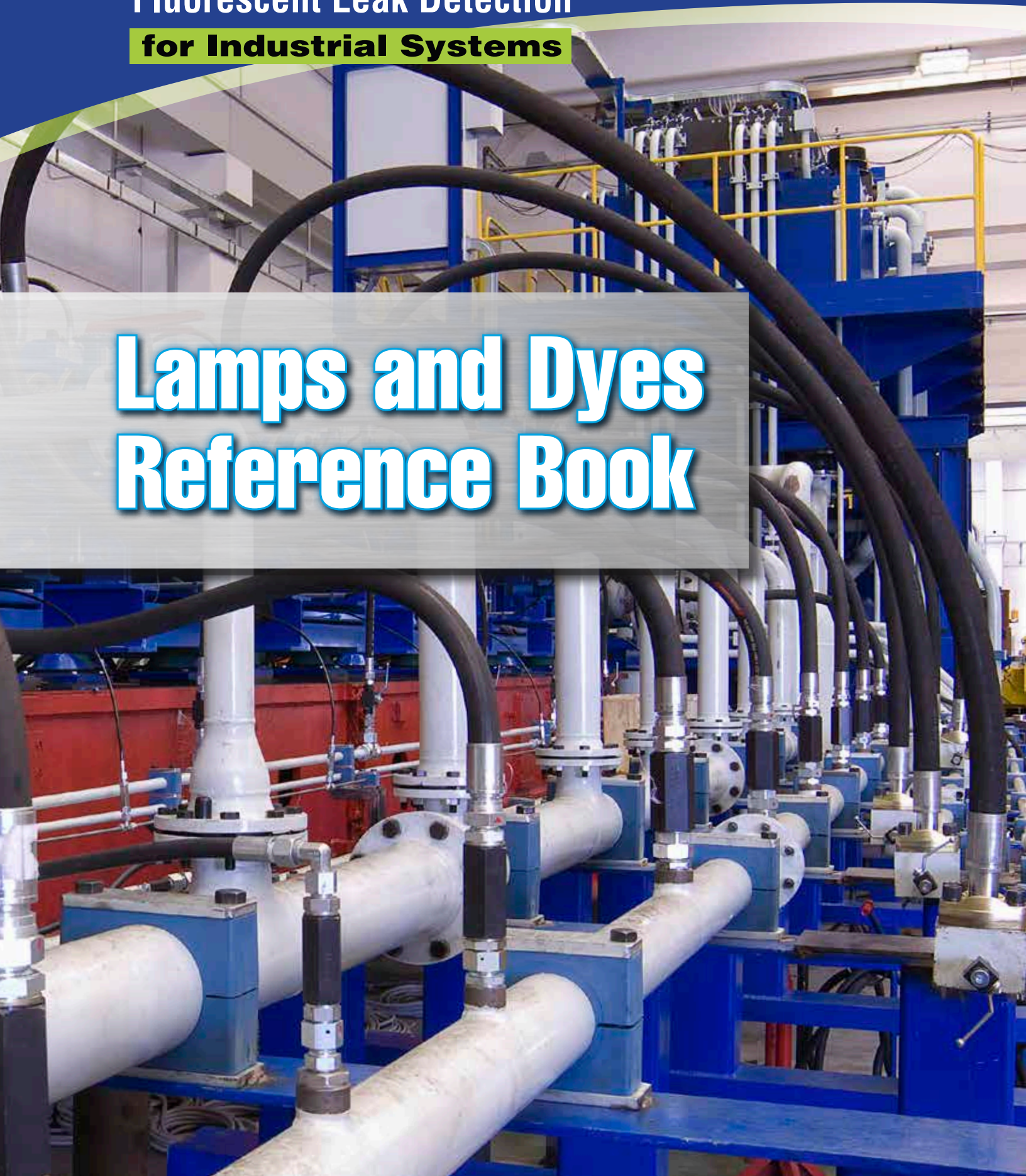


**SPECTROLINE®**

Fluorescent Leak Detection  
**for Industrial Systems**

# Lamps and Dyes Reference Book





# The *Evolution* of Leak Detection Lamp Technologies

Spectroline® fluorescent dyes come in a wide variety of formulations, including custom blends, to match each specific application. They are available in a range of colors to differentiate between different leaking fluid systems. And they work with any host fluid—without damaging its properties or system components! Paired with a Spectroline® leak detection lamp, our dyes provide optimal fluorescent response and contrast, ensuring that all leaks glow brilliantly.

## Shown under UV light



Yellow  
(OIL-GLO 22)



White  
(OIL-GLO 30)



Green  
(OIL-GLO 33)



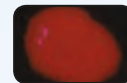
Bright Blue  
(OIL-GLO 40)



Yellow/Green  
(OIL-GLO 44)



Blue  
(OIL-GLO 45)



Red  
(OIL-GLO 50)



Blue  
(WATER-GLO 801)



Green  
(WATER-GLO 802)

- No need for yellow glasses
- Works with all OIL-GLO® and WATER-GLO® dyes

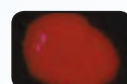
## Shown under Violet light



Green  
(OIL-GLO 33)



Yellow/Green  
(OIL-GLO 44)



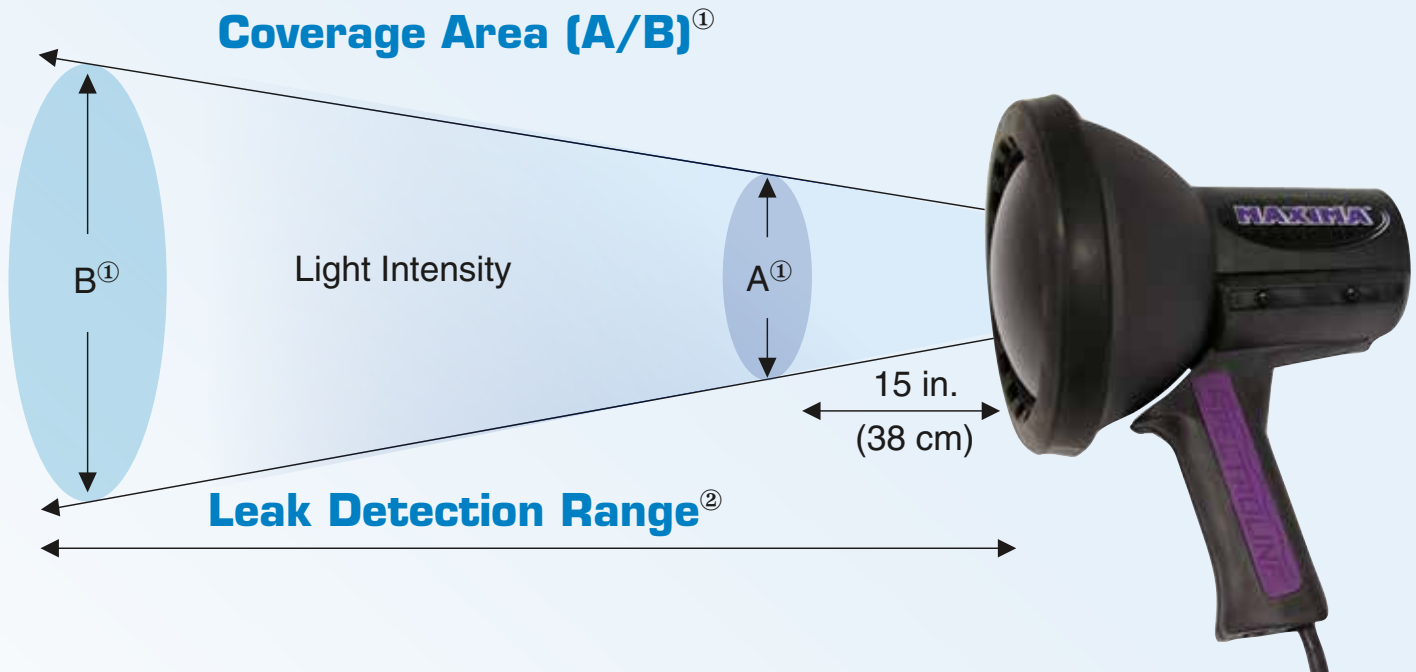
Red  
(OIL-GLO 50)































































Green  
(WATER-GLO 802)

- Wear yellow glasses as needed
- Works with select OIL-GLO® and WATER-GLO® dyes

# Lamp Comparison Chart



	Part Number	Trade Name	Bulb Type	Intensity	OIL-GLO Dyes ③							WATER-GLO Dyes ③		Coverage (A/B) ①	Leak Detection Range ②
					22	30	33	40	44	45	50	801	802		
	OPX-400ICS	OPTIMAX™ 400	Violet LED	Super High										3 in./17 in. (7.6 cm/43 cm)	25 feet (7.6 m) or more
	OLX-400I	OPTI-LUX™ 400	Violet LED	Super High										3 in./17 in. (7.6 cm/43 cm)	25 feet (7.6 m) or more
	LT-300	LeakTracker™	UV LED	High										3 in./20 in. (7.6 cm/51 cm)	20 feet (6.1 m) or more
	OLX-365	OPTI-LUX™ 365	UV LED	Ultra High										3 in./23 in. (7.6 cm/58 cm)	25 feet (7.6 m) or more
	TRI-365HA	TRITAN™ 365	UV LED	Ultra High										4 in./45 in. (10 cm/114 cm)	20 feet (6.1 m) or more
	MLK-35	MAXIMA™	UV MDL	Maximum										5 in./45 in. (12.7 cm/114 cm)	30 feet (9.1 m) or more
	EK-365	EagleEye™	UV LED	High										3 in./23 in. (7.6 cm/58 cm)	12 feet (3.6 m) or more

① Please use the diagram above as a reference.

② Depending on room light levels, as measured from light source to leak site.

③ NSF Certified - Registered to meet food-grade processing requirements for following category codes:

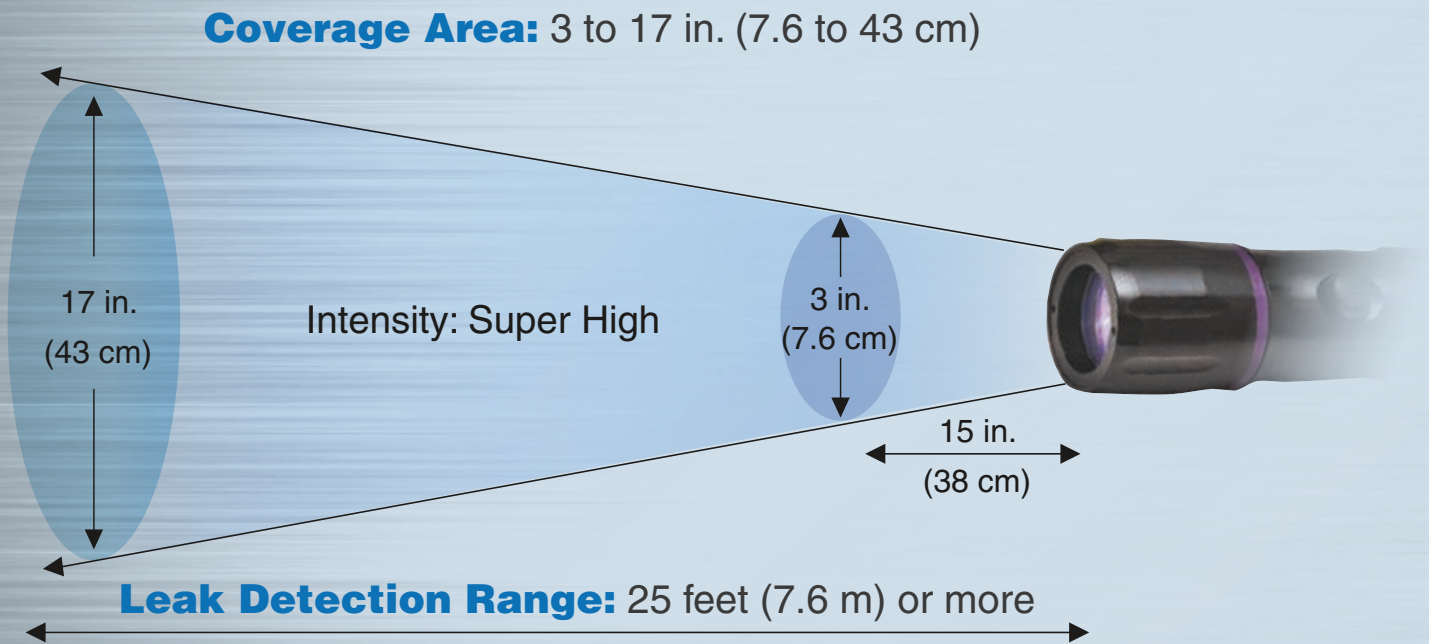


HTX-2 and HX-2 - OIL-GLO Series Dyes

G7, GX and HTX-2 - WATER-GLO Series Dyes

# OPTIMAX™ 400 Violet LED Flashlight

**OPX-400ICS**



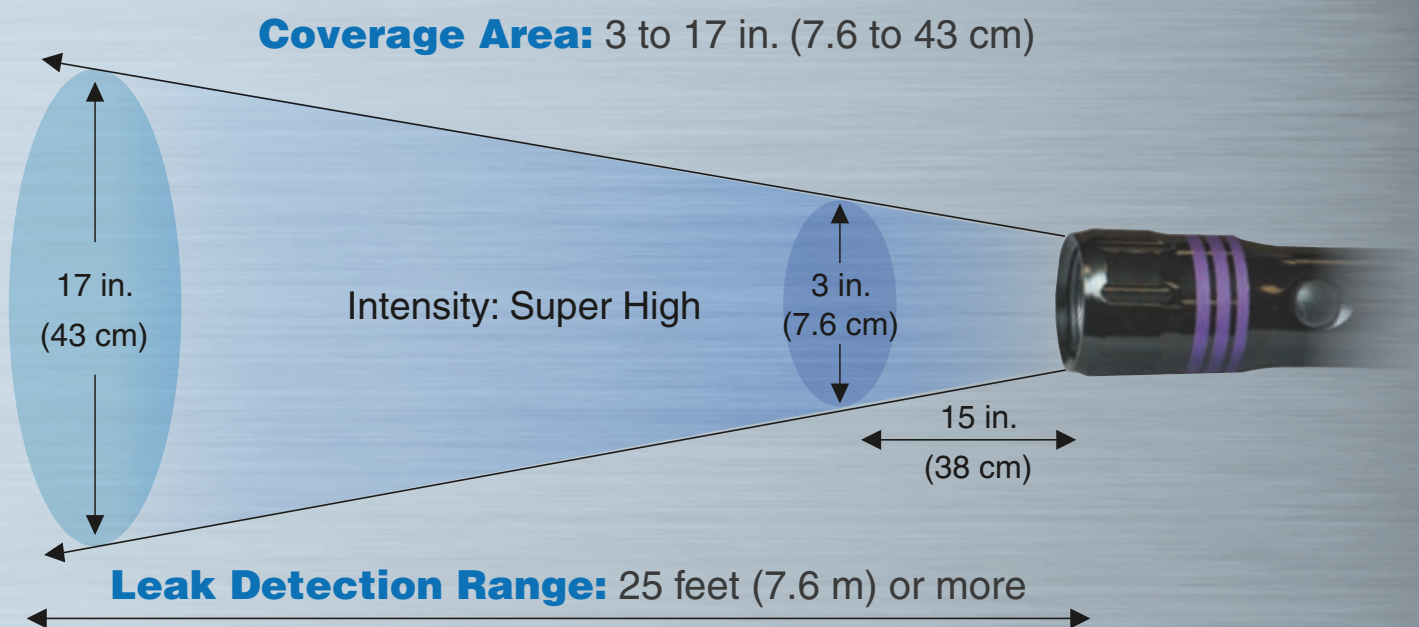
**Type:** Violet LED

**Dye Selection:** Works with OIL-GLO 33, OIL-GLO 44, OIL-GLO 50 and WATER-GLO 802 dyes

**Wear yellow fluorescence-enhancing glasses as needed**

# **OPTI-LUX™ 400 Violet LED Flashlight**

**OLX-400I**



**Type:** Violet LED

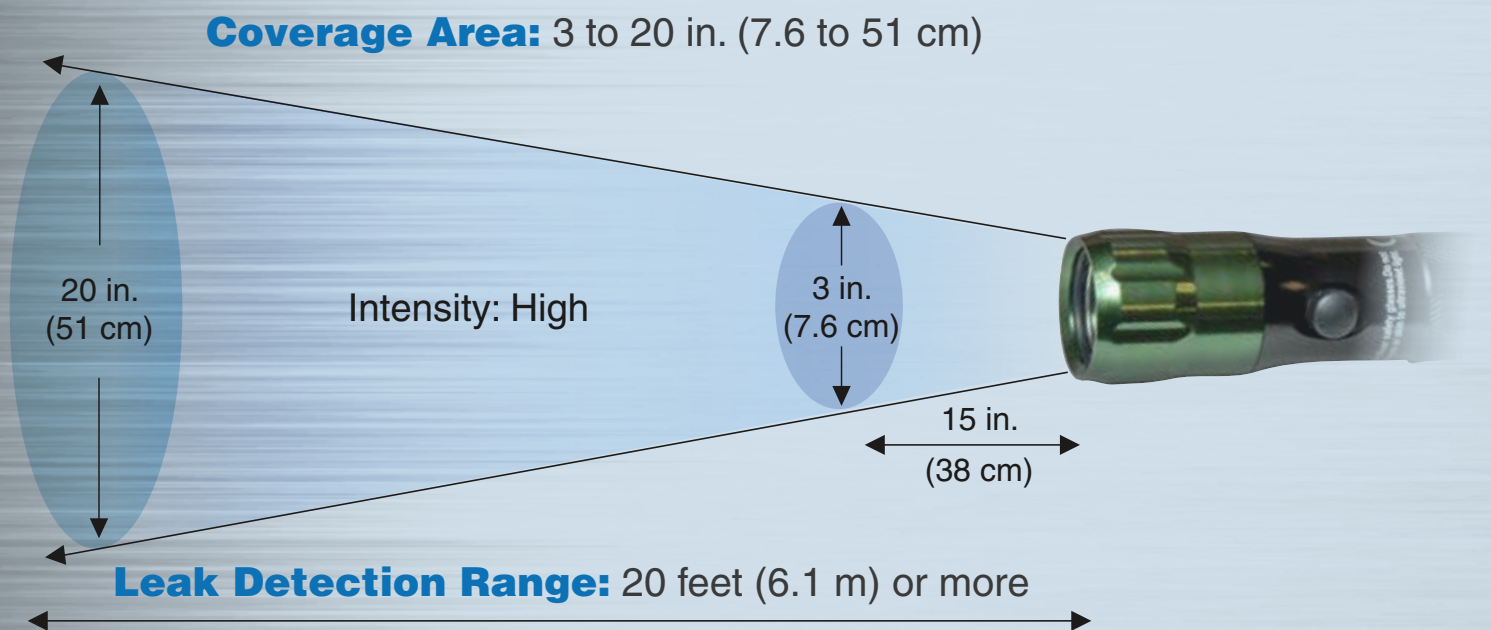
**Dye Selection:** Works with OIL-GLO 33, OIL-GLO 44, OIL-GLO 50 and WATER-GLO 802 dyes

**Wear yellow fluorescence-enhancing glasses as needed**



# LeakTracker™ UV LED Flashlight

## LT-300



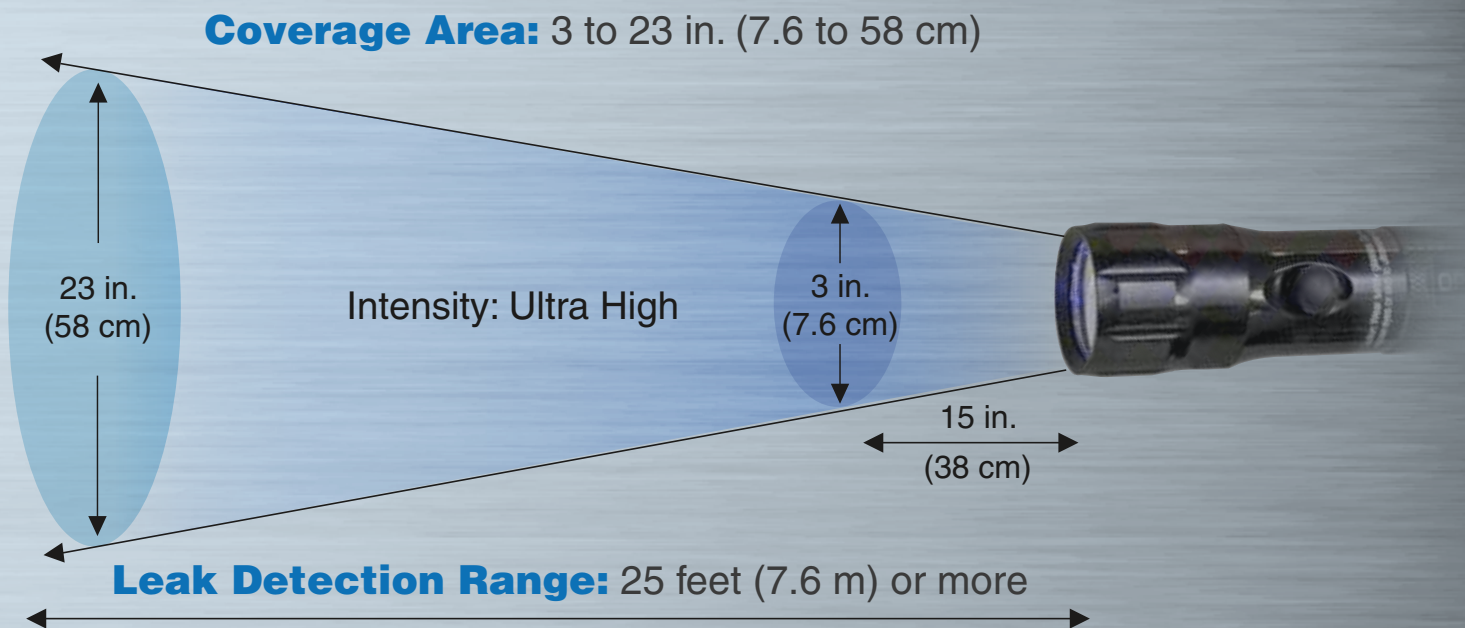
**Type:** UV LED

**Dye Selection:** Works with all OIL-GLO and WATER-GLO dyes

**Yellow fluorescence-enhancing glasses not required for most applications**

# OPTI-LUX™ 365 UV LED Flashlight

## OLX-365



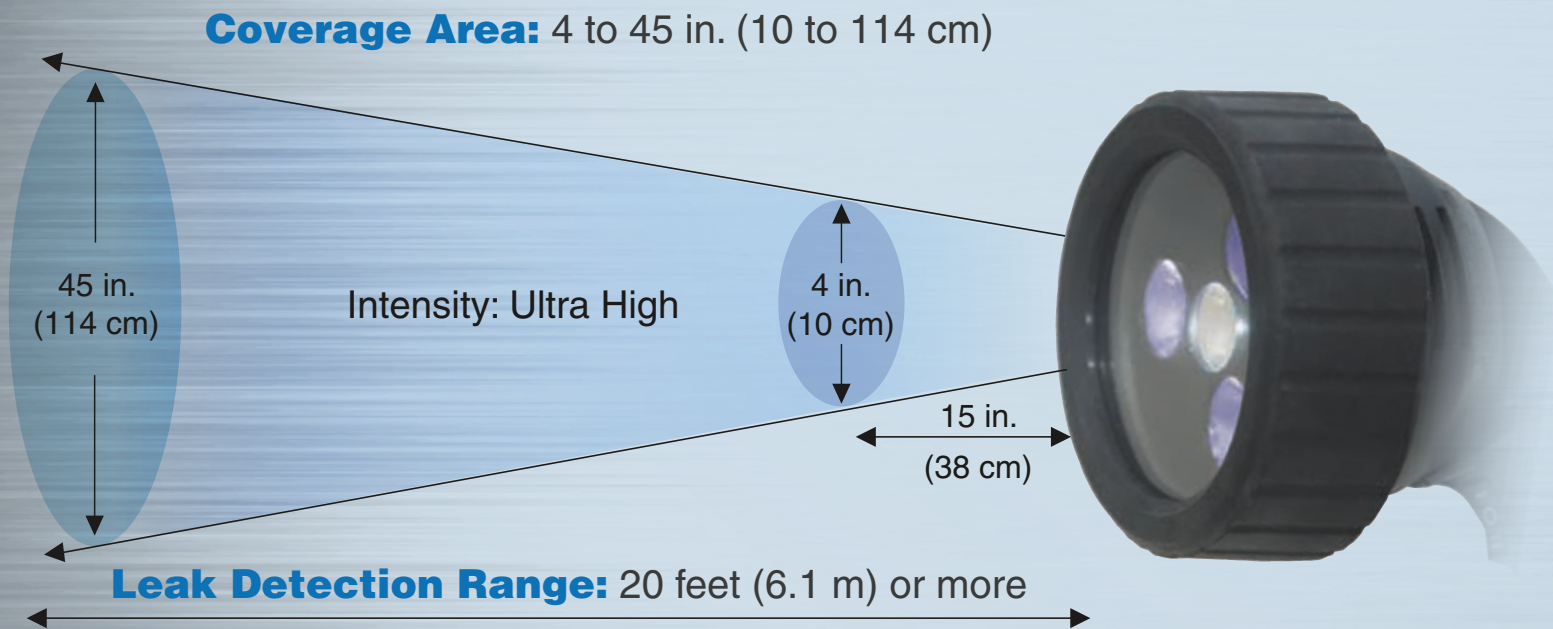
**Type:** UV LED

**Dye Selection:** Works with all OIL-GLO and WATER-GLO dyes

**Yellow fluorescence-enhancing glasses not required for most applications**

# TRITAN™ 365 UV LED Flashlight

## TRI-365HB



**Type:** UV LED

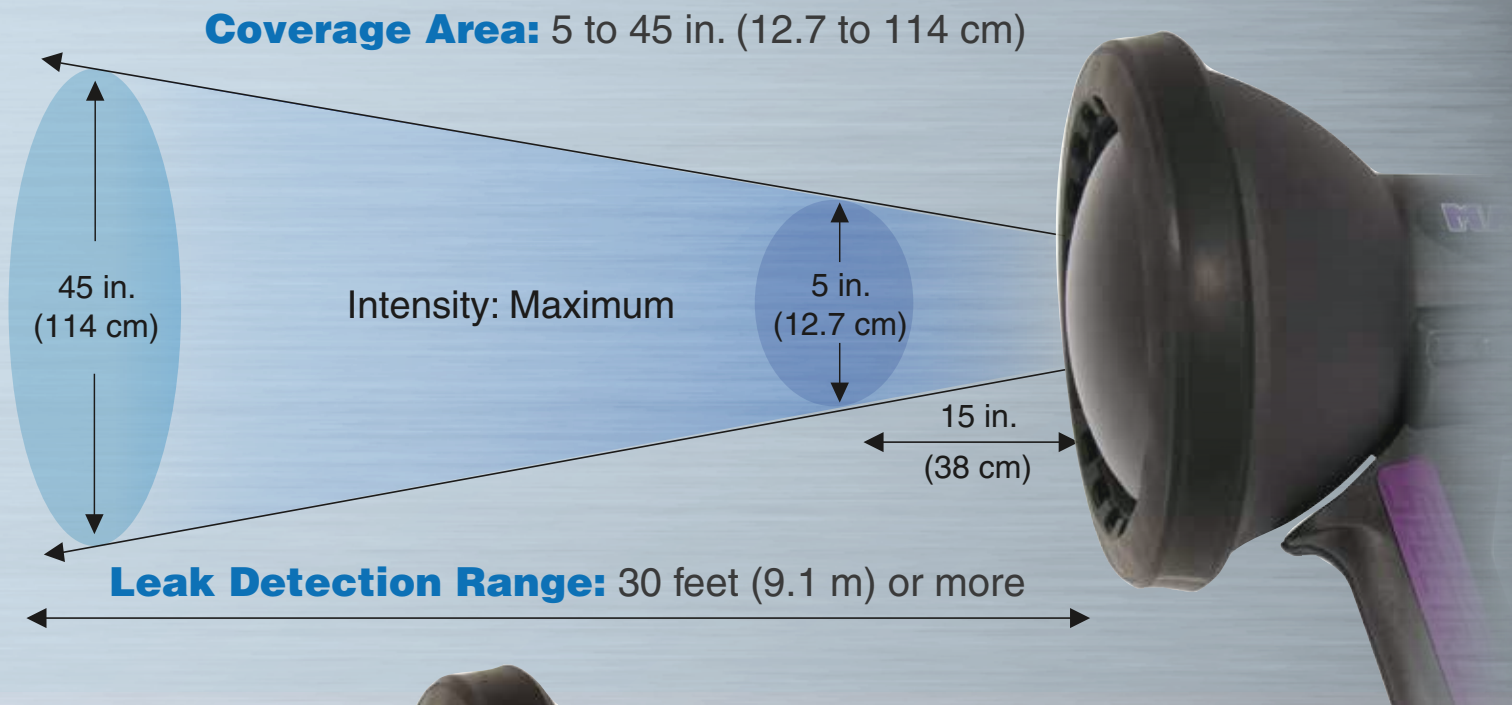
**Dye Selection:** Works with all OIL-GLO and WATER-GLO dyes

**Yellow fluorescence-enhancing glasses not required for most applications**



# MAXIMA™ UV MDL Lamp

## MLK-35



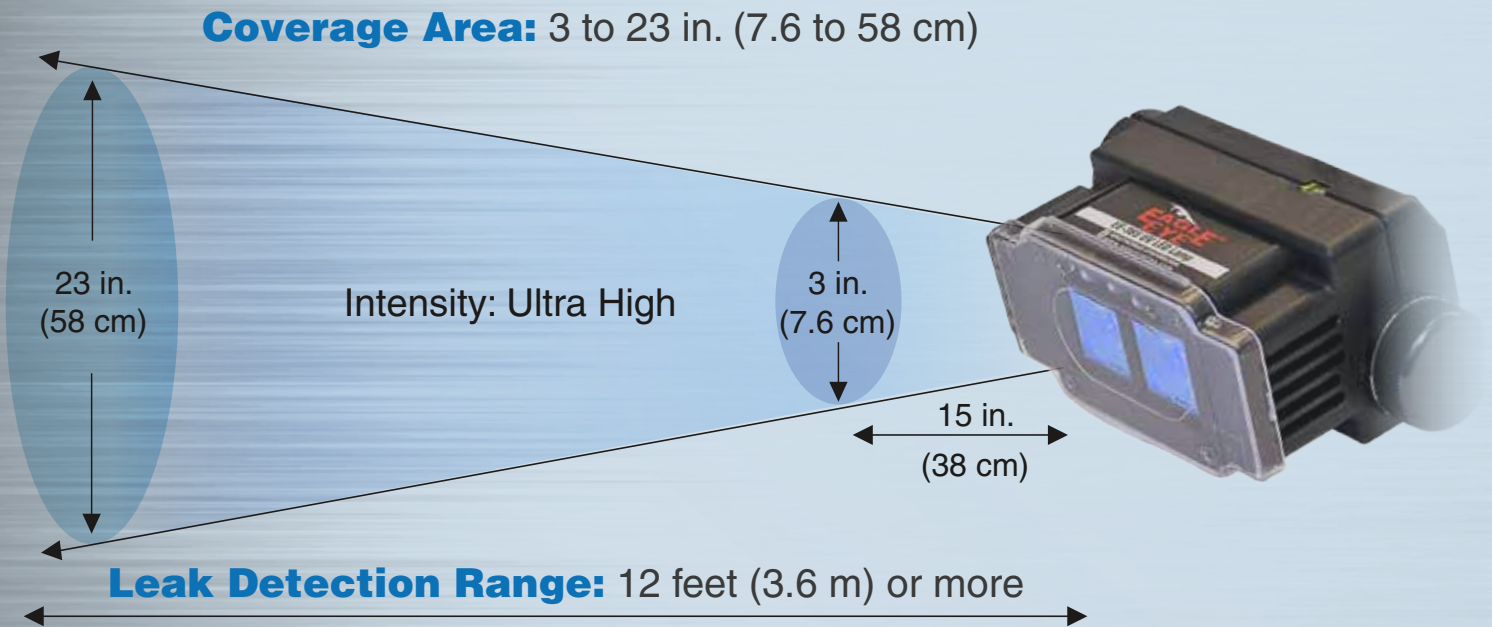
**Type:** UV Micro Discharge Light (MDL)

**Dye Selection:** Works with all OIL-GLO and WATER-GLO dyes

**Yellow fluorescence-enhancing glasses not required for most applications**

# **Eagle Eye™ UV/White Light LED Inspection Lamp**

**EK-365**



**Type:** UV LED

**Dye Selection:** Works with all OIL-GLO and WATER-GLO dyes

**Yellow fluorescence-enhancing glasses not required for most applications**

# Fluorescent Leak Detection Dyes

## Find Leaks Fast!

Ideal for use as part of a diagnostic/preventive maintenance program.

### For Synthetic- and Petroleum-Based Fluid Systems! Perfect for Lubricants and Hydraulic Leaks!

Work effectively in any enclosed circulatory system where oil-based fluids are used.



Registered to meet food-grade processing requirements for category codes HTX-2 and HX-2

NSF

### For Water and Water/Glycol-Based Fluid Systems!

Work in both static and circulating systems!



Registered to meet food-grade processing requirements for category codes G7, Gx and HX-2

**User Friendly** — Just add a small amount of dye to the system and let it circulate. All leaks will glow brightly when scanned with a high-intensity Spectroline® leak detection lamp.

**Versatile** — Allow inspection of an entire system under virtually all operating conditions. Pinpoint the exact source of the smallest, most elusive leaks – even multiple and intermittent leaks!

- **Cost Effective** — Highly concentrated. Contain more active ingredients per dose than competitive dyes
- **Special Formulations** — Available in **seven distinct colors** to distinguish between different leaking fluid systems
- **Highest Quality** — All OIL-GLO dyes are filtered down to 2 microns
- **Several Sizes** — Choose from 8 oz (237 ml), pint (473 ml) or quart (946 ml) bottles as well as gallon (3.8 L) containers. *Larger sizes also available.*
- **Special Formulations** — Available in two distinct colors to distinguish among leaking systems.
- **Economical** — Highly concentrated. Contain more active ingredients per dose than competitive dyes. A single pint (473 ml) can treat up to 1,000 gallons (3,800 L) of water-based fluid.
- **Choice of Sizes** — Choose between pint (473 ml) and quart (946 ml) bottles or one gallon (3.8 L) containers. *Larger sizes also available.*



# SUGGESTED DYE AMOUNT FOR INDUSTRIAL FLUID SYSTEMS

Product No.	Application	Suggested Dilution Ratio	% Dye to System Fluid	Use With
<b>OIL-GLO 22*</b> <b>OIL-GLO 22/6**</b> <b>OIL-GLO 22-8</b> <b>OIL-GLO 22-P</b> <b>OIL-GLO 22-Q</b> <b>OIL-GLO 22-G</b> (Fluoresces <b>yellow</b> )	<b>Petroleum-Based Fluid Systems:</b> Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 2 gals (7.6 L) hydraulic fluid 1 oz (30 ml) per 2 gals (7.6 L) compressor oil 1 oz (30 ml) per 1.5 gals (5.7 L) engine oil 1 oz (30 ml) per 2 qts (1.9 L) gearbox oil	0.20% 0.39% 0.39% 0.52% 1.56%	UV lamps and UVS-30 glasses
<b>OIL-GLO 30/6**</b> <b>OIL-GLO 30-8</b> <b>OIL-GLO 30-P</b> <b>OIL-GLO 30-Q</b> <b>OIL-GLO 30-G</b> (Fluoresces <b>white</b> ) (Requires UV lamp)	<b>Petroleum-Based Fluid Systems:</b> Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil	0.10% 0.20% 0.20% 0.26% 0.78%	UV lamps and UVS-30 glasses only
<b>OIL-GLO 33/6**</b> <b>OIL-GLO 33-8</b> <b>OIL-GLO 33-P</b> <b>OIL-GLO 33-Q</b> <b>OIL-GLO 33-G</b> (Fluoresces <b>green</b> )	<b>Synthetic- or Petroleum-Based Fluid Systems:</b> Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil	0.10% 0.20% 0.20% 0.26% 0.78%	UV lamps and UVS-30 glasses or violet light lamps and UVS-40 glasses
<b>OIL-GLO 40/6**</b> <b>OIL-GLO 40-8</b> <b>OIL-GLO 40-P</b> <b>OIL-GLO 40-Q</b> <b>OIL-GLO 40-G</b> (Fluoresces <b>bright blue</b> ) (Requires UV lamp)	<b>Synthetic- or Petroleum-Based Fluid Systems:</b> Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil	0.10% 0.20% 0.20% 0.26% 0.78%	UV lamps and UVS-30 glasses only
<b>OIL-GLO 44/6**</b> <b>OIL-GLO 44-8</b> <b>OIL-GLO 44-P</b> <b>OIL-GLO 44-Q</b> <b>OIL-GLO 44-G</b> (Fluoresces <b>yellow/green</b> )	<b>Synthetic- or Petroleum-Based Fluid Systems:</b> Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil Fuel (gasoline or diesel)	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil 1 oz (30 ml) per 12-18 gals (45.4-68.1 L) gasoline/diesel fuel	0.10% 0.20% 0.20% 0.26% 0.78% 0.04-0.07%	UV lamps and UVS-30 glasses or violet light lamps and UVS-40 glasses
<b>OIL-GLO 45/6**</b> <b>OIL-GLO 45-8</b> <b>OIL-GLO 45-P</b> <b>OIL-GLO 45-Q</b> <b>OIL-GLO 45-G</b> (Fluoresces <b>blue</b> †) (Requires UV lamp)	<b>Synthetic- or Petroleum-Based Fluid Systems:</b> Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil	0.10% 0.20% 0.20% 0.26% 0.78%	UV lamps and UVS-30 glasses only
<b>OIL-GLO 50/6**</b> <b>OIL-GLO 50-8</b> <b>OIL-GLO 50-P</b> <b>OIL-GLO 50-Q</b> <b>OIL-GLO 50-G</b> (Fluoresces <b>red</b> )	<b>Synthetic- or Petroleum-Based Fluid Systems:</b> Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil	0.10% 0.20% 0.20% 0.26% 0.78%	UV lamps and UVS-30 glasses or violet light lamps and UVS-40 glasses
<b>WATER-GLO 801-P</b> <b>WATER-GLO 801-Q</b> <b>WATER-GLO 801-G</b> (Fluoresces <b>blue</b> ††) <b>WATER-GLO 802-P</b> <b>WATER-GLO 802-Q</b> <b>WATER-GLO 802-G</b> (Fluoresces <b>green</b> )	<b>Water- and Water/Glycol-Based Fluid Systems – Both Static and Circulating</b>	1 pt (473 ml) per 500 gals (1,900 L) water 1 pt (473 ml) per 1,000 gals (3,800 L) water 1 pt (473 ml) per 500 gals (1,900 L) water	0.03% 0.01% 0.03%	UV lamps and UVS-30 glasses only UV lamps and UVS-30 glasses or violet light lamps and UVS-40 glasses

**NOTE:** The suffix “8” denotes an 8 oz (237 ml) bottle; suffix “P” denotes a 16 oz (473 ml) bottle; suffix “Q” denotes a 32 oz (946 ml) bottle; suffix “G” denotes a 1 gal (3.8 L) pail. Larger sizes are also available.

The dilution ratios of Spectrolene® fluorescent dyes to the host fluids shown above are only guidelines. These ratios can be increased or decreased depending on the fluorescent response required and the ambient lighting conditions. A simple way to check for proper fluorescence is to remove a small amount of host fluid from the system and add the suggested amount of dye to it. Then shine the Spectrolene® leak detection lamp on this sample mixture and check for a bright fluorescent response.

\* Case of (24) 1 oz (30 ml) bottles

\*\* Package of (6) 1 oz (30 ml) bottles

† Appears clear. Will not discolor host fluid.

†† Does not change the color of the host fluid

## Related Products

### Oil Sample Test Kits

Specially designed to collect and analyze hydraulic oil samples to assist you in selecting the right fluorescent dye and leak detection lamp to meet your specific requirements! Choose from two do-it-yourself field test kits, or use our mail-in kit to get an expert analysis directly from Spectroline®.

### Field Dye Dilution Ratio Kits

Test your oil samples yourself, right in the field! These two convenient kits contain everything needed to collect samples and do a fast analysis to determine the right OIL-GLO dye, dilution ratio and Spectroline® leak detection lamp. Easy to use, mess-free and disposable! Each kit comes complete with a color chart, instructions, black evaluation plate, applicators and two 8 oz (237 ml) mixing bottles.



**FDK-100 Kit**



**FDK-200 Kit**

Also includes:

- (2) 0.25 oz (7.4 ml) bottles OIL-GLO 30 dye (glows white)
- (2) 0.25 oz (7.4 ml) bottles OIL-GLO 33 dye (glows green)
- (2) 0.25 oz (7.4 ml) bottles OIL-GLO 40 dye (glows bright blue)
- (2) 0.25 oz (7.4 ml) bottles OIL-GLO 44 dye (glows yellow/green)

Also includes:

- (2) 0.25 oz (7.4 ml) bottles OIL-GLO 22 dye (glows yellow)
- (2) 0.25 oz (7.4 ml) bottles OIL-GLO 45 dye (glows blue)
- (2) 0.25 oz (7.4 ml) bottles OIL-GLO 50 dye (glows red)

### Color Chart for FDK-100 and FDK-200 Field Dye Dilution Ratio Kits

	Application	OIL-GLO 22	OIL-GLO 30	OIL-GLO 33	OIL-GLO 40	OIL-GLO 44	OIL-GLO 45	OIL-GLO 50
Shown Under UV Light	Light Hydraulic Fluid							
	Dark Hydraulic Fluid							
	Compressor Oil							
	Engine Oil							
	Gearbox Oil							
Shown Under Violet Light	Light Hydraulic Fluid							
	Dark Hydraulic Fluid							
	Compressor Oil							
	Engine Oil							
	Gearbox Oil							

# Related Products

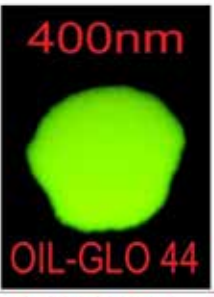
## Dye Selection/Oil Sample Analysis Kit

AK-1000



*Let Spectroline® test your oil sample and provide a report with a dye, dilution ratio and lamp recommendation. The kit contains everything needed to collect the oil sample and send it to us for a professional analysis.*

- Makes sample collection and shipping fast and easy!
- Upon receipt, our expert chemists will test your oil sample and provide their recommendations for the best OIL-GLO dye, dilution ratio and Spectroline® leak detection lamp for your specific application.
- Kit includes an oil sample analysis form, 8 oz (237 ml) sample bottle with lid, absorbent cloth, plastic bag with tie, pressure-sensitive tape, box-sealing tape, shipping label, packing instructions and cardboard shipping box.



SPECTROLINE® Dye Recommendation Report	
<b>End User:</b> ABC Manufacturing Co. Street Address: City, State, Zip Name: N/A Tel: N/A Email: N/A	<b>Distributor:</b> XYZ Supply Co. Street Address: City, State, Zip Name: N/A Tel: N/A Email: N/A
<b>Send Report to:</b> End User <input type="checkbox"/> Distributor <input checked="" type="checkbox"/>	
<b>Application:</b> Leak detection of lubrication system <b>Oil Manufacturer:</b> Calumet <b>Oil Part Number:</b> Hydraulic 330 <b>MSDS Provided:</b> Yes <b>System Capacity:</b> N/A <b>Annual Usage:</b> N/A <b>Oil Sample Received:</b> Jan 1, 2013 <b>Lab Results Completed:</b> Jan 15, 2013 <b>Lab Analysis Number:</b> 1000	
<b>Recommendation:</b> <b>Part Number:</b> OIL-GLO™ 44 <b>Dilution Ratio:</b> 1 oz dye per 8 gallons of Hydraulic <b>Leak Inspection Lamp:</b> OX-4000	
<div style="text-align: center;">  </div>	
<b>Comments:</b> While all of our OIL-GLO™ dyes tested well to produce a bright glow for leak detection, the OIL-GLO™ 44 and the OX-4000, OPTS LUX™ 400 VIOLET rechargeable lamp produced the brightest, most economical combination to yield the best leak detection results.	
<div style="border: 1px solid black; padding: 5px; width: 100px; margin: 0 auto;">SAMPLE</div>	

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SPECTROLINE® Dye Recommendation Report	
<b>End User:</b> ABC Manufacturing Co. <b>Distributor:</b> XYZ Supply Co. <b>Oil Manufacturer:</b> Calumet	
<b>Dye:</b> OIL-GLO™ 22 <b>Dilution Ratio:</b> 1oz per 8 gal of Hydraulic <b>Results:</b> Under 365nm UV light the dye/oil mixture glows bright yellow.	<div style="text-align: center;">  </div>
<b>Dye:</b> OIL-GLO™ 33 <b>Dilution Ratio:</b> 1oz per 8 gal of Hydraulic <b>Results:</b> Under 400nm violet light wearing amber glasses, the dye/oil mixture glows bright green.	<div style="text-align: center;">  </div>
<b>Dye:</b> OIL-GLO™ 44 <b>Dilution Ratio:</b> 1oz per 8 gal of Hydraulic <b>Results:</b> Under 400nm violet light wearing amber glasses, the dye/oil mixture glows bright green/yellow.	<div style="text-align: center;">  </div>
<b>Dye:</b> OIL-GLO™ 45 <b>Dilution Ratio:</b> 1oz per 8 gal of Hydraulic <b>Results:</b> Under 365nm UV light the dye/oil mixture glows blue.	<div style="text-align: center;">  </div>
<b>Dye:</b> OIL-GLO™ 46 <b>Dilution Ratio:</b> 1oz per 8 gal of Hydraulic <b>Results:</b> Under 400nm violet light wearing amber glasses, the dye/oil mixture glows bright red.	<div style="text-align: center;">  </div>
<b>Comments:</b>	
<div style="border: 1px solid black; padding: 5px; width: 100px; margin: 0 auto;">SAMPLE</div>	

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# Warranty & Customer Service/Support

## Product Specifications

Spectronics Corporation reserves the right to alter product specifications without notice. Spectronics is under no obligation to make similar changes in its products previously produced.

### Warranty

All equipment is warranted against defects in manufacture. Spectronics Corporation's obligation under this warranty is limited to repairing or replacing, at the option of Spectronics Corporation, any part(s) of the product which, if properly installed, used and maintained, proves upon factory examination to have been defective in materials or workmanship within 12 months from the date of delivery to the customer, including LEDs.

This warranty does not apply to any component which (1) is normally consumed in operation or (2) has a normal life inherently shorter than the warranty stated. For example, bulbs and rechargeable batteries are warranted for 30 days. In addition, Spectronics Corporation does not warrant any instrument that has been subjected to misuse, negligence or accident, or has been repaired or altered by anyone other than Spectronics Corporation.

This warranty is in place of all other warranties of quality. There are no other warranties either oral, written, express, implied or statutory. IMPLIED WARRANTIES OF FITNESS FOR PURPOSE AND MERCHANTABILITY ARE EXCLUDED. This warranty and your remedies thereunder are solely as stated in this form. In no event shall Spectronics Corporation be liable for special, indirect, incidental or consequential damages, nor for any damages arising out of delay in shipment or production.

## Product/Customer Support & Technical Assistance

Product literature, instructions and a full staff of trained customer service representatives and technical service engineers are available for support. Additional product information and support are available on our website.

- Order Information • Technical Assistance • Local Sales Representatives • Authorized Distributors



**CUSTOMER SERVICE**

**Call Toll-Free:**

**1-800-274-8888**

(Outside the U.S. and Canada: 516-333-4840)

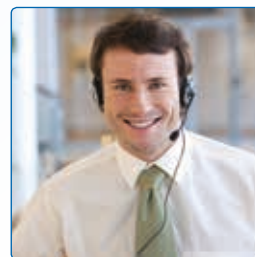
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**Website**

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**TECHNICAL ASSISTANCE**

## For More Information

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