



|                                       |                             |                                |                                |
|---------------------------------------|-----------------------------|--------------------------------|--------------------------------|
| <b>Print created by:</b>              | https://cielab.xyz          | <b>Measuring device:</b>       | EFI ES-2000 - M0               |
| <b>Last calibration:</b>              | 2023_08_15                  | <b>Measurement conditions:</b> | D50 2gr M0                     |
| <b>Proofing system:</b>               | EFI 7                       | <b>Measuring underlay:</b>     | White Backing                  |
| <b>Control strip:</b>                 | Ugra Fogra-MediaWedge V2.2a | <b>Printer:</b>                | Epson                          |
| <b>Delta E format:</b>                | dE CIE76                    | <b>Proof profile:</b>          | GMG 250 Proofing Paper 2023_08 |
| <b>Reference profile:</b>             | ISO Coated v2               | <b>Proofing substrate:</b>     | GMG Proofing Paper Semimatt    |
| <b>Reference data:</b>                | FOGRA 39L                   | <b>Colorant:</b>               | Ultrachrome K3                 |
| <b>Reference printing conditions:</b> | ISO Coated v2               | <b>Job ID/Name</b>             | -/ ISOcoated_v2_300_eci_WP_... |
| <b>Fogra PSD Visual Assessment</b>    | -                           |                                |                                |

### Summary

| Criteria                   | Difference      | Tolerance | Status |
|----------------------------|-----------------|-----------|--------|
| Average all patches        | 1.1 dE -        | 3.0       | OK     |
| Maximum all patches        | 2.6 dE Patch 8  | 6.0       | OK     |
| Paper white                | 0.2 dE Patch 40 | 3.0       | OK     |
| Cyan                       | 1.2 dE Patch 1  | 5.0       | OK     |
| Magenta                    | 2.0 dE Patch 4  | 5.0       | OK     |
| Yellow                     | 0.6 dE Patch 7  | 5.0       | OK     |
| Black                      | 0.5 dE Patch 23 | 5.0       | OK     |
| Hue difference - CMY       | 1.6 dH -        | 2.5       | OK     |
| Hue difference - CMYK      | 1.6 dH -        | 2.5       | OK     |
| Hue difference - CMYRGB    | 1.6 dH -        | 4.0       | OK     |
| Hue diff. average gray     | 0.4 dH -        | 1.5       | OK     |
| Tone value diff.           | 1.5 % Patch 8   | 10.0      | OK     |
| Average CMYK patches       | 1.0 dCh -       | 2.5       | OK     |
| Maximum weighted CMY scale | 1.5 dCh -       | 3.0       | OK     |
| Average weighted CMY scale | 0.8 dCh -       | 1.5       | OK     |
| Maximum weighted K scale   | 0.7 dL -        | 3.0       | OK     |
| Average weighted K scale   | 0.3 dL -        | 1.5       | OK     |
| Maximum weighted CMY scale | 0.8 dL -        | 3.0       | OK     |
| Average weighted CMY scale | 0.3 dL -        | 1.5       | OK     |

### Overall Result

**PASSED**

### Measuring data analysis

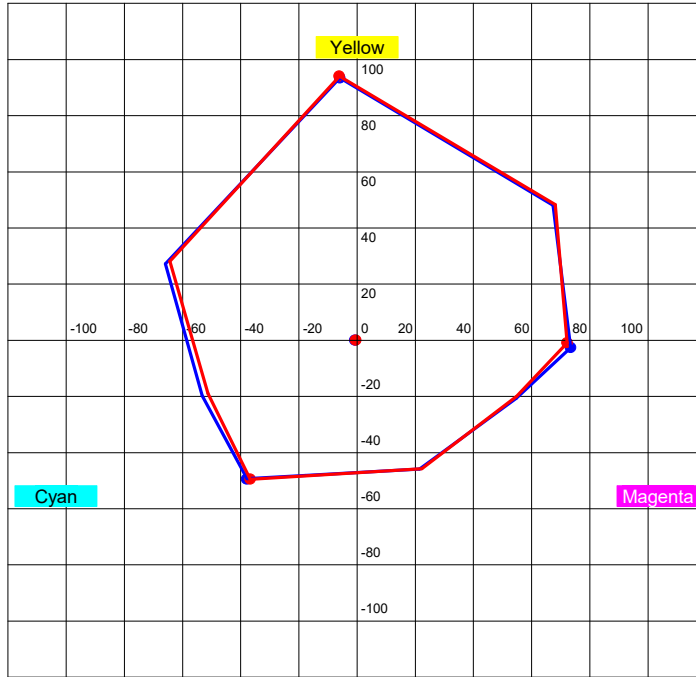
| Patch ID | Reference |     |     |     | Measured |        |        | Color difference |        |        |      |      |                  |      | Result |        |    |
|----------|-----------|-----|-----|-----|----------|--------|--------|------------------|--------|--------|------|------|------------------|------|--------|--------|----|
|          | C         | M   | Y   | K   | L*       | a*     | b*     | Delta E          | dL*    | da*    | db*  | dH*  | Tone value diff. |      |        |        |    |
| 1        | 100       | 0   | 0   | 0   | 55.26    | -37.90 | -49.31 | 55.27            | -36.73 | -49.51 | 1.19 | 0.00 | 1.17             | 0.19 | 1.05   | -      | OK |
| 2        | 70        | 0   | 0   | 0   | 67.17    | -25.65 | -36.31 | 67.52            | -24.75 | -36.11 | 0.99 | 0.34 | 0.90             | 0.20 | 0.62   | -0.52% | OK |
| 3        | 40        | 0   | 0   | 0   | 80.07    | -13.51 | -20.84 | 80.67            | -12.86 | -20.47 | 0.96 | 0.59 | 0.65             | 0.38 | 0.35   | -1.26% | OK |
| 4        | 0         | 100 | 0   | 0   | 48.23    | 73.37  | -2.58  | 48.57            | 72.22  | -0.92  | 2.05 | 0.34 | 1.14             | 1.65 | 1.62   | -      | OK |
| 5        | 0         | 70  | 0   | 0   | 61.14    | 49.89  | -6.16  | 61.16            | 50.55  | -6.00  | 0.68 | 0.02 | 0.66             | 0.15 | 0.23   | 0.36%  | OK |
| 6        | 0         | 40  | 0   | 0   | 76.76    | 24.89  | -6.15  | 77.05            | 25.38  | -5.69  | 0.73 | 0.28 | 0.49             | 0.45 | 0.55   | -0.18% | OK |
| 7        | 0         | 0   | 100 | 0   | 89.39    | -5.99  | 93.46  | 89.28            | -6.03  | 94.06  | 0.61 | 0.11 | 0.04             | 0.60 | 0.00   | -      | OK |
| 8        | 0         | 0   | 70  | 0   | 90.73    | -5.69  | 63.16  | 90.73            | -5.40  | 65.75  | 2.61 | 0.00 | 0.30             | 2.59 | 0.52   | 1.52%  | OK |
| 9        | 0         | 0   | 40  | 0   | 92.58    | -4.51  | 31.95  | 92.17            | -4.67  | 32.49  | 0.70 | 0.41 | 0.16             | 0.54 | 0.08   | 1.42%  | OK |
| 10       | 20        | 70  | 70  | 0   | 53.38    | 37.00  | 29.20  | 53.11            | 37.10  | 28.84  | 0.46 | 0.26 | 0.10             | 0.36 | 0.35   | -      | OK |
| 11       | 40        | 70  | 70  | 20  | 41.80    | 21.99  | 16.89  | 41.63            | 22.25  | 16.77  | 0.33 | 0.17 | 0.25             | 0.12 | 0.25   | -      | OK |
| 12       | 40        | 100 | 100 | 20  | 32.11    | 39.31  | 24.00  | 32.59            | 39.08  | 24.03  | 0.53 | 0.48 | 0.23             | 0.02 | 0.14   | -      | OK |
| 13       | 40        | 100 | 40  | 20  | 32.73    | 43.81  | -1.67  | 33.22            | 43.76  | -1.05  | 0.79 | 0.49 | 0.05             | 0.62 | 0.62   | -      | OK |
| 14       | 40        | 40  | 100 | 20  | 51.54    | 0.47   | 44.69  | 51.35            | 1.13   | 44.81  | 0.70 | 0.19 | 0.66             | 0.11 | 0.65   | -      | OK |
| 15       | 100       | 40  | 100 | 20  | 34.77    | -37.22 | 13.97  | 34.64            | -36.80 | 14.75  | 0.90 | 0.13 | 0.42             | 0.78 | 0.88   | -      | OK |
| 16       | 100       | 40  | 40  | 20  | 36.16    | -26.94 | -20.56 | 36.39            | -25.70 | -20.22 | 1.31 | 0.22 | 1.24             | 0.34 | 0.49   | -      | OK |
| 17       | 100       | 100 | 40  | 20  | 21.12    | 8.88   | -23.53 | 20.90            | 9.58   | -23.54 | 0.73 | 0.22 | 0.70             | 0.00 | 0.65   | -      | OK |
| 18       | 0         | 0   | 0   | 10  | 89.32    | -1.04  | -1.12  | 90.00            | -0.47  | -0.88  | 0.92 | 0.68 | 0.57             | 0.24 | 0.32   | -1.25% | OK |
| 19       | 0         | 0   | 0   | 20  | 83.13    | -1.09  | -1.18  | 83.87            | -0.62  | -1.06  | 0.88 | 0.75 | 0.47             | 0.12 | 0.31   | -1.27% | OK |
| 20       | 0         | 0   | 0   | 40  | 69.58    | -1.05  | -1.33  | 69.84            | -0.35  | -0.77  | 0.93 | 0.26 | 0.71             | 0.56 | 0.30   | -0.17% | OK |
| 21       | 0         | 0   | 0   | 60  | 54.41    | -0.96  | -0.68  | 54.42            | 0.33   | -0.22  | 1.37 | 0.01 | 1.29             | 0.46 | 1.13   | 0.17%  | OK |
| 22       | 0         | 0   | 0   | 80  | 36.83    | -0.78  | -0.36  | 37.02            | 0.10   | -0.23  | 0.91 | 0.19 | 0.88             | 0.13 | 0.65   | 0.01%  | OK |
| 23       | 0         | 0   | 0   | 100 | 16.15    | -0.71  | -0.07  | 16.55            | -0.46  | 0.04   | 0.48 | 0.40 | 0.25             | 0.10 | 0.10   | -      | OK |
| 24       | 100       | 100 | 0   | 0   | 24.05    | 21.47  | -45.82 | 23.67            | 22.17  | -45.72 | 0.80 | 0.38 | 0.70             | 0.09 | 0.67   | -      | OK |
| 25       | 70        | 70  | 0   | 0   | 41.16    | 17.14  | -36.17 | 40.52            | 18.47  | -35.24 | 1.74 | 0.63 | 1.33             | 0.93 | 1.60   | -      | OK |
| 26       | 40        | 40  | 0   | 0   | 63.99    | 9.49   | -23.09 | 63.94            | 10.77  | -21.90 | 1.75 | 0.04 | 1.27             | 1.19 | 1.65   | -      | OK |
| 27       | 0         | 100 | 100 | 0   | 47.24    | 67.37  | 48.14  | 47.21            | 68.08  | 48.34  | 0.74 | 0.03 | 0.71             | 0.20 | 0.25   | -      | OK |
| 28       | 0         | 70  | 70  | 0   | 58.81    | 46.38  | 38.16  | 58.25            | 46.91  | 38.58  | 0.88 | 0.56 | 0.53             | 0.42 | 0.01   | -      | OK |
| 29       | 0         | 40  | 40  | 0   | 74.50    | 22.07  | 22.00  | 74.23            | 23.05  | 22.89  | 1.35 | 0.28 | 0.98             | 0.88 | 0.07   | -      | OK |
| 30       | 100       | 0   | 100 | 0   | 50.27    | -65.93 | 27.30  | 50.16            | -64.39 | 28.15  | 1.76 | 0.11 | 1.54             | 0.85 | 1.38   | -      | OK |
| 31       | 70        | 0   | 70  | 0   | 62.46    | -40.80 | 21.43  | 62.30            | -40.57 | 23.23  | 1.82 | 0.16 | 0.23             | 1.80 | 1.69   | -      | OK |
| 32       | 40        | 0   | 40  | 0   | 77.30    | -20.04 | 11.71  | 77.47            | -19.57 | 12.17  | 0.68 | 0.17 | 0.47             | 0.47 | 0.64   | -      | OK |
| 33       | 10        | 40  | 40  | 0   | 71.53    | 17.98  | 17.82  | 71.50            | 18.84  | 17.89  | 0.86 | 0.03 | 0.86             | 0.07 | 0.55   | -      | OK |
| 34       | 0         | 40  | 100 | 0   | 71.60    | 21.26  | 73.43  | 71.47            | 21.97  | 72.52  | 1.16 | 0.13 | 0.70             | 0.91 | 0.93   | -      | OK |
| 35       | 0         | 100 | 40  | 0   | 47.98    | 70.54  | 16.52  | 48.08            | 70.71  | 15.43  | 1.11 | 0.10 | 0.17             | 1.09 | 1.10   | -      | OK |
| 36       | 40        | 100 | 0   | 0   | 38.23    | 54.73  | -20.66 | 38.59            | 54.75  | -19.99 | 0.76 | 0.35 | 0.02             | 0.67 | 0.64   | -      | OK |
| 37       | 40        | 0   | 100 | 0   | 73.99    | -23.81 | 67.95  | 74.27            | -23.55 | 68.82  | 0.95 | 0.28 | 0.25             | 0.88 | 0.52   | -      | OK |
| 38       | 100       | 0   | 40  | 0   | 52.60    | -53.23 | -19.68 | 52.28            | -51.28 | -18.94 | 2.11 | 0.33 | 1.96             | 0.74 | 0.02   | -      | OK |
| 39       | 100       | 40  | 0   | 0   | 43.54    | -17.79 | -48.13 | 43.37            | -16.78 | -48.09 | 1.02 | 0.16 | 1.02             | 0.04 | 0.94   | -      | OK |
| 40       | 0         | 0   | 0   | 0   | 95.80    | -0.50  | -0.60  | 95.97            | -0.47  | -0.56  | 0.18 | 0.17 | 0.03             | 0.04 | 0.00   | -      | OK |
| 41       | 10        | 6   | 6   | 0   | 88.90    | -1.35  | -2.25  | 89.67            | -0.93  | -1.98  | 0.92 | 0.78 | 0.43             | 0.28 | 0.25   | -      | OK |
| 42       | 20        | 12  | 12  | 0   | 82.33    | -1.81  | -3.27  | 83.00            | -1.10  | -2.88  | 1.05 | 0.67 | 0.70             | 0.39 | 0.47   | -      | OK |
| 43       | 40        | 27  | 27  | 0   | 67.99    | -2.83  | -3.73  | 68.36            | -1.85  | -3.14  | 1.20 | 0.37 | 0.98             | 0.60 | 0.48   | -      | OK |
| 44       | 60        | 45  | 45  | 0   | 52.50    | -3.31  | -3.09  | 52.39            | -1.63  | -2.45  | 1.80 | 0.11 | 1.67             | 0.65 | 0.84   | -      | OK |
| 45       | 80        | 65  | 65  | 0   | 37.74    | -4.67  | -2.91  | 37.82            | -3.69  | -2.44  | 1.09 | 0.09 | 0.98             | 0.48 | 0.13   | -      | OK |
| 46       | 100       | 85  | 85  | 0   | 26.48    | -7.51  | -3.40  | 26.53            | -6.72  | -3.18  | 0.82 | 0.05 | 0.80             | 0.23 | 0.13   | -      | OK |

## Color space comparison

- Reference
- Measured

## Primary colors

- Reference
  - C: L\*55.26 a\*-37.90 b\*-49.31
  - M: L\*48.23 a\*73.37 b\*-2.58
  - Y: L\*89.39 a\*-5.99 b\*93.46
  - K: L\*16.15 a\*-0.71 b\*-0.07
- Measured
  - C: L\*55.27 a\*-36.73 b\*-49.51
  - M: L\*48.57 a\*72.22 b\*-0.92
  - Y: L\*89.28 a\*-6.03 b\*94.06
  - K: L\*16.55 a\*-0.46 b\*0.04



## Gradation Curves

