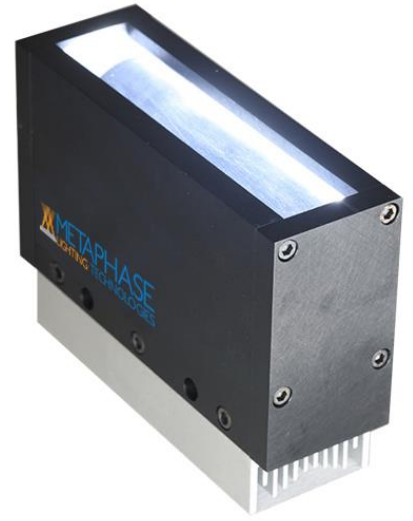


UX-ECL-LL

The Metaphase Technologies *Eclipser™*, is a unique LED back line light for improved detection of imperfections in optically clear materials that previously couldn't be seen with traditional line scan illumination techniques. The *Eclipser™* LED illuminator uses strategically positioned LEDs with innovative optics to highlight sub-pixel defects such as gels, unmelts, stones and contaminants.

This new technique bends light from two parallel LED strips through specially developed optics highlighting formerly undetectable particles with illumination. Much the way the rays of the sun form a halo effect during a total eclipse of the moon. The tiniest particles suspended in the material being scanned "glow" as the light passes through the defect. This helps the imaging of the smallest of optically clear defects down to sub-pixel sizes.



FEATURES

- Patented optics coupled with a dark field creates superior contrast
- Illuminates previously undetectable clear on clear imperfections
- Amplifies sub-micron defects at a sub-pixel level
- Speeds inspection time from "seconds" to "milliseconds"
- Built-in constant current driver(s) provides consistent illumination output
- Improved accuracy minimizes returns, increasing customer satisfaction
- One light allows a smaller footprint and more versatile installations

APPLICATIONS

- Extruded glass tubing
- Optical lenses
- Extruded and injection molded plastic
- Plate glass
- Glass bottles

WAVELENGTHS

Order ID	Description / nanometers
W	White (6000K)
R	Red 630nm
G	Green 530nm
B	Blue 470nm

GENERAL SPECIFICATIONS

Power Source:	24VDC ±10%
Cable (Standard):	10-foot cable with flying leads
Housing:	Black Anodized Aluminum
Operating Temp:	71°C max.
Lifetime Expectancy:	75,000 hours
Intensity Control:	Optional

UX-ECL-LL

Dark Field Line Light				Cable			Typical Current (Amps) @24VDC					
MODEL	Overall Length Inches / cm	Active Area Length Inches / cm	Weight ±10% lbs/Kg	Quantity	Length	AWG/ Conductors	White	Red	Green	Blue		
ECL-LL209	7.15 / 18.17	5.00 / 12.70	3.4 / 1.54	1	10ft	16/6	.7 amps max.					
ECL-LL309	≈12"											
ECL-LL809	≈37"											

Contact Metaphase for other sizes and cutomizations.

6 Conductor Wiring with Intensity Control	
Wire Color	Function
RED	+24VDC
BROWN	+24VDC
BLACK	GROUND (24V RTN)
BLUE	GROUND (24V RTN)
ORANGE	0-10VDC Intensity Control
YELLOW	SIGNAL GROUND

6 Conductor Wiring without Intensity Control	
Wire Color	Function
RED	+24VDC
BROWN	+24VDC
BLACK	GROUND (24V RTN)
BLUE	GROUND (24V RTN)
ORANGE	+24VDC
YELLOW	GROUND (24V RTN)

M12 Speedcon (#1405879, 5 position male)	
Pin #	Function
1	+24VDC
2	0-10VDC Intensity Control
3	GROUND (24V RTN)
4	SIGNAL GROUND
5	No Connection

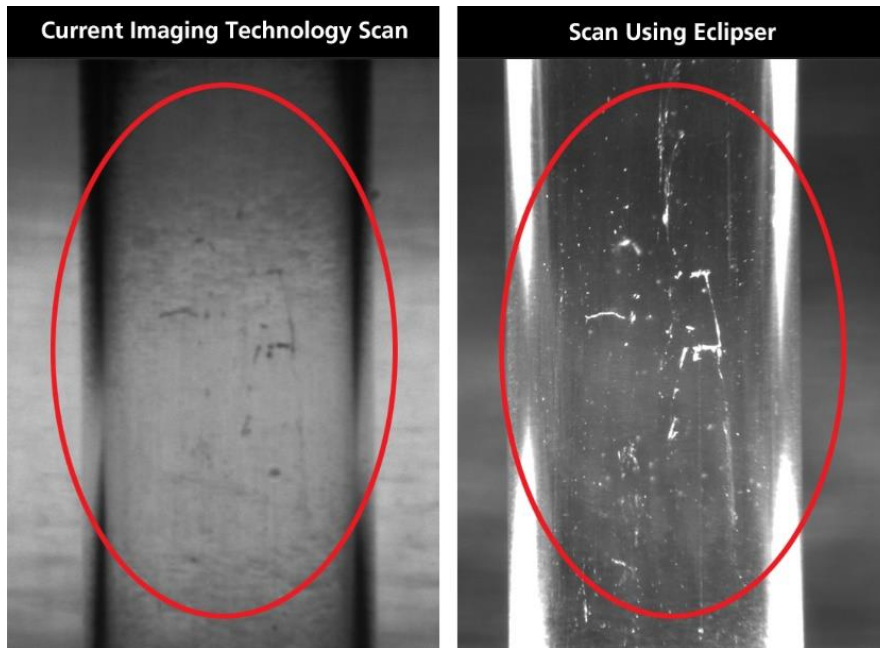
The M12 connector option is not recommended for lights rated in excess of 4 amps

SINGLE COLOR LIGHT with ULC-2 (6 conductor)	
WIRE COLOR	FUNCTION
RED, BROWN (+)	LED INPUT
BLACK, BLUE (-)	
ORANGE, YELLOW	NO CONNECTION

Terminated within a 2 position BCP-508-2 connector to interface with the ULC-2 "LED Output"

UX-ECL-LL

MODEL NUMBER KEY							
MODEL	COLOR (Wavelength)	STANDARD OPTION	VOLTAGE	ILS/ILD	M12	CUSTOM OPTION	
UX-ECL-LLXXX	XXX	XXX	XXX	XXX	X	XXX	
209 (5") 309 (10") 809 (35")	W (White 6000K) R (Red 630nm) G (Green 530nm) B (Blue 470nm) Choose one	Z (Intensity Ctrl) Choose Z or leave blank	24 (+24VDC) U (ULC-2 Controller) KEY (Keyence Controller) Choose one	ILD (In Line Dimmer) ILS (In Line Strobe) Choose one or leave blank	T (M12 Conn.) Choose T or leave blank	XXX Customizable per order (ie. Customer's initials) XXM Custom cable length (ie. 12M for 12 meters) Choose one or leave blank	



UX-ECL-LL

Sample Model Number: UX-ECL-LL209-W-24

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	8/22/2017	

Metaphase Technologies, Inc. 211 Sinclair Road, Suite 100, Bristol, PA. 19007 215-639-8699 Fax 215-639-0977			
QUANTITY: Per order	TOLERANCE/FINISH UNLESS OTHERWISE SPECIFIED	THIS DOCUMENT IS THE PROPERTY OF METAPHASE TECHNOLOGIES, INC. WHOM MAY LOAN IT, SUBJECT TO RETURN UPON DEMAND. IT INCLUDES CONFIDENTIAL & PROPRIETARY INFORMATION WHICH MAY NOT BE DISCLOSED TO ANY THIRD PARTY, AND OR USED FOR ANY PURPOSE CONTRARY TO ITS INTENDED USE, WITHOUT THE EXPRESSED PRIOR WRITTEN CONSENT OF METAPHASE TECHNOLOGIES, INC.	
MATERIAL: Per BOM	INCHES (MM)		
FINISH: Black Anodize	X .X .XX .XXX [±.76] ±.030 [±.25] ±.010 [±.13] ±.005 ANGLES ±1°		
TREATMENT: N/A		TITLE: Top Assy.- 5" ECL Line Light	USED ON: Per customer
Approval Signature	Date	SIZE: B	DRAWING NUMBER: UX-ECL-209-1
		SCALE: 1:12	REV: A SHEET 1 OF 1

COMPLIANCE



IEC
62417