

LuxiRing Datasheet

Precision, Uniform & Compact machine vision lighting



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LuxiRing

INTRODUCTION



Production Name:
LuxiRing

Reference:
LRXX-XX-WH

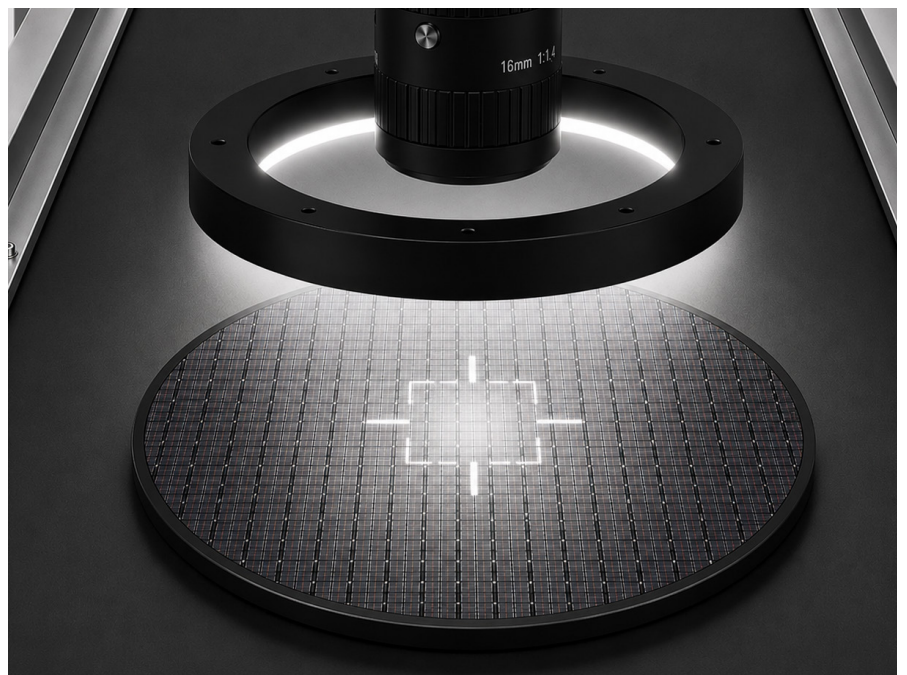
Product Category:
Machine Vision Lighting



LuxiRing: MACHINE VISION LIGHTING

Uniform, precise & compact, powered by
LuxiBright® technology.

Poor lighting is the leading cause of missed defects in industrial inspection. LuxiRing solves it at the source: powered by our exclusive LuxiBright® technology, it delivers uniform and precise illumination in a compact design — no hot spots, no glare, no intensity drops. From 40 mm to 420 mm in diameter, the range covers every machine vision need and is particularly optimized for semiconductor, micromechanics and pharmaceutical inspection.



PRODUCT OVERVIEW

RING SIZES

	LuxiRing Mini High Angle	LuxiRing 76 Low Angle	LuxiRing 76 High Angle	LuxiRing 160 Low Angle	LuxiRing 160 High Angle	LuxiRing Maxi High Angle
Reference	LRHA-40-WH	LRLA-76-WH	LRHA-76-WH	LRLA-160-WH	LRHA-160-WH	LRHA-420-WH
Diameter	Ø 40mm	Ø 76mm	Ø 76mm	Ø 160mm	Ø 160mm	Ø 420mm

LuxiRing Mini Ø40mm  Ø 28 mm inner diameter	LuxiRing Ø76mm  Ø 60 mm inner diameter	LuxiRing Ø160mm  Ø 144 mm inner diameter	LuxiRing Maxi Ø420mm  Ø 394 mm inner diameter
Different angles available for Ø76mm and Ø160mm  LOW ANGLE Dark-field  HIGH ANGLE Bright-field			

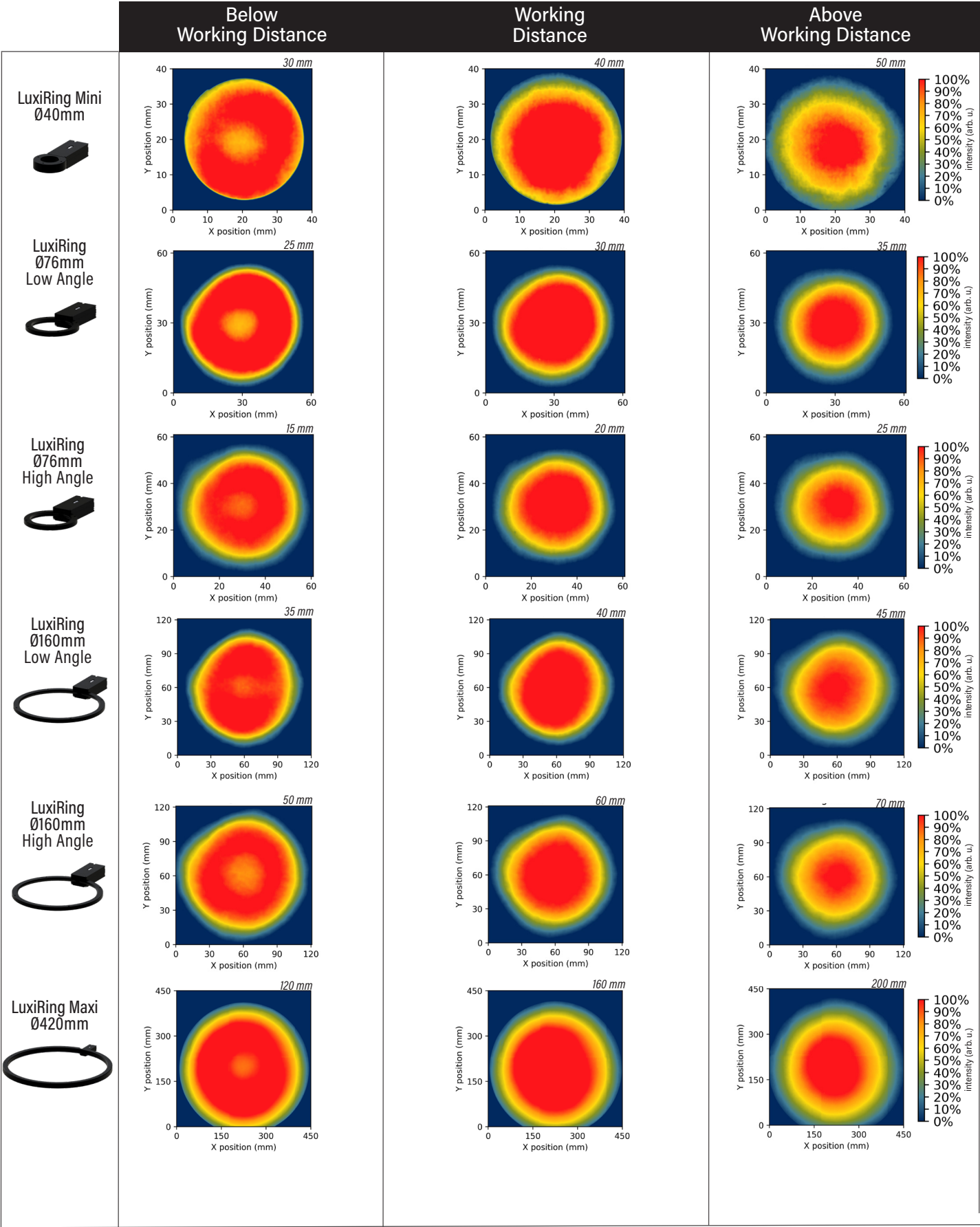
CONTROLLER

	4 Operating Modes	Strobe Reactivity	Dimming
	- Continuous at nominal current. - Rising Edge + Overdrive. - Following Pulse Overdrive. - 0-10 Volts Intensity Dimming.	Automatic overdrive brightness when product is strobed <10µs.	On continuous mode and overdrive mode.

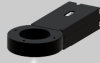
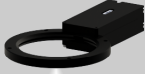
CABLING

	L.E.S.S. Cables
	Power supply cable: It connects the cable between the L.E.S.S controller and the ring.
	Standard m12 5 pins
	Compliant with industry standards: - 24 VDC - GND - Trigger Input - Dimming 0-10 VDC (20-100%)

LIGHT UNIFORMITY



LIGHT INTENSITY

Working Distance	LuxiRing Mini 	LuxiRing Ø76 Low Angle 	LuxiRing Ø76 High Angle 
20 mm	Not Applicable	>70 000 lx	Not Applicable
30 mm	>90 000 lx	50 000 lx	>70 000 lx
40 mm	85 000 lx	40 000 lx	60 000 lx
60 mm	60 000 lx	10 000 lx	20 000 lx
100 mm	20 000 lx	2 000 lx	3 000 lx

Working Distance	LuxiRing Ø160 Low Angle 	LuxiRing Ø160 High Angle 
40 mm	>16 000 lx	Not Applicable
60 mm	14 000 lx	15 000 lx
70 mm	11 000 lx	13 000 lx
80 mm	9 000 lx	12 000 lx
100 mm	5 000 lx	8 000 lx

Working Distance	LuxiRing Maxi 
170 mm	>2 000 lx
185 mm	1 600 lx
200 mm	1 500 lx
225 mm	1 450 lx
250 mm	1 300 lx

TECHNICAL SPECIFICATIONS

MECHANICAL SPECIFICATIONS

Variant	Product Reference	Hole Position*	Interface	Frame Material	Weight	
40 High Angle	LRHA-40-WH	3 x Ø 40 mm	M4 holes	Anodized Aluminium	≤ 130g	
76 Low Angle	LRLA-76-WH	4 x Ø 76 mm			≤ 120g	
76 High Angle	LRHA-76-WH					
160 Low Angle	LRLA-160-WH	4 x Ø 160 mm				≤ 150g
160 High Angle	LRHA-160-WH					
420 High Angle	LRHA-420-WH	15 x Ø 420 mm				
Controller interface	DIN Rail adaptor TS35					

OPTICAL SPECIFICATIONS

Lightning technology	LuxiBright®
Color	White
Color temperature	5400°K
Illumination modes	Continuous / Trigger / Strobe (selected via DIP switch) / Dimming
Dimming	Variable from 20% to 100%
Part reference	Illuminance at optimal working distance
LRHA-40-WH	>90'000 lx at 30 mm
LRLA-76-WH	>70'000 lx at 20 mm
LRHA-76-WH	>70'000 lx at 30 mm
LRLA-160-WH	>16'000 lx at 40 mm
LRHA-160-WH	>15'000 lx at 60 mm
LR-420-WH	>2'000 lx at 170 mm

ELECTRICAL SPECIFICATIONS

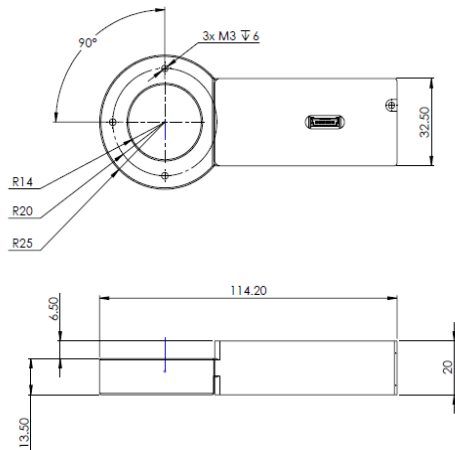
Electrical interface	24 VDC / GND / Trig In
Max. Power Consumption	19W (Overdrive), 12W (Nominal)
Overdrive ratio	x 2
Strobe reactivity	<10µs

ENVIRONNEMENTAL SPECIFICATIONS

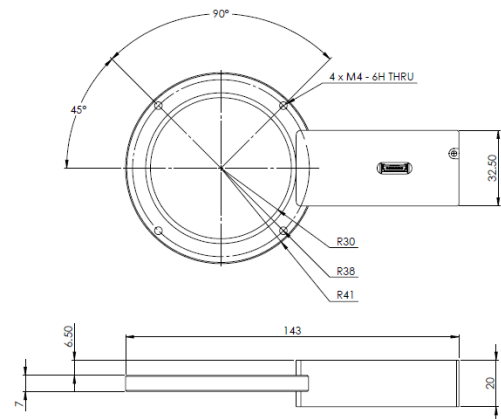
Working temperature	0-40°C
IP rating	IP 30

DIMENSIONS

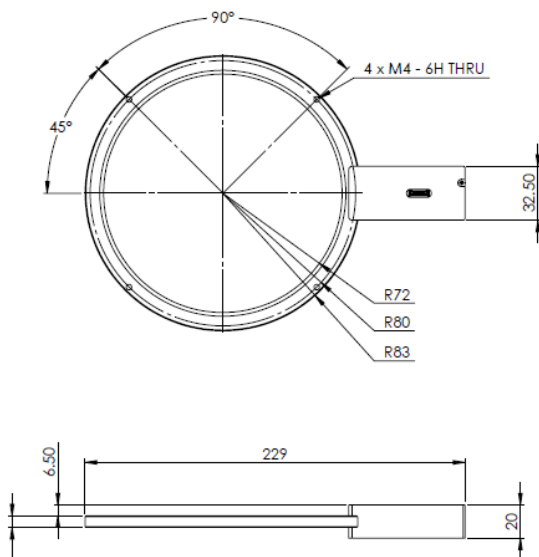
LuxiRing Mini Ø40 mm



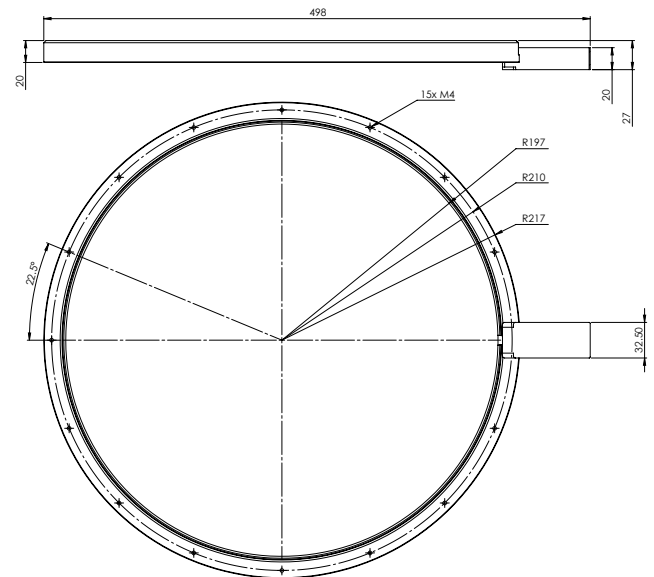
LuxiRing Ø76 mm



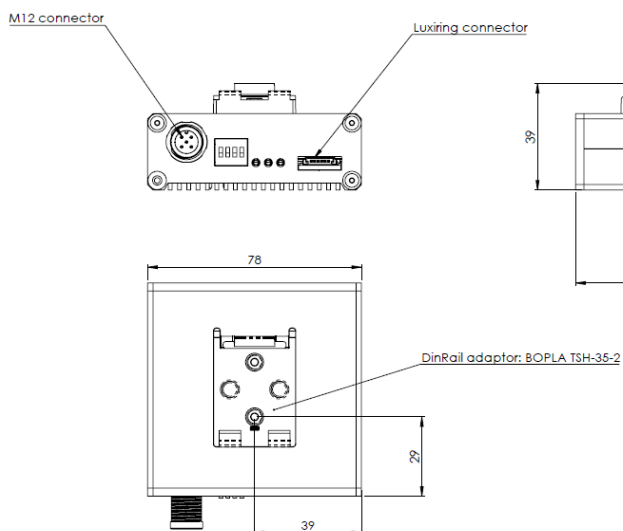
LuxiRing Ø160 mm



LuxiRing Maxi Ø420 mm



Controller

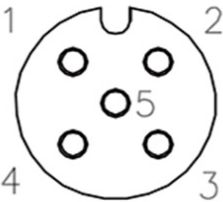


ACCESSORIES & CABLING

Accessories	
Cables	Controller
	
AC-CBL-1M* AC-CBL-2M**	CTRL-LR-LL

TE Connectivity / ERNI iBridge Ultra.

* Cable Length 1 meter.
** Cable Length 2 meters.

M12 5-Pin Male Connector			
Controller's input: 5 wires terminal-to M12 5-pin-power supply and external trigger			
Reference Drawing	Pin Number	Signal	Wire Color
 Ref : AC-M12-1.5	1	+24 VDC	Brown
	2	Analog Dimming (0-10 V)	White
	3	GND	Blue
	4	Trigger Input (12-26 VDC)	Black
	5	N.C.	Grey

Light source connector: I/O connector:

*Analog dimming range: 0-10 VDC.

At 0 VDC, light intensity is 20%; at 10 VDC, light output is 100%.

