

CHROMALLOGY

2026 Complexion Brand Audit

Shade Distribution Analysis

87 Brands. 3,000+ Shades. Graded A through F.

Chromallogy is the first Shade Intelligence Technology, built on biology-based computational modeling of human skin tone. This report audits 87 beauty brands on how well their complexion ranges actually cover the biological spectrum.

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Chromallogy Shade Intelligence Technology

In Partnership with SeeMe Index and the 2026 SeeMe Inclusivity Index for Beauty

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A Note from the SeeMe Index Team

For our 3rd Annual SeeMe Index for Beauty, we partnered with Chromallogy to conduct a first-of-its-kind analysis of shade coverage across the industry. We integrated Chromallogy's brand-level scores into our product scoring to recognize brands delivering the most comprehensive and intentional shade ranges.

Chromallogy was a natural partner given our shared mission to advance inclusion in beauty, combined with the sophistication of their technology in measuring shade depth and undertone coverage.

Together, this analysis highlights where brands and the industry can take meaningful action to improve. We believe that addressing gaps in shade coverage not only better serves consumers, but also drives meaningful ROI for brands.

Executive Summary

The beauty industry lacks a consistent, science-based framework for evaluating how well complexion shade ranges represent the full spectrum of human skin tone. This report provides that framework for the first time.

Chromallogy audited 87 complexion product lines across prestige, mass, and indie categories. The audit covered foundations, concealers, tinted moisturizers, skin tints, and serum formulations. Each brand's shades were measured against Chromallogy's biological reference map of human skin tone and graded A through F. Brands also received a Chromallogy Map Representation Score from 0 to 100, reflecting their shade range's actual coverage of the biological map.

The average brand scored 33.3 out of 100 in map coverage. The highest-performing brand scored 56.1. No brand exceeded 60% map coverage. The median was 33.1. 19 brands with 40 or more shades scored below 30. Two brands scored below 20, earning an F.

Key Findings

87 brands audited	3,000+ individual shades analyzed
33.3 average map coverage score	56.1 highest score (Supergoop, 14 shades)
33.1 median score	0 brands exceeded 60% map coverage
r = -0.37 shade count vs. coverage correlation	19 brands with 40+ shades scored below 30

Background

Complexion product development has historically relied on competitor benchmarking, lab recommendations based on past bestsellers, and iterative trial and error. There has been no independent, biology-based standard for determining which shades a brand should offer or how well an existing range serves the population.

Chromallogy's Shade Intelligence Technology uses computational modeling of biological chromophores to produce a reference map of human skin tone. That map is the benchmark, not what competitors have launched or what sold well last quarter.

When a brand's range is measured against that map, you get an objective read on which skin tones are covered and which are not. That information is useful to everyone in the product lifecycle. Brands can see where to invest and where they're duplicating effort. Retailers can evaluate shade range quality with data instead of marketing decks and the industry gets a baseline it can actually track year over year.

Methodology

Approach

Chromallogy's Shade Intelligence Technology produces a biological reference map of human skin tone using computational modeling of the chromophores that create skin color. Each brand's shade range was measured against this reference map to determine how effectively it covers the full biological spectrum.

For each brand, we computed the average color distance between every point on the biological reference map and that brand's nearest available shade. This produces a single error value representing how far, on average, the map's skin tone points sit from the closest shade in the brand's range. That error value is then compared against an optimal baseline: the lowest possible error that any range of the same shade count could achieve if its shades were distributed with maximum efficiency across the map, calculated using K-means clustering. The ratio of the optimal error to the brand's actual error produces the final score. This approach normalizes for shade count, so a brand with 12 well-placed shades is evaluated on the same scale as a brand with 50.

Each brand receives a map coverage score from 0 to 100, where 100 means complete coverage of the biological spectrum for a given shade count. The score captures how well shades are spread across the map, not just how many there are. A brand with fewer shades placed precisely across the spectrum can outscore a brand with many shades clustered in the same region.

This audit was conducted using digital RGB color values. RGB-based measurement has inherent limitations in perceptual accuracy across the spectrum. Brands that wish to improve the precision of their results are invited to submit their CIELAB formulation values directly to Chromallogy for a re-evaluation using perceptually uniform color measurement.

Grading

Each brand received two measures. First, a Chromallogy Map Representation Score from 0 to 100, measuring the percentage of the biological skin tone spectrum covered by their shade range. Second, a letter grade from A through F, reflecting how each brand performed relative to the rest of the industry. Grades were assigned using defined thresholds applied consistently across all 87 brands.

Scope

87 brands were audited across prestige, mass, and indie categories. Over 3,000 individual shades were analyzed. Product types included foundations, concealers, skin tints, tinted moisturizers, and serum formulations. For each brand, we selected the most popular or most comprehensive complexion product available. All shade data reflects publicly available ranges as of Q1 2026.

Findings

Shade Count Does Not Predict Coverage

The data shows a slight negative correlation between shade count and map coverage score ($r = -0.37$). Grouped by shade count, average scores tell a clear story:

Shade Count Range	Average Map Coverage
Fewer than 15 shades	39.8%
16 to 30 shades	37.5%
31 to 45 shades	30.6%
46+ shades	29.9%

Adding more shades is not the answer. Placing them strategically is. Brands with fewer than 20 shades actually outperformed those with 40+, covering more real skin tone variation because their ranges were intentionally designed. The top performers, with just 12 to 20 shades, ensured each shade filled a distinct gap, minimizing overlap and maximizing coverage. Meanwhile, 19 brands with 40 or more shades scored below 30 out of 100. Expanding a range without rethinking its distribution adds redundancy, not reach.

No Brand Exceeds 60% Coverage

The highest score in the index is 56.1. No brand reaches 60%. This is not a few brands dragging the average down. The ceiling applies across the board. The brands that scored highest got there by being deliberate about where each shade sits on the spectrum, not by having more resources or bigger labs.

Premium Positioning Does Not Correlate with Better Coverage

Multiple prestige and luxury brands scored in the bottom half of the index despite large shade counts and significant R&D investment. The methodology used to build a range, not the price point or brand positioning, determines how well it covers the biological spectrum.

The Undertone Gap

Beyond depth (light to deep), the data reveals a persistent gap in undertone representation. Many brands concentrate their shade offerings along a narrow band of warm-to-neutral undertones, leaving cool, olive, and red undertones underserved. A consumer can find the right depth and still walk away without a match because the undertone is wrong. That drives returns, drives brand switching, and erodes trust. This is not isolated to deeper skin tones. The undertone gap spans the entire spectrum.

The Revenue Opportunity Spans All Skin Tones

A map coverage score of 33.3% means the average brand leaves roughly two-thirds of the biological spectrum inadequately covered. That gap runs across all regions of the skin tone spectrum. Every unserved region is a consumer who cannot find their match, and a consumer who cannot find their match is a consumer who does not buy, returns what they bought, or buys from someone else.

Top Performing Brands

The ten highest-scoring brands in the 2026 audit, ranked by map coverage score:

Brand	Shades	Score	Grade	Tier
Supergoop	14	56.1	A+	Comprehensive
Wonderskin	20	54.6	A+	Comprehensive
Summer Fridays	12	54.1	A+	Comprehensive
Danessa Myricks Beauty	20	50.8	A	Comprehensive
Jones Road	16	49.1	A	Comprehensive
LYS Beauty	22	49.1	A	Comprehensive
Westman Atelier	20	46.7	A-	Comprehensive
Patrick Ta	30	44.8	B+	Above Average
Beekman 1802	7	43.9	B+	Above Average
Haus Labs By Lady Gaga	51	43.9	B+	Above Average

Supergoop earned the top score with 14 shades. Wonderskin, Summer Fridays, Danessa Myricks Beauty, Jones Road, and LYS Beauty all scored in the A range with 12 to 22 shades. Patrick Ta and Haus Labs were the only brand in the top ten with more than 30 shades (30 and 51, respectively).

Grade Distribution

Distribution of grades across the 87 brands audited:

A	B	C	D	F
7 brands	28 brands	36 brands	14 brands	2 brands
8%	32%	41%	16%	2%

The most telling detail in the grade distribution is not the top or the bottom. It is the middle. 73% of brands landed in the B or C range. The industry is not polarized between brands doing this well and brands doing it poorly. It is concentrated in a narrow band of average performance, where ranges cover enough of the spectrum to avoid obvious gaps but not enough to serve the full population. Only 7 brands broke out of that band into an A. The distance between a B and an A is not about adding shades but rather about rethinking where the existing ones sit.>

Full Brand Scorecard

All 87 brands, ranked by Chromallogy Map Representation Score.

Brand	Product	Shades	Score	Grade	Tier
Supergoop	Protec(tint) Daily Skin Tint SPF 50	14	56.1	A+	Comprehensive
Wonderskin	Hyper Bond All-Day Stay Serum Foundation	20	54.6	A+	Comprehensive
Summer Fridays	Sheer Skin Tint With Hyaluronic Acid + Squalane	12	54.1	A+	Comprehensive

Danessa Myricks Beauty	Yummy Skin Blurring Balm Powder	20	50.8	A	Comprehensive
Jones Road	What The Foundation	16	49.1	A	Comprehensive
LYS Beauty	Triple Fix Blurring Skin Tint Foundation Stick	22	49.1	A	Comprehensive
Westman Atelier	Vital Skin Foundation Stick	20	46.7	A-	Comprehensive
Patrick Ta	Major Skin Hydra Luxe Luminous Foundation	30	44.8	B+	Above Average
Beekman 1802	Milk Tint	7	43.9	B+	Above Average
Haus Labs By Lady Gaga	Triclone™ Skin Tech Foundation	51	43.9	B+	Above Average
Benefit Cosmetics	The POREfessional Foundation	40	43.6	B+	Above Average
Milk Makeup	Future Fluid Creamy Longwear Hydrating Concealer	30	42.8	B+	Above Average
Jane Iredale	Skintuition SPF 30 Radiance-Boosting Liquid Foundation	26	42.7	B+	Above Average
MAKE UP FOR EVER	HD Skin	38	41.5	B	Above Average
Caliray	Caliray Skin Tint	15	41.3	B	Above Average
Ere Perez	Oat Milk Foundation	16	41.3	B	Above Average
Saie Beauty	Glowy Super Skin Tint Foundation	36	41.0	B	Above Average
stila	Stay All Day® Foundation & Concealer	16	40.9	B	Above Average
Hourglass Cosmetics	Vanish™ Seamless Finish Foundation Stick	33	40.8	B	Above Average
The Ordinary	The Ordinary Serum	36	39.6	B	Above Average
Kulfi Beauty	Main Match Concealer	21	39.5	B	Above Average
elf cosmetics	Soft Glam Satin Foundation	36	38.9	B	Above Average
MERIT	The Minimalist	30	38.5	B	Above Average
Smashbox	Always On Skin-Balancing Foundation	30	38.4	B	Above Average
Anastasia Beverly Hills	Impeccable Blurring Second-Skin Matte Foundation	44	38.0	B	Above Average
ILIA Beauty	Complexion Stick	42	38.0	B	Above Average
YSL Beauty	ALL HOURS FOUNDATION	40	38.0	B	Above Average
MAC Cosmetics	Studio Fix	67	37.6	B-	Above Average
SACHEU	Liquid Glow Stay-N	6	36.9	B-	Above Average
NYX Cosmetics	Make 'Em Wonder™ Soft Matte Buildable Foundation	45	36.8	B-	Above Average
KVD Vegan Beauty	Good Apple Full-Coverage Transfer-Proof Serum Foundation	67	36.5	B-	Above Average
Iconic London	Super Smoother Blurring Skin Tint	18	36.3	B-	Above Average
Huda Beauty	Easy Blur Natural Airbrush Foundation	38	35.9	B-	Above Average
Givenchy Beauty	Prisme Libre Glow Serum Foundation	30	35.8	B-	Above Average
Il Makiage	Woke Up Like This	50	35.7	B-	Above Average
BASMA Beauty	The Foundation Stick	42	34.4	C+	Below Average
Makeup by Mario	SurrealSkin® Foundation	39	34.3	C+	Below Average
IT Cosmetics	Your Skin But Better Foundation + Skincare	40	34.2	C+	Below Average
Laura Geller	Baked Balance-n-Brighten Color Correcting Foundation	9	34.2	C+	Below Average
Tirtir	Mask Fit Red Cushion	40	34.0	C+	Below Average
Well People	Skinforia Serum Foundation	15	33.8	C+	Below Average
Iris & Romeo	Best Skin Days™ Treatment Concealer	15	33.6	C+	Below Average
Tarte	Shape Tape Concealer	48	33.6	C+	Below Average
bareMinerals	BAREPRO® 24HR Wear Liquid Foundation SPF 20	40	33.1	C+	Below Average
Lancôme	Teint Idole Ultra Wear Foundation	55	31.7	C	Below Average
Maybelline	Fit Me Foundation	40	31.4	C	Below Average

Prada Beauty	Prada Reveal Skin Optimizing Foundation	33	31.4	C	Below Average
Tower 28	Swipe Serum Concealer	28	30.8	C	Below Average
Ulta Beauty Collection	Complexion Crush Foundation	26	30.5	C	Below Average
Keys Soulcare	It's Like Skin 2-in-1 Concealer + Tint	40	30.1	C	Below Average
Kosas	Revealer Concealer	38	30.0	C	Below Average
Too Faced Cosmetics	Born This Way Foundation	30	29.6	C	Below Average
Estée Lauder	Double Wear Stay in Place	70	29.4	C	Below Average
Milani Cosmetics	Conceal + Perfect 2-In-1 Foundation + Concealer	45	29.2	C	Below Average
Kylie Cosmetics	Power Plush Longwear Foundation	40	28.7	C	Below Average
Live Tinted	HUESKIN Hydrating Serum Concealer	25	28.6	C	Below Average
GLOSSIER	Stretch Fluid Foundation	32	27.9	C-	Below Average
Carolina Herrera	Nude Couture Triple Moisture Serum Foundation	16	27.8	C-	Below Average
Urban Decay	Face Bond Self-Setting Waterproof Foundation	40	27.7	C-	Below Average
Rare Beauty by Selena Gomez	Liquid Touch Brightening Concealer	48	27.6	C-	Below Average
Fenty Beauty	Pro Filt'r Soft Matte Longwear Foundation	50	27.5	C-	Below Average
GUERLAIN	Healthy Glow Foundation Longwear	30	27.5	C-	Below Average
Natasha Denona	HY-GLAM FOUNDATION	52	27.2	C-	Below Average
Armani Beauty	Luminous Silk Natural Glow	44	27.0	C-	Below Average
Dior Beauty	Dior Backstage Face & Body Foundation	43	26.6	C-	Below Average
Shiseido	Synchro Skin Self-Refreshing Foundation SPF 30	30	26.4	C-	Below Average
Gucci	Éternité de Beauté SPF Foundation	39	26.3	C-	Below Average
SEPHORA COLLECTION	Best Skin Ever Liquid Foundation	40	26.2	C-	Below Average
Bobbi Brown	Weightless Skin Foundation SPF 15	53	25.7	C-	Below Average
Revlon	ColorStay™ Longwear Makeup SPF 15	43	25.2	C-	Below Average
NARS	Natural Matte Longwear Foundation	49	25.1	C-	Below Average
Juvia's Place	I Am Magic Velvety Matte Foundation	42	24.8	D+	Falling Behind
Charlotte Tilbury	Airbrush Flawless Foundation	44	24.4	D+	Falling Behind
Thrive Causemetics	Buildable Blur™ HD Creaseless Concealer	20	24.4	D+	Falling Behind
One/Size by Patrick Starr	Turn Up The Base Liquid Foundation	38	24.1	D+	Falling Behind
Valentino Beauty	Very Valentino 24 Hour Wear Liquid Foundation	11	24.1	D+	Falling Behind
ColourPop	Pretty Fresh Hyaluronic Acid Hydrating Foundation	42	24.0	D+	Falling Behind
Neutrogena	Clear Coverage Flawless Matte CC Cream	34	23.8	D+	Falling Behind
BLK/OPL	True Color® Skin Perfecting Stick Foundation SPF 15	23	23.6	D+	Falling Behind
KIKO Milano	Full Coverage 2-in-1 Foundation & Concealer	49	23.4	D+	Falling Behind
L'Oréal Paris	True Match	47	23.0	D+	Falling Behind
Laura Mercier	Real Flawless Weightless Perfecting Foundation	31	22.6	D	Falling Behind
Clarins	Skin Illusion Full Coverage Foundation	24	22.4	D	Falling Behind
Covergirl	TruBlend Matte Made Liquid Foundation	39	22.1	D	Falling Behind
Clinique	Even Better™ Makeup Broad Spectrum SPF 15	50	20.0	D	Falling Behind
Chanel Beauty	LES BEIGES	39	19.2	F	Insufficient
Morphe	Lightform Extended Hydration Foundation	36	17.1	F	Insufficient

What Comes Next

This audit establishes a baseline with future editions being able to track how the industry moves against it, brand by brand, year over year.

Every score in this report is actionable. A brand's grade tells them where they stand and their map coverage score tells them how they stack up in the industry. To understand what can be done to improve their score, chromallogy can show them exactly which shades to add, remove, or reposition to close the gap.

Chromallogy offers the following:

Shade Snapshot (free): Submit any complexion product. Receive two scores, Coverage and Distribution, within 72 hours.

Shade Audit: A single-product-line deep dive. Identifies exact gaps, redundant shades sitting in the same region, and competitive positioning relative to other brands in this audit. Delivered with a prioritized expansion roadmap and specific shade recommendations.

Full Brand Audit: A portfolio-wide analysis across all complexion products. Identifies where product lines overlap, where they contradict each other, and where the brand's shade architecture needs to be unified across foundation, concealer, and tinted products.

CIELAB Re-evaluation: This report used publicly available digital RGB values. Brands that submit their formulation-grade CIELAB values to Chromallogy can receive a more precise re-evaluation using perceptually uniform color measurement.

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About Chromallogy

Chromallogy is the first Shade Intelligence Technology that guides how brands formulate and design inclusive complexion products. The technology uses computational modeling of biological skin tone chromophores to produce a reference map of human skin tone under natural lighting conditions. Brands receive lab-ready CIELAB values so their chemists can begin formulating immediately.

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