

ANSI/ISEA 107-2015 Retroreflective Trim Test Results Summary

Submitted by: 3M

Product #: 6687R

3M™ Scotchlite™ Reflective Material 6687R Fluorescent Lime Yellow

High Gloss Chevron

Color Fluorescent Lime Yellow

Date Issued: December 1, 2016

Report #: MMM.A051716B

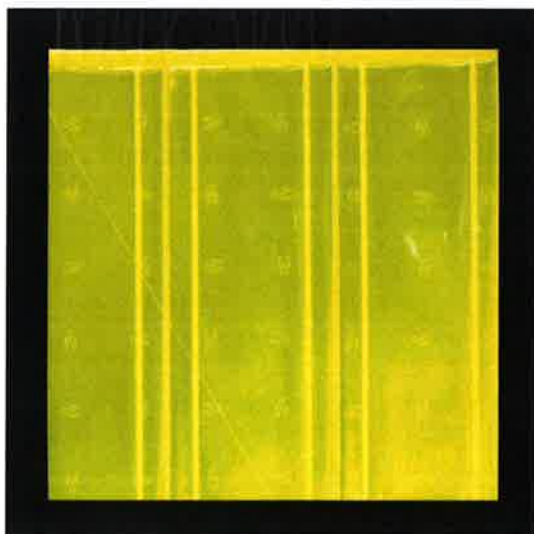
Date Revised: April 7, 2017

The submitted material **MEETS** all photometric combined performance requirements of retroreflective material prior to test exposure per ANSI/ISEA 107-2015 clause 9.1 for minimum coefficient of retroreflection for retroreflective trim.

The submitted material **MEETS** all photometric combined performance requirements of retroreflective material after test exposure per ANSI/ISEA 107-2015 clause 9.2 for minimum coefficient of retroreflection for retroreflective trim after abrasion, flexing, folding at cold temperatures, temperature variation, washing per ISO 6330 6N, F (Tumble Dry Normal) (75 cycles), and rainfall.

Retroreflective Material

Retroreflective, Performance, Initial	Passed
Abrasion.....	Passed
Flexing	Passed
Folding at Cold Temperatures	Passed
Exposure to Temperature Variation.....	Passed
Washing Per ISO 6330 6N, F (Tumble Dry Normal) (75X)	Passed
Retroreflective Performance in Rainfall	Passed
Chromaticity, Initial & After Light Exposure	Passed



Signed For The Company By

Adam R. Varley
Technical Director



Testing Cert #2180.01

Third Party Certification
(ANSI/ISEA 107-2015)
HIGH VISIBILITY COMPLIANCE CERTIFICATE

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High Gloss Chevron
Color Fluorescent Lime Yellow

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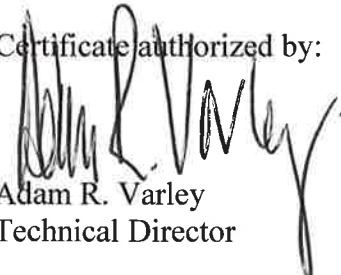
The submitted retroreflective trim **MEETS** all combined performance requirements of retroreflective material **PRIOR** to test exposure per ANSI/ISEA 107-2015.

The submitted retroreflective trim **MEETS** all combined performance requirements of retroreflective material **AFTER** test exposure per ANSI/ISEA 107-2015.

All of the above tests and evaluations were performed in accordance with ISO/IEC 17025 Quality Systems.

Certifications of background and other garment material characteristics are not implied by this certificate or by the original report.

Certificate authorized by:


Adam R. Varley
Technical Director



*This certification applies to the particular sample tested and to the specific tests carried out as dated and detailed in the report referenced above. It does not signify any measure of approval, control, supervision, or surveillance by Vartest Laboratories Inc. to this or any related product.

ISO/IEC 17025 Certified Third Party Test Report

DATE: July 27, 2016 **FILE:** MMM.A051716B

CLIENT: 3 M Personal Safety Division **ATTN:** Tim Gardner
3 M Center, Building 25-2E-57 Katie Mahoney
Saint Paul, MN 55144

SAMPLE IDENTIFIED BY CLIENT AS:

Reflective Tape Submitted
Per ANSI/ISEA 107-2015 Specification
Product #: 6687R
3M™ Scotchlite™ Reflective Material - 6687R Fluorescent
Lime-Yellow High Gloss Chevron
Color Fluorescent Lime Yellow

TEST PROCEDURE:

TEST RESULTS:

SPECTROPHOTOMERIC ANALYSIS

CHROMATICITY COORDINATES

(ASTM E1164, ANSI 107-2015 10.2)

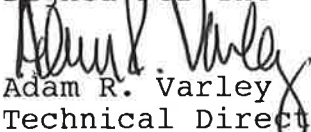
Table 3: Color - Fluorescent Background & Combined-Performance Material

Test	x	y	Y
As Received	0.395	0.573	89.66
After 40 Hours (170 KJ/m2 @ 420nm) Xenon Light Exposure	0.397	0.561	91.90

FINDINGS: As Received sample **PASSES** the chromaticity coordinate requirements for ANSI/ISEA 107-2015 for Fluorescent Yellow-Green Color. Combined performance material tested.

After light exposure sample **PASSES** the chromaticity coordinate requirements for ANSI/ISEA 107-2015 for Fluorescent Yellow-Green Color. Combined performance material tested.

Signed For The Company By


Adam R. Varley
Technical Director

JG/07


Stacy Sadowy
Quality Assurance Supervisor

