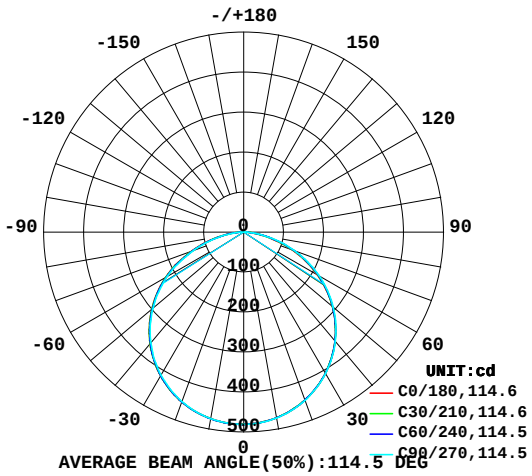
# LUMINAIRE PHOTOMETRIC TEST REPORT

| | | |
|---|---|---|
| Test:U:23.998V I:0.6338A P:15.211W PF:1.0000 Freq:0Hz Lamp Flux:1397.57x1 lm | | |
| NAME: HCP-3125142 | TYPE: | WEIGHT: |
| SPEC.:2216-24V-240D-4MM 2700K 14.4W | DIM.: | SERIAL No.: |
| MFR.: HAVIT LIGHTING | SUR.:1000*4mm | Shielding Angle: |

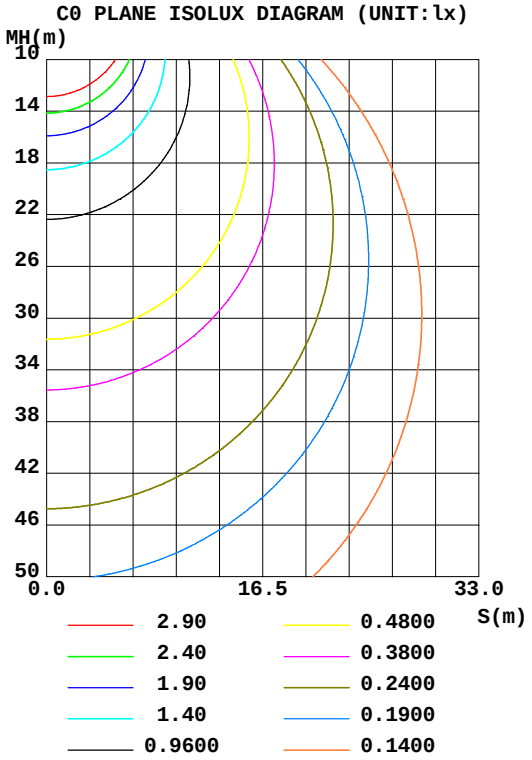
| DATA OF LAMP | | PHOTOMETRIC DATA | | Eff: 91.88 lm/W | |
|---|---|---|---|---|---|
| MODEL | HCP-3125142 | Imax(cd) | 481.4 | S/MH(C0/180) | 1.28 |
| NOMINAL POWER(W) | 14.4 | LOR(%) | 100.0 | S/MH(C90/270) | 1.28 |
| RATED VOLTAGE(V) | 24 | TOTAL FLUX(lm) | 1397.6 | η UP,DN(C0-180) | 0.0,49.8 |
| NOMINAL FLUX(lm) | 1397.57 | CIE CLASS | DIRECT | η UP,DN(C180-360) | 0.0,50.2 |
| LAMPS INSIDE | 1 | η up(%) | 0.0 | CIBSE SHR NOM | 1.25 |
| TEST VOLTAGE(V) | 24 | η down(%) | 100.0 | CIBSE SHR MAX | 1.35 |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM




AVERAGE BEAM ANGLE(50%):114.5 DEG

C0 PLANE ISOLUX DIAGRAM (UNIT:lx)




C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Qin Meng
Test Date:2024-07-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:6.920m [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 | 471.6 | 471.8 | 472.1 | 473.7 | 474.0 | 474.2 | 473.9 | 473.3 | 0- 10 | 45.54 | 45.54 | 3.26,3.26 |
| 20 | 447.5 | 447.7 | 448.1 | 450.8 | 452.0 | 452.2 | 451.2 | 449.9 | 10- 20 | 130.8 | 176.4 | 12.6,12.6 |
| 30 | 408.6 | 408.8 | 409.3 | 413.2 | 415.2 | 414.9 | 413.5 | 411.5 | 20- 30 | 199.5 | 375.9 | 26.9,26.9 |
| 40 | 355.6 | 356.2 | 356.9 | 361.7 | 364.2 | 363.3 | 361.5 | 358.9 | 30- 40 | 242.4 | 618.3 | 44.2,44.2 |
| 50 | 289.8 | 291.1 | 292.4 | 297.4 | 300.1 | 298.5 | 296.5 | 293.4 | 40- 50 | 253.6 | 871.9 | 62.4,62.4 |
| 60 | 212.9 | 215.5 | 217.4 | 222.3 | 224.3 | 222.0 | 220.1 | 216.4 | 50- 60 | 230.6 | 1102 | 78.9,78.9 |
| 70 | 128.3 | 129.4 | 134.6 | 136.4 | 137.2 | 137.0 | 132.4 | 131.0 | 60- 70 | 174.5 | 1277 | 91.4,91.4 |
| 80 | 46.73 | 50.31 | 51.82 | 55.87 | 56.45 | 53.40 | 50.43 | 48.79 | 70- 80 | 96.40 | 1373 | 98.3,98.3 |
| 90 | 0.0024 | 1.541 | 1.897 | 2.727 | 0.7939 | 1.534 | 1.202 | 1.092 | 80- 90 | 24.00 | 1397 | 100,100 |
| 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 90-100 | 0.1742 | 1398 | 100,100 |
| 110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100-110 | 0 | 1398 | 100,100 |
| 120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 110-120 | 0 | 1398 | 100,100 |
| 130 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 120-130 | 0 | 1398 | 100,100 |
| 140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130-140 | 0 | 1398 | 100,100 |
| 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 140-150 | 0 | 1398 | 100,100 |
| 160 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150-160 | 0 | 1398 | 100,100 |
| 170 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 160-170 | 0 | 1398 | 100,100 |
| 180 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 170-180 | 0 | 1398 | 100,100 |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | | UNIT:lm | | |

Conical surface Flux(90deg): 745.84 lm

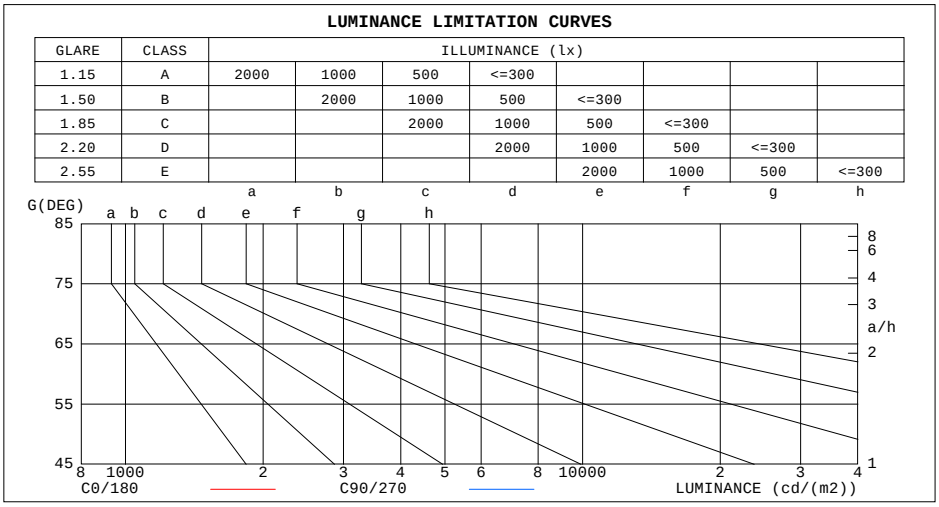
%lum = 53.4%
%lamp = 53.4%

Conical surface Flux(120deg): 1102.5 lm

%lum = 78.9%
%lamp = 78.9%

# LUMINANCE LIMITATION CURVES

| Test:U:23.998V I:0.6338A P:15.211W PF:1.0000 Freq:0Hz  Lamp Flux:1397.57x1 lm | | |
|---|---|---|
| NAME: HCP-3125142 | TYPE: | WEIGHT: |
| SPEC.:2216-24V-240D-4MM 2700K 14.4W | DIM.: | SERIAL No.: |
| MFR.: HAVIT LIGHTING | SUR.:1000*4mm | Shielding Angle: |




| LUMINANCE cd/(m2) | | |
|---|---|---|
| G(DEG) | C0/180 | C90/270 |
| 85 | 46010 | 55337 |
| 80 | 67274 | 74606 |
| 75 | 81451 | 88659 |
| 70 | 93813 | 98405 |
| 65 | 101276 | 104521 |
| 60 | 106441 | 108704 |
| 55 | 110112 | 111610 |
| 50 | 112724 | 113727 |
| 45 | 114633 | 115288 |

C Range:  0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Qin Meng
Test Date:2024-07-25

γ Range:  0 - 180DEG
γ Interval:  1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:6.920m [K=1.0000]
Remarks:

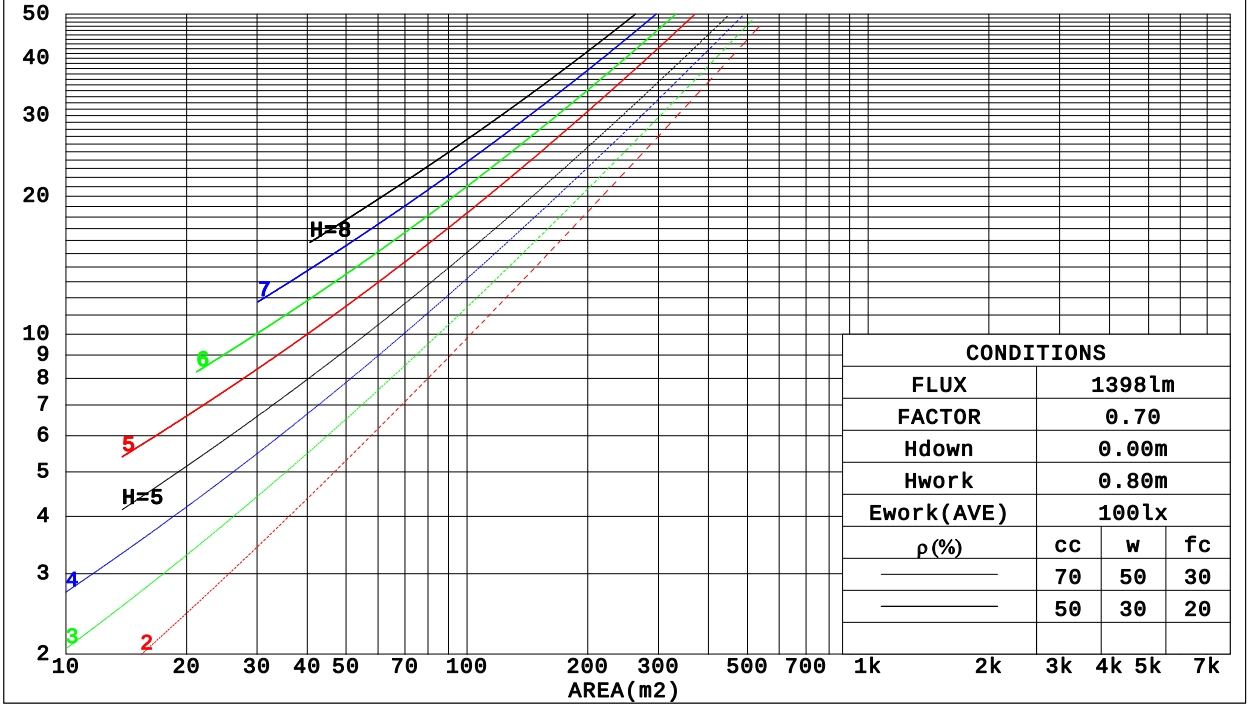
# CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

| | | |
|---|---|---|
| Test:U:23.998V I:0.6338A P:15.211W PF:1.0000 Freq:0Hz Lamp Flux:1397.57x1 lm | | |
| NAME: HCP-3125142 | TYPE: | WEIGHT: |
| SPEC.:2216-24V-240D-4MM 2700K 14.4W | DIM.: | SERIAL No.: |
| MFR.: HAVIT LIGHTING | SUR.:1000*4mm | 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 | | | 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 | 1.04 | .00 | .96 | 1.02 | .98 | .94 | .97 | .94 | .91 | .93 | .91 | .88 | .90 | .88 | .86 | .84 |
| 2.0 | .90 | .84 | .78 | .89 | .82 | .77 | .85 | .80 | .75 | .82 | .77 | .73 | .79 | .75 | .72 | .70 |
| 3.0 | .79 | .71 | .65 | .78 | .70 | .64 | .75 | .68 | .63 | .72 | .66 | .62 | .69 | .65 | .61 | .58 |
| 4.0 | .70 | .61 | .55 | .69 | .61 | .54 | .66 | .59 | .53 | .64 | .58 | .53 | .62 | .56 | .52 | .50 |
| 5.0 | .63 | .54 | .47 | .61 | .53 | .47 | .59 | .52 | .46 | .57 | .51 | .46 | .56 | .50 | .45 | .43 |
| 6.0 | .56 | .47 | .41 | .55 | .47 | .41 | .54 | .46 | .40 | .52 | .45 | .40 | .50 | .44 | .40 | .37 |
| 7.0 | .51 | .42 | .36 | .50 | .42 | .36 | .49 | .41 | .36 | .47 | .40 | .35 | .46 | .40 | .35 | .33 |
| 8.0 | .47 | .38 | .32 | .46 | .38 | .32 | .44 | .37 | .32 | .43 | .36 | .32 | .42 | .36 | .31 | .29 |
| 9.0 | .43 | .34 | .29 | .42 | .34 | .29 | .41 | .34 | .29 | .40 | .33 | .28 | .39 | .33 | .28 | .26 |
| 10.0 | .39 | .31 | .26 | .39 | .31 | .26 | .38 | .31 | .26 | .37 | .30 | .26 | .36 | .30 | .26 | .24 |

LAMPS

LUMINAIRE BUDGETARY DIAGRAM




| CONDITIONS | | | |
|---|---|---|---|
| FLUX | 1398lm | | |
| FACTOR | 0.70 | | |
| Hdown | 0.00m | | |
| Hwork | 0.80m | | |
| Ework(AVE) | 100lx | | |
| ρ(%) | cc | w | fc |
| ———— | 70 | 50 | 30 |
| ———— | 50 | 30 | 20 |

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Qin Meng
Test Date:2024-07-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:6.920m [K=1.0000]
Remarks:

# WEC AND CCEC

| | | |
|---|---|---|
| Test:U:23.998V I:0.6338A P:15.211W PF:1.0000 Freq:0Hz Lamp Flux:1397.57x1 lm | | |
| NAME: HCP-3125142 | TYPE: | WEIGHT: |
| SPEC.:2216-24V-240D-4MM 2700K 14.4W | DIM.: | SERIAL No.: |
| MFR.: HAVIT LIGHTING | SUR.:1000*4mm | Shielding Angle: |

| ρcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ρw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| ρfc | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | Wall Exitance Coeffcients(WEC) | | | | | | | | | |
| 0.0 | | | | | | | | | | | | | | | | |
| 1.0 | .309 | .175 | .056 | .301 | .172 | .055 | .288 | .165 | .053 | .276 | .159 | .051 | .265 | .153 | .049 | |
| 2.0 | .291 | .160 | .049 | .285 | .157 | .048 | .274 | .152 | .047 | .263 | .147 | .046 | .253 | .143 | .045 | |
| 3.0 | .270 | .144 | .043 | .265 | .142 | .043 | .254 | .138 | .042 | .245 | .134 | .041 | .236 | .131 | .040 | |
| 4.0 | .250 | .130 | .038 | .245 | .128 | .038 | .235 | .125 | .037 | .227 | .122 | .037 | .219 | .119 | .036 | |
| 5.0 | .231 | .118 | .034 | .226 | .116 | .034 | .218 | .114 | .033 | .211 | .111 | .033 | .204 | .109 | .033 | |
| 6.0 | .214 | .107 | .031 | .210 | .106 | .031 | .203 | .104 | .030 | .196 | .102 | .030 | .190 | .100 | .030 | |
| 7.0 | .199 | .099 | .028 | .196 | .098 | .028 | .189 | .096 | .028 | .183 | .094 | .027 | .178 | .092 | .027 | |
| 8.0 | .186 | .091 | .026 | .183 | .090 | .025 | .177 | .089 | .025 | .172 | .087 | .025 | .167 | .086 | .025 | |
| 9.0 | .174 | .084 | .024 | .172 | .084 | .023 | .166 | .082 | .023 | .162 | .081 | .023 | .157 | .080 | .023 | |
| 10.0 | .164 | .079 | .022 | .162 | .078 | .022 | .157 | .077 | .022 | .152 | .076 | .022 | .148 | .075 | .021 | |

| 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 | .191 | .191 | .191 | .163 | .163 | .163 | .111 | .111 | .111 | .064 | .064 | .064 | .020 | .020 | .020 | |
| 1.0 | .180 | .156 | .135 | .154 | .134 | .116 | .106 | .092 | .080 | .061 | .053 | .047 | .019 | .017 | .015 | |
| 2.0 | .172 | .132 | .098 | .148 | .114 | .085 | .101 | .079 | .059 | .058 | .046 | .035 | .019 | .015 | .011 | |
| 3.0 | .165 | .114 | .074 | .141 | .099 | .064 | .097 | .069 | .045 | .056 | .040 | .027 | .018 | .013 | .009 | |
| 4.0 | .157 | .101 | .058 | .135 | .087 | .051 | .093 | .061 | .036 | .054 | .036 | .021 | .017 | .012 | .007 | |
| 5.0 | .150 | .091 | .047 | .129 | .078 | .041 | .089 | .055 | .029 | .051 | .032 | .017 | .017 | .011 | .006 | |
| 6.0 | .143 | .082 | .039 | .122 | .071 | .034 | .084 | .050 | .024 | .049 | .029 | .014 | .016 | .010 | .005 | |
| 7.0 | .136 | .075 | .033 | .117 | .065 | .029 | .081 | .046 | .021 | .047 | .027 | .012 | .015 | .009 | .004 | |
| 8.0 | .129 | .070 | .029 | .111 | .060 | .025 | .077 | .042 | .018 | .045 | .025 | .011 | .014 | .008 | .004 | |
| 9.0 | .123 | .065 | .025 | .106 | .056 | .022 | .074 | .039 | .016 | .043 | .023 | .009 | .014 | .008 | .003 | |
| 10.0 | .117 | .060 | .022 | .101 | .052 | .020 | .070 | .037 | .014 | .041 | .022 | .008 | .013 | .007 | .003 | |

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Qin Meng
Test Date:2024-07-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:6.920m [K=1.0000]
Remarks:

# UGR(Unified Glare Rating) Table

| | | |
|---|---|---|
| Test:U:23.998V I:0.6338A P:15.211W PF:1.0000 Freq:0Hz Lamp Flux:1397.57x1 lm | | |
| NAME: HCP-3125142 | TYPE: | WEIGHT: |
| SPEC.:2216-24V-240D-4MM 2700K 14.4W | DIM.: | SERIAL No.: |
| MFR.: HAVIT LIGHTING | SUR.:1000*4mm | 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 | 29.2 | 30.7 | 29.5 | 30.9 | 31.1 | 29.3 | 30.8 | 29.5 | 31.0 | 31.2 |
| 3H | 30.6 | 32.0 | 30.9 | 32.3 | 32.5 | 30.8 | 32.2 | 31.1 | 32.4 | 32.6 |
| 4H | 31.1 | 32.5 | 31.5 | 32.7 | 33.0 | 31.3 | 32.7 | 31.6 | 32.9 | 33.2 |
| 6H | 31.5 | 32.7 | 31.8 | 33.0 | 33.3 | 31.7 | 33.0 | 32.0 | 33.2 | 33.5 |
| 8H | 31.5 | 32.8 | 31.9 | 33.1 | 33.3 | 31.8 | 33.0 | 32.1 | 33.3 | 33.6 |
| 12H | 31.6 | 32.7 | 31.9 | 33.0 | 33.3 | 31.8 | 33.0 | 32.2 | 33.3 | 33.6 |
| 4H 2H | 29.8 | 31.1 | 30.1 | 31.4 | 31.7 | 29.9 | 31.2 | 30.2 | 31.4 | 31.7 |
| 3H | 31.4 | 32.6 | 31.8 | 32.9 | 33.2 | 31.5 | 32.7 | 31.9 | 33.0 | 33.3 |
| 4H | 32.0 | 33.1 | 32.4 | 33.4 | 33.8 | 32.2 | 33.3 | 32.6 | 33.6 | 33.9 |
| 6H | 32.5 | 33.4 | 32.9 | 33.8 | 34.2 | 32.7 | 33.6 | 33.1 | 34.0 | 34.4 |
| 8H | 32.6 | 33.5 | 33.0 | 33.9 | 34.2 | 32.8 | 33.7 | 33.3 | 34.1 | 34.5 |
| 12H | 32.7 | 33.5 | 33.1 | 33.9 | 34.3 | 32.9 | 33.7 | 33.3 | 34.1 | 34.5 |
| 8H 4H | 32.3 | 33.2 | 32.7 | 33.5 | 33.9 | 32.4 | 33.3 | 32.8 | 33.7 | 34.1 |
| 6H | 32.8 | 33.6 | 33.3 | 34.0 | 34.4 | 33.0 | 33.8 | 33.5 | 34.2 | 34.6 |
| 8H | 33.0 | 33.7 | 33.5 | 34.1 | 34.6 | 33.3 | 33.9 | 33.7 | 34.3 | 34.8 |
| 12H | 33.2 | 33.7 | 33.6 | 34.2 | 34.6 | 33.4 | 34.0 | 33.9 | 34.4 | 34.9 |
| 12H 4H | 32.3 | 33.1 | 32.7 | 33.5 | 33.9 | 32.4 | 33.2 | 32.9 | 33.6 | 34.0 |
| 6H | 32.9 | 33.5 | 33.4 | 34.0 | 34.4 | 33.1 | 33.7 | 33.5 | 34.2 | 34.6 |
| 8H | 33.1 | 33.7 | 33.6 | 34.1 | 34.6 | 33.3 | 33.9 | 33.8 | 34.3 | 34.8 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S = 1.0H | + 0.2 / - 0.2 | | | | | + 0.2 / - 0.2 | | | | |
| 1.5H | + 0.2 / - 0.3 | | | | | + 0.2 / - 0.3 | | | | |
| 2.0H | + 0.2 / - 0.3 | | | | | + 0.2 / - 0.3 | | | | |

CIE Pub.117, 1398 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 1.2)
Area: 0.004 m2

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Qin Meng
Test Date:2024-07-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:6.920m [K=1.0000]
Remarks:

# UTILIZATION FACTORS TABLE

| Test:U:23.998V I:0.6338A P:15.211W PF:1.0000 Freq:0Hz Lamp Flux:1397.57x1 lm | | |
|---|---|---|
| NAME: HCP-3125142 | TYPE: | WEIGHT: |
| SPEC.:2216-24V-240D-4MM 2700K 14.4W | DIM.: | SERIAL No.: |
| MFR.: HAVIT LIGHTING | SUR.:1000*4mm | Shielding Angle: |

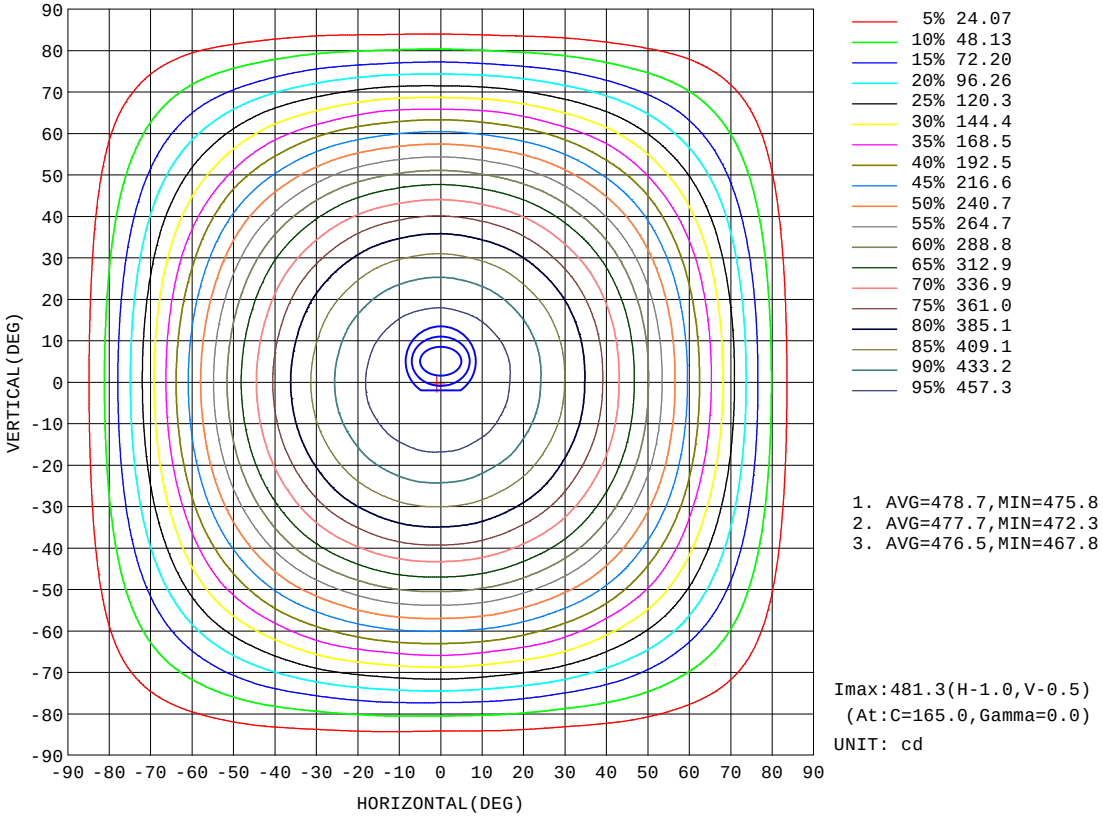
| REFLECTANCE | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Ceiling | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0 |
| Walls | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0 |
| Working plane | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0 |
| ROOM INDEX | UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5 | | | | | | | | | |
| k = 0.60 | 57 | 46 | 39 | 57 | 45 | 38 | 55 | 45 | 38 | 32 |
| 0.80 | 67 | 56 | 48 | 66 | 55 | 48 | 65 | 54 | 48 | 41 |
| 1.00 | 76 | 65 | 57 | 75 | 64 | 57 | 72 | 66 | 57 | 49 |
| 1.25 | 83 | 72 | 65 | 82 | 72 | 65 | 79 | 70 | 64 | 57 |
| 1.50 | 88 | 78 | 71 | 86 | 77 | 71 | 83 | 75 | 70 | 62 |
| 2.00 | 95 | 86 | 80 | 93 | 85 | 79 | 90 | 83 | 78 | 70 |
| 2.50 | 99 | 91 | 85 | 97 | 90 | 84 | 93 | 87 | 82 | 74 |
| 3.00 | 102 | 95 | 90 | 100 | 94 | 89 | 96 | 91 | 87 | 78 |
| 4.00 | 106 | 101 | 96 | 104 | 99 | 95 | 100 | 95 | 92 | 83 |
| 5.00 | 109 | 104 | 100 | 106 | 102 | 98 | 102 | 98 | 95 | 86 |
| 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:25DEG
Operators:Qin Meng
Test Date:2024-07-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:6.920m [K=1.0000]
Remarks:

# ISOCANDELA DIAGRAM

| | | |
|---|---|---|
| Test:U:23.998V I:0.6338A P:15.211W PF:1.0000 Freq:0Hz Lamp Flux:1397.57x1 lm | | |
| NAME: HCP-3125142 | TYPE: | WEIGHT: |
| SPEC.:2216-24V-240D-4MM 2700K 14.4W | DIM.: | SERIAL No.: |
| MFR.: HAVIT LIGHTING | SUR.:1000*4mm | Shielding Angle: |



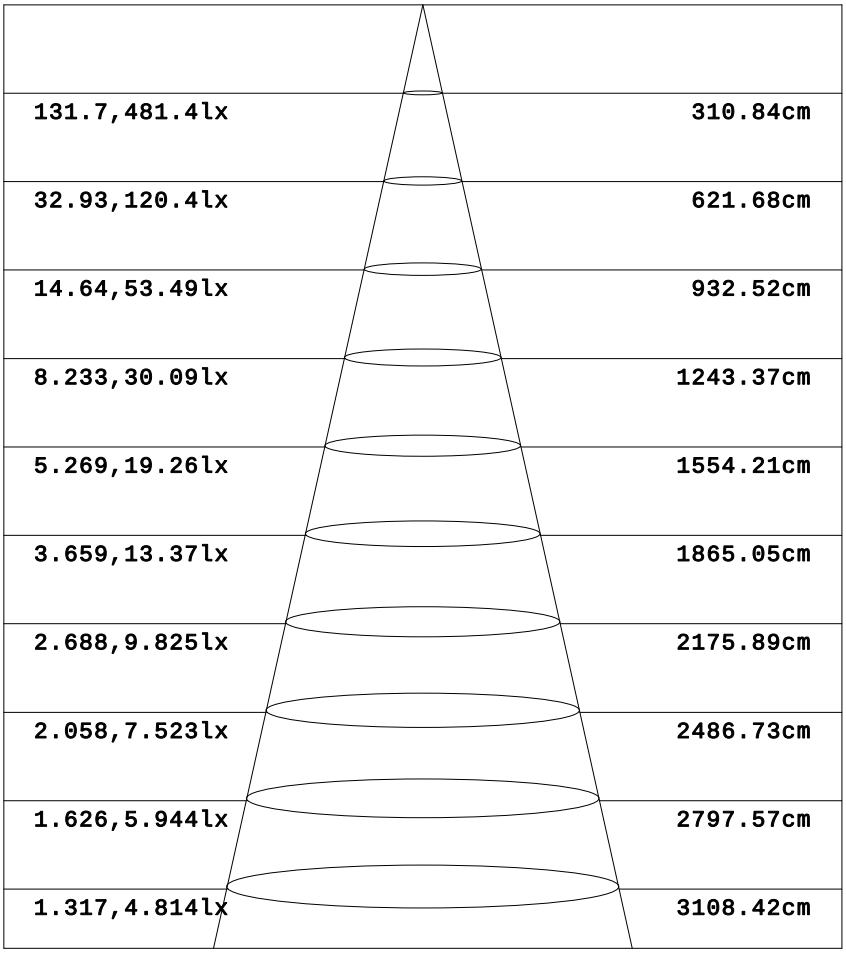

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Qin Meng
Test Date:2024-07-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:6.920m [K=1.0000]
Remarks:

# AAI Figure

| Test:U:23.998V I:0.6338A P:15.211W PF:1.0000 Freq:0Hz  Lamp Flux:1397.57x1 lm | | |
|---|---|---|
| NAME: HCP-3125142 | TYPE: | WEIGHT: |
| SPEC.:2216-24V-240D-4MM 2700K 14.4W | DIM.: | SERIAL No.: |
| MFR.: HAVIT LIGHTING | SUR.:1000*4mm | Shielding Angle: |

Flux out:1060 lm



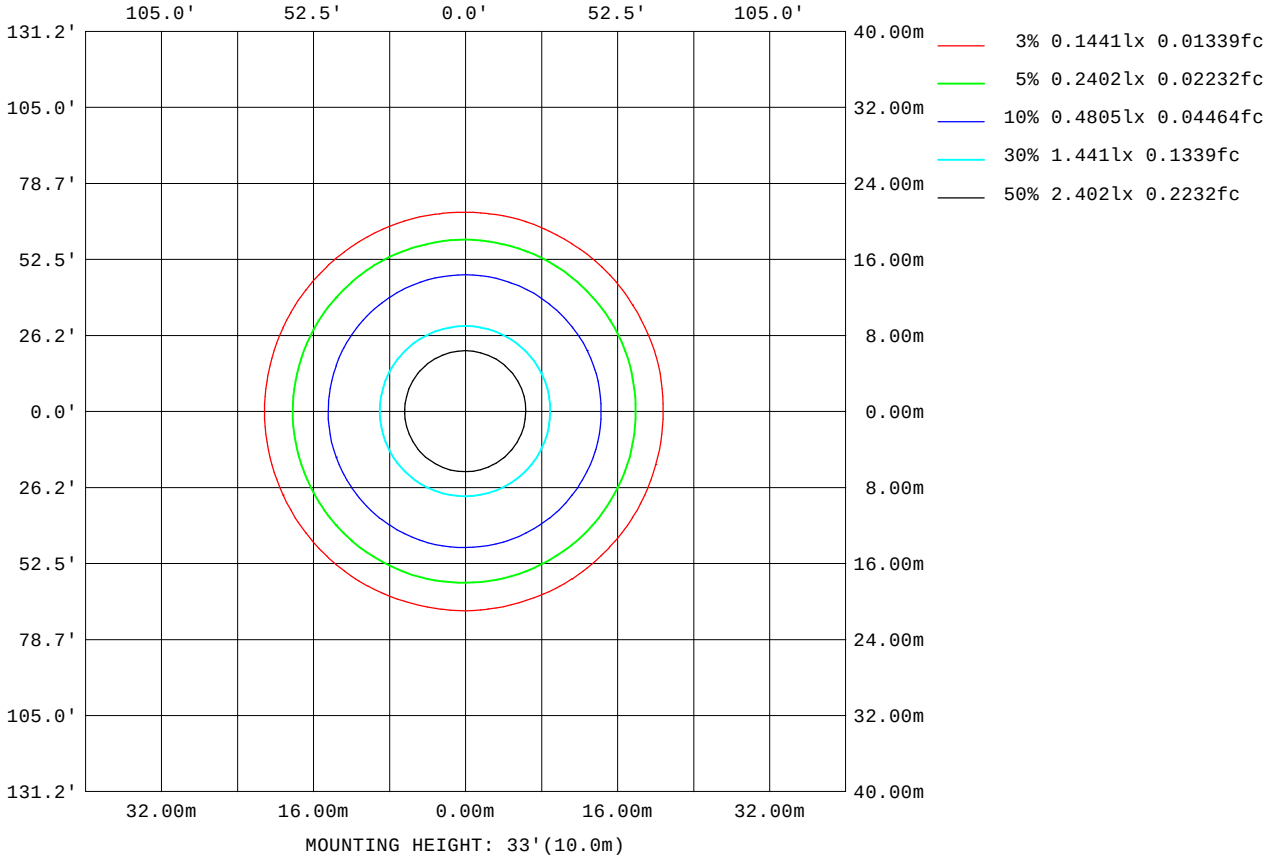

Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range:  0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Qin Meng
Test Date:2024-07-25

γ Range:  0 - 180DEG
γ Interval:  1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:6.920m [K=1.0000]
Remarks:

# ISOLUX DIAGRAM

| | | |
|---|---|---|
| Test:U:23.998V I:0.6338A P:15.211W PF:1.0000 Freq:0Hz Lamp Flux:1397.57x1 lm | | |
| NAME: HCP-3125142 | TYPE: | WEIGHT: |
| SPEC.:2216-24V-240D-4MM 2700K 14.4W | DIM.: | SERIAL No.: |
| MFR.: HAVIT LIGHTING | SUR.:1000*4mm | Shielding Angle: |




C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Qin Meng
Test Date:2024-07-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:6.920m [K=1.0000]
Remarks:

# LED Avg.L Report

| Test:U:23.998V I:0.6338A P:15.211W PF:1.0000 Freq:0Hz  Lamp Flux:1397.57x1 lm | | |
|---|---|---|
| NAME: HCP-3125142 | TYPE: | WEIGHT: |
| SPEC.:2216-24V-240D-4MM 2700K 14.4W | DIM.: | SERIAL No.: |
| MFR.: HAVIT LIGHTING | SUR.:1000*4mm | Shielding Angle: |

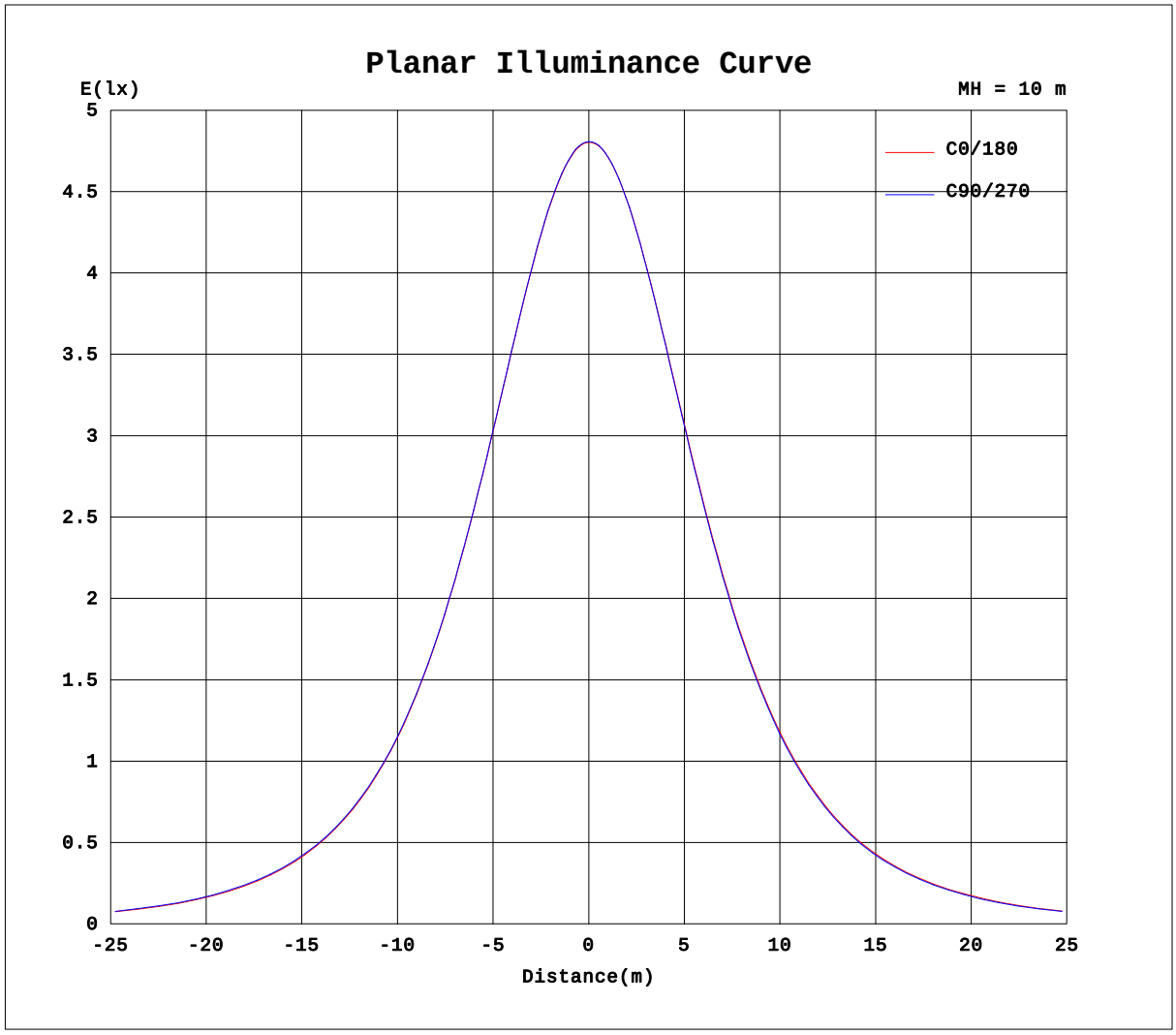
| AvgL | cd/m2 |
|---|---|
| L_0~180(65)av | 104258 |
| L_0~180(75)av | 86819 |
| L_0~180(85)av | 56412 |
| L_90~270(65)av | 103969 |
| L_90~270(75)av | 87914 |
| L_90~270(85)av | 53564 |
| L_45(65)av | 104346 |
| L_45(75)av | 87620 |
| L_45(85)av | 58446 |

Standard: GB/T 29293-2012

C Range:  0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Qin Meng
Test Date:2024-07-25

γ Range:  0 - 180DEG
γ Interval:  1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:6.920m [K=1.0000]
Remarks:

## Planar Illuminance Curve




C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Qin Meng
Test Date:2024-07-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:6.920m [K=1.0000]
Remarks:

# LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|---|---|---|
| Test:U:23.998V I:0.6338A P:15.211W PF:1.0000 Freq:0Hz Lamp Flux:1397.57x1 lm | | |
| NAME: HCP-3125142 | TYPE: | WEIGHT: |
| SPEC.:2216-24V-240D-4MM 2700K 14.4W | DIM.: | SERIAL No.: |
| MFR.: HAVIT LIGHTING | SUR.:1000*4mm | Shielding Angle: |

Table--1 UNIT: cd

| γ (DEG) \ C(DEG) | 0 | 15 | 30 | 45 | 60 | 75 | 90 | 105 | 120 | 135 | 150 | 165 | 180 | 195 | 210 | 225 | 240 | 255 | 270 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 480 | 480 | 481 | 481 | 481 | 481 | 481 | 481 | 481 | 481 | 481 | 481 | 480 | 480 | 481 | 481 | 481 | 481 | 481 |
| 5 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 479 | 479 | 479 | 480 | 480 | 479 | 479 | 479 | 479 | 480 | 479 | 479 |
| 10 | 472 | 472 | 471 | 472 | 472 | 472 | 472 | 473 | 473 | 474 | 474 | 474 | 474 | 474 | 474 | 474 | 474 | 474 | 474 |
| 15 | 461 | 461 | 461 | 462 | 461 | 462 | 462 | 463 | 463 | 464 | 464 | 465 | 465 | 465 | 465 | 465 | 465 | 465 | 465 |
| 20 | 448 | 448 | 447 | 448 | 447 | 448 | 448 | 449 | 450 | 451 | 451 | 452 | 452 | 452 | 452 | 452 | 452 | 451 | 451 |
| 25 | 430 | 430 | 429 | 430 | 429 | 430 | 431 | 432 | 432 | 434 | 434 | 435 | 435 | 435 | 436 | 435 | 435 | 434 | 434 |
| 30 | 409 | 409 | 408 | 409 | 408 | 409 | 409 | 411 | 412 | 413 | 414 | 415 | 415 | 415 | 416 | 415 | 415 | 414 | 413 |
| 35 | 384 | 384 | 383 | 384 | 384 | 385 | 385 | 386 | 387 | 389 | 389 | 391 | 391 | 391 | 392 | 391 | 391 | 389 | 389 |
| 40 | 356 | 356 | 355 | 356 | 356 | 357 | 357 | 359 | 360 | 362 | 362 | 364 | 364 | 364 | 364 | 363 | 363 | 362 | 361 |
| 45 | 324 | 325 | 324 | 325 | 325 | 326 | 326 | 328 | 329 | 331 | 331 | 333 | 334 | 333 | 334 | 333 | 332 | 331 | 330 |
| 50 | 290 | 291 | 290 | 291 | 291 | 292 | 292 | 294 | 295 | 297 | 298 | 299 | 300 | 299 | 300 | 299 | 299 | 297 | 296 |
| 55 | 253 | 254 | 253 | 254 | 254 | 256 | 256 | 258 | 259 | 261 | 261 | 263 | 264 | 262 | 263 | 262 | 262 | 260 | 260 |
| 60 | 213 | 214 | 214 | 216 | 215 | 217 | 217 | 220 | 220 | 222 | 222 | 223 | 224 | 223 | 224 | 222 | 222 | 220 | 220 |
| 65 | 171 | 169 | 172 | 171 | 174 | 173 | 177 | 175 | 179 | 180 | 181 | 180 | 181 | 181 | 181 | 180 | 179 | 178 | 175 |
| 70 | 128 | 127 | 130 | 129 | 132 | 132 | 135 | 135 | 137 | 136 | 138 | 137 | 137 | 138 | 136 | 137 | 135 | 135 | 132 |
| 75 | 84.3 | 85.9 | 85.8 | 88.0 | 89.4 | 90.5 | 91.8 | 93.0 | 94.2 | 94.7 | 94.9 | 94.4 | 95.4 | 95.7 | 94.3 | 93.4 | 92.3 | 91.3 | 90.2 |
| 80 | 46.7 | 48.3 | 48.5 | 50.3 | 50.1 | 51.8 | 51.8 | 54.0 | 54.2 | 55.9 | 55.2 | 55.6 | 56.4 | 54.9 | 55.4 | 53.4 | 52.9 | 50.6 | 50.4 |
| 85 | 16.0 | 17.8 | 18.2 | 19.5 | 19.0 | 19.8 | 19.3 | 21.2 | 21.9 | 23.4 | 22.9 | 23.0 | 23.3 | 22.1 | 22.5 | 20.9 | 20.5 | 18.5 | 18.1 |
| 90 | 0.00 | 0.16 | 1.04 | 1.54 | 1.67 | 2.00 | 1.90 | 2.43 | 2.44 | 2.73 | 2.35 | 1.72 | 0.79 | 1.08 | 1.84 | 1.53 | 1.55 | 1.23 | 1.20 |
| 95 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.02 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 | 0.02 | 0.00 |
| 100 | 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 |
| 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:25DEG
Operators:Qin Meng
Test Date:2024-07-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:6.920m [K=1.0000]
Remarks:

# LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|---|---|---|
| Test:U:23.998V I:0.6338A P:15.211W PF:1.0000 Freq:0Hz Lamp Flux:1397.57x1 lm | | |
| NAME: HCP-3125142 | TYPE: | WEIGHT: |
| SPEC.:2216-24V-240D-4MM 2700K 14.4W | DIM.: | SERIAL No.: |
| MFR.: HAVIT LIGHTING | SUR.:1000*4mm | Shielding Angle: |

Table--2 UNIT: cd

| γ (DEG) \ C(DEG) | 285 | 300 | 315 | 330 | 345 |
|---|---|---|---|---|---|
| 0 | 481 | 481 | 481 | 481 | 481 |
| 5 | 479 | 479 | 479 | 479 | 479 |
| 10 | 474 | 474 | 473 | 473 | 473 |
| 15 | 464 | 464 | 463 | 463 | 463 |
| 20 | 451 | 451 | 450 | 450 | 449 |
| 25 | 433 | 433 | 433 | 432 | 432 |
| 30 | 412 | 412 | 411 | 412 | 411 |
| 35 | 388 | 388 | 387 | 387 | 386 |
| 40 | 360 | 360 | 359 | 359 | 358 |
| 45 | 329 | 329 | 328 | 328 | 327 |
| 50 | 295 | 295 | 293 | 294 | 292 |
| 55 | 258 | 258 | 256 | 257 | 255 |
| 60 | 218 | 218 | 216 | 217 | 215 |
| 65 | 176 | 173 | 175 | 172 | 173 |
| 70 | 133 | 131 | 131 | 129 | 130 |
| 75 | 89.4 | 88.6 | 86.7 | 87.5 | 86.2 |
| 80 | 49.0 | 49.7 | 48.8 | 49.7 | 48.5 |
| 85 | 17.4 | 18.3 | 17.7 | 18.5 | 17.5 |
| 90 | 1.10 | 1.25 | 1.09 | 1.10 | 0.20 |
| 95 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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:25DEG
Operators:Qin Meng
Test Date:2024-07-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:6.920m [K=1.0000]
Remarks: