

# QMFLN

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



**QMFLN**

### PRODUCT SPECIFICATION

QMFLN

**Materials** Housing-Al, Lens-Tempered glass  
Bracket-SPC-1

**Ambient operating temperature** -30°C to +60°C

**Protection rating** IP67, IP69K

**Certificates** CE, UL

- 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
- High-intensity type available upon request(Model number: QMFHLN)
- Wired type and M12 connector type allow for a customized model that M12 connector can be attached at the end of wires.

### Structural Features



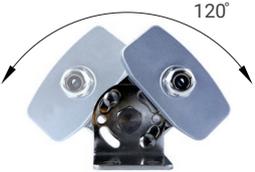
**Special sealing structure features superior oil resistance**  
Prevents components from moving in the sealed body due to warpage from high temperature over a period of time

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

**Chemically Tempered Glass** Prevents shock damage from machine tool chips

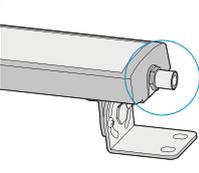
**Aluminum Heat-Radiant Housing**  
Adopted special heat-radiant structure to provide stable luminance in high temperature sealed environment

### Tilt Type K Bracket



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

### M12 connector equipped



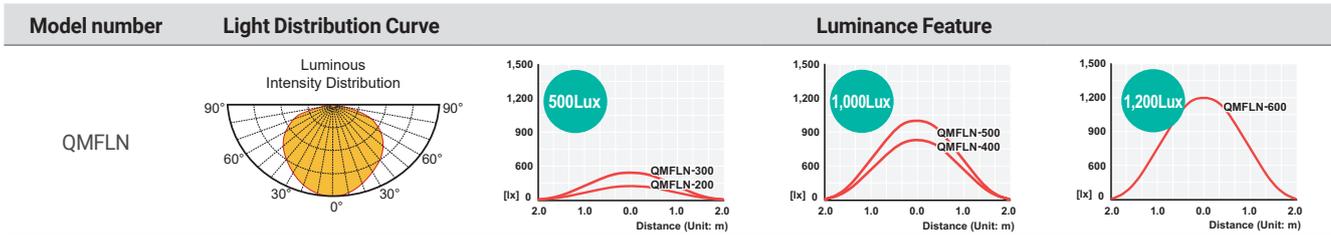
PIN	DESCRIPTION
1	DC (-)
2	N/A
3	DC (+)
4	N/A

### Test Conditions/Regulations

Vibration Resistance Test	<ul style="list-style-type: none"> <li>· Acceleration: 20m/s<sup>2</sup></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 style="list-style-type: none"> <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 style="list-style-type: none"> <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 style="list-style-type: none"> <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)	<ul style="list-style-type: none"> <li>· Test ingress by putting the object under 1000mm water with 2bar of pressure for 30 mins</li> </ul>
High-pressure, High-temperature Wash-down Test (IP69K)	<ul style="list-style-type: none"> <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> <li>· DIN 40050 PART9</li> </ul>



## Light Distribution and Illuminance



## QMFLN Water, Vibration and Oil Resistant LED Work Lights

Optics Specifications						
Model number		QMFLN-200	QMFLN-300	QMFLN-400	QMFLN-500	QMFLN-600
Directions	(Blank)	Transparent	Transparent	Transparent	Transparent	Transparent
	TLC	Translucent	Translucent	Translucent	Translucent	Translucent
Light color		Cooldaylight				
Color temperature		6,000-7,000K				
Luminous flux	DC (Blank)	400lm	900lm	1,400lm	1,700lm	1,700lm
	TLC	350lm	750lm	1,100lm	1,500lm	1,500lm
Efficacy (lm/W)	DC (Blank)	240Lux	500Lux	850Lux	1,000Lux	1,200Lux
	TLC	200Lux	400Lux	650Lux	800Lux	950Lux

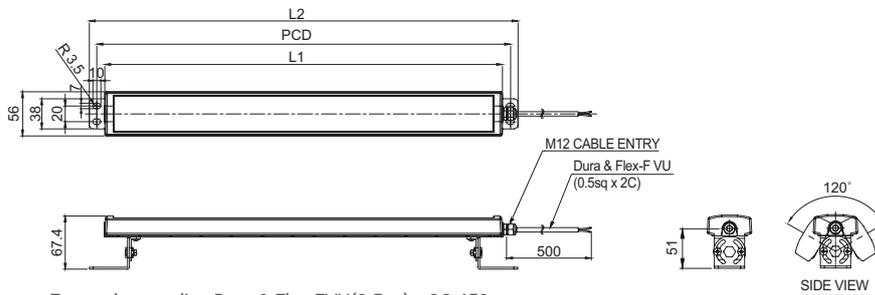
Specifications						
Model number		QMFLN-200	QMFLN-300	QMFLN-400	QMFLN-500	QMFLN-600
Voltage		DC24V	DC24V	DC24V	DC24V	DC24V
Range for operation voltage	DC	DC22V-30V				
Power consumption	DC	5.7W	12.4W	19.5W	28.5W	28.5W
Insulation resistance		Min. 100MΩ(500V DC mega ohm meter)				
Withstanding voltage		500VAC, 60Hz, 1 minute				
Operating temperature		-30°C to +60°C				
Protection rating		IP67/IP69K				
Materials		Housing-Al, Lens-Tempered glass, Bracket-SPC-1				
Certification						
Weight(Approx.)		0.57kg	0.80kg	1.03kg	1.26kg	1.49kg

※ UL Listed: DC24V

## Technical Diagram

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

Units: mm



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

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

## Ordering Specification

QMFLN	-	200	-	24	-	TLC	-	M12
[Model number]		[Product length]		[Voltage]		[Lens type]		[Connector]
QMFLN		200-190mm 300-290mm 400-400mm 500-500mm 600-600mm		24-DC24V		(None) - Transparent lens TLC - Translucent lens		(None) - Specified-power cable withdrawal type M12 - M12 connector type