CFEZ 457-nm agreement with D25A-9000 + TAPPI filter

Dear Mr. Kim,

Our first caveat is that our HunterLab directional instruments do not conform in every detail with TAPPI T 452 Brightness of pulp, paper, and paperboard (directional reflectance at 457 nm) .

However, as shown below, a CFEZ 45/0 LAV does agree closely on papers and paper fillers that are not UV optically brightened. If the sample is UV optically brightened, (glow blue under a UV lamp), the addition of a CMR2591 400-nm UV cut-off filter at the port will resolve this issue.

Color Flex EZ 45/0 LAV

TAPPI Values

52.42

64.74

74.24

89.46

90.47

457nm BR (45/0)

53.54

63.74

73.81

89.48

100.78

with standard open port

53.51

63.77

73.91

89.22

90.35

A LabScan XE with a UV Filter Option set to Custom 95%, or with a CMR2588 400-nm UV Cut-off filter for UV optically brightened materials would provide similar results.

Note that you can only use the CFEZ to measure paper samples that have no Fluorescent Brightener added.

A true Tappi meter would allow a user to measure with the Fluorescent Brightener component Included and Excluded. The CFEZ can only correlate to the Excluded measurement. It is the responsibility of the user to determine if the sample being measured has any Fluorescent Brightener added. If no brightener is added then the user can either measure with a standard open port, or with the CMR2591 port plate, the results would be the same. If there is brightener added then only measurements made with the CMR2591 plate will be valid. Gordon suggests that if the customer does not want to purchase CMR2591 then they can use a light booth with a UV source to determine if there is any brightener added to the paper.