

	Test report	148-QL22-R08	
	Applicant	Neri Spa Via Emilia, 1622 47020 - Longiano (FC) - Italy	
	Type	LULYR 32 cl I	

TEST REPORT 148-QL22-R08 ver. 0

Dates and authorization Date e autorizzazioni		
Report Date Data emissione rapporto di prova	09/03/2022	
Written by Preparato da	Ing. Carsten Seyring	
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	Neri Spa - Via Emilia, 1622 - 47020 - Longiano (FC) - Italy	
Manufacturer Produttore	Neri Spa - Via delle Querce, 4 - 47020 - Longiano (FC) - Italy	
Sample description Descrizione dispositivo	LED luminaire/ Apparecchio di illuminazione a LED	
Type Modello	LULYR 32 cl I	
Light source Sorgente luminosa	N° 32 LEDs Lumileds L150-30705006000S0 – 3000K	
Secondary optic Ottica secondaria:	Ledil strada 2x2 ME-WIDE1	
Power supply Alimentazione:	AC 240 V, 50 Hz	
Driver model Modello alimentatore	Philips Xi FP 75W 0.3-1.05A SNLDAE 230V C133 sXt	
Single led supply current Corrente sul singolo led	415 mA	

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Applicable standards Norme applicabili	
	EN 62471:2008 (photobiological safety of lamps and lamp systems)
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-IN-017) Multimeter ISOTECH idm 303 QL-IN-085 Oscilloscope Yokogawa DLM2022 QL-IN-179 Meter Stanley FATMAX autolock QL-IN-242 Temperature datalogger Testo 174T QL-IN-021
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
Tested Lamp Lampada testata	<input checked="" type="checkbox"/> continuous wave lamps <input type="checkbox"/> pulsed lamps
Note note	-
Measurement distance Distanza di misura	<input checked="" type="checkbox"/> 3440 mm (500 lx distance) <input type="checkbox"/> 200 mm
Light emitting surface Superficie di emissione luminosa	290 mm (L) x 290 mm (H) → 84,3 mrad (α)

Test Name Identificazione prova	Test Procedure Procedura di prova	Test Measurement Misure di prova	Overall risk group Gruppo di rischio complessivo
Photobiological safety of lamps and lamp systems	EN 62471:2008	Actinic UV - EXEMPT Near UV - EXEMPT Blue light – EXEMPT Retinal thermal – EXEMPT Infrared - EXEMPT	RISK GROUP EXEMPT

Uncertainty Incertezza	
Radiance Radianza	3,6 %
Irradiance Irradianza	3,3 %
Time Tempo	0,28 %
500 lx distance Distanza 500 lx	40 mm
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 value, 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 valore misurato.</p>

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ANNEX I Photobiological safety of lamps and lamp systems

Standard	EN 62471:2008
QUALILAB sample number	148-QL22-S02
Place of test	Qualilab Srl - Via Trento, 87 - 25020 - Capriano del Colle (BS) - Italy
Date of test	01/03/2022
Test procedure	The sample was prepared, stabilized and measured like defined in EN 62471:2008.
Test requirements and measurements	

Risk	Emission limits for risk groups of continuous wave lamps								
	Action spectrum	Symbol	Units	Emission Measurement					
				Exempt – RG0		Low risk – RG1		Mod risk – RG2	
Limit	Result	Limit	Result	Limit	Result				
Actinic UV	$S_{UV}(\lambda)$	E_s	$W \cdot m^{-2}$	0,001	1,52E-06	-	-	-	-
Near UV		E_{UVA}	$W \cdot m^{-2}$	0,33	2,65E-05	-	-	-	-
Blue light	$B(\lambda)$	L_B	$W \cdot m^{-2} \cdot sr^{-1}$	100	1,97E+01	10000	-	4000000	-
Blue light, small source	$B(\lambda)$	E_B	$W \cdot m^{-2}$	0,01*	Not applicable	1,0	-	400	-
Retinal thermal	$R(\lambda)$	L_R	$W \cdot m^{-2} \cdot sr^{-1}$	$\frac{28000}{\alpha} =$ 3,32E+05	2,24E+03	$28000/\alpha$	-	$71000/\alpha$	-
Retinal thermal, weak visual stimulus**	$R(\lambda)$	L_{IR}	$W \cdot m^{-2} \cdot sr^{-1}$	$\frac{545000}{\alpha}$ if $0,0017 \leq \alpha \leq$ 0,011		Not applicable			
				$\frac{6000}{\alpha}$ if $0,011 \leq \alpha \leq$ 0,1					
IR radiation, eye		E_{IR}	$W \cdot m^{-2}$	100	1,27E-02	570	-	3200	-

* Small source defined as one with $\alpha < 0,011$ radian. Averaging field of view at 10000 s is 0,1 radian.
** Involves evaluation of non-GLS source

TEST RESULT	RISK GROUP EXEMPT
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ANNEX II
Labeling example according to IEC TR 62471-2:2009

Hazard	Hazard-related risk group labeling of lamps systems			
	Exempt Risk Group	Risk Group 1	Risk Group 2	Risk Group 3
Ultraviolet hazard 200 nm to 400 nm	<input checked="" type="checkbox"/> Not required	-	-	<input type="checkbox"/> WARNING UV emitted from this product
Retinal blue light hazard 300 nm to 700 nm	<input checked="" type="checkbox"/> Not required	<input type="checkbox"/> Not required	<input type="checkbox"/> CAUTION Possibly hazardous optical radiation emitted from this product	<input type="checkbox"/> WARNING Possibly hazardous optical radiation emitted from this product
Retinal thermal hazard 380 nm to 1400 nm	<input checked="" type="checkbox"/> Not required	<input type="checkbox"/> Not required	<input type="checkbox"/> CAUTION Possibly hazardous optical radiation emitted from this product	<input type="checkbox"/> WARNING Possibly hazardous optical radiation emitted from this product
Cornea/Lens infrared hazard 780 nm to 3000 nm	<input checked="" type="checkbox"/> Not required	<input type="checkbox"/> NOTICE IR emitted from this product	<input type="checkbox"/> CAUTION IR emitted from this product	<input type="checkbox"/> WARNING IR emitted from this product
Retinal/thermal hazard, weak visual stimulus 780 nm to 1400 nm	<input checked="" type="checkbox"/> Not required	<input type="checkbox"/> WARNING IR emitted from this product	<input type="checkbox"/> WARNING IR emitted from this product	<input type="checkbox"/> WARNING IR emitted from this product

Hazard	Explanation of labeling information and guidance on control measures			
	Exempt Risk Group	Risk Group 1	Risk Group 2	Risk Group 3
Ultraviolet hazard 200 nm to 400 nm	<input checked="" type="checkbox"/> Not required	-	-	<input type="checkbox"/> Avoid eye and skin exposure to unshielded product
Retinal blue light hazard 300 nm to 700 nm	<input checked="" type="checkbox"/> Not required	<input type="checkbox"/> Not required	<input type="checkbox"/> Do not stare at operating lamp. May be harmful to the eye	<input type="checkbox"/> Do not look at operating lamp. Eye injury may result
Retinal thermal hazard 380 nm to 1400 nm	<input checked="" type="checkbox"/> Not required	<input type="checkbox"/> Not required	<input type="checkbox"/> Do not stare at operating lamp. May be harmful to the eye	<input type="checkbox"/> Do not look at operating lamp. Eye injury may result
Cornea/Lens infrared hazard 780 nm to 3000 nm	<input checked="" type="checkbox"/> Not required	<input type="checkbox"/> Use appropriate shielding or eye protection	<input type="checkbox"/> Avoid eye exposure. Use appropriate shielding or eye protection	<input type="checkbox"/> Avoid eye exposure. Use appropriate shielding or eye protection
Retinal/thermal hazard, weak visual stimulus 780 nm to 1400 nm	<input checked="" type="checkbox"/> Not required	<input type="checkbox"/> Do not stare at operating lamp	<input type="checkbox"/> Do not stare at operating lamp	<input type="checkbox"/> Do not look at operating lamp



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ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

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ANNEX III

Photograph

