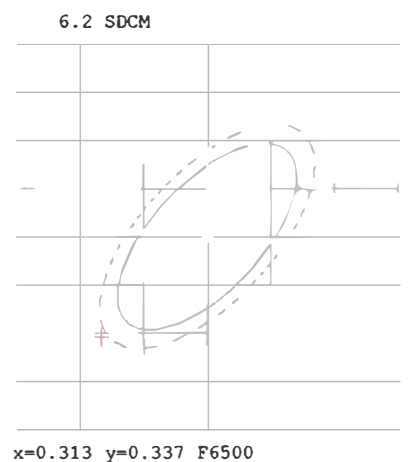
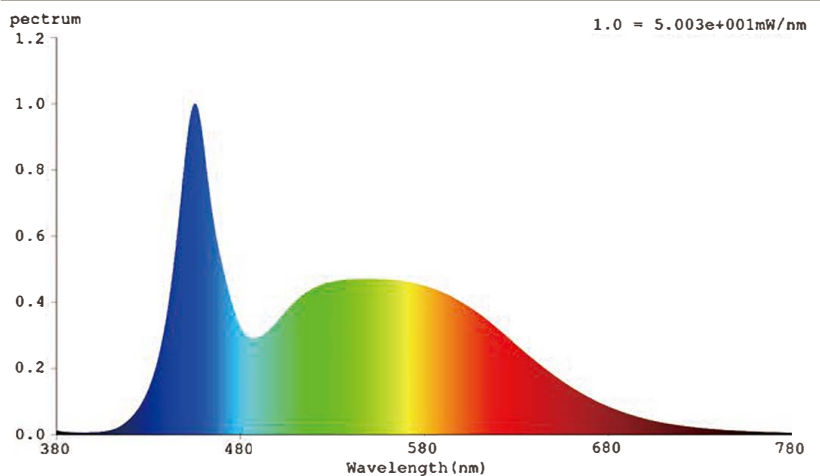
Date : 2018-12-04  
 Sam. Status : 230V/50HZ  
 Instrument : HaasSuite(EVERFINE)  
 Test by : DAMIN  
 Assessor : damin

### Test Condition

Temperature : 25.3Deg  
 WL Range : 380nm-780nm  
 Test Mode : Fast Test

RH : 65.0%  
 IP : 52435 (80%)  
 T : 87 ms  
 Sensitivity : High

### Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

### Colorimetric Parameters

Chromaticity Coordinate:  $x = 0.3047$   $y = 0.3266$  /  $u' = 0.1932$   $v' = 0.4658$  ( $duv=6.07e-03$ )  
 CCT= 6979K Prcp WL: Ld=488.6nm Purity=10.2%  
 Peak WL: Lp=456nm FWHM: =27.1nm Ratio:R=12.9% G=80.6% B=6.5%

Render Index: Ra = 84.1 CRI = 77.1 AvgR = 77.1

R1 =82 R2 =91 R3 =94 R4 =80 R5 =82 R6 =86 R7 =88  
 R8 =70 R9 =11 R10=76 R11=79 R12=58 R13=85 R14=97 R15=77

LEVEL:OUT

### Photometric & Radiometric Parameters

Flux = 1542.3 lm Eff. : 84.88 lm/W Fe = 5.0809 W

### Electrical parameters

V = 230.0 V I = 0.1486 A P = 18.17 W PF = 0.5318 F=49.99 Hz