

Light Reduction Testing of Metallic Fabric Mesh

Rendered To:

Cambridge Architectural

Series/Model: Scale, Mid-Balance, Stripe and Shade

Product: Metal Fabric Patterns

Report No.: 70108.01-106-31

Report Date: 1/31/07

Expiration Date: 1/10/11

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105 B Goodwill Road
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Project Summary: Architectural Testing, Inc. (ATI) was contracted by Cambridge Architectural to conduct a light reduction evaluation on Scale, Mid-Balance, Stripe and Shade metal fabric mesh to determine the percentage of light reduction of each of the meshes when exposed to lighting that represents vehicles with illuminated headlamps driving up or down a spiral parking garage ramp.

The following table shows the light measurements and percentages obtained:

Metal Fabric Pattern	-20° Angle (Downward)		0° Angle (Horizontal)		20° Angle (Upward)	
	Lux Reading	Light Reduction %	Lux Reading	Light Reduction %	Lux Reading	Light Reduction %
None	450	0	4730	0	460	0
Scale	230	49	2780	41	260	44
Mid-Balance	240	47	3100	35	310	33
Stripe	190	58	2150	55	210	54
Shade	210	53	2580	46	240	48

Note: One Lux equals 0.093 foot candles.

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Test Method: ATI Lab personnel constructed a plywood cone 2 foot square at one end x 4 foot long x 6 inch square at the opposite end which was lined with black photographic background paper to prevent any light reflection within the testing area. A Fisher Scientific Traceable® Dual Display Light Meter lens was attached in center position to the narrow end of the cone opening and covered with a black fabric cloth to eliminate any residual background light. At a distance of 10 feet from the light meter, on the same center plane as the light meter lens (0° angle) a 6 inch diameter vehicle lens/reflector containing a NARVA H-4 12 volt, 130/100Watt Halogen Bulb was installed facing the 2 foot square opening of the cone.

To represent the worst case scenario of vehicles with illuminated headlamps driving up or down a spiral parking garage ramp, test points of -20°, 0° and 20° angles were selected. Baseline readings at the predetermined angles were obtained by exposing the light meter lens to the full light emittance of the car lamp halogen bulb without any sample obstructing the light path.

A 2 foot x 2 foot test screen was secured to the upper outer edge of the cone construction allowing it to cover the cone opening and providing an obstruction situation for the light path. A new set of light readings was obtained at the -20°, 0° and 20° angles. This procedure was repeated with each of the four different test screens. From the collected data, the percentage of light reduction from each of the obstructed versus unobstructed light measurements were calculated.

Photographic depiction of the setup and general visual for each product is provided in the appendix of this report.

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For ARCHITECTURAL TESTING, INC.:



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Attachments - (pages) This report is complete only when all attachments listed are included.
Appendix A - Photographs (3)

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Revision Log

Rev. #	Date	Page(s)	Revision(s)
0	01/31/07	N/A	Original report issue.

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Appendix A

Photographs

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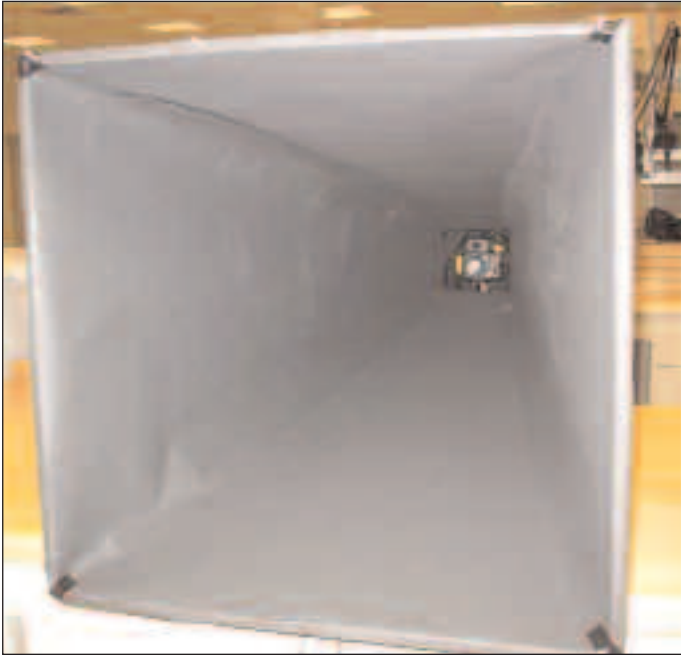


Photo No. 1

Light Tunnel Lined with Black Photographic Background - Unobstructed

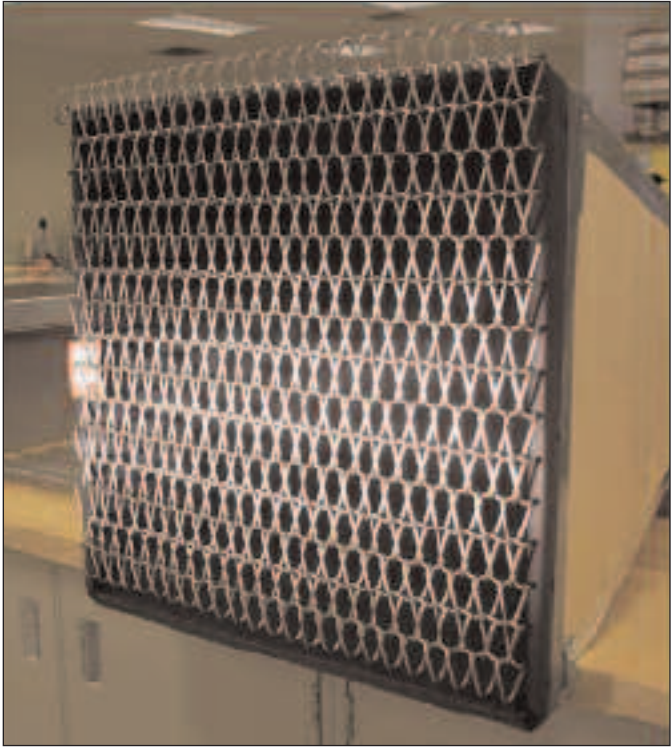


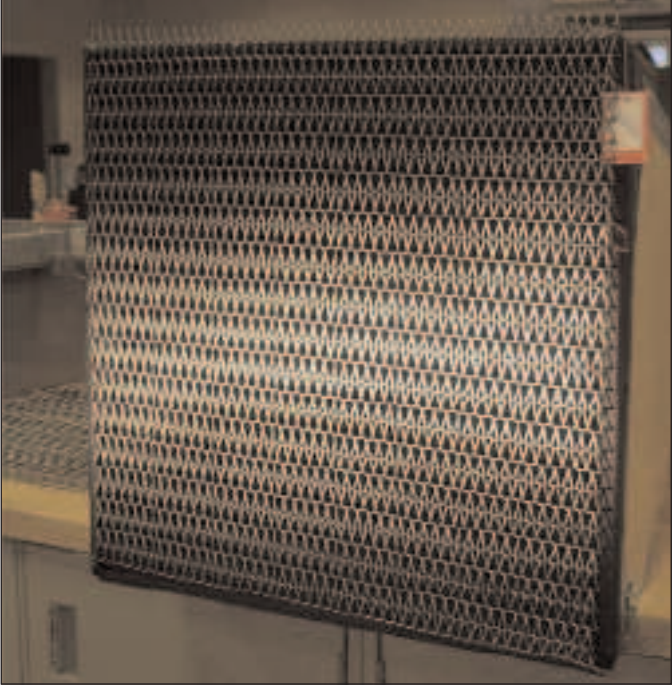
Photo No. 2

SCALE Mesh - (0°) Angle Light Exposure

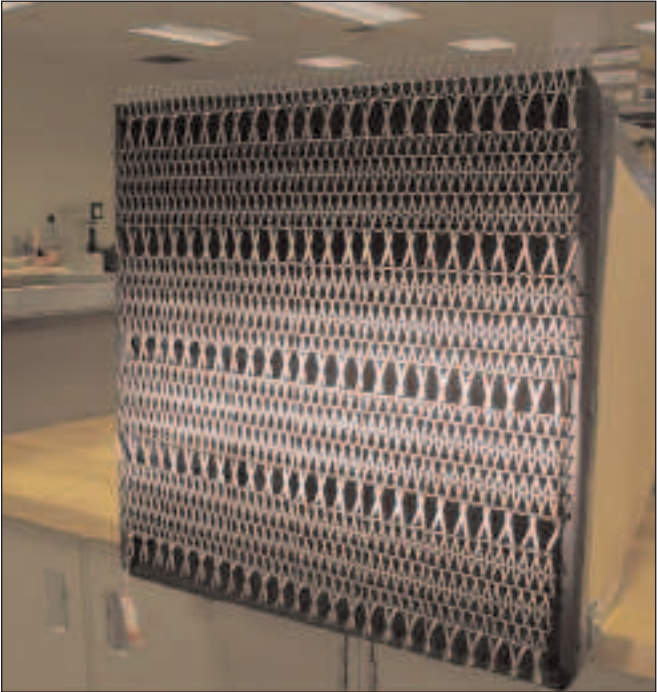
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**Photo No. 3
MID-BALANCE - (0°) Angle Light Exposure**



**Photo No. 4
STRIPE Mesh - (0°) Angle Light Exposure**

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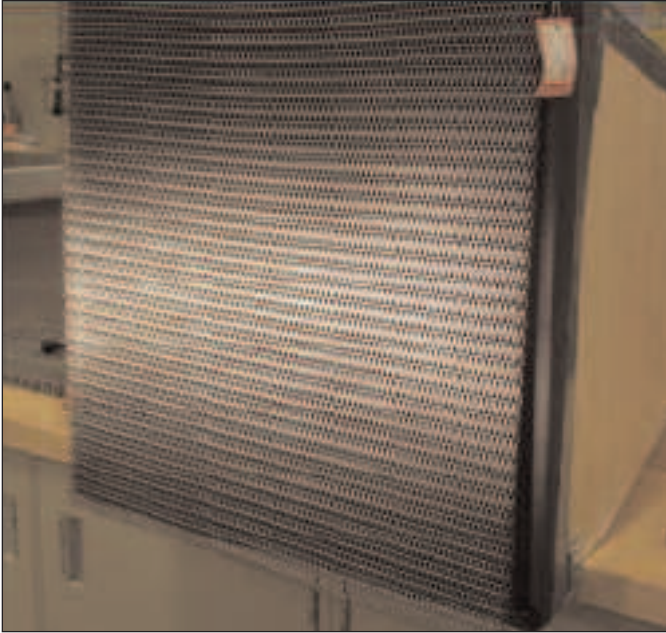


Photo No. 5
SHADE Mesh - (0°) Angle Light Exposure

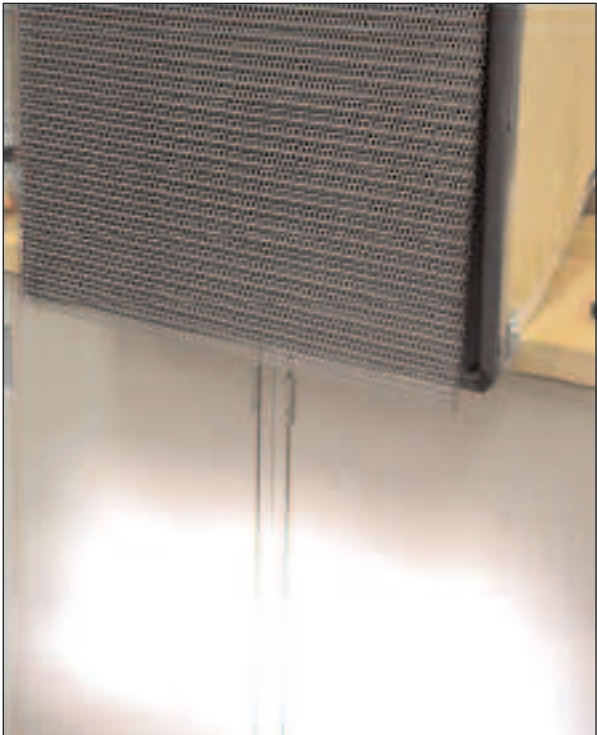


Photo No. 6
SHADE Mesh - (-20°) Angle Light Exposure