

illumiNova™

Fixed Mount LED Stroboscopic Inspection Systems

Description

The illumiNova™ fixed mount LED stroboscopic inspection systems are designed for continuous use in high speed applications requiring crisp, clear, stop motion quality inspection. The extraordinarily bright LED's provide an ultra uniform white spectrum light. Available in a six inch model or one foot lengths up to 8 feet, with 3 different lens options to ensure you will have light coverage for any job. The powerful on board intuitive digital controller allows the user to quickly set flash rates, flash duration, brightness levels and many other advanced features. Flash rates can also be triggered remotely using machine mounted sensors connected directly to illumiNova's digital input or use the optional remote controller to extend the operating distance up to 100 feet. Monarch Instrument has been manufacturing the world's most popular portable stroboscopes for over 30



years. We know a thing or two about stop motion analysis. Let us customize an illumiNova™ fixed mount strobe system to meet your application specific requirements.

Applications

Printing

- Color quality
- Registration
- Specialty packaging
- UV security markings

Converting

- Slitting (cut quality)
- Rewinding
- Laminating inspection
- Coating

Special Effects/Entertainment

- Interactive water displays
- High speed video/photography
- Amusement rides

Paper Processing

- Finishing
- Embossing
- Coating
- Die cut quality
- Perforation

Metal Processing

- Rolled steel finishing
- Foils
- Aluminum
- Cut quality

Production Line Inspection

- Cooling fans
- Tires
- Pumps

illumiNova™

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Intuitive Control

Based on our incredibly popular Nova-Pro® series of portable inspection stroboscopes, illumiNova's on board controller makes set up and use simple and intuitive. The easy to read inverse LCD display is viewable even in high ambient light areas. Flash rates can be quickly entered using the rotary knob or the touch screen keypad. The optional remote controller can be mounted up to 100 feet away putting full control and real time information where you need it. USB or Bluetooth communications offers even more flexibility for control.



Advanced Features

- **Digital input/output**
illumiNova™ includes digital input and output jacks. Have a machine that provides a synchronizing pulse? Simply connect your signal to the input jack of the illumiNova™ and the flash will be synchronized with your equipment. If you need to cover a large or irregular area with light, multiple illumiNovas can be connected in series.
- **Phase/Time Delay**
Use the phase or time delay features to adjust or “position” the virtually stopped image to suit your needs.
- **Memory**
illumiNova™ has 10 memory presets allowing you to quickly change from one process speed to the next
- **Adjustable intensity levels**
Three adjustable light intensity levels give you complete



control over the amount of illumination on your process. Low light settings can be used for highly reflective surfaces while high light settings may be used for darker or high contrast materials.

illumiNova™ UV

illumiNova™ fixed mount strobes are also available with ultraviolet LED's for illumination of UV security markings and UV coatings.



Remote Control

The optional wired remote controller can be mounted up to 100 feet away putting full control and real time information directly where you need it. USB or Bluetooth communications offer even more flexibility for control using PC or Android and iOS devices.



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Specifications

illumiNova Models	50	100	200	300	400	500	600	700	800
Controller/Display:	6 digit numeric and 5 digit alphanumeric LCD with touch keypad and rotary tuning knob. High contrast blue background with backlight								
Flash Rate:	30 to 999,999 FPM								
Accuracy:	0.001% of setting or +/- 1 lsd								
Resolution:	6 digits to 0.001								
Flash Duration:	0.1-3.0 Degrees	0.1 to 4.0 Degrees, Adjustable in 1-150 µSecs							
LED Array Size:	6"	12"	24"	36"	48"	60"	72"	84"	96"
Number of LED's:	54	108	216	324	432	540	648	756	864
Lux output @6000 FPM/Spot lens									
@100cm (39.37")	3700	7250	8150	8430	8500	8570	8600	8660	8600
@200cm (78.74")	1000	2290	3760	4190	4350	4430	4450	4500	4500
Available Lens Types:	Spot: Provides narrowest, brightest illumination area Wide: Produces a horizontally wide light output allowing smaller strobes to illuminate wider processes Flood: Produces a vertically wide light output to illuminate a larger linear process area								
External Trigger Input:	Open collector, Dry contact Input for sensors (3-5 Vdc pulse) provides 5Vdc sensor power, Isolated input 5-12Vdc 50mA max								
Prescale Input:	Adjustable from 0-5000 pulses per revolution								
Digital Output:	Provides 3.3 Vdc TTL output								
Programmable Memory:	10 Set points								
Phase Delay/Time Delay:	-360° to +360°/± 50 mSecs								
Input Power:	115 or 230 Vac ±10%, 50/60Hz								
VA	37VA	60VA	110VA	160VA	260VA	325VA	360VA	430VA	470VA
Dimensions:	VA								
Height (Inch/cm)	4.375 11.11	4.375 11.11	4.375 11.11	4.375 11.11	4.375 11.11	4.375 11.11	4.375 11.11	4.375 11.11	4.375 11.11
Width (Inch/cm)	4.375 11.12	4.375 11.12	4.375 11.12	4.375 11.12	4.375 11.12	4.375 11.12	4.375 11.12	4.375 11.12	4.375 11.12
Length (Inch/cm)	9.43 23.97	15.44 39.21	27.43 69.69	39.93 101.44	51.93 131.92	63.93 162.38	75.93 192.88	87.93 223.34	99.93 253.84
Weight: (lbs/kg)	4.78 21.68	7.42 3.37	13.26 6.02	19.18 8.70	25.02 11.35	30.10 13.65	36.69 16.64	42.53 19.29	48.36 21.94
Housing Material:	Extruded and die-cast aluminum, powder coated								
Housing Rating:	IP20								

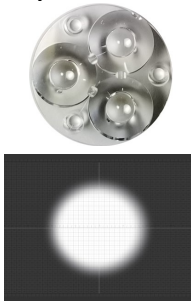


illumiNova™ 800 - 8 foot fixed mount strobe has 864 bright white LED's

Flexible Illumination

illumiNova™ is available with 3 different lens options. Select the illumination area that best suits your application. **Spot:** Provides the brightest most concentrated light pattern over the tightest area of your process. The narrow focal width allows the strobe to be mounted further away from the process while still providing bright uniform lighting **Flood:** Illuminates a longer linear distance on your process. **Wide:** Illuminates a narrow band but over a much wider area for applications that are wider than the length of the strobe.

Spot



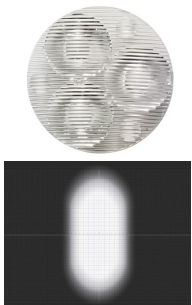
Distance to target
39.5" (100cm) Pulse Width 3.6/100mSec@ 6K High Setting

Effective Illumination Area					
Model	Lux	WIDTH inches	HEIGHT inches	WIDTH cm	HEIGHT cm
50	3700	14	x 14	36	x 36
100	7250	18	x 14	46	x 36
200	8150	30	x 14	76	x 36
300	8430	42	x 14	107	x 36
400	8500	54	x 14	137	x 36
500	8570	66	x 14	168	x 36
600	8600	78	x 14	198	x 36
700	8660	90	x 14	229	x 36
800	8660	102	x 14	259	x 36

Distance to target
78.74" (200cm) Pulse Width 3.6/100mSec@ 6K High Setting

Effective Illumination Area					
Model	Lux	WIDTH inches	HEIGHT inches	WIDTH cm	HEIGHT cm
50	1000	24	x 28	61	x 71
100	2290	30	x 28	76	x 71
200	3760	42	x 28	107	x 71
300	4190	54	x 28	137	x 71
400	4350	66	x 28	168	x 71
500	4430	78	x 28	198	x 71
600	4450	90	x 28	229	x 71
700	4520	102	x 28	259	x 71
800	4500	114	x 28	290	x 71

Flood



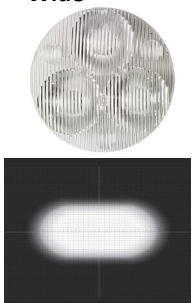
Distance to target
39.5" (100cm) Pulse Width 3.6/100mSec@ 6K High Setting

Effective Illumination Area					
Model	Lux	WIDTH inches	HEIGHT inches	WIDTH cm	HEIGHT cm
50	1465	11	x 36	28	x 91
100	2865	20	x 36	51	x 91
200	3480	32	x 36	81	x 91
300	3735	44	x 36	112	x 91
400	3810	56	x 36	142	x 91
500	3925	68	x 36	173	x 91
600	3960	80	x 36	203	x 91
700	3980	92	x 36	234	x 91
800	4000	104	x 36	264	x 91

Distance to target
78.74" (200cm) Pulse Width 3.6/100mSec@ 6K High Setting

Effective Illumination Area					
Model	Lux	WIDTH inches	HEIGHT inches	WIDTH cm	HEIGHT cm
50	389	13	x 72	33	x 183
100	858	18	x 72	46	x 183
200	1360	30	x 72	76	x 183
300	1675	42	x 72	107	x 183
400	1745	54	x 72	137	x 183
500	1805	66	x 72	168	x 183
600	1850	78	x 72	198	x 183
700	1910	90	x 72	229	x 183
800	1895	102	x 72	259	x 183

Wide



Distance to target
39.5" (100cm) Pulse Width 3.6/100mSec@ 6K High Setting

Effective Illumination Area					
Model	Lux	WIDTH inches	HEIGHT inches	WIDTH cm	HEIGHT cm
50	1627	36	x 18	91	x 46
100	3100	42	x 18	107	x 46
200	5690	54	x 18	137	x 46
300	6890	66	x 18	168	x 46
400	7380	78	x 18	198	x 46
500	7550	90	x 18	229	x 46
600	7640	102	x 18	259	x 46
700	7690	114	x 18	290	x 46
800	7690	126	x 18	320	x 46

Distance to target
78.74" (200cm) Pulse Width 3.6/100mSec@ 6K High Setting

Effective Illumination Area					
Model	Lux	WIDTH inches	HEIGHT inches	WIDTH cm	HEIGHT cm
50	427	72	x 32	183	x 81
100	800	78	x 32	198	x 81
200	1587	90	x 32	229	x 81
300	2240	102	x 32	259	x 81
400	2810	114	x 32	290	x 81
500	3210	126	x 32	320	x 81
600	3500	138	x 32	351	x 81
700	3695	150	x 32	381	x 81
800	3790	160	x 32	406	x 81

Ordering Information

illumiNova Model #

Lens Type (1=Spot, 2= Flood, 3=Wide)

Programming (1=USB, 2=Bluetooth . . . soon)

Ordering Example : 300 2

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