


## 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

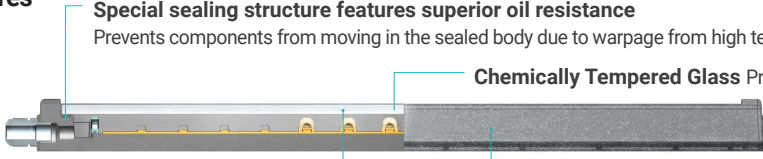
**Ambient operating temperature** -30°C to +60°C

**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



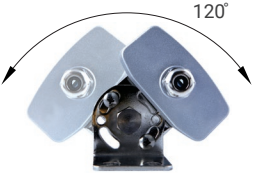
**Special sealing structure features superior oil resistance**  
Prevents components from moving in the sealed body due to warpage from high temperature over a period of time

**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

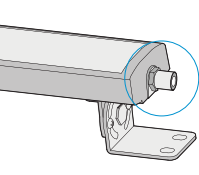
**Aluminum Heat-Radiant Housing**  
Adopted special heat-radiant structure to provide stable luminance in high temperature sealed environment

### Tilt Type K Bracket



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

### M12 connector equipped



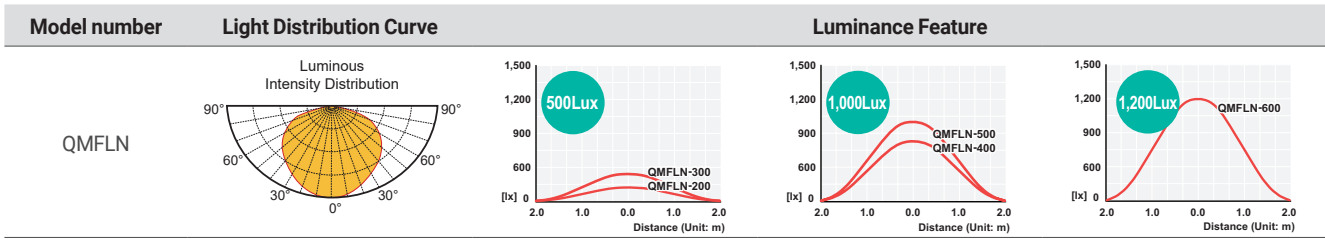
PIN	DESCRIPTION
1	DC (-)
2	N/A
3	DC (+)
4	N/A

### 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
Illumination (at 1m)	DC (Blank)	240Lux	500Lux	850Lux	1,000Lux	1,200Lux
	TLC	200Lux	400Lux	650Lux	800Lux	950Lux

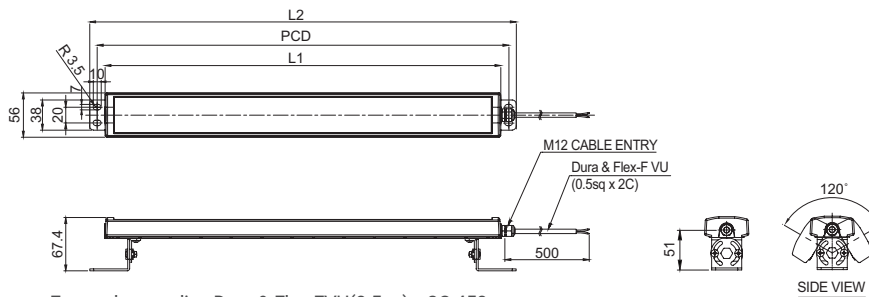
Specifications						
Model number		QMFLN-200	QMFLN-300	QMFLN-400	QMFLN-500	QMFLN-600
Voltage		DC24V	DC24V	DC24V	DC24V	DC24V
Range for operation voltage	DC	DC22V-30V				
Power consumption	DC	5.7W	12.4W	19.5W	28.5W	28.5W
Insulation resistance		Min. 100MΩ(500V DC mega ohm meter)				
Withstanding voltage		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