




	Test report	448-QL23-R01 ver. 0	 <small>LAB N° 1235 L</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) - Italy	
	Type	SC_02 (IEN 5587)	

## TEST REPORT 448-QL23-R01 ver. 0

Dates and authorization Date e autorizzazioni		
Report Date Data emissione rapporto di prova	11/05/2023	
Written by Preparato da	Matteo Roncali	
Authorized by Autorizzato da	Ing. Michele Peschiera	
Data declared under the sole responsibility of the applicant Dati dichiarati dal richiedente e sotto la sua responsabilità		
Applicant Richiedente	LARES di Claudio Lerici - Regione Viazzi, 6 - 15010 - Castelletto d'Erro (AL) - Italy	
Manufacturer Produttore	Same as applicant/Come il richiedente	
Sample description Descrizione campione	Spot light source	
Type Modello	SC_02 (IEN 5587)	
Light source Sorgente luminosa	Philips Holland 12 V 55 W	
Multimeter Multimetro	Keysight U1253B sn MY61060043	
Illuminant A current Corrente per illuminante A	$I_A$ : 3,466 A	
Applicable Standard Norme applicabili		
	CIE 15:2018 Colorimetry and CIE 70:1987 Measurement of absolute luminous intensity distribution	

The test results and observations indicated in this test report refer exclusively to the samples as received and tested. It is not permitted to transfer the results to other systems or configurations. The partial publication or duplication of this test report without a written consent of the test laboratory is not permitted. The test laboratory not assumes any liability to any party for any loss, expense or damage occasioned by the use of this report. Any use of the laboratories name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by the test laboratory. In case of a multilingual test report, the English version is the only official version.



I risultati e le osservazioni indicate in questo rapporto di prova sono riferiti esclusivamente ai campioni così come ricevuti e 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 parziale di questo rapporto di prova 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 rapporto di prova con più lingue, la versione inglese è da considerarsi quella ufficiale.

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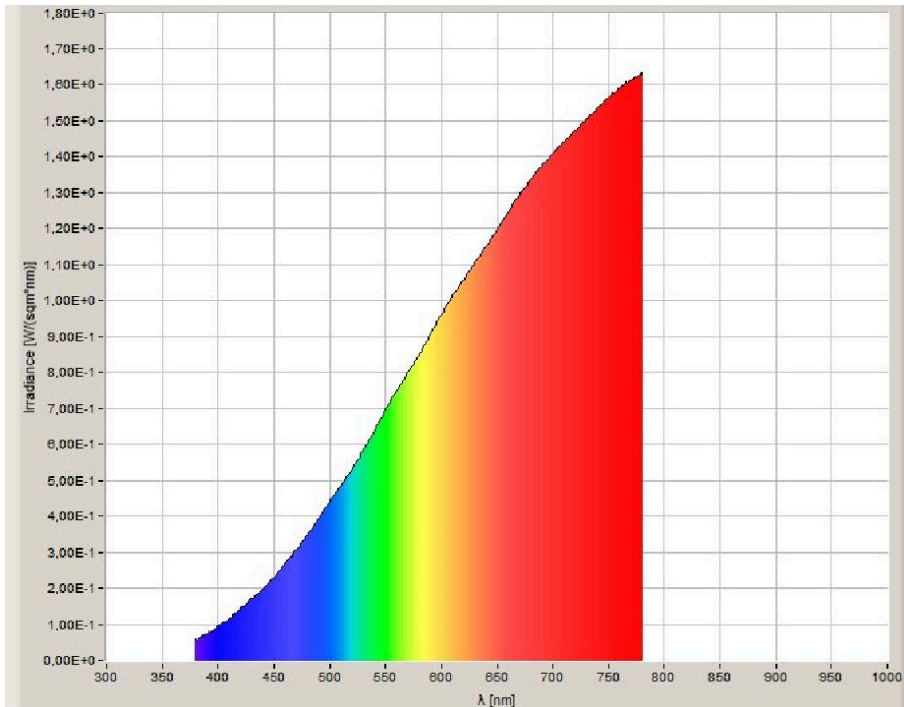
Annex Annesso	Test Name Identificazione prova	Test Method Metodo di prova	Test Requirement Requisito di prova	Verdict / Result Esito / Risultato
I	Maximum Illuminance at 25 m with 4,000 A setting	The sample was mounted (with the support provided by the applicant) on the goniometer and powered with the constant current of 4,000 A measured with the multimeter provided by the applicant. The illuminance distribution at 25 m was measured and the maximum illuminance was determined	Not applicable	$E_{\max} = 140,000 \text{ lx}$ -0,35° H; -0,80° V
II	CCT measurement with $I_A$ setting	The sample was mounted on the goniometer; correlated color temperature was measured in the optical axis at the current $I_A$ declared and measured with the multimeter provided by the applicant	Not applicable	$CCT = 2856 \text{ K}$
III	Maximum Illuminance at 25 m with $I_A$ setting	The sample was mounted (with the support provided by the applicant) on the goniometer and powered with the constant current $I_A$ measured with the multimeter provided by the applicant. The illuminance distribution at 25 m was measured and the maximum illuminance was determined	Not applicable	$E_{\max\_A} = 58,992 \text{ lx}$ -0,50° H; -0,75° V
IV	Photographs	-	-	-



Uncertainty Incertezza	
Photometric parameter Parametri fotometrici	Luminous intensity and illuminance / Intensità luminosa e illuminamento = 1,9 %
Color coordinates Coordinate cromatiche	$x = 0,0007$ $y = 0,0009$
Sample mounting precision Precisione montaggio dispositivo	$\pm 0,5^\circ$
Statement Dichiarazione	<p>The measured value (<math>y</math>) and the associated expanded uncertainty (<math>U</math>) represent the interval (<math>y \pm U</math>) which contains the value of the measured quantity with a probability of approximately 95 % and a coverage factor <math>k = 2</math>.</p> <p>The values into the different annex have the maximum significant figures managed by the measurement software.</p> <p>Il valore misurato (<math>y</math>) e l'incertezza estesa associata (<math>U</math>) rappresentano l'intervallo (<math>y \pm U</math>) che contiene il valore della grandezza misurata con una probabilità di circa il 95 % e un fattore di copertura <math>k = 2</math>.</p> <p>I valori negli annessi sono riportati con il massimo numero di cifre significative gestite dal software della strumentazione.</p>

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ANNEX I		Maximum Illuminance at 25 m with 4,000 A setting																																																																																																																																																	
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Test date	10/05/2023																																																																																																																																																		
Environmental conditions	Temperature 23 °C ± 3 °C																																																																																																																																																		
Instruments	Temperature-humidity datalogger QL-IN-018 Temperature-humidity datalogger QL-IN-020 Photogoniometer QL-IN-002 Multimeter Keysight U1253B sn MY61060043 (Applicant’s instrument)																																																																																																																																																		
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ANNEX II		CCT measurement with $I_A$ setting									
Test method	CIE 15:2018										
Sample identification	448-QL23-S01 SC_02 (IEN 5587)										
Place of testing	Qualilab Srl - Via Trento, 87 - 25020 - Capriano del Colle (BS) - Italy										
Test date	10/05/2023										
Environmental conditions	Temperature 23 °C ± 3 °C										
Instruments	Temperature-humidity datalogger QL-IN-021 Spectrometer QL-IN-009 Multimeter Keysight U1253B sn MY61060043 (Applicant's instrument)										
Test description	The sample was mounted on the goniometer; correlated color temperature was measured in the optical axis at the current $I_A$ declared and measured with the multimeter provided by the applicant. The sample was set into the pivot point of the goniometer and the optical axis was installed perpendicular to the spectrometer head.										
Test requirements	Not applicable										
VERDICT / RESULT	<div>SC_02 (IEN 5587)</div> <table><thead><tr><th rowspan="2">CCT [K]</th><th colspan="2">Chromaticity coordinates</th></tr><tr><th>x</th><th>y</th></tr></thead><tbody><tr><td>2856</td><td>0,4496</td><td>0,4111</td></tr></tbody></table> <div></div>			CCT [K]	Chromaticity coordinates		x	y	2856	0,4496	0,4111
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## ANNEX IV

## Photographs





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