

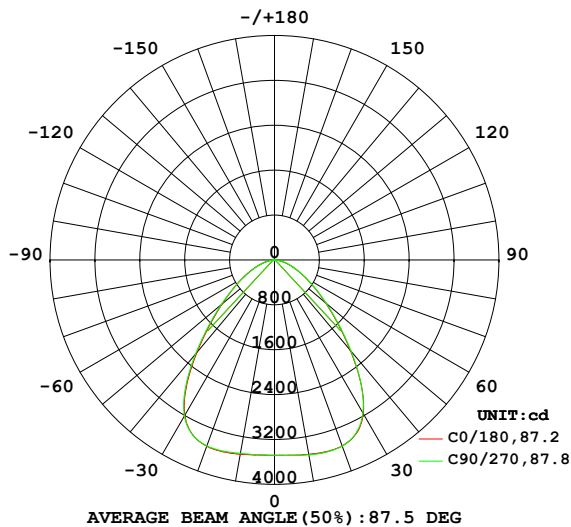
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

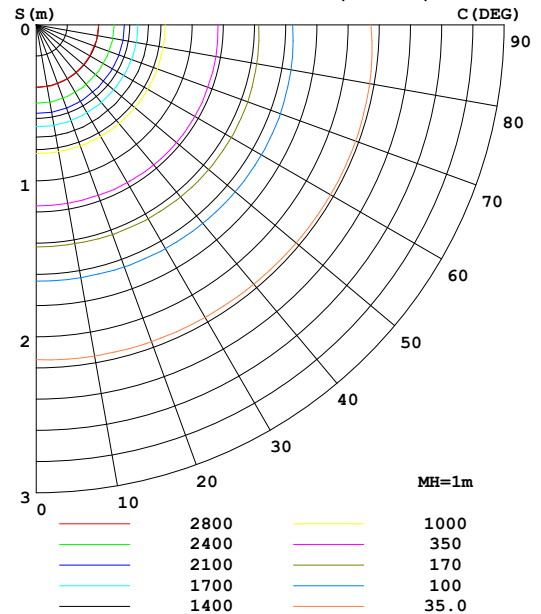
| | | |
|--|-------|------------------|
| Test:U:230.1V I:0.316A P:70.7W PF:0.972 Freq:50.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:7442.56x1 lm | | |
| NAME: P300-B3K (70W with no reflector) | TYPE: | WEIGHT: |
| SPEC.: | DIM.: | SERIAL No.: |
| MFR.: | SUR.: | Shielding Angle: |

| DATA OF LAMP | | PHOTOMETRIC DATA Eff: 105.25 lm/W | | | |
|-------------------|---------|-----------------------------------|--------|--------------------------|-----------|
| MODEL | / | Imax (cd) | 3554 | S/MH (C0/180) | 1.23 |
| NOMINAL POWER (W) | / | LOR (%) | 100.0 | S/MH (C90/270) | 1.24 |
| RATED VOLTAGE (V) | / | TOTAL FLUX (lm) | 7442.6 | η UP, DN (C0-180) | 0.0, 49.7 |
| NOMINAL FLUX (lm) | 7442.56 | CIE CLASS | DIRECT | η UP, DN (C180-360) | 0.0, 50.3 |
| LAMPS INSIDE | 1 | η up (%) | 0.0 | CIBSE SHR NOM | 1.25 |
| TEST VOLTAGE (V) | / | η down (%) | 100.0 | CIBSE SHR MAX | 1.30 |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



PLANAR ISOLUX DIAGRAM (UNIT: lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: ZZX
Test Date: 2024-06-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity: 65.0%
Test Distance: 26.000m [K=0.4593]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | Φ zone | Φ total | %lum, lamp |
|-----|-----------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|------------|
| 10 | 3518 | 3524 | 3528 | 3525 | 3515 | 3507 | 3501 | 3508 | 0- 10 | 334.0 | 334.0 | 4.49,4.49 |
| 20 | 3526 | 3527 | 3530 | 3524 | 3533 | 3516 | 3526 | 3522 | 10- 20 | 1002 | 1336 | 17.9,17.9 |
| 30 | 3164 | 3144 | 3151 | 3136 | 3197 | 3188 | 3212 | 3172 | 20- 30 | 1570 | 2905 | 39,39 |
| 40 | 2100 | 2125 | 2124 | 2086 | 2148 | 2183 | 2194 | 2125 | 30- 40 | 1673 | 4578 | 61.5,61.5 |
| 50 | 1192 | 1248 | 1206 | 1238 | 1218 | 1294 | 1238 | 1256 | 40- 50 | 1267 | 5846 | 78.5,78.5 |
| 60 | 647.8 | 683.6 | 648.9 | 701.6 | 669.5 | 718.4 | 663.7 | 710.3 | 50- 60 | 835.5 | 6681 | 89.8,89.8 |
| 70 | 318.9 | 337.0 | 319.3 | 354.5 | 330.0 | 352.7 | 319.4 | 353.2 | 60- 70 | 490.3 | 7172 | 96.4,96.4 |
| 80 | 104.1 | 113.0 | 108.6 | 123.4 | 109.8 | 118.3 | 104.1 | 117.2 | 70- 80 | 231.0 | 7403 | 99.5,99.5 |
| 90 | 0.1973 | 0.2302 | 0.4282 | 0.6253 | 0.9207 | 0.6796 | 0.4501 | 0.4937 | 80- 90 | 40.00 | 7443 | 100,100 |
| 100 | | | | | | | | | 90-100 | | | |
| 110 | | | | | | | | | 100-110 | | | |
| 120 | | | | | | | | | 110-120 | | | |
| 130 | | | | | | | | | 120-130 | | | |
| 140 | | | | | | | | | 130-140 | | | |
| 150 | | | | | | | | | 140-150 | | | |
| 160 | | | | | | | | | 150-160 | | | |
| 170 | | | | | | | | | 160-170 | | | |
| 180 | | | | | | | | | 170-180 | | | |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | | UNIT:lm | | |

Conical surface Flux(90deg): 5270.9 lm

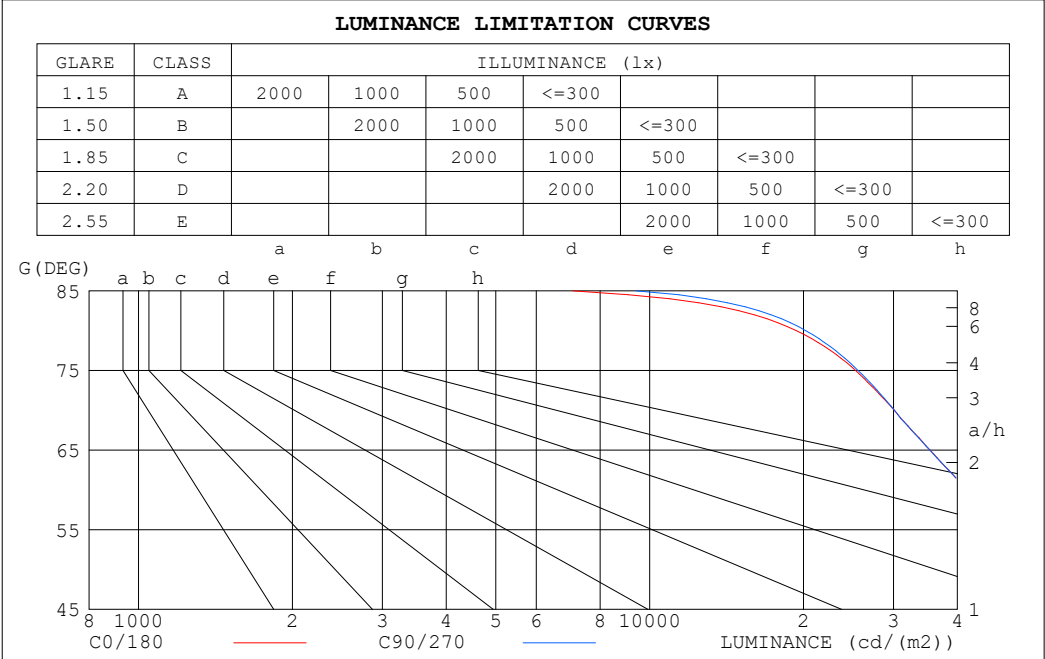
%lum = 70.8%
%lamp = 70.8%

Conical surface Flux(120deg): 6681.3 lm

%lum = 89.8%
%lamp = 89.8%

| | |
|----------------------|---|
| C Range: 0 - 360DEG | γ Range: 0 - 90DEG |
| C Interval: 22.5DEG | γ Interval: 0.5DEG |
| Test Speed: HIGH | Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465 |
| Temperature:25.3℃ | Humidity:65.0% |
| Operators:ZZX | Test Distance:26.000m [K=0.4593] |
| Test Date:2024-06-14 | Remarks: |

LUMINANCE LIMITATION CURVES



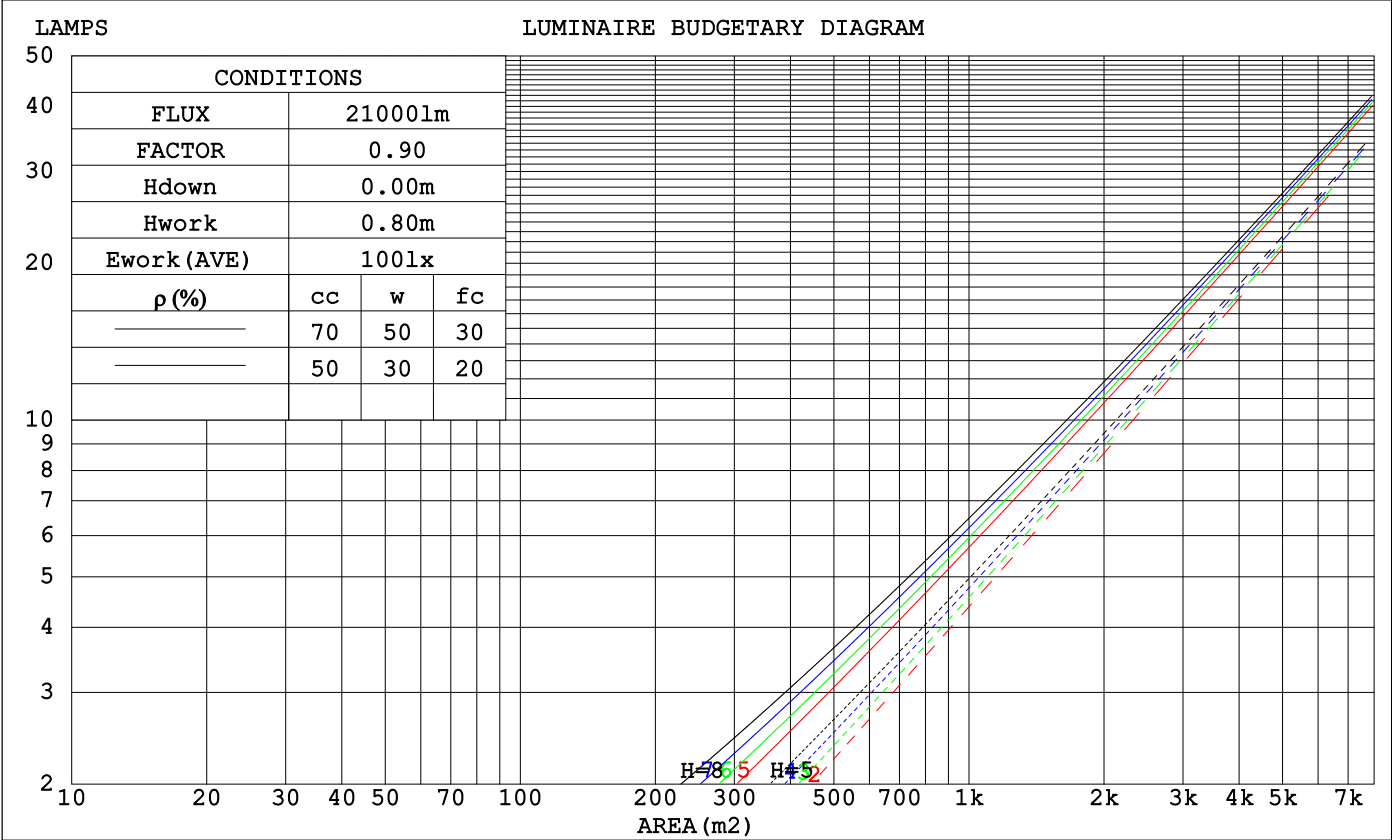
| LUMINANCE cd/(m2) | | |
|-------------------|--------|---------|
| G (DEG) | C0/180 | C90/270 |
| 85 | 7072 | 9399 |
| 80 | 19351 | 20189 |
| 75 | 25289 | 25567 |
| 70 | 30107 | 30130 |
| 65 | 35372 | 35340 |
| 60 | 41832 | 41887 |
| 55 | 49794 | 50126 |
| 50 | 59854 | 60575 |
| 45 | 72539 | 73594 |

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:ZZX
Test Date:2024-06-14

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4593]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

| | | | | | | | | | | | | | | | | | |
|------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|------|--|
| pcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 | |
| pw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 | |
| pfc | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 | |
| RCR | RCR:Room Cavity Ratio | | | | | | Coefficients of Utilization(CU) | | | | | | | | | | |
| 0.0 | 1.19 | 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 | 1.00 | |
| 1.0 | 1.07 | 1.03 | 1.00 | 1.05 | 1.02 | .99 | 1.01 | .98 | .96 | .97 | .95 | .93 | .93 | .92 | .90 | .88 | |
| 2.0 | .96 | .90 | .85 | .94 | .89 | .84 | .90 | .86 | .82 | .87 | .84 | .80 | .84 | .81 | .79 | .77 | |
| 3.0 | .86 | .79 | .73 | .84 | .78 | .73 | .82 | .76 | .72 | .79 | .74 | .70 | .76 | .73 | .69 | .67 | |
| 4.0 | .77 | .70 | .64 | .76 | .69 | .64 | .74 | .68 | .63 | .72 | .66 | .62 | .70 | .65 | .61 | .59 | |
| 5.0 | .70 | .62 | .57 | .69 | .62 | .56 | .67 | .61 | .56 | .65 | .60 | .55 | .64 | .59 | .55 | .53 | |
| 6.0 | .64 | .56 | .50 | .63 | .56 | .50 | .61 | .55 | .50 | .60 | .54 | .49 | .58 | .53 | .49 | .47 | |
| 7.0 | .59 | .51 | .45 | .58 | .50 | .45 | .56 | .50 | .45 | .55 | .49 | .44 | .54 | .48 | .44 | .42 | |
| 8.0 | .54 | .46 | .41 | .53 | .46 | .41 | .52 | .45 | .41 | .51 | .45 | .40 | .50 | .44 | .40 | .38 | |
| 9.0 | .50 | .42 | .37 | .49 | .42 | .37 | .48 | .42 | .37 | .47 | .41 | .37 | .46 | .41 | .37 | .35 | |
| 10.0 | .46 | .39 | .34 | .46 | .39 | .34 | .45 | .38 | .34 | .44 | .38 | .34 | .43 | .38 | .34 | .32 | |



C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:ZZX

Test Date:2024-06-14

γ Range: 0 - 90DEG

γ Interval: 0.5DEG

Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465

Humidity:65.0%

Test Distance:26.000m [K=0.4593]

Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

| ρ_{cc} | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|-------------|-----------------------|------|------|------|------|------|----------------------------------|------|------|------|------|------|------|------|------|---|
| ρ_w | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| ρ_{fc} | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | Wall Exitance Coefficients (WEC) | | | | | | | | | |
| 0.0 | | | | | | | | | | | | | | | | |
| 1.0 | .250 | .142 | .045 | .244 | .139 | .044 | .231 | .132 | .042 | .219 | .126 | .040 | .208 | .120 | .039 | |
| 2.0 | .242 | .132 | .041 | .236 | .130 | .040 | .224 | .125 | .039 | .214 | .120 | .038 | .204 | .116 | .036 | |
| 3.0 | .228 | .121 | .036 | .223 | .119 | .036 | .213 | .116 | .035 | .204 | .112 | .034 | .196 | .108 | .034 | |
| 4.0 | .214 | .111 | .033 | .210 | .110 | .032 | .201 | .107 | .032 | .193 | .104 | .031 | .186 | .101 | .031 | |
| 5.0 | .201 | .103 | .030 | .197 | .101 | .029 | .190 | .099 | .029 | .182 | .096 | .029 | .176 | .094 | .028 | |
| 6.0 | .189 | .095 | .027 | .186 | .094 | .027 | .179 | .092 | .027 | .172 | .090 | .026 | .166 | .088 | .026 | |
| 7.0 | .178 | .088 | .025 | .175 | .087 | .025 | .169 | .085 | .025 | .163 | .084 | .024 | .158 | .082 | .024 | |
| 8.0 | .168 | .082 | .023 | .165 | .081 | .023 | .160 | .080 | .023 | .155 | .078 | .023 | .150 | .077 | .022 | |
| 9.0 | .159 | .077 | .021 | .156 | .076 | .021 | .151 | .075 | .021 | .147 | .074 | .021 | .142 | .072 | .021 | |
| 10.0 | .151 | .072 | .020 | .148 | .072 | .020 | .144 | .070 | .020 | .140 | .069 | .020 | .136 | .068 | .020 | |

| ρ_{cc} | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|-------------|-----------------------|------|------|------|------|------|---|------|------|------|------|------|------|------|------|---|
| ρ_w | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| ρ_{fc} | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | Ceiling Cavity Exitance Coefficients (CCEC) | | | | | | | | | |
| 0.0 | .190 | .190 | .190 | .163 | .163 | .163 | .111 | .111 | .111 | .064 | .064 | .064 | .020 | .020 | .020 | |
| 1.0 | .176 | .157 | .139 | .151 | .134 | .120 | .103 | .093 | .083 | .059 | .054 | .048 | .019 | .017 | .016 | |
| 2.0 | .166 | .132 | .104 | .142 | .114 | .090 | .097 | .079 | .063 | .056 | .046 | .037 | .018 | .015 | .012 | |
| 3.0 | .156 | .114 | .080 | .134 | .098 | .070 | .092 | .068 | .049 | .053 | .040 | .029 | .017 | .013 | .009 | |
| 4.0 | .148 | .100 | .063 | .127 | .087 | .055 | .088 | .060 | .039 | .051 | .035 | .023 | .016 | .012 | .008 | |
| 5.0 | .141 | .089 | .051 | .121 | .077 | .045 | .083 | .054 | .032 | .048 | .032 | .019 | .016 | .010 | .006 | |
| 6.0 | .134 | .081 | .043 | .115 | .070 | .037 | .079 | .049 | .026 | .046 | .029 | .016 | .015 | .009 | .005 | |
| 7.0 | .128 | .074 | .036 | .110 | .064 | .031 | .076 | .045 | .022 | .044 | .026 | .013 | .014 | .009 | .004 | |
| 8.0 | .122 | .068 | .031 | .105 | .059 | .027 | .072 | .041 | .019 | .042 | .024 | .011 | .014 | .008 | .004 | |
| 9.0 | .116 | .063 | .027 | .100 | .055 | .024 | .069 | .038 | .017 | .040 | .023 | .010 | .013 | .007 | .003 | |
| 10.0 | .111 | .059 | .024 | .096 | .051 | .021 | .066 | .036 | .015 | .039 | .021 | .009 | .013 | .007 | .003 | |

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:ZZX
 Test Date:2024-06-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
 Humidity:65.0%
 Test Distance:26.000m [K=0.4593]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

| | | | | | | | | | | | |
|-----------------|-----|------------------|------|------|------|------|----------------|------|------|------|------|
| 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 | 2H | 24.1 | 25.6 | 24.5 | 25.9 | 26.2 | 24.2 | 25.6 | 24.6 | 25.9 | 26.3 |
| | 3H | 25.3 | 26.5 | 25.6 | 26.8 | 27.2 | 25.3 | 26.6 | 25.7 | 26.9 | 27.3 |
| | 4H | 25.6 | 26.8 | 26.0 | 27.1 | 27.5 | 25.7 | 26.8 | 26.1 | 27.2 | 27.6 |
| | 6H | 25.8 | 26.9 | 26.2 | 27.3 | 27.7 | 25.9 | 27.0 | 26.3 | 27.3 | 27.7 |
| | 8H | 25.9 | 26.9 | 26.3 | 27.3 | 27.7 | 25.9 | 27.0 | 26.4 | 27.4 | 27.8 |
| | 12H | 25.9 | 26.8 | 26.3 | 27.2 | 27.6 | 25.9 | 26.9 | 26.4 | 27.3 | 27.7 |
| | 4H | 2H | 24.6 | 25.7 | 25.0 | 26.1 | 26.5 | 24.7 | 25.8 | 25.1 | 26.2 |
| | 3H | 25.9 | 26.8 | 26.3 | 27.2 | 27.6 | 26.0 | 26.9 | 26.4 | 27.3 | 27.7 |
| | 4H | 26.3 | 27.2 | 26.8 | 27.6 | 28.1 | 26.4 | 27.3 | 26.9 | 27.7 | 28.2 |
| | 6H | 26.6 | 27.4 | 27.1 | 27.8 | 28.3 | 26.8 | 27.5 | 27.2 | 27.9 | 28.4 |
| | 8H | 26.7 | 27.4 | 27.2 | 27.8 | 28.3 | 26.8 | 27.5 | 27.3 | 28.0 | 28.4 |
| | 12H | 26.7 | 27.3 | 27.2 | 27.8 | 28.3 | 26.8 | 27.4 | 27.3 | 27.9 | 28.4 |
| | 8H | 4H | 26.5 | 27.2 | 27.0 | 27.6 | 28.1 | 26.6 | 27.3 | 27.1 | 27.8 |
| | 6H | 26.9 | 27.4 | 27.4 | 27.9 | 28.4 | 27.0 | 27.6 | 27.5 | 28.1 | 28.6 |
| | 8H | 27.0 | 27.5 | 27.5 | 28.0 | 28.5 | 27.1 | 27.6 | 27.6 | 28.1 | 28.6 |
| | 12H | 27.0 | 27.4 | 27.5 | 27.9 | 28.5 | 27.1 | 27.6 | 27.7 | 28.1 | 28.7 |
| | 12H | 4H | 26.5 | 27.1 | 27.0 | 27.6 | 28.1 | 26.6 | 27.2 | 27.1 | 27.7 |
| | 6H | 26.9 | 27.4 | 27.4 | 27.9 | 28.4 | 27.0 | 27.6 | 27.6 | 28.0 | 28.6 |
| | 8H | 27.0 | 27.4 | 27.5 | 27.9 | 28.5 | 27.2 | 27.6 | 27.7 | 28.1 | 28.7 |
| CIE190: 2010 | | | | | | | | | | | |
| | | | | | | | | | | | |

CIE190: 2010
Area: 0.031 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:ZZX
Test Date:2024-06-14

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4593]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

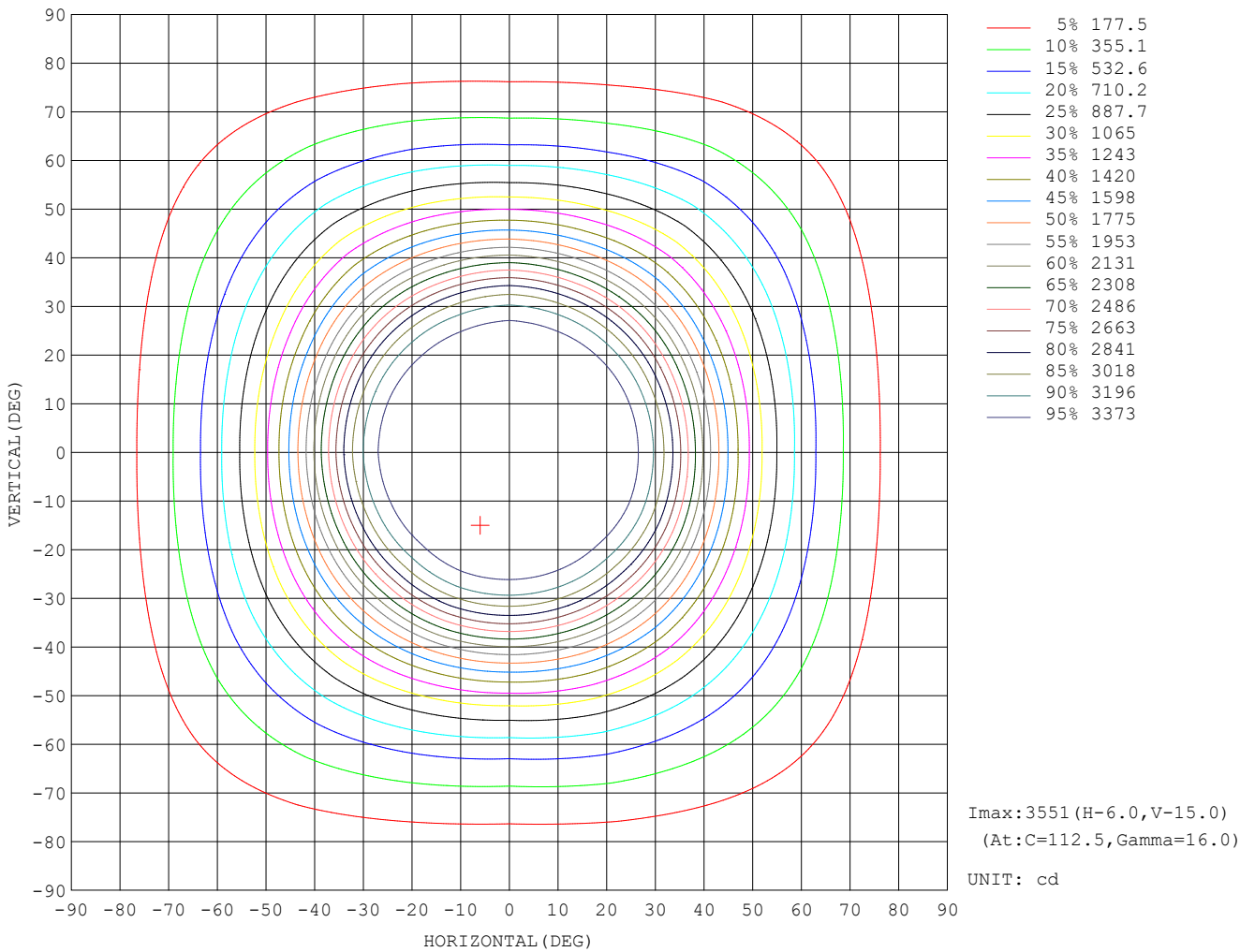
UTILIZATION FACTORS TABLE

| 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) $k(RI) \times RCR = 5$ | | | | | | | | | |
| $k = 0.60$ | 67 | 58 | 52 | 67 | 57 | 52 | 66 | 57 | 51 | 46 |
| 0.80 | 77 | 68 | 61 | 76 | 67 | 61 | 75 | 66 | 61 | 55 |
| 1.00 | 85 | 76 | 70 | 84 | 75 | 70 | 82 | 76 | 69 | 63 |
| 1.25 | 91 | 83 | 77 | 90 | 82 | 76 | 87 | 81 | 76 | 70 |
| 1.50 | 95 | 87 | 82 | 94 | 87 | 81 | 91 | 85 | 80 | 74 |
| 2.00 | 101 | 94 | 89 | 99 | 93 | 88 | 96 | 91 | 87 | 80 |
| 2.50 | 104 | 98 | 93 | 102 | 96 | 92 | 98 | 94 | 90 | 83 |
| 3.00 | 106 | 101 | 97 | 104 | 99 | 96 | 101 | 97 | 93 | 86 |
| 4.00 | 109 | 105 | 101 | 107 | 103 | 100 | 103 | 100 | 97 | 89 |
| 5.00 | 111 | 108 | 104 | 109 | 106 | 103 | 105 | 102 | 100 | 91 |
| ROOM INDEX | UF (total) | | | | | | | | | Direct |
| According to DIN EN 13032-2 2004 | | | | Suspended | | | | SHRNOM = 1.25 | | |

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:ZZX
Test Date:2024-06-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4593]
Remarks:

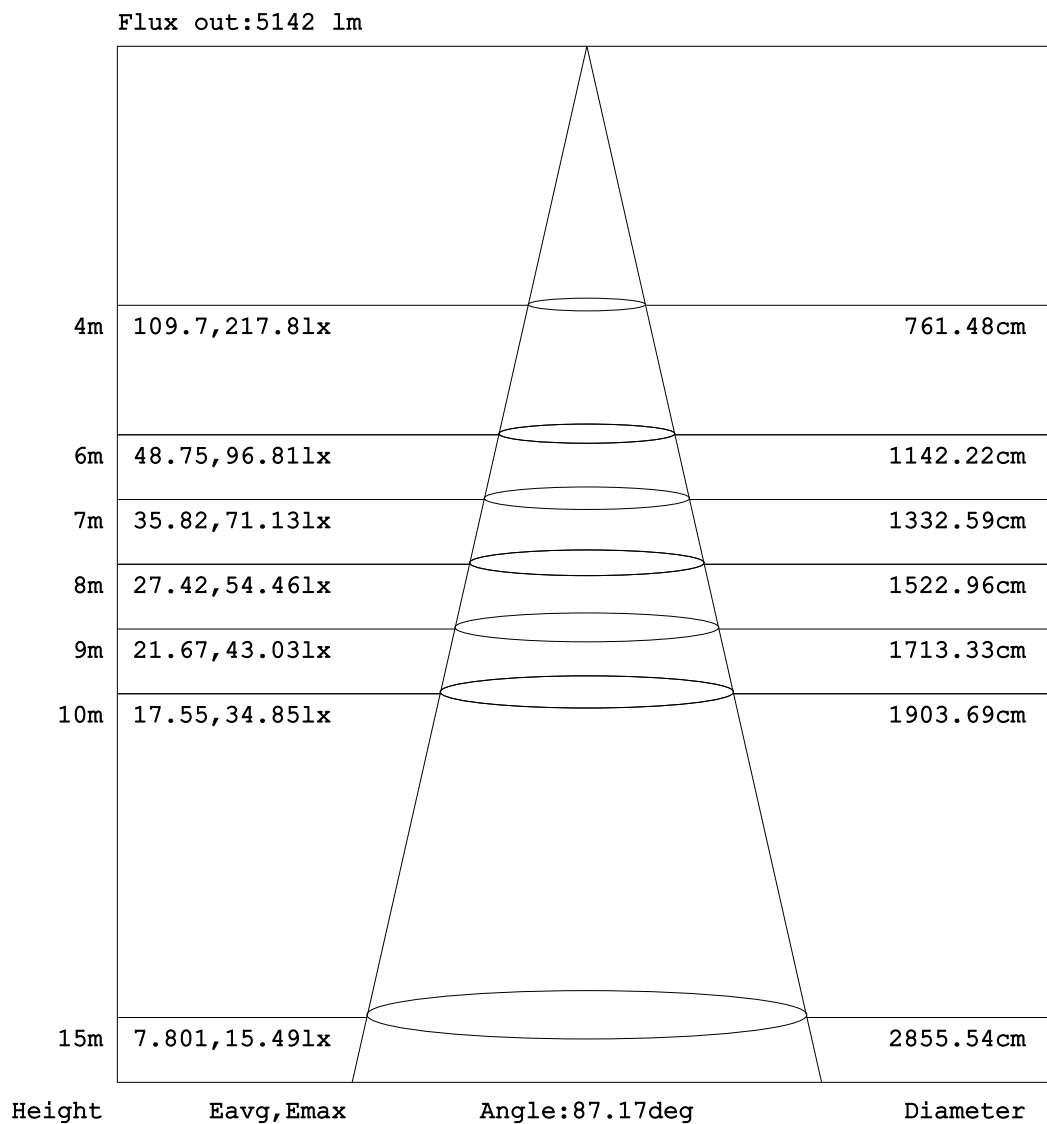
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:ZZX
Test Date:2024-06-14

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4593]
Remarks:

AAI Figure



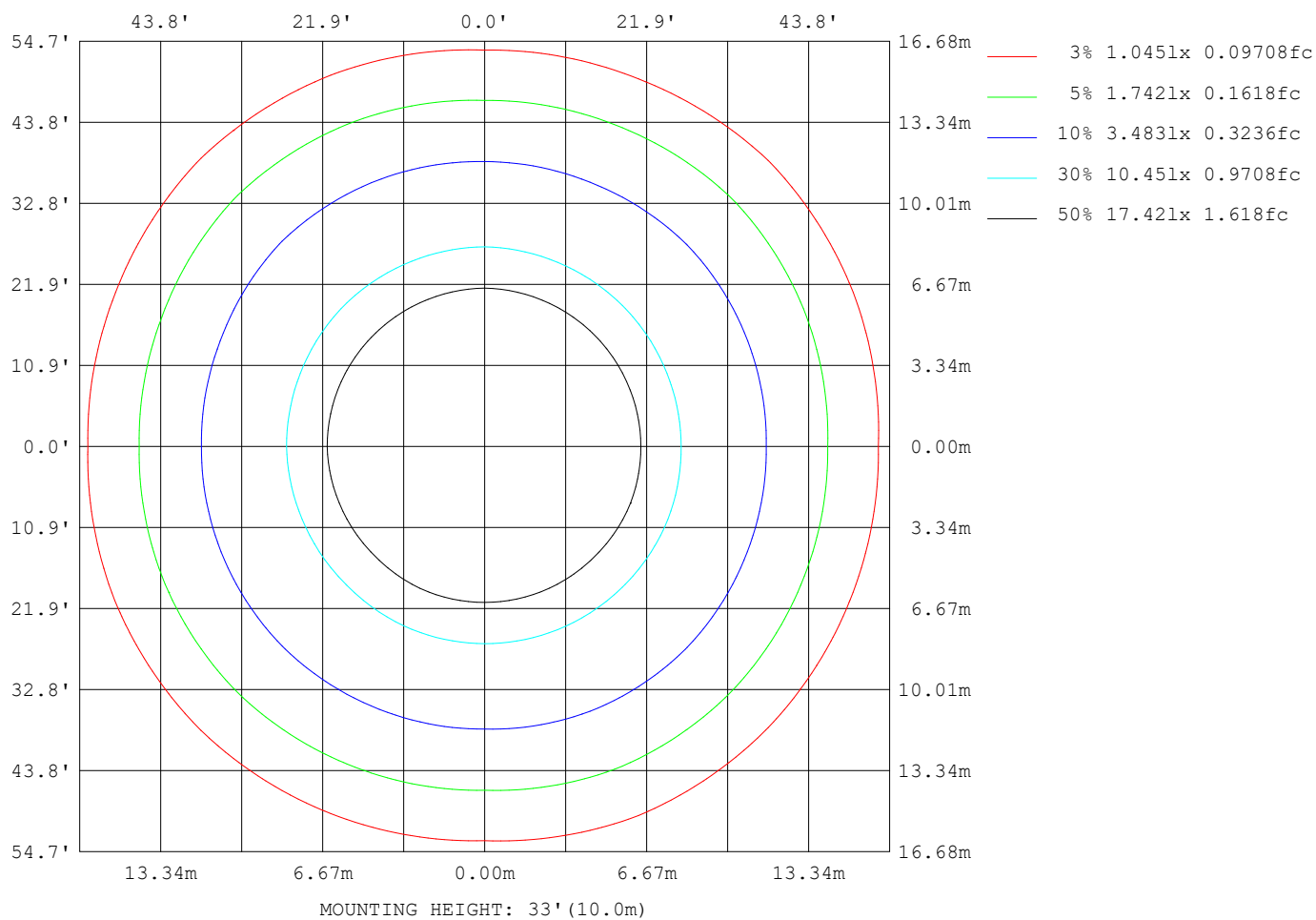
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: ZZX
Test Date: 2024-06-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity: 65.0%
Test Distance: 26.000m [K=0.4593]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

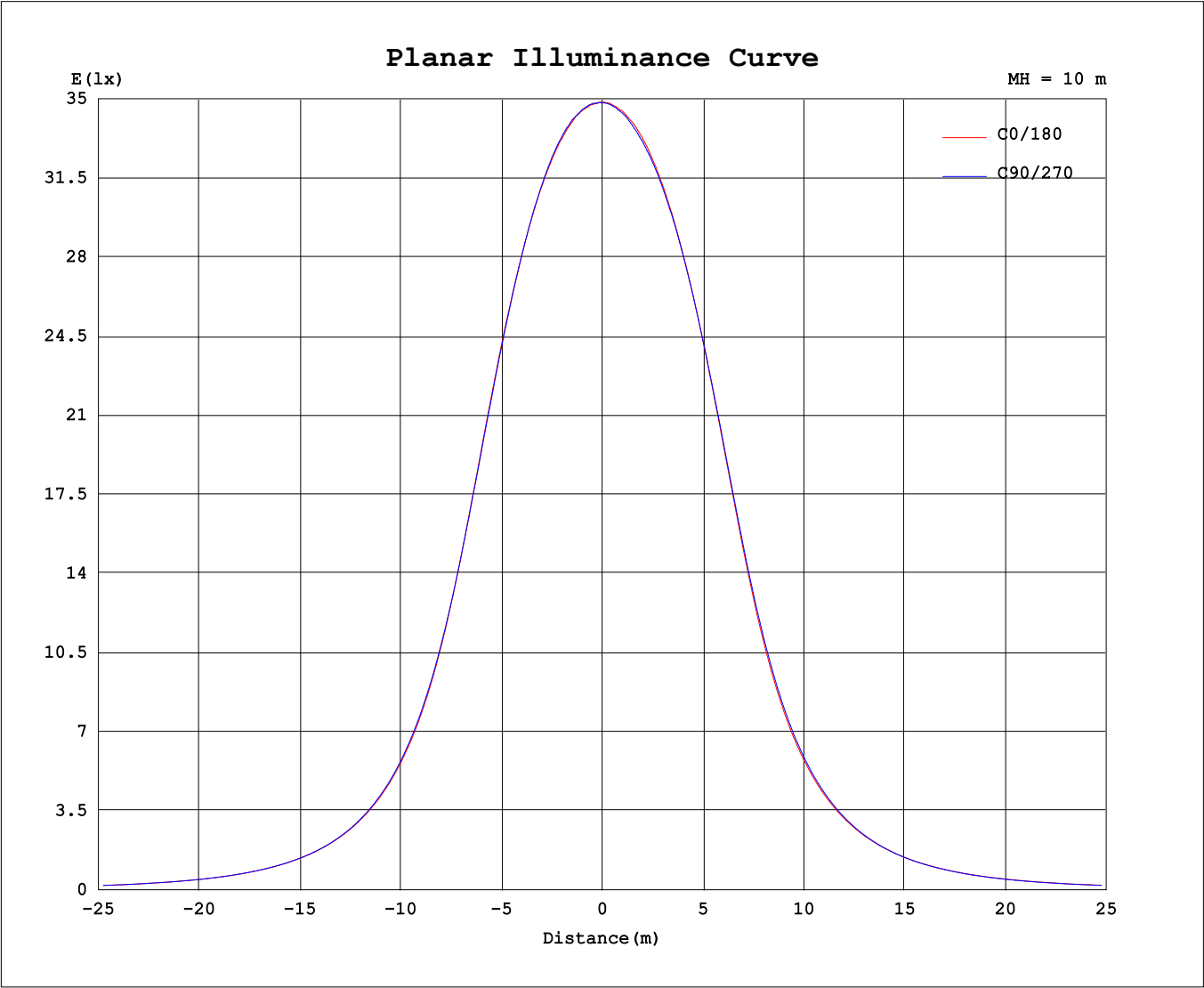
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: ZZX
Test Date: 2024-06-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity: 65.0%
Test Distance: 26.000m [K=0.4593]
Remarks:

Planar Illuminance Curve



| | |
|----------------------|---|
| C Range: 0 - 360DEG | γ Range: 0 - 90DEG |
| C Interval: 22.5DEG | γ Interval: 0.5DEG |
| Test Speed: HIGH | Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465 |
| Temperature:25.3℃ | Humidity:65.0% |
| Operators:ZZX | Test Distance:26.000m [K=0.4593] |
| Test Date:2024-06-14 | Remarks: |

UNIT: cd

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3℃
Operators: ZZX
Test Date: 2024-06-14

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4593]
Remarks:

```