Prüfbericht-Nr.: *Test Report No.*:	**28108938 001**	**Auftrags-Nr.:** *Order No.*:	8742341	Seite 1 von 7 *Page 1 of 7*
Kunden-Referenz-Nr.: *Client Reference No.*:	8706417	**Auftragsdatum:** *Order date*:	15/02/2016	
Auftraggeber: *Client*:	Steel Crafts Europa S.r.l. Manufacturer: EVER-GROW ADVANCED MATERIALS SDN BHD			
Prüfgegenstand: *Test item*:	Street Mirror			
Bezeichnung / Typ-Nr.: *Identification / Type No.*:	Stainless Steel 600x800			
Auftrags-Inhalt: *Order content*:	Partial Tests			
Prüfgrundlage: *Test specification*:	see pag. 3			

Wareneingangsdatum: *Date of receipt*:	17/02/2016
Prüfmuster-Nr.: *Test sample No.*:	160059
Prüfzeitraum: *Testing period*:	17/02/2016 – 01/03/2016
Ort der Prüfung: *Place of testing*:	TUV Rheinland Italia
Prüflaboratorium: *Testing laboratory*:	Via Mattei, 3 – 20010 Pogliano Milanese - Italy
Prüfergebnis*: *Test result**:	Pass

geprüft von / *tested by*:

03/03/2016	Federico Regnato	
Datum *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*

kontrolliert von / *reviewed by*:

03/03/2016	Giovanni Molteni	
Datum *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*

Sonstiges / *Other*: Foreseeable use was considered. Currently neither a safeguard clause procedure has been invoked nor is an increase in accidents known for these products.
Testing for wind speeds of 45 m/s (163 km/h) for heights up to 8 m;

Zustand des Prüfgegenstandes bei Anlieferung: Prüfmuster vollständig und unbeschädigt
Condition of the test item at delivery: *Test item complete and undamaged*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
Legend:	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specification(s)		*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

V04

1	**Produktdetails** *Product details*	Street Mirror
2	**Maße / Gewicht** *Dimensions / Weight*	Refl. Surface: 600x800 Total: 975x775 mm
3	**Bedienelemente** *Operating elements*	N/A
4	**Ausstattung / Zubehör** *Equipment / Accessories*	Wall Mount
5	**Verwendete Materialien** *Used materials*	Stainless steel + Plastic
6	**Sonstiges** *Other*	For the reflection coefficient and angle tests see ANNEX 1: Test Report 0155/EU16 issued by Eurolens s.r.l.

Marking Plate

Wall mount

Back side

Loading test

Requirement	Remarks	Result
Wind test		
Reference standard	EN 60598-2-3:2003 + A11:2011 Lminaires Part 2-3: Particular requirements - Luminaires for road and street lighting Used in conjunction with EN 60598-1:2015 Only par. 3.6.3.1 has been investigated as required by applicant	
3.6.3.1 Static load test for mast-arm or post-top mounted luminaires or external parts The luminaire or external part is mounted in such a way that the most critical surface is loaded. The most critical surface is determined by calculating the highest value of Cd × S where: Cd is the drag coefficient; S is the area of the surface to be loaded (m2). The drag coefficient depends on the shape of the surface. For luminaires or external parts for which the Cd is not measured, the value of 1,2 shall be taken. The means of attachment shall be secured in accordance with the manufacturer's instructions. A constant evenly distributed load is applied for 10 min on the most critical surface. $F = \frac{1}{2} Rb \times S \times Cd \times V^2 (\mathrm{N})$ The drag coefficient is 1,2 (or the exact value measured in Annex A). After the test, there shall be no visible failure impairing the safety, no permanent deformation from the attachment which exceeds a slope of more than 2 cm/m, and no rotation around the point of attachment.	Considered wind speed V = 45 m/s (163 km/h) for heights up to 8 m; No permanent deformation exceeding 2 cm/m	PASS
Reflection test		
Reference standard	UNECE regulation. 46 Annex 6 E/ECE/324/Rev.1/Add.45/Rev.5	
Reflection coefficient	Result: 67,2%	PASS
Viewing Angle		
Reference standard	See annex 1 for procedure	
Viewing Angle	Result: 25,5°+25,5°	PASS

ANNEX 1

Eurolens s.r.l.
Divisione ECELAB Tel. +39-029182128 Via Bergamo n.2 Fax. +39-029106808
20030 Paderno Dugnano (MI) -Italy info@ecelab.it www.ecelab.it

Informazioni generali	
Numero Test Report	0155/EU16
Data emissione	29/02/2016
Numero di pagine	4
Intestatario ordine	TÜV Rheinland Italia
Norma Riferimeto	ECE R.46 Annex 6
Richiedente	Steel Craft Europa srl
Costruttore	Ever-Grow Advanced Materials SDN.BHD
Oggetto in prova	Specchio per sede stradale
Tipo	Dimensioni totali: 975X775 mm Dimensioni sup. riflettente: 800X600 mm Raggio lente in direzione orizzontale: 3000 mm Materiale lente: acciaio Materiale supporto: plastica
Responsabile esecuzione prove	Ing. Raffaella Panza
Laboratorio	Eurolens - ECELAB
Indirizzo Laboratorio	Via Bergamo, 2 – Palazzolo Milanese (MI)

Test e risultati delle prove:

Descrizione prova	Procedura di prova	Risultato
Coefficiente di riflessione (Allegato1)	Ece R46 Annex 6 Metodo con sfera integratrice	**67,2 %**
Angolo di visione (Allegato 2)	Procedura descitta in Allegato 2	**25,5°+25,5°**

Foto dispositivo:

Paderno Dugnano, 29/02/2016

Il responsabile del laboratorio
Ing. Raffaella Panza

Allegato 1: Coefficiente di riflessione

Norma di riferimento	ECE R46 Annex 6
Data del test	29/02/2016
Procedura	Medoto con sfera integratrice
Lista Strumenti	Apperacchio riflettanza P131005

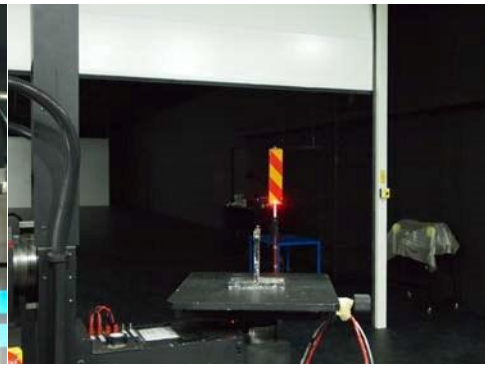
Risultato del Test:

Coefficiante di riflessione misurato	**67,2 %**

Allegato 2: Angolo di visione

Norma di riferimento	-
Data del test	29/02/2016
Procedura	Lo specchio viene posizionato su goniometro. Un operatore si pone in asse allo specchio ed una distanza di 4m. Un target viene spostato dalla posizione laterale verso l'operatore fino a quando non risulta totalmente visibile attraverso lo specchio sottoposto a prova. Viene quindi smontato lo specchio e sostituito con un apperecchio a raggio laser. Si ruota il goniometro fino a colpire il targhet con il raggio laser. Il valore dell'angolo di rotazione del goniometro viene annotato come semi-angolo di visibilità dello specchio.
Lista Strumenti	Goniometro GONB 100/06





Risultato del Test:

Angolo di visibilita' orizzontale	**25,5°+25,5° = 51°**