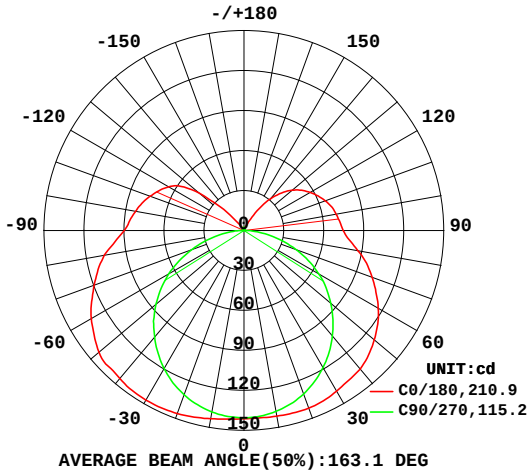
# LUMINAIRE PHOTOMETRIC TEST REPORT

| Test:U:24.00V I:0.4400A P:10.56W PF:1.000 Freq:0Hz Lamp Flux:765.843x1 lm | | |
|---|---|---|
| NAME: HCP-36613123 | TYPE: | WEIGHT:/ |
| SPEC.:HCP-36613123 | DIM.: 1000*13*12mm | SERIAL No.: |
| MFR.: HAVIT COMMERCIAL | SUR.:1000*13mm | Shielding Angle: |

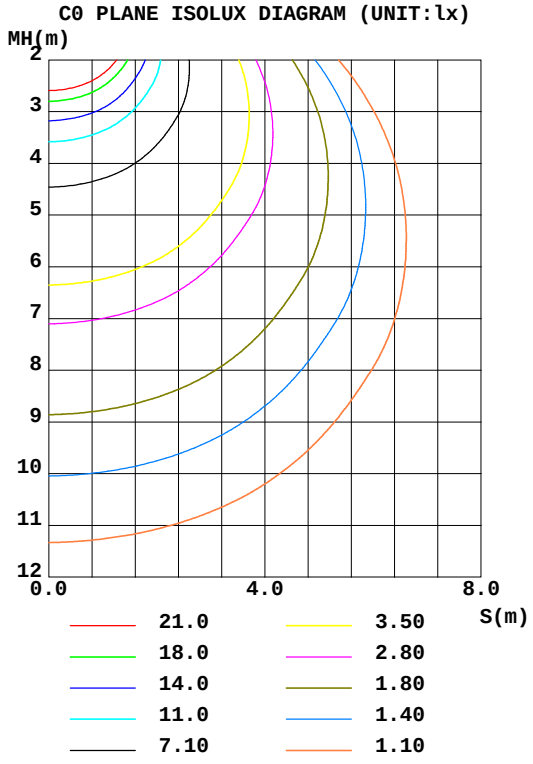
| DATA OF LAMP | | PHOTOMETRIC DATA | | Eff: 72.52 lm/W | |
|---|---|---|---|---|---|
| HCP-36613123 | | Imax(cd) | 147.0 | S/MH(C0/180) | 1.49 |
| NOMINAL POWER(W) | 10.56 | LOR(%) | 100.0 | S/MH(C90/270) | 1.27 |
| RATED VOLTAGE(V) | 24 | TOTAL FLUX(lm) | 765.84 | h UP,DN(C0-180) | 10.8,38.3 |
| NOMINAL FLUX(lm) | 765.843 | CIE CLASS | SEMI-D. | h UP,DN(C180-360) | 10.9,40.0 |
| LAMPS INSIDE | 1 | h up(%) | 21.6 | CIBSE SHR NOM | 1.50 |
| TEST VOLTAGE(V) | 24 | h down(%) | 78.4 | CIBSE SHR MAX | 1.55 |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM




AVERAGE BEAM ANGLE(50%):163.1 DEG

C0 PLANE ISOLUX DIAGRAM (UNIT:lx)




C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2022-04-26

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

# ZONAL FLUX DIAGRAM

**ZONAL FLUX DIAGRAM:**

| g | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | g | F zone | F total | %lum,lamp |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 141.5 | 139.8 | 137.9 | 140.2 | 143.4 | 141.6 | 138.3 | 139.1 | 0- 10 | 13.41 | 13.41 | 1.75,1.75 |
| 20 | 142.0 | 137.4 | 130.6 | 138.0 | 146.1 | 141.0 | 131.3 | 135.6 | 10- 20 | 39.42 | 52.84 | 6.9,6.9 |
| 30 | 139.2 | 132.4 | 118.8 | 132.7 | 147.0 | 137.5 | 119.8 | 129.5 | 20- 30 | 62.50 | 115.3 | 15.1,15.1 |
| 40 | 135.7 | 123.6 | 103.3 | 124.9 | 145.0 | 131.5 | 104.5 | 119.6 | 30- 40 | 80.31 | 195.6 | 25.5,25.5 |
| 50 | 127.6 | 113.1 | 85.12 | 113.8 | 142.1 | 121.2 | 86.19 | 106.6 | 40- 50 | 91.26 | 286.9 | 37.5,37.5 |
| 60 | 116.3 | 99.94 | 64.81 | 99.66 | 132.3 | 110.1 | 65.15 | 92.37 | 50- 60 | 94.06 | 381.0 | 49.7,49.7 |
| 70 | 102.3 | 81.66 | 41.45 | 82.29 | 119.6 | 92.52 | 41.47 | 73.01 | 60- 70 | 87.93 | 468.9 | 61.2,61.2 |
| 80 | 86.75 | 64.11 | 18.31 | 62.06 | 106.3 | 74.53 | 18.29 | 53.47 | 70- 80 | 73.77 | 542.7 | 70.9,70.9 |
| 90 | 74.63 | 52.44 | 3.390 | 49.56 | 89.90 | 62.20 | 2.613 | 41.59 | 80- 90 | 57.42 | 600.1 | 78.4,78.4 |
| 100 | 70.40 | 49.16 | 1.063 | 46.52 | 82.82 | 57.57 | 0.4542 | 35.92 | 90-100 | 48.93 | 649.0 | 84.7,84.7 |
| 110 | 65.13 | 44.19 | 0.8212 | 41.09 | 75.11 | 51.60 | 0.7219 | 32.39 | 100-110 | 43.58 | 692.6 | 90.4,90.4 |
| 120 | 57.41 | 34.86 | 1.155 | 23.53 | 65.65 | 37.85 | 1.036 | 24.91 | 110-120 | 35.04 | 727.7 | 95,95 |
| 130 | 47.12 | 25.93 | 1.389 | 4.457 | 43.37 | 11.85 | 1.316 | 15.26 | 120-130 | 22.55 | 750.2 | 98,98 |
| 140 | 31.30 | 12.70 | 1.576 | 2.117 | 10.30 | 2.188 | 1.563 | 4.638 | 130-140 | 10.29 | 760.5 | 99.3,99.3 |
| 150 | 10.19 | 3.077 | 1.803 | 2.151 | 2.198 | 2.037 | 1.723 | 1.924 | 140-150 | 3.389 | 763.9 | 99.7,99.7 |
| 160 | 2.592 | 1.990 | 2.076 | 2.218 | 2.104 | 2.171 | 2.017 | 1.930 | 150-160 | 1.129 | 765.0 | 99.9,99.9 |
| 170 | 2.298 | 2.138 | 2.378 | 2.365 | 1.897 | 2.197 | 2.325 | 2.204 | 160-170 | 0.6155 | 765.6 | 100,100 |
| 180 | 2.091 | 2.478 | 2.552 | 2.558 | 2.044 | 2.471 | 2.565 | 2.545 | 170-180 | 0.2178 | 765.8 | 100,100 |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | | UNIT:lm | | |

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2022-04-26

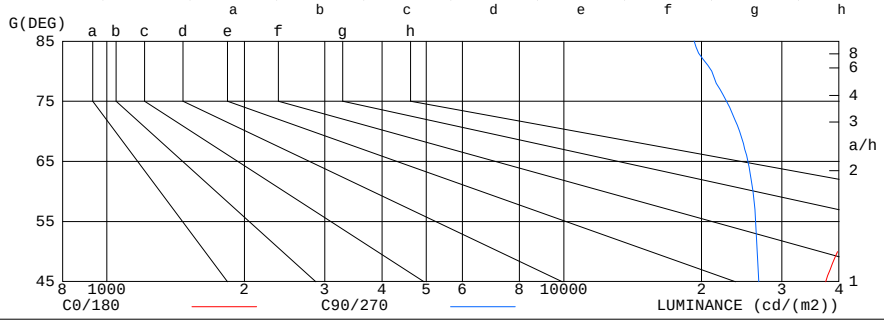
g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

# LUMINANCE LIMITATION CURVES

| Test:U:24.00V I:0.4400A P:10.56W PF:1.000 Freq:0Hz Lamp Flux:765.843x1 lm | | |
|---|---|---|
| NAME: HCP-36613123 | TYPE: | WEIGHT:/ |
| SPEC.:HCP-36613123 | DIM.: 1000*13*12mm | SERIAL No.: |
| MFR.: HAVIT COMMERCIAL | SUR.:1000*13mm | Shielding Angle: |

**LUMINANCE LIMITATION CURVES**

| GLARE | CLASS | ILLUMINANCE (lx) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1.15 | A | 2000 | 1000 | 500 | <=300 | | | | |
| 1.50 | B | | 2000 | 1000 | 500 | <=300 | | | |
| 1.85 | C | | | 2000 | 1000 | 500 | <=300 | | |
| 2.20 | D | | | | 2000 | 1000 | 500 | <=300 | |
| 2.55 | E | | | | | 2000 | 1000 | 500 | <=300 |
| | | a | b | c | d | e | f | g | h |




| LUMINANCE cd/(m2) | | |
|---|---|---|
| G(DEG) | C0/180 | C90/270 |
| 85 | 181867 | 19281 |
| 80 | 99917 | 21083 |
| 75 | 73600 | 22707 |
| 70 | 59847 | 24239 |
| 65 | 51752 | 25287 |
| 60 | 46540 | 25925 |
| 55 | 42706 | 26268 |
| 50 | 39696 | 26486 |
| 45 | 37386 | 26723 |

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2022-04-26

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

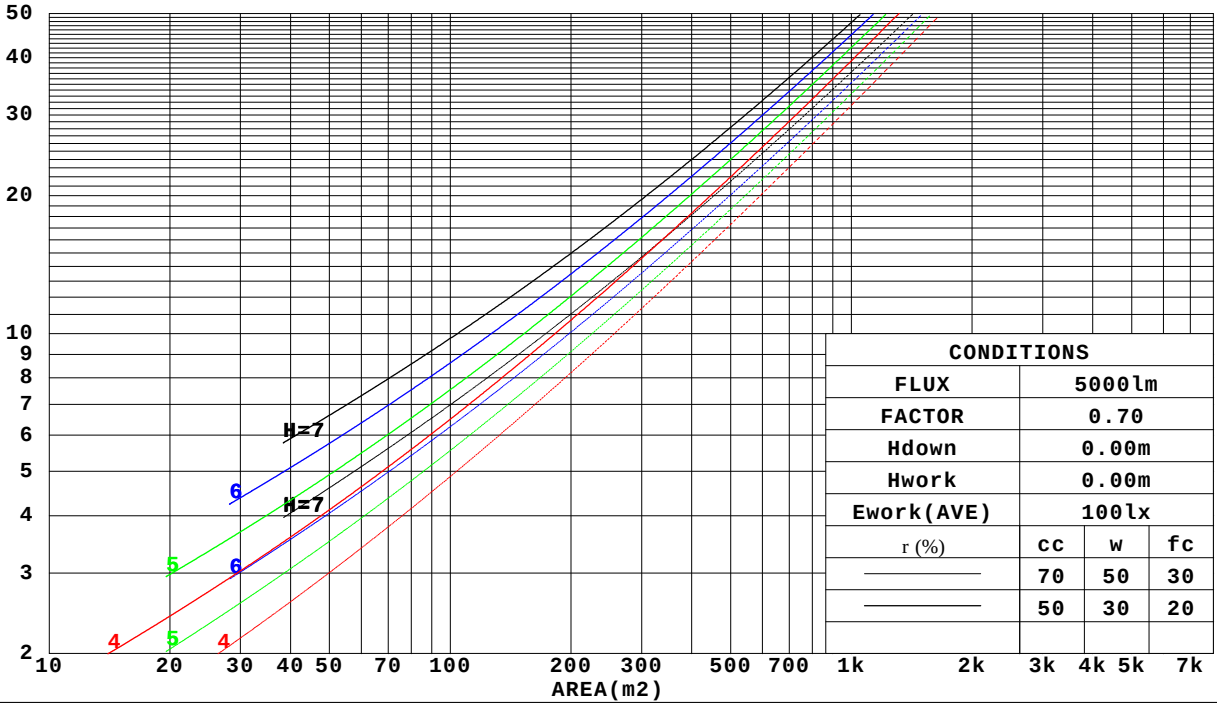
# CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

| | | |
|---|---|---|
| Test:U:24.00V I:0.4400A P:10.56W PF:1.000 Freq:0Hz Lamp Flux:765.843x1 lm | | |
| NAME: HCP-36613123 | TYPE: | WEIGHT:/ |
| SPEC.:HCP-36613123 | DIM.: 1000*13*12mm | SERIAL No.: |
| MFR.: HAVIT COMMERCIAL | SUR.:1000*13mm | 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 | 1.14 | 1.14 | 1.14 | 1.09 | 1.09 | 1.09 | .99 | .99 | .99 | .90 | .90 | .90 | .82 | .82 | .82 | .78 |
| 1.0 | .95 | .89 | .84 | .90 | .85 | .81 | .82 | .78 | .74 | .74 | .71 | .68 | .67 | .65 | .62 | .59 |
| 2.0 | .81 | .73 | .66 | .77 | .70 | .64 | .70 | .64 | .59 | .63 | .58 | .54 | .57 | .53 | .50 | .46 |
| 3.0 | .70 | .61 | .53 | .66 | .58 | .51 | .60 | .53 | .48 | .55 | .49 | .44 | .49 | .45 | .41 | .38 |
| 4.0 | .61 | .52 | .44 | .58 | .49 | .43 | .53 | .46 | .40 | .48 | .42 | .37 | .43 | .38 | .34 | .31 |
| 5.0 | .54 | .44 | .37 | .52 | .43 | .36 | .47 | .40 | .34 | .43 | .36 | .31 | .39 | .33 | .29 | .26 |
| 6.0 | .48 | .39 | .32 | .46 | .37 | .31 | .42 | .35 | .29 | .38 | .32 | .27 | .35 | .29 | .25 | .23 |
| 7.0 | .43 | .34 | .28 | .42 | .33 | .27 | .38 | .31 | .25 | .35 | .28 | .24 | .32 | .26 | .22 | .20 |
| 8.0 | .39 | .31 | .25 | .38 | .30 | .24 | .35 | .28 | .22 | .32 | .26 | .21 | .29 | .24 | .20 | .17 |
| 9.0 | .36 | .28 | .22 | .34 | .27 | .21 | .32 | .25 | .20 | .29 | .23 | .19 | .27 | .21 | .18 | .15 |
| 10.0 | .33 | .25 | .20 | .32 | .24 | .19 | .29 | .23 | .18 | .27 | .21 | .17 | .25 | .20 | .16 | .14 |

LAMPS

LUMINAIRE BUDGETARY DIAGRAM




| CONDITIONS | | | |
|---|---|---|---|
| FLUX | 5000lm | | |
| FACTOR | 0.70 | | |
| Hdown | 0.00m | | |
| Hwork | 0.00m | | |
| Ework(AVE) | 100lx | | |
| r (%) | cc | w | fc |
| ——— | 70 | 50 | 30 |
| ——— | 50 | 30 | 20 |

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2022-04-26

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

# WEC AND CCEC

| Test:U:24.00V I:0.4400A P:10.56W PF:1.000 Freq:0Hz Lamp Flux:765.843x1 lm | | |
|---|---|---|
| NAME: HCP-36613123 | TYPE: | WEIGHT:/ |
| SPEC.:HCP-36613123 | DIM.: 1000*13*12mm | SERIAL No.: |
| MFR.: HAVIT COMMERCIAL | SUR.:1000*13mm | 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 | .389 | .221 | .070 | .375 | .214 | .068 | .349 | .200 | .064 | .325 | .188 | .060 | .303 | .176 | .057 | |
| 2.0 | .336 | .184 | .057 | .324 | .178 | .055 | .300 | .167 | .052 | .278 | .156 | .049 | .258 | .146 | .046 | |
| 3.0 | .298 | .159 | .048 | .287 | .154 | .046 | .266 | .144 | .044 | .246 | .135 | .041 | .228 | .126 | .039 | |
| 4.0 | .268 | .139 | .041 | .258 | .135 | .040 | .239 | .127 | .038 | .221 | .118 | .036 | .204 | .111 | .034 | |
| 5.0 | .244 | .124 | .036 | .234 | .120 | .035 | .217 | .113 | .033 | .200 | .106 | .031 | .185 | .099 | .030 | |
| 6.0 | .223 | .112 | .032 | .215 | .108 | .031 | .198 | .102 | .030 | .183 | .095 | .028 | .169 | .089 | .026 | |
| 7.0 | .206 | .102 | .029 | .198 | .099 | .028 | .183 | .093 | .027 | .169 | .087 | .025 | .156 | .081 | .024 | |
| 8.0 | .190 | .093 | .026 | .183 | .090 | .026 | .170 | .085 | .024 | .157 | .080 | .023 | .145 | .074 | .022 | |
| 9.0 | .177 | .086 | .024 | .171 | .083 | .023 | .158 | .078 | .022 | .146 | .073 | .021 | .135 | .069 | .020 | |
| 10.0 | .166 | .080 | .022 | .160 | .077 | .022 | .148 | .073 | .020 | .137 | .068 | .019 | .127 | .064 | .018 | |

| 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 | .355 | .355 | .355 | .304 | .304 | .304 | .207 | .207 | .207 | .119 | .119 | .119 | .038 | .038 | .038 | |
| 1.0 | .352 | .322 | .294 | .301 | .276 | .253 | .206 | .190 | .175 | .119 | .110 | .102 | .038 | .035 | .033 | |
| 2.0 | .346 | .299 | .260 | .296 | .257 | .225 | .203 | .178 | .157 | .117 | .104 | .092 | .038 | .034 | .030 | |
| 3.0 | .338 | .283 | .239 | .290 | .244 | .207 | .199 | .169 | .145 | .115 | .099 | .086 | .037 | .032 | .028 | |
| 4.0 | .331 | .270 | .224 | .284 | .234 | .195 | .195 | .163 | .137 | .113 | .095 | .081 | .036 | .031 | .027 | |
| 5.0 | .323 | .261 | .215 | .277 | .226 | .187 | .191 | .158 | .132 | .111 | .093 | .078 | .036 | .030 | .026 | |
| 6.0 | .316 | .253 | .208 | .271 | .219 | .181 | .187 | .153 | .128 | .109 | .090 | .076 | .035 | .029 | .025 | |
| 7.0 | .308 | .246 | .203 | .265 | .214 | .177 | .183 | .150 | .125 | .107 | .088 | .075 | .034 | .029 | .025 | |
| 8.0 | .302 | .241 | .199 | .260 | .209 | .173 | .180 | .147 | .123 | .105 | .087 | .073 | .034 | .028 | .024 | |
| 9.0 | .296 | .236 | .196 | .255 | .205 | .171 | .176 | .144 | .121 | .103 | .085 | .072 | .033 | .028 | .024 | |
| 10.0 | .290 | .232 | .194 | .250 | .201 | .169 | .173 | .142 | .120 | .101 | .084 | .072 | .033 | .028 | .024 | |

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2022-04-26

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

# UGR(Unified Glare Rating) Table

| Test:U:24.00V I:0.4400A P:10.56W PF:1.000 Freq:0Hz Lamp Flux:765.843x1 lm | | |
|---|---|---|
| NAME: HCP-36613123 | TYPE: | WEIGHT:/ |
| SPEC.:HCP-36613123 | DIM.: 1000*13*12mm | SERIAL No.: |
| MFR.: HAVIT COMMERCIAL | SUR.:1000*13mm | 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 | 25.9 | 27.2 | 26.4 | 27.8 | 28.4 | 23.8 | 25.2 | 24.4 | 25.7 | 26.4 |
| | 3H | 28.5 | 29.8 | 29.1 | 30.4 | 31.0 | 25.5 | 26.7 | 26.0 | 27.3 | 28.0 |
| | 4H | 30.0 | 31.2 | 30.6 | 31.8 | 32.5 | 26.1 | 27.3 | 26.7 | 27.9 | 28.6 |
| | 6H | 31.7 | 32.8 | 32.3 | 33.4 | 34.1 | 26.6 | 27.7 | 27.2 | 28.4 | 29.1 |
| | 8H | 32.5 | 33.6 | 33.2 | 34.3 | 35.0 | 26.8 | 27.9 | 27.4 | 28.5 | 29.2 |
| | 12H | 33.6 | 34.6 | 34.2 | 35.3 | 36.0 | 26.9 | 27.9 | 27.5 | 28.6 | 29.3 |
| 4H | 2H | 26.5 | 27.7 | 27.1 | 28.3 | 29.0 | 25.1 | 26.2 | 25.7 | 26.8 | 27.5 |
| | 3H | 29.3 | 30.4 | 30.0 | 31.0 | 31.8 | 27.0 | 28.0 | 27.6 | 28.6 | 29.4 |
| | 4H | 31.0 | 31.9 | 31.7 | 32.6 | 33.4 | 27.8 | 28.8 | 28.5 | 29.4 | 30.2 |
| | 6H | 32.8 | 33.7 | 33.5 | 34.4 | 35.2 | 28.5 | 29.4 | 29.2 | 30.1 | 30.9 |
| | 8H | 33.8 | 34.6 | 34.5 | 35.3 | 36.2 | 28.8 | 29.6 | 29.5 | 30.3 | 31.1 |
| | 12H | 35.0 | 35.7 | 35.7 | 36.5 | 37.3 | 29.0 | 29.7 | 29.7 | 30.5 | 31.3 |
| 8H | 4H | 31.4 | 32.1 | 32.1 | 32.9 | 33.7 | 28.9 | 29.7 | 29.6 | 30.4 | 31.2 |
| | 6H | 33.4 | 34.1 | 34.2 | 34.8 | 35.7 | 30.0 | 30.6 | 30.7 | 31.4 | 32.3 |
| | 8H | 34.6 | 35.2 | 35.4 | 36.0 | 36.9 | 30.5 | 31.1 | 31.2 | 31.8 | 32.7 |
| | 12H | 36.1 | 36.6 | 36.8 | 37.4 | 38.3 | 30.9 | 31.4 | 31.7 | 32.2 | 33.1 |
| 12H | 4H | 31.4 | 32.1 | 32.1 | 32.8 | 33.7 | 29.2 | 29.9 | 29.9 | 30.6 | 31.5 |
| | 6H | 33.6 | 34.2 | 34.3 | 34.9 | 35.8 | 30.5 | 31.1 | 31.3 | 31.9 | 32.8 |
| | 8H | 34.9 | 35.4 | 35.7 | 36.2 | 37.1 | 31.2 | 31.7 | 32.0 | 32.5 | 33.4 |
| Variations with the observer position at spacings: | | | | | | | | | | | |
| S = 1.0H | | + 0.1 / - 0.1 | | | | | + 0.1 / - 0.1 | | | | |
| 1.5H | | + 0.2 / - 0.2 | | | | | + 0.2 / - 0.3 | | | | |
| 2.0H | | + 0.2 / - 0.3 | | | | | + 0.3 / - 0.5 | | | | |

CIE Pub.117, 765.8 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.9)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2022-04-26

$\gamma$ Range: 0 - 180DEG
$\gamma$ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

# UTILIZATION FACTORS TABLE

| Test:U:24.00V I:0.4400A P:10.56W PF:1.000 Freq:0Hz Lamp Flux:765.843x1 lm | | |
|---|---|---|
| NAME: HCP-36613123 | TYPE: | WEIGHT:/ |
| SPEC.:HCP-36613123 | DIM.: 1000*13*12mm | SERIAL No.: |
| MFR.: HAVIT COMMERCIAL | SUR.:1000*13mm | Shielding Angle: |

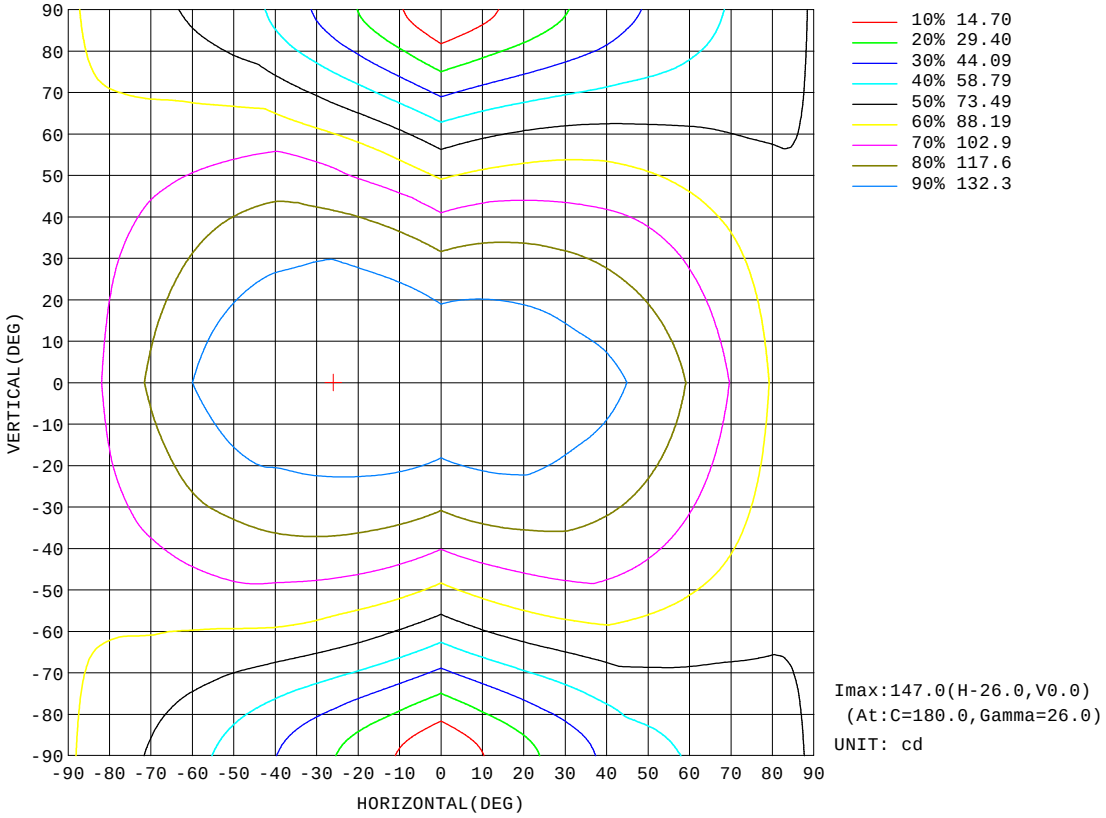
| REFLECTANCE | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Ceiling | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0 |
| Walls | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0 |
| Working plane | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0 |
| ROOM INDEX | UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5 | | | | | | | | | |
| k = 0.60 | 46 | 33 | 26 | 45 | 33 | 26 | 43 | 32 | 25 | 18 |
| 0.80 | 55 | 42 | 33 | 53 | 41 | 33 | 50 | 39 | 32 | 24 |
| 1.00 | 63 | 49 | 41 | 61 | 48 | 40 | 57 | 48 | 39 | 30 |
| 1.25 | 70 | 57 | 48 | 67 | 55 | 47 | 62 | 52 | 45 | 35 |
| 1.50 | 75 | 62 | 53 | 72 | 60 | 52 | 67 | 57 | 50 | 39 |
| 2.00 | 82 | 71 | 62 | 79 | 68 | 61 | 73 | 64 | 58 | 45 |
| 2.50 | 87 | 76 | 68 | 83 | 74 | 66 | 76 | 69 | 62 | 49 |
| 3.00 | 91 | 81 | 73 | 87 | 78 | 71 | 80 | 73 | 67 | 53 |
| 4.00 | 96 | 87 | 81 | 91 | 84 | 78 | 84 | 78 | 73 | 57 |
| 5.00 | 99 | 91 | 85 | 94 | 88 | 82 | 86 | 81 | 77 | 60 |
| ROOM INDEX | UF(total) | | | | | | | | | Direct |
| According to DIN EN 13032-2 2004 | | | | Suspended | | | | | SHRNOM = 1.25 | |

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2022-04-26

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

## ISOCANDELA DIAGRAM

| | | |
|---|---|---|
| Test:U:24.00V I:0.4400A P:10.56W PF:1.000 Freq:0Hz Lamp Flux:765.843x1 lm | | |
| NAME: HCP-36613123 | TYPE: | WEIGHT:/ |
| SPEC.:HCP-36613123 | DIM.: 1000*13*12mm | SERIAL No.: |
| MFR.: HAVIT COMMERCIAL | SUR.:1000*13mm | Shielding Angle: |



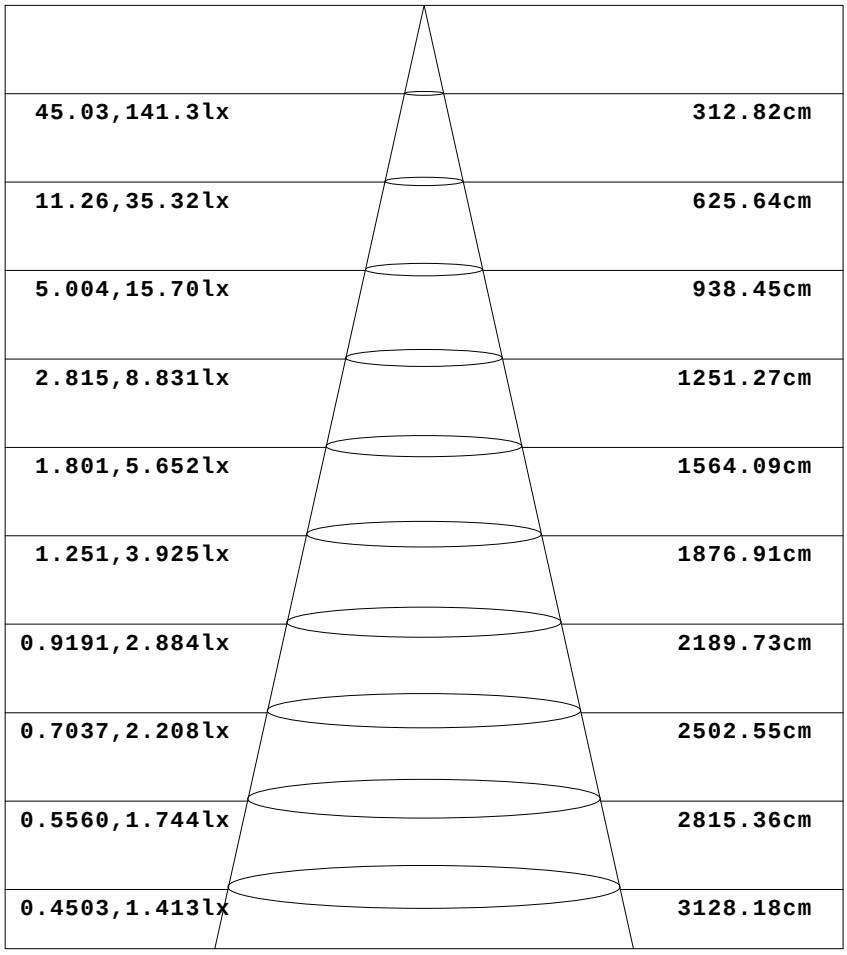

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2022-04-26

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

## AAI Figure

| Test:U:24.00V I:0.4400A P:10.56W PF:1.000 Freq:0Hz Lamp Flux:765.843x1 lm | | |
|---|---|---|
| NAME: HCP-36613123 | TYPE: | WEIGHT:/ |
| SPEC.:HCP-36613123 | DIM.: 1000*13*12mm | SERIAL No.: |
| MFR.: HAVIT COMMERCIAL | SUR.:1000*13mm | Shielding Angle: |

Flux out:362.3 lm



| Height | Eavg,Emax | Angle:114.81deg | Diameter |
|---|---|---|---|
| 1m | 45.03,141.3lx | | 312.82cm |
| 2m | 11.26,35.32lx | | 625.64cm |
| 3m | 5.004,15.70lx | | 938.45cm |
| 4m | 2.815,8.831lx | | 1251.27cm |
| 5m | 1.801,5.652lx | | 1564.09cm |
| 6m | 1.251,3.925lx | | 1876.91cm |
| 7m | 0.9191,2.884lx | | 2189.73cm |
| 8m | 0.7037,2.208lx | | 2502.55cm |
| 9m | 0.5560,1.744lx | | 2815.36cm |
| 10m | 0.4503,1.413lx | | 3128.18cm |

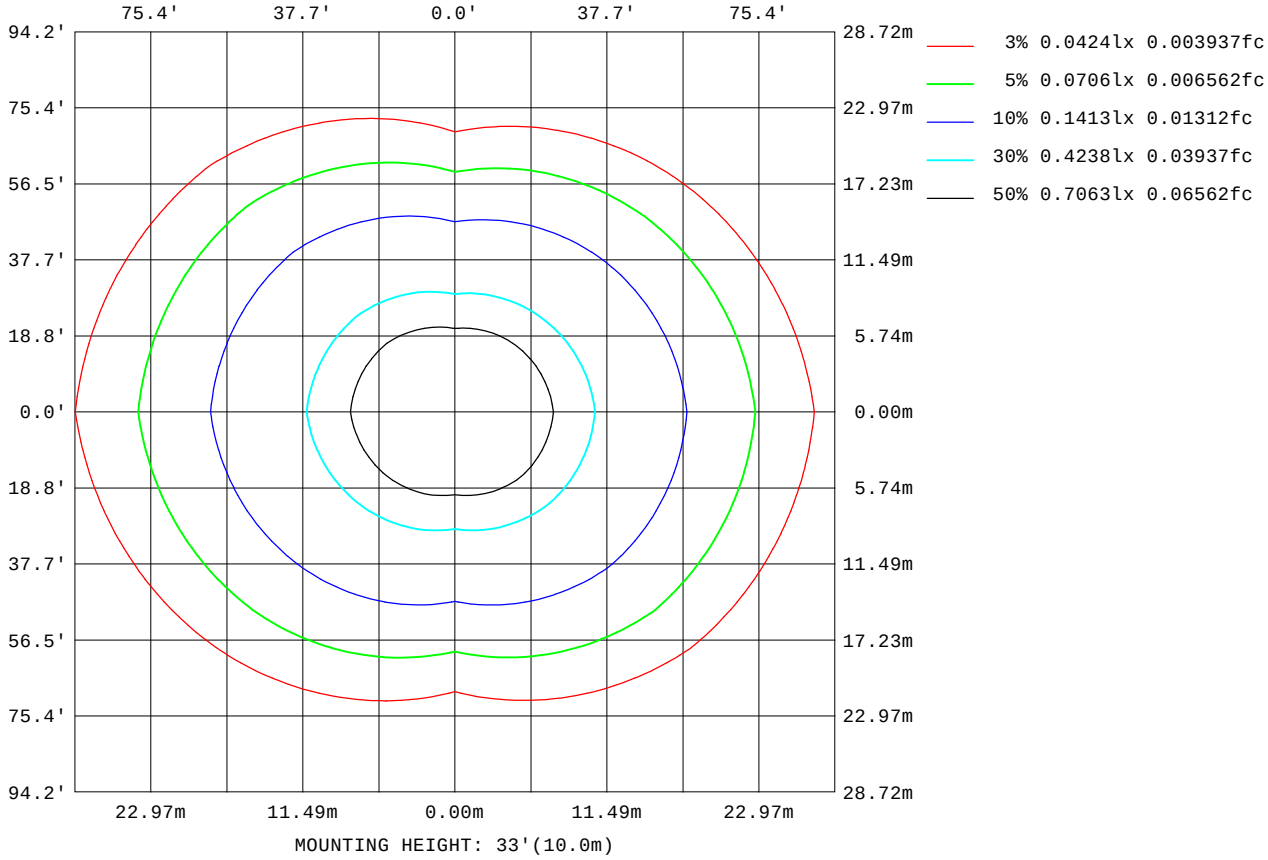
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2022-04-26

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

## ISOLUX DIAGRAM

| | | |
|---|---|---|
| Test:U:24.00V I:0.4400A P:10.56W PF:1.000 Freq:0Hz Lamp Flux:765.843x1 lm | | |
| NAME: HCP-36613123 | TYPE: | WEIGHT:/ |
| SPEC.:HCP-36613123 | DIM.: 1000*13*12mm | SERIAL No.: |
| MFR.: HAVIT COMMERCIAL | SUR.:1000*13mm | Shielding Angle: |




C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2022-04-26

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

# LED Avg.L Report

| Test:U:24.00V I:0.4400A P:10.56W PF:1.000 Freq:0Hz Lamp Flux:765.843x1 lm | | |
|---|---|---|
| NAME: HCP-36613123 | TYPE: | WEIGHT:/ |
| SPEC.:HCP-36613123 | DIM.: 1000*13*12mm | SERIAL No.: |
| MFR.: HAVIT COMMERCIAL | SUR.:1000*13mm | Shielding Angle: |

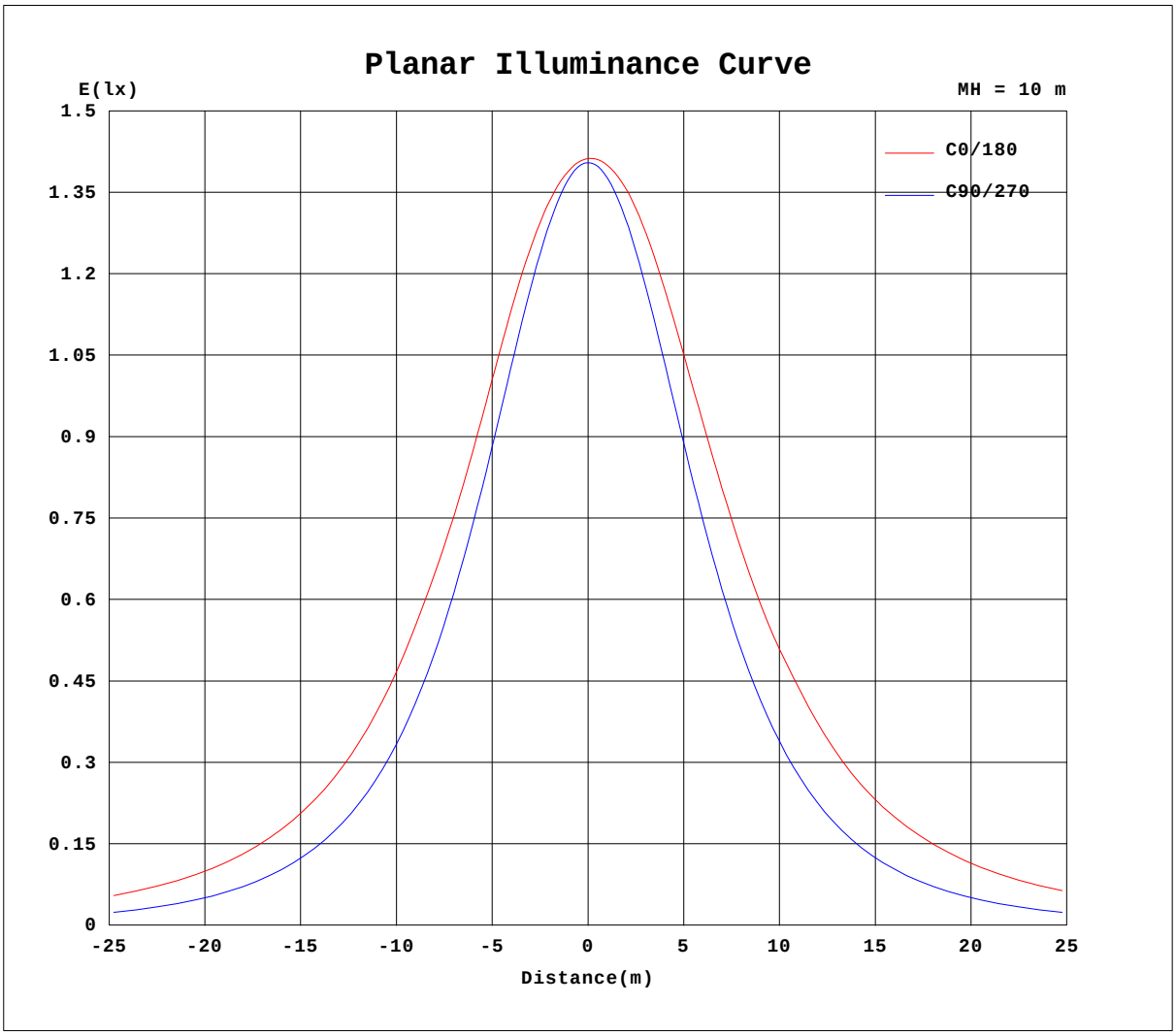
| AvgL | cd/m2 |
|---|---|
| L_0~180(65)av | 55721 |
| L_0~180(75)av | 80597 |
| L_0~180(85)av | 202539 |
| L_90~270(65)av | 25303 |
| L_90~270(75)av | 22708 |
| L_90~270(85)av | 19306 |
| L_45(65)av | 43576 |
| L_45(75)av | 56204 |
| L_45(85)av | 128229 |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2022-04-26

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

## Planar Illuminance Curve




C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2022-04-26

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

# LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|---|---|---|
| Test:U:24.00V I:0.4400A P:10.56W PF:1.000 Freq:0Hz Lamp Flux:765.843x1 lm | | |
| NAME: HCP-36613123 | TYPE: | WEIGHT:/ |
| SPEC.:HCP-36613123 | DIM.: 1000*13*12mm | SERIAL No.: |
| MFR.: HAVIT COMMERCIAL | SUR.:1000*13mm | Shielding Angle: |

Table--1 UNIT: cd

| γ (DEG) \ C(DEG) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 141 | 141 | 140 | 140 | 141 | 141 | 140 | 140 | | | | | | | | | | | |
| 5 | 141 | 140 | 140 | 141 | 142 | 141 | 140 | 140 | | | | | | | | | | | |
| 10 | 141 | 140 | 138 | 140 | 143 | 142 | 138 | 139 | | | | | | | | | | | |
| 15 | 142 | 139 | 135 | 139 | 145 | 142 | 135 | 138 | | | | | | | | | | | |
| 20 | 142 | 137 | 131 | 138 | 146 | 141 | 131 | 136 | | | | | | | | | | | |
| 25 | 141 | 135 | 125 | 136 | 147 | 140 | 126 | 133 | | | | | | | | | | | |
| 30 | 139 | 132 | 119 | 133 | 147 | 137 | 120 | 129 | | | | | | | | | | | |
| 35 | 137 | 128 | 111 | 129 | 146 | 135 | 113 | 125 | | | | | | | | | | | |
| 40 | 136 | 124 | 103 | 125 | 145 | 131 | 104 | 120 | | | | | | | | | | | |
| 45 | 132 | 118 | 94.5 | 120 | 144 | 127 | 96.2 | 113 | | | | | | | | | | | |
| 50 | 128 | 113 | 85.1 | 114 | 142 | 121 | 86.2 | 107 | | | | | | | | | | | |
| 55 | 122 | 107 | 75.3 | 107 | 137 | 116 | 76.0 | 99.8 | | | | | | | | | | | |
| 60 | 116 | 99.9 | 64.8 | 99.7 | 132 | 110 | 65.1 | 92.4 | | | | | | | | | | | |
| 65 | 109 | 91.3 | 53.4 | 92.2 | 126 | 102 | 53.5 | 83.2 | | | | | | | | | | | |
| 70 | 102 | 81.7 | 41.5 | 82.3 | 120 | 92.5 | 41.5 | 73.0 | | | | | | | | | | | |
| 75 | 95.2 | 72.5 | 29.4 | 71.9 | 113 | 83.7 | 29.4 | 62.9 | | | | | | | | | | | |
| 80 | 86.8 | 64.1 | 18.3 | 62.1 | 106 | 74.5 | 18.3 | 53.5 | | | | | | | | | | | |
| 85 | 79.3 | 56.7 | 8.40 | 54.0 | 97.3 | 66.9 | 8.42 | 46.0 | | | | | | | | | | | |
| 90 | 74.6 | 52.4 | 3.39 | 49.6 | 89.9 | 62.2 | 2.61 | 41.6 | | | | | | | | | | | |
| 95 | 72.3 | 50.8 | 2.41 | 48.2 | 86.1 | 60.0 | 1.50 | 34.1 | | | | | | | | | | | |
| 100 | 70.4 | 49.2 | 1.06 | 46.5 | 82.8 | 57.6 | 0.45 | 35.9 | | | | | | | | | | | |
| 105 | 68.4 | 46.6 | 0.71 | 44.0 | 79.4 | 54.8 | 0.56 | 35.4 | | | | | | | | | | | |
| 110 | 65.1 | 44.2 | 0.82 | 41.1 | 75.1 | 51.6 | 0.72 | 32.4 | | | | | | | | | | | |
| 115 | 61.5 | 42.4 | 0.99 | 33.2 | 70.7 | 46.4 | 0.88 | 27.4 | | | | | | | | | | | |
| 120 | 57.4 | 34.9 | 1.16 | 23.5 | 65.7 | 37.8 | 1.04 | 24.9 | | | | | | | | | | | |
| 125 | 52.8 | 30.3 | 1.27 | 12.1 | 58.1 | 24.6 | 1.19 | 20.7 | | | | | | | | | | | |
| 130 | 47.1 | 25.9 | 1.39 | 4.46 | 43.4 | 11.9 | 1.32 | 15.3 | | | | | | | | | | | |
| 135 | 40.0 | 19.8 | 1.48 | 2.35 | 25.2 | 4.58 | 1.44 | 9.12 | | | | | | | | | | | |
| 140 | 31.3 | 12.7 | 1.58 | 2.12 | 10.3 | 2.19 | 1.56 | 4.64 | | | | | | | | | | | |
| 145 | 20.3 | 6.72 | 1.66 | 2.12 | 3.53 | 2.02 | 1.66 | 2.36 | | | | | | | | | | | |
| 150 | 10.2 | 3.08 | 1.80 | 2.15 | 2.20 | 2.04 | 1.72 | 1.92 | | | | | | | | | | | |
| 155 | 4.21 | 2.03 | 1.90 | 2.17 | 2.15 | 2.10 | 1.86 | 1.92 | | | | | | | | | | | |
| 160 | 2.59 | 1.99 | 2.08 | 2.22 | 2.10 | 2.17 | 2.02 | 1.93 | | | | | | | | | | | |
| 165 | 2.49 | 2.01 | 2.23 | 2.28 | 1.99 | 2.17 | 2.16 | 2.08 | | | | | | | | | | | |
| 170 | 2.30 | 2.14 | 2.38 | 2.36 | 1.90 | 2.20 | 2.33 | 2.20 | | | | | | | | | | | |
| 175 | 2.13 | 2.34 | 2.46 | 2.48 | 1.82 | 2.32 | 2.48 | 2.43 | | | | | | | | | | | |
| 180 | 2.09 | 2.48 | 2.55 | 2.56 | 2.04 | 2.47 | 2.56 | 2.54 | | | | | | | | | | | |

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2022-04-26

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks: