

# 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





Micro lens structure provides superior light focusing capability

#### 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

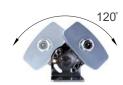
# Special Micro Lens

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

#### **Tilt Type Bracket**



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

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

Vibration Resistance Test

- Acceleration: 20m/s<sup>2</sup> • Duration : 1 octave/min
- Range of frequency : 10-150Hz
- Amplitude : Maximum 7.5mm, Direction : tested 10times each 3 directions(X, Y, Z)

· Acceleration: 20g Directions: ±X, ±Y, ±Z

**Shock Resistance Test** 

- Numbers : 3 times each directions • Time period : 11ms for each direction

· Waveform : Half sine

- General test: Tested in water soluble and non-water soluble flooded environments for 500 hours.
- 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.

Solid Particle Protection Test(IP6X)

Liquid Ingress Protection

Test(IPX7)

Oil Resistance Test

· 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.

• IEC60529

• Test ingress by putting the object under 1000mm water with 2bar of pressure for 30 mins

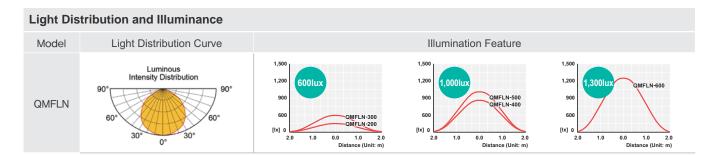
High-pressure, High-temperature Wash-down Test (IP69K)

- Spray nozzle provides 80°C water with pressure of 80–100 bar and a flow rate of 14–16 L/min to the object
- Distance between spray nozzle and the test object : 10-15cm
- Water spray angle: 0°, 30°, 60°, 90°
- The nozzle is held at 4 of each angle for 30 seconds
- DIN 40050 PART9



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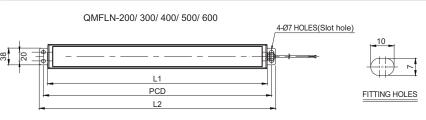




Optics Specific	cations							
Model		QMFLN-200	QMFLN-300	QMFLN-400	QMFLN-500	QMFLN-600		
Lens color		Translucent	Translucent	Translucent	Translucent	Translucent		
Light color		Cooldaylight						
Color temperature		6,000-7,000K						
Luminous flux	DC	732lm	1,626lm	2,411lm	2,710lm	3,523lm		
Efficacy (Im/W)	DC	270Lux	600Lux	890Lux	1,000Lux	1,300Lux		
Specifications								
Model		QMFLN-200	QMFLN-300	QMFLN-400	QMFLN-500	QMFLN-600		
Voltage		DC24V						
Range for operation voltage		DC22V-30V						
Current		0.235A	0.520A	0.816A	0.816A	1.050A		
Power consumption		5.6W	12.5W	20W	20W	25W		
Power consumption		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				-				
Weight (Approx.)		0.57kg	0.80kg	1.03kg	1.26kg	1.49kg		

### **Technical Diagram**

(Units:mm)



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



\* Power line standard : Dura & Flex-F VU(0,5sq × 2C) 450mm

Ordering Specification							
QMFLN -	600	- 24					
[Model number]	[Product length]	[Voltage]					
I	I	1					
QMFLN	• 200 : 190mm	• 24-DC24V					
	• 300 : 290mm						
	• 400 : 400mm						
	• 500 : 500mm						
	• 600 : 600mm						