



	Test report	1338-QL20-R01 ver.0	
	Applicant	Linea Light Srl Via Europa, 14 Z.I. 31028 - Vazzola (TV) - Italy	
	Type	Rollip 70 complete battericida	

TEST REPORT 1338-QL20-R01 ver. 0

Addresses Indirizzi		
Applicant Richiedente		Linea Light Srl - Via Europa, 14 Z.I. - 31028 - Vazzola (TV) - Italy
Manufacturer Produttore		Same as applicant/Come il richiedente
Dates and authorization Date e autorizzazioni		
Report Date Data emissione rapporto di prova		02/11/2020
Written by Preparato da		Ing. Carsten Seyring 
Authorized by Autorizzato da		Ing. Michele Peschiera 
Sample under test (data declared by the applicant and under applicant's responsibility) Dispositivo sottoposto a prova (Dati forniti dal richiedente e sotto la sua responsabilità)		
Sample description Descrizione dispositivo		LED luminaire/ Apparecchio di illuminazione a LED
Type Modello		Rollip 70 complete battericida
Light source Sorgente luminosa		N° 36 led cree J series 2835 3V R class N° 12 led LXR-CP 0.5W2835SMDUV-400
Secondary optic Optica secondaria		Diffuse
Power supply Alimentazione		AC 230 V, 50 Hz
Driver model Modello alimentatore		EAGLERISE EIP015V0240USS
Single led supply current Corrente sul singolo led		CH1: 50 mA CH2: 75 mA

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Applicable standards Norme applicabili	
	IEC TR 62778:2014 (application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires)
Test Setup Setup di prova	
Test instrument Strumenti di misura	Spectrometer Bentham Ltd IDR300PSL QL-IN-009 (spectrometer calibration lamps QL-IN-015, QL-IN-016, QL-IN017) Multimeter ISOTECH idm 303 QL-IN-085 Meter Stanley FATMAX autolock QL-IN-242 Temperature datalogger Testo 174T QL-IN-021 Numeral wattmeter HIOKI 3333 power hitester QL-IN-182
Other test instrument used if risk group > 1 Altri Strumenti di misura utilizzati in caso di gruppo di rischio >1	Mirror Photogoniometer LMT GmbH GO-DS 2000 QL-IN-001 Temperature-humidity datalogger Testo 174H QL-IN-181
Test ambient temperature Temperatura ambiente durante la prova	25,0 °C ± 1,0 °C. Ambient temperature registrations available on request Le registrazioni delle temperature ambientali sono disponibili su richiesta

Test Name Identificazione prova	Test Procedure Procedura di prova	Test Measurement Misure di prova	Overall risk group Gruppo di rischio complessivo
Blue Light Risk Group (distance 200 mm)	IEC TR 62778:2014	Blue light	RISK GROUP EXEMPT UNLIMITED
Blue Light Risk Group 1 threshold distance of the tested version (For derived versions see formula in annex III)	IEC TR 62778:2014	Blue light	Not applicable

Uncertainty Incertezza	
Radiance Radianza	± 3,5 %
Irradiance Irradianza	± 3,4 %
Risk Group 1 threshold distance Distanza di soglia gruppo di rischio 1	not applicable
Statement Dichiarazione	<p>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 $k = 2$.</p> <p>If the limits are not breached by the measured result, extended by the expanded uncertainty interval, then the product is considered compliant with the specification.</p> <p>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 $k = 2$.</p> <p>Il prodotto viene considerato conforme alle specifiche se i limiti non vengono superati dal risultato misurato, esteso dell'intervallo di incertezza estesa associata.</p>

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ANNEX I Blue light risk group IEC TR 62778



Standard	IEC TR 62778:2014
Sample N°	1338-QL20-S01
Place of test	Qualilab Srl - Via Trento, 87 - 25020 - Capriano del Colle (BS) - Italy
Date of test	29/10/2020
Test procedure	<p>In accordance to IEC TR 62778 figure 7 the sample was measured at a distance of 200 mm to the sensor and blue light evaluated.</p> <p>If blue light risk at 200 mm is > 1</p> <p>Out of E_B and E the factor $K_{B,v}$ was calculated with $K_{B,v} = E_B / E$</p> <p>The threshold illuminance E_{thr} was calculated with $E_{thr} = E_B / K_{B,v}$, with $E_B = 1 \text{ W/m}^2$</p> <p>By measuring the luminous intensity distribution of the luminaire on a mirror based photogoniometer, the maximum intensity I_{max} was determined.</p> <p>With the photometric square law the threshold distance d_{thr} with E_{thr} was calculated.</p>

Test measurements			Sample at a distance of 200 mm:						
Emission limits for risk groups of continuous wave lamps									
Risk	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt – RG0		Low risk – RG1		Mod risk – RG2	
				Limit	Result	Limit	Result	Limit	Result
Blue light	$B(\lambda)$	L_B	$\text{W}\cdot\text{m}^{-2}\cdot\text{sr}^{-1}$	100	1,43E+01	10000	-	4000000	-
Blue light, small source	$B(\lambda)$	E_B	$\text{W}\cdot\text{m}^{-2}$	0,01*	not applicable	1,0	-	400	-
* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.									

The following table is applicable only if Blue light risk at 200 mm is > 1

$K_{B,v}$	I_{max} [cd]	E_{thr} [lx]	d_{thr} [m]
-	-	-	-

TEST RESULT	RISK GROUP 200 mm: RISK GROUP EXEMPT UNLIMITED RISK GROUP THRESHOLD DISTANCE: not applicable
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ANNEX II

Labeling in acc. with IEC 60598-1:2014+A1:2017

For complete and updated marking and labeling requirements please see IEC 60598-1:2014+A1:2017.

Example:

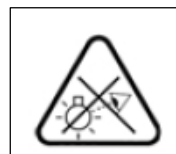
if Blue light risk at 200 mm is > 1:

For fixed luminaires the manufacturer's instructions provided with the luminaire shall give the following text:

The luminaire should be positioned so that prolonged staring into the luminaire at a distance of x m is not expected.

For portable and handheld luminaires and for fixed luminaires if the light source is directly visible during luminaire maintenance, the luminaire shall be marked with the following warning symbol:

Do not stare at the operating light source



ANNEX III

Extension of results on derived versions



if Blue light risk at 200 mm is ≤ 1 :
see IEC TR 62778:2014 Annex D

if Blue light risk at 200 mm is > 1:
applicable formula for derived versions

$$d_{thr}[m] = \sqrt{\frac{I_{d_max}[cd]}{E_{thr}[lx]}}$$

where

I_{d_max} [cd] = Max luminous intensity in cd evaluated from the luminous intensity distribution of the derived version

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ANNEX IV

Photograph

