

#### Water, Vibration and Oil Resistant LED Work Lights with IP67/ IP69K Protection









## Suitable for machine tool equipment that needs excellent water and oil proof features

#### **Common Specifications**

- · Special sealing structure provides excellent oil resistance, suitable for environments with high temperature cutting oil
- Suitable for high pressure and high temperature water cleaning environments(IP69K)
- Tempered glass prevents damage from machine tool chips
- Bracket included has tilt adjustment with angle of 120°
- Can select from variety of body length of 200/ 300/ 400/ 500/ 600mm to fit your application needs
- Can choose anti-glare lens type depending on work environment needs
- Can customize the product with the M12 connector if requested
- High-intensity type available upon request (Model number : QMFHLN)
- · Certificates: CE Compliant, UL Listed



#### Tilt Type K Bracket



The standard bracket included enables tilt adjustment with angle of 120°

# **Structural Features**

#### Special sealing structure features superior oil resistance

Prevents components from moving in the sealed body due to warpage from high temperature over a period of time

#### **Chemically Tempered Glass**

Prevents shock damage from machine tool chips

#### Special Micro Lens

Provides high luminance with superior light focusing capability, suitable for work environments that need long distance direct visibility

#### Aluminum Heat-Radiant Housing

Adopted special heat-radiant structure to provide stable luminance in high temperature sealed environment

#### Cable entry M12 connector attached type



Customized Cable entry M12 connector attached type available.

#### **Test Conditions/ Regulations**

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Vibration Resistance Test	<ul> <li>Acceleration: 20m/s²</li> <li>Duration: 1 octave/min</li> <li>Range of frequency: 10-150Hz</li> <li>Amplitude: Maximum 7.5mm, Direction: tested 10times each 3 directions(X, Y, Z)</li> </ul>
Shock Resistance Test	<ul> <li>Acceleration: 20g</li> <li>Directions: ±X, ±Y, ±Z</li> <li>Numbers: 3 times each directions</li> <li>Time period: 11ms for each direction</li> <li>Waveform: Half sine</li> </ul>
Oil Resistance Test	<ul> <li>General test: Tested in water soluble and non-water soluble flooded environments for 500 hours.</li> <li>High temperature oil resistance test: Place the object in a constant temperature water bath at 80°C for two hours and then submerge the object in the room temperature oil diluent for 24hours.</li> </ul>
Solid Particle Protection Test(IP6X)	<ul> <li>After reducing the pressure inside the test object, spray talcum powder with a nominal diameter of 50um for 2 hours at 40-60meters/hour inside the dust chamber.</li> <li>IEC60529</li> </ul>
Liquid Ingress Protection Test(IPX7)	• Test ingress by putting the object under 1000mm water with 2bar of pressure for 30 mins
High-pressure, High-temperature Wash-down Test (IP69K)	<ul> <li>Spray nozzle provides 80°C water with pressure of 80–100 bar and a flow rate of 14–16 L/min to the object</li> <li>Distance between spray nozzle and the test object: 10-15cm</li> <li>Water spray angle: 0°, 30°, 60°, 90°</li> <li>The nozzle is held at 4 of each angle for 30 seconds</li> </ul>

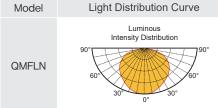
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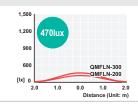


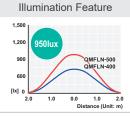
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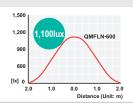


# **Light Distribution and Illuminance**







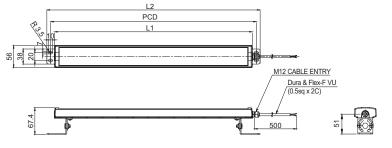


Optics Spec	ificat	ions					
Model		QMFLN-200	QMFLN-300	QMFLN-400	QMFLN-500	QMFLN-600	
	(Blank)		Transparent	Transparent	Transparent	Transparent	Transparent
Lens color		TLC	Translucent	Translucent	Translucent	Translucent	Translucent
Light color			Cooldaylight				
Color temperatu	ıre		6,000-7,000K				
	DC	(Blank)	359lm	851lm	1,284lm	1,553lm	1,719lm
Luminous	DC	TLC	306lm	730lm	1,109lm	1,394lm	1,532lm
flux	۸.	(Blank)	508lm	1,125lm	1,844lm	2,180lm	2,226lm
	AC	TLC	342lm	710lm	1,170lm	1,750lm	2,012lm
	DC	(Blank)	240Lux	560Lux	850Lux	1,000Lux	1,300Lux
Efficacy (Im/M)	DC	TLC	160Lux	370Lux	580Lux	750Lux	1,050Lux
Efficacy (lm/W)	AC	(Blank)	210Lux	470Lux	740Lux	950Lux	1,100Lux
	AC	TLC	150Lux	310Lux	510Lux	730Lux	910Lux
Specification	าร						
Model		QMFLN-200	QMFLN-300	QMFLN-400	QMFLN-500	QMFLN-600	
Voltage		DC24V	DC24V	DC24V	DC24V	DC24V	
		AC110V/220V	AC110V/220V	AC110V/220V	AC110V/220V	AC110V/220V	
Range for		C24V	DC22V-30V				
operation	AC110V		AC98-121V				
voltage	AC220V		AC198-245V				
Power		DC	5.6W	12.5W	20W	20W	25W
consumption	AC		6.6W	14.5W	23.5W	23.5W	27W
Insulation resistance		Min. 100MΩ(500V DC mega ohm meter)					
Withstanding voltage		500V AC, 60Hz, 1 minute					
Operation temperature		-30°C to +60°C					
Protection rating		IP67/ IP69K					
Materials			Housing: Al, Lens : Tempered glass, Bracket : Spc-1				
Certificates			C E U DC24V Only				
Weight (Approx.)			0.57kg	0.80kg	1.03kg	1.26kg	1.49kg
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#### **Technical Diagram**

#### (Units:mm)

#### QMFLN-200/ 300/ 400/ 500/ 600



MODEL	L1	PCD	L2
QMFLN - 200	190	210	230
QMFLN - 300	290	310	330
QMFLN - 400	400	420	440
QMFLN - 500	500	520	540
QMFLN - 600	600	620	640

External power line - Dura & Flex-F VU(0.5sq) x 2C 450mm

# **Ordering Specification**

QMFLN
[Model number]  • QMFLN

200	
[Product length]	
I	
• 200 : 190mm	
. 200 . 200	

I	
• 200 : 1	190mm
• 300 : 2	290mm
• 400 : 4	100mm
• 500 : 5	500mm
• 600 : 6	300mm

SIDE VIEW

120°

24	-	TLC
[Voltage]		[Lens type]

• 24-DC24V • (Blank) - Transparent lens • 110-AC110V • TLC - Translucent lens • 220-AC220V