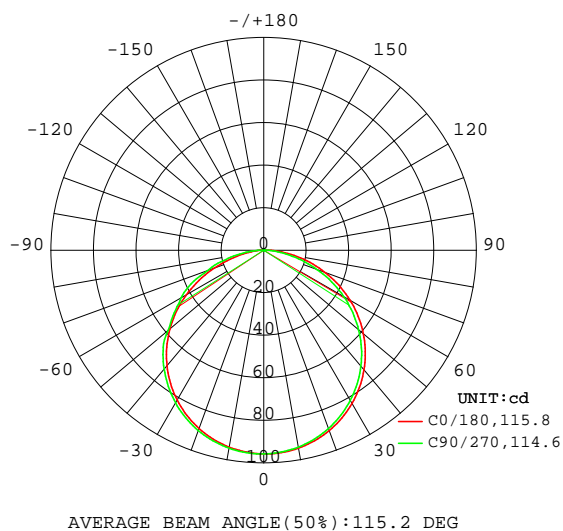


LUMINAIRE PHOTOMETRIC TEST REPORT

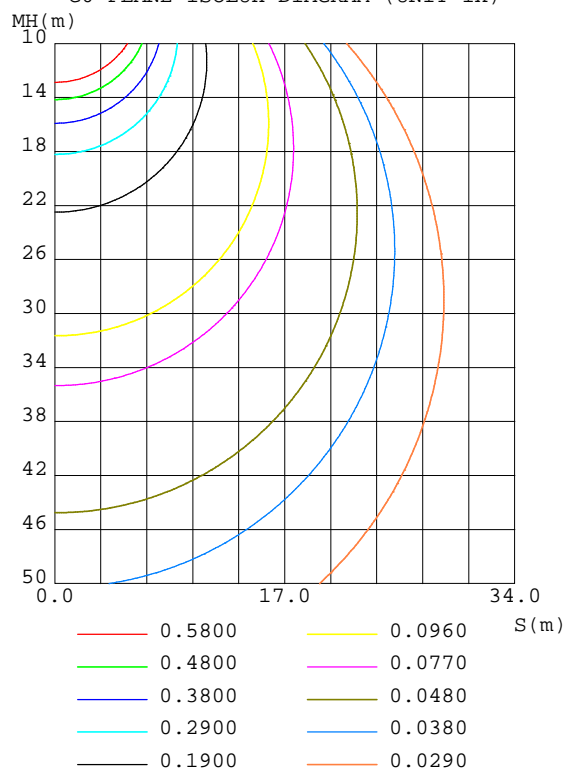
| | | |
|----------------------|------------------|------------------|
| NAME: Palma 3200k | TYPE: | WEIGHT:1 |
| SPEC.: | DIM.: 3x10x500mm | SERIAL No.: |
| MFR.: Luz Negra s.l. | SUR.:22 | Shielding Angle: |

| DATA OF LAMP | | PHOTOMETRIC DATA Eff: 105.36 lm/W | | | |
|------------------|---------|-----------------------------------|--------|-------------------|----------|
| MODEL | 30.006 | I _{max} (cd) | 95.76 | S/MH(C0/180) | 1.26 |
| NOMINAL POWER(W) | 4,8w/m | LOR(%) | 100.0 | S/MH(C90/270) | 1.29 |
| RATED VOLTAGE(V) | 24,4 | TOTAL FLUX(lm) | 284.83 | η UP,DN(C0-180) | 0.1,49.6 |
| NOMINAL FLUX(lm) | 284.835 | CIE CLASS | DIRECT | η UP,DN(C180-360) | 0.2,50.2 |
| LAMPS INSIDE | 1 | η up(%) | 0.3 | CIBSE SHR NOM | 1.25 |
| TEST VOLTAGE(V) | 24,4 | η down(%) | 99.7 | CIBSE SHR MAX | 1.35 |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Marçal Huguet
Test Date:March 2021

γ Range: 0 - 110DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:37%
Test Distance:8.200m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

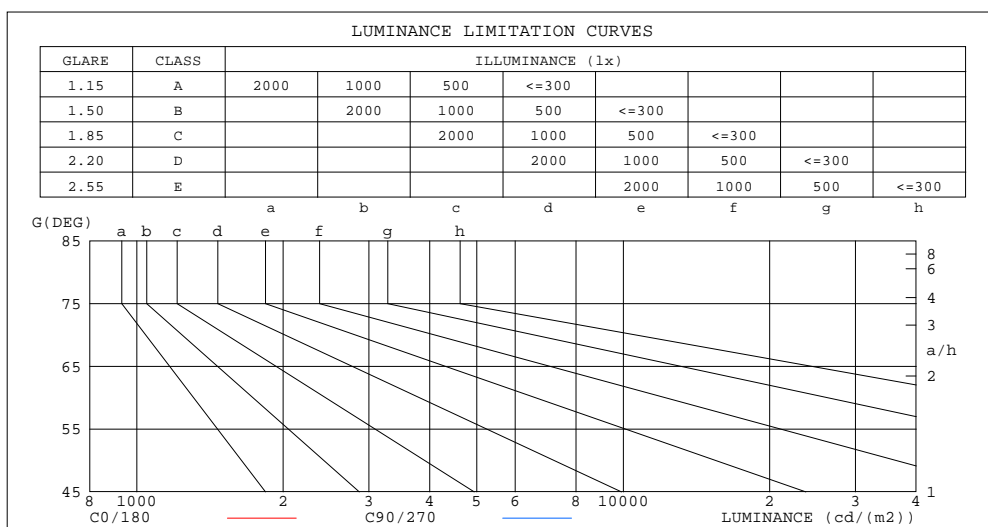
| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | Φ zone | Φ total | %lum,lamp |
|-----|-----------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|-----------|
| 10 | 94.47 | 94.25 | 93.98 | 93.84 | 93.96 | 94.21 | 94.47 | 94.61 | 0- 10 | 9.066 | 9.066 | 3.18,3.18 |
| 20 | 90.23 | 89.78 | 89.20 | 88.91 | 89.14 | 89.67 | 90.17 | 90.46 | 10- 20 | 26.07 | 35.13 | 12.3,12.3 |
| 30 | 83.16 | 82.46 | 81.50 | 81.09 | 81.42 | 82.18 | 82.91 | 83.46 | 20- 30 | 39.80 | 74.93 | 26.3,26.3 |
| 40 | 73.39 | 72.47 | 71.11 | 70.49 | 70.83 | 71.92 | 72.91 | 73.74 | 30- 40 | 48.49 | 123.4 | 43.3,43.3 |
| 50 | 61.21 | 60.04 | 58.29 | 57.35 | 57.65 | 59.05 | 58.74 | 61.54 | 40- 50 | 50.88 | 174.3 | 61.2,61.2 |
| 60 | 46.86 | 45.49 | 43.36 | 42.01 | 42.13 | 43.87 | 44.81 | 47.18 | 50- 60 | 46.57 | 220.9 | 77.5,77.5 |
| 70 | 30.88 | 29.38 | 26.88 | 25.11 | 24.94 | 27.01 | 28.21 | 31.15 | 60- 70 | 36.04 | 256.9 | 90.2,90.2 |
| 80 | 14.55 | 13.25 | 10.82 | 9.065 | 8.643 | 10.66 | 12.61 | 14.86 | 70- 80 | 20.87 | 277.8 | 97.5,97.5 |
| 90 | 1.441 | 1.364 | 0.1037 | 0.9119 | 0.4906 | 1.208 | 0.3631 | 2.096 | 80- 90 | 6.256 | 284.0 | 99.7,99.7 |
| 100 | 0.2220 | 0.1827 | 0.1784 | 0.2742 | 0.2306 | 0.2090 | 0.1960 | 0.2004 | 90-100 | 0.4884 | 284.5 | 99.9,99.9 |
| 110 | 0.2828 | 0.2959 | 0.2830 | 0.3744 | 0.3306 | 0.3787 | 0.3048 | 0.1080 | 100-110 | 0.2839 | 284.8 | 100,100 |
| 120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 110-120 | 0.0163 | 284.8 | 100,100 |
| 130 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 120-130 | 0 | 284.8 | 100,100 |
| 140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130-140 | 0 | 284.8 | 100,100 |
| 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 140-150 | 0 | 284.8 | 100,100 |
| 160 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150-160 | 0 | 284.8 | 100,100 |
| 170 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 160-170 | 0 | 284.8 | 100,100 |
| 180 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 170-180 | 0 | 284.8 | 100,100 |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | | UNIT:lm | | |

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:Marçal Huguet
 Test Date:March 2021

γ Range: 0 - 110DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
 Humidity:37%
 Test Distance:8.200m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

| | | |
|----------------------|------------------|------------------|
| NAME: Palma 3200k | TYPE: | WEIGHT:1 |
| SPEC.: | DIM.: 3x10x500mm | SERIAL No.: |
| MFR.: Luz Negra s.l. | SUR.:22 | Shielding Angle: |



| LUMINANCE cd/(m2) | | |
|-------------------|--------|---------|
| G(DEG) | C0/180 | C90/270 |
| 85 | 415 | 256 |
| 80 | 421 | 313 |
| 75 | 439 | 360 |
| 70 | 453 | 394 |
| 65 | 464 | 418 |
| 60 | 471 | 435 |
| 55 | 475 | 447 |
| 50 | 478 | 455 |
| 45 | 480 | 461 |

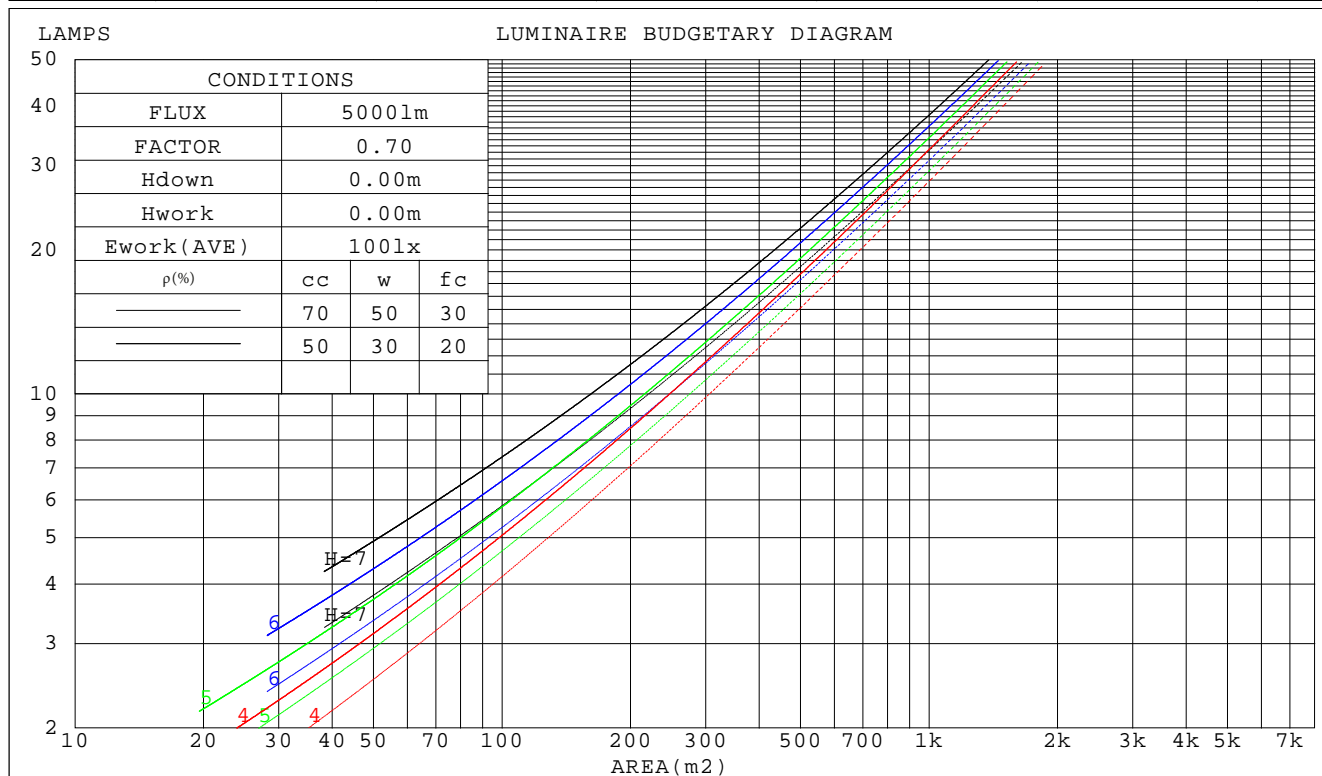
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators: Marçal Huguet
 Test Date: March 2021

γ Range: 0 - 110DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
 Humidity: 37%
 Test Distance: 8.200m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

| | | |
|----------------------|------------------|------------------|
| NAME: Palma 3200k | TYPE: | WEIGHT:1 |
| SPEC.: | DIM.: 3x10x500mm | SERIAL No.: |
| MFR.: Luz Negra s.l. | SUR.:22 | Shielding Angle: |

| 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 | | | | | | | | | | | | | | | |



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators: Marçal Huguet
Test Date: March 2021

γ Range: 0 - 110DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity: 37%
Test Distance: 8.200m [K=1.0000]
Remarks:

WEC AND CCEC

| | | |
|----------------------|------------------|------------------|
| NAME: Palma 3200k | TYPE: | WEIGHT:1 |
| SPEC.: | DIM.: 3x10x500mm | SERIAL No.: |
| MFR.: Luz Negra s.l. | SUR.:22 | Shielding Angle: |

| 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 | .316 | .180 | .057 | .309 | .176 | .056 | .296 | .170 | .054 | .283 | .163 | .052 | .272 | .158 | .051 | |
| 2.0 | .296 | .162 | .050 | .290 | .160 | .049 | .278 | .155 | .048 | .267 | .150 | .047 | .257 | .145 | .046 | |
| 3.0 | .274 | .146 | .044 | .268 | .143 | .043 | .257 | .139 | .042 | .248 | .136 | .042 | .239 | .132 | .041 | |
| 4.0 | .252 | .131 | .038 | .247 | .129 | .038 | .238 | .126 | .038 | .229 | .123 | .037 | .221 | .120 | .037 | |
| 5.0 | .233 | .119 | .034 | .228 | .117 | .034 | .220 | .115 | .034 | .212 | .112 | .033 | .205 | .110 | .033 | |
| 6.0 | .216 | .108 | .031 | .212 | .107 | .031 | .204 | .105 | .030 | .197 | .103 | .030 | .191 | .100 | .030 | |
| 7.0 | .200 | .099 | .028 | .197 | .098 | .028 | .190 | .096 | .028 | .184 | .094 | .027 | .178 | .093 | .027 | |
| 8.0 | .187 | .091 | .026 | .184 | .091 | .026 | .178 | .089 | .025 | .172 | .087 | .025 | .167 | .086 | .025 | |
| 9.0 | .175 | .085 | .024 | .172 | .084 | .024 | .167 | .083 | .023 | .162 | .081 | .023 | .157 | .080 | .023 | |
| 10.0 | .165 | .079 | .022 | .162 | .078 | .022 | .157 | .077 | .022 | .153 | .076 | .022 | .148 | .075 | .021 | |

| 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 | .193 | .193 | .193 | .165 | .165 | .165 | .112 | .112 | .112 | .065 | .065 | .065 | .021 | .021 | .021 | |
| 1.0 | .183 | .158 | .136 | .156 | .136 | .117 | .107 | .093 | .081 | .062 | .054 | .047 | .020 | .017 | .015 | |
| 2.0 | .175 | .134 | .100 | .150 | .115 | .086 | .103 | .080 | .060 | .059 | .046 | .035 | .019 | .015 | .011 | |
| 3.0 | .167 | .116 | .076 | .143 | .100 | .066 | .098 | .070 | .046 | .057 | .041 | .027 | .018 | .013 | .009 | |
| 4.0 | .160 | .103 | .060 | .137 | .089 | .052 | .094 | .062 | .037 | .055 | .036 | .022 | .018 | .012 | .007 | |
| 5.0 | .152 | .093 | .049 | .131 | .080 | .043 | .090 | .056 | .030 | .052 | .033 | .018 | .017 | .011 | .006 | |
| 6.0 | .145 | .084 | .041 | .125 | .073 | .036 | .086 | .051 | .025 | .050 | .030 | .015 | .016 | .010 | .005 | |
| 7.0 | .138 | .078 | .035 | .119 | .067 | .031 | .082 | .047 | .022 | .048 | .028 | .013 | .015 | .009 | .004 | |
| 8.0 | .132 | .072 | .031 | .113 | .062 | .027 | .078 | .044 | .019 | .046 | .026 | .011 | .015 | .008 | .004 | |
| 9.0 | .126 | .067 | .027 | .108 | .058 | .024 | .075 | .041 | .017 | .044 | .024 | .010 | .014 | .008 | .003 | |
| 10.0 | .120 | .063 | .025 | .103 | .054 | .021 | .072 | .038 | .015 | .042 | .023 | .009 | .014 | .007 | .003 | |

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:Marçal Huguet
 Test Date:March 2021

γ Range: 0 - 110DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
 Humidity:37%
 Test Distance:8.200m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

| | | |
|----------------------|------------------|------------------|
| NAME: Palma 3200k | TYPE: | WEIGHT:1 |
| SPEC.: | DIM.: 3x10x500mm | SERIAL No.: |
| MFR.: Luz Negra s.l. | SUR.:22 | 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 | 14.8 | 16.3 | 15.1 | 16.6 | 16.8 | 14.5 | 16.1 | 14.8 | 16.3 | 16.5 |
| 3H | 16.5 | 17.9 | 16.8 | 18.2 | 18.4 | 16.1 | 17.5 | 16.4 | 17.7 | 18.0 |
| 4H | 17.2 | 18.6 | 17.5 | 18.8 | 19.1 | 16.6 | 18.0 | 17.0 | 18.3 | 18.5 |
| 6H | 17.8 | 19.0 | 18.1 | 19.3 | 19.6 | 17.0 | 18.3 | 17.4 | 18.6 | 18.9 |
| 8H | 18.0 | 19.2 | 18.3 | 19.5 | 19.8 | 17.2 | 18.4 | 17.5 | 18.7 | 19.0 |
| 12H | 18.1 | 19.3 | 18.5 | 19.6 | 19.9 | 17.2 | 18.4 | 17.6 | 18.7 | 19.0 |
| 4H 2H | 15.4 | 16.8 | 15.7 | 17.0 | 17.3 | 15.2 | 16.6 | 15.5 | 16.8 | 17.1 |
| 3H | 17.3 | 18.5 | 17.7 | 18.8 | 19.1 | 16.9 | 18.1 | 17.3 | 18.4 | 18.7 |
| 4H | 18.2 | 19.2 | 18.5 | 19.6 | 19.9 | 17.7 | 18.7 | 18.0 | 19.1 | 19.4 |
| 6H | 18.9 | 19.8 | 19.3 | 20.2 | 20.6 | 18.2 | 19.2 | 18.6 | 19.5 | 19.9 |
| 8H | 19.1 | 20.0 | 19.5 | 20.4 | 20.8 | 18.4 | 19.3 | 18.8 | 19.6 | 20.0 |
| 12H | 19.3 | 20.2 | 19.8 | 20.6 | 21.0 | 18.5 | 19.3 | 18.9 | 19.7 | 20.1 |
| 8H 4H | 18.4 | 19.3 | 18.8 | 19.7 | 20.1 | 18.0 | 18.9 | 18.4 | 19.3 | 19.7 |
| 6H | 19.3 | 20.0 | 19.7 | 20.5 | 20.9 | 18.7 | 19.4 | 19.1 | 19.8 | 20.3 |
| 8H | 19.7 | 20.3 | 20.1 | 20.8 | 21.2 | 18.9 | 19.6 | 19.4 | 20.0 | 20.5 |
| 12H | 20.0 | 20.6 | 20.5 | 21.0 | 21.5 | 19.1 | 19.7 | 19.6 | 20.2 | 20.6 |
| 12H 4H | 18.4 | 19.3 | 18.9 | 19.7 | 20.1 | 18.0 | 18.8 | 18.5 | 19.2 | 19.6 |
| 6H | 19.4 | 20.0 | 19.8 | 20.5 | 20.9 | 18.8 | 19.4 | 19.2 | 19.9 | 20.3 |
| 8H | 19.8 | 20.4 | 20.3 | 20.8 | 21.3 | 19.1 | 19.7 | 19.6 | 20.1 | 20.6 |

Variations with the observer position at spacings:

| | | |
|----------|---------------|---------------|
| S = 1.0H | + 0.1 / - 0.2 | + 0.1 / - 0.2 |
| 1.5H | + 0.2 / - 0.3 | + 0.2 / - 0.3 |
| 2.0H | + 0.1 / - 0.3 | + 0.2 / - 0.4 |

CIE Pub.117, 284.8 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -4.4$)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Marçal Huguet
Test Date:March 2021

γ Range: 0 - 110DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:37%
Test Distance:8.200m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

| | | |
|----------------------|------------------|------------------|
| NAME: Palma 3200k | TYPE: | WEIGHT:1 |
| SPEC.: | DIM.: 3x10x500mm | SERIAL No.: |
| MFR.: Luz Negra s.l. | SUR.:22 | Shielding Angle: |

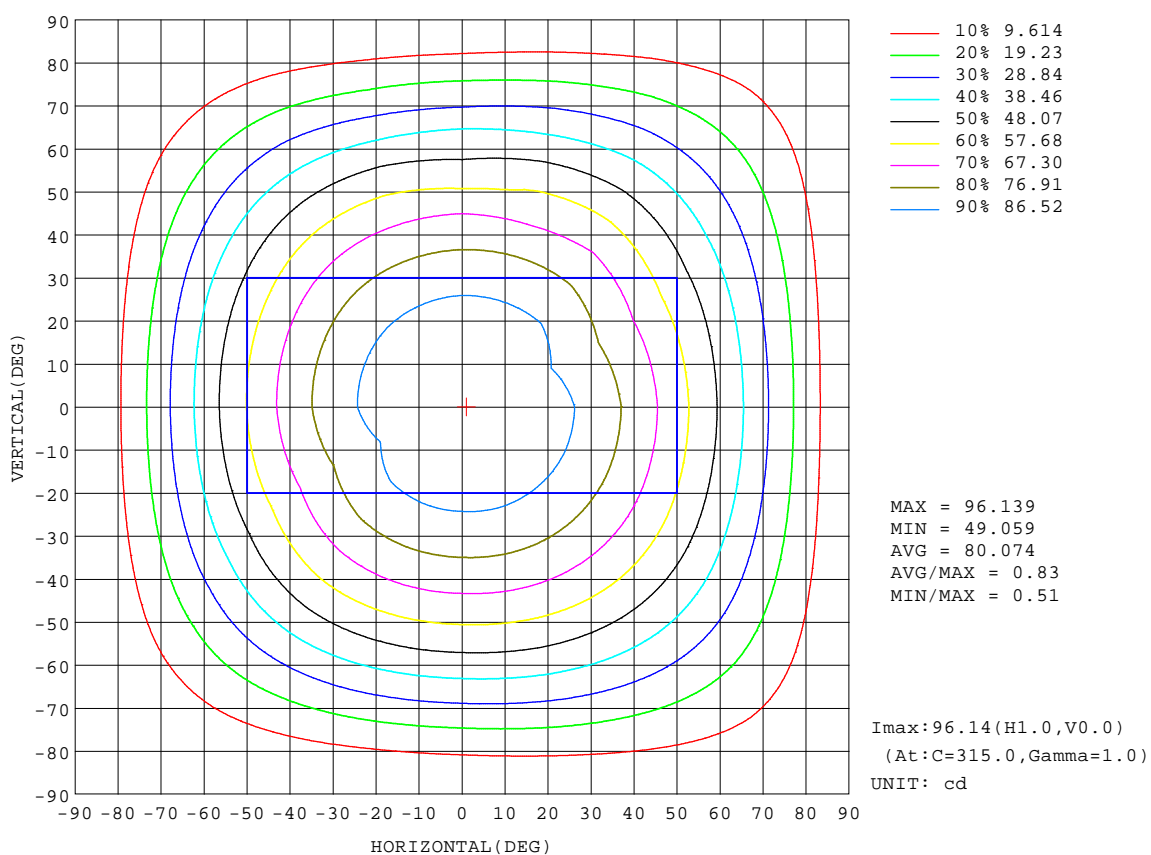
| REFLECTANCE | | | | | | | | | | |
|----------------------------------|---|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| Ceiling | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0 |
| Walls | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0 |
| Working plane | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0 |
| ROOM INDEX | UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$ | | | | | | | | | |
| k = 0.60 | 57 | 45 | 38 | 56 | 45 | 38 | 55 | 44 | 38 | 31 |
| 0.80 | 67 | 55 | 48 | 66 | 55 | 47 | 64 | 54 | 47 | 40 |
| 1.00 | 75 | 64 | 56 | 74 | 63 | 56 | 72 | 65 | 56 | 48 |
| 1.25 | 82 | 72 | 64 | 81 | 71 | 64 | 78 | 69 | 63 | 56 |
| 1.50 | 87 | 77 | 70 | 86 | 76 | 70 | 83 | 75 | 69 | 61 |
| 2.00 | 94 | 86 | 79 | 92 | 84 | 78 | 89 | 82 | 77 | 69 |
| 2.50 | 98 | 90 | 84 | 96 | 89 | 83 | 92 | 86 | 81 | 73 |
| 3.00 | 102 | 95 | 89 | 100 | 93 | 88 | 95 | 90 | 86 | 77 |
| 4.00 | 106 | 100 | 95 | 103 | 98 | 94 | 99 | 95 | 91 | 82 |
| 5.00 | 108 | 103 | 99 | 106 | 101 | 98 | 101 | 98 | 94 | 85 |
| 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:25DEG
Operators:Marçal Huguet
Test Date:March 2021

γ Range: 0 - 110DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:37%
Test Distance:8.200m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

| | | |
|----------------------|------------------|------------------|
| NAME: Palma 3200k | TYPE: | WEIGHT:1 |
| SPEC.: | DIM.: 3x10x500mm | SERIAL No.: |
| MFR.: Luz Negra s.l. | SUR.:22 | Shielding Angle: |

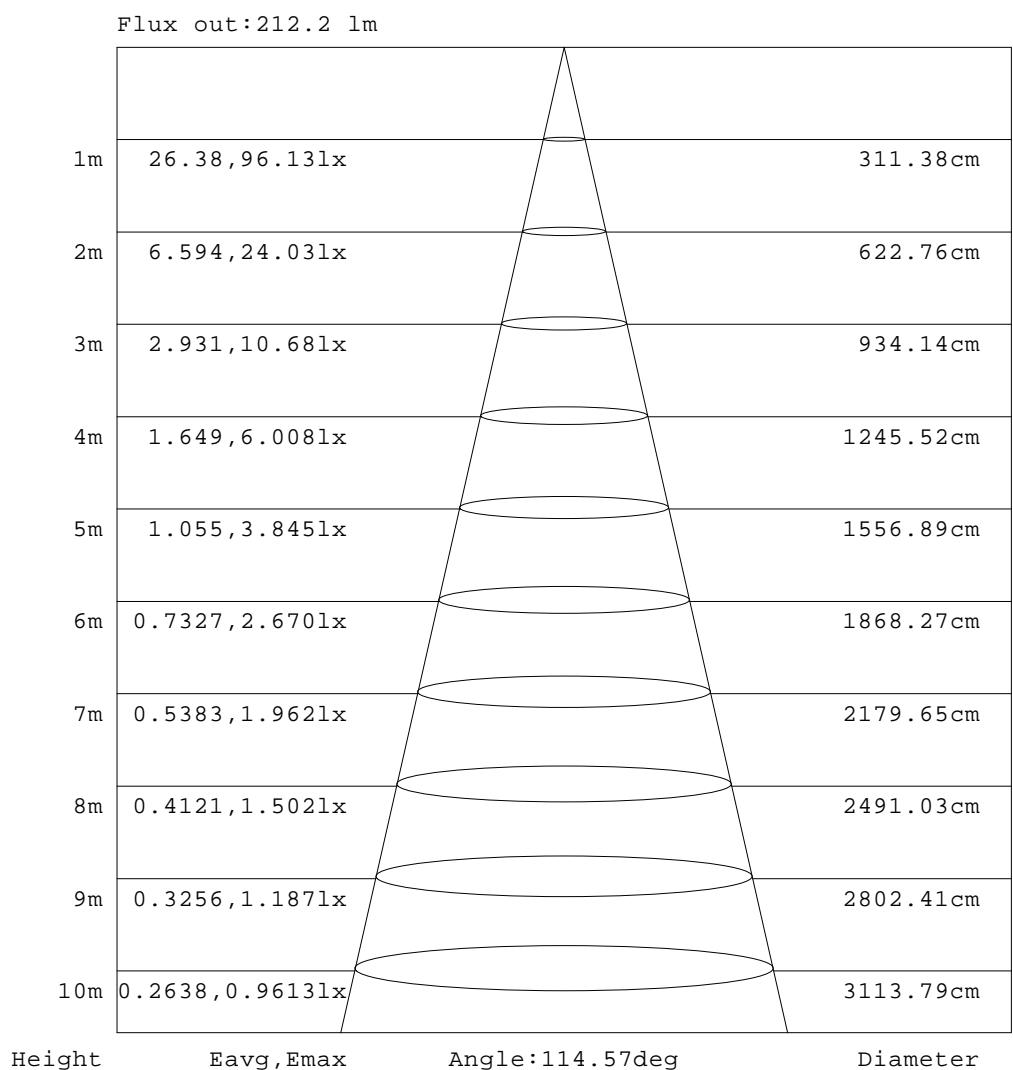


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:Marçal Huguet
 Test Date:March 2021

γ Range: 0 - 110DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
 Humidity:37%
 Test Distance:8.200m [K=1.0000]
 Remarks:

AAI Figure

| | | |
|----------------------|------------------|------------------|
| NAME: Palma 3200k | TYPE: | WEIGHT:1 |
| SPEC.: | DIM.: 3x10x500mm | SERIAL No.: |
| MFR.: Luz Negra s.l. | SUR.:22 | Shielding Angle: |



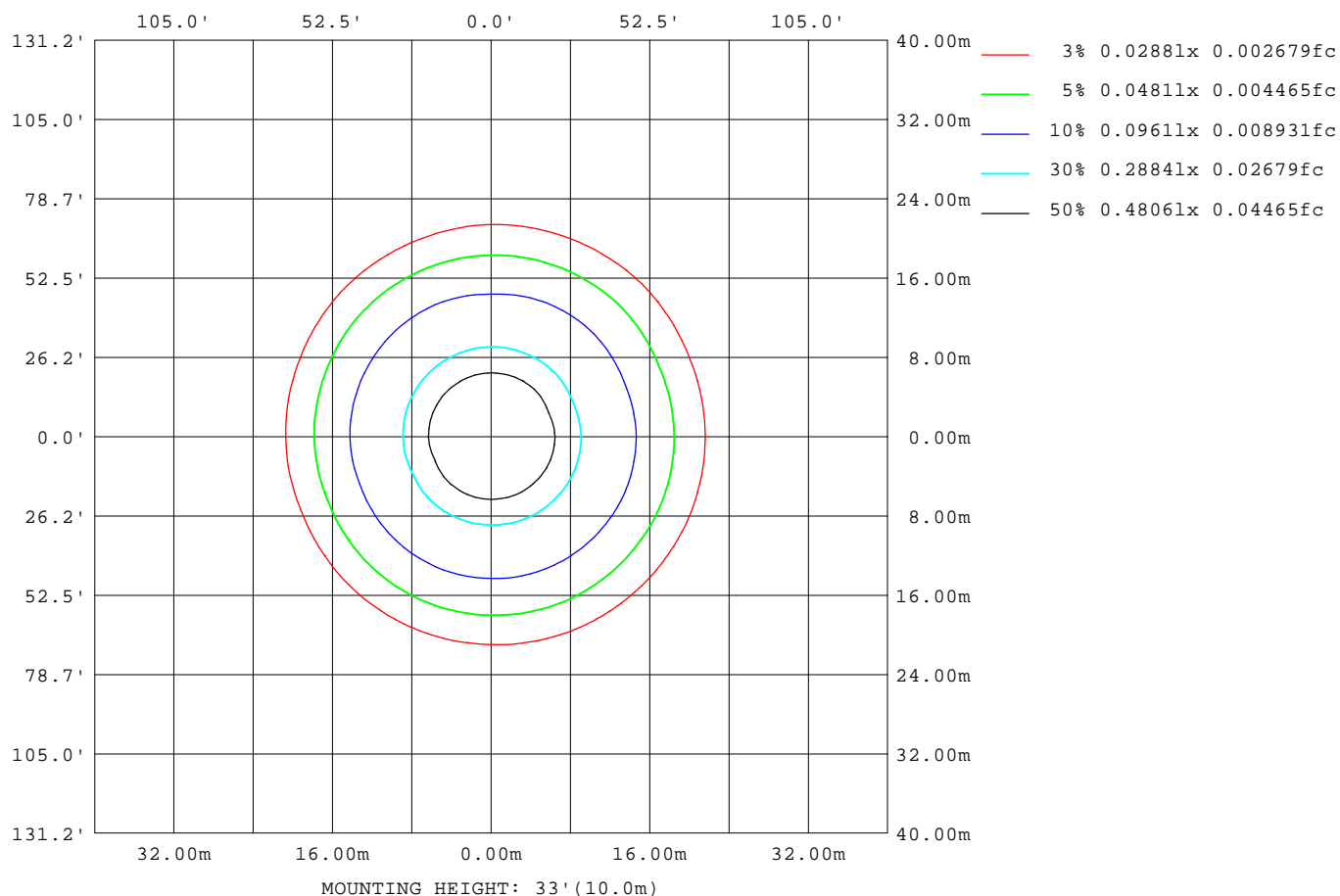
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Marçal Huguet
Test Date:March 2021

γ Range: 0 - 110DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:37%
Test Distance:8.200m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

| | | |
|----------------------|------------------|------------------|
| NAME: Palma 3200k | TYPE: | WEIGHT:1 |
| SPEC.: | DIM.: 3x10x500mm | SERIAL No.: |
| MFR.: Luz Negra s.l. | SUR.:22 | Shielding Angle: |



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators: Marçal Huguët
Test Date: March 2021

γ Range: 0 - 110DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity: 37%
Test Distance: 8.200m [K=1.0000]
Remarks:

LED Avg.L Report

| | | |
|----------------------|------------------|------------------|
| NAME: Palma 3200k | TYPE: | WEIGHT:1 |
| SPEC.: | DIM.: 3x10x500mm | SERIAL No.: |
| MFR.: Luz Negra s.l. | SUR.:22 | Shielding Angle: |

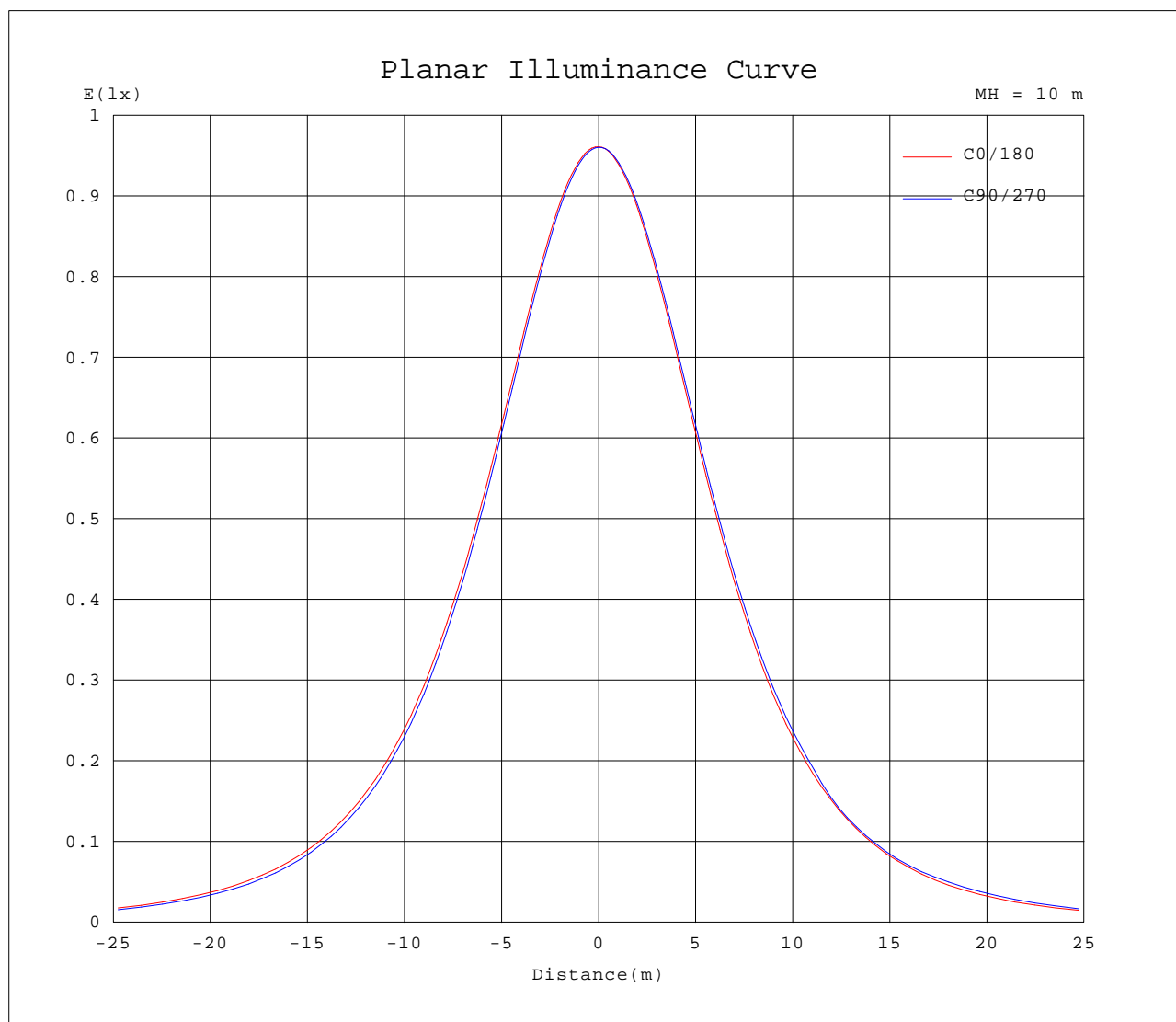
| AvgL | cd/m2 |
|----------------|-------|
| L_0~180(65)av | 430 |
| L_0~180(75)av | 377 |
| L_0~180(85)av | 291 |
| L_90~270(65)av | 432 |
| L_90~270(75)av | 382 |
| L_90~270(85)av | 300 |
| L_45(65)av | 432 |
| L_45(75)av | 382 |
| L_45(85)av | 312 |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Marçal Huguet
Test Date:March 2021

γ Range: 0 - 110DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:37%
Test Distance:8.200m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators: Marçal Huguet
 Test Date: March 2021

γ Range: 0 - 110DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
 Humidity: 37%
 Test Distance: 8.200m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|----------------------|------------------|------------------|
| NAME: Palma 3200k | TYPE: | WEIGHT:1 |
| SPEC.: | DIM.: 3x10x500mm | SERIAL No.: |
| MFR.: Luz Negra s.l. | SUR.:22 | Shielding Angle: |

Table--1

UNIT: cd

| C(°) γ (°) | 0 | 22.5 | 45 | 67.5 | 90 | 112.5 | 135 | 157.5 | 180 | 202.5 | 225 | 247.5 | 270 | 292.5 | 315 | 337.5 | | | |
|---------------|------|------|------|------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|--|--|--|
| 0 | 95.7 | 95.7 | 95.7 | 95.7 | 95.7 | 95.7 | 95.7 | 95.7 | 95.7 | 95.7 | 95.7 | 95.7 | 95.7 | 95.7 | 95.7 | 95.7 | | | |
| 5 | 95.5 | 95.5 | 95.4 | 95.3 | 95.2 | 95.2 | 95.2 | 95.2 | 95.2 | 95.3 | 95.3 | 95.4 | 95.5 | 95.5 | 95.5 | 95.5 | | | |
| 10 | 94.5 | 94.4 | 94.2 | 94.1 | 94.0 | 93.9 | 93.8 | 93.9 | 94.0 | 94.0 | 94.2 | 94.3 | 94.5 | 94.5 | 94.6 | 94.5 | | | |
| 15 | 92.7 | 92.6 | 92.4 | 92.2 | 92.0 | 91.9 | 91.7 | 91.9 | 91.9 | 92.1 | 92.3 | 92.5 | 92.7 | 92.8 | 92.9 | 92.7 | | | |
| 20 | 90.2 | 90.1 | 89.8 | 89.5 | 89.2 | 89.1 | 88.9 | 89.1 | 89.1 | 89.3 | 89.7 | 89.9 | 90.2 | 90.3 | 90.5 | 90.3 | | | |
| 25 | 87.0 | 86.9 | 86.5 | 86.1 | 85.7 | 85.5 | 85.4 | 85.6 | 85.7 | 85.9 | 86.3 | 86.5 | 86.9 | 87.0 | 87.3 | 87.1 | | | |
| 30 | 83.2 | 83.0 | 82.5 | 82.0 | 81.5 | 81.3 | 81.1 | 81.4 | 81.4 | 81.7 | 82.2 | 82.5 | 82.9 | 83.1 | 83.5 | 83.2 | | | |
| 35 | 78.6 | 78.4 | 77.8 | 77.3 | 76.6 | 76.4 | 76.1 | 76.4 | 76.5 | 76.8 | 77.4 | 77.7 | 78.2 | 78.5 | 78.9 | 78.6 | | | |
| 40 | 73.4 | 73.1 | 72.5 | 71.9 | 71.1 | 70.8 | 70.5 | 70.8 | 70.8 | 71.2 | 71.9 | 72.3 | 72.9 | 73.3 | 73.7 | 73.5 | | | |
| 45 | 67.6 | 67.3 | 66.5 | 65.8 | 65.0 | 64.6 | 64.2 | 64.5 | 64.6 | 65.0 | 65.8 | 66.3 | 67.0 | 66.1 | 68.0 | 67.7 | | | |
| 50 | 61.2 | 60.9 | 60.0 | 59.3 | 58.3 | 57.8 | 57.4 | 57.6 | 57.6 | 58.1 | 59.0 | 59.6 | 58.7 | 58.8 | 61.5 | 61.3 | | | |
| 55 | 54.3 | 54.0 | 53.0 | 52.2 | 51.1 | 50.5 | 49.9 | 50.2 | 50.2 | 50.7 | 51.7 | 52.4 | 51.5 | 53.9 | 54.6 | 54.4 | | | |
| 60 | 46.9 | 46.5 | 45.5 | 44.6 | 43.4 | 42.7 | 42.0 | 42.2 | 42.1 | 42.7 | 43.9 | 44.7 | 44.8 | 46.4 | 47.2 | 47.2 | | | |
| 65 | 39.0 | 38.7 | 37.6 | 36.6 | 35.3 | 34.5 | 33.7 | 33.7 | 33.7 | 34.3 | 35.6 | 36.1 | 37.7 | 38.4 | 39.3 | 39.7 | | | |
| 70 | 30.9 | 30.5 | 29.4 | 28.3 | 26.9 | 26.0 | 25.1 | 25.1 | 24.9 | 25.6 | 27.0 | 27.2 | 28.2 | 30.2 | 31.1 | 31.7 | | | |
| 75 | 22.6 | 22.2 | 21.1 | 20.1 | 18.6 | 17.6 | 16.7 | 16.5 | 16.4 | 17.0 | 18.5 | 19.0 | 20.9 | 21.9 | 22.9 | 23.6 | | | |
| 80 | 14.6 | 14.2 | 13.2 | 12.2 | 10.8 | 9.78 | 9.07 | 8.84 | 8.64 | 9.32 | 10.7 | 11.4 | 12.6 | 14.0 | 14.9 | 15.5 | | | |
| 85 | 7.20 | 7.00 | 6.23 | 5.49 | 4.45 | 4.00 | 3.39 | 3.15 | 2.94 | 3.48 | 4.50 | 5.32 | 6.03 | 7.04 | 7.61 | 8.00 | | | |
| 90 | 1.44 | 1.44 | 1.36 | 1.34 | 0.10 | 1.03 | 0.91 | 0.72 | 0.49 | 0.77 | 1.21 | 1.47 | 0.36 | 2.05 | 2.10 | 2.23 | | | |
| 95 | 0.26 | 0.35 | 0.38 | 0.14 | 0.13 | 0.15 | 0.43 | 0.38 | 0.29 | 0.41 | 0.46 | 0.16 | 0.15 | 0.21 | 0.48 | 0.95 | | | |
| 100 | 0.22 | 0.20 | 0.18 | 0.21 | 0.18 | 0.19 | 0.27 | 0.21 | 0.23 | 0.21 | 0.21 | 0.25 | 0.20 | 0.25 | 0.20 | 0.53 | | | |
| 105 | 0.23 | 0.23 | 0.24 | 0.28 | 0.23 | 0.25 | 0.32 | 0.25 | 0.28 | 0.27 | 0.26 | 0.34 | 0.25 | 0.29 | 0.25 | 0.30 | | | |
| 110 | 0.28 | 0.28 | 0.30 | 0.34 | 0.28 | 0.30 | 0.37 | 0.29 | 0.33 | 0.32 | 0.38 | 0.43 | 0.30 | 0.33 | 0.11 | 0.31 | | | |
| 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 | | | |
| 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 | | | |
| 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 | | | |
| 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 | | | |
| 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 | | | |
| 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 | | | |
| 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 | | | |
| 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 | | | |
| 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 | | | |
| 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 | | | |
| 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 | | | |
| 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 | | | |
| 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 | | | |
| 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 | | | |

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Marçal Huguet
Test Date:March 2021

γ Range: 0 - 110DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:37%
Test Distance:8.200m [K=1.0000]
Remarks: