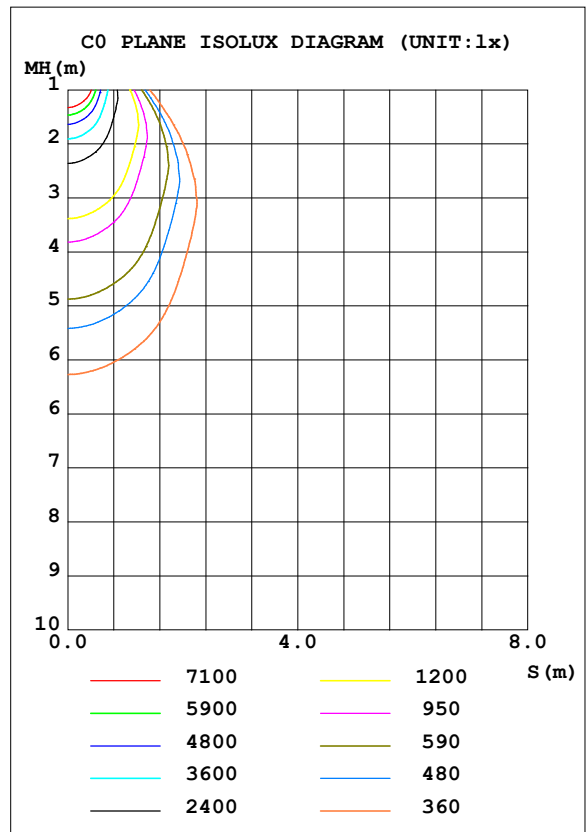
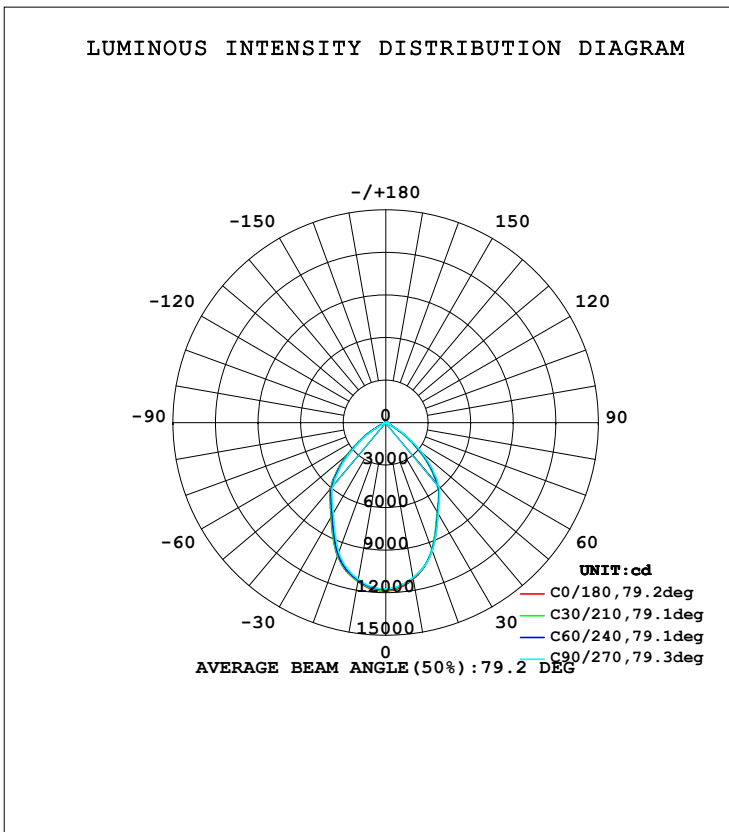


LUMINAIRE PHOTOMETRIC TEST REPORT

| | | |
|---|-------|-------------------|
| Test:U:220.4V I:0.7130A P:153.0W PF:0.9740 Lamp Flux:18173.5x1 lm | | |
| NAME: HL-150W-80° | TYPE: | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: | SUR.: | PROTECTION ANGLE: |

| DATA OF LAMP | | PHOTOMETRIC DATA Eff: 118.78 lm/W | | | |
|-------------------|---------|-----------------------------------|--------|---------------------|-----------|
| MODEL | | I _{max} (cd) | 11881 | S/MH (C0/180) | 1.02 |
| NOMINAL POWER (W) | | LOR (%) | 100.0 | S/MH (C90/270) | 1.00 |
| RATED VOLTAGE (V) | | TOTAL FLUX (lm) | 18174 | η UP, DN (C0-180) | 0.3, 49.8 |
| NOMINAL FLUX (lm) | 18173.5 | CIE CLASS | DIRECT | η UP, DN (C180-360) | 0.2, 49.8 |
| LAMPS INSIDE | 1 | η up (%) | 0.4 | CIBSE SHR NOM | 1.00 |
| TEST VOLTAGE (V) | | η down (%) | 99.6 | CIBSE SHR MAX | 1.15 |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: yu
 Test Date: 2016-10-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity: 65.0%
 Test Distance: 8.000m [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 | 1120 | 1114 | 1111 | 1110 | 1137 | 1130 | 1121 | 1110 | 0- 10 | 1093 | 1093 | 6.01,6.01 |
| 20 | 954.3 | 958.6 | 960.8 | 965.7 | 998.6 | 989.6 | 970.3 | 949.3 | 10- 20 | 2959 | 4052 | 22.3,22.3 |
| 30 | 730.8 | 735.3 | 741.1 | 747.5 | 771.8 | 760.9 | 743.1 | 726.7 | 20- 30 | 3911 | 7963 | 43.8,43.8 |
| 40 | 562.4 | 567.6 | 579.9 | 595.7 | 612.0 | 590.5 | 575.0 | 560.7 | 30- 40 | 4138 | 12101 | 66.6,66.6 |
| 50 | 307.8 | 316.5 | 336.2 | 352.2 | 362.6 | 341.3 | 327.5 | 309.7 | 40- 50 | 3538 | 15639 | 86.1,86.1 |
| 60 | 75.59 | 86.55 | 99.54 | 114.1 | 118.8 | 104.0 | 92.41 | 81.22 | 50- 60 | 1857 | 17497 | 96.3,96.3 |
| 70 | 19.57 | 21.05 | 21.70 | 21.29 | 18.25 | 17.40 | 16.15 | 15.03 | 60- 70 | 371.2 | 17868 | 98.3,98.3 |
| 80 | 11.31 | 11.72 | 11.81 | 11.55 | 8.015 | 7.766 | 7.354 | 7.200 | 70- 80 | 141.6 | 18009 | 99.1,99.1 |
| 90 | 8.459 | 8.392 | 8.201 | 8.184 | 4.783 | 4.850 | 4.757 | 5.320 | 80- 90 | 84.06 | 18093 | 99.6,99.6 |
| 100 | 9.201 | 9.103 | 8.985 | 8.917 | 5.950 | 5.911 | 6.095 | 5.998 | 90-100 | 76.07 | 18169 | 100,100 |
| 110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100-110 | 4.046 | 18174 | 100,100 |
| 120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 110-120 | 0 | 18174 | 100,100 |
| 130 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 120-130 | 0 | 18174 | 100,100 |
| 140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130-140 | 0 | 18174 | 100,100 |
| 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 140-150 | 0 | 18174 | 100,100 |
| 160 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150-160 | 0 | 18174 | 100,100 |
| 170 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 160-170 | 0 | 18174 | 100,100 |
| 180 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 170-180 | 0 | 18174 | 100,100 |
| DEG | LUMINOUS INTENSITY:×10cd | | | | | | | | | UNIT:lm | | |

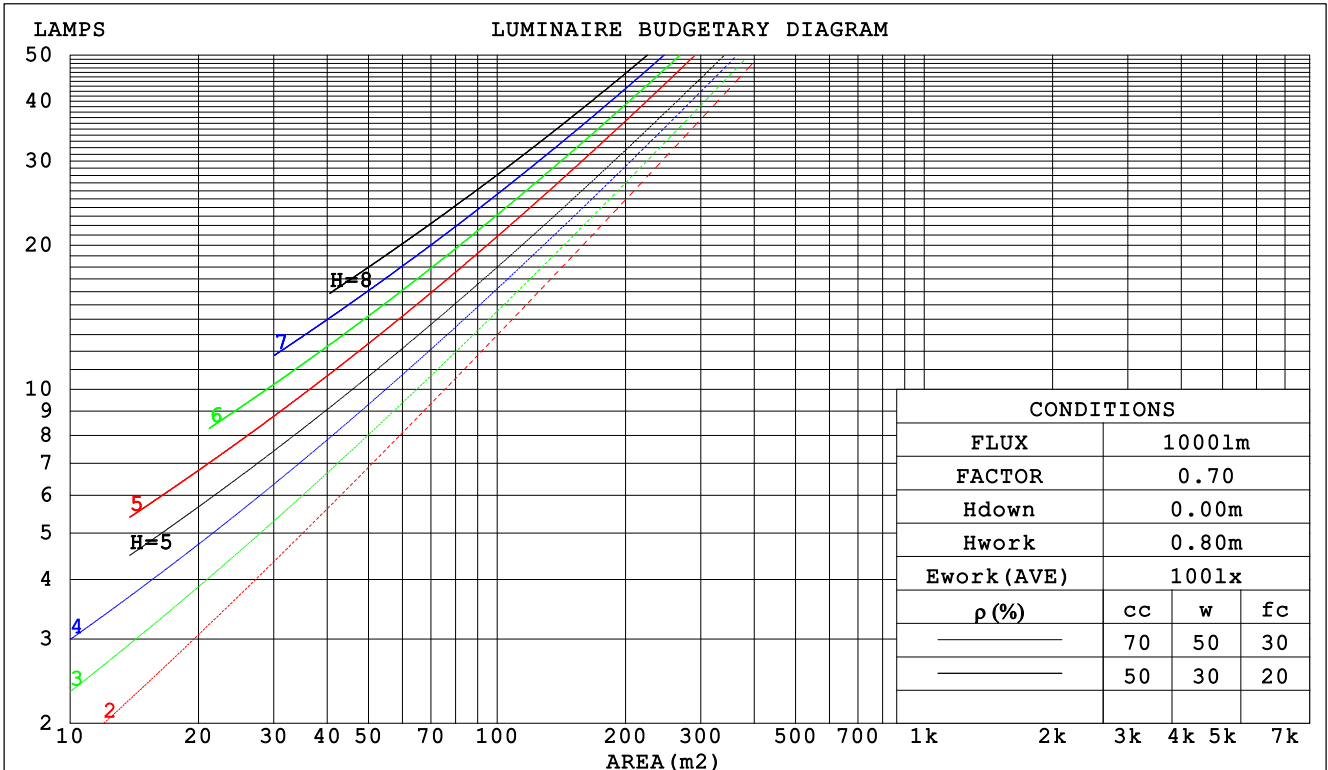
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:yu
 Test Date:2016-10-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 γ Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

| | | |
|---|-------|-------------------|
| Test:U:220.4V I:0.7130A P:153.0W PF:0.9740 Lamp Flux:18173.5x1 lm | | |
| NAME: HL-150W-80° | TYPE: | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: | SUR.: | PROTECTION 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 | | | | | | Coefficients of Utilization(CU) | | | | | | | | | |
| 0.0 | 1.19 | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.11 | 1.11 | 1.11 | 1.06 | 1.06 | 1.06 | 1.02 | 1.02 | 1.02 | .00 |
| 1.0 | 1.08 | 1.05 | 1.02 | 1.06 | 1.03 | 1.01 | 1.02 | .90 | .97 | .98 | .96 | .94 | .94 | .93 | .92 | .90 |
| 2.0 | .98 | .93 | .89 | .96 | .92 | .88 | .93 | .89 | .86 | .90 | .87 | .84 | .87 | .84 | .82 | .80 |
| 3.0 | .89 | .83 | .78 | .88 | .82 | .77 | .85 | .80 | .76 | .82 | .78 | .74 | .80 | .76 | .73 | .71 |
| 4.0 | .81 | .74 | .69 | .80 | .73 | .68 | .77 | .72 | .67 | .75 | .70 | .66 | .73 | .69 | .66 | .64 |
| 5.0 | .74 | .67 | .61 | .73 | .66 | .61 | .71 | .65 | .60 | .69 | .64 | .60 | .67 | .63 | .59 | .57 |
| 6.0 | .68 | .60 | .55 | .67 | .60 | .55 | .65 | .59 | .54 | .64 | .58 | .54 | .62 | .57 | .53 | .52 |
| 7.0 | .62 | .55 | .50 | .62 | .55 | .50 | .60 | .54 | .49 | .59 | .53 | .49 | .58 | .52 | .49 | .47 |
| 8.0 | .58 | .50 | .45 | .57 | .50 | .45 | .56 | .49 | .45 | .55 | .49 | .45 | .53 | .48 | .44 | .43 |
| 9.0 | .53 | .46 | .41 | .53 | .46 | .41 | .52 | .46 | .41 | .51 | .45 | .41 | .50 | .45 | .41 | .39 |
| 10.0 | .50 | .43 | .38 | .49 | .43 | .38 | .48 | .42 | .38 | .47 | .42 | .38 | .47 | .41 | .38 | .36 |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:yu
 Test Date:2016-10-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks:

WEC AND CCEC

| | | |
|---|-------|-------------------|
| Test:U:220.4V I:0.7130A P:153.0W PF:0.9740 Lamp Flux:18173.5x1 lm | | |
| NAME: HL-150W-80° | TYPE: | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: | SUR.: | PROTECTION 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 | .223 | .127 | .040 | .216 | .123 | .039 | .203 | .117 | .037 | .191 | .110 | .035 | .180 | .104 | .034 | |
| 2.0 | .217 | .119 | .036 | .211 | .116 | .036 | .200 | .111 | .034 | .189 | .106 | .033 | .180 | .102 | .032 | |
| 3.0 | .207 | .110 | .033 | .202 | .108 | .033 | .192 | .104 | .032 | .183 | .100 | .031 | .175 | .097 | .030 | |
| 4.0 | .197 | .102 | .030 | .192 | .101 | .030 | .184 | .097 | .029 | .176 | .094 | .028 | .168 | .091 | .028 | |
| 5.0 | .187 | .095 | .028 | .183 | .094 | .027 | .175 | .091 | .027 | .168 | .089 | .026 | .161 | .086 | .026 | |
| 6.0 | .177 | .089 | .025 | .173 | .088 | .025 | .166 | .085 | .025 | .160 | .083 | .024 | .154 | .081 | .024 | |
| 7.0 | .168 | .083 | .023 | .164 | .082 | .023 | .158 | .080 | .023 | .153 | .078 | .023 | .147 | .077 | .022 | |
| 8.0 | .159 | .078 | .022 | .156 | .077 | .022 | .151 | .075 | .021 | .146 | .074 | .021 | .141 | .072 | .021 | |
| 9.0 | .151 | .073 | .020 | .148 | .072 | .020 | .144 | .071 | .020 | .139 | .070 | .020 | .134 | .068 | .020 | |
| 10.0 | .144 | .069 | .019 | .141 | .068 | .019 | .137 | .067 | .019 | .133 | .066 | .019 | .129 | .065 | .019 | |

| 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 | .194 | .194 | .194 | .166 | .166 | .166 | .113 | .113 | .113 | .065 | .065 | .065 | .021 | .021 | .021 | |
| 1.0 | .178 | .160 | .145 | .152 | .138 | .124 | .104 | .095 | .086 | .060 | .055 | .050 | .019 | .018 | .016 | |
| 2.0 | .166 | .136 | .110 | .142 | .117 | .096 | .097 | .081 | .067 | .056 | .047 | .039 | .018 | .015 | .013 | |
| 3.0 | .156 | .117 | .087 | .134 | .101 | .075 | .092 | .070 | .053 | .053 | .041 | .031 | .017 | .013 | .010 | |
| 4.0 | .147 | .103 | .070 | .126 | .089 | .060 | .087 | .062 | .043 | .050 | .036 | .025 | .016 | .012 | .008 | |
| 5.0 | .140 | .092 | .057 | .120 | .080 | .050 | .083 | .056 | .035 | .048 | .033 | .021 | .015 | .011 | .007 | |
| 6.0 | .133 | .084 | .048 | .115 | .072 | .042 | .079 | .051 | .030 | .046 | .030 | .018 | .015 | .010 | .006 | |
| 7.0 | .127 | .076 | .041 | .109 | .066 | .036 | .076 | .046 | .025 | .044 | .027 | .015 | .014 | .009 | .005 | |
| 8.0 | .121 | .071 | .036 | .105 | .061 | .031 | .072 | .043 | .022 | .042 | .025 | .013 | .014 | .008 | .004 | |
| 9.0 | .116 | .066 | .031 | .100 | .057 | .027 | .069 | .040 | .019 | .040 | .024 | .012 | .013 | .008 | .004 | |
| 10.0 | .111 | .061 | .028 | .096 | .053 | .025 | .067 | .037 | .017 | .039 | .022 | .010 | .013 | .007 | .003 | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:yu
 Test Date:2016-10-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

| | | | | | | | | | | |
|---|------------------|------|------|------|-------|----------------|------|-------------------|------|------|
| Test:U:220.4V I:0.7130A P:153.0W PF:0.9740 Lamp Flux:18173.5x1 lm | | | | | | | | | | |
| NAME: HL-150W-80° | | | | | TYPE: | | | WEIGHT: | | |
| SPEC.: | | | | | DIM.: | | | SERIAL No.: | | |
| 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 | 26.8 | 28.0 | 27.0 | 28.2 | 28.4 | 27.1 | 28.4 | 27.4 | 28.6 | 28.8 |
| 3H | 26.7 | 27.8 | 27.0 | 28.0 | 28.2 | 27.0 | 28.1 | 27.3 | 28.4 | 28.6 |
| 4H | 26.6 | 27.7 | 26.9 | 27.9 | 28.2 | 27.0 | 28.0 | 27.3 | 28.3 | 28.5 |
| 6H | 26.6 | 27.6 | 26.9 | 27.8 | 28.1 | 26.9 | 27.9 | 27.2 | 28.2 | 28.4 |
| 8H | 26.6 | 27.5 | 26.9 | 27.8 | 28.1 | 26.9 | 27.9 | 27.2 | 28.1 | 28.4 |
| 12H | 26.6 | 27.5 | 26.9 | 27.7 | 28.0 | 26.9 | 27.8 | 27.2 | 28.1 | 28.4 |
| 4H 2H | 26.7 | 27.7 | 27.0 | 28.0 | 28.2 | 27.0 | 28.1 | 27.3 | 28.3 | 28.5 |
| 3H | 26.6 | 27.5 | 26.9 | 27.8 | 28.1 | 26.9 | 27.8 | 27.3 | 28.1 | 28.4 |
| 4H | 26.6 | 27.4 | 26.9 | 27.7 | 28.0 | 26.9 | 27.7 | 27.3 | 28.0 | 28.3 |
| 6H | 26.5 | 27.3 | 26.9 | 27.6 | 28.0 | 26.9 | 27.6 | 27.3 | 27.9 | 28.3 |
| 8H | 26.6 | 27.2 | 27.0 | 27.6 | 28.0 | 26.9 | 27.6 | 27.3 | 27.9 | 28.3 |
| 12H | 26.6 | 27.2 | 27.0 | 27.6 | 28.0 | 26.9 | 27.5 | 27.3 | 27.9 | 28.3 |
| 8H 4H | 26.5 | 27.1 | 26.9 | 27.5 | 27.9 | 26.8 | 27.4 | 27.2 | 27.8 | 28.2 |
| 6H | 26.5 | 27.0 | 26.9 | 27.4 | 27.9 | 26.8 | 27.4 | 27.3 | 27.8 | 28.2 |
| 8H | 26.5 | 27.0 | 27.0 | 27.4 | 27.9 | 26.9 | 27.3 | 27.3 | 27.8 | 28.2 |
| 12H | 26.6 | 27.0 | 27.1 | 27.5 | 28.0 | 27.0 | 27.4 | 27.4 | 27.8 | 28.3 |
| 12H 4H | 26.4 | 27.0 | 26.8 | 27.4 | 27.8 | 26.7 | 27.4 | 27.2 | 27.7 | 28.1 |
| 6H | 26.5 | 26.9 | 26.9 | 27.4 | 27.8 | 26.8 | 27.3 | 27.3 | 27.7 | 28.2 |
| 8H | 26.5 | 26.9 | 27.0 | 27.4 | 27.9 | 26.9 | 27.3 | 27.3 | 27.7 | 28.2 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S = 1.0H | + 1.5 / - 2.4 | | | | | + 1.3 / - 2.0 | | | | |
| 1.5H | + 0.8 / - 1.3 | | | | | + 0.8 / - 1.3 | | | | |
| 2.0H | + 3.3 / - 6.4 | | | | | + 3.2 / - 6.6 | | | | |

CIE Pub.117 Corrected 18174 lm Total Lamp Luminous Flux. (8log(F/F0) = 10.1)

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:yu
 Test Date:2016-10-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

| | | |
|---|-------|-------------------|
| Test:U:220.4V I:0.7130A P:153.0W PF:0.9740 Lamp Flux:18173.5x1 lm | | |
| NAME: HL-150W-80° | TYPE: | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| 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) $k(RI) \times RCR = 5$ | | | | | | | | | |
| k = 0.60 | 70 | 60 | 55 | 69 | 60 | 55 | 68 | 60 | 55 | 49 |
| 0.80 | 80 | 71 | 65 | 79 | 71 | 65 | 78 | 70 | 65 | 59 |
| 1.00 | 88 | 80 | 74 | 87 | 79 | 74 | 85 | 80 | 73 | 68 |
| 1.25 | 94 | 86 | 81 | 93 | 86 | 81 | 90 | 84 | 80 | 74 |
| 1.50 | 98 | 91 | 86 | 97 | 90 | 86 | 94 | 89 | 84 | 79 |
| 2.00 | 103 | 97 | 93 | 101 | 96 | 92 | 98 | 94 | 90 | 84 |
| 2.50 | 105 | 100 | 96 | 104 | 99 | 95 | 100 | 96 | 93 | 86 |
| 3.00 | 108 | 103 | 99 | 106 | 101 | 98 | 102 | 99 | 96 | 88 |
| 4.00 | 110 | 106 | 103 | 108 | 105 | 102 | 104 | 101 | 99 | 91 |
| 5.00 | 112 | 108 | 105 | 110 | 106 | 104 | 105 | 103 | 101 | 92 |
| 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:yu
 Test Date:2016-10-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

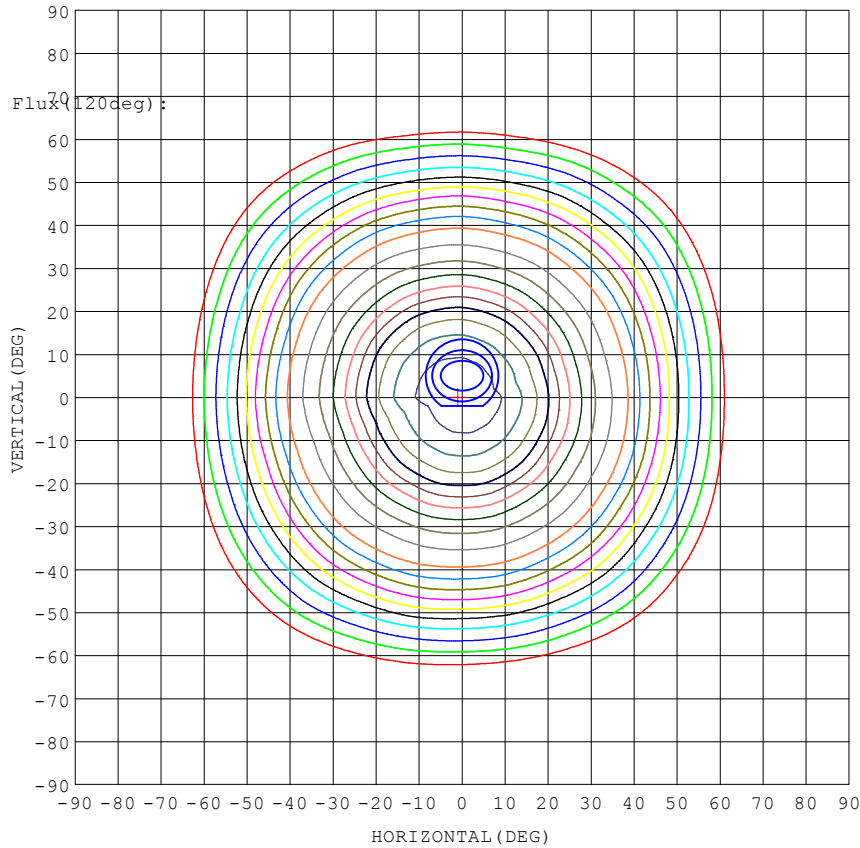
| | | |
|---|-------|-------------------|
| Test:U:220.4V I:0.7130A P:153.0W PF:0.9740 Lamp Flux:18173.5x1 lm | | |
| NAME: HL-150W-80° | TYPE: | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: | SUR.: | PROTECTION ANGLE: |

Conical surface Flux(90deg):

14034 lm
 %lum = 77.2%
 %lamp = 77.2%

Conical surface Flux(20deg):

17497 lm
 %lum = 96.3%
 %lamp = 96.3%



- 5% 594.0
- 10% 1188
- 15% 1782
- 20% 2376
- 25% 2970
- 30% 3564
- 35% 4158
- 40% 4752
- 45% 5346
- 50% 5940
- 55% 6534
- 60% 7128
- 65% 7722
- 70% 8316
- 75% 8910
- 80% 9504
- 85% 10099
- 90% 10693
- 95% 11287

1. AVG=11550,MIN=11310
2. AVG=11495,MIN=11082
3. AVG=11413,MIN=10801

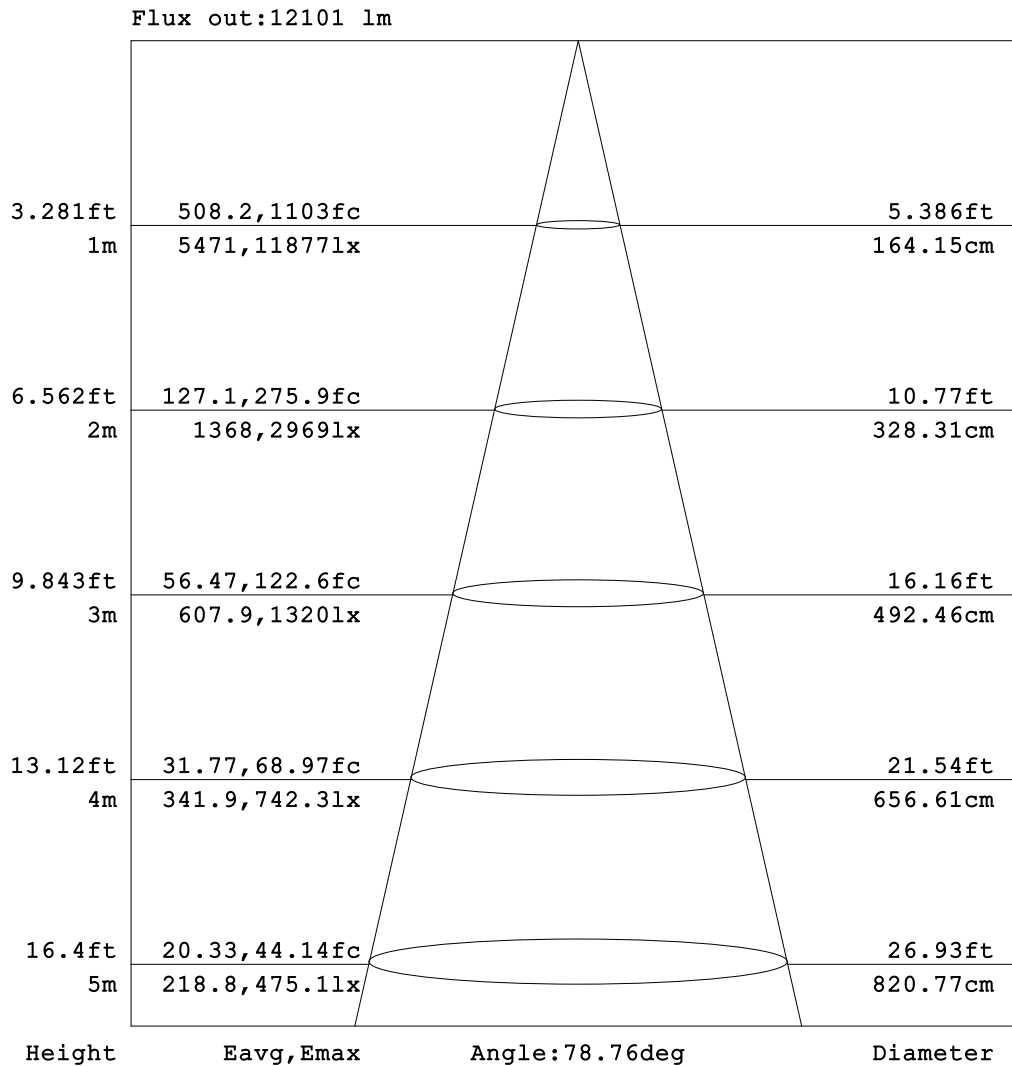
Imax:11881(H-1.0,V0.0)
 (At:C=180.0,Gamma=1.0)
 UNIT: cd

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:yu
 Test Date:2016-10-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks:

AAI Figure

| | | |
|---|-------|-------------------|
| Test:U:220.4V I:0.7130A P:153.0W PF:0.9740 Lamp Flux:18173.5x1 lm | | |
| NAME: HL-150W-80° | TYPE: | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: | SUR.: | PROTECTION ANGLE: |



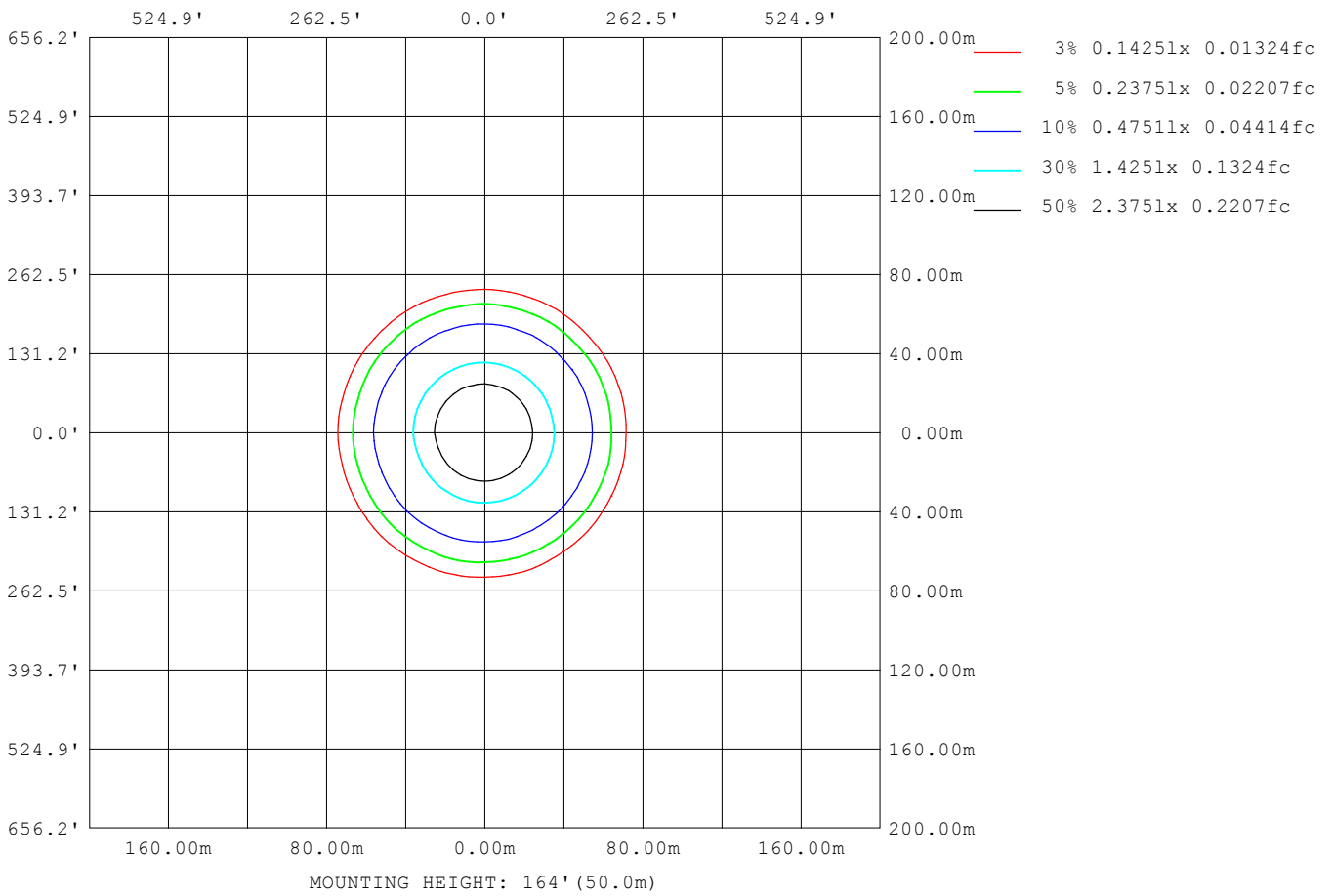
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:yu
 Test Date:2016-10-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

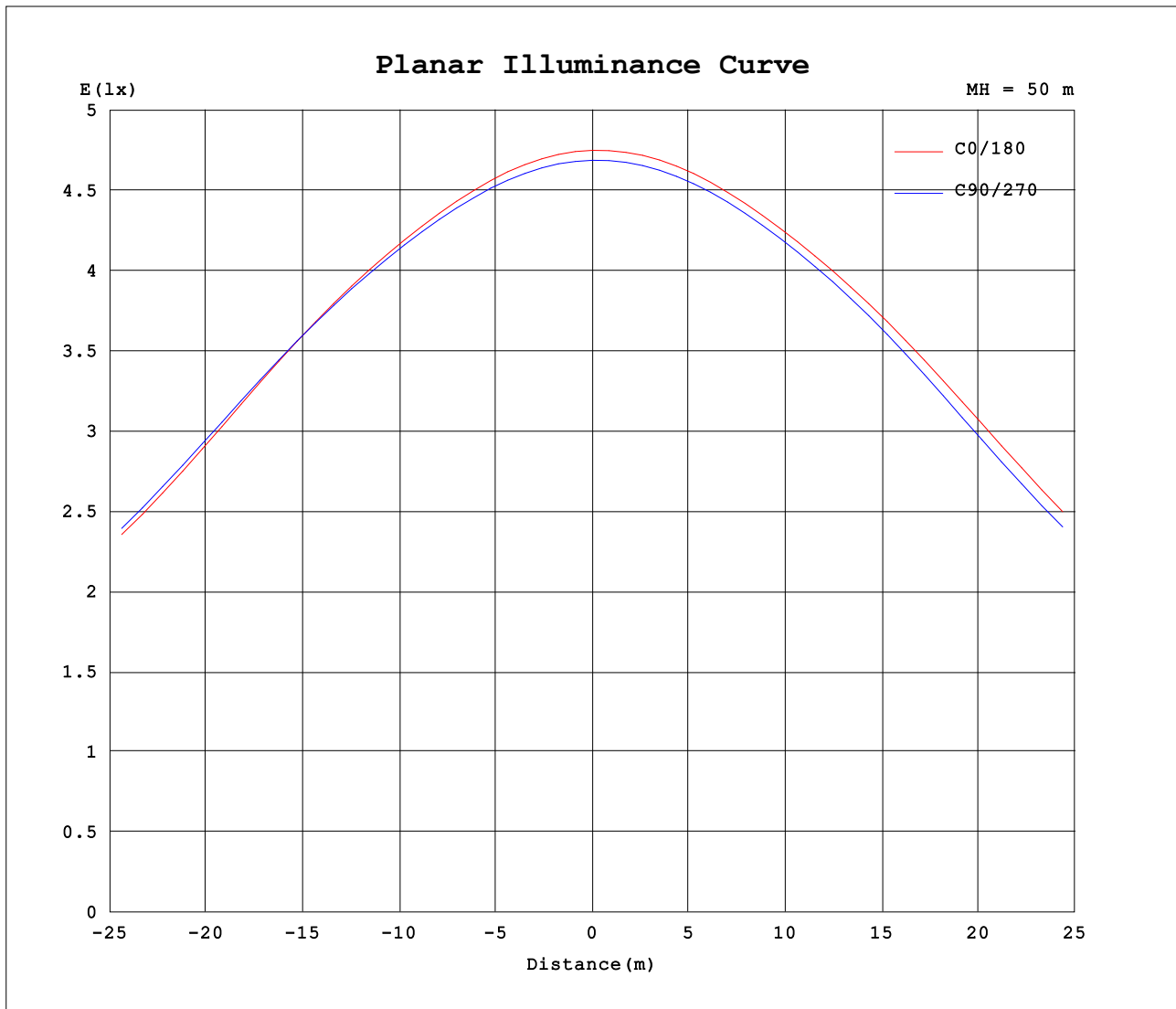
| | | |
|---|-------|-------------------|
| Test:U:220.4V I:0.7130A P:153.0W PF:0.9740 Lamp Flux:18173.5x1 lm | | |
| NAME: HL-150W-80° | TYPE: | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: | SUR.: | PROTECTION ANGLE: |



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:yu
 Test Date:2016-10-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: yu
Test Date: 2016-10-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.287
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|---|-------|-------------------|
| Test:U:220.4V I:0.7130A P:153.0W PF:0.9740 Lamp Flux:18173.5x1 lm | | |
| NAME: HL-150W-80° | TYPE: | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: | SUR.: | PROTECTION ANGLE: |

Table--1

UNIT: ×10cd

| C (DEG) γ (DEG) | 0 | 15 | 30 | 45 | 60 | 75 | 90 | 105 | 120 | 135 | 150 | 165 | 180 | 195 | 210 | 225 | 240 | 255 | 270 |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0 | 1188 | 1184 | 1181 | 1179 | 1176 | 1174 | 1172 | 1171 | 1169 | 1168 | 1167 | 1166 | 1188 | 1184 | 1181 | 1179 | 1176 | 1174 | 1172 |
| 5 | 1168 | 1164 | 1160 | 1159 | 1157 | 1156 | 1155 | 1154 | 1152 | 1152 | 1151 | 1152 | 1176 | 1173 | 1171 | 1168 | 1166 | 1162 | 1160 |
| 10 | 1120 | 1117 | 1114 | 1114 | 1112 | 1113 | 1111 | 1112 | 1110 | 1110 | 1109 | 1110 | 1137 | 1134 | 1134 | 1130 | 1128 | 1123 | 1121 |
| 15 | 1053 | 1053 | 1049 | 1051 | 1050 | 1052 | 1050 | 1051 | 1049 | 1051 | 1050 | 1054 | 1082 | 1079 | 1079 | 1074 | 1072 | 1065 | 1062 |
| 20 | 954 | 957 | 954 | 959 | 959 | 964 | 961 | 964 | 961 | 966 | 964 | 969 | 999 | 995 | 996 | 990 | 986 | 975 | 970 |
| 25 | 833 | 836 | 834 | 840 | 842 | 849 | 847 | 852 | 849 | 854 | 852 | 856 | 884 | 880 | 882 | 873 | 868 | 855 | 851 |
| 30 | 731 | 733 | 731 | 735 | 737 | 742 | 741 | 745 | 744 | 748 | 745 | 748 | 772 | 767 | 768 | 761 | 757 | 747 | 743 |
| 35 | 652 | 653 | 651 | 655 | 655 | 660 | 659 | 663 | 662 | 665 | 663 | 665 | 684 | 680 | 680 | 674 | 671 | 663 | 660 |
| 40 | 562 | 565 | 562 | 568 | 569 | 578 | 580 | 592 | 593 | 596 | 594 | 594 | 612 | 601 | 600 | 590 | 587 | 577 | 575 |
| 45 | 440 | 444 | 442 | 449 | 453 | 467 | 469 | 477 | 475 | 479 | 476 | 479 | 492 | 485 | 486 | 477 | 474 | 462 | 459 |
| 50 | 308 | 315 | 310 | 316 | 319 | 331 | 336 | 350 | 348 | 352 | 349 | 349 | 363 | 355 | 353 | 341 | 337 | 326 | 327 |
| 55 | 189 | 192 | 191 | 199 | 199 | 212 | 208 | 219 | 218 | 223 | 219 | 222 | 229 | 220 | 222 | 213 | 212 | 204 | 202 |
| 60 | 75.6 | 80.6 | 77.2 | 86.6 | 88.3 | 97.1 | 99.5 | 108 | 109 | 114 | 111 | 113 | 119 | 110 | 110 | 104 | 99.0 | 92.6 | 92.4 |
| 65 | 26.5 | 27.4 | 27.8 | 28.6 | 28.8 | 29.4 | 29.2 | 29.2 | 28.7 | 28.4 | 27.8 | 27.6 | 27.2 | 25.2 | 25.1 | 24.5 | 27.1 | 23.4 | 22.9 |
| 70 | 19.6 | 20.3 | 20.5 | 21.0 | 21.3 | 21.8 | 21.7 | 21.8 | 21.4 | 21.3 | 20.7 | 20.7 | 18.2 | 17.9 | 17.9 | 17.4 | 17.1 | 16.5 | 16.2 |
| 75 | 14.5 | 14.9 | 15.0 | 15.3 | 15.4 | 15.7 | 15.6 | 15.6 | 15.3 | 15.2 | 14.8 | 14.7 | 11.8 | 11.6 | 11.6 | 11.3 | 11.2 | 10.8 | 10.6 |
| 80 | 11.3 | 11.5 | 11.5 | 11.7 | 11.8 | 11.9 | 11.8 | 11.8 | 11.6 | 11.6 | 11.3 | 11.2 | 8.01 | 8.00 | 7.90 | 7.77 | 7.67 | 7.47 | 7.35 |
| 85 | 9.33 | 9.38 | 9.35 | 9.44 | 9.44 | 9.52 | 9.47 | 9.50 | 9.41 | 9.38 | 9.29 | 9.30 | 5.92 | 5.82 | 5.81 | 5.76 | 5.68 | 5.51 | 5.51 |
| 90 | 8.46 | 8.49 | 8.39 | 8.39 | 8.29 | 8.24 | 8.20 | 8.17 | 8.17 | 8.18 | 8.18 | 8.22 | 4.78 | 4.90 | 4.83 | 4.85 | 4.71 | 4.72 | 4.76 |
| 95 | 8.74 | 8.73 | 8.67 | 8.65 | 8.60 | 8.58 | 8.57 | 8.54 | 8.51 | 8.51 | 8.49 | 8.51 | 5.22 | 5.24 | 5.22 | 5.32 | 5.22 | 5.36 | 5.24 |
| 100 | 9.20 | 9.18 | 9.11 | 9.10 | 9.03 | 9.01 | 8.99 | 8.98 | 8.93 | 8.92 | 8.90 | 8.89 | 5.95 | 5.92 | 5.87 | 5.91 | 5.97 | 5.97 | 6.09 |
| 105 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 110 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 115 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 125 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 130 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 135 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 140 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 145 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 150 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 155 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 160 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 165 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 170 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 175 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 180 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:yu
 Test Date:2016-10-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|---|-------|-------------------|
| Test:U:220.4V I:0.7130A P:153.0W PF:0.9740 Lamp Flux:18173.5x1 lm | | |
| NAME: HL-150W-80° | TYPE: | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: | SUR.: | PROTECTION ANGLE: |

Table--2

UNIT: ×10cd

| γ (DEG) \ C (DEG) | 285 | 300 | 315 | 330 | 345 | | | | | | | | | | | | | | |
|-------------------|------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 0 | 1171 | 1169 | 1168 | 1167 | 1166 | | | | | | | | | | | | | | |
| 5 | 1157 | 1156 | 1152 | 1152 | 1149 | | | | | | | | | | | | | | |
| 10 | 1116 | 1115 | 1110 | 1109 | 1105 | | | | | | | | | | | | | | |
| 15 | 1054 | 1052 | 1046 | 1045 | 1041 | | | | | | | | | | | | | | |
| 20 | 960 | 957 | 949 | 949 | 945 | | | | | | | | | | | | | | |
| 25 | 841 | 839 | 831 | 832 | 827 | | | | | | | | | | | | | | |
| 30 | 735 | 733 | 727 | 727 | 723 | | | | | | | | | | | | | | |
| 35 | 653 | 651 | 647 | 647 | 644 | | | | | | | | | | | | | | |
| 40 | 567 | 566 | 561 | 561 | 558 | | | | | | | | | | | | | | |
| 45 | 447 | 450 | 441 | 442 | 439 | | | | | | | | | | | | | | |
| 50 | 319 | 319 | 310 | 313 | 309 | | | | | | | | | | | | | | |
| 55 | 197 | 198 | 191 | 194 | 193 | | | | | | | | | | | | | | |
| 60 | 84.4 | 85.3 | 81.2 | 84.3 | 82.4 | | | | | | | | | | | | | | |
| 65 | 22.2 | 21.9 | 21.8 | 22.4 | 22.9 | | | | | | | | | | | | | | |
| 70 | 15.5 | 15.2 | 15.0 | 15.6 | 15.9 | | | | | | | | | | | | | | |
| 75 | 10.3 | 10.1 | 10.1 | 10.5 | 10.7 | | | | | | | | | | | | | | |
| 80 | 7.17 | 7.09 | 7.20 | 7.44 | 7.52 | | | | | | | | | | | | | | |
| 85 | 5.30 | 5.33 | 5.46 | 5.56 | 5.55 | | | | | | | | | | | | | | |
| 90 | 4.65 | 4.78 | 5.32 | 5.37 | 5.07 | | | | | | | | | | | | | | |
| 95 | 5.42 | 5.40 | 5.34 | 5.27 | 5.27 | | | | | | | | | | | | | | |
| 100 | 6.02 | 6.12 | 6.00 | 6.04 | 6.00 | | | | | | | | | | | | | | |
| 105 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | |
| 110 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | |
| 115 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | |
| 120 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | |
| 125 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | |
| 130 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | |
| 135 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | |
| 140 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | |
| 145 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | |
| 150 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | |
| 155 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | |
| 160 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | |
| 165 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | |
| 170 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | |
| 175 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | |
| 180 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | | | | | | | | |

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:yu
 Test Date:2016-10-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks: