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CIELAB

ANLAB

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가 .

가 .

가

Davidson Friede,

Jaeckel Moriey Billmeyer, Kuegni Metropolitan

.

McLaren

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가 . Morley

가

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가

. Jaeckel

가 .

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가

. Davidson Friede 19

Kuohni Metropolitan 13 .

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가

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(recipe prediction program)

가 .

4가 ANLAB 8

.

8 2

(metric chrom) .

가

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,

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. 1974 Mc

Donald ANLAB

ANLAB

가  $\Delta E$  가

.  $\Delta E$  ,  $\Delta E_a$

.

$$\Delta E_a = \frac{\Delta E}{1 + 0.022c}$$

C ANLAB

.

,

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2 (shell)

$\Delta E_a=1$

$\Delta E_a=2$

.

가  $\Delta E_a = 1.9$

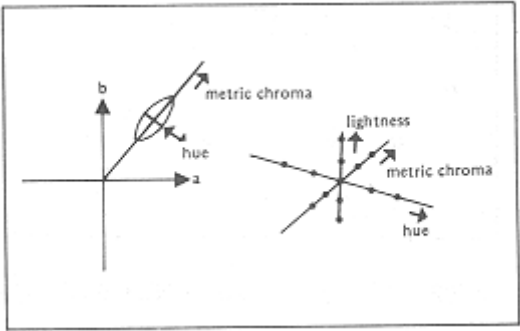
ANLAB

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McDonald Gailey, Kuehni, McLaren

가  
85dtex × 3 가



< 1>

가

L=42 L=91 4가

가 2 ANLAB

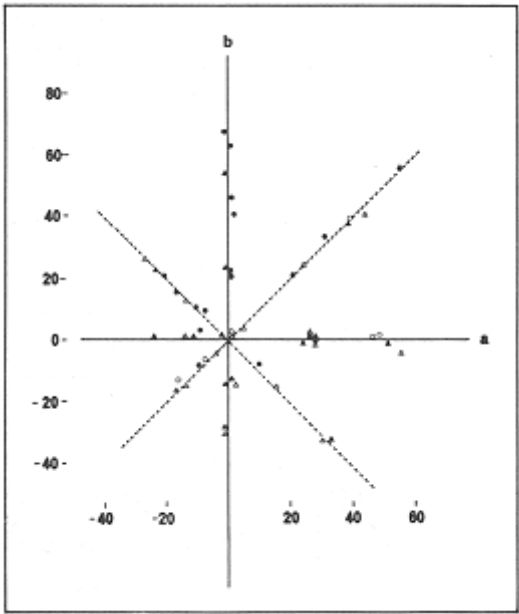
(former) 6

5.5cm×6.3cm

5cm

, 6 6  
 12

가 .



< 2> ANLAB

L42 - L52      ▲ L58 - L63  
 ○ L74 - L76      ● L87 - L91

16 0  
 , Spectromat FS 3A  
 (spectrophotometer) . CIE XYZ  
 D65 10 ANLAB . XYZ

가 1 .

< 1> dog, Field Observer 3

| Colour | X     | Y     | Z     |    |       |       |       |
|--------|-------|-------|-------|----|-------|-------|-------|
| 1      | 62.42 | 55.62 | 58.87 | 29 | 46.02 | 37.19 | 17.93 |
| 2      | 61.54 | 55.92 | 42.68 | 30 | 21.05 | 22.19 | 23.21 |
| 3      | 66.22 | 58.00 | 35.39 |    |       |       |       |
| 4      | 49.83 | 55.55 | 52.04 | 31 | 22.56 | 23.93 | 44.91 |
| 5      | 46.71 | 55.89 | 43.38 | 32 | 21.85 | 23.00 | 32.44 |
|        |       |       |       | 33 | 34.41 | 36.07 | 38.23 |
| 6      | 50.72 | 56.40 | 58.43 | 34 | 16.08 | 21.03 | 13.10 |
| 7      | 49.43 | 55.16 | 67.25 | 35 | 10.32 | 11.00 | 25.24 |
| 8      | 49.72 | 52.23 | 38.97 |    |       |       |       |
| 9      | 52.70 | 55.32 | 27.07 | 36 | 9.08  | 11.04 | 11.71 |
| 10     | 53.90 | 56.77 | 17.22 | 37 | 14.17 | 11.03 | 12.19 |
|        |       |       |       | 38 | 18.09 | 10.68 | 12.92 |
| 11     | 9.39  | 9.87  | 10.40 | 39 | 12.99 | 11.54 | 18.59 |
| 12     | 7.33  | 10.63 | 4.90  | 40 | 13.94 | 10.49 | 24.99 |
| 13     | 47.14 | 35.81 | 37.56 |    |       |       |       |
| 14     | 19.76 | 20.82 | 30.37 | 41 | 8.40  | 10.80 | 17.94 |
| 15     | 19.45 | 20.48 | 12.29 | 42 | 9.13  | 11.15 | 8.32  |
|        |       |       |       | 43 | 13.24 | 10.72 | 5.19  |
| 16     | 20.79 | 22.00 | 5.42  | 44 | 17.16 | 11.48 | 2.98  |
| 17     | 15.68 | 20.64 | 21.90 | 45 | 56.49 | 56.05 | 67.77 |
| 18     | 17.91 | 20.86 | 22.03 |    |       |       |       |
| 19     | 25.77 | 21.96 | 23.63 | 46 | 48.69 | 56.78 | 48.23 |
| 20     | 31.09 | 21.53 | 23.39 | 47 | 53.30 | 55.78 | 42.97 |
|        |       |       |       | 48 | 49.25 | 37.61 | 40.14 |
| 21     | 25.20 | 20.05 | 40.86 | 49 | 33.49 | 37.23 | 45.26 |
| 22     | 63.09 | 56.38 | 60.01 | 50 | 29.30 | 24.46 | 25.25 |
| 23     | 52.14 | 57.59 | 54.05 |    |       |       |       |
| 24     | 12.29 | 12.24 | 11.99 | 51 | 29.95 | 22.90 | 8.88  |
| 25     | 12.08 | 12.44 | 19.15 | 52 | 54.09 | 56.25 | 30.15 |
|        |       |       |       | 53 | 54.87 | 57.50 | 18.93 |
| 26     | 14.75 | 11.77 | 12.43 | 54 | 9.84  | 12.09 | 18.98 |
| 27     | 10.55 | 11.65 | 14.49 | 55 | 33.34 | 22.64 | 4.97  |
| 28     | 32.09 | 37.95 | 51.19 |    |       |       |       |

8

Pickford Nicolson anomaloscope Ishihara

가 -2 24 46

6 2 5ft 80watt

BS950

130 lumen/ft<sup>2</sup>

45°

L=50

가 1.9 ANLAB

가

가

가

가

SDC

가

가

1

2~3

가

5

640

8

가

25590

< 2> J. & P. Coats 1977

- 640 . 8

| Observer | Age | Total No of<br>Decisions | Disagreements<br>majority with<br>decision |       | Average Pass<br>Rate<br>(leniency) |
|----------|-----|--------------------------|--------------------------------------------|-------|------------------------------------|
| WC       | 24  | 3,200                    | 327                                        | 10.2% | 58                                 |
| JAG      | 37  | 3,200                    | 341                                        | 10.7% | 52                                 |
| WTM      | 46  | 3,195                    | 357                                        | 11.2% | 58                                 |
| RMcD     | 42  | 3,200                    | 460                                        | 14.4% | 62                                 |
| DP       | 29  | 3,200                    | 385                                        | 12.0% | 60                                 |
| JAP      | 37  | 3,200                    | 492                                        | 15.4% | 41                                 |
| AR       | 28  | 3,195                    | 493                                        | 15.4% | 44                                 |
| JDW      | 44  | 3,200                    | 525                                        | 16.4% | 66                                 |
| Total    |     | 25,590                   | 3,380                                      |       |                                    |
| Mean     |     |                          |                                            | 13.2% | 55                                 |

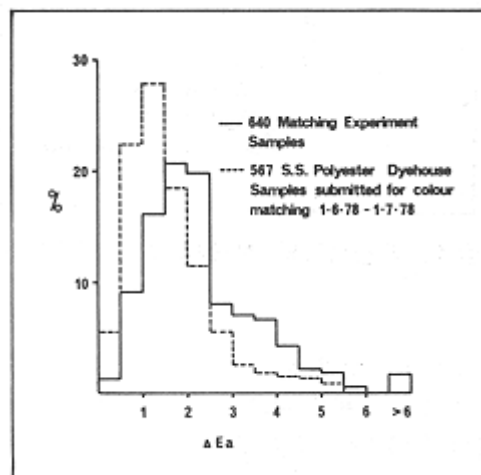
가

가

3

J&P Coats(UK)Ltd

567



< 3> J. & P. Coats 640

4 640

(panel)

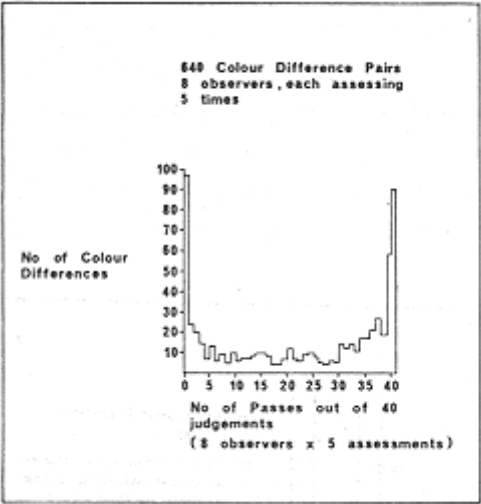
. 640

29%

97 (15%)

90 (14%)

4 U



< 4>

가 2

10.2% 16.4% 13.2%

2

,

가

가

가

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/

가  
3 . 4.0%  
10.9% 7.4% . 가  
RMcD JDW 가  
. McLaren, Davidson, Friede  
가  
가 .  
가  
가 .  
가 가 가  
4 . 9.5% 25.2%  
17.3% .

< 3> J. & P. Coats 1977 - 640 , 8 .

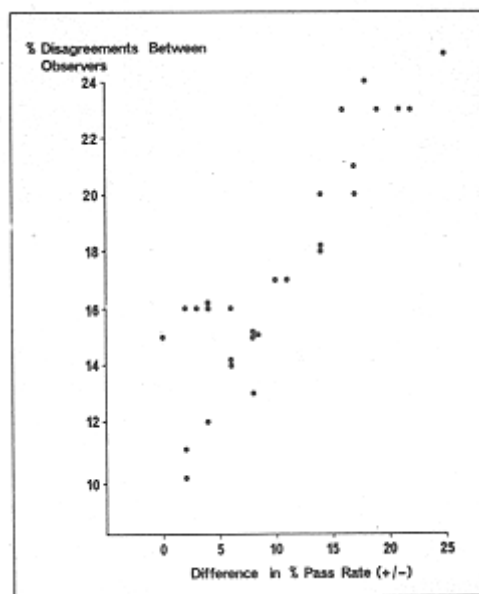
| Observer | Total No of |     | Contrary | Decisions |
|----------|-------------|-----|----------|-----------|
|          | Decisions   |     |          |           |
| WC       | 3,200       | 131 |          | 4.0%      |
| JAG      | 3,200       | 210 |          | 6.6%      |
| WTM      | 3,195       | 228 |          | 7.1%      |
| RMcD     | 3,200       | 348 |          | 10.9%     |
| DP       | 3,200       | 248 |          | 7.8%      |
| JAP      | 3,200       | 232 |          | 7.3%      |
| AR       | 3,195       | 225 |          | 7.0%      |
| JDW      | 3,200       | 284 |          | 8.9%      |

< 4> J. & P. Coats 1977 - 640 8 %, .

|      | WC  | JDW  | AR   | JAP  | DP   | RMcD | WTM  | JAG  |
|------|-----|------|------|------|------|------|------|------|
| WC   | 4.0 | 15.1 | 18.1 | 20.1 | 16.4 | 15.6 | 15.3 | 13.8 |
| JDW  |     | 8.9  | 23.2 | 25.2 | 15.9 | 15.5 | 13.4 | 18.4 |
| AR   |     |      | 7.0  | 16.1 | 23.3 | 22.5 | 20.2 | 15.2 |
| JAP  |     |      |      | 7.3  | 23.1 | 23.4 | 21.3 | 16.9 |
| DP   |     |      |      |      | 7.8  | 9.5  | 11.1 | 15.2 |
| RMcD |     |      |      |      |      | 10.9 | 11.8 | 16.6 |
| WTM  |     |      |      |      |      |      | 7.1  | 13.8 |
| JAG  |     |      |      |      |      |      |      | 6.6  |

Average of Disagreements = 17.3%

WC JAP가 20.1%  
 DP RMcP 9.5% 가



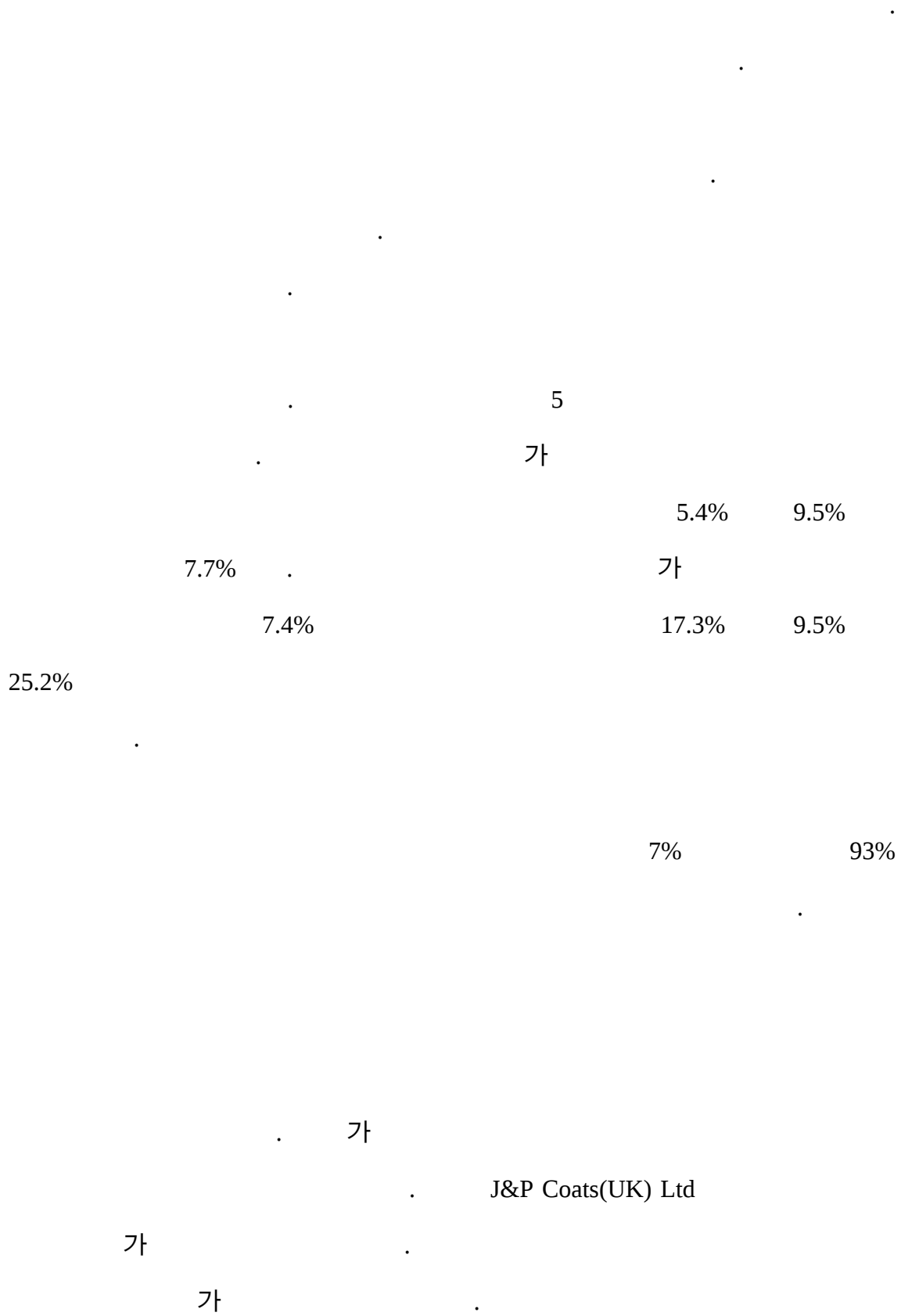
< 5>

JDW JAP 25.2% 2 JDW  
 JAP DP RMcD

가

. Jaeckel

가



가 . Davidson  
Friede

Davidson Friede

Davidson Friede 17.1%

13.4%  
%  
가

640 가

가 640 가

가

