



**Sign Sheeting Material (SSM) & Roll Up Signs (RUP)
Technical Committee
Meeting Minutes**

Working Session # 7

Tuesday, June 10th, 2025 2:00PM – 3:30PM

1) Call to Order and Introduction- Janae Dawkins (Liaison)

Items

- Janae intro of Jim Swisher (SSM/RUP Chair)
- Vice Chair – Jason Davis was absent

2) Explain SSM basics, recognize State Lab work.

- Jim presented an overview of the sign sheeting and Roll-up material work including sample prep, testing, outdoor weathering, data entry and reporting.
- Work includes:
 - o Field Testing in VA, LA, AZ, MN. Physical lab tests go to LA. MODOT does tunnel testing for AZ.
 - o Jim encouraged new members to review the Work Plan and Users Guide and reach out to him or Jason Davis with questions.
- For the 2025 submittal - 62 standard sheeting (5 MFGRs) and 2 submittals for Roll-up (2 MGRS)



- Chris Gaudete was in attendance as the Industry representative. Only 2 of the 4 major MFGRs were present.

3) What State members and MFGRs contribute to and benefit from the program.

- Jim explained how VDOT and other DOTs benefit from the program by understanding the Retroreflectivity and Color concepts of sheeting material.
- This information is covered in the User's Guide
- Jim explained how users benefit from knowing the data is accurate due to an established QC program including in-house QC sample testing and review and the annual Round Robin testing by all labs. The program is further enhanced by auditing all test labs on a periodic cycle.
- Jim presented how VDOT and some other DOTs use the data to approve sign products based upon the ASTM D4956 Standards.

4) Current Issues:

- a. 2024 Data Release Delays – there were some delays in data release due to data entry errors and MFGR concerns on handling field and “Control” (File Specimen) samples. The Work Plan will be updated with specific guidance on sample handling to prevent sheeting scratching.
- b. Data Mine Improvements – Phase 1:
 1. Improving data fields by eliminating or graying out unneeded fields.
 2. Averaging of results
 3. Increasing comment fields to 256 characters.



c. Data Mine Improvements – Phase 2 and 3:

1. Fixing the decimal place issues.
2. Automating the uploading of the Data Entry Spreadsheet. This will eliminate the cutting and pasting tool which has caused misaligned data.

Actions

- Committee will check and review whether Data Mine revisions have all been implemented

5) Wellness Check – Bill Real

- Bill Real presented the results of the DOT survey on the use of the SSM program:
Standard Sheeting – 44 DOTs responded - 23 DOTs required SSM data; 10 allowed SSM data to be used as part other testing; 11 states do not use SSM data.
- Roll-up (RUP) Sheeting - 44 DOTs responded - 13 require RUP data; 13 DOTs do their own in-house procurement (not sure on what test data is reviewed)
3 DOTs do their own testing; one Dot tests for initial approval
- 38 out of 44 states have a QPL, APL

6) Industry Concerns

- Chris Gaudette Presented the following:
 - A. New Round Robin samples were fabricated in 2024.
12 samples are being tested for retro and color by;
 - a. 5 DOT labs.



- b. 3 Manufacturer labs
- c. 2 Portable Instrument Manufacturers

- B. Extra testing for a Color P&B is underway by 8 labs. 3–4-month delay in study
- C. Hiccups in Data Mine, delays (across all manufacturers)
- D. Industry requests that DataMine access for MFGRs is reverted back to Full Public Access once released (even competitors)

Actions

- Improvement- Data Mine should be set up to allow specific samples data to be reverted – not all samples.
- TC to follow up on Data Mine corrections – Phase 1.
- The lead state maintains more detailed documentation on delays and why.
- Jim listed numerous delays of releasing data due to MFGRs requesting samples to be retested. Many hours of retesting took place. The majority of the retesting indicated the original data was reasonable. Per the Work Plan, if retesting indicates the original data was reasonable, the MFGRs will be invoiced for the extra work.

Sign Sheeting Material/ Roll-up Signs
Technical Committee Meeting – Hartford, CT
Working Session # 7
Tuesday, June 10th, 2025, 2:00PM – 3:30PM



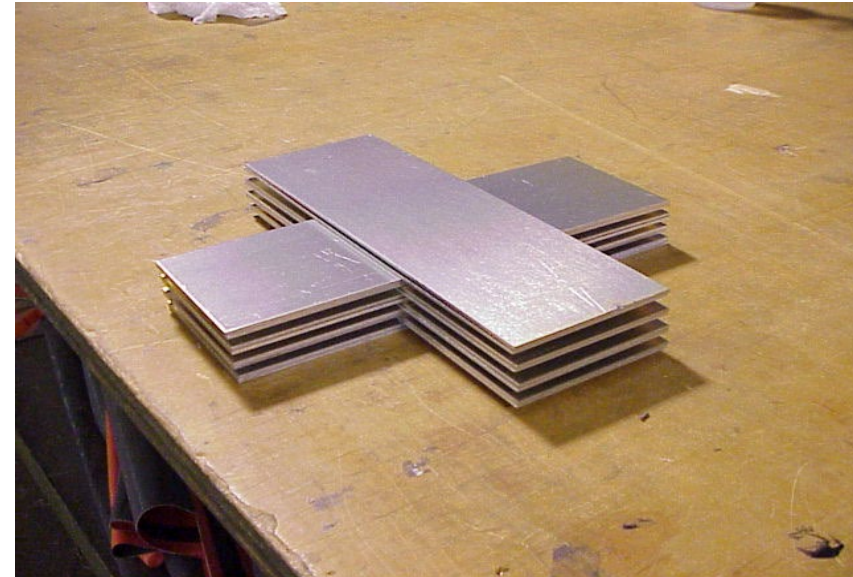
VDOT Fabrication of Sign Sheeting Samples



Shipment of Sheeting to VDOT



Cleaned aluminum blanks (4 x 12 ") ready to have sheeting applied



Sign Sheeting, Inks, and Films applied to Aluminum blanks per MFGR Instructions. Sheeting is trimmed



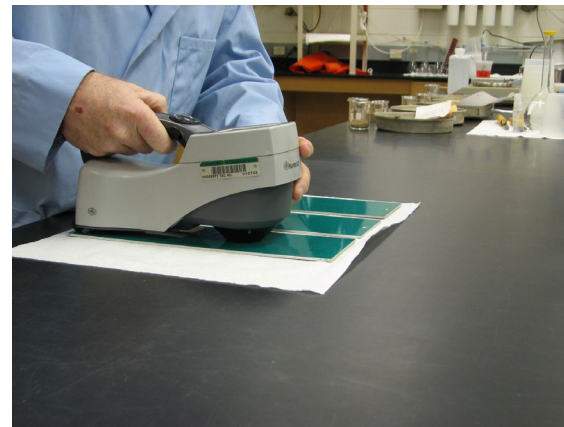
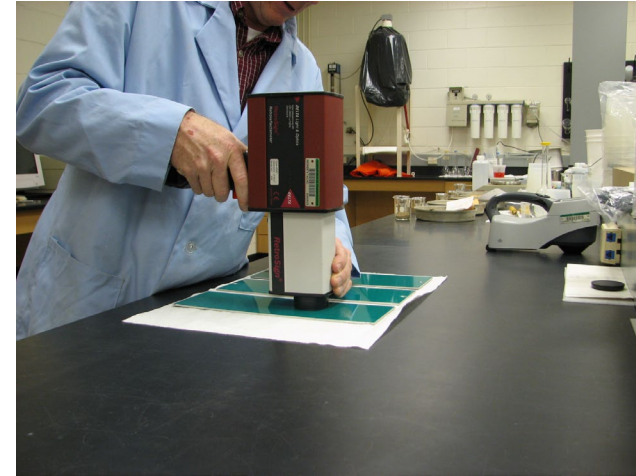
Samples are labeled and etched.



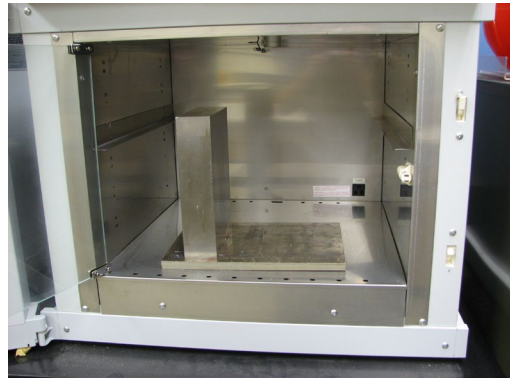
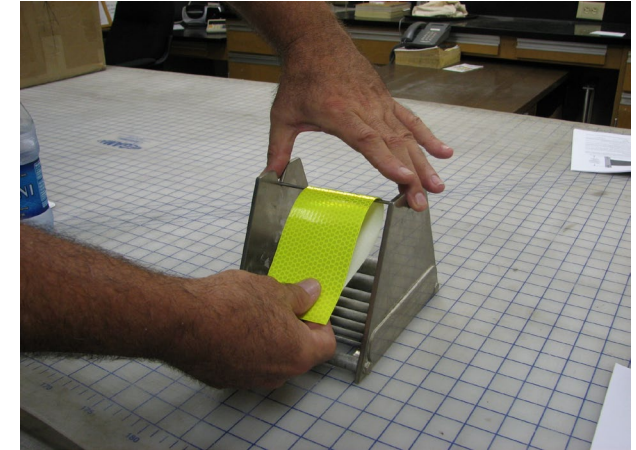
Approved samples are packaged for shipment to test states.



Samples are tested for retro-reflectivity and Color



Sheeting samples are tested for Physical parameters – Impact Resistance, Adhesion, Flexibility, Liner removability, Shrinkage



2025 SUBMITTAL – 62 SAMPLES, 5 MFGRS

MANY THANKS TO:

MODOT – JULIE and TODD

LADOT- JASON and HAZEM

MNDOT- JASON and ALLEN

AZDOT- MATTHEW and JESUS

VDOT – JESICCA, AAMIR, DAVID, ADAM, VDOT SIGN SHOP !!!

Sign Sheeting Users Guide

- Guide to understand how sheeting is tested and approved.

Site Name:

Baton Rouge LA

Testing Facility:

Louisiana Department of Transportation and Development

Field Data

Base Sheeting Data

Print

Test Summary

Coefficient of Retroreflection (R_A)

Portable Reflectometer Reading

Color Coordinates

Appearance

Coefficient of Retroreflection (R_A)

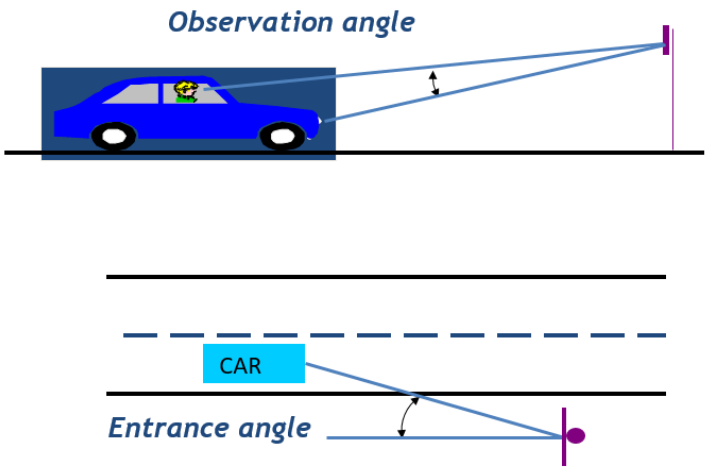
Light Tunnel - Obs/Ent = 0.2 / -4 (cd/lx/m²)

Interval	Initial		6 Months		1 Year		2 Year		3 Year	
Rotation	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
Sample A	389	543					346	531	326	505
Sample B	352	505					310	498	292	473
File Specimen	330	475					306	449	296	434
Comments										

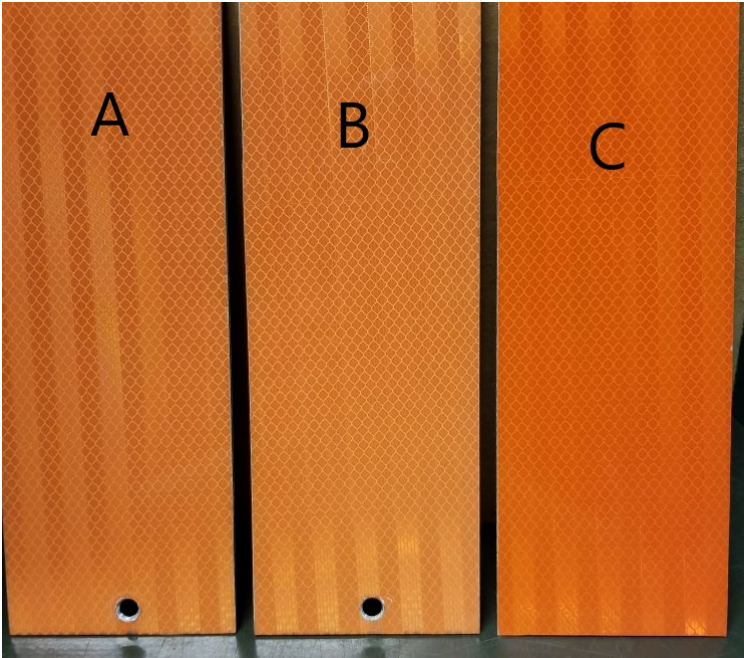
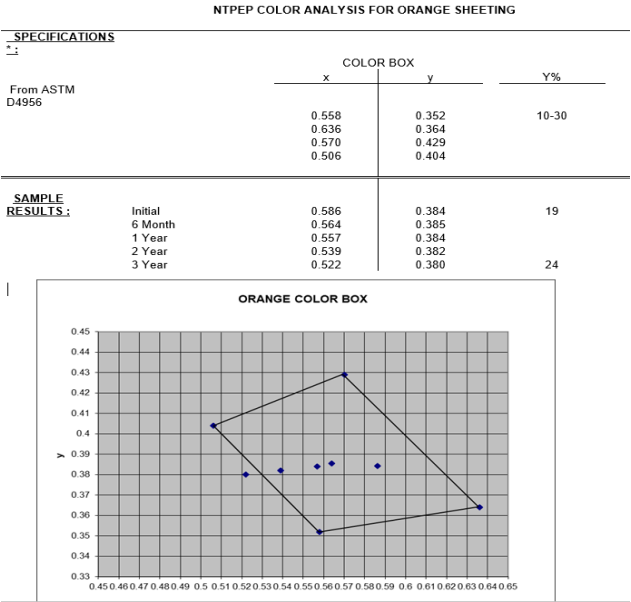
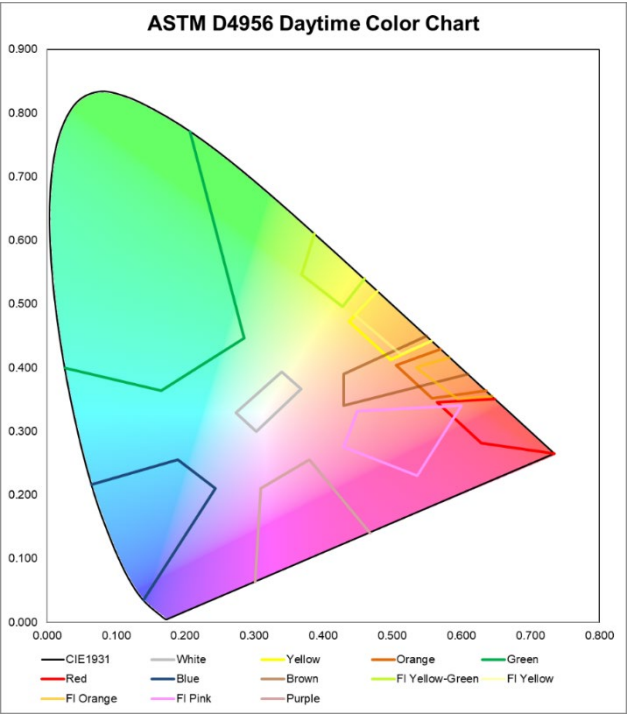
Light Tunnel - Obs/Ent = 0.2 / +30 (cd/lx/m²)

Interval	Initial		6 Months		1 Year		2 Year		3 Year	
Rotation	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
Sample A	220	297					172	297	164	267
Sample B	203	269					159	268	152	243
File Specimen	192	249					172	246	164	227
Comments										

Basic Angles of Ground- Mounted Sign Retroreflectivity



Sign Sheeting Users Guide - Color



Samples are installed on Outdoor Weathering Decks for 6 Months, 1, 2, 3 Year and retested for same parameters.

MODOT tests the Arizona panels for LT Retro and Color
Thanks Todd and Julie !



AZDOT RUP Test Rack
Thank you Matthew, Jason's



SSM Quality Control Program:

1. In-House QC Sample Testing
2. Round Robin Sample Testing, including Manufacturers
3. Lab Audits:
 - A. Training of Personnel & Documentation
 - B. Following ASTM Testing Procedures
 - C. Demonstration of Equipment Calibration per MFGR's Guidelines
 - D. Demonstration of Test Procedures and QC Testing
 - D. Quality Control Testing and Review of Results
 - E. Data Mine – Data Entry, Data Traceability
 - F. Documentation of Quality Management System





Questions?

We're Glad to Discuss Issues/Questions:

james.swisher@vdot.virginia.gov

jason.davis@la.gov

DATA MINE

UPDATES

SSM Table Structure Revisions

- **Parent Tab:** Field Data
- **SubTab:** Coefficient of Retroreflection (RA)
 - **Table:** Light Tunnel - Obs/Ent = 0.2 / -4 (cd/lx/m²)
 - Interval 6 Month – Grey Out
 - **Table:** Light Tunnel - Obs/Ent = 0.2 / +30 (cd/lx/m²)
 - Interval 6 Month – Grey Out
 - **Table:** Light Tunnel - Obs/Ent = 0.5 / -4 (cd/lx/m²)
 - Remove
 - **Table:** Light Tunnel - Obs/Ent = 0.5 / +30 (cd/lx/m²)
 - Remove

SSM Table Structure Revisions

- **Table:** Light Tunnel - Obs/Ent = 1 / -4 (cd/lx/m²)
 - Remove
- **Table:** Light Tunnel - Obs/Ent = 1 / +30 (cd/lx/m²)
 - Remove
- **Table:** Light Tunnel - Obs/Ent = 0.2 / -4 (cd/lx/m²)
 - 1 Year - Greyed out when work zone NO
- **Table:** Light Tunnel - Obs/Ent = 0.2 / +30 (cd/lx/m²)
 - 1 Year - Greyed out when work zone NO
- **Section:** Comments
 - Allow 256 characters

Protective Clear Overlay or Coating:

Work Zone:

ASTM D4956 Type:

AASHTO M268 Type:

Previously Submitted Product - DataMine Number:

No

Yes

Type IV

Type B

View conditional upon Work Zone = Yes

Site/Testing Facility Information

Site Name:

Baton Rouge LA

Testing Facility:

Louisiana Department of Transportation and Development

Field Data

Base Sheeting Data

Additional Documentation

Print

- Test Summary
- Coefficient of Retroreflection (R_A)
- Portable Reflectometer Reading
- Color Coordinates
- Appearance

Release Status				
Interval	Release Status		Action	
Initial	Restricted		Revert Release	
6 Months	Restricted		Revert Release	
1 Year	Assigned			
2 Year	Assigned			
3 Year	Assigned			

Coefficient of Retroreflection (R _A)										
Light Tunnel - Obs/Ent = 0.2 / -4 (cd/lx/m ²)										
Interval	Initial		6 Months		1 Year		2 Year		3 Year	
Rotation	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
Sample A	820	806								
Sample B	808	773								

Coefficient of Retroreflection (R_A)										
Light Tunnel - Obs/Ent = 0.2 / -4 (cd/lx/m ²)										
Interval	Initial		6 Months		1 Year		2 Year		3 Year	
Rotation	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
File Specimen	775	742								
Comments	[Allow 256 Characters]				[Allow 256 Characters]		[Allow 256 Characters]		[Allow 256 Characters]	

Light Tunnel - Obs/Ent = 0.2 / +30 (cd/lx/m ²)										
Interval	Initial		6 Months		1 Year		2 Year		3 Year	
Rotation	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
Sample A	429	430								
Sample B	428	414								
File Specimen	403	393								
Comments	[Allow 256 Characters]				[Allow 256 Characters]		[Allow 256 Characters]		[Allow 256 Characters]	

Cancel

Release 1 Year Data

Save All

Protective Clear Overlay or Coating:

No

View conditional upon Work Zone = No

Work Zone:

No

ASTM D4956 Type:

Type IV

AASHTO M268 Type:

Type B

Previously Submitted Product - DataMine Number:

Site/Testing Facility Information

Site Name:

Baton Rouge LA

Testing Facility:

Louisiana Department of Transportation and Development

Field Data

Base Sheeting Data

Additional Documentation

Print

- Test Summary
- Coefficient of Retroreflection (R_A)
- Portable Reflectometer Reading
- Color Coordinates
- Appearance

Release Status			
Interval	Release Status	Action	
Initial	Restricted	Revert Release	
6 Months	Restricted	Revert Release	
1 Year	Assigned		
2 Year	Assigned		
3 Year	Assigned		

Coefficient of Retroreflection (R _A)										
Light Tunnel - Obs/Ent = 0.2 / -4 (cd/lx/m ²)										
Interval	Initial		6 Months		1 Year		2 Year		3 Year	
Rotation	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
Sample A	820	806								
Sample B	808	773								

Coefficient of Retroreflection (R_R)										
Light Tunnel - Obs/Ent = 0.2 / -4 (cd/lx/m ²)										
Interval	Initial		6 Months		1 Year		2 Year		3 Year	
Rotation	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
File Specimen	775	742								
Comments	[Allow 256 Characters]						[Allow 256 Characters]		[Allow 256 Characters]	

Light Tunnel - Obs/Ent = 0.2 / +30 (cd/lx/m ²)										
Interval	Initial		6 Months		1 Year		2 Year		3 Year	
Rotation	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
Sample A	429	430								
Sample B	428	414								
File Specimen	403	393								
Comments	[Allow 256 Characters]						[Allow 256 Characters]		[Allow 256 Characters]	

Cancel

Release 1 Year Data

Save All

SSM Table Structure Revisions

- **Parent Tab:** Field Data
- **SubTab:** Portable Reflectometer Reading
 - **Table:** Point Source Instrument = 0° and 90° (0.2 / -4) (cd/lx/m²)
 - Remove - Top / Middle / Bottom
 - **Table:** Annular Instrument (0.2 / -4) (cd/lx/m²)
 - Remove - Top / Middle / Bottom

Portable Reflectometer Reading

Point Source Instrument = 0°and 90° (0.2 / -4) (cd/lx/m²)

Interval		Initial		6 Months		1 Year		2 Years		3 Years	
Rotation		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
Sample A	Avg.	795	765	925	901						
Sample B	Avg.	772	746	874	870						
File Specimen	Avg.	756	722	829	789						

Cancel

Release 1 Year Data

Save All

Portable Reflectometer Reading

Annular Instrument (0.2 / -4) (cd/lx/m²)

Interval		Initial		6 Months		1 Year		2 Years		3 Years	
Sample A	Avg.										
Sample B	Avg.										
File Specimen	Avg.										

Cancel

Release 1 Year Data

Save All

SSM Table Structure Revisions

- **Parent Tab:** Field Data
- **SubTab:** Color Coordinates
 - **Table:** Portable Instrument (2° / D65)
 - Remove grey out
 - "Sample (A + B) should have ""Average"" at the end
 - All Y% should be "Luminance Factor" on this page
 - **Table:** Laboratory Instrument (2° / D65)
 - Remove grey out
 - "Sample (A + B) should have ""Average"" at the end
 - All Y% should be "Luminance Factor" on this page
 - 6 Month greyed out
 - 1 Year greyed out when work zone NO

Digital Print Color:

Protective Clear Overlay or Coating:

Work Zone:

ASTM D4956 Type:

AASHTO M268 Type:

Previously Submitted Product – DataMine Number:

No

Yes

Type IV

Type B

Site/Testing Facility Information

Color Coordinates						
Laboratory Instrument (2° / D65)						
	Interval	Initial	6 Months	1 Year	2 Year	3 Year
Sample A	x	0.303				
	y	0.323				
	Luminance Factor (Y%)	30.6				
Sample B	x	0.303				
	y	0.324				
	Luminance Factor (Y%)	27.3				
Sample (A + B) Average	x	0.303				
	y	0.3235				
	Luminance Factor (Y%)	28.95				
File Specimen	x	0.304				
	y	0.324				
	Luminance Factor (Y%)	28.9				

Cancel

Release 1 Year Data

Save All

Screened Ink Color:

Digital Print Color:

Protective Clear Overlay or Coating:

No

Work Zone:

No

ASTM D4956 Type:

Type IV

AASHTO M268 Type:

Type B

Previously Submitted Product - DataMine Number:

Color Coordinates						
Laboratory Instrument (2° / D65)						
	Interval	Initial	6 Months	1 Year	2 Year	3 Year
Sample A	x	0.303				
	y	0.323				
	Luminance Factor (Y%)	30.6				
Sample B	x	0.303				
	y	0.324				
	Luminance Factor (Y%)	27.3				
Sample (A + B) Average	x	0.303				
	y	0.3235				
	Luminance Factor (Y%)	28.95				
File Specimen	x	0.304				
	y	0.324				
	Luminance Factor (Y%)	28.9				

2024 / 2025 – General Release Notes

- General Core Enhancements Completed and Deployed
 - .NET 8 Framework Upgrade
 - DataMine converted to allow for dynamic responsiveness
 - Mobile tablet friendly
 - DataMine fully rebranded to “AASHTO Product Evaluation & Audit Solutions”

2024 / 2025 – General Release Notes

- Invoice Contact Management
 - AASHTO has introduced a new feature in DataMine to streamline billing management. The newly launched **Invoice Contact Management interface**, found under *My Preferences*, allows Industry users to add contacts who will exclusively receive invoice updates. These contacts do not need to register with the system, making it easier for accounting teams and personnel to receive invoices directly.

2024 / 2025 – General Release Notes

- Invoice Contact Management - Screenshot

The screenshot displays the AASHTO Product Evaluation & Audit Solutions My DataMine interface. The top navigation bar includes the AASHTO logo, the text "PRODUCT EVALUATION & AUDIT SOLUTIONS", and a "DATAMINE" button. The main navigation menu on the left lists "My DataMine", "My Applications", "My Invoices", "My Facilities", "My Reports", "My Preferences", and "Submit Application". The "My Preferences" section is active, showing "Profile Information" for "John Doe" with email "jdoe@imadethat.com" and status "Approved". Below this, the "My Information" section is visible, with "Manufacturer Information" and "Invoice Contacts" highlighted. The "Invoice Contacts" table is currently empty, displaying "Currently no data is available." The table headers are "Prefix", "Location", "Contact Name", "E-Mail", "Phone", and "Action". The "Prefix" dropdown is set to "ABS", and the "Location" dropdown is set to "Select Location". The "Contact Name", "E-Mail", and "Phone" fields are empty. The "Action" column contains a "+" button and a refresh icon. The bottom of the page shows "View 0 - 0 of 0".

www.youtube.com – To exit full screen, press Esc

John Doe (Manufacturer) | Logout | Contact Us

Search Go

My DataMine

My DataMine

Home / My DataMine / My Preferences

My Applications My Invoices My Facilities My Reports Submit Application

My Preferences

Profile Information

John Doe

Email: jdoe@imadethat.com

Status: Approved

My Information

Manufacturer Information

Invoice Contacts

Change Password

Prefix	Location	Contact Name	E-Mail	Phone	Action
Currently no data is available.					
ABS	Select Location	Enter Contact Name	Enter E-Mail	Enter Phone	+ ↻

View 0 - 0 of 0

eApp Existing Documents

- This is an enhancement to the “Existing” document selection feature within the eApp submission process for Manufacturer and AASHTO User Roles. To further enhance the function, said users can retrieve documentation from previously submitted products and facilities, along with submitted and in-progress applications, will be accessible.

eApp Existing Documents - Screenshot

Search

Select Existing File(s) as Supporting Documents

Please select previously uploaded supporting documents

File Name	Document Type	Facility Location or Product Name	Application #	DataMine #	
<input type="text" value="Search File Name"/>	<input type="text" value="Search Document Type"/>	<input type="text" value="Search Facility/Product"/>	<input type="text" value="Search Application #"/>	<input type="text" value="Search DataMine #"/>	
Report 1_3.txt	Install Instructions	test	000011077	TBD	Select
Report 1_3_1.txt	Manufacturer-Provided IR Scan	test	000011077	TBD	Select
ABS DataExport October 16, 2024 09-48-05.xlsx	Technical Literature	Prime Manufacturer Audit	000010827	TBD	Select
ABS DataExport October 16, 2024 09-48-05_1.xlsx	SDS	Prime Manufacturer Audit	000010827	TBD	Select
ABS DataExport October 16, 2024 09-48-05_1_1.xlsx	Product Certification with Manufacturers Specification	Prime Manufacturer Audit	000010827	TBD	Select
ABS DataExport October 16, 2024 09-48-05_1_2.xlsx	Install Instructions	Prime Manufacturer Audit	000010827	TBD	Select
DSC01040_1_1.JPG	Technical Literature	dfg	000010815	CADD-2021-01-027	Select
DSC01040_1_2.JPG	SDS	dfg	000010815	CADD-2021-01-027	Select
DSC01040_1_1_1.JPG	Product Certification with Manufacturers Specification	dfg	000010815	CADD-2021-01-027	Select
DSC01040 1 1 1 1.JPG	Install Instructions	dfa	000010815	CADD-2021-01-027	Select

Close

Meeting Reminders

- Industry Document Repository: Accessing Regulatory Documentation (BABA,EPD, LCTM)
 - Wednesday, June 11th 3:30 PM – 5:00 PM

DataMine Contact

- For more information on DataMine development, and requests for future enhancements, please contact:

Vince Glick

Program Manager, Business Systems

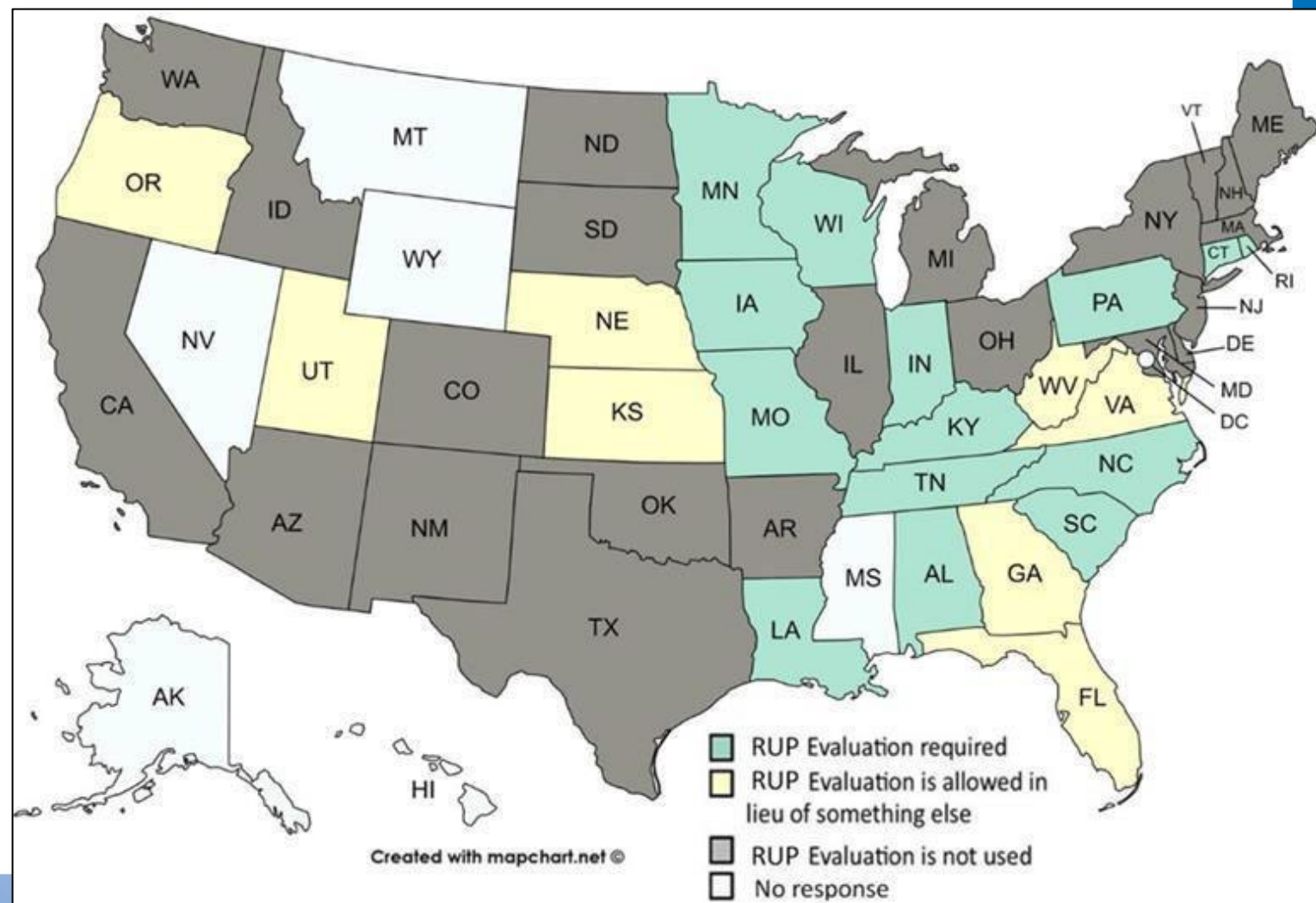
vglick@ashto.org

SSM – State Usage

- 44 responding states
- 23 states require SSM
- 10 states allow SSM
- 11 states do not use SSM

RUP – State Usage

- 44 responding states
- 13 states require RUP
- 8 states allow RUP
- 22 states do not use RUP



Evaluation of sign sheeting for work zone applications

- Information gathered from 40 states.
- Thirteen states require a 12-month evaluation
- 17 States require a 36-month evaluation.
- One state uses the SSM results for initial performance only.

Use of SSM/RUP evaluations for in-house procurement

- 13 states require SSM and/or RUP as part of their procurement process
- 3 states will allow the SSM and/or RUP evaluation in lieu of other testing or documentation for in-house procurement.
- One state uses the SSM results for initial performance only.

Working Session #7

Sign Sheeting Materials/Roll-Up Signs (SSM/RUP) Attendance

June 10, 2025

First Name	Last Name	Employer
Nathan	Rivera	Colorado DOT
Martin	Dassi	TxDOT
Thomas	Still	Potters Industries
Sam	Frederick	NCDOT
Dan	Brayack	WVDOH
Connie	Coleman	GDOT
Jesus	Sandoval-Gil	ADOT
Chris	Gaudette	Orafol Americas
Eric	Nelson	RoadVista
Ryan	Buck	FDOT
Joseph	Stilwell	MaineDOT
David	Kuniega	AASHTO
Susan	Mendola	CTDOT
Adam	Tecken	VDOT
Brian	Mcveigh	Orafol Americas
Cassady	Allen	FDOT
Brenda	Waters	PennDOT
Thanh	Do	3M Company
Kenny	Seward	OK DOT
Dorian	Brawner	KYTC
Eli	Ulmer	NDDOT
Brandi	Mitchell	KYTC
Esayas	Butta	Colorado DOT
Daniel	Huggins	Ladotd
Alex	Lewis	FDOT
David	Malburg	MDOT-SHA
William	Real	W L Real Consulting
Matt	Schulz	Vt Agency of Transportation
Ethan	Mathieu	NH DOT

Brandon	Boyer	DeIDOT
Jason	Krogman	Minnesota Department of Transportation
Ryan	Mayer	WisDOT
Awilda	Merced	AM Quality Improvement Solutions- AASHTO Contractor
Andrew	Gallegos	NMDOT
Christopher	Leibrock	Kansas DOT
Leonard	Vader	MoDOT
Daniel	Miller	Ohio Department of Transportation
Jesus	Sandoval-Gil	ADOT
Tammy	Jernigan	ARDOT
Lukasz	Sakowicz	Vdot
kaelyn	goenner	minnesota department of transportation
Sean	Li	VA DOT
Kelly	Easley	Timewell
Guangming	Wang	FDOT
Sue	Zheng	FDOT
Awilda	Merced	AM Quality Improvement Solutions- AASHTO Contractor