W1.1 Image Quality of Printers NCITS W1.1 2002 – 0001
Gloss and Gloss Uniformity
Yee S. Ng, Dec 11, 2001
Ref:

1. NCITS – W1.1 2001-055 Gloss/Gloss Uniformity ad hoc teleconference meeting notes (11/6/2001 teleconference), Nov 7, 2001.

Gloss/gloss uniformity ad hoc Teleconference Meeting Notes
(12/11/2001 teleconference)

Present: Yee Ng (NexPress, Chair), Eric Schneider (HP), Jeff Wang (NexPress), Norman Burningham (HP)
Absent members:
Dale Mashtare (Xerox), Ted Bouk (Kodak), Maguerite Doyle (Lexmark)

Next Teleconference: Tuesday January 8, 2002 @ 12:30 AM EST

Agenda

1. Review/modify agenda
2. Discuss measurement method and test target definition.
3. Schedule next teleconference

The Gloss/gloss uniformity ad hoc met on 12/11/2001. The ad hoc approved the agenda and report on the progress of the round-robin experiment. Yee Ng (NexPress) presented the Round-robin measured result of 5 papers generated by NexPress, analyzed by method discussed in NCITS-W1.1 2001-55. The result supports the HP observation of 75 degree gloss measurements on HP generated samples: namely (1) gloss measurement by different companies on the same print using gloss meters make by the same manufacturer appears to be agreeing with each other quite well – small average standard deviation for 40 patches (with BYK, ranging from 0.64 gu to 2.7 gu depends on what paper was used, please see attached summary file for detail). (2) Gloss measurement on the same print using gloss meters (BYK, Ihara, Nippon Denshoku) appears to show some significant differences (average standard deviation for 40 patches ranges from 6 gu to 8.58 gu depends on what paper was used). The round-robin data analysis of the 5 NexPress papers indicates the following average standard deviation range for different measurement angles:

(1) 20-degree measurement angle (4 instruments), average measurement standard deviation range of 0.24 gu to 1.66 gu with an image gloss range of 0.97 to 39.7.
(2) 45-degree measurement angle (1 instrument), average measurement standard deviation range of 0.1 gu to 0.46 gu with an image gloss range of 4.97 to 60.13 gu.
(3) 60-degree measurement angle (4 instruments), average measurement standard deviation range of 0.48 gu to 2.2 gu with an image gloss range of 4.83 to 85.8 gu..

(4) 75-degree measurement angle (3 BYKs), average measurement standard deviation range of 0.64 gu to 2.7 gu with an image gloss range of 11.79 to 102.9 gu.
(5) 85-degree measurement angle (4 instruments), average measurement standard deviation range of 0.89 gu to 2.26 gu with an image gloss range of 10.73 to 87.72 gu.

The ad hoc will analyze the round-robin data from the rest of the papers to arrive at the normal gloss measurement experimental deviation (at different measurement angles) when measurements are done by different laboratories with a similar piece of equipment. We have also charted the gloss value of one measurement angle with respect to the other measurement angles. The initial result indicates that correlation between different measurement angles is not good (it appears to have some media dependence). So the recommendation is each measurement angle may end up with its own curve (not relating to each others) that correlates to the same psychophysical scale curve in order to seek a common ground.


"NexPress Summary sheet.xls"

Next call-in teleconference: Tuesday, January 8, 2002 @12:30 AM EST

Proposed agenda for January 8, 2002

1. Review/modify agenda
2. Discuss gloss cross-correlation test target results.
3. Schedule next teleconference

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