

COLOR CONFORMANCE CONFERENCE '25

**New Port Richey, FL (Tampa North)
January 28–30, 2025**



COLOR CONFORMANCE
CONFERENCE '25

2025 Industry Update

January 29, 2025

Presented by

Mark Bohan and David Hunter with input from others...

UV Dataset

Available in ChromaChecker Public ICC Library
Accommodates Larger Gamut for UNC Printing

Defining Your Printing Reference

What Target are you aiming for?

- What substrate are you printing on...

Uncoated References



CRPC3
GRACoL2013
Uncoated

Coated References



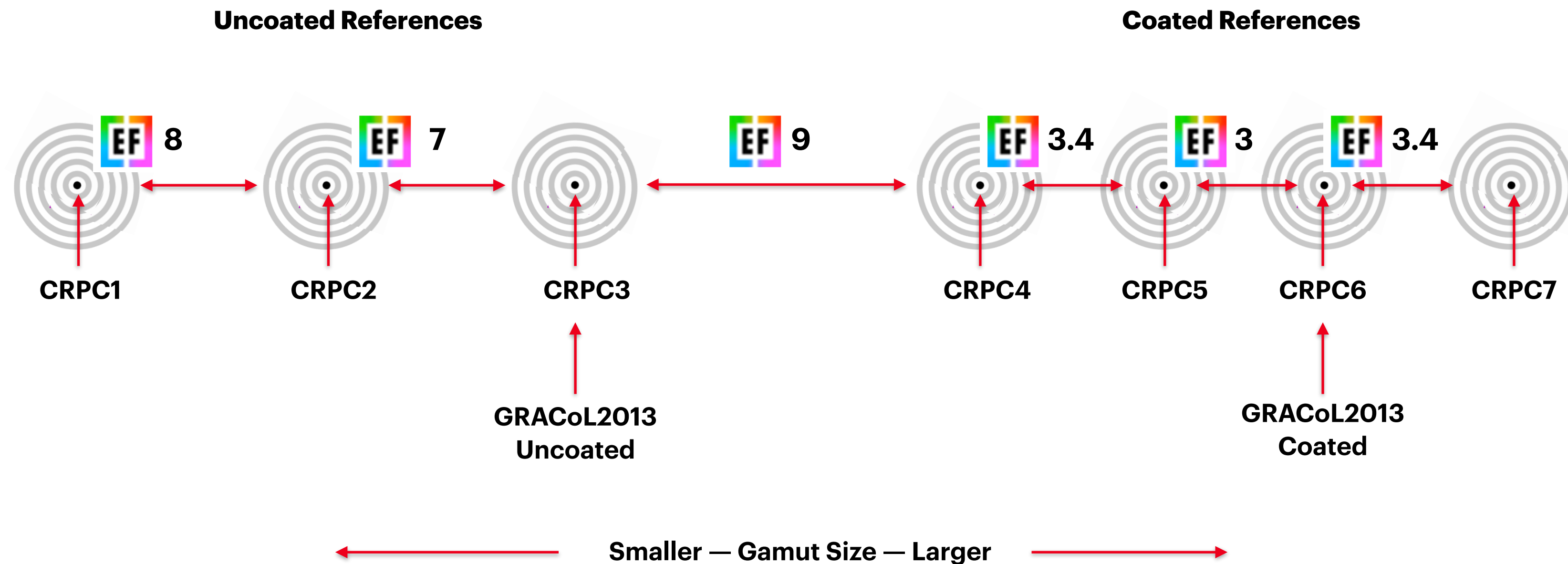
CRPC6
GRACoL2013
Coated

← Smaller — Gamut Size — Larger →

Defining Your Printing Reference

What Target are you aiming for?

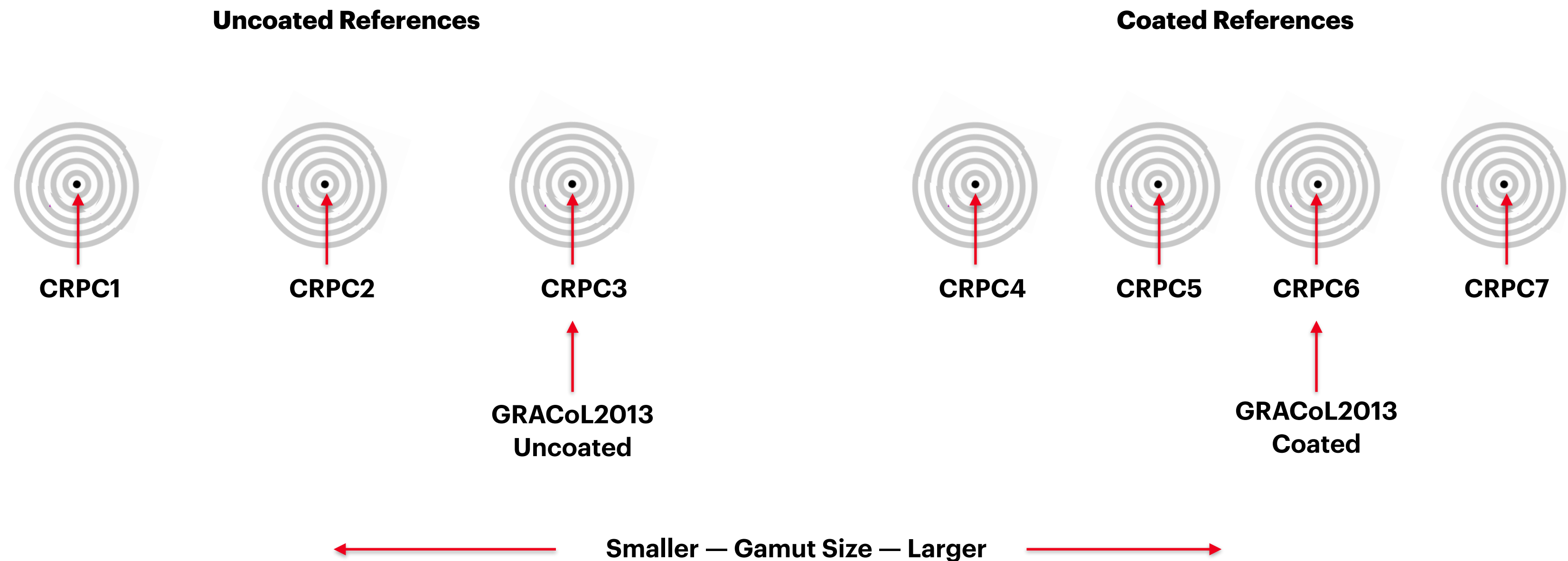
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Defining Your Printing Reference

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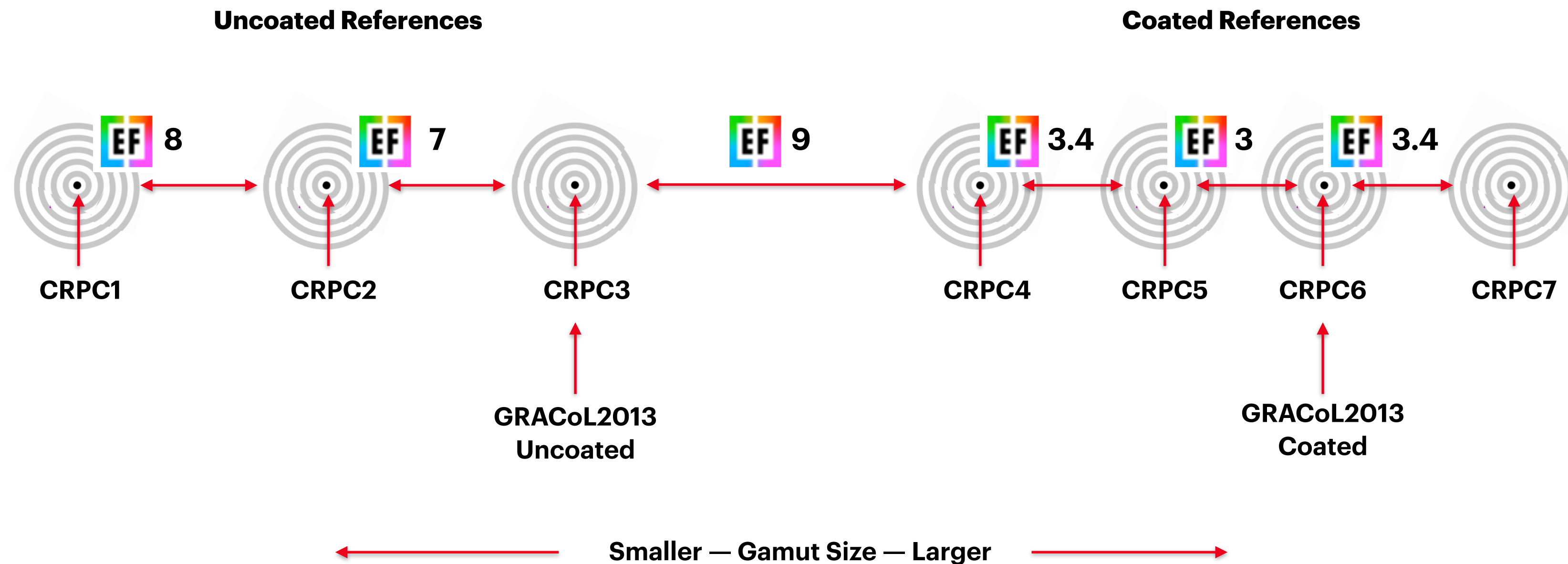
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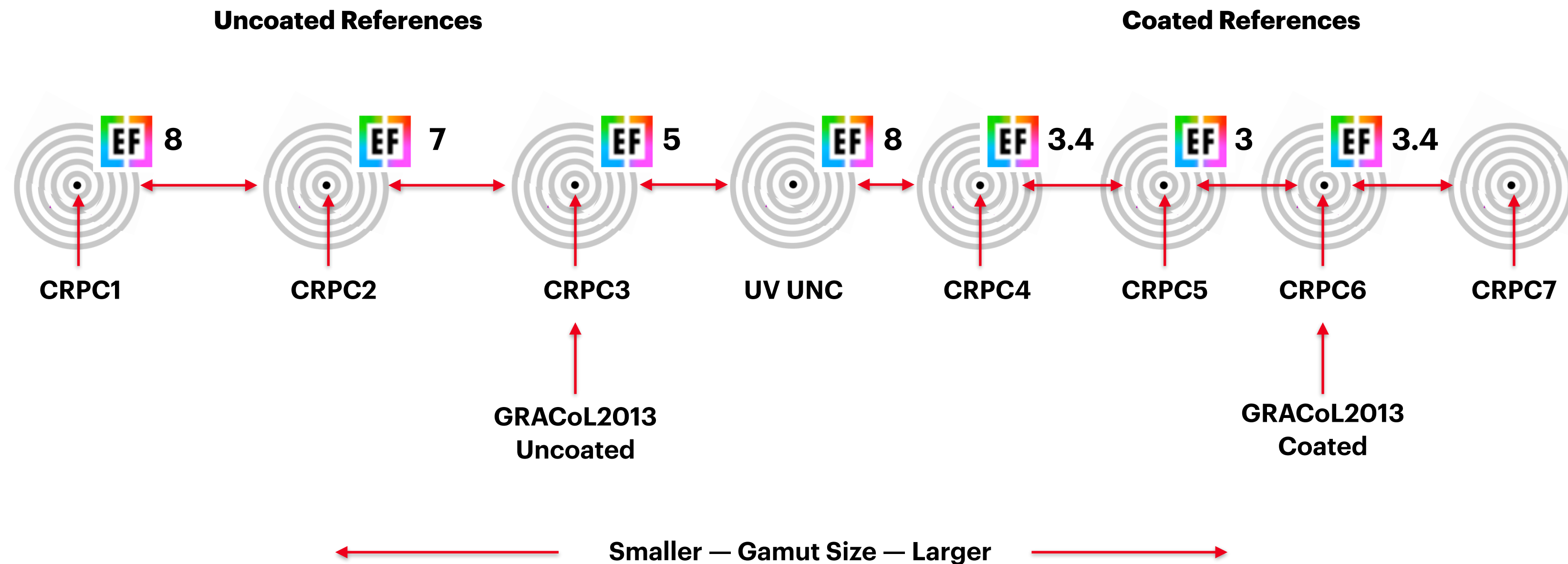
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Defining Your Printing Reference

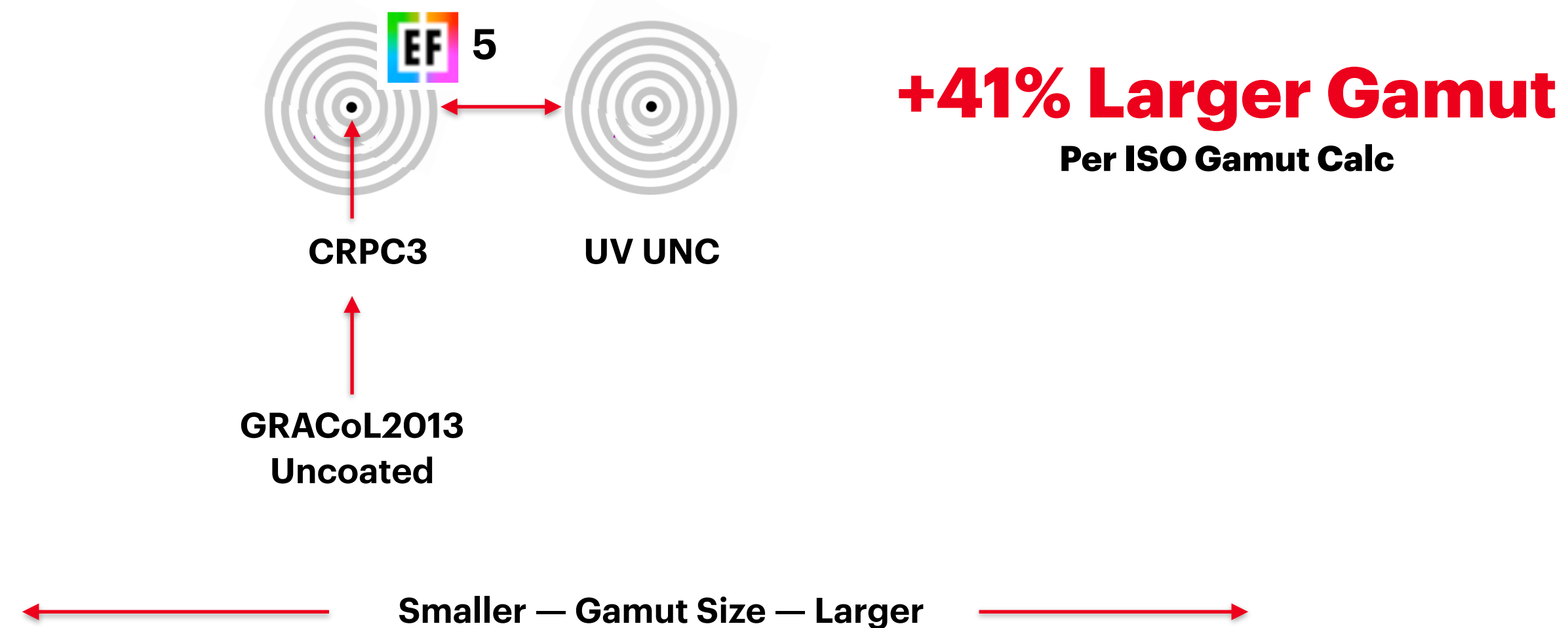
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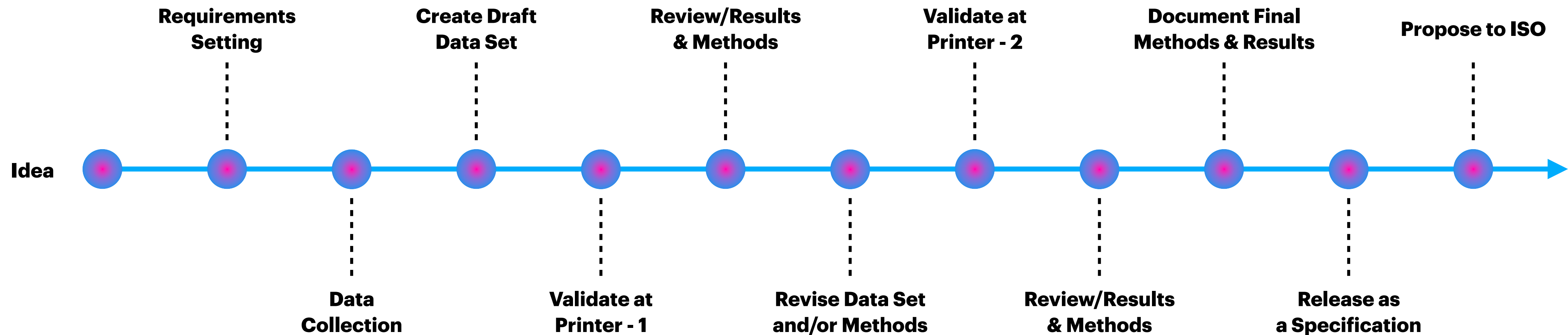
Defining Your Printing Reference – New UV UNC

Uncoated References



Where are We in the process?

Multiple of Actual Press Runs



ECG Project

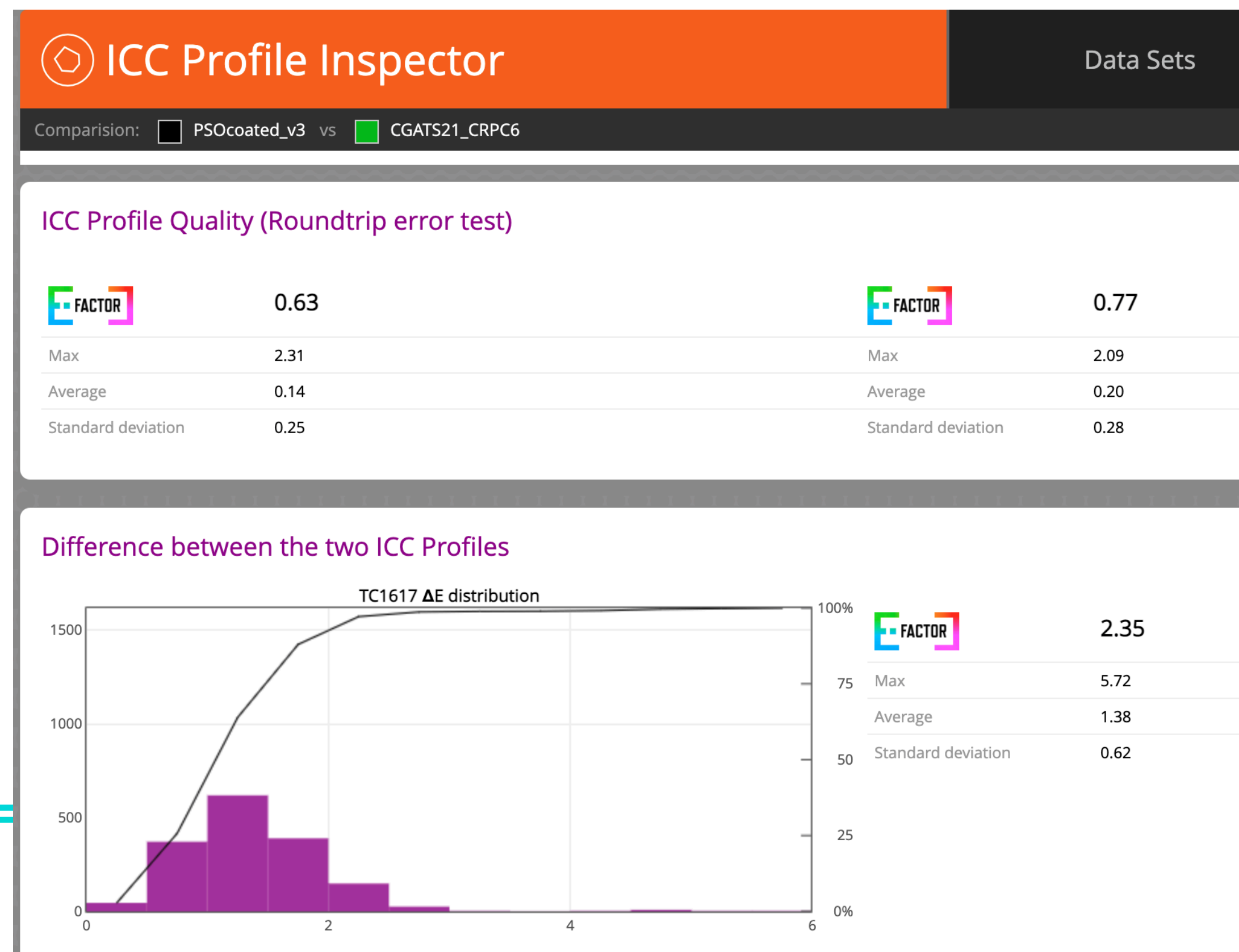
Reference Aim Profile for ECG

- Has GRACoL2013 as base CMYK
- Needs the OGV inks with SCTV at correct Hue Angles
- Available in ChromaChecker Public ICC Library

Universal Data Set

ISO Coated – Europe, Africa / GRACoL – NA

- They are different... Not much, but they are...



Universal Data Set – ISO UDS-1

Aligning PSO Coated, and GRACoL2013

- Result will be different, but very similar...
- Has not been released for Beta yet, still Alpha stage

What is G7+

New – still not finalized

- New Curve algorithm
- Some fixes were due to Curve Software bugs
- Doesn't affect 99% of my customers
- Only affects printing on extreme colored papers
- Improves G7 curves for highly saturated printers
 - But if you are using ICC Profiles, this is irrelevant
- Slight improvement for very low dynamic printers
 - Like newsprint, but I do not recommend G7 newsprint

G7+ design goals

- Don't rock the G7 boat
 - Maintain G7 appearance and benefits
- Optimize low DR tonality
- More natural gray balance
- Eliminate SCCA vulnerability
- Solve high-density banding
- Support proposed ISO UCD1
 - Unified Characterization Dataset to replace Fogra and GRACol



First Do No Harm

Impact on G7 users

- Little or no visible change on typical commercial stock
 - LEGACY G7 FILES SHOULDN'T NEED REPLACING
- Need new calibration and verification tools
- New process control and QC aims

What About Score Cards: Fogra Project

Score Cards don't predict level of Color Match

- 5 points for each primary within 3 delta E
- 5 points for each TVI with 3% of target, 3 points if 5%
- 5 points for each gray within 3 ΔCh of target
- 85 points-Good Match? Doesn't compensate expectation
- **Doesn't** Relate to Visual color match – 87 score not necessarily closer match 82, **Can't** be used to compare...

Actual Situation with Bodoni & ColorCert

Compared same job from two different press run

- PressSign score = 86
- ColorCert score = 84 lower score: but actually closer...

KOMORI-44-8C_366

Track name	Tools	Substrate	Reference Printing Condition	Details
<input checked="" type="checkbox"/> UNC PressSign	1 files 6.0		SCCA GRACoL2013UNC_CRPC3 V2	

SHOW HIDDEN SETUP ASSISTANT

MANROLAND

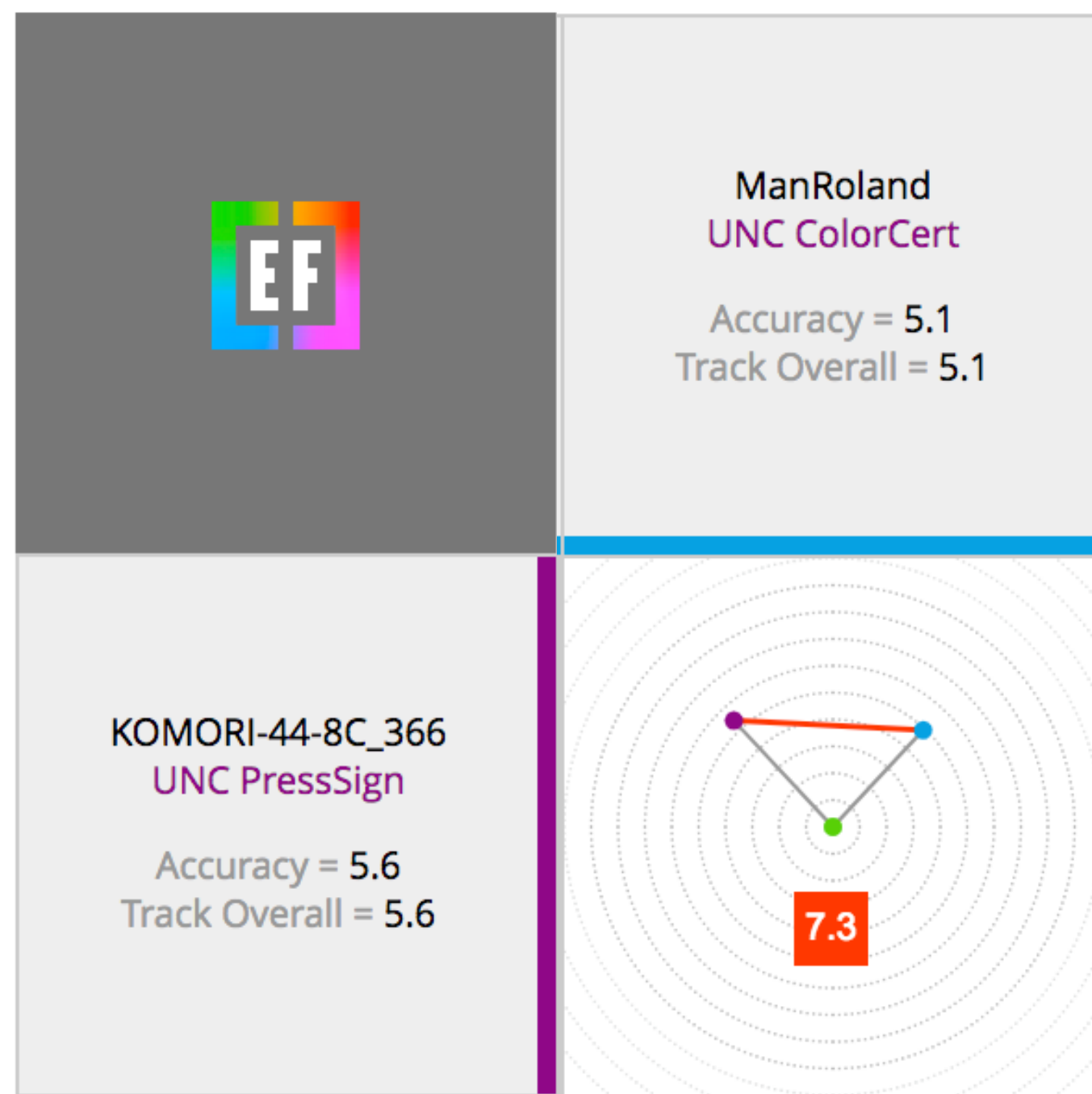
Track name	Tools	Substrate	Reference Printing Condition	Details
<input checked="" type="checkbox"/> UNC ColorCert	1 files 6.0		SCCA GRACoL2013UNC_CRPC3 V2	

SHOW HIDDEN SETUP ASSISTANT

Actual Situation with Bodoni & ColorCert

Compared Prints from two press runs – Unaccepted

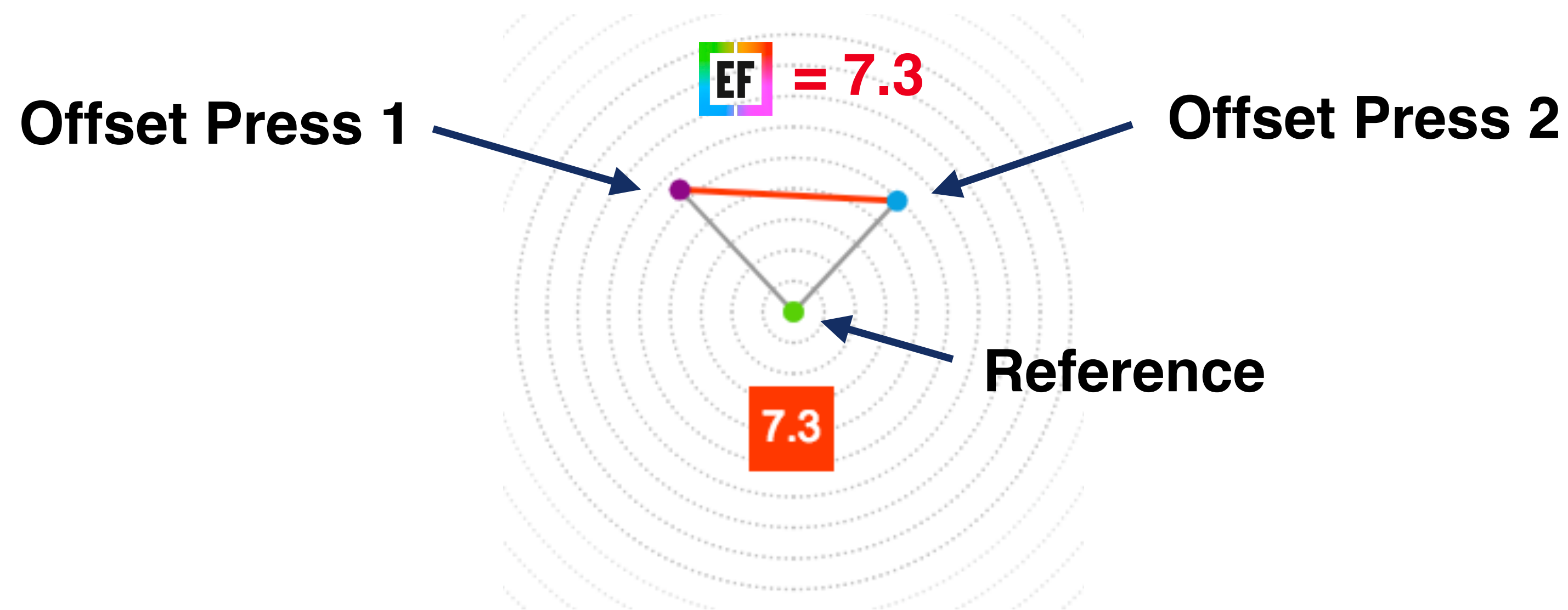
- 7.3 E-Factor Difference, Magenta Solid 6.2 ΔE different



Scenario Proves G7 & Score Card Need

Compare Prints to Reference – one thing

- Compare prints to one another, completely separate eval
- Opposite sides of bulls eye, theoretically could have been 10.7 E-Factor to one another, worst case scenario



E-Factor – Visual Score Card

E-Factor Defines if Print is Salable

- Makes easy operator, management, customer, sales
- Know instantly if print is salable
- Complements G7 compliance- adds Color Match
 - E-Factor is in G7 Color Space Criteria definition
- Create manager production & customer Job reports
 - Provides KPI (Key Performance Indicators)



Fogra D50noUV Project

Fogra – Submit data with ChromaChecker

- Most indoor lighting today is LED
- LED doesn't have UV unless purposely added (light booth)

This project aims to develop the necessary tools and working aids for dealing with the new lighting environment (D50noUV). The aim here is to develop a practical, internationally consensus-based and objective evaluation system for D50noUV. The influence of lighting without UV content on the color effect leads to adjustments both in the data preparation of new print jobs and in existing D50-based workflows. The second focus is therefore on developing the necessary color matching strategies that achieve the best possible implementation of the original color intention.

ChromaChecker Printer Registry Project

Project Inspector connection to Print Buyers

- One customer had 1 million new jobs from brand due to this
- Brands are asking us for our user list
 - Since they know if a printer has CC, they know the quality
- Formalizing the Process online, Printers can register
- Brands that own ChromaChecker will see list of Printers
 - Locations, Type of Printing, Number of Presses, E-Factor

Industry Color Accuracy Server

Advertise print quality to potential customers

- Universal Server, dynamically linked to ChromaChecker
 - If PSP connects, show printers E-Factor over time
 - Will only show the best E-Factor within given timeframe
- Will provide API for other vendors to connect (Spot On...)
- PSPs without Quality Platform can manually upload data
 - Manual data will show differently since it can be falsified
- Industry acceptance over time...

Industry Color Accuracy Server vs G7 Qualification

Idealliance: G7 Qualification Web Listing

- Printer can print G7:
 - One time, One Year, One Press, with G7 Expert present
- No distinction related to printer quality (E-Factor)
- No distinction for multiple presses