

A Technical Report

Prepared by

Committee for Graphic Arts Technologies Standards (CGATS)

**Graphic technology —
Color characterization data for GRACoL®
proofing and printing on U.S. Grade 1
coated paper**

**SECRETARIAT
NPES THE ASSOCIATION FOR SUPPLIERS OF PRINTING,
PUBLISHING AND CONVERTING TECHNOLOGIES**

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CGATS



TECHNICAL REPORT

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This Technical Report was developed in cooperation with the General Requirements for Application in Commercial Offset Lithography (GRACoL) Committee, and the Print Properties Committee, organizations under the International Digital Enterprise Alliance (IDEAlliance).

Questions and comments regarding this Technical Report should be addressed to the CGATS Secretariat, NPES The Association for Suppliers of Printing, Publishing and Converting Technologies, 1899 Preston White Drive, Reston, Virginia 20191.

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Foreword

This CGATS Technical Report was prepared by the members of CGATS Subcommittee 4, Process Control, in cooperation with the members of the GRACoL Committee and the IDEAlliance Print Properties Committee. At the time of its approval, the following were the Participating Members and Observers of CGATS Subcommittee 4.

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Vice Chairman: Gerry Gerlach, Integrity Graphics

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NOTE: TR006 contains colorimetric characterization data describing offset lithographic printing meeting the requirements of the now withdrawn CGATS.6. It is now provided for historical traceability of standardized publication printing. For values and guidance for current printing aims please refer to CGATS.21 series or the ISO equivalent, ISO/PAS 15339.

Introduction

In 1996 a group of volunteers from across the graphic arts industry came together as a task force under the direction of the former Graphic Communications Association (GCA), now known as IDEAlliance (International Digital Enterprise Alliance, Incorporated). Their collective goal was to develop a working set of guidelines and specifications for the commercial offset industry. Their mission was to improve communications and education in the graphic arts by developing best practices and specifications that reflect the influence and impact of new technologies in the workflow of commercial offset lithography.

In 1997 the first GRACoL® publication, Version 1.0, was released. GRACoL updated their guidelines as the industry advanced. GRACoL guidelines are being gradually accepted by the printing industry and are being incorporated more formally into printing contracts as a measure of quality.

In 2000 the GRACoL Committee initiated the creation of specifications for commercial offset printing to accompany their guidelines. This initial work by GRACoL to characterize commercial offset printing on U.S. Grade 1 paper was published as CGATS Draft Technical Report 004 (DTR 004). GRACoL now believes that this data is not representative of commercial printing and is no longer recommended.

The development of these characterization data represents a departure from previous procedures in which the multiple data sets were averaged to produce a final result. Such an approach inevitably includes the unique characteristics of the press(s) involved in the testing and often includes non-uniformities that must be either accepted or mathematically corrected.

The new approach to characterization data creation (used here) first defines the aims for the outer printing gamut (i.e. the color of the solids, two color overprints, and the paper) using printing tests, industry specifications, and other input. Existing well known characterization data that represents similar printing is then mathematically adjusted and smoothed, using color management tools, to provide the mapping of the internal overprint data. For the data of TR 006 this step included the requirement that the G7™ neutral print density curve was satisfied. Finally, these characterization data were validated by comparison to the results of printing tests aimed at the defined printing conditions.

The printing aims used were based on the GRACoL 2006 publication. The work done to create the idealized characterization data was accomplished by a team of industry volunteers working under the GRACoL/ IDEAlliance Print Properties Committee banner. The validating press tests were done in representative industry printing plants.

The GRACoL/IDEAlliance Print Properties Committee believes that these characterization data represent the best current estimate of achievable printing using either sheet-fed or web printing on U.S. Grade 1 coated paper using inks meeting the requirements of ISO 2846-1 and is within the aims and tolerances of ISO 12647-2 for paper type 1. They represent the aim relationship between input data and printed color for both printing and proofing for this printing condition.

This Technical Report, prepared jointly by GRACoL and CGATS, supports the GRACoL mission by providing color characterization data for GRACoL proofing and printing on U.S. Grade 1 coated paper.

Graphic technology — Color characterization data for GRACoL® proofing and printing on U.S. Grade 1 coated paper

1 Scope

This Technical Report provides color characterization data (the relationship between CMYK printing values and measured color on the printed sheet) for proofing and for sheet-fed printing on U.S. Grade 1 coated papers (ISO 12647-2, paper type 1). Because the majority of U.S. Grade 1 papers contain significant amounts of optical brightening agents (OBA), these data only apply when the measurement conditions match those described in this report.

2 References

ANSI/CGATS.5-2003 + Supplement 1, *Graphic technology — Spectral measurement and colorimetric computation for graphic arts images*

ANSI/IT8.7/4-2005, *Graphic technology — Input data for characterization of 4-color process printing*

GRACoL® 2007 Version 7.0 <http://www.gracol.org/specification/>

ISO 3664:2000, *Viewing conditions — Graphic technology and photography*

ISO 12647-1:2004, *Graphic technology — Process control for the production of half-tone colour separations, proof and production prints — Part 1: Parameters and measurement methods*

ISO 12647-2:2005, *Graphic technology — Process control for the production of half-tone colour separations, proof and production prints — Part 2: Offset lithographic processes*

CIE Publication No 163:2004, *The Effect of Fluorescence on the Characterization of Imaging Media*

3 Background

The newest version of the GRACoL Specification, GRACoL 7, breaks from tradition by focusing on colorimetric data for grey balance and a standardized "Neutral Print Density Curve" (NPDC), rather than on traditional TVI aims for each ink. This new philosophy allows a careful user to achieve a closer visual match from device to device (at least on neutral gray tones), while maintaining the same overall "appearance" of traditional printing. The approach does NOT guarantee a perfect match in all colors, but it DOES reduce the need for custom separations for each press, which is a valuable benefit in today's ICC workflows.

Characterization data may be prepared in a variety of ways. Using limited, controlled printing tests that are carefully adjusted to exactly match the specification aims are one approach. When this is done, the resultant small sample of data is often mathematically adjusted and smoothed to allow it to "fit" the predefined process control aims. A second approach is to mathematically adjust earlier characterization data to fit new aims and or papers. A third approach is to collect and average a large body of test data. The method chosen by the GRACoL committee to prepare these data was the second approach.

The most important issue is a clear understanding and definition of the source and provenance of the data. That is one of the purposes of this Technical Report.

U.S. Grade 1 paper often contains high amounts of fluorescent dyes known as optical brightening agents (OBA) which are also known as fluorescent whitening agents (FWA). The presence of these agents introduces many complications for the instrumental reading of the color and gray balance of a print. When prints on U.S. Grade 1 paper are measured, each colorimetric instrument is likely to read the bidirectional radiance factor (apparent reflectance), and hence the color, differently. The magnitude of the differences in measured data depend upon the exact type (incandescent, xenon, etc.) and quality (filtered, pulsed, ramped, etc.) of the source used in the instrument which impacts the amount of ultraviolet and short wave visible light incident upon the specimen. CIE Publication 163 documents the magnitude of this effect for a range of printing, office and specialty papers.

The relative spectral power distribution of the instrument and viewing source impacts both the measured and perceptual white points. ISO 3664 describes methods to characterize the viewing source.

Field testing has found the data set, included in this technical report, useful with U.S. Grade 1 papers containing low to moderate amounts of OBA. However, this data set may not apply equally well to U.S. Grade 1 papers containing higher amounts of OBA.

4 Data source

The starting point for the characterization data set for sheet-fed printing on U.S. Grade 1 coated papers (ISO 12647-2:2004, paper type 1) was a combination of measured solids and two-color overprints from press testing conducted by the GRACoL Committee, and data sets developed by other industry organizations for sheet-fed printing on similar papers.

These data were manipulated mathematically to produce the characterization data set included in Table 3 and included in data file TR006_Char_Data.csv. The following criteria were used as the basis for this data adjustment. The resulting data is intended to:

- have a white point characteristic representative of colorimetric values for U.S. Grade 1 paper;
- have the colorimetric values of the solid ink and two-color overprints achievable on U.S. Grade 1 paper;
- have the neutral scale response adjusted to match the G7™ Neutral Print Density Curve;
- have smooth transitions between interior overprint values;
- be representative of the appearance of actual printing on a sheet-fed press;
- be as compatible as possible with ISO 12647-2.

The ink colors and TVI values inherent in these data are based on and within the tolerances specified for printing on type 1 paper as defined in ISO 12647-2:2005.

5 Neutral print density curve

Table 1 shows the CMY values of the G7 neutral print density curve and the associated CIELAB values derived for this data set.

Table 1 — G7 neutral print density curve values

#	C	M	Y	L*	a*	b*
1	0.00	0.00	0.00	95.00	-0.03	-1.94
2	1.96	1.18	1.18	93.53	0.02	-2.10
3	3.92	2.75	2.75	91.84	0.23	-2.03
4	5.88	4.31	4.31	90.19	0.35	-2.04
5	7.84	5.49	5.49	88.76	0.24	-2.28
6	10.20	7.45	7.45	86.76	0.32	-2.13
7	14.90	10.98	10.98	83.06	0.35	-1.74
8	20.00	14.90	14.90	79.28	0.35	-1.64
9	25.10	18.82	18.82	75.51	0.09	-1.62
10	30.20	23.14	23.14	71.53	0.27	-1.34
11	34.90	27.06	27.06	68.16	0.22	-1.49
12	40.00	31.37	31.37	64.44	0.21	-1.47
13	45.10	35.69	35.69	60.93	0.11	-1.48
14	49.80	40.00	40.00	57.62	0.04	-1.25
15	54.90	45.10	45.10	53.89	0.07	-0.91
16	60.00	50.20	50.20	50.29	-0.01	-0.54
17	65.10	55.29	55.29	46.65	-0.14	-0.45
18	69.80	60.39	60.39	43.18	-0.32	-0.50
19	74.90	65.88	65.88	39.50	-0.53	-0.67
20	80.00	71.76	71.76	35.76	-0.56	-0.62
21	85.10	78.04	78.04	32.15	-0.53	-0.47
22	89.80	84.31	84.31	29.01	-0.23	-0.35
23	94.90	92.16	92.16	25.81	0.15	-0.18
24	98.04	96.86	96.86	24.08	0.14	-0.24
25	100.00	100.00	100.00	23.00	0.16	-0.26

NOTE The tone values of this scale are reported to two decimal places because most characterization data is recorded as 8-bit per channel data and these values correspond to the quantization intervals associated with 8 bit data. As the colorimetric data to be associated with this neutral scale is usually computed or interpolated from color characterization data this minimizes an additional set of rounding errors.

6 Characterization data

Table 3 shows the average CIEXYZ and CIELAB data listed by IT8.7/4 ID number. These data represent the color characterization data for GRACoL proofing and printing on U.S. Grade 1 coated paper and is approved and endorsed by the GRACoL and IDEAlliance Print Properties Committees. The file "TR006_Char_Data.csv" that accompanies this technical report contains the data of Table 3 in electronic form.

These data are based on using measurement systems that comply with CGATS.5 (ISO 13655:1996) with the exception that the measurement source is a tungsten-halogen lamp typically used in commercial spectrophotometers provided for the printing and publishing industry. Colorimetric calculations are based on D50 and 2° observer with white backing.

Because these data are intended to facilitate matching of proofs and prints, both metrologically and visually, the more important issue is the consistency of the UV content between and among viewing and measurement sources. Therefore, for matching of proofs to prints, these data may be assumed to represent the UV content of any measurement/viewing condition where the UV content of the sources matches.

For general purposes these data should be assumed to represent typical measurements using spectrophotometers with UV included and typical viewing booths which tend to have some UV content but less than is specified by D50. The potential for conflict between metrological matches and viewing matches becomes increasingly critical as the level of OBA in the papers used increases and/or there is a mismatch of OBA level between the proofing and printing papers used.

The outer gamut boundary described by this data set is as shown in Table 2.

Table 2 — Data set gamut boundary

	X	Y	Z	L*	a*	b*
Paper	84.47	87.62	74.52	95.00	-0.02	-1.96
C	14.97	22.89	52.78	54.96	-37.12	-50.00
M	32.98	16.74	14.97	47.93	74.11	-3.01
Y	69.04	74.04	6.97	88.94	-5.02	93.17
K	1.84	1.90	1.58	14.95	0.19	-0.14
C+M	5.31	4.14	15.82	24.13	17.20	-46.14
M+Y	30.69	16.30	2.28	47.37	68.25	48.79
Y+C	7.84	18.52	7.27	50.12	-68.43	25.00
C+M+Y	3.68	3.80	3.17	23.00	0.17	-0.25
NOTE It should be noted that density data is not provided because the solid ink density aims are based on colorimetry. For process control density data can be computed locally based on the particular ink and paper used. See GRACoL 2007 Print Characterization Chart Errata May 2007 for typical values.						

All applications that use this characterization data, and profiles constructed from this data, should identify CGATS/GRACoL TR 006-2015 as the characterization data source. This will also enable end users to validate the intended output for the color separations being prepared or exchanged.

7 Adaptation for paper variation

GRACoL currently allows some variation in paper characteristics from the aim values shown in Clause 6. Knowledgeable users may wish to correct these characterization data for such variations. The method shown in Annex A is recommended for correcting these characterization data for papers meeting the current GRACoL tolerances. Any alterations to this data set must be identified in the naming of the resulting data set.

NOTE Typical tolerances on paper ($\Delta L^* \leq 2.0$, $\Delta a^* \leq 1.0$, $\Delta b^* \leq 2.0$) may be found in the GRACoL 2007 Print Characterization Chart.

8 Restrictions on use

Any use of the color characterization data contained in this document, or associated data files, should be clearly identified as coming from ANSI/CGATS/GRACoL TR 006-2007.

Any color management profiles, or other derivative work, based on these data may be distributed by the organization creating such derivative data (including freely distributed, sold, licensed, etc.) with no further restrictions from CGATS. However, any such use must identify this Technical Report as the source of the characterization data.

Table 3 — Colorimetric characterization data

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
1	0	0	0	0	84.47	87.62	74.52	95.00	-0.02	-1.96
2	0	10	0	0	76.85	76.39	66.51	90.04	6.51	-3.32
3	0	20	0	0	69.84	66.22	59.01	85.11	13.22	-4.54
4	0	30	0	0	63.19	56.73	51.49	80.03	20.38	-5.35
5	0	40	0	0	57.26	48.44	44.59	75.10	27.61	-5.85
6	0	55	0	0	49.53	37.69	35.19	67.79	39.27	-6.09
7	0	70	0	0	42.67	28.51	26.69	60.35	51.93	-5.67
8	0	85	0	0	36.95	21.28	19.58	53.25	64.68	-4.44
9	0	100	0	0	32.98	16.74	14.97	47.93	74.11	-3.01
10	10	0	0	0	73.59	77.96	72.47	90.76	-3.24	-7.48
11	10	10	0	0	66.98	68.09	64.69	86.05	2.96	-8.49
12	10	20	0	0	60.93	59.14	57.46	81.37	9.36	-9.41
13	10	30	0	0	55.13	50.71	50.28	76.50	16.29	-10.09
14	10	40	0	0	49.98	43.32	43.75	71.77	23.32	-10.56
15	10	55	0	0	43.20	33.75	34.79	64.76	34.50	-10.74
16	10	70	0	0	37.05	25.40	26.53	57.46	46.86	-10.38
17	10	85	0	0	31.96	18.86	19.66	50.52	59.29	-9.31
18	10	100	0	0	28.51	14.80	15.19	45.36	68.60	-7.99
19	20	0	0	0	64.07	69.48	70.49	86.74	-6.53	-12.65
20	20	10	0	0	58.34	60.72	62.96	82.23	-0.50	-13.41
21	20	20	0	0	53.09	52.79	55.97	77.75	5.71	-14.11
22	20	30	0	0	48.05	45.29	49.10	73.08	12.44	-14.65
23	20	40	0	0	43.53	38.68	42.85	68.52	19.26	-15.05
24	20	55	0	0	37.61	30.13	34.28	61.77	30.11	-15.16
25	20	70	0	0	32.16	22.61	26.33	54.67	42.13	-14.83
26	20	85	0	0	27.68	16.74	19.69	47.93	54.27	-13.84
27	20	100	0	0	24.61	13.08	15.36	42.88	63.37	-12.70
28	30	0	0	0	55.20	61.49	68.43	82.64	-9.99	-17.85
29	30	10	0	0	50.22	53.72	61.11	78.30	-4.18	-18.38
30	30	20	0	0	45.71	46.75	54.43	74.03	1.81	-18.89
31	30	30	0	0	41.40	40.14	47.85	69.57	8.37	-19.26
32	30	40	0	0	37.52	34.31	41.89	65.21	14.98	-19.54
33	30	55	0	0	32.36	26.69	33.68	58.69	25.52	-19.59
34	30	70	0	0	27.60	19.98	26.07	51.81	37.23	-19.31
35	30	85	0	0	23.65	14.71	19.71	45.24	49.02	-18.51
36	30	100	0	0	21.00	11.46	15.55	40.35	57.92	-17.53
37	40	0	0	0	47.33	54.31	66.24	78.64	-13.52	-22.72
38	40	10	0	0	43.07	47.46	59.23	74.48	-7.80	-23.09

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
39	40	20	0	0	39.21	41.32	52.84	70.40	-1.98	-23.44
40	40	30	0	0	35.55	35.53	46.59	66.16	4.38	-23.67
41	40	40	0	0	32.19	30.37	40.88	61.97	10.77	-23.84
42	40	55	0	0	27.72	23.59	33.04	55.67	21.06	-23.85
43	40	70	0	0	23.64	17.65	25.78	49.07	32.46	-23.54
44	40	85	0	0	20.16	12.93	19.69	42.66	43.94	-22.92
45	40	100	0	0	17.83	10.03	15.68	37.89	52.56	-22.07
46	55	0	0	0	36.99	44.71	62.94	72.70	-19.02	-29.82
47	55	10	0	0	33.82	39.26	56.45	68.94	-13.51	-29.80
48	55	20	0	0	30.84	34.24	50.48	65.15	-7.84	-29.89
49	55	30	0	0	27.94	29.43	44.66	61.16	-1.72	-29.97
50	55	40	0	0	25.28	25.14	39.33	57.21	4.45	-30.02
51	55	55	0	0	21.77	19.55	32.06	51.32	14.29	-29.89
52	55	70	0	0	18.52	14.61	25.30	45.09	25.16	-29.55
53	55	85	0	0	15.71	10.65	19.57	38.99	36.05	-29.01
54	55	100	0	0	13.83	8.23	15.79	34.45	44.28	-28.29
55	70	0	0	0	27.95	36.11	59.56	66.60	-25.13	-37.01
56	70	10	0	0	25.54	31.71	53.56	63.10	-19.83	-36.80
57	70	20	0	0	23.28	27.66	48.00	59.58	-14.42	-36.66
58	70	30	0	0	21.06	23.75	42.57	55.84	-8.52	-36.56
59	70	40	0	0	19.04	20.29	37.64	52.16	-2.61	-36.46
60	70	55	0	0	16.38	15.78	30.96	46.68	6.73	-36.19
61	70	70	0	0	13.89	11.77	24.68	40.84	17.09	-35.77
62	70	85	0	0	11.73	8.56	19.41	35.13	27.37	-35.31
63	70	100	0	0	10.29	6.58	15.89	30.84	35.28	-34.74
64	85	0	0	0	20.32	28.54	56.04	60.37	-31.64	-44.14
65	85	10	0	0	18.55	25.05	50.44	57.12	-26.55	-43.68
66	85	20	0	0	16.90	21.84	45.34	53.86	-21.33	-43.38
67	85	30	0	0	15.28	18.76	40.36	50.40	-15.66	-43.11
68	85	40	0	0	13.81	16.04	35.86	47.02	-10.02	-42.85
69	85	55	0	0	11.85	12.44	29.70	41.91	-1.04	-42.43
70	85	70	0	0	10.01	9.27	23.95	36.49	8.71	-41.94
71	85	85	0	0	8.42	6.74	19.12	31.20	18.34	-41.48
72	85	100	0	0	7.34	5.17	15.89	27.21	25.64	-41.01
73	100	0	0	0	14.97	22.89	52.78	54.96	-37.12	-50.00
74	100	10	0	0	13.67	20.11	47.73	51.96	-32.19	-49.48
75	100	20	0	0	12.46	17.55	43.02	48.94	-27.11	-49.02
76	100	30	0	0	11.25	15.06	38.41	45.72	-21.69	-48.60
77	100	40	0	0	10.16	12.87	34.23	42.57	-16.27	-48.19
78	100	55	0	0	8.68	9.98	28.54	37.80	-7.80	-47.64
79	100	70	0	0	7.33	7.45	23.26	32.81	1.38	-47.00
80	100	85	0	0	6.13	5.42	18.79	27.89	10.41	-46.47
81	100	100	0	0	5.31	4.14	15.82	24.13	17.20	-46.14
82	0	0	10	0	82.23	85.74	63.32	94.20	-0.85	6.88
83	0	10	10	0	75.00	74.97	56.64	89.38	5.61	5.25
84	0	20	10	0	68.25	65.11	50.30	84.54	12.23	3.75
85	0	30	10	0	61.89	55.91	44.01	79.56	19.41	2.55

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
86	0	40	10	0	56.24	47.85	38.25	74.73	26.69	1.63
87	0	55	10	0	48.91	37.47	30.36	67.63	38.29	0.87
88	0	70	10	0	42.24	28.41	23.07	60.26	51.03	0.70
89	0	85	10	0	36.68	21.29	17.01	53.26	63.77	1.25
90	0	100	10	0	32.99	16.90	13.06	48.13	73.30	2.38
91	10	0	10	0	71.46	76.37	61.57	90.03	-4.55	1.39
92	10	10	10	0	65.24	66.87	55.18	85.44	1.71	-0.02
93	10	20	10	0	59.43	58.18	49.13	80.84	8.11	-1.31
94	10	30	10	0	53.90	49.99	43.08	76.06	15.07	-2.34
95	10	40	10	0	48.97	42.77	37.54	71.40	22.19	-3.15
96	10	55	10	0	42.50	33.45	29.96	64.52	33.45	-3.86
97	10	70	10	0	36.57	25.26	22.93	57.33	45.85	-4.10
98	10	85	10	0	31.67	18.85	17.09	50.51	58.29	-3.67
99	10	100	10	0	28.44	14.92	13.28	45.52	67.64	-2.73
100	20	0	10	0	62.02	68.01	59.80	86.01	-8.10	-3.79
101	20	10	10	0	56.68	59.64	53.73	81.64	-2.02	-5.02
102	20	20	10	0	51.73	52.02	48.01	77.29	4.17	-6.14
103	20	30	10	0	46.90	44.69	42.21	72.69	10.95	-7.05
104	20	40	10	0	42.56	38.20	36.85	68.17	17.90	-7.77
105	20	55	10	0	36.91	29.86	29.57	61.53	28.86	-8.40
106	20	70	10	0	31.68	22.48	22.78	54.53	41.01	-8.64
107	20	85	10	0	27.36	16.71	17.14	47.89	53.16	-8.30
108	20	100	10	0	24.49	13.16	13.48	43.00	62.33	-7.61
109	30	0	10	0	53.23	60.13	57.96	81.91	-11.86	-8.99
110	30	10	10	0	48.68	52.77	52.16	77.74	-5.92	-10.04
111	30	20	10	0	44.42	46.04	46.68	73.57	0.10	-11.00
112	30	30	10	0	40.33	39.62	41.22	69.20	6.69	-11.81
113	30	40	10	0	36.60	33.88	36.11	64.87	13.44	-12.42
114	30	55	10	0	31.69	26.44	29.10	58.45	24.15	-12.96
115	30	70	10	0	27.16	19.87	22.60	51.69	36.01	-13.18
116	30	85	10	0	23.37	14.71	17.17	45.23	47.83	-12.96
117	30	100	10	0	20.83	11.52	13.61	40.44	56.72	-12.37
118	40	0	10	0	45.49	53.09	56.13	77.93	-15.64	-13.96
119	40	10	10	0	41.62	46.61	50.59	73.94	-9.81	-14.85
120	40	20	10	0	37.99	40.69	45.39	69.96	-3.95	-15.68
121	40	30	10	0	34.50	35.04	40.15	65.78	2.48	-16.32
122	40	40	10	0	31.33	30.00	35.31	61.65	9.03	-16.85
123	40	55	10	0	27.08	23.37	28.61	55.45	19.47	-17.33
124	40	70	10	0	23.17	17.53	22.38	48.92	31.04	-17.55
125	40	85	10	0	19.87	12.93	17.17	42.65	42.54	-17.41
126	40	100	10	0	17.63	10.07	13.72	37.97	51.17	-16.94
127	55	0	10	0	35.38	43.76	53.32	72.07	-21.65	-21.08
128	55	10	10	0	32.41	38.46	48.14	68.36	-15.98	-21.69
129	55	20	10	0	29.64	33.62	43.30	64.66	-10.24	-22.26
130	55	30	10	0	26.92	28.96	38.46	60.75	-4.02	-22.75
131	55	40	10	0	24.46	24.82	33.99	56.90	2.29	-23.13
132	55	55	10	0	21.13	19.33	27.79	51.07	12.33	-23.52

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
133	55	70	10	0	18.04	14.48	22.00	44.91	23.41	-23.71
134	55	85	10	0	15.39	10.62	17.11	38.94	34.43	-23.66
135	55	100	10	0	13.62	8.25	13.87	34.50	42.73	-23.31
136	70	0	10	0	26.45	35.26	50.48	65.95	-28.36	-28.51
137	70	10	10	0	24.23	30.99	45.64	62.50	-22.85	-28.84
138	70	20	10	0	22.16	27.09	41.15	59.06	-17.27	-29.20
139	70	30	10	0	20.12	23.34	36.64	55.42	-11.29	-29.46
140	70	40	10	0	18.26	19.99	32.52	51.83	-5.24	-29.70
141	70	55	10	0	15.75	15.57	26.83	46.40	4.35	-29.96
142	70	70	10	0	13.40	11.64	21.49	40.63	14.92	-30.09
143	70	85	10	0	11.41	8.52	16.98	35.05	25.41	-30.06
144	70	100	10	0	10.05	6.58	13.96	30.84	33.37	-29.86
145	85	0	10	0	18.93	27.77	47.43	59.68	-35.61	-35.83
146	85	10	10	0	17.35	24.41	42.98	56.50	-30.22	-35.93
147	85	20	10	0	15.86	21.34	38.82	53.32	-24.82	-36.05
148	85	30	10	0	14.39	18.38	34.70	49.95	-19.03	-36.15
149	85	40	10	0	13.06	15.74	30.93	46.63	-13.20	-36.23
150	85	55	10	0	11.25	12.26	25.75	41.62	-4.04	-36.33
151	85	70	10	0	9.55	9.15	20.88	36.28	5.99	-36.37
152	85	85	10	0	8.08	6.69	16.75	31.09	15.86	-36.36
153	85	100	10	0	7.08	5.15	13.97	27.15	23.35	-36.26
154	100	0	10	0	13.76	22.25	44.86	54.29	-41.68	-42.06
155	100	10	10	0	12.62	19.56	40.71	51.34	-36.42	-41.95
156	100	20	10	0	11.53	17.10	36.86	48.39	-31.20	-41.88
157	100	30	10	0	10.46	14.74	33.03	45.27	-25.61	-41.78
158	100	40	10	0	9.48	12.62	29.51	42.18	-20.04	-41.67
159	100	55	10	0	8.13	9.81	24.76	37.49	-11.35	-41.68
160	100	70	10	0	6.89	7.34	20.29	32.56	-1.81	-41.58
161	100	85	10	0	5.80	5.35	16.49	27.71	7.54	-41.58
162	100	100	10	0	5.05	4.10	13.94	23.99	14.66	-41.62
163	0	0	20	0	80.11	84.02	53.19	93.46	-1.76	15.94
164	0	10	20	0	73.21	73.57	47.70	88.72	4.76	13.93
165	0	20	20	0	66.75	64.03	42.43	83.98	11.36	12.13
166	0	30	20	0	60.67	55.09	37.25	79.09	18.59	10.51
167	0	40	20	0	55.21	47.20	32.46	74.32	25.88	9.16
168	0	55	20	0	48.20	37.12	25.85	67.37	37.47	7.90
169	0	70	20	0	41.77	28.26	19.72	60.12	50.23	7.12
170	0	85	20	0	36.42	21.28	14.63	53.25	62.95	7.03
171	0	100	20	0	32.91	17.00	11.31	48.26	72.44	7.68
172	10	0	20	0	69.50	74.84	51.75	89.32	-5.66	10.37
173	10	10	20	0	63.56	65.66	46.58	84.82	0.58	8.52
174	10	20	20	0	58.08	57.29	41.64	80.34	7.01	6.86
175	10	30	20	0	52.75	49.27	36.61	75.62	14.01	5.41
176	10	40	20	0	47.97	42.20	31.96	71.01	21.15	4.21
177	10	55	20	0	41.76	33.09	25.58	64.23	32.49	2.96
178	10	70	20	0	36.10	25.11	19.67	57.18	44.95	2.16
179	10	85	20	0	31.42	18.85	14.75	50.51	57.38	2.01

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
180	10	100	20	0	28.31	14.98	11.51	45.61	66.75	2.50
181	20	0	20	0	60.16	66.64	50.28	85.32	-9.47	5.12
182	20	10	20	0	55.12	58.58	45.44	81.06	-3.39	3.40
183	20	20	20	0	50.47	51.23	40.81	76.82	2.87	1.85
184	20	30	20	0	45.84	44.09	36.02	72.29	9.68	0.49
185	20	40	20	0	41.68	37.76	31.52	67.84	16.67	-0.58
186	20	55	20	0	36.25	29.56	25.36	61.27	27.81	-1.75
187	20	70	20	0	31.25	22.35	19.60	54.40	39.99	-2.50
188	20	85	20	0	27.11	16.71	14.83	47.89	52.16	-2.72
189	20	100	20	0	24.33	13.21	11.68	43.08	61.32	-2.39
190	30	0	20	0	51.48	58.89	48.73	81.23	-13.47	-0.17
191	30	10	20	0	47.23	51.83	44.17	77.18	-7.50	-1.75
192	30	20	20	0	43.28	45.39	39.83	73.15	-1.43	-3.20
193	30	30	20	0	39.34	39.11	35.30	68.83	5.21	-4.46
194	30	40	20	0	35.76	33.48	31.02	64.55	12.05	-5.48
195	30	55	20	0	31.06	26.18	25.05	58.21	22.88	-6.48
196	30	70	20	0	26.74	19.75	19.50	51.55	34.89	-7.19
197	30	85	20	0	23.11	14.70	14.89	45.22	46.71	-7.48
198	30	100	20	0	20.66	11.56	11.84	40.50	55.64	-7.29
199	40	0	20	0	43.84	51.97	47.24	77.26	-17.52	-5.29
200	40	10	20	0	40.24	45.75	42.86	73.38	-11.62	-6.68
201	40	20	20	0	36.89	40.10	38.76	69.54	-5.72	-8.00
202	40	30	20	0	33.57	34.59	34.48	65.43	0.76	-9.14
203	40	40	20	0	30.55	29.66	30.44	61.36	7.42	-10.07
204	40	55	20	0	26.51	23.16	24.70	55.24	18.05	-10.98
205	40	70	20	0	22.76	17.42	19.36	48.78	29.77	-11.68
206	40	85	20	0	19.61	12.91	14.93	42.63	41.32	-12.05
207	40	100	20	0	17.43	10.09	11.97	38.01	49.91	-11.98
208	55	0	20	0	33.92	42.85	44.97	71.45	-23.97	-12.61
209	55	10	20	0	31.14	37.72	40.82	67.81	-18.19	-13.69
210	55	20	20	0	28.58	33.06	36.97	64.21	-12.36	-14.76
211	55	30	20	0	26.02	28.54	33.01	60.37	-6.08	-15.71
212	55	40	20	0	23.69	24.50	29.29	56.58	0.30	-16.48
213	55	55	20	0	20.51	19.10	24.01	50.80	10.55	-17.37
214	55	70	20	0	17.58	14.34	19.06	44.71	21.84	-18.05
215	55	85	20	0	15.08	10.58	14.89	38.86	32.95	-18.44
216	55	100	20	0	13.42	8.27	12.12	34.53	41.30	-18.40
217	70	0	20	0	25.13	34.48	42.60	65.34	-31.24	-20.22
218	70	10	20	0	23.06	30.33	38.70	61.94	-25.57	-21.02
219	70	20	20	0	21.16	26.58	35.08	58.58	-19.89	-21.81
220	70	30	20	0	19.25	22.93	31.40	55.00	-13.82	-22.53
221	70	40	20	0	17.53	19.69	28.00	51.49	-7.67	-23.15
222	70	55	20	0	15.16	15.35	23.19	46.11	2.17	-23.93
223	70	70	20	0	12.98	11.52	18.65	40.44	12.98	-24.52
224	70	85	20	0	11.10	8.47	14.78	34.94	23.63	-24.93
225	70	100	20	0	9.81	6.58	12.20	30.83	31.60	-25.02
226	85	0	20	0	17.73	27.07	40.04	59.04	-39.15	-27.80

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
227	85	10	20	0	16.30	23.84	36.42	55.93	-33.60	-28.28
228	85	20	20	0	14.94	20.87	33.07	52.81	-28.03	-28.83
229	85	30	20	0	13.60	18.02	29.71	49.52	-22.12	-29.33
230	85	40	20	0	12.39	15.48	26.60	46.28	-16.14	-29.77
231	85	55	20	0	10.71	12.07	22.25	41.32	-6.75	-30.39
232	85	70	20	0	9.14	9.05	18.13	36.07	3.52	-30.91
233	85	85	20	0	7.77	6.63	14.60	30.95	13.61	-31.35
234	85	100	20	0	6.85	5.14	12.25	27.13	21.15	-31.55
235	100	0	20	0	12.68	21.68	37.89	53.68	-46.06	-34.17
236	100	10	20	0	11.65	19.05	34.47	50.75	-40.51	-34.44
237	100	20	20	0	10.69	16.69	31.36	47.87	-35.08	-34.76
238	100	30	20	0	9.75	14.43	28.29	44.84	-29.28	-35.09
239	100	40	20	0	8.87	12.38	25.39	41.81	-23.51	-35.36
240	100	55	20	0	7.65	9.65	21.38	37.21	-14.53	-35.78
241	100	70	20	0	6.52	7.24	17.63	32.35	-4.73	-36.21
242	100	85	20	0	5.51	5.30	14.40	27.56	4.86	-36.68
243	100	100	20	0	4.83	4.09	12.25	23.95	12.06	-37.03
244	0	0	30	0	78.37	82.60	44.56	92.84	-2.51	24.77
245	0	10	30	0	71.67	72.38	40.06	88.15	4.01	22.36
246	0	20	30	0	65.46	63.05	35.73	83.47	10.69	20.18
247	0	30	30	0	59.53	54.27	31.40	78.62	17.92	18.20
248	0	40	30	0	54.28	46.60	27.44	73.93	25.23	16.48
249	0	55	30	0	47.49	36.73	21.95	67.07	36.80	14.58
250	0	70	30	0	41.31	28.07	16.84	59.95	49.57	13.19
251	0	85	30	0	36.15	21.24	12.56	53.21	62.23	12.52
252	0	100	30	0	32.76	17.04	9.75	48.31	71.68	12.74
253	10	0	30	0	67.80	73.51	43.39	88.69	-6.64	19.06
254	10	10	30	0	62.05	64.49	39.13	84.22	-0.31	16.82
255	10	20	30	0	56.77	56.33	35.09	79.80	6.15	14.76
256	10	30	30	0	51.67	48.52	30.97	75.15	13.24	12.88
257	10	40	30	0	47.09	41.64	27.14	70.62	20.38	11.28
258	10	55	30	0	41.13	32.75	21.81	63.96	31.74	9.50
259	10	70	30	0	35.68	24.94	16.85	57.02	44.21	8.12
260	10	85	30	0	31.14	18.80	12.70	50.45	56.61	7.38
261	10	100	30	0	28.16	15.02	9.95	45.66	65.94	7.48
262	20	0	30	0	58.60	65.44	42.20	84.71	-10.56	13.68
263	20	10	30	0	53.74	57.54	38.26	80.48	-4.39	11.53
264	20	20	30	0	49.26	50.38	34.51	76.30	1.87	9.56
265	20	30	30	0	44.85	43.44	30.60	71.85	8.75	7.76
266	20	40	30	0	40.88	37.29	26.92	67.49	15.75	6.26
267	20	55	30	0	35.62	29.24	21.69	60.99	26.92	4.61
268	20	70	30	0	30.83	22.19	16.84	54.23	39.19	3.33
269	20	85	30	0	26.84	16.66	12.80	47.83	51.32	2.57
270	20	100	30	0	24.18	13.24	10.12	43.12	60.48	2.54
271	30	0	30	0	50.04	57.82	40.96	80.64	-14.75	8.25
272	30	10	30	0	45.93	50.90	37.27	76.62	-8.73	6.22
273	30	20	30	0	42.14	44.62	33.77	72.64	-2.62	4.33

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
274	30	30	30	0	38.44	38.56	30.13	68.43	4.07	2.61
275	30	40	30	0	35.04	33.10	26.62	64.24	10.93	1.17
276	30	55	30	0	30.49	25.91	21.55	57.95	21.91	-0.36
277	30	70	30	0	26.32	19.59	16.82	51.37	33.94	-1.56
278	30	85	30	0	22.84	14.65	12.89	45.15	45.79	-2.30
279	30	100	30	0	20.49	11.57	10.29	40.53	54.72	-2.46
280	40	0	30	0	42.46	50.99	39.73	76.67	-19.03	3.01
281	40	10	30	0	39.03	44.92	36.22	72.84	-13.06	1.16
282	40	20	30	0	35.87	39.44	32.94	69.07	-7.09	-0.61
283	40	30	30	0	32.76	34.14	29.56	65.07	-0.55	-2.28
284	40	40	30	0	29.86	29.31	26.23	61.05	6.15	-3.67
285	40	55	30	0	25.95	22.90	21.34	54.97	16.90	-5.07
286	40	70	30	0	22.36	17.28	16.77	48.61	28.71	-6.21
287	40	85	30	0	19.34	12.87	12.97	42.56	40.27	-6.97
288	40	100	30	0	17.30	10.12	10.43	38.06	48.98	-7.17
289	55	0	30	0	32.68	42.03	37.89	70.89	-25.91	-4.50
290	55	10	30	0	30.06	37.03	34.56	67.30	-20.01	-6.03
291	55	20	30	0	27.62	32.50	31.47	63.75	-14.15	-7.55
292	55	30	30	0	25.24	28.13	28.31	60.01	-7.80	-8.97
293	55	40	30	0	23.01	24.17	25.27	56.26	-1.31	-10.23
294	55	55	30	0	20.00	18.88	20.80	50.55	9.13	-11.61
295	55	70	30	0	17.20	14.22	16.56	44.54	20.54	-12.72
296	55	85	30	0	14.83	10.54	12.98	38.79	31.73	-13.51
297	55	100	30	0	13.23	8.26	10.58	34.52	40.11	-13.76
298	70	0	30	0	23.98	33.76	35.93	64.77	-33.71	-12.35
299	70	10	30	0	22.06	29.74	32.76	61.43	-27.93	-13.51
300	70	20	30	0	20.26	26.08	29.85	58.11	-22.17	-14.74
301	70	30	30	0	18.52	22.57	26.93	54.63	-15.96	-15.94
302	70	40	30	0	16.89	19.40	24.15	51.15	-9.66	-17.03
303	70	55	30	0	14.68	15.16	20.11	45.85	0.36	-18.30
304	70	70	30	0	12.61	11.40	16.23	40.24	11.35	-19.36
305	70	85	30	0	10.83	8.41	12.92	34.83	22.12	-20.16
306	70	100	30	0	9.61	6.56	10.68	30.79	30.13	-20.51
307	85	0	30	0	16.72	26.47	33.80	58.48	-42.23	-20.14
308	85	10	30	0	15.40	23.33	30.86	55.41	-36.55	-20.99
309	85	20	30	0	14.16	20.47	28.16	52.36	-30.88	-21.91
310	85	30	30	0	12.94	17.72	25.47	49.15	-24.81	-22.85
311	85	40	30	0	11.82	15.24	22.96	45.96	-18.67	-23.75
312	85	55	30	0	10.27	11.91	19.30	41.07	-9.01	-24.84
313	85	70	30	0	8.79	8.94	15.77	35.87	1.48	-25.79
314	85	85	30	0	7.51	6.56	12.76	30.79	11.81	-26.68
315	85	100	30	0	6.64	5.11	10.73	27.04	19.43	-27.13
316	100	0	30	0	11.77	21.11	32.01	53.07	-49.71	-26.79
317	100	10	30	0	10.85	18.61	29.26	50.23	-44.09	-27.38
318	100	20	30	0	9.99	16.33	26.71	47.41	-38.48	-28.00
319	100	30	30	0	9.15	14.15	24.23	44.45	-32.52	-28.72
320	100	40	30	0	8.36	12.17	21.89	41.49	-26.49	-29.41

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
321	100	55	30	0	7.24	9.52	18.53	36.96	-17.30	-30.27
322	100	70	30	0	6.19	7.14	15.32	32.13	-7.25	-31.13
323	100	85	30	0	5.26	5.24	12.59	27.42	2.52	-32.01
324	100	100	30	0	4.63	4.06	10.75	23.86	9.90	-32.67
325	0	0	40	0	76.65	81.18	36.70	92.21	-3.24	33.89
326	0	10	40	0	70.13	71.13	33.07	87.55	3.33	31.07
327	0	20	40	0	64.16	62.05	29.56	82.94	10.06	28.53
328	0	30	40	0	58.49	53.50	26.07	78.17	17.35	26.14
329	0	40	40	0	53.40	45.99	22.86	73.54	24.66	23.99
330	0	55	40	0	46.83	36.34	18.40	66.78	36.22	21.43
331	0	70	40	0	40.84	27.86	14.20	59.76	48.95	19.37
332	0	85	40	0	35.86	21.17	10.66	53.13	61.60	18.09
333	0	100	40	0	32.51	17.02	8.31	48.28	70.95	17.76
334	10	0	40	0	66.22	72.23	35.80	88.08	-7.49	28.03
335	10	10	40	0	60.64	63.36	32.34	83.63	-1.06	25.40
336	10	20	40	0	55.53	55.36	29.08	79.25	5.43	22.94
337	10	30	40	0	50.64	47.79	25.77	74.69	12.51	20.66
338	10	40	40	0	46.25	41.08	22.68	70.23	19.71	18.63
339	10	55	40	0	40.53	32.42	18.34	63.69	31.05	16.23
340	10	70	40	0	35.24	24.76	14.24	56.84	43.53	14.22
341	10	85	40	0	30.86	18.74	10.80	50.38	55.91	12.88
342	10	100	40	0	27.97	15.02	8.51	45.66	65.22	12.52
343	20	0	40	0	57.14	64.28	34.89	84.11	-11.54	22.47
344	20	10	40	0	52.39	56.49	31.69	79.89	-5.31	19.94
345	20	20	40	0	48.07	49.48	28.67	75.75	0.99	17.57
346	20	30	40	0	43.87	42.74	25.53	71.38	7.94	15.37
347	20	40	40	0	40.07	36.77	22.57	67.10	14.94	13.44
348	20	55	40	0	35.05	28.93	18.30	60.72	26.16	11.21
349	20	70	40	0	30.42	22.03	14.30	54.06	38.41	9.29
350	20	85	40	0	26.58	16.61	10.92	47.76	50.59	7.99
351	20	100	40	0	24.01	13.25	8.67	43.13	59.70	7.55
352	30	0	40	0	48.67	56.77	33.92	80.05	-15.91	16.88
353	30	10	40	0	44.69	49.95	30.92	76.04	-9.79	14.48
354	30	20	40	0	41.04	43.81	28.12	72.10	-3.64	12.18
355	30	30	40	0	37.53	37.95	25.25	67.98	3.07	10.01
356	30	40	40	0	34.29	32.64	22.44	63.87	9.96	8.11
357	30	55	40	0	29.93	25.62	18.25	57.67	21.01	6.05
358	30	70	40	0	25.93	19.44	14.33	51.20	33.09	4.27
359	30	85	40	0	22.56	14.58	11.04	45.05	44.96	2.97
360	30	100	40	0	20.32	11.58	8.85	40.54	53.84	2.46
361	40	0	40	0	41.23	50.08	32.95	76.12	-20.37	11.54
362	40	10	40	0	37.88	44.09	30.12	72.29	-14.37	9.28
363	40	20	40	0	34.84	38.72	27.54	68.55	-8.31	7.04
364	40	30	40	0	31.91	33.60	24.83	64.64	-1.75	5.00
365	40	40	40	0	29.15	28.91	22.19	60.70	4.98	3.14
366	40	55	40	0	25.43	22.65	18.15	54.71	15.85	1.18
367	40	70	40	0	21.96	17.12	14.33	48.41	27.71	-0.53

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
368	40	85	40	0	19.08	12.81	11.14	42.47	39.36	-1.79
369	40	100	40	0	17.13	10.12	8.99	38.06	48.08	-2.32
370	55	0	40	0	31.54	41.24	31.48	70.34	-27.66	3.79
371	55	10	40	0	29.03	36.34	28.81	66.78	-21.70	1.88
372	55	20	40	0	26.71	31.92	26.37	63.28	-15.78	-0.06
373	55	30	40	0	24.46	27.69	23.88	59.61	-9.38	-1.95
374	55	40	40	0	22.38	23.84	21.49	55.93	-2.78	-3.72
375	55	55	40	0	19.51	18.66	17.77	50.29	7.78	-5.59
376	55	70	40	0	16.83	14.08	14.22	44.35	19.32	-7.25
377	55	85	40	0	14.56	10.47	11.18	38.68	30.56	-8.47
378	55	100	40	0	13.03	8.24	9.15	34.48	39.01	-9.06
379	70	0	40	0	22.94	33.07	29.90	64.22	-35.97	-4.29
380	70	10	40	0	21.14	29.17	27.38	60.93	-30.09	-5.84
381	70	20	40	0	19.46	25.62	25.06	57.67	-24.25	-7.43
382	70	30	40	0	17.83	22.22	22.78	54.26	-18.00	-9.10
383	70	40	40	0	16.30	19.12	20.55	50.83	-11.59	-10.61
384	70	55	40	0	14.20	14.96	17.22	45.58	-1.36	-12.47
385	70	70	40	0	12.24	11.27	13.97	40.03	9.81	-14.06
386	70	85	40	0	10.57	8.36	11.18	34.72	20.68	-15.28
387	70	100	40	0	9.39	6.53	9.28	30.71	28.70	-16.00
388	85	0	40	0	15.81	25.91	28.23	57.95	-45.08	-12.40
389	85	10	40	0	14.59	22.86	25.88	54.93	-39.27	-13.60
390	85	20	40	0	13.45	20.08	23.70	51.93	-33.49	-14.85
391	85	30	40	0	12.33	17.42	21.59	48.79	-27.35	-16.23
392	85	40	40	0	11.29	15.00	19.56	45.64	-21.06	-17.51
393	85	55	40	0	9.84	11.74	16.56	40.80	-11.15	-19.17
394	85	70	40	0	8.47	8.84	13.60	35.67	-0.45	-20.59
395	85	85	40	0	7.27	6.52	11.07	30.69	9.97	-21.88
396	85	100	40	0	6.45	5.09	9.34	26.98	17.71	-22.64
397	100	0	40	0	10.96	20.62	26.80	52.53	-53.19	-19.34
398	100	10	40	0	10.14	18.22	24.59	49.76	-47.42	-20.23
399	100	20	40	0	9.36	16.00	22.53	46.97	-41.63	-21.20
400	100	30	40	0	8.61	13.90	20.55	44.09	-35.57	-22.24
401	100	40	40	0	7.89	11.98	18.68	41.19	-29.40	-23.29
402	100	55	40	0	6.87	9.38	15.91	36.70	-19.86	-24.68
403	100	70	40	0	5.89	7.05	13.21	31.92	-9.59	-26.00
404	100	85	40	0	5.04	5.19	10.91	27.26	0.43	-27.31
405	100	100	40	0	4.44	4.01	9.33	23.71	7.99	-28.25
406	0	0	55	0	74.48	79.35	26.33	91.39	-4.11	48.47
407	0	10	55	0	68.14	69.46	23.84	86.73	2.57	44.89
408	0	20	55	0	62.45	60.65	21.40	82.19	9.38	41.74
409	0	30	55	0	56.99	52.35	18.97	77.49	16.64	38.66
410	0	40	55	0	52.14	45.09	16.74	72.95	23.95	35.84
411	0	55	55	0	45.92	35.78	13.64	66.35	35.52	32.21
412	0	70	55	0	40.18	27.54	10.64	59.47	48.16	29.07
413	0	85	55	0	35.38	21.01	8.07	52.96	60.71	26.73
414	0	100	55	0	32.28	17.02	6.36	48.28	70.12	25.70

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
415	10	0	55	0	64.10	70.44	25.81	87.21	-8.48	42.18
416	10	10	55	0	58.72	61.77	23.37	82.79	-2.01	38.97
417	10	20	55	0	53.88	54.03	21.09	78.48	4.58	35.97
418	10	30	55	0	49.20	46.67	18.77	73.98	11.69	33.03
419	10	40	55	0	45.01	40.20	16.63	69.61	18.86	30.33
420	10	55	55	0	39.62	31.86	13.63	63.23	30.20	26.87
421	10	70	55	0	34.63	24.48	10.72	56.56	42.65	23.81
422	10	85	55	0	30.41	18.60	8.20	50.21	54.97	21.51
423	10	100	55	0	27.68	14.99	6.55	45.62	64.24	20.29
424	20	0	55	0	55.13	62.60	25.22	83.23	-12.73	36.36
425	20	10	55	0	50.62	55.05	22.97	79.07	-6.42	33.31
426	20	20	55	0	46.47	48.20	20.80	74.95	-0.02	30.45
427	20	30	55	0	42.46	41.67	18.62	70.64	6.94	27.60
428	20	40	55	0	38.90	35.92	16.58	66.46	14.01	25.03
429	20	55	55	0	34.18	28.41	13.65	60.26	25.17	21.67
430	20	70	55	0	29.84	21.77	10.80	53.78	37.44	18.75
431	20	85	55	0	26.16	16.48	8.36	47.60	49.56	16.42
432	20	100	55	0	23.74	13.22	6.72	43.09	58.70	15.19
433	30	0	55	0	46.80	55.26	24.61	79.19	-17.37	30.49
434	30	10	55	0	43.02	48.65	22.48	75.23	-11.16	27.62
435	30	20	55	0	39.55	42.67	20.51	71.33	-4.91	24.81
436	30	30	55	0	36.19	36.95	18.48	67.24	1.88	22.06
437	30	40	55	0	33.13	31.84	16.51	63.21	8.79	19.57
438	30	55	55	0	29.10	25.14	13.67	57.21	19.83	16.38
439	30	70	55	0	25.35	19.18	10.88	50.90	31.94	13.53
440	30	85	55	0	22.19	14.48	8.49	44.91	43.86	11.31
441	30	100	55	0	20.08	11.56	6.88	40.51	52.78	10.03
442	40	0	55	0	39.48	48.71	23.98	75.27	-22.13	24.87
443	40	10	55	0	36.34	42.92	22.00	71.50	-16.00	22.13
444	40	20	55	0	33.44	37.69	20.14	67.79	-9.86	19.46
445	40	30	55	0	30.64	32.69	18.25	63.91	-3.24	16.82
446	40	40	55	0	28.10	28.22	16.41	60.09	3.54	14.44
447	40	55	55	0	24.64	22.22	13.67	54.26	14.45	11.29
448	40	70	55	0	21.42	16.90	10.94	48.13	26.40	8.58
449	40	85	55	0	18.70	12.70	8.59	42.31	38.09	6.43
450	40	100	55	0	16.89	10.11	7.04	38.04	46.83	5.11
451	55	0	55	0	29.98	40.09	23.05	69.53	-29.92	16.71
452	55	10	55	0	27.63	35.35	21.18	66.02	-23.88	14.30
453	55	20	55	0	25.47	31.07	19.47	62.57	-17.86	11.87
454	55	30	55	0	23.38	27.00	17.73	58.97	-11.38	9.46
455	55	40	55	0	21.43	23.29	16.04	55.37	-4.76	7.19
456	55	55	55	0	18.80	18.33	13.52	49.89	5.93	4.15
457	55	70	55	0	16.30	13.87	10.93	44.05	17.64	1.59
458	55	85	55	0	14.18	10.38	8.70	38.51	28.97	-0.51
459	55	100	55	0	12.77	8.22	7.20	34.44	37.46	-1.74
460	70	0	55	0	21.58	32.13	22.05	63.45	-38.88	8.15
461	70	10	55	0	19.91	28.35	20.29	60.20	-32.94	6.07

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
462	70	20	55	0	18.37	24.93	18.66	57.01	-26.97	4.02
463	70	30	55	0	16.87	21.66	17.06	53.66	-20.59	1.84
464	70	40	55	0	15.48	18.69	15.51	50.32	-14.12	-0.24
465	70	55	55	0	13.57	14.68	13.20	45.19	-3.69	-3.09
466	70	70	55	0	11.74	11.06	10.82	39.68	7.83	-5.61
467	70	85	55	0	10.20	8.26	8.75	34.51	18.74	-7.58
468	70	100	55	0	9.12	6.49	7.33	30.61	26.88	-8.87
469	85	0	55	0	14.64	25.15	21.00	57.22	-48.88	-0.52
470	85	10	55	0	13.54	22.21	19.34	54.25	-42.93	-2.21
471	85	20	55	0	12.51	19.55	17.82	51.32	-37.02	-3.93
472	85	30	55	0	11.51	16.98	16.32	48.24	-30.74	-5.77
473	85	40	55	0	10.58	14.66	14.89	45.16	-24.26	-7.57
474	85	55	55	0	9.27	11.51	12.76	40.42	-14.13	-10.07
475	85	70	55	0	8.01	8.65	10.58	35.31	-2.98	-12.39
476	85	85	55	0	6.93	6.43	8.70	30.48	7.57	-14.35
477	85	100	55	0	6.19	5.04	7.40	26.84	15.50	-15.67
478	100	0	55	0	9.95	19.99	20.10	51.83	-57.85	-7.96
479	100	10	55	0	9.22	17.68	18.52	49.10	-51.93	-9.31
480	100	20	55	0	8.55	15.57	17.07	46.40	-46.02	-10.71
481	100	30	55	0	7.88	13.54	15.65	43.56	-39.73	-12.22
482	100	40	55	0	7.26	11.70	14.31	40.73	-33.40	-13.72
483	100	55	55	0	6.37	9.18	12.35	36.33	-23.45	-15.96
484	100	70	55	0	5.51	6.93	10.36	31.64	-12.81	-18.02
485	100	85	55	0	4.73	5.11	8.61	27.05	-2.48	-19.93
486	100	100	55	0	4.21	3.99	7.44	23.65	5.17	-21.33
487	0	0	70	0	72.54	77.52	17.88	90.56	-4.57	63.58
488	0	10	70	0	66.35	67.85	16.23	85.93	2.07	59.43
489	0	20	70	0	60.79	59.22	14.63	81.41	8.86	55.59
490	0	30	70	0	55.56	51.18	13.06	76.79	16.12	51.79
491	0	40	70	0	50.89	44.12	11.59	72.31	23.43	48.28
492	0	55	70	0	44.94	35.11	9.55	65.83	34.94	43.61
493	0	70	70	0	39.46	27.13	7.57	59.09	47.55	39.25
494	0	85	70	0	34.84	20.77	5.85	52.70	60.00	35.68
495	0	100	70	0	31.87	16.88	4.67	48.11	69.38	33.74
496	10	0	70	0	62.20	68.71	17.55	86.36	-9.19	57.09
497	10	10	70	0	57.02	60.30	15.98	82.00	-2.73	53.24
498	10	20	70	0	52.33	52.74	14.49	77.72	3.88	49.58
499	10	30	70	0	47.83	45.58	12.97	73.27	11.01	45.96
500	10	40	70	0	43.80	39.28	11.56	68.95	18.21	42.57
501	10	55	70	0	38.67	31.23	9.60	62.70	29.49	38.05
502	10	70	70	0	33.93	24.08	7.67	56.17	41.93	33.81
503	10	85	70	0	29.95	18.40	5.99	49.98	54.22	30.30
504	10	100	70	0	27.32	14.88	4.85	45.47	63.44	28.22
505	20	0	70	0	53.32	61.00	17.25	82.38	-13.65	50.90
506	20	10	70	0	49.00	53.66	15.77	78.26	-7.30	47.31
507	20	20	70	0	44.99	46.99	14.36	74.18	-0.90	43.82
508	20	30	70	0	41.17	40.64	12.92	69.92	6.16	40.33

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
509	20	40	70	0	37.73	35.04	11.58	65.78	13.22	37.07
510	20	55	70	0	33.29	27.81	9.65	59.72	24.37	32.75
511	20	70	70	0	29.19	21.41	7.78	53.40	36.61	28.63
512	20	85	70	0	25.72	16.30	6.13	47.37	48.73	25.16
513	20	100	70	0	23.41	13.12	5.01	42.94	57.85	23.00
514	30	0	70	0	45.08	53.77	16.92	78.33	-18.54	44.68
515	30	10	70	0	41.48	47.36	15.52	74.42	-12.28	41.30
516	30	20	70	0	38.15	41.52	14.18	70.54	-5.95	38.00
517	30	30	70	0	34.94	35.96	12.85	66.49	0.90	34.62
518	30	40	70	0	32.05	31.03	11.56	62.53	7.86	31.50
519	30	55	70	0	28.27	24.60	9.71	56.68	18.87	27.29
520	30	70	70	0	24.76	18.88	7.88	50.55	30.96	23.32
521	30	85	70	0	21.76	14.31	6.26	44.67	42.92	19.91
522	30	100	70	0	19.77	11.48	5.16	40.37	51.85	17.79
523	40	0	70	0	37.86	47.35	16.57	74.41	-23.56	38.76
524	40	10	70	0	34.88	41.72	15.25	70.68	-17.35	35.52
525	40	20	70	0	32.14	36.65	14.01	67.01	-11.13	32.36
526	40	30	70	0	29.46	31.78	12.75	63.16	-4.45	29.15
527	40	40	70	0	27.06	27.45	11.54	59.39	2.39	26.16
528	40	55	70	0	23.85	21.72	9.75	53.73	13.29	22.09
529	40	70	70	0	20.86	16.61	7.96	47.77	25.27	18.22
530	40	85	70	0	18.31	12.55	6.38	42.08	37.02	14.93
531	40	100	70	0	16.59	10.03	5.29	37.89	45.82	12.88
532	55	0	70	0	28.56	38.94	16.08	68.71	-31.83	30.08
533	55	10	70	0	26.34	34.34	14.84	65.23	-25.71	27.15
534	55	20	70	0	24.32	30.20	13.69	61.83	-19.57	24.28
535	55	30	70	0	22.35	26.26	12.53	58.28	-13.03	21.36
536	55	40	70	0	20.53	22.69	11.41	54.75	-6.37	18.55
537	55	55	70	0	18.10	17.92	9.73	49.40	4.39	14.69
538	55	70	70	0	15.79	13.63	8.01	43.70	16.20	10.99
539	55	85	70	0	13.82	10.25	6.50	38.28	27.67	7.86
540	55	100	70	0	12.50	8.15	5.45	34.30	36.22	5.88
541	70	0	70	0	20.36	31.22	15.57	62.69	-41.44	20.96
542	70	10	70	0	18.81	27.55	14.40	59.48	-35.36	18.37
543	70	20	70	0	17.38	24.24	13.30	56.33	-29.30	15.86
544	70	30	70	0	16.00	21.08	12.21	53.04	-22.82	13.23
545	70	40	70	0	14.72	18.23	11.18	49.77	-16.27	10.65
546	70	55	70	0	12.96	14.36	9.61	44.74	-5.68	7.03
547	70	70	70	0	11.28	10.88	8.01	39.37	5.90	3.53
548	70	85	70	0	9.86	8.14	6.58	34.28	17.12	0.59
549	70	100	70	0	8.88	6.44	5.59	30.49	25.44	-1.36
550	85	0	70	0	13.62	24.44	15.03	56.53	-52.24	11.67
551	85	10	70	0	12.61	21.60	13.91	53.60	-46.19	9.50
552	85	20	70	0	11.68	19.02	12.88	50.71	-40.16	7.32
553	85	30	70	0	10.77	16.55	11.87	47.69	-33.70	5.01
554	85	40	70	0	9.93	14.31	10.89	44.67	-27.14	2.76
555	85	55	70	0	8.75	11.25	9.43	40.00	-16.72	-0.51

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
556	85	70	70	0	7.61	8.51	7.94	35.02	-5.41	-3.69
557	85	85	70	0	6.63	6.34	6.60	30.25	5.53	-6.42
558	85	100	70	0	5.97	5.00	5.68	26.73	13.58	-8.31
559	100	0	70	0	9.10	19.42	14.54	51.18	-61.96	3.69
560	100	10	70	0	8.44	17.18	13.45	48.48	-55.94	1.92
561	100	20	70	0	7.84	15.14	12.46	45.83	-49.88	0.10
562	100	30	70	0	7.26	13.20	11.52	43.06	-43.44	-1.93
563	100	40	70	0	6.71	11.42	10.60	40.28	-36.93	-3.88
564	100	55	70	0	5.92	8.99	9.23	35.96	-26.69	-6.78
565	100	70	70	0	5.16	6.80	7.85	31.35	-15.70	-9.66
566	100	85	70	0	4.47	5.03	6.58	26.83	-4.98	-12.25
567	100	100	70	0	4.01	3.95	5.73	23.52	2.95	-14.08
568	0	0	85	0	70.68	75.70	11.04	89.72	-4.87	79.97
569	0	10	85	0	64.54	66.13	10.05	85.06	1.78	75.08
570	0	20	85	0	59.16	57.72	9.13	80.58	8.57	70.51
571	0	30	85	0	54.09	49.87	8.20	75.99	15.85	65.95
572	0	40	85	0	49.54	42.99	7.35	71.55	23.09	61.61
573	0	55	85	0	43.77	34.24	6.16	65.15	34.49	55.70
574	0	70	85	0	38.53	26.52	4.99	58.53	47.03	50.01
575	0	85	85	0	34.13	20.39	3.94	52.27	59.44	45.14
576	0	100	85	0	31.25	16.59	3.21	47.74	68.72	42.12
577	10	0	85	0	60.34	66.91	10.90	85.46	-9.64	73.07
578	10	10	85	0	55.32	58.69	9.99	81.12	-3.16	68.49
579	10	20	85	0	50.75	51.30	9.11	76.86	3.44	64.16
580	10	30	85	0	46.44	44.36	8.22	72.47	10.60	59.81
581	10	40	85	0	42.57	38.24	7.40	68.20	17.79	55.66
582	10	55	85	0	37.62	30.45	6.25	62.04	28.98	49.94
583	10	70	85	0	33.12	23.56	5.10	55.64	41.37	44.42
584	10	85	85	0	29.32	18.06	4.08	49.57	53.59	39.63
585	10	100	85	0	26.81	14.65	3.37	45.15	62.75	36.56
586	20	0	85	0	51.57	59.34	10.80	81.48	-14.30	66.50
587	20	10	85	0	47.35	52.12	9.93	77.35	-7.89	62.21
588	20	20	85	0	43.49	45.62	9.10	73.30	-1.45	58.06
589	20	30	85	0	39.85	39.50	8.25	69.11	5.59	53.91
590	20	40	85	0	36.55	34.07	7.46	65.02	12.65	49.92
591	20	55	85	0	32.34	27.13	6.34	59.09	23.75	44.43
592	20	70	85	0	28.44	20.93	5.22	52.87	35.98	39.06
593	20	85	85	0	25.15	16.00	4.22	46.97	48.04	34.35
594	20	100	85	0	22.95	12.92	3.51	42.64	57.12	31.31
595	30	0	85	0	43.40	52.18	10.69	77.39	-19.36	59.82
596	30	10	85	0	39.95	45.95	9.85	73.51	-13.06	55.83
597	30	20	85	0	36.78	40.31	9.07	69.69	-6.72	51.94
598	30	30	85	0	33.71	34.91	8.26	65.68	0.16	47.97
599	30	40	85	0	30.93	30.12	7.50	61.76	7.11	44.15
600	30	55	85	0	27.37	23.94	6.41	56.03	18.12	38.83
601	30	70	85	0	24.07	18.45	5.33	50.04	30.18	33.63
602	30	85	85	0	21.24	14.04	4.33	44.29	42.12	29.04

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
603	30	100	85	0	19.36	11.29	3.64	40.07	51.08	26.02
604	40	0	85	0	36.29	45.88	10.58	73.47	-24.63	53.41
605	40	10	85	0	33.47	40.45	9.78	69.79	-18.39	49.66
606	40	20	85	0	30.86	35.53	9.03	66.16	-12.14	45.98
607	40	30	85	0	28.32	30.83	8.27	62.36	-5.40	42.21
608	40	40	85	0	26.02	26.62	7.54	58.62	1.46	38.58
609	40	55	85	0	23.03	21.14	6.49	53.10	12.37	33.46
610	40	70	85	0	20.22	16.23	5.41	47.27	24.34	28.42
611	40	85	85	0	17.83	12.31	4.45	41.71	36.12	23.96
612	40	100	85	0	16.22	9.87	3.76	37.60	44.98	20.97
613	55	0	85	0	27.21	37.74	10.44	67.83	-33.38	44.11
614	55	10	85	0	25.13	33.31	9.69	64.41	-27.21	40.69
615	55	20	85	0	23.20	29.28	8.97	61.03	-21.02	37.34
616	55	30	85	0	21.36	25.46	8.25	57.52	-14.37	33.92
617	55	40	85	0	19.67	22.03	7.58	54.06	-7.63	30.56
618	55	55	85	0	17.39	17.44	6.56	48.81	3.13	25.73
619	55	70	85	0	15.24	13.32	5.52	43.24	14.99	20.94
620	55	85	85	0	13.41	10.05	4.57	37.93	26.60	16.72
621	55	100	85	0	12.19	8.02	3.91	34.03	35.27	13.89
622	70	0	85	0	19.23	30.26	10.29	61.88	-43.58	34.35
623	70	10	85	0	17.79	26.73	9.57	58.72	-37.41	31.27
624	70	20	85	0	16.45	23.51	8.89	55.59	-31.29	28.27
625	70	30	85	0	15.18	20.48	8.22	52.37	-24.70	25.17
626	70	40	85	0	14.00	17.72	7.57	49.15	-18.01	22.12
627	70	55	85	0	12.37	14.00	6.61	44.23	-7.41	17.64
628	70	70	85	0	10.83	10.64	5.60	38.97	4.31	13.18
629	70	85	85	0	9.51	7.98	4.68	33.94	15.73	9.25
630	70	100	85	0	8.62	6.33	4.04	30.24	24.28	6.58
631	85	0	85	0	12.70	23.72	10.15	55.81	-55.15	24.32
632	85	10	85	0	11.79	20.98	9.46	52.93	-48.94	21.69
633	85	20	85	0	10.93	18.47	8.80	50.06	-42.76	19.03
634	85	30	85	0	10.10	16.08	8.15	47.08	-36.20	16.30
635	85	40	85	0	9.33	13.91	7.53	44.11	-29.51	13.58
636	85	55	85	0	8.26	10.98	6.60	39.54	-18.95	9.57
637	85	70	85	0	7.24	8.33	5.64	34.66	-7.44	5.55
638	85	85	85	0	6.34	6.22	4.75	29.95	3.79	2.01
639	85	100	85	0	5.73	4.90	4.13	26.45	12.16	-0.52
640	100	0	85	0	8.35	18.91	10.04	50.58	-65.74	15.69
641	100	10	85	0	7.78	16.74	9.36	47.93	-59.49	13.40
642	100	20	85	0	7.25	14.76	8.72	45.30	-53.22	11.11
643	100	30	85	0	6.72	12.86	8.09	42.55	-46.62	8.71
644	100	40	85	0	6.22	11.12	7.48	39.78	-39.94	6.32
645	100	55	85	0	5.52	8.78	6.58	35.56	-29.49	2.79
646	100	70	85	0	4.85	6.66	5.67	31.02	-18.13	-0.84
647	100	85	85	0	4.24	4.94	4.81	26.57	-7.05	-4.13
648	100	100	85	0	3.82	3.87	4.20	23.25	1.27	-6.47
649	0	0	100	0	69.04	74.04	6.97	88.94	-5.02	93.17

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
650	0	10	100	0	63.08	64.70	6.39	84.33	1.59	87.71
651	0	20	100	0	57.73	56.42	5.84	79.85	8.28	82.53
652	0	30	100	0	52.81	48.73	5.28	75.28	15.64	77.36
653	0	40	100	0	48.41	42.01	4.78	70.88	22.91	72.40
654	0	55	100	0	42.81	33.50	4.08	64.56	34.21	65.50
655	0	70	100	0	37.72	25.96	3.38	58.00	46.70	58.62
656	0	85	100	0	33.47	19.99	2.74	51.83	59.03	52.70
657	0	100	100	0	30.69	16.30	2.28	47.37	68.25	48.79
658	10	0	100	0	58.87	65.44	6.96	84.71	-9.91	85.93
659	10	10	100	0	53.92	57.32	6.42	80.36	-3.40	80.76
660	10	20	100	0	49.45	50.07	5.88	76.11	3.19	75.88
661	10	30	100	0	45.26	43.29	5.35	71.75	10.35	70.93
662	10	40	100	0	41.53	37.34	4.86	67.53	17.55	66.20
663	10	55	100	0	36.77	29.78	4.18	61.46	28.70	59.53
664	10	70	100	0	32.38	23.05	3.50	55.12	40.99	52.90
665	10	85	100	0	28.71	17.70	2.86	49.13	53.13	47.10
666	10	100	100	0	26.31	14.39	2.42	44.79	62.27	43.16
667	20	0	100	0	50.23	57.97	6.95	80.72	-14.57	79.08
668	20	10	100	0	46.06	50.85	6.44	76.59	-8.24	74.15
669	20	20	100	0	42.31	44.48	5.94	72.55	-1.72	69.49
670	20	30	100	0	38.78	38.53	5.43	68.41	5.25	64.78
671	20	40	100	0	35.62	33.26	4.95	64.37	12.34	60.26
672	20	55	100	0	31.53	26.48	4.27	58.49	23.41	53.89
673	20	70	100	0	27.80	20.49	3.61	52.39	35.53	47.46
674	20	85	100	0	24.62	15.69	2.98	46.56	47.54	41.75
675	20	100	100	0	22.53	12.71	2.54	42.32	56.60	37.88
676	30	0	100	0	42.15	50.90	6.96	76.62	-19.76	71.98
677	30	10	100	0	38.79	44.80	6.47	72.76	-13.47	67.43
678	30	20	100	0	35.71	39.29	5.99	68.96	-7.13	63.05
679	30	30	100	0	32.76	34.06	5.50	65.01	-0.30	58.59
680	30	40	100	0	30.08	29.39	5.04	61.12	6.68	54.21
681	30	55	100	0	26.64	23.39	4.37	55.47	17.61	48.11
682	30	70	100	0	23.49	18.06	3.71	49.57	29.65	41.92
683	30	85	100	0	20.79	13.78	3.09	43.91	41.57	36.39
684	30	100	100	0	18.99	11.11	2.66	39.77	50.53	32.54
685	40	0	100	0	35.13	44.71	6.99	72.70	-25.21	65.09
686	40	10	100	0	32.40	39.41	6.50	69.05	-18.97	60.88
687	40	20	100	0	29.90	34.64	6.04	65.47	-12.75	56.78
688	40	30	100	0	27.44	30.05	5.57	61.70	-6.03	52.53
689	40	40	100	0	25.24	25.95	5.11	57.99	0.91	48.43
690	40	55	100	0	22.37	20.64	4.47	52.55	11.74	42.52
691	40	70	100	0	19.71	15.90	3.81	46.84	23.69	36.58
692	40	85	100	0	17.43	12.09	3.20	41.36	35.48	31.21
693	40	100	100	0	15.91	9.71	2.76	37.32	44.40	27.46
694	55	0	100	0	26.22	36.79	7.04	67.12	-34.34	55.26
695	55	10	100	0	24.23	32.47	6.57	63.73	-28.15	51.42
696	55	20	100	0	22.40	28.57	6.12	60.40	-21.96	47.69

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
697	55	30	100	0	20.61	24.82	5.65	56.90	-15.27	43.85
698	55	40	100	0	18.98	21.45	5.21	53.44	-8.45	40.08
699	55	55	100	0	16.83	17.02	4.58	48.28	2.34	34.54
700	55	70	100	0	14.80	13.04	3.94	42.82	14.18	28.85
701	55	85	100	0	13.08	9.86	3.33	37.59	25.93	23.79
702	55	100	100	0	11.92	7.88	2.90	33.74	34.71	20.24
703	70	0	100	0	18.43	29.53	7.10	61.25	-44.98	44.89
704	70	10	100	0	17.06	26.08	6.64	58.11	-38.77	41.43
705	70	20	100	0	15.80	22.96	6.20	55.03	-32.56	38.07
706	70	30	100	0	14.58	19.97	5.75	51.80	-25.88	34.59
707	70	40	100	0	13.46	17.27	5.31	48.60	-19.10	31.21
708	70	55	100	0	11.93	13.67	4.70	43.76	-8.46	26.10
709	70	70	100	0	10.48	10.43	4.06	38.60	3.30	20.84
710	70	85	100	0	9.25	7.84	3.45	33.64	14.93	16.15
711	70	100	100	0	8.41	6.22	3.02	29.96	23.61	12.87
712	85	0	100	0	12.05	23.18	7.17	55.26	-57.16	34.25
713	85	10	100	0	11.19	20.48	6.72	52.38	-50.86	31.21
714	85	20	100	0	10.40	18.04	6.28	49.55	-44.56	28.25
715	85	30	100	0	9.62	15.70	5.85	46.58	-37.83	25.13
716	85	40	100	0	8.92	13.60	5.42	43.66	-30.99	22.16
717	85	55	100	0	7.90	10.74	4.80	39.13	-20.48	17.55
718	85	70	100	0	6.97	8.18	4.16	34.35	-8.77	12.93
719	85	85	100	0	6.14	6.11	3.54	29.69	2.77	8.73
720	85	100	100	0	5.58	4.83	3.10	26.23	11.32	5.82
721	100	0	100	0	7.84	18.52	7.27	50.12	-68.43	25.00
722	100	10	100	0	7.34	16.41	6.82	47.51	-61.89	22.38
723	100	20	100	0	6.85	14.48	6.39	44.91	-55.47	19.77
724	100	30	100	0	6.35	12.60	5.95	42.15	-48.70	17.03
725	100	40	100	0	5.88	10.89	5.53	39.40	-42.00	14.27
726	100	55	100	0	5.24	8.61	4.91	35.22	-31.40	10.23
727	100	70	100	0	4.64	6.55	4.26	30.77	-19.71	6.17
728	100	85	100	0	4.08	4.86	3.63	26.34	-8.33	2.41
729	100	100	100	0	3.68	3.80	3.17	23.00	0.17	-0.25
730	0	0	0	20	56.02	58.25	49.79	80.88	-0.38	-1.99
731	0	10	0	20	51.07	50.97	44.52	76.66	5.14	-3.07
732	0	20	0	20	46.52	44.36	39.58	72.47	10.83	-4.04
733	0	40	0	20	38.35	32.74	30.10	63.95	23.09	-5.07
734	0	70	0	20	28.79	19.57	18.33	51.35	43.87	-5.01
735	0	100	0	20	22.34	11.60	10.53	40.57	63.28	-3.18
736	10	0	0	20	48.96	51.98	48.38	77.27	-3.12	-6.60
737	10	10	0	20	44.67	45.56	43.29	73.26	2.15	-7.42
738	10	20	0	20	40.72	39.72	38.55	69.27	7.60	-8.18
739	10	40	0	20	33.57	29.33	29.54	61.07	19.54	-9.15
740	10	70	0	20	25.10	17.49	18.23	48.87	39.65	-9.07
741	10	100	0	20	19.46	10.34	10.69	38.45	58.60	-7.34
742	20	0	0	20	42.77	46.46	47.01	73.84	-5.91	-10.92
743	20	10	0	20	39.05	40.75	42.11	70.00	-0.77	-11.57

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
744	20	20	0	20	35.61	35.54	37.55	66.17	4.54	-12.18
745	20	40	0	20	29.35	26.25	28.96	58.27	16.20	-13.04
746	20	70	0	20	21.90	15.63	18.11	46.49	35.71	-12.91
747	20	100	0	20	16.94	9.22	10.83	36.40	54.16	-11.29
748	40	0	0	20	31.83	36.54	44.13	66.93	-11.88	-19.38
749	40	10	0	20	29.03	32.02	39.61	63.36	-6.95	-19.78
750	40	20	0	20	26.49	27.96	35.46	59.85	-1.91	-20.16
751	40	40	0	20	21.85	20.67	27.68	52.59	9.17	-20.72
752	40	70	0	20	16.27	12.30	17.79	41.69	27.64	-20.47
753	40	100	0	20	12.47	7.20	11.05	32.25	44.91	-19.15
754	70	0	0	20	19.01	24.53	39.77	56.61	-21.96	-31.64
755	70	10	0	20	17.44	21.61	35.92	53.61	-17.30	-31.57
756	70	20	0	20	15.95	18.91	32.33	50.58	-12.53	-31.57
757	70	40	0	20	13.16	13.98	25.61	44.20	-2.08	-31.63
758	70	70	0	20	9.83	8.39	17.15	34.79	14.63	-30.90
759	70	100	0	20	7.51	4.95	11.31	26.58	29.97	-29.71
760	100	0	0	20	10.28	15.72	35.50	46.61	-32.82	-43.05
761	100	10	0	20	9.44	13.87	32.22	44.05	-28.42	-42.66
762	100	20	0	20	8.66	12.17	29.17	41.48	-23.87	-42.33
763	100	40	0	20	7.16	9.02	23.42	36.03	-14.15	-41.74
764	100	70	0	20	5.37	5.50	16.32	28.12	0.78	-40.46
765	100	100	0	20	4.09	3.32	11.41	21.27	13.76	-39.18
766	0	0	10	20	54.45	56.95	42.54	80.15	-1.16	5.39
767	0	10	10	20	49.80	50.00	38.15	76.07	4.31	4.08
768	0	20	10	20	45.44	43.61	33.97	71.97	9.92	2.87
769	0	40	10	20	37.66	32.35	26.01	63.63	22.24	1.17
770	0	70	10	20	28.48	19.50	15.95	51.27	43.01	0.34
771	0	100	10	20	22.31	11.70	9.23	40.73	62.43	1.42
772	10	0	10	20	47.50	50.89	41.35	76.61	-4.28	0.80
773	10	10	10	20	43.49	44.74	37.16	72.72	1.03	-0.35
774	10	20	10	20	39.72	39.08	33.19	68.81	6.48	-1.42
775	10	40	10	20	32.90	28.98	25.54	60.76	18.52	-2.95
776	10	70	10	20	24.78	17.41	15.87	48.77	38.69	-3.79
777	10	100	10	20	19.37	10.41	9.39	38.56	57.64	-2.85
778	20	0	10	20	41.38	45.45	40.15	73.19	-7.28	-3.54
779	20	10	10	20	37.93	40.02	36.18	69.48	-2.10	-4.58
780	20	20	10	20	34.70	35.03	32.43	65.77	3.18	-5.53
781	20	40	10	20	28.70	25.94	25.08	57.98	14.97	-6.94
782	20	70	10	20	21.57	15.55	15.78	46.38	34.66	-7.69
783	20	100	10	20	16.81	9.26	9.53	36.47	53.14	-6.94
784	40	0	10	20	30.61	35.73	37.67	66.31	-13.69	-12.10
785	40	10	10	20	28.07	31.46	34.06	62.89	-8.67	-12.91
786	40	20	10	20	25.69	27.55	30.67	59.48	-3.61	-13.68
787	40	40	10	20	21.29	20.45	24.08	52.34	7.64	-14.85
788	40	70	10	20	15.95	12.22	15.54	41.57	26.34	-15.39
789	40	100	10	20	12.32	7.22	9.72	32.30	43.62	-14.77
790	70	0	10	20	18.06	24.00	33.99	56.09	-24.63	-24.53

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
791	70	10	10	20	16.60	21.17	30.85	53.13	-19.80	-24.91
792	70	20	10	20	15.23	18.56	27.93	50.17	-14.91	-25.31
793	70	40	10	20	12.65	13.80	22.28	43.94	-4.32	-25.93
794	70	70	10	20	9.51	8.32	15.02	34.64	12.74	-26.05
795	70	100	10	20	7.33	4.94	9.98	26.57	28.31	-25.52
796	100	0	10	20	9.53	15.36	30.43	46.12	-36.56	-36.33
797	100	10	10	20	8.79	13.57	27.73	43.61	-31.88	-36.28
798	100	20	10	20	8.08	11.92	25.20	41.08	-27.23	-36.28
799	100	40	10	20	6.72	8.88	20.36	35.75	-17.25	-36.22
800	100	70	10	20	5.09	5.44	14.32	27.94	-1.87	-35.80
801	100	100	10	20	3.91	3.29	10.09	21.15	11.70	-35.23
802	0	0	20	20	52.99	55.77	35.98	79.48	-2.01	12.95
803	0	10	20	20	48.56	49.05	32.35	75.48	3.50	11.33
804	0	20	20	20	44.41	42.88	28.87	71.47	9.10	9.86
805	0	40	20	20	36.95	31.92	22.26	63.28	21.46	7.45
806	0	70	20	20	28.14	19.40	13.74	51.15	42.21	5.74
807	0	100	20	20	22.20	11.75	8.03	40.82	61.55	5.95
808	10	0	20	20	46.15	49.84	35.00	75.97	-5.30	8.29
809	10	10	20	20	42.32	43.90	31.59	72.16	-0.01	6.77
810	10	20	20	20	38.78	38.46	28.32	68.36	5.47	5.40
811	10	40	20	20	32.24	28.62	21.93	60.44	17.55	3.20
812	10	70	20	20	24.44	17.30	13.71	48.64	37.81	1.49
813	10	100	20	20	19.24	10.44	8.18	38.62	56.73	1.61
814	20	0	20	20	40.14	44.54	34.01	72.59	-8.51	3.89
815	20	10	20	20	36.87	39.30	30.82	68.97	-3.32	2.45
816	20	20	20	20	33.85	34.50	27.77	65.36	2.02	1.14
817	20	40	20	20	28.11	25.66	21.63	57.71	13.84	-0.93
818	20	70	20	20	21.26	15.47	13.68	46.27	33.68	-2.52
819	20	100	20	20	16.67	9.28	8.31	36.52	52.14	-2.49
820	40	0	20	20	29.52	34.98	31.95	65.73	-15.30	-4.88
821	40	10	20	20	27.17	30.90	29.09	62.42	-10.23	-6.10
822	40	20	20	20	24.96	27.17	26.40	59.13	-5.16	-7.27
823	40	40	20	20	20.78	20.24	20.91	52.11	6.20	-9.15
824	40	70	20	20	15.67	12.16	13.54	41.47	25.15	-10.42
825	40	100	20	20	12.15	7.23	8.52	32.32	42.42	-10.53
826	70	0	20	20	17.23	23.52	28.93	55.60	-27.02	-17.60
827	70	10	20	20	15.86	20.76	26.38	52.68	-22.08	-18.35
828	70	20	20	20	14.59	18.24	24.00	49.79	-17.12	-19.10
829	70	40	20	20	12.18	13.63	19.34	43.69	-6.41	-20.40
830	70	70	20	20	9.23	8.25	13.12	34.50	11.03	-21.30
831	70	100	20	20	7.16	4.93	8.75	26.54	26.76	-21.34
832	100	0	20	20	8.88	15.05	25.95	45.70	-40.14	-29.64
833	100	10	20	20	8.20	13.29	23.70	43.19	-35.23	-29.92
834	100	20	20	20	7.56	11.68	21.63	40.71	-30.40	-30.24
835	100	40	20	20	6.34	8.74	17.65	35.48	-20.11	-30.86
836	100	70	20	20	4.84	5.38	12.51	27.78	-4.29	-31.17
837	100	100	20	20	3.76	3.27	8.90	21.11	9.59	-31.21

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
838	0	0	40	20	50.54	53.79	25.20	78.34	-3.49	27.96
839	0	10	40	20	46.40	47.36	22.78	74.42	2.07	25.65
840	0	20	40	20	42.59	41.52	20.45	70.54	7.77	23.57
841	0	40	40	20	35.70	31.12	15.96	62.61	20.21	19.85
842	0	70	40	20	27.47	19.13	10.06	50.84	40.88	16.05
843	0	100	40	20	21.84	11.73	5.97	40.79	59.98	14.58
844	10	0	40	20	43.88	48.06	24.59	74.86	-7.05	23.05
845	10	10	40	20	40.31	42.35	22.30	71.11	-1.60	20.88
846	10	20	40	20	37.04	37.18	20.12	67.41	3.93	18.85
847	10	40	40	20	31.06	27.88	15.84	59.78	16.11	15.27
848	10	70	40	20	23.83	17.08	10.10	48.36	36.36	11.65
849	10	100	40	20	18.93	10.45	6.11	38.63	55.14	10.19
850	20	0	40	20	38.05	42.93	23.99	71.51	-10.44	18.38
851	20	10	40	20	35.00	37.89	21.85	67.94	-5.14	16.28
852	20	20	40	20	32.22	33.35	19.85	64.44	0.23	14.29
853	20	40	40	20	27.04	25.03	15.77	57.10	12.17	10.83
854	20	70	40	20	20.68	15.26	10.14	45.99	32.10	7.45
855	20	100	40	20	16.38	9.29	6.23	36.53	50.48	6.03
856	40	0	40	20	27.77	33.73	22.69	64.75	-17.85	9.16
857	40	10	40	20	25.59	29.81	20.81	61.49	-12.71	7.24
858	40	20	40	20	23.60	26.28	19.08	58.30	-7.51	5.33
859	40	40	40	20	19.86	19.78	15.51	51.59	3.95	1.97
860	40	70	40	20	15.12	11.98	10.17	41.18	23.17	-0.95
861	40	100	40	20	11.89	7.23	6.46	32.32	40.62	-2.26
862	70	0	40	20	15.83	22.65	20.70	54.71	-31.03	-4.24
863	70	10	40	20	14.63	20.05	19.02	51.89	-25.94	-5.59
864	70	20	40	20	13.52	17.68	17.47	49.10	-20.87	-6.98
865	70	40	40	20	11.40	13.30	14.44	43.21	-9.84	-9.78
866	70	70	40	20	8.73	8.10	9.97	34.19	8.21	-12.34
867	70	100	40	20	6.84	4.89	6.71	26.41	24.17	-13.55
868	100	0	40	20	7.83	14.46	18.74	44.89	-45.98	-17.05
869	100	10	40	20	7.27	12.82	17.24	42.49	-40.90	-17.84
870	100	20	40	20	6.73	11.29	15.84	40.07	-35.80	-18.71
871	100	40	40	20	5.72	8.52	13.21	35.04	-25.01	-20.60
872	100	70	40	20	4.43	5.27	9.50	27.48	-8.35	-22.35
873	100	100	40	20	3.48	3.22	6.81	20.89	6.27	-23.50
874	0	0	70	20	47.60	51.22	12.57	76.81	-4.88	53.18
875	0	10	70	20	43.69	45.04	11.46	72.92	0.76	49.72
876	0	20	70	20	40.17	39.51	10.39	69.12	6.53	46.52
877	0	40	70	20	33.88	29.76	8.32	61.45	18.99	40.43
878	0	70	70	20	26.42	18.58	5.55	50.19	39.47	32.79
879	0	100	70	20	21.33	11.63	3.50	40.62	58.33	27.86
880	10	0	70	20	41.05	45.62	12.38	73.30	-8.77	47.69
881	10	10	70	20	37.76	40.23	11.32	69.63	-3.27	44.48
882	10	20	70	20	34.76	35.34	10.31	66.01	2.37	41.41
883	10	40	70	20	29.30	26.59	8.32	58.59	14.66	35.52
884	10	70	70	20	22.84	16.56	5.62	47.70	34.78	28.15

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
885	10	100	70	20	18.41	10.33	3.63	38.43	53.32	23.26
886	20	0	70	20	35.40	40.71	12.20	69.97	-12.52	42.46
887	20	10	70	20	32.63	35.95	11.19	66.48	-7.10	39.44
888	20	20	70	20	30.05	31.61	10.24	63.02	-1.62	36.49
889	20	40	70	20	25.35	23.78	8.33	55.87	10.51	30.79
890	20	70	70	20	19.76	14.79	5.70	45.35	30.34	23.73
891	20	100	70	20	15.89	9.18	3.74	36.32	48.61	18.91
892	40	0	70	20	25.48	31.91	11.77	63.27	-20.84	32.15
893	40	10	70	20	23.53	28.22	10.88	60.09	-15.50	29.39
894	40	20	70	20	21.72	24.86	10.03	56.94	-10.15	26.69
895	40	40	70	20	18.37	18.75	8.32	50.39	1.54	21.37
896	40	70	70	20	14.28	11.58	5.82	40.54	20.86	14.82
897	40	100	70	20	11.45	7.13	3.93	32.11	38.40	10.43
898	70	0	70	20	14.11	21.46	11.15	53.45	-35.86	17.09
899	70	10	70	20	13.07	18.99	10.35	50.68	-30.59	14.85
900	70	20	70	20	12.10	16.76	9.58	47.95	-25.34	12.68
901	70	40	70	20	10.28	12.67	8.11	42.26	-14.01	8.14
902	70	70	70	20	8.03	7.80	5.89	33.56	4.70	2.48
903	70	100	70	20	6.44	4.79	4.16	26.14	21.25	-1.26
904	100	0	70	20	6.60	13.71	10.52	43.82	-53.32	2.46
905	100	10	70	20	6.13	12.15	9.76	41.46	-48.09	0.90
906	100	20	70	20	5.71	10.74	9.06	39.14	-42.81	-0.71
907	100	40	70	20	4.90	8.14	7.75	34.28	-31.49	-4.23
908	100	70	70	20	3.90	5.08	5.82	26.96	-13.53	-8.56
909	100	100	70	20	3.16	3.15	4.31	20.62	2.21	-11.61
910	0	0	100	20	45.12	48.79	5.06	75.32	-5.44	78.59
911	0	10	100	20	41.37	42.85	4.67	71.45	0.18	74.00
912	0	20	100	20	37.99	37.53	4.29	67.67	5.90	69.63
913	0	40	100	20	32.06	28.21	3.55	60.08	18.46	61.07
914	0	70	100	20	25.14	17.72	2.60	49.15	38.60	49.18
915	0	100	100	20	20.49	11.23	1.84	39.97	57.12	40.19
916	10	0	100	20	38.74	43.39	5.08	71.82	-9.60	72.44
917	10	10	100	20	35.58	38.16	4.71	68.14	-4.04	68.07
918	10	20	100	20	32.71	33.46	4.34	64.53	1.62	63.92
919	10	40	100	20	27.62	25.15	3.62	57.22	13.99	55.70
920	10	70	100	20	21.68	15.78	2.68	46.69	33.82	44.28
921	10	100	100	20	17.68	9.99	1.93	37.82	52.07	35.56
922	20	0	100	20	33.26	38.65	5.10	68.50	-13.55	66.60
923	20	10	100	20	30.58	34.04	4.75	64.99	-8.11	62.41
924	20	20	100	20	28.15	29.86	4.39	61.53	-2.50	58.44
925	20	40	100	20	23.79	22.46	3.69	54.51	9.66	50.55
926	20	70	100	20	18.69	14.08	2.76	44.35	29.25	39.61
927	20	100	100	20	15.25	8.88	2.02	35.76	47.27	31.19
928	40	0	100	20	23.62	30.18	5.18	61.81	-22.55	54.64
929	40	10	100	20	21.80	26.65	4.84	58.65	-17.15	51.01
930	40	20	100	20	20.13	23.46	4.50	55.54	-11.76	47.47
931	40	40	100	20	17.00	17.60	3.82	49.01	0.15	40.24

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
932	40	70	100	20	13.38	11.00	2.91	39.58	19.31	30.26
933	40	100	100	20	10.92	6.90	2.17	31.57	36.90	22.52
934	70	0	100	20	12.77	20.35	5.31	52.23	-39.20	37.47
935	70	10	100	20	11.83	18.00	4.98	49.49	-33.81	34.46
936	70	20	100	20	10.97	15.87	4.66	46.80	-28.43	31.52
937	70	40	100	20	9.33	11.95	4.01	41.14	-16.71	25.52
938	70	70	100	20	7.41	7.44	3.11	32.79	2.23	17.06
939	70	100	100	20	6.06	4.62	2.35	25.62	19.44	10.65
940	100	0	100	20	5.70	13.09	5.48	42.90	-59.07	20.56
941	100	10	100	20	5.34	11.63	5.16	40.62	-53.43	18.25
942	100	20	100	20	4.99	10.28	4.84	38.34	-47.89	15.96
943	100	40	100	20	4.29	7.77	4.22	33.50	-36.22	11.08
944	100	70	100	20	3.50	4.88	3.29	26.40	-17.19	4.80
945	100	100	100	20	2.89	3.01	2.48	20.09	-0.19	0.06
946	0	0	0	40	35.23	36.69	31.39	67.04	-0.47	-1.76
947	0	20	0	40	29.48	28.23	25.16	60.10	8.83	-3.42
948	0	40	0	40	24.49	21.08	19.33	53.04	19.07	-4.26
949	0	70	0	40	18.61	12.91	12.01	42.62	36.29	-4.13
950	0	100	0	40	14.58	7.80	7.06	33.57	52.70	-2.66
951	20	0	0	40	27.16	29.51	29.72	61.23	-5.13	-9.16
952	20	20	0	40	22.77	22.79	23.93	54.86	3.63	-10.22
953	20	40	0	40	18.92	17.02	18.63	48.28	13.47	-10.96
954	20	70	0	40	14.35	10.42	11.90	38.59	29.67	-10.77
955	20	100	0	40	11.28	6.34	7.30	30.25	45.19	-9.37
956	40	0	0	40	20.41	23.42	27.98	55.50	-10.20	-16.21
957	40	20	0	40	17.11	18.08	22.66	49.59	-1.72	-16.93
958	40	40	0	40	14.23	13.50	17.85	43.50	7.75	-17.48
959	40	70	0	40	10.82	8.30	11.73	34.60	23.09	-17.15
960	40	100	0	40	8.51	5.07	7.50	26.94	37.52	-15.89
961	70	0	0	40	12.41	15.94	25.33	46.90	-18.66	-26.48
962	70	20	0	40	10.53	12.42	20.77	41.88	-10.50	-26.49
963	70	40	0	40	8.80	9.30	16.62	36.56	-1.43	-26.62
964	70	70	0	40	6.78	5.84	11.40	29.01	12.39	-25.79
965	70	100	0	40	5.36	3.65	7.73	22.48	24.95	-24.50
966	100	0	0	40	6.81	10.35	22.69	38.47	-28.16	-36.16
967	100	20	0	40	5.85	8.16	18.86	34.31	-20.35	-35.56
968	100	40	0	40	4.95	6.18	15.34	29.86	-11.83	-35.08
969	100	70	0	40	3.88	3.98	10.95	23.62	0.52	-33.70
970	100	100	0	40	3.10	2.59	7.87	18.34	10.93	-32.16
971	0	0	20	40	33.28	35.11	22.97	65.83	-2.00	10.49
972	0	20	20	40	28.09	27.27	18.59	59.22	7.23	7.99
973	0	40	20	40	23.57	20.55	14.47	52.45	17.58	6.05
974	0	70	20	40	18.16	12.79	9.13	42.44	34.73	4.72
975	0	100	20	40	14.46	7.91	5.48	33.79	51.02	4.87
976	20	0	20	40	25.47	28.29	21.78	60.15	-7.41	2.99
977	20	20	20	40	21.64	22.14	17.93	54.17	1.40	0.73
978	20	40	20	40	18.13	16.65	14.11	47.82	11.37	-0.99

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
979	20	70	20	40	13.93	10.33	9.12	38.42	27.77	-2.17
980	20	100	20	40	11.07	6.38	5.68	30.35	43.24	-2.07
981	40	0	20	40	18.95	22.43	20.53	54.48	-13.10	-4.29
982	40	20	20	40	16.15	17.59	17.10	48.99	-4.52	-6.31
983	40	40	20	40	13.57	13.26	13.69	43.15	5.14	-7.93
984	40	70	20	40	10.44	8.23	9.06	34.46	20.78	-8.79
985	40	100	20	40	8.26	5.09	5.85	26.98	35.14	-8.68
986	70	0	20	40	11.32	15.34	18.69	46.09	-22.82	-14.88
987	70	20	20	40	9.70	12.04	15.65	41.28	-14.32	-16.17
988	70	40	20	40	8.21	9.12	12.74	36.21	-5.10	-17.30
989	70	70	20	40	6.39	5.76	8.85	28.81	9.24	-17.76
990	70	100	20	40	5.11	3.64	6.05	22.45	22.09	-17.42
991	100	0	20	40	6.00	10.01	16.88	37.86	-34.05	-24.99
992	100	20	20	40	5.20	7.89	14.21	33.76	-25.61	-25.49
993	100	40	20	40	4.45	6.02	11.73	29.46	-16.65	-26.00
994	100	70	20	40	3.54	3.92	8.51	23.40	-3.61	-25.87
995	100	100	20	40	2.88	2.57	6.19	18.24	7.60	-25.34
996	0	0	40	40	31.66	33.83	16.33	64.83	-3.45	22.80
997	0	20	40	40	26.89	26.40	13.37	58.41	5.94	19.26
998	0	40	40	40	22.73	20.02	10.54	51.86	16.36	16.26
999	0	70	40	40	17.70	12.61	6.80	42.17	33.42	13.25
1000	0	100	40	40	14.21	7.91	4.15	33.79	49.48	12.00
1001	20	0	40	40	24.11	27.27	15.59	59.22	-9.21	14.91
1002	20	20	40	40	20.59	21.41	13.01	53.39	-0.26	11.57
1003	20	40	40	40	17.43	16.27	10.45	47.32	9.80	8.72
1004	20	70	40	40	13.53	10.20	6.87	38.20	26.21	6.10
1005	20	100	40	40	10.85	6.38	4.33	30.36	41.57	5.03
1006	40	0	40	40	17.83	21.65	14.80	53.65	-15.35	7.28
1007	40	20	40	40	15.29	17.05	12.56	48.32	-6.63	4.10
1008	40	40	40	40	13.00	13.00	10.32	42.76	3.08	1.28
1009	40	70	40	40	10.07	8.13	6.92	34.25	18.86	-0.90
1010	40	100	40	40	8.05	5.08	4.50	26.97	33.32	-1.74
1011	70	0	40	40	10.46	14.83	13.61	45.40	-26.20	-3.82
1012	70	20	40	40	9.04	11.72	11.59	40.76	-17.53	-6.11
1013	70	40	40	40	7.72	8.94	9.67	35.87	-8.09	-8.46
1014	70	70	40	40	6.07	5.68	6.82	28.60	6.69	-10.22
1015	70	100	40	40	4.88	3.61	4.69	22.34	19.71	-10.79
1016	100	0	40	40	5.37	9.71	12.42	37.31	-38.79	-14.49
1017	100	20	40	40	4.70	7.69	10.59	33.32	-30.01	-15.86
1018	100	40	40	40	4.06	5.90	8.92	29.15	-20.67	-17.42
1019	100	70	40	40	3.28	3.86	6.55	23.19	-6.95	-18.39
1020	100	100	40	40	2.70	2.54	4.80	18.10	4.93	-18.71
1021	0	0	70	40	29.73	32.18	8.46	63.49	-4.83	43.44
1022	0	20	70	40	25.30	25.11	7.06	57.18	4.68	38.03
1023	0	40	70	40	21.53	19.15	5.73	50.86	15.13	33.06
1024	0	70	70	40	16.99	12.25	3.93	41.61	32.01	26.83
1025	0	100	70	40	13.84	7.84	2.57	33.65	47.77	22.64

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
1026	20	0	70	40	22.42	25.88	8.25	57.92	-11.15	34.63
1027	20	20	70	40	19.19	20.31	6.99	52.19	-2.02	29.73
1028	20	40	70	40	16.33	15.48	5.76	46.28	8.19	25.02
1029	20	70	70	40	12.90	9.89	4.04	37.65	24.49	19.34
1030	20	100	70	40	10.50	6.31	2.73	30.19	39.69	15.43
1031	40	0	70	40	16.40	20.55	8.00	52.45	-18.04	26.12
1032	40	20	70	40	14.10	16.18	6.89	47.21	-9.05	21.58
1033	40	40	70	40	12.02	12.35	5.78	41.76	0.84	17.13
1034	40	70	70	40	9.50	7.87	4.13	33.70	16.67	11.96
1035	40	100	70	40	7.73	5.02	2.86	26.78	31.18	8.58
1036	70	0	70	40	9.40	14.14	7.64	44.43	-30.32	13.69
1037	70	20	70	40	8.15	11.17	6.63	39.86	-21.39	10.00
1038	70	40	70	40	7.00	8.56	5.67	35.12	-11.73	6.21
1039	70	70	70	40	5.60	5.49	4.20	28.09	3.59	1.90
1040	70	100	70	40	4.61	3.55	3.03	22.11	17.15	-0.80
1041	100	0	70	40	4.63	9.29	7.28	36.54	-44.72	1.54
1042	100	20	70	40	4.06	7.38	6.32	32.65	-35.72	-1.08
1043	100	40	70	40	3.54	5.68	5.45	28.58	-26.01	-3.99
1044	100	70	70	40	2.93	3.74	4.18	22.80	-11.17	-7.10
1045	100	100	70	40	2.49	2.49	3.17	17.86	1.75	-9.12
1046	0	0	100	40	28.12	30.64	3.61	62.20	-5.51	64.32
1047	0	20	100	40	23.88	23.85	3.11	55.94	3.93	56.98
1048	0	40	100	40	20.33	18.16	2.62	49.69	14.46	49.93
1049	0	70	100	40	16.14	11.70	1.98	40.73	31.02	40.09
1050	0	100	100	40	13.27	7.59	1.48	33.12	46.44	32.36
1051	20	0	100	40	21.07	24.63	3.67	56.71	-12.25	54.47
1052	20	20	100	40	17.97	19.23	3.20	50.95	-3.00	47.71
1053	20	40	100	40	15.29	14.62	2.73	45.11	7.24	41.14
1054	20	70	100	40	12.18	9.43	2.10	36.79	23.33	32.20
1055	20	100	100	40	10.06	6.12	1.59	29.72	38.30	25.20
1056	40	0	100	40	15.24	19.53	3.76	51.30	-19.73	44.59
1057	40	20	100	40	13.07	15.31	3.30	46.05	-10.64	38.58
1058	40	40	100	40	11.10	11.59	2.84	40.56	-0.56	32.48
1059	40	70	100	40	8.88	7.48	2.21	32.87	15.15	24.46
1060	40	100	100	40	7.37	4.86	1.69	26.34	29.69	18.29
1061	70	0	100	40	8.58	13.50	3.88	43.51	-33.32	30.39
1062	70	20	100	40	7.42	10.63	3.44	38.95	-24.20	25.42
1063	70	40	100	40	6.37	8.10	2.99	34.19	-14.24	20.37
1064	70	70	100	40	5.17	5.25	2.36	27.44	1.31	13.73
1065	70	100	100	40	4.34	3.43	1.83	21.69	15.45	8.82
1066	100	0	100	40	4.07	8.94	4.03	35.87	-49.55	16.33
1067	100	20	100	40	3.60	7.11	3.59	32.06	-40.06	12.54
1068	100	40	100	40	3.14	5.47	3.15	28.02	-30.13	8.53
1069	100	70	100	40	2.66	3.62	2.51	22.38	-14.36	3.76
1070	100	100	100	40	2.29	2.39	1.94	17.43	-0.33	0.30
1071	0	0	0	60	19.58	20.43	17.49	52.32	-0.59	-1.47
1072	0	20	0	60	16.64	16.00	14.22	46.98	6.88	-2.73

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
1073	0	40	0	60	14.06	12.21	11.12	41.54	15.15	-3.35
1074	0	70	0	60	10.94	7.78	7.13	33.52	28.62	-3.04
1075	0	100	0	60	8.74	4.90	4.34	26.45	41.59	-1.73
1076	20	0	0	60	15.33	16.67	16.68	47.84	-4.29	-7.33
1077	20	20	0	60	13.06	13.11	13.62	42.93	2.78	-8.12
1078	20	40	0	60	11.05	10.00	10.78	37.85	10.76	-8.65
1079	20	70	0	60	8.62	6.41	7.10	30.43	23.47	-8.25
1080	20	100	0	60	6.94	4.09	4.50	23.97	35.73	-6.91
1081	40	0	0	60	11.72	13.43	15.82	43.40	-8.33	-12.93
1082	40	20	0	60	10.00	10.57	12.99	38.84	-1.46	-13.45
1083	40	40	0	60	8.48	8.08	10.40	34.14	6.25	-13.83
1084	40	70	0	60	6.66	5.22	7.03	27.35	18.30	-13.26
1085	40	100	0	60	5.40	3.38	4.64	21.50	29.70	-11.96
1086	70	0	0	60	7.37	9.38	14.46	36.70	-14.92	-21.08
1087	70	20	0	60	6.39	7.47	12.02	32.85	-8.25	-21.02
1088	70	40	0	60	5.47	5.75	9.77	28.76	-0.84	-21.05
1089	70	70	0	60	4.39	3.83	6.90	23.09	10.07	-20.05
1090	70	100	0	60	3.62	2.57	4.82	18.22	19.92	-18.62
1091	100	0	0	60	4.19	6.26	13.07	30.05	-22.65	-28.82
1092	100	20	0	60	3.70	5.06	11.02	26.89	-16.24	-28.28
1093	100	40	0	60	3.23	3.96	9.12	23.53	-9.21	-27.82
1094	100	70	0	60	2.68	2.74	6.70	18.96	0.69	-26.34
1095	100	100	0	60	2.27	1.94	4.96	15.18	8.84	-24.61
1096	0	0	20	60	18.53	19.60	13.03	51.38	-1.89	8.06
1097	0	20	20	60	15.87	15.49	10.71	46.30	5.47	6.14
1098	0	40	20	60	13.52	11.91	8.50	41.07	13.77	4.65
1099	0	70	20	60	10.67	7.72	5.55	33.39	27.14	3.83
1100	0	100	20	60	8.65	4.97	3.45	26.66	39.98	4.10
1101	20	0	20	60	14.42	16.02	12.45	47.00	-6.18	2.14
1102	20	20	20	60	12.44	12.76	10.40	42.40	0.89	0.41
1103	20	40	20	60	10.60	9.81	8.33	37.50	8.93	-0.90
1104	20	70	20	60	8.37	6.36	5.56	30.31	21.74	-1.56
1105	20	100	20	60	6.82	4.13	3.59	24.09	33.93	-1.23
1106	40	0	20	60	10.93	12.91	11.84	42.63	-10.72	-3.62
1107	40	20	20	60	9.47	10.31	9.99	38.40	-3.79	-5.16
1108	40	40	20	60	8.11	7.95	8.13	33.88	4.05	-6.39
1109	40	70	20	60	6.43	5.19	5.55	27.26	16.29	-6.74
1110	40	100	20	60	5.25	3.40	3.70	21.56	27.58	-6.32
1111	70	0	20	60	6.79	9.08	10.90	36.13	-18.26	-11.98
1112	70	20	20	60	5.94	7.28	9.24	32.43	-11.32	-12.92
1113	70	40	20	60	5.14	5.66	7.65	28.53	-3.77	-13.74
1114	70	70	20	60	4.17	3.79	5.46	22.98	7.47	-13.71
1115	70	100	20	60	3.47	2.57	3.85	18.23	17.47	-13.01
1116	100	0	20	60	3.77	6.10	9.93	29.67	-27.20	-20.00
1117	100	20	20	60	3.35	4.94	8.48	26.56	-20.26	-20.30
1118	100	40	20	60	2.96	3.89	7.12	23.30	-12.86	-20.61
1119	100	70	20	60	2.49	2.71	5.31	18.86	-2.54	-20.06

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
1120	100	100	20	60	2.14	1.94	3.99	15.17	6.13	-19.11
1121	0	0	40	60	17.65	18.93	9.46	50.60	-3.19	17.66
1122	0	20	40	60	15.19	15.02	7.87	45.66	4.25	14.93
1123	0	40	40	60	13.03	11.62	6.33	40.61	12.56	12.61
1124	0	70	40	60	10.38	7.63	4.24	33.19	25.82	10.47
1125	0	100	40	60	8.50	4.99	2.70	26.70	38.45	9.64
1126	20	0	40	60	13.67	15.48	9.11	46.29	-7.77	11.45
1127	20	20	40	60	11.84	12.37	7.72	41.80	-0.62	8.87
1128	20	40	40	60	10.19	9.60	6.31	37.12	7.46	6.68
1129	20	70	40	60	8.13	6.30	4.29	30.16	20.25	4.91
1130	20	100	40	60	6.67	4.14	2.82	24.13	32.32	4.32
1131	40	0	40	60	10.32	12.51	8.72	42.01	-12.67	5.44
1132	40	20	40	60	8.99	10.03	7.51	37.90	-5.64	2.98
1133	40	40	40	60	7.78	7.82	6.27	33.60	2.23	0.81
1134	40	70	40	60	6.21	5.14	4.33	27.12	14.54	-0.56
1135	40	100	40	60	5.11	3.40	2.92	21.58	25.88	-0.86
1136	70	0	40	60	6.31	8.82	8.11	35.64	-21.07	-3.27
1137	70	20	40	60	5.56	7.12	7.00	32.07	-13.99	-5.01
1138	70	40	40	60	4.86	5.57	5.93	28.30	-6.24	-6.78
1139	70	70	40	60	3.98	3.76	4.30	22.85	5.28	-7.75
1140	70	100	40	60	3.32	2.56	3.06	18.19	15.35	-7.73
1141	100	0	40	60	3.43	5.97	7.48	29.34	-30.96	-11.67
1142	100	20	40	60	3.08	4.85	6.46	26.30	-23.71	-12.65
1143	100	40	40	60	2.74	3.84	5.53	23.12	-15.97	-13.78
1144	100	70	40	60	2.34	2.69	4.18	18.77	-5.22	-14.04
1145	100	100	40	60	2.03	1.94	3.16	15.14	3.86	-13.73
1146	0	0	70	60	16.58	18.04	5.21	49.54	-4.48	33.37
1147	0	20	70	60	14.30	14.33	4.43	44.70	3.00	29.21
1148	0	40	70	60	12.34	11.16	3.67	39.84	11.30	25.39
1149	0	70	70	60	9.96	7.43	2.62	32.77	24.37	20.72
1150	0	100	70	60	8.27	4.96	1.81	26.62	36.75	17.54
1151	20	0	70	60	12.74	14.75	5.11	45.29	-9.51	26.52
1152	20	20	70	60	11.06	11.80	4.41	40.89	-2.26	22.75
1153	20	40	70	60	9.57	9.19	3.71	36.34	5.91	19.13
1154	20	70	70	60	7.75	6.14	2.69	29.76	18.56	14.97
1155	20	100	70	60	6.46	4.11	1.90	24.03	30.48	12.13
1156	40	0	70	60	9.53	11.93	5.00	41.11	-14.98	19.88
1157	40	20	70	60	8.33	9.58	4.37	37.08	-7.77	16.39
1158	40	40	70	60	7.23	7.48	3.74	32.87	0.20	12.97
1159	40	70	70	60	5.88	5.01	2.76	26.76	12.51	9.28
1160	40	100	70	60	4.92	3.38	1.98	21.49	23.84	6.96
1161	70	0	70	60	5.75	8.49	4.83	34.98	-24.43	10.22
1162	70	20	70	60	5.08	6.85	4.25	31.46	-17.16	7.42
1163	70	40	70	60	4.47	5.39	3.69	27.81	-9.27	4.55
1164	70	70	70	60	3.71	3.67	2.82	22.54	2.63	1.58
1165	70	100	70	60	3.16	2.54	2.11	18.08	13.09	-0.15
1166	100	0	70	60	3.04	5.79	4.64	28.88	-35.53	0.73

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
1167	100	20	70	60	2.74	4.72	4.09	25.91	-28.10	-1.19
1168	100	40	70	60	2.46	3.74	3.57	22.80	-20.08	-3.33
1169	100	70	70	60	2.14	2.65	2.83	18.57	-8.49	-5.35
1170	100	100	70	60	1.90	1.91	2.23	15.00	1.47	-6.55
1171	0	0	100	60	15.67	17.22	2.47	48.53	-5.30	49.19
1172	0	20	100	60	13.50	13.67	2.17	43.75	2.11	43.56
1173	0	40	100	60	11.67	10.64	1.87	38.96	10.44	38.14
1174	0	70	100	60	9.47	7.14	1.48	32.12	23.27	30.62
1175	0	100	100	60	7.92	4.82	1.16	26.22	35.38	24.54
1176	20	0	100	60	11.99	14.10	2.52	44.37	-10.64	41.58
1177	20	20	100	60	10.39	11.23	2.24	39.97	-3.33	36.41
1178	20	40	100	60	8.99	8.74	1.95	35.48	4.85	31.36
1179	20	70	100	60	7.34	5.90	1.56	29.15	17.31	24.62
1180	20	100	100	60	6.19	4.01	1.23	23.71	29.03	19.28
1181	40	0	100	60	8.90	11.41	2.59	40.26	-16.54	33.94
1182	40	20	100	60	7.76	9.13	2.31	36.24	-9.30	29.34
1183	40	40	100	60	6.72	7.09	2.03	32.02	-1.20	24.66
1184	40	70	100	60	5.53	4.81	1.63	26.19	10.97	18.73
1185	40	100	100	60	4.70	3.30	1.29	21.21	22.31	14.17
1186	70	0	100	60	5.29	8.17	2.68	34.34	-26.96	22.97
1187	70	20	100	60	4.68	6.59	2.41	30.85	-19.58	19.22
1188	70	40	100	60	4.11	5.17	2.13	27.20	-11.50	15.41
1189	70	70	100	60	3.46	3.55	1.73	22.13	0.56	10.58
1190	70	100	100	60	3.00	2.48	1.39	17.82	11.47	7.05
1191	100	0	100	60	2.73	5.63	2.78	28.47	-39.38	12.04
1192	100	20	100	60	2.48	4.60	2.51	25.57	-31.59	9.27
1193	100	40	100	60	2.23	3.65	2.23	22.49	-23.42	6.33
1194	100	70	100	60	1.98	2.59	1.84	18.34	-11.08	2.93
1195	100	100	100	60	1.78	1.86	1.49	14.72	-0.24	0.46
1196	0	0	0	80	8.32	8.70	7.39	35.39	-0.56	-0.87
1197	0	40	0	80	6.30	5.56	5.00	28.28	10.57	-2.21
1198	0	70	0	80	5.15	3.81	3.38	23.03	20.05	-1.68
1199	0	100	0	80	4.33	2.62	2.20	18.47	29.13	-0.29
1200	40	0	0	80	5.34	6.05	6.97	29.54	-5.76	-9.23
1201	40	40	0	80	4.14	3.96	4.82	23.55	4.64	-9.41
1202	40	70	0	80	3.44	2.77	3.40	19.11	13.31	-8.53
1203	40	100	0	80	2.95	1.98	2.34	15.36	21.17	-6.93
1204	70	0	0	80	3.58	4.44	6.54	25.07	-10.22	-15.11
1205	70	40	0	80	2.87	2.98	4.62	19.98	-0.11	-14.47
1206	70	70	0	80	2.45	2.16	3.38	16.29	7.90	-13.25
1207	70	100	0	80	2.16	1.61	2.46	13.29	14.63	-11.51
1208	100	0	0	80	2.20	3.13	6.02	20.56	-15.73	-20.54
1209	100	40	0	80	1.86	2.19	4.36	16.43	-5.72	-19.15
1210	100	70	0	80	1.67	1.66	3.33	13.59	1.79	-17.57
1211	100	100	0	80	1.53	1.32	2.58	11.44	7.47	-15.70
1212	0	0	40	80	7.58	8.15	4.32	34.30	-2.64	11.88
1213	0	40	40	80	5.87	5.35	3.09	27.71	8.32	8.45

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
1214	0	70	40	80	4.90	3.77	2.20	22.90	17.47	7.31
1215	0	100	40	80	4.21	2.71	1.51	18.83	25.95	7.34
1216	40	0	40	80	4.76	5.72	4.14	28.69	-9.22	3.26
1217	40	40	40	80	3.81	3.86	3.12	23.19	1.39	0.46
1218	40	70	40	80	3.22	2.75	2.28	19.02	10.14	-0.08
1219	40	100	40	80	2.82	2.03	1.64	15.63	17.68	0.37
1220	70	0	40	80	3.13	4.24	3.94	24.46	-14.97	-2.80
1221	70	40	40	80	2.59	2.93	3.01	19.74	-4.32	-4.71
1222	70	70	40	80	2.26	2.15	2.30	16.25	4.06	-5.00
1223	70	100	40	80	2.02	1.64	1.74	13.49	10.71	-4.38
1224	100	0	40	80	1.88	3.05	3.67	20.24	-21.74	-8.39
1225	100	40	40	80	1.66	2.18	2.85	16.40	-10.69	-9.25
1226	100	70	40	80	1.52	1.68	2.27	13.69	-2.65	-9.15
1227	100	100	40	80	1.42	1.35	1.83	11.65	3.40	-8.51
1228	0	0	70	80	7.16	7.83	2.65	33.63	-3.81	21.97
1229	0	40	70	80	5.59	5.19	2.00	27.26	7.03	16.71
1230	0	70	70	80	4.71	3.71	1.52	22.70	15.97	13.89
1231	0	100	70	80	4.10	2.72	1.13	18.87	24.16	12.27
1232	40	0	70	80	4.44	5.51	2.62	28.14	-11.09	12.80
1233	40	40	70	80	3.59	3.75	2.05	22.82	-0.41	8.55
1234	40	70	70	80	3.09	2.73	1.61	18.91	8.27	6.38
1235	40	100	70	80	2.73	2.04	1.24	15.70	15.74	5.33
1236	70	0	70	80	2.89	4.13	2.56	24.11	-17.53	6.29
1237	70	40	70	80	2.43	2.88	2.05	19.55	-6.69	2.95
1238	70	70	70	80	2.14	2.14	1.65	16.19	1.83	1.22
1239	70	100	70	80	1.94	1.66	1.32	13.57	8.62	0.56
1240	100	0	70	80	1.73	3.02	2.47	20.13	-24.85	0.16
1241	100	40	70	80	1.55	2.18	2.00	16.39	-13.48	-2.06
1242	100	70	70	80	1.44	1.69	1.67	13.74	-5.10	-3.24
1243	100	100	70	80	1.36	1.37	1.41	11.76	1.20	-3.68
1244	0	0	100	80	6.80	7.54	1.52	33.00	-4.67	31.72
1245	0	40	100	80	5.32	5.01	1.22	26.76	6.07	24.60
1246	0	70	100	80	4.51	3.62	1.02	22.36	14.79	19.86
1247	0	100	100	80	3.94	2.67	0.86	18.68	22.77	16.15
1248	40	0	100	80	4.18	5.32	1.57	27.62	-12.40	21.81
1249	40	40	100	80	3.40	3.64	1.30	22.44	-1.72	16.13
1250	40	70	100	80	2.95	2.68	1.10	18.70	6.84	12.36
1251	40	100	100	80	2.63	2.03	0.94	15.62	14.29	9.57
1252	70	0	100	80	2.72	4.04	1.62	23.81	-19.42	14.67
1253	70	40	100	80	2.30	2.83	1.35	19.34	-8.38	10.11
1254	70	70	100	80	2.05	2.12	1.17	16.10	0.15	7.00
1255	70	100	100	80	1.87	1.65	1.01	13.53	7.14	4.86
1256	100	0	100	80	1.62	3.01	1.67	20.08	-27.34	7.72
1257	100	40	100	80	1.47	2.17	1.41	16.35	-15.49	4.32
1258	100	70	100	80	1.38	1.69	1.23	13.76	-6.87	2.04
1259	100	100	100	80	1.31	1.37	1.10	11.76	-0.26	0.46
1260	0	0	0	100	1.84	1.90	1.58	14.95	0.19	-0.14

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
1261	0	40	0	100	1.63	1.47	1.23	12.41	5.76	-0.28
1262	0	100	0	100	1.44	1.03	0.74	9.23	14.29	2.02
1263	40	0	0	100	1.41	1.56	1.68	12.97	-2.63	-4.68
1264	40	40	0	100	1.29	1.24	1.31	10.84	3.14	-3.93
1265	40	100	0	100	1.20	0.92	0.81	8.28	11.23	-0.92
1266	100	0	0	100	0.82	1.04	1.65	9.29	-7.09	-10.73
1267	100	40	0	100	0.84	0.90	1.28	8.11	-0.97	-8.34
1268	100	100	0	100	0.88	0.75	0.87	6.78	6.18	-4.50
1269	0	0	40	100	1.72	1.85	1.15	14.68	-1.71	4.80
1270	0	40	40	100	1.52	1.44	0.93	12.20	3.87	3.83
1271	0	100	40	100	1.39	1.07	0.61	9.58	11.38	4.96
1272	40	0	40	100	1.28	1.51	1.18	12.66	-5.05	0.91
1273	40	40	40	100	1.19	1.21	0.98	10.62	0.89	0.25
1274	40	100	40	100	1.14	0.94	0.67	8.47	8.35	1.92
1275	100	0	40	100	0.76	1.08	1.13	9.61	-10.75	-3.76
1276	100	40	40	100	0.79	0.92	0.97	8.34	-3.97	-3.48
1277	100	100	40	100	0.85	0.80	0.77	7.22	3.36	-2.00
1278	0	0	100	100	1.65	1.86	0.78	14.73	-3.68	10.78
1279	0	40	100	100	1.45	1.46	0.67	12.32	1.42	8.68
1280	0	100	100	100	1.35	1.15	0.57	10.16	7.87	6.80
1281	40	0	100	100	1.22	1.52	0.75	12.74	-7.40	7.74
1282	40	40	100	100	1.13	1.24	0.68	10.81	-1.85	5.79
1283	40	100	100	100	1.11	1.01	0.60	9.06	4.93	4.38
1284	100	0	100	100	0.77	1.16	0.76	10.24	-13.05	3.39
1285	100	40	100	100	0.79	1.00	0.73	8.98	-6.73	1.74
1286	100	100	100	100	0.87	0.89	0.74	8.06	0.44	0.02
1287	100	0	0	0	14.97	22.89	52.78	54.96	-37.12	-50.00
1288	98	0	0	0	15.59	23.58	53.22	55.66	-36.46	-49.26
1289	95	0	0	0	16.56	24.62	53.85	56.70	-35.46	-48.15
1290	90	0	0	0	18.32	26.48	54.92	58.49	-33.62	-46.21
1291	85	0	0	0	20.32	28.54	56.04	60.37	-31.64	-44.14
1292	80	0	0	0	22.60	30.85	57.20	62.38	-29.58	-41.88
1293	75	0	0	0	25.20	33.42	58.38	64.50	-27.32	-39.44
1294	70	0	0	0	27.95	36.11	59.56	66.60	-25.13	-37.01
1295	60	0	0	0	33.85	41.75	61.84	70.70	-20.99	-32.20
1296	50	0	0	0	40.27	47.79	64.04	74.69	-17.15	-27.45
1297	40	0	0	0	47.33	54.31	66.24	78.64	-13.52	-22.72
1298	30	0	0	0	55.20	61.49	68.43	82.64	-9.99	-17.85
1299	25	0	0	0	59.51	65.38	69.48	84.68	-8.25	-15.29
1300	20	0	0	0	64.07	69.48	70.49	86.74	-6.53	-12.65
1301	15	0	0	0	68.63	73.55	71.47	88.71	-4.91	-10.13
1302	10	0	0	0	73.59	77.96	72.47	90.76	-3.24	-7.48
1303	7	0	0	0	76.75	80.75	73.08	92.02	-2.23	-5.84
1304	5	0	0	0	78.90	82.67	73.49	92.87	-1.59	-4.74
1305	3	0	0	0	81.10	84.62	73.90	93.72	-0.96	-3.63
1306	2	0	0	0	82.22	85.62	74.11	94.15	-0.65	-3.07
1307	0	100	0	0	32.98	16.74	14.97	47.93	74.11	-3.01

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
1308	0	98	0	0	33.45	17.26	15.51	48.58	72.97	-3.22
1309	0	95	0	0	34.17	18.05	16.33	49.56	71.26	-3.53
1310	0	90	0	0	35.48	19.54	17.84	51.31	68.15	-3.99
1311	0	85	0	0	36.95	21.28	19.58	53.25	64.68	-4.44
1312	0	80	0	0	38.65	23.35	21.67	55.43	60.77	-4.93
1313	0	75	0	0	40.60	25.84	24.11	57.88	56.32	-5.35
1314	0	70	0	0	42.67	28.51	26.69	60.35	51.93	-5.67
1315	0	60	0	0	47.14	34.45	32.25	65.32	43.38	-6.04
1316	0	50	0	0	52.01	41.09	38.21	70.24	35.30	-6.06
1317	0	40	0	0	57.26	48.44	44.59	75.10	27.61	-5.85
1318	0	30	0	0	63.19	56.73	51.49	80.03	20.38	-5.35
1319	0	25	0	0	66.42	61.32	55.16	82.55	16.79	-4.98
1320	0	20	0	0	69.84	66.22	59.01	85.11	13.22	-4.54
1321	0	15	0	0	73.26	71.15	62.68	87.56	9.87	-3.95
1322	0	10	0	0	76.85	76.39	66.51	90.04	6.51	-3.32
1323	0	7	0	0	79.08	79.68	68.88	91.54	4.50	-2.92
1324	0	5	0	0	80.60	81.90	70.47	92.53	3.20	-2.65
1325	0	3	0	0	82.14	84.16	72.07	93.52	1.91	-2.37
1326	0	2	0	0	82.90	85.30	72.87	94.01	1.27	-2.23
1327	0	0	100	0	69.04	74.04	6.97	88.94	-5.02	93.17
1328	0	0	98	0	69.25	74.25	7.41	89.04	-5.00	91.52
1329	0	0	95	0	69.56	74.57	8.12	89.19	-4.98	89.03
1330	0	0	90	0	70.10	75.12	9.45	89.45	-4.93	84.68
1331	0	0	85	0	70.68	75.70	11.04	89.72	-4.87	79.97
1332	0	0	80	0	71.25	76.28	12.99	89.99	-4.81	74.74
1333	0	0	75	0	71.90	76.91	15.36	90.28	-4.69	69.03
1334	0	0	70	0	72.54	77.52	17.88	90.56	-4.57	63.58
1335	0	0	60	0	73.82	78.75	23.35	91.12	-4.31	53.38
1336	0	0	50	0	75.17	79.95	29.56	91.66	-3.87	43.57
1337	0	0	40	0	76.65	81.18	36.70	92.21	-3.24	33.89
1338	0	0	30	0	78.37	82.60	44.56	92.84	-2.51	24.77
1339	0	0	25	0	79.24	83.31	48.77	93.15	-2.14	20.33
1340	0	0	20	0	80.11	84.02	53.19	93.46	-1.76	15.94
1341	0	0	15	0	81.14	84.85	58.05	93.82	-1.31	11.45
1342	0	0	10	0	82.23	85.74	63.32	94.20	-0.85	6.88
1343	0	0	7	0	82.91	86.30	66.68	94.44	-0.58	4.11
1344	0	0	5	0	83.36	86.68	68.88	94.60	-0.41	2.36
1345	0	0	3	0	83.80	87.05	71.10	94.76	-0.26	0.63
1346	0	0	2	0	84.02	87.24	72.22	94.84	-0.18	-0.23
1347	0	0	0	100	1.84	1.90	1.58	14.95	0.19	-0.14
1348	0	0	0	98	2.25	2.33	1.94	17.12	0.11	-0.22
1349	0	0	0	95	2.98	3.09	2.59	20.39	-0.02	-0.35
1350	0	0	0	90	4.42	4.60	3.88	25.57	-0.21	-0.53
1351	0	0	0	85	6.20	6.47	5.48	30.56	-0.39	-0.71
1352	0	0	0	80	8.32	8.70	7.39	35.39	-0.56	-0.87
1353	0	0	0	75	10.63	11.10	9.45	39.75	-0.57	-1.02
1354	0	0	0	70	13.27	13.85	11.82	44.02	-0.58	-1.18

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
1355	0	0	0	60	19.58	20.43	17.49	52.32	-0.59	-1.47
1356	0	0	0	50	26.74	27.87	23.85	59.77	-0.53	-1.61
1357	0	0	0	40	35.23	36.69	31.39	67.04	-0.47	-1.76
1358	0	0	0	30	44.85	46.67	39.91	73.98	-0.43	-1.87
1359	0	0	0	25	50.23	52.25	44.67	77.43	-0.40	-1.93
1360	0	0	0	20	56.02	58.25	49.79	80.88	-0.38	-1.99
1361	0	0	0	15	62.39	64.84	55.34	84.40	-0.29	-1.98
1362	0	0	0	10	69.25	71.92	61.32	87.93	-0.20	-1.98
1363	0	0	0	7	73.60	76.41	65.09	90.05	-0.15	-1.97
1364	0	0	0	5	76.62	79.52	67.71	91.47	-0.11	-1.97
1365	0	0	0	3	79.69	82.69	70.37	92.88	-0.08	-1.96
1366	0	0	0	2	81.27	84.32	71.74	93.59	-0.06	-1.96
1367	0	0	0	0	84.47	87.62	74.52	95.00	-0.02	-1.96
1368	100	85	85	0	4.24	4.94	4.81	26.57	-7.05	-4.13
1369	80	65	65	0	9.26	10.22	9.41	38.23	-4.77	-3.50
1370	60	45	45	0	19.10	20.41	18.27	52.30	-2.93	-3.25
1371	40	27	27	0	33.95	35.86	32.12	66.41	-2.16	-3.96
1372	20	12	12	0	55.34	57.84	50.83	80.65	-1.08	-3.55
1373	10	6	6	0	68.45	71.15	61.70	87.56	-0.34	-3.00
1374	5	3	3	0	76.12	78.97	67.84	91.22	-0.04	-2.52
1375	40	27	27	10	28.12	29.73	26.76	61.42	-2.14	-3.94
1376	20	12	12	10	45.57	47.69	42.01	74.63	-1.19	-3.45
1377	10	6	6	10	56.22	58.53	50.86	81.03	-0.52	-2.93
1378	60	45	45	20	13.23	14.14	12.91	44.43	-2.56	-3.58
1379	40	27	27	20	23.03	24.37	22.06	56.46	-2.12	-3.93
1380	20	12	12	20	37.04	38.83	34.29	68.63	-1.31	-3.35
1381	10	6	6	20	45.59	47.53	41.40	74.53	-0.69	-2.85
1382	80	65	65	40	4.75	5.22	4.85	27.36	-3.55	-3.01
1383	60	45	45	40	8.87	9.47	8.71	36.87	-2.14	-3.36
1384	40	27	27	40	14.95	15.85	14.41	46.78	-1.97	-3.57
1385	20	12	12	40	23.62	24.81	21.95	56.89	-1.34	-2.96
1386	10	6	6	40	28.86	30.15	26.28	61.78	-0.79	-2.50
1387	100	85	85	60	1.92	2.18	1.98	16.39	-4.00	-1.89
1388	80	65	65	60	3.22	3.51	3.20	21.97	-2.71	-2.23
1389	60	45	45	60	5.50	5.86	5.38	29.06	-1.71	-2.81
1390	40	27	27	60	8.83	9.37	8.53	36.69	-1.77	-3.01
1391	20	12	12	60	13.47	14.18	12.55	44.49	-1.27	-2.48
1392	10	6	6	60	16.25	17.01	14.84	48.27	-0.84	-2.09
1393	100	85	85	80	1.36	1.50	1.30	12.58	-2.32	-0.92
1394	80	65	65	80	1.91	2.06	1.83	15.79	-1.64	-1.37
1395	60	45	45	80	2.88	3.06	2.76	20.29	-1.28	-1.90
1396	40	27	27	80	4.22	4.47	4.05	25.18	-1.27	-2.25
1397	20	12	12	80	6.03	6.35	5.60	30.27	-1.01	-1.83
1398	10	6	6	80	7.08	7.42	6.45	32.75	-0.73	-1.45
1399	100	85	85	100	0.85	0.89	0.74	8.01	-0.22	-0.15
1400	80	65	65	100	0.90	0.94	0.78	8.48	-0.16	-0.02
1401	60	45	45	100	1.04	1.08	0.93	9.67	-0.18	-0.63

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
1402	40	27	27	100	1.24	1.30	1.15	11.29	-0.35	-1.13
1403	20	12	12	100	1.52	1.58	1.38	13.12	-0.28	-0.92
1404	10	6	6	100	1.67	1.73	1.48	14.01	-0.06	-0.61
1405	100	0	0	70	3.11	4.55	9.15	25.40	-19.29	-24.71
1406	0	100	0	70	6.32	3.67	3.17	22.54	35.46	-1.07
1407	0	0	100	70	10.70	11.80	1.97	40.90	-5.02	40.54
1408	100	100	0	70	1.88	1.62	3.67	13.37	8.04	-20.25
1409	100	0	100	70	2.14	4.21	2.19	24.36	-33.41	9.90
1410	0	100	100	70	5.73	3.66	1.00	22.50	29.20	20.37
1411	40	40	0	70	6.10	5.82	7.30	28.95	5.44	-11.64
1412	40	0	40	70	7.24	8.74	6.20	35.48	-10.95	4.36
1413	0	40	40	70	9.04	8.14	4.55	34.28	10.45	10.54
1414	3	3	0	0	78.88	81.31	71.48	92.27	0.94	-4.00
1415	3	0	3	0	80.43	84.09	70.51	93.49	-1.26	-1.03
1416	0	3	3	0	81.50	83.63	68.77	93.29	1.67	0.20
1417	3	3	3	0	78.25	80.82	68.21	92.05	0.64	-1.43
1418	3	0	0	3	76.52	79.88	69.79	91.63	-1.00	-3.59
1419	0	3	0	3	77.49	79.43	68.06	91.43	1.81	-2.36
1420	3	3	0	3	74.41	76.74	67.50	90.20	0.86	-3.96
1421	0	0	3	3	79.05	82.15	67.16	92.64	-0.31	0.56
1422	3	0	3	3	75.89	79.37	66.59	91.40	-1.29	-1.05
1423	0	3	3	3	76.90	78.95	64.98	91.21	1.57	0.14
1424	3	3	3	3	73.83	76.28	64.42	89.99	0.57	-1.44
1425	7	7	0	0	71.88	73.51	67.56	88.69	2.11	-6.62
1426	7	0	7	0	75.22	79.59	65.38	91.50	-3.08	0.26
1427	0	7	7	0	77.73	78.62	61.71	91.06	3.89	3.03
1428	7	7	7	0	70.57	72.57	60.54	88.24	1.29	-0.68
1429	7	0	0	7	66.91	70.46	63.81	87.22	-2.24	-5.63
1430	0	7	0	7	68.94	69.54	60.19	86.77	4.13	-2.86
1431	7	7	0	7	62.69	64.18	59.01	84.06	1.87	-6.35
1432	0	0	7	7	72.21	75.23	58.30	89.50	-0.69	3.75
1433	7	0	7	7	65.57	69.44	57.16	86.72	-3.06	0.12
1434	0	7	7	7	67.73	68.59	53.98	86.30	3.53	2.74
1435	7	7	7	7	61.55	63.36	52.96	83.63	1.08	-0.76
1436	40	3	0	0	46.01	52.18	64.07	77.39	-11.82	-22.83
1437	3	40	0	0	55.00	46.86	44.33	74.10	26.31	-7.26
1438	40	0	3	0	46.77	53.95	63.12	78.43	-14.16	-20.12
1439	40	3	3	0	45.50	51.87	61.11	77.20	-12.45	-20.28
1440	0	40	3	0	56.96	48.26	42.65	74.99	27.33	-3.64
1441	3	40	3	0	54.70	46.69	42.41	73.99	26.02	-5.06
1442	40	40	3	0	31.92	30.25	39.16	61.87	10.25	-21.76
1443	3	0	40	0	73.41	78.42	36.43	90.97	-4.51	32.12
1444	0	3	40	0	74.66	78.09	35.61	90.82	-1.29	33.02
1445	3	3	40	0	71.50	75.42	35.34	89.59	-2.57	31.28
1446	40	3	40	0	40.19	48.21	32.06	74.96	-18.58	10.87
1447	3	40	40	0	51.17	44.47	22.80	72.54	23.18	22.38
1448	40	0	0	3	44.73	51.33	62.52	76.88	-13.27	-22.21

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
1449	40	3	0	3	43.48	49.32	60.47	75.65	-11.61	-22.32
1450	0	40	0	3	54.10	45.82	42.17	73.43	26.93	-5.73
1451	3	40	0	3	51.97	44.33	41.94	72.45	25.66	-7.12
1452	40	40	0	3	30.46	28.75	38.67	60.56	10.53	-23.37
1453	40	0	3	3	44.20	50.99	59.59	76.67	-13.90	-19.68
1454	40	3	3	3	43.00	49.01	57.69	75.46	-12.23	-19.84
1455	0	40	3	3	53.81	45.65	40.35	73.32	26.65	-3.58
1456	3	40	3	3	51.68	44.17	40.12	72.34	25.37	-4.97
1457	40	40	3	3	30.21	28.64	37.05	60.46	10.02	-21.34
1458	0	0	40	3	72.27	76.58	34.80	90.13	-3.27	32.99
1459	3	0	40	3	69.21	73.97	34.53	88.91	-4.52	31.27
1460	40	0	40	3	38.98	47.35	31.24	74.41	-19.99	11.18
1461	0	3	40	3	70.38	73.66	33.75	88.76	-1.37	32.15
1462	3	3	40	3	67.43	71.18	33.51	87.57	-2.62	30.45
1463	40	3	40	3	38.00	45.59	30.41	73.28	-18.24	10.52
1464	0	40	40	3	50.44	43.51	21.72	71.90	23.99	23.36
1465	3	40	40	3	48.34	42.07	21.66	70.92	22.54	21.79
1466	40	40	40	3	27.60	27.39	21.08	59.33	4.83	2.97
1467	3	0	0	40	33.90	35.51	31.13	66.14	-1.15	-2.91
1468	0	3	0	40	34.31	35.32	30.41	66.00	0.88	-2.02
1469	3	3	0	40	33.03	34.20	30.16	65.12	0.18	-3.15
1470	40	3	0	40	19.88	22.54	27.13	54.60	-8.95	-16.32
1471	3	40	0	40	23.58	20.43	19.23	52.32	18.20	-5.29
1472	0	0	3	40	34.93	36.43	30.04	66.85	-0.68	0.02
1473	3	0	3	40	33.61	35.27	29.80	65.96	-1.39	-1.13
1474	40	0	3	40	20.18	23.26	26.76	55.34	-10.66	-14.43
1475	0	3	3	40	34.03	35.09	29.11	65.82	0.67	-0.26
1476	3	3	3	40	32.75	33.98	28.88	64.95	-0.06	-1.39
1477	40	3	3	40	19.66	22.41	25.97	54.46	-9.41	-14.57
1478	0	40	3	40	24.36	21.01	18.56	52.96	18.84	-2.74
1479	3	40	3	40	23.45	20.36	18.46	52.24	17.96	-3.77
1480	40	40	3	40	14.12	13.45	17.17	43.44	7.35	-16.04
1481	3	0	40	40	30.42	32.77	16.22	63.97	-4.33	21.59
1482	0	3	40	40	30.90	32.63	15.87	63.86	-2.08	22.23
1483	3	3	40	40	29.69	31.61	15.77	63.02	-2.96	21.03
1484	40	3	40	40	17.42	20.90	14.44	52.84	-14.06	6.80
1485	3	40	40	40	21.85	19.41	10.52	51.16	15.35	15.11
1486	0	0	0	10	69.25	71.92	61.32	87.93	-0.20	-1.98
1487	0	0	10	10	67.35	70.33	52.22	87.16	-1.01	6.13
1488	0	0	20	10	65.60	68.91	44.01	86.46	-1.89	14.44
1489	0	0	40	10	62.67	66.52	30.58	85.26	-3.36	30.91
1490	0	0	70	10	59.17	63.43	15.07	83.67	-4.72	58.36
1491	0	10	0	10	63.07	62.81	54.76	83.34	5.83	-3.19
1492	0	10	10	10	61.51	61.62	46.77	82.71	4.95	4.66
1493	0	10	20	10	60.03	60.46	39.52	82.09	4.13	12.62
1494	0	10	40	10	57.44	58.44	27.61	80.98	2.69	28.35
1495	0	10	70	10	54.20	55.64	13.71	79.41	1.41	54.55

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
1496	0	20	0	10	57.38	54.55	48.63	78.78	12.02	-4.29
1497	0	20	10	10	56.04	53.62	41.58	78.24	11.07	3.31
1498	0	20	20	10	54.81	52.74	35.22	77.72	10.22	10.99
1499	0	20	40	10	52.62	51.08	24.73	76.73	8.91	26.03
1500	0	20	70	10	49.74	48.68	12.38	75.25	7.69	51.04
1501	0	40	0	10	47.17	40.07	36.86	69.52	25.34	-5.46
1502	0	40	10	10	46.31	39.58	31.73	69.17	24.45	1.40
1503	0	40	20	10	45.45	39.05	27.03	68.79	23.66	8.31
1504	0	40	40	10	43.95	38.07	19.21	68.07	22.43	21.91
1505	0	40	70	10	41.79	36.46	9.87	66.87	21.20	44.34
1506	0	70	0	10	35.25	23.75	22.24	55.84	47.88	-5.34
1507	0	70	10	10	34.89	23.67	19.28	55.76	47.00	0.52
1508	0	70	20	10	34.48	23.54	16.54	55.62	46.20	6.42
1509	0	70	40	10	33.70	23.21	12.01	55.29	44.90	17.70
1510	0	70	70	10	32.49	22.57	6.51	54.63	43.49	35.99
1511	10	0	0	10	60.42	64.07	59.59	84.00	-3.18	-7.04
1512	10	0	10	10	58.63	62.73	50.76	83.30	-4.42	1.09
1513	10	0	20	10	57.01	61.47	42.82	82.63	-5.48	9.32
1514	10	0	40	10	54.27	59.31	29.84	81.46	-7.27	25.53
1515	10	0	70	10	50.88	56.36	14.81	79.82	-8.98	52.37
1516	10	10	0	10	55.05	56.05	53.26	79.64	2.55	-7.96
1517	10	10	10	10	53.61	55.05	45.56	79.07	1.36	-0.18
1518	10	10	20	10	52.21	54.03	38.59	78.48	0.28	7.64
1519	10	10	40	10	49.77	52.13	27.00	77.36	-1.33	23.13
1520	10	10	70	10	46.71	49.56	13.51	75.80	-3.00	48.84
1521	10	20	0	10	50.13	48.77	47.36	75.31	8.48	-8.79
1522	10	20	10	10	48.91	47.99	40.64	74.82	7.29	-1.37
1523	10	20	20	10	47.77	47.24	34.54	74.34	6.23	6.13
1524	10	20	40	10	45.64	45.65	24.32	73.32	4.67	20.88
1525	10	20	70	10	42.93	43.44	12.28	71.85	3.12	45.47
1526	10	40	0	10	41.21	35.86	36.17	66.41	21.42	-9.85
1527	10	40	10	10	40.39	35.41	31.14	66.07	20.35	-3.05
1528	10	40	20	10	39.58	34.96	26.63	65.72	19.34	3.70
1529	10	40	40	10	38.13	34.04	19.05	64.99	17.90	16.94
1530	10	40	70	10	36.06	32.51	9.85	63.76	16.43	39.03
1531	10	70	0	10	30.68	21.19	22.12	53.16	43.24	-9.72
1532	10	70	10	10	30.27	21.08	19.18	53.04	42.25	-3.94
1533	10	70	20	10	29.88	20.96	16.50	52.90	41.36	1.82
1534	10	70	40	10	29.15	20.67	12.05	52.59	39.93	12.93
1535	10	70	70	10	28.00	20.07	6.59	51.92	38.34	30.95
1536	20	0	0	10	52.69	57.18	57.94	80.28	-6.22	-11.78
1537	20	0	10	10	50.99	55.96	49.31	79.59	-7.69	-3.67
1538	20	0	20	10	49.45	54.82	41.60	78.94	-8.99	4.50
1539	20	0	40	10	46.94	52.87	29.09	77.80	-10.99	20.42
1540	20	0	70	10	43.73	50.15	14.58	76.16	-13.09	46.66
1541	20	10	0	10	48.03	50.05	51.82	76.10	-0.64	-12.49
1542	20	10	10	10	46.66	49.16	44.36	75.55	-2.06	-4.80

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
1543	20	10	20	10	45.36	48.28	37.64	75.00	-3.36	2.92
1544	20	10	40	10	43.09	46.55	26.46	73.90	-5.22	18.10
1545	20	10	70	10	40.23	44.18	13.34	72.35	-7.20	43.36
1546	20	20	0	10	43.75	43.59	46.13	71.95	5.12	-13.14
1547	20	20	10	10	42.63	42.95	39.70	71.52	3.67	-5.83
1548	20	20	20	10	41.59	42.30	33.87	71.08	2.44	1.49
1549	20	20	40	10	39.60	40.86	23.98	70.08	0.61	15.93
1550	20	20	70	10	37.00	38.78	12.18	68.59	-1.26	40.14
1551	20	40	0	10	35.95	32.05	35.43	63.38	17.72	-14.04
1552	20	40	10	10	35.17	31.67	30.58	63.07	16.42	-7.35
1553	20	40	20	10	34.44	31.31	26.27	62.77	15.25	-0.76
1554	20	40	40	10	33.11	30.51	18.96	62.09	13.55	12.13
1555	20	40	70	10	31.11	29.03	9.86	60.81	11.86	33.91
1556	20	70	0	10	26.70	18.91	21.96	50.58	38.91	-13.87
1557	20	70	10	10	26.30	18.80	19.06	50.45	37.82	-8.16
1558	20	70	20	10	25.93	18.70	16.46	50.33	36.82	-2.51
1559	20	70	40	10	25.23	18.44	12.10	50.02	35.24	8.36
1560	20	70	70	10	24.15	17.89	6.68	49.36	33.46	26.16
1561	40	0	0	10	39.05	44.82	54.41	72.77	-12.70	-21.04
1562	40	0	10	10	37.55	43.82	46.26	72.11	-14.66	-13.02
1563	40	0	20	10	36.19	42.89	39.08	71.48	-16.40	-5.08
1564	40	0	40	10	34.05	41.35	27.49	70.42	-19.10	10.34
1565	40	0	70	10	31.25	39.11	14.03	68.83	-22.19	35.44
1566	40	10	0	10	35.58	39.22	48.74	68.91	-7.37	-21.43
1567	40	10	10	10	34.38	38.52	41.75	68.40	-9.24	-13.87
1568	40	10	20	10	33.26	37.82	35.51	67.89	-10.92	-6.38
1569	40	10	40	10	31.32	36.47	25.17	66.88	-13.54	8.26
1570	40	10	70	10	28.82	34.52	12.94	65.37	-16.42	32.44
1571	40	20	0	10	32.43	34.20	43.56	65.12	-1.94	-21.79
1572	40	20	10	10	31.43	33.68	37.54	64.71	-3.78	-14.68
1573	40	20	20	10	30.52	33.20	32.17	64.32	-5.44	-7.64
1574	40	20	40	10	28.85	32.09	23.05	63.42	-7.91	6.18
1575	40	20	70	10	26.58	30.36	11.90	61.96	-10.64	29.51
1576	40	40	0	10	26.67	25.20	33.84	57.27	9.97	-22.28
1577	40	40	10	10	25.97	24.90	29.32	56.98	8.33	-15.85
1578	40	40	20	10	25.35	24.65	25.37	56.73	6.81	-9.61
1579	40	40	40	10	24.20	24.05	18.65	56.14	4.46	2.55
1580	40	40	70	10	22.42	22.81	9.84	54.88	1.96	23.75
1581	40	70	0	10	19.72	14.81	21.53	45.37	30.04	-22.00
1582	40	70	10	10	19.33	14.71	18.75	45.24	28.68	-16.47
1583	40	70	20	10	18.99	14.63	16.27	45.12	27.45	-11.05
1584	40	70	40	10	18.32	14.39	12.13	44.79	25.43	-0.75
1585	40	70	70	10	17.35	13.94	6.83	44.14	23.05	16.50
1586	70	0	0	10	23.18	29.93	48.98	61.59	-23.54	-34.32
1587	70	0	10	10	21.99	29.26	41.67	61.01	-26.48	-26.51
1588	70	0	20	10	20.92	28.64	35.32	60.46	-29.12	-18.91
1589	70	0	40	10	19.16	27.53	25.02	59.46	-33.49	-4.27

Table 3 (continued)

ID#	C	M	Y	K	X	Y	Z	L*	a*	b*
1590	70	0	70	10	17.05	26.04	13.24	58.07	-38.63	19.02
1591	70	10	0	10	21.22	26.32	44.12	58.34	-18.56	-34.17
1592	70	10	10	10	20.17	25.76	37.75	57.81	-21.32	-26.87
1593	70	10	20	10	19.24	25.24	32.14	57.31	-23.82	-19.68
1594	70	10	40	10	17.68	24.31	22.94	56.40	-28.01	-5.72
1595	70	10	70	10	15.77	23.01	12.26	55.08	-32.96	16.60
1596	70	20	0	10	19.39	23.01	39.64	55.08	-13.47	-34.10
1597	70	20	10	10	18.48	22.55	34.10	54.61	-16.09	-27.24
1598	70	20	20	10	17.67	22.15	29.18	54.18	-18.50	-20.45
1599	70	20	40	10	16.31	21.40	21.03	53.38	-22.55	-7.20
1600	70	20	70	10	14.58	20.26	11.34	52.13	-27.31	14.26
1601	70	40	0	10	15.91	16.93	31.22	48.17	-2.35	-34.03
1602	70	40	10	10	15.28	16.70	27.06	47.88	-4.78	-27.80
1603	70	40	20	10	14.68	16.47	23.39	47.58	-7.04	-21.77
1604	70	40	40	10	13.70	16.04	17.31	47.02	-10.71	-10.19
1605	70	40	70	10	12.37	15.28	9.56	46.01	-15.13	9.39
1606	70	70	0	10	11.74	9.98	20.67	37.81	15.85	-33.32
1607	70	70	10	10	11.35	9.89	18.06	37.64	13.82	-28.06
1608	70	70	20	10	11.00	9.79	15.72	37.47	12.00	-22.90
1609	70	70	40	10	10.39	9.60	11.86	37.11	9.00	-13.20
1610	70	70	70	10	9.56	9.25	6.90	36.46	5.30	3.00
1611	50	40	40	0	24.54	25.48	21.74	57.54	-0.12	-1.44
1612	100	0	0	10	12.48	19.08	43.55	50.78	-34.96	-46.51
1613	0	100	0	10	27.30	14.01	12.62	44.24	68.68	-3.10
1614	0	0	100	10	56.19	60.50	5.96	82.11	-5.24	85.84
1615	0	100	100	10	25.23	13.60	2.06	43.66	62.66	44.45
1616	100	0	100	10	6.72	15.65	6.33	46.51	-63.72	22.77
1617	100	100	0	10	4.67	3.72	13.50	22.71	15.45	-42.66

Annex A

Method for Adapting Aim Characterization Data for a Change in Substrate Reflectance

A.1 Introduction

This annex provides a method to adapt characterization data for a change in substrate. However, it is known that this method can be used for other applications. The original derivation of this technique¹ was based on measurements of the same samples over different backing materials. Subsequent testing has shown that the technique appears to work equally well with small changes in substrate (i.e., a different paper of the same grade or class) where the colorants and their aim densities are held constant.

For halftone printed images (center-weighted, error diffusion, etc.), the colorimetry of an image element is a complex combination of the reflectance of the dots and of the substrate on which the image is printed. For non-opaque substrates (which include most printing paper) a typical factor which changes the apparent reflectance of the paper is the backing used for either viewing or measurement. This is often referred to as the black/white backing issue. In other situations, use of a somewhat different paper in printing or proofing is desired, where the rest of the process is based on reference characterization data and printing aims (solid ink density color/density).

A.2 Data conversion

The following conversion method is based on the observation by D. Q. McDowell that if the differences of CIE X, Y, and Z between measurements made over two backing materials (i.e., black and white) are plotted versus X, Y, and Z for measurements made over either backing, the best fit result is approximately a straight line. This leads, as an approximation, to a linear conversion for X:

$$X_2 = (X_1 \times (1 + C)) - (X_{\min} \times C)$$

where:

$$C = \frac{X_{S2} - X_{S1}}{X_{S1} - X_{\min}}$$

and:

- X_1 is the tristimulus value X of the sample under condition 1 (characterization data, black-backing data, etc.);
- X_2 is the adapted tristimulus value X of the sample under condition 2 (adapted characterization data, white-backing data, etc.);
- X_{S1} is the tristimulus value X of the substrate for condition 1;
- X_{S2} is the tristimulus value X of the substrate for condition 2;
- X_{\min} is the minimum tristimulus value X of the sample.

Conversion of Y and Z is accomplished in an analogous manner and CIE L^* , a^* and b^* values are computed therefrom.

¹ McDowell, David Q., Chung, Robert, Kong, Lingjun, *Correcting Measured Colorimetric Data for Differences in Backing Material*, TAGA Proceedings, 2005, pp 302-309

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- [1] ANSI/CGATS.4, *Graphic technology — Graphic arts reflection densitometry measurements — Terms, equations, image elements and procedures*
- [2] ISO 12647-7, *Graphic technology — Process control for the manufacture of half-tone colour separations, proof and production print — Part 7: Proofing process working directly from digital data*