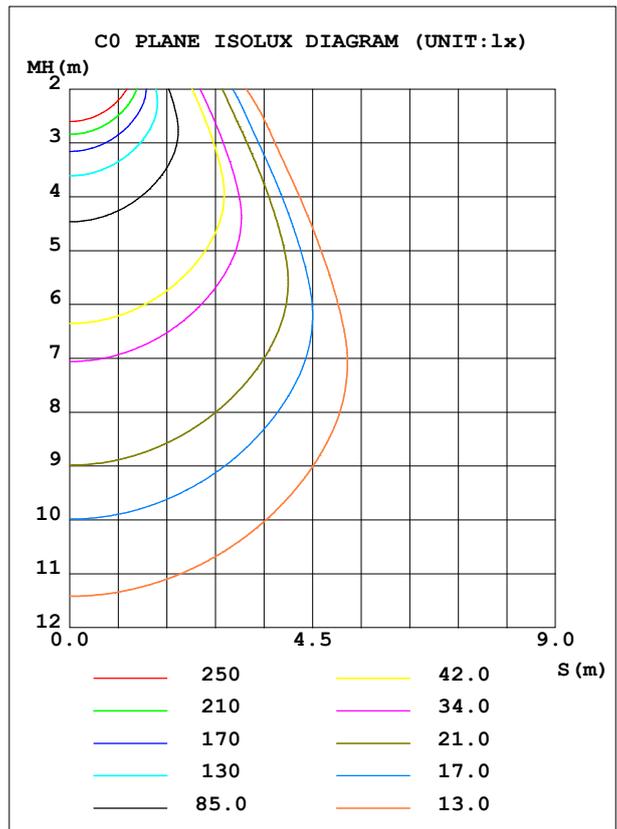
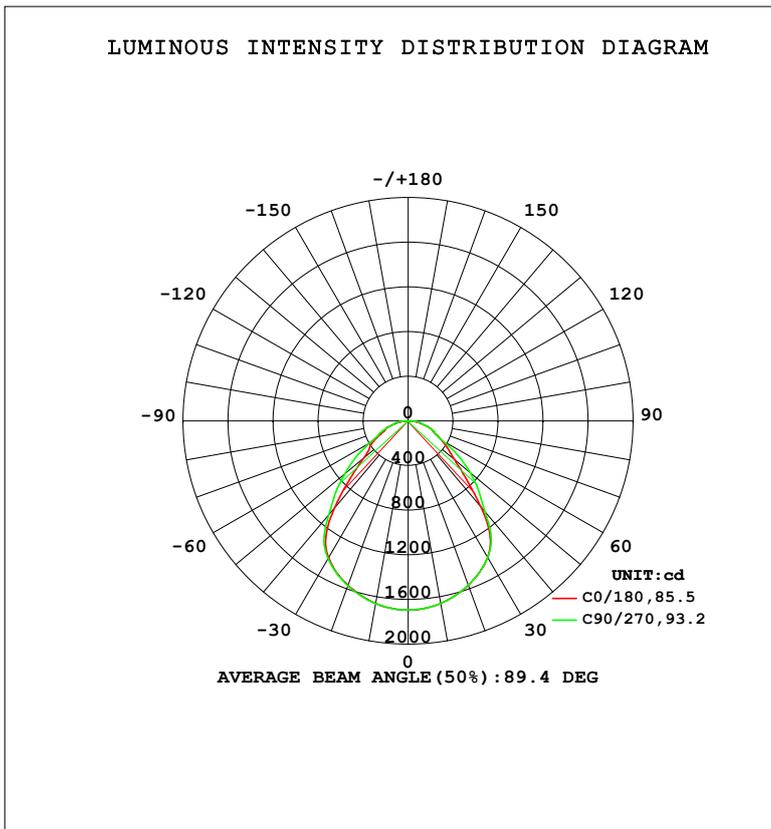


LUMINAIRE PHOTOMETRIC TEST REPORT

| | | |
|---|-------|------------------|
| Test:U:230.12V I:0.1451A P:32.213W PF:0.9649 Freq:49.99Hz Lamp Flux:3674.44x1 lm | | |
| NAME: 0028920207 | TYPE: | WEIGHT: |
| SPEC.:Backlit Panel,6060,32W,40K,3520lm,UGR19 | DIM.: | SERIAL No.: |
| MFR.: TOSPO | SUR.: | Shielding Angle: |

| DATA OF LAMP | | PHOTOMETRIC DATA | | | |
|-------------------|---------|------------------|--------|--------------------------|----------|
| MODEL | | Imax (cd) | 1697 | S/MH (C0/180) | 1.22 |
| NOMINAL POWER (W) | | LOR (%) | 100.0 | S/MH (C90/270) | 1.25 |
| RATED VOLTAGE (V) | | TOTAL FLUX (lm) | 3674.4 | η UP, DN (C0-180) | 0.0,49.7 |
| NOMINAL FLUX (lm) | 3674.44 | 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 |



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:Testing Room
 Test Date:2024-04-11

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471
 Humidity:25%
 Test Distance:11.050m [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 | 1660 | 1652 | 1660 | 1662 | 1662 | 1654 | 1662 | 1664 | 0- 10 | 160.0 | 160.0 | 4.35,4.35 |
| 20 | 1566 | 1558 | 1565 | 1566 | 1566 | 1563 | 1570 | 1572 | 10- 20 | 456.9 | 616.9 | 16.8,16.8 |
| 30 | 1412 | 1407 | 1413 | 1414 | 1414 | 1414 | 1424 | 1421 | 20- 30 | 690.5 | 1307 | 35.6,35.6 |
| 40 | 1006 | 1035 | 1064 | 1042 | 1021 | 1080 | 1098 | 1082 | 30- 40 | 792.1 | 2099 | 57.1,57.1 |
| 50 | 537.4 | 615.5 | 720.9 | 615.2 | 513.6 | 625.5 | 734.6 | 663.6 | 40- 50 | 634.6 | 2734 | 74.4,74.4 |
| 60 | 341.0 | 351.1 | 351.8 | 363.9 | 347.4 | 358.1 | 393.8 | 353.9 | 50- 60 | 436.4 | 3170 | 86.3,86.3 |
| 70 | 219.6 | 217.0 | 223.3 | 215.5 | 213.0 | 217.2 | 220.1 | 213.5 | 60- 70 | 274.6 | 3445 | 93.8,93.8 |
| 80 | 96.77 | 113.8 | 116.5 | 111.3 | 91.20 | 113.5 | 113.7 | 116.4 | 70- 80 | 168.4 | 3613 | 98.3,98.3 |
| 90 | 2.353 | 2.178 | 1.867 | 2.353 | 1.738 | 2.484 | 2.916 | 3.765 | 80- 90 | 61.11 | 3674 | 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): 2443.5 lm

%lum = 66.5%

%lamp = 66.5%

Conical surface Flux(120deg): 3170.4 lm

%lum = 86.3%

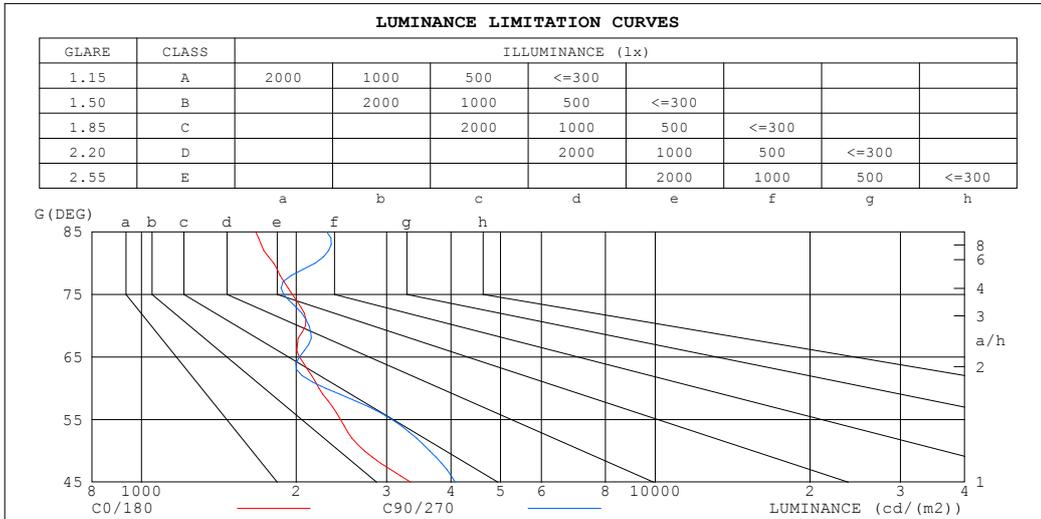
%lamp = 86.3%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:Testing Room
 Test Date:2024-04-11

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471
 Humidity:25%
 Test Distance:11.050m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

| | | |
|---|-------|------------------|
| Test:U:230.12V I:0.1451A P:32.213W PF:0.9649 Freq:49.99Hz Lamp Flux:3674.44x1 lm | | |
| NAME: 0028920207 | TYPE: | WEIGHT: |
| SPEC.:Backlit Panel,6060,32W,40K,3520lm,UGR19 | DIM.: | SERIAL No.: |
| MFR.: TOSPO | SUR.: | Shielding Angle: |



| LUMINANCE cd/ (m2) | | |
|--------------------|--------|---------|
| G (DEG) | C0/180 | C90/270 |
| 85 | 1668 | 2294 |
| 80 | 1809 | 2178 |
| 75 | 1966 | 1891 |
| 70 | 2085 | 2119 |
| 65 | 2029 | 2028 |
| 60 | 2214 | 2284 |
| 55 | 2442 | 3074 |
| 50 | 2714 | 3641 |
| 45 | 3343 | 4080 |

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:Testing Room
 Test Date:2024-04-11

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471
 Humidity:25%
 Test Distance:11.050m [K=1.0000]
 Remarks:

WEC AND CCEC

| | | |
|---|-------|------------------|
| Test:U:230.12V I:0.1451A P:32.213W PF:0.9649 Freq:49.99Hz Lamp Flux:3674.44x1 lm | | |
| NAME: 0028920207 | TYPE: | WEIGHT: |
| SPEC.:Backlit Panel,6060,32W,40K,3520lm,UGR19 | DIM.: | SERIAL No.: |
| MFR.: TOSPO | SUR.: | 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 | .274 | .156 | .049 | .267 | .152 | .048 | .254 | .146 | .047 | .242 | .140 | .045 | .231 | .134 | .043 | |
| 2.0 | .259 | .142 | .043 | .252 | .139 | .043 | .241 | .134 | .042 | .231 | .129 | .040 | .221 | .125 | .039 | |
| 3.0 | .241 | .128 | .038 | .236 | .126 | .038 | .226 | .122 | .037 | .217 | .119 | .036 | .208 | .115 | .036 | |
| 4.0 | .225 | .117 | .034 | .220 | .115 | .034 | .211 | .112 | .033 | .203 | .109 | .033 | .195 | .106 | .032 | |
| 5.0 | .210 | .107 | .031 | .205 | .105 | .031 | .198 | .103 | .030 | .190 | .100 | .030 | .184 | .098 | .029 | |
| 6.0 | .196 | .098 | .028 | .192 | .097 | .028 | .185 | .095 | .028 | .179 | .093 | .027 | .173 | .091 | .027 | |
| 7.0 | .184 | .091 | .026 | .180 | .090 | .026 | .174 | .088 | .025 | .168 | .086 | .025 | .163 | .085 | .025 | |
| 8.0 | .173 | .084 | .024 | .170 | .084 | .024 | .164 | .082 | .023 | .159 | .081 | .023 | .154 | .079 | .023 | |
| 9.0 | .163 | .079 | .022 | .160 | .078 | .022 | .155 | .077 | .022 | .151 | .075 | .022 | .146 | .074 | .021 | |
| 10.0 | .154 | .074 | .020 | .152 | .073 | .020 | .147 | .072 | .020 | .143 | .071 | .020 | .139 | .070 | .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 | .178 | .156 | .137 | .152 | .134 | .118 | .104 | .092 | .082 | .060 | .053 | .047 | .019 | .017 | .015 | |
| 2.0 | .168 | .132 | .102 | .144 | .114 | .088 | .099 | .079 | .062 | .057 | .046 | .036 | .018 | .015 | .012 | |
| 3.0 | .159 | .114 | .078 | .136 | .098 | .068 | .094 | .068 | .048 | .054 | .040 | .028 | .017 | .013 | .009 | |
| 4.0 | .151 | .100 | .062 | .129 | .087 | .054 | .089 | .060 | .038 | .051 | .035 | .022 | .017 | .012 | .007 | |
| 5.0 | .143 | .090 | .050 | .123 | .078 | .044 | .085 | .054 | .031 | .049 | .032 | .018 | .016 | .010 | .006 | |
| 6.0 | .136 | .081 | .042 | .117 | .070 | .036 | .081 | .049 | .026 | .047 | .029 | .015 | .015 | .009 | .005 | |
| 7.0 | .130 | .074 | .035 | .112 | .064 | .031 | .077 | .045 | .022 | .045 | .027 | .013 | .014 | .009 | .004 | |
| 8.0 | .124 | .068 | .030 | .106 | .059 | .026 | .074 | .042 | .019 | .043 | .025 | .011 | .014 | .008 | .004 | |
| 9.0 | .118 | .063 | .027 | .102 | .055 | .023 | .070 | .039 | .016 | .041 | .023 | .010 | .013 | .007 | .003 | |
| 10.0 | .113 | .059 | .023 | .097 | .051 | .020 | .067 | .036 | .015 | .039 | .021 | .009 | .013 | .007 | .003 | |

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:Testing Room
 Test Date:2024-04-11

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471
 Humidity:25%
 Test Distance:11.050m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

| | | | | | | | | | | |
|---|------------------|------|------|------|-------|----------------|------|------------------|------|------|
| Test:U:230.12V I:0.1451A P:32.213W PF:0.9649 Freq:49.99Hz | | | | | | | | | | |
| Lamp Flux:3674.44x1 lm | | | | | | | | | | |
| NAME: 0028920207 | | | | | TYPE: | | | WEIGHT: | | |
| SPEC.:Backlit Panel,6060,32W,40K,3520lm,UGR19 | | | | | DIM.: | | | SERIAL No.: | | |
| MFR.: TOSPO | | | | | SUR.: | | | 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 | 15.5 | 16.9 | 15.8 | 17.1 | 17.3 | 15.7 | 17.1 | 16.0 | 17.3 | 17.5 |
| 3H | 16.5 | 17.8 | 16.8 | 18.0 | 18.3 | 16.7 | 17.9 | 17.0 | 18.2 | 18.4 |
| 4H | 17.0 | 18.2 | 17.3 | 18.5 | 18.7 | 17.1 | 18.4 | 17.5 | 18.6 | 18.8 |
| 6H | 17.4 | 18.6 | 17.8 | 18.8 | 19.1 | 17.6 | 18.7 | 17.9 | 19.0 | 19.2 |
| 8H | 17.6 | 18.7 | 17.9 | 18.9 | 19.2 | 17.8 | 18.9 | 18.1 | 19.2 | 19.4 |
| 12H | 17.7 | 18.7 | 18.0 | 19.0 | 19.3 | 18.0 | 19.0 | 18.3 | 19.3 | 19.6 |
| 4H 2H | 15.9 | 17.1 | 16.2 | 17.3 | 17.6 | 16.0 | 17.2 | 16.3 | 17.5 | 17.7 |
| 3H | 17.1 | 18.2 | 17.5 | 18.5 | 18.8 | 17.3 | 18.3 | 17.6 | 18.6 | 18.9 |
| 4H | 17.8 | 18.7 | 18.1 | 19.0 | 19.4 | 17.9 | 18.8 | 18.3 | 19.2 | 19.5 |
| 6H | 18.3 | 19.2 | 18.7 | 19.5 | 19.9 | 18.5 | 19.3 | 18.8 | 19.6 | 20.0 |
| 8H | 18.6 | 19.4 | 19.0 | 19.7 | 20.1 | 18.8 | 19.5 | 19.2 | 19.9 | 20.3 |
| 12H | 18.7 | 19.5 | 19.2 | 19.9 | 20.3 | 19.0 | 19.7 | 19.4 | 20.1 | 20.5 |
| 8H 4H | 18.0 | 18.8 | 18.4 | 19.2 | 19.6 | 18.1 | 18.9 | 18.5 | 19.3 | 19.7 |
| 6H | 18.8 | 19.5 | 19.3 | 19.9 | 20.3 | 18.9 | 19.5 | 19.3 | 19.9 | 20.3 |
| 8H | 19.2 | 19.8 | 19.7 | 20.2 | 20.7 | 19.3 | 19.8 | 19.7 | 20.3 | 20.7 |
| 12H | 19.5 | 20.0 | 20.0 | 20.4 | 20.9 | 19.6 | 20.1 | 20.1 | 20.6 | 21.0 |
| 12H 4H | 18.0 | 18.8 | 18.5 | 19.2 | 19.6 | 18.2 | 18.9 | 18.6 | 19.3 | 19.7 |
| 6H | 18.9 | 19.5 | 19.4 | 19.9 | 20.4 | 19.0 | 19.5 | 19.4 | 20.0 | 20.4 |
| 8H | 19.4 | 19.9 | 19.8 | 20.3 | 20.8 | 19.4 | 19.9 | 19.9 | 20.3 | 20.8 |
| Variations with the observer position at spacings(CIE Pub.117): | | | | | | | | | | |
| S = 1.0H | + 0.3 / - 0.4 | | | | | + 0.3 / - 0.3 | | | | |
| 1.5H | + 0.2 / - 0.4 | | | | | + 0.1 / - 0.3 | | | | |
| 2.0H | + 0.6 / - 0.5 | | | | | + 0.6 / - 0.6 | | | | |

CIE Pub.117, 3674 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 4.5)
 Area: 0.308025 m2

| | |
|------------------------|---|
| C Range: 0 - 360DEG | γ Range: 0 - 90DEG |
| C Interval: 22.5DEG | γ Interval: 1.0DEG |
| Test Speed: HIGH | Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471 |
| Temperature:25.3°C | Humidity:25% |
| Operators:Testing Room | Test Distance:11.050m [K=1.0000] |
| Test Date:2024-04-11 | Remarks: |

UTILIZATION FACTORS TABLE

| | | |
|---|-------|------------------|
| Test:U:230.12V I:0.1451A P:32.213W PF:0.9649 Freq:49.99Hz Lamp Flux:3674.44x1 lm | | |
| NAME: 0028920207 | TYPE: | WEIGHT: |
| SPEC.:Backlit Panel,6060,32W,40K,3520lm,UGR19 | DIM.: | SERIAL No.: |
| MFR.: TOSPO | SUR.: | Shielding Angle: |

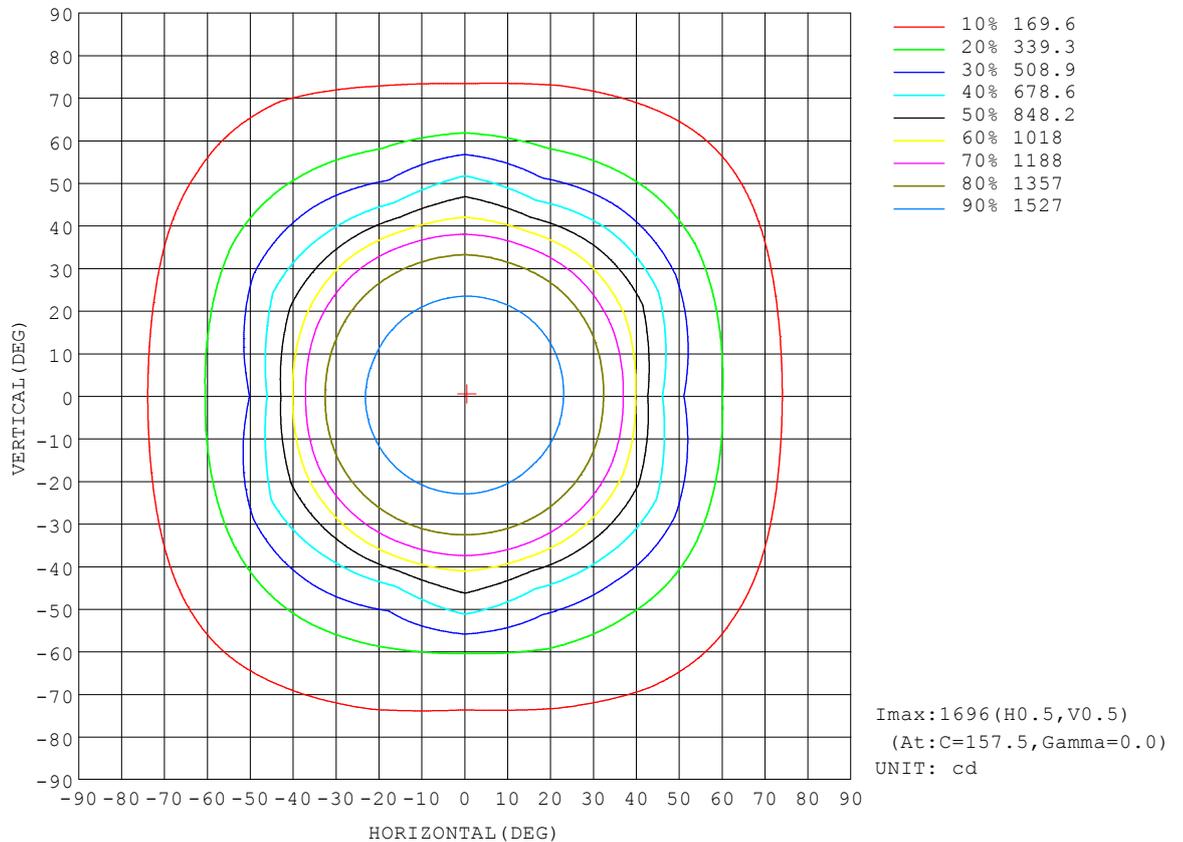
| REFLECTANCE | | | | | | | | | | |
|----------------------------------|--|-----|-----------|-----|-----|-----|---------------|-----|-----|--------|
| Ceiling | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0 |
| Walls | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0 |
| Working plane | 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 | 65 | 55 | 48 | 64 | 54 | 48 | 63 | 54 | 48 | 42 |
| 0.80 | 75 | 64 | 58 | 74 | 64 | 58 | 72 | 63 | 58 | 51 |
| 1.00 | 82 | 73 | 66 | 81 | 72 | 66 | 79 | 73 | 66 | 59 |
| 1.25 | 89 | 80 | 74 | 87 | 79 | 73 | 85 | 78 | 72 | 66 |
| 1.50 | 93 | 85 | 79 | 92 | 84 | 78 | 89 | 82 | 77 | 71 |
| 2.00 | 99 | 92 | 86 | 97 | 90 | 85 | 94 | 88 | 84 | 77 |
| 2.50 | 102 | 95 | 90 | 100 | 94 | 89 | 97 | 92 | 88 | 80 |
| 3.00 | 105 | 99 | 94 | 103 | 98 | 93 | 99 | 95 | 91 | 83 |
| 4.00 | 108 | 103 | 99 | 106 | 102 | 98 | 102 | 98 | 95 | 87 |
| 5.00 | 110 | 106 | 103 | 108 | 104 | 101 | 104 | 101 | 98 | 89 |
| 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:Testing Room
 Test Date:2024-04-11

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471
 Humidity:25%
 Test Distance:11.050m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

| | | |
|---|-------|------------------|
| Test:U:230.12V I:0.1451A P:32.213W PF:0.9649 Freq:49.99Hz Lamp Flux:3674.44x1 lm | | |
| NAME: 0028920207 | TYPE: | WEIGHT: |
| SPEC.:Backlit Panel,6060,32W,40K,3520lm,UGR19 | DIM.: | SERIAL No.: |
| MFR.: TOSPO | SUR.: | Shielding Angle: |

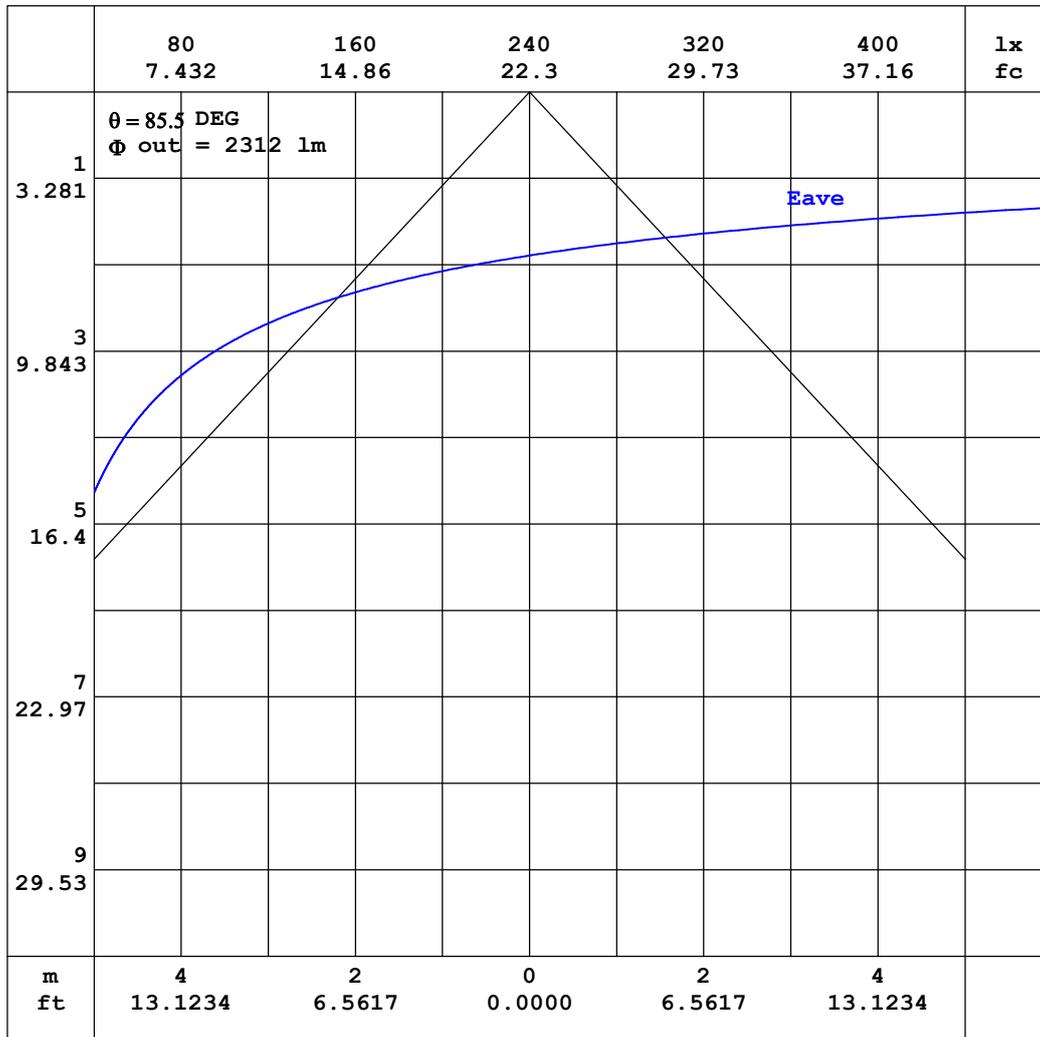


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:Testing Room
 Test Date:2024-04-11

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471
 Humidity:25%
 Test Distance:11.050m [K=1.0000]
 Remarks:

AAI CURVES

| | | |
|---|-------|------------------|
| Test:U:230.12V I:0.1451A P:32.213W PF:0.9649 Freq:49.99Hz Lamp Flux:3674.44x1 lm | | |
| NAME: 0028920207 | TYPE: | WEIGHT: |
| SPEC.:Backlit Panel,6060,32W,40K,3520lm,UGR19 | DIM.: | SERIAL No.: |
| MFR.: TOSPO | SUR.: | Shielding Angle: |

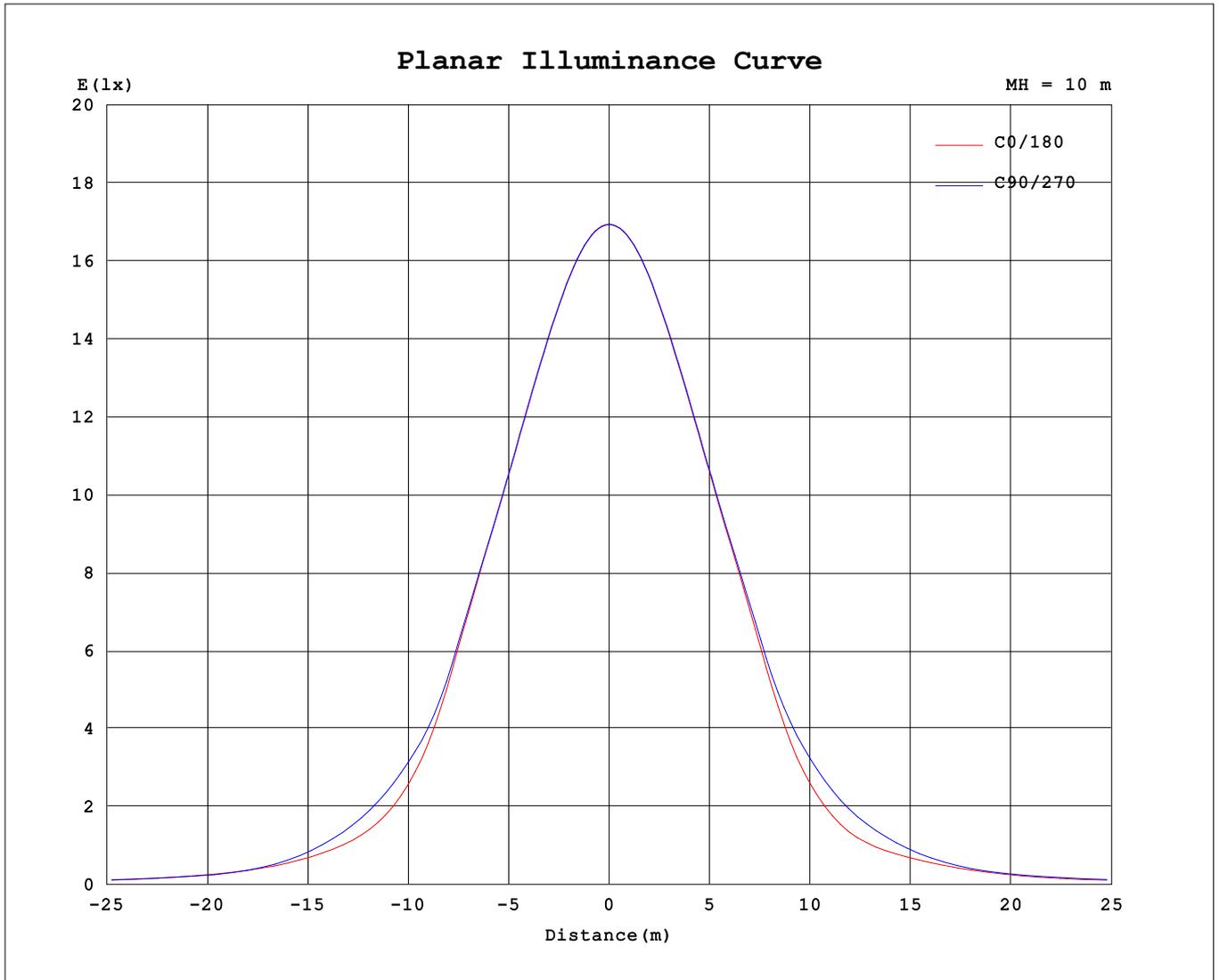


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:Testing Room
 Test Date:2024-04-11

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.471
 Humidity:25%
 Test Distance:11.050m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: Testing Room
 Test Date: 2024-04-11

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.00.471
 Humidity: 25%
 Test Distance: 11.050m [K=1.0000]
 Remarks:

