

Attachments Optical Properties Task Group Minutes

Friday, January 29, 2010

11:00 A.M. – 12:00 P.M. EST

Chair: Thomas Morrissey - Hunter Douglas, Inc.

Participants:

Tom Morrissey (Chair), Ray McGowan (Staff), Mike Rubin, John Gant, William du Pont, Tony Stroud, Robert Simons, Ross McCluney, Andrew Caldwell, John Lewis, Charlie Curcija

1. Call to Order:

Chair called meeting to order at 11:05 A.M. and conducted a roll call. Anti-trust reminder was given.

2. Review and Approve Agenda:

I. Update from Mike Rubin on initial review of materials submitted last November.

II. Review attached Gantt Chart for objectives and timeline

III. Discuss/assign work group for standards

IV. Establish calendar for conference calls before spring conference

V. Open discussion - possibly on daylighting with MUDIT SAXENA, Sr. Project Manager, Heschong Mahone Group, Inc.

3. Discussion:

During roll call it was identified Mudit Saxena was not on the call. Mike Rubin was not available at the beginning of the meeting due to the early start and time zone difference. He also dropped off at some point later in the discussions. Tom Morrissey gave an overview on the Gantt Chart listing activities leading up to the spring conference.

Mike signed on about 15 minutes into the discussion. When asked to give an update on the fabric testing a number of deficiencies were identified. Many fabrics arrived cut to the wrong size and unmarked as to number/color. It was very hard for Mike to associate a fabric with the master listing. He indicated he had fabrics from Comfortex but they were not identified on the master list. Most fabrics from awning manufacturers were OK. It was determined cellular fabrics presented most of the problems. Some submissions were not flat fabric and could not be used by Mike.

An extended discussion ensued on the limitations of cellular manufacturing which differs from company to company. The small size of the cellular construction will necessitate a metal template be used to secure flat pieces of the cellular fabrics in LBNL's equipment. Robert Simons offered to send Mike some diagrams of cellular shade construction to help him visualize the various sizes and determine how we cut fabric in a useable size. Mike

proposed he could/would supply the templates to the cellular manufacturing companies to resubmit fabrics to meet his requirements.

Conversation shifted to a discussion of documenting standards. Ray McGowan reminded the group NFRC 703 is the research program manual to use as a reference. Mike Rubin suggested NFRC 302 be the starting point for drafting updated standards. He also identified he has the most knowledge of existing standards, policies and procedures. A proposal was made and accepted by the group to form a Standards Work Group. Standards and guidelines must be completed in draft form before the end of the year and a final document completed by early next year. The work group will consist of Mike Rubin, Ross McCluney and Robert Simons (Chair). Ross McCluney referred the larger group to the site managed by Mike Rubin at: <http://sites.google.com/site/windowoptics/Home/data/standards/solar> .

We then discussed options for conference calls leading up to the spring conference. Morrissey proposed minimally one call in February and one in March culminating with a segment during the Interior/Exterior Attachments meeting in April.

4. New Business:

Ross McCluney proposed leading the group through a prepared slide presentation for Complex Fenestrations Optical Properties. It was decided to do so during a future meeting. His Discussion Board can be downloaded at www.rmcccluney.com/NFRC

5. Adjourn Meeting:

Meeting ended at approximately 12:15 P.M. The group will next meet on a conference call mid-to-late February 2010. Conference calls need to be in the late afternoon EST to work more conveniently for west coast participants.

Addendum:

Mr. Rubin dropped off the call at some point. Afterwards I found this note from him and include it here for additional clarification:

My phone dropped out towards the end of the meeting and the call quality was not too good throughout so let me explain the sample requirements in detail:

Originally I asked for two 46cm (18 inch) square pieces. Such large pieces are not strictly necessary but since no one objected, I made it easy for myself and for the providers. One large piece would be needed for measurement in our 2m integrating sphere. This measurement is highly desirable for validation but not absolutely necessary. The other sample pieces are much smaller but the easy way to cut them is with a template with all the different shaped holes in one piece of flat metal. So I just asked for a second big piece of fabric the same size as the first. I could have asked for something a lot smaller but I saw no need to complicate the instructions.

So, for the honeycomb materials it seems unlikely that we can get a piece big enough for the big sphere, and we will just have to live with that. Maybe we could manage someday to get big unfolded pieces with a lot of defects in them just for fun. So now, for the honeycomb fabrics, we just need the small pieces but still just a bit too wide for the 3/8 inch folds. So I am going to try to modify the template today to use a narrower piece. If it works, then honeycombs are back in the game. If it does not work then I am fairly sure that one of

the ideas that Ross had for making bigger pieces will be satisfactory.

My grandfather who was a tailor did not want me to follow in his footsteps. So I am going to leave the cutting of fabric to the suppliers and I will have sets of templates made right away. They will either be narrow enough to fit the 3/8 inch folds or not. That will be decided today.

I hope this explains the situation better

Mike