




	Test report n.	134-QL17-R02 ver. 0	 <small>LAB N°1235</small> <small>Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC</small> <small>Signatory of EA, IAF and ILAC Mutual Recognition Agreements</small>
	Applicant	LARES di Claudio Lerici Regione Viazzi, 6 15010 Castelletto d'Erro (AL)	
	EUT/Type	Diffuse light source SC_04 (IEN 7121)	

## TEST REPORT Nr. 134-QL17-R02 ver. 0

<b>Addresses</b> Indirizzi		
Applicant Richiedente	LARES di Claudio Lerici - Regione Viazzi, 6 - 15010 Castelletto d'Erro (AL)	
Manufacturer Produttore	Same as applicant / Come il richiedente	
Test laboratory Laboratorio di prova	Qualilab s.r.l. Via Trento, 87 25020 – Capriano del Colle (BS)	
<b>Dates and authorization</b> Date e autorizzazioni		
EUT acceptance date Data accettazione campioni	Simultaneously with the beginning of the test. Contestualmente all'inizio delle prove.	
Report Date Data preparazione rapporto di prova	28/02/2017	
Authorization Autorizzazioni	Ing. Carsten Seyring Test engineer	
	Ing. Michele Peschiera Reviewer	 
<b>Equipment under test EUT (data declared by the applicant)</b> Dispositivo sottoposto a prova EUT (Dati forniti dal richiedente)		
EUT description Descrizione EUT	Diffuse light source	
Type Modello	SC_04 IEN 7121	
Light source: Sorgente luminosa:	-	
Multimeter: Multimetro :	DMM Agilent U1253A S/N MY48430011	
Marking Marcature	-	
<b>Applicable norms</b> Norme applicabili		
	CIE 15:2004 Colorimetry and CIE 70:1987 Measurement of absolute luminous intensity distribution	

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I risultati e le osservazioni indicate in questo rapporto di prova sono riferite esclusivamente ai campioni testati. Non è permesso utilizzare i risultati e le osservazioni di questo rapporto di prova per altri sistemi o configurazioni. Non è permessa la pubblicazione o la duplicazione completa o parziale di questo rapporto di prova e dei suoi allegati senza un consenso scritto da parte del laboratorio di prova. Il laboratorio di prova non si assume responsabilità nei confronti di terzi per danni o eventuali costi derivanti dall'utilizzo dei dati presenti in questo rapporto di prova. Ogni uso del nome del laboratorio di prova e dei suoi marchi per la vendita o per pubblicizzare il prodotto testato deve essere prima approvato in forma scritta dal laboratorio di prova. In caso di rapporti di prova con più lingue, la versione inglese è da considerarsi quella ufficiale.

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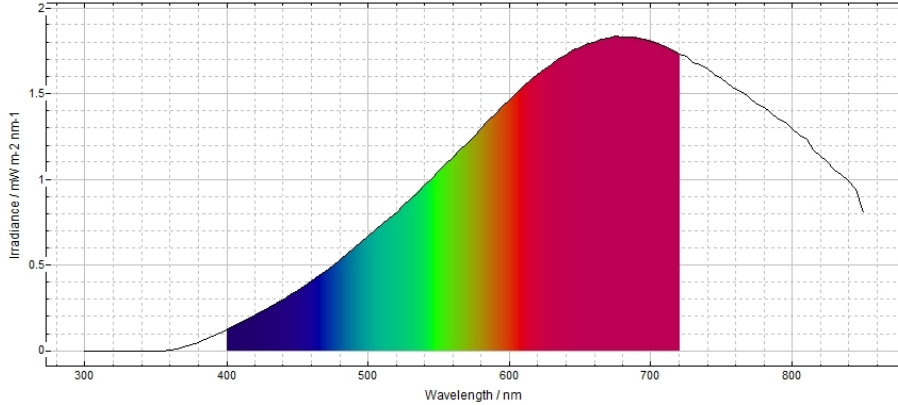
Test Name Identificazione prova	Test Procedure Procedura di prova	Test Requirement Requisito di prova	Test Result Esito Prova
Intensity distribution in [cd] at 10m distance	The sample was mounted (with the support provided by the manufacturer) on the goniometer and powered with the constant current of 4,000 A; the intensity distribution in 10m was measured and the maximum intensity was determined	N/A	$I_{\max}[\text{cd}] = 75,8 \text{ cd}$ in $1.00^\circ \text{ H}; -1.00^\circ \text{ V}$
Calibration to standard illuminant A	The sample was mounted on the goniometer; the current to emit standard illuminant A in the optical axis was determined	N/A	$\text{CCT} = 2.864 \text{ K}$ $I_{\text{illuminant A}}[\text{A}] = 4,092 \text{ A}$
Intensity distribution in [cd] at 10m distance at illuminant A	The sample was mounted on the goniometer; the current to emit standard illuminant A was applied, the maximum intensity was measured	N/A	$I_{\text{illuminant A}}[\text{A}] = 4,092 \text{ A}$ $I_{\max\_A}[\text{cd}] = 87,0 \text{ cd}$

Uncertainty Incertezza	
Photometric parameter Parametri fotometrici	Luminous intensity, illuminance: 1,8% Intensità luminosa, illuminamento
Correlated colour temperature Temperatura colore	$\pm 21^\circ \text{K}$
Statement Dichiarazione	The measured value (y) and the associated expanded uncertainty (U) represent the interval ( $y \pm U$ ) which contains the value of the measured quantity with a probability of approximately 95 % and a coverage factor $k = 2$ . Il valore misurato (y) e l'incertezza estesa associata (U) rappresentano l'intervallo ( $y \pm U$ ) che contiene il valore della grandezza misurata con una probabilità di circa il 95% e un fattore di copertura $k=2$ .

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	Applicant	LARES di Claudio Lerici Regione Viazzi, 6 15010 Castelletto d'Erro (AL)	
	EUT/Type	Diffuse light source SC_04 (IEN 7121)	

APPENDIX I	SC.04 – intensity [cd]																													
Norm and applicable points	CIE 70																													
Sample identification	134-QL17-S02																													
Place of testing	QUALILAB s.r.l. Via Trento, 87 25020 – Capriano del Colle (BS)																													
Test date	22/02/2017																													
Environmental conditions	Temperature 23°C±3°C																													
Instruments	Goniometer LMT GOH1200 QL-IN-002 DMM Agilent U1253A S/N MY48430011																													
Test procedure	The sample was prepared, stabilized and measured like defined in CIE70																													
Test requirements	n.a.																													
Test measurement	<p>The sample was mounted onto the test stand, provided by the manufacturer. The sample was set into the pivot point of the goniometer and the optical axis was installed perpendicular to the photometer head.</p> <p>The DMM was connected in series to the bulb circuit to measure the current during the test.</p> <p>The sample was powered with a constant current of 4,000A and the distribution was measured in order to determine the maximum intensity in [cd].</p>																													
TEST RESULT	Program:							max I scan 25-25 15-15																						
	max I scan																													
	Name:		LARES 134-QL17 SC.04 (IEN 7121) max cd 2017 at 4.00 A																											
	Number:		constant A 4.00 A																											
	Report:																													
	Test no.:																													
	Lamp type:																													
	Lamp no:		SC.04																											
	Lamp flux:		0 lm			Operator:		Qualilab																						
	Voltage:		13,740 V			Date:		22/02/2017 10.10.23																						
	Current:		4,000 A			File:		LARES 134-QL17 SC.04 (IEN 7121) max cd 2017 at 4.00 A																						
	Comment:		constant current 4.00 A measured with: Agilent DMM mod.U1253A Sn MY48430011																											
	max I scan 25-25 15-15																													
	<table><tr><th>Function</th><th>Mean</th><th>Max</th><th>I</th><th>H</th><th>V</th><th>Reaim</th><th>H</th><th>V</th><th>N.O.K.</th></tr><tr><td>25L to 25R - 15D to 15U</td><td>0</td><td>0</td><td>(60,2) 75,8</td><td>(- 25,00° 1,00°</td><td>(15,00°) -1,00°</td><td></td><td></td><td></td><td></td></tr></table>										Function	Mean	Max	I	H	V	Reaim	H	V	N.O.K.	25L to 25R - 15D to 15U	0	0	(60,2) 75,8	(- 25,00° 1,00°	(15,00°) -1,00°				
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	EUT/Type	Diffuse light source SC_04 (IEN 7121)	

APPENDIX II	SC.04 – current for standard illuminant A																		
Norm and applicable points	CIE 15																		
Sample identification	134-QL17-S02																		
Place of testing	QUALILAB s.r.l. Via Trento, 87 25020 – Capriano del Colle (BS)																		
Test date	22/02/2017																		
Environmental conditions	Temperature 23°C±3°C																		
Instruments	Goniometer LMT GOH1200 QL-IN-002 Spectrometer BENTHAM IDR3000-PSL QL-IN-009 DMM Agilent U1253A S/N MY48430011																		
Test procedure	The sample was prepared, stabilized and measured like defined in CIE15																		
Test requirements	n.a.																		
Test measurement	<p>The sample was mounted onto the test stand, provided by the manufacturer. The sample was set into the pivot point of the goniometer and the optical axis was installed perpendicular to the spectrometer head.</p> <p>The DMM was connected in series to the bulb circuit to measure the current during the test.</p> <p>The constant current to emit standard illuminant A was determined.</p>																		
TEST RESULT	 <table border="1" data-bbox="542 1624 1444 1758"> <tr> <td>SC04</td><td colspan="3">diffuse lamp LARES</td><td></td></tr> <tr> <td></td><td>CCT</td><td>I[A]</td><td>color</td><td>point</td></tr> <tr> <td>ill A</td><td>2864K</td><td>4,092A</td><td>x=0,4491</td><td>y=0,4116</td></tr> </table>				SC04	diffuse lamp LARES					CCT	I[A]	color	point	ill A	2864K	4,092A	x=0,4491	y=0,4116
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	CCT	I[A]	color	point															
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APPENDIX III	SC.04 – intensity [cd] at illuminant A																													
Norm and applicable points	CIE 70																													
Sample identification	134-QL17-S02																													
Place of testing	QUALILAB s.r.l. Via Trento, 87 25020 – Capriano del Colle (BS)																													
Test date	22/02/2017																													
Environmental conditions	Temperature 23°C±3°C																													
Instruments	Goniometer LMT GOH1200 QL-IN-002 DMM Agilent U1253A S/N MY48430011																													
Test procedure	The sample was prepared, stabilized and measured like defined in CIE70																													
Test requirements	n.a.																													
Test measurement	<p>The sample was mounted onto the test stand, provided by the manufacturer. The sample was set into the pivot point of the goniometer and the optical axis was installed perpendicular to the photometer head.</p> <p>The DMM was connected in series to the bulb circuit to measure the current during the test.</p> <p>The sample was powered with a constant current of 4,092A which produces standard illuminant A (2864K) and the distribution was measured in order to determine the maximum intensity in [cd].</p>																													
TEST RESULT	Program:								max I scan 25-25 15-15																					
	max I scan																													
	Name:		LARES 134-QL17 SC.04 (IEN 7121) max cd 2017 at illA																											
	Number:		constant A 4.092A																											
	Report:																													
	Test no.:																													
	Lamp type:																													
	Lamp no:		SC.04																											
	Lamp flux:		0 lm				Operator:		Qualilab																					
	Voltage:		13,090 V				Date:		22/02/2017 10.33.10																					
	Current:		4,092 A				File:		LARES 134-QL17 SC.04 (IEN 7121) max cd 2017 at illA																					
	Comment:		constant current 4.092 A measured with: Agilent DMM mod.U1253A Sn MY48430011																											
	max I scan 25-25 15-15																													
	<table><tr><th>Function</th><th>Mean</th><th>Max</th><th>I</th><th>H</th><th>V</th><th>Reaim</th><th>H</th><th>V</th><th>N.O.K.</th></tr><tr><td>25L to 25R - 15D to 15U</td><td>0</td><td>0</td><td>(68,7) 87,0</td><td>(25,00°) -1,00°</td><td>(-) 15,00° -3,00°</td><td></td><td></td><td></td><td></td></tr></table>										Function	Mean	Max	I	H	V	Reaim	H	V	N.O.K.	25L to 25R - 15D to 15U	0	0	(68,7) 87,0	(25,00°) -1,00°	(-) 15,00° -3,00°				
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APPENDIX IV	Photographs
 	