

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

QML / QMHL

Water, vibration and oil resistant LED work light, suitable for machine tools applications and high temperature water cleaning environments

PRODUCT SPECIFICATION

QML | QMHL

Materials Housing-Al, Lens-Tempered glass
 Bracket-K Type-STS430/MF Type-Al
Ambient operating temperature -30°C to +60°C
Protection rating IP67/IP69K
Certificates CE, UL, RU

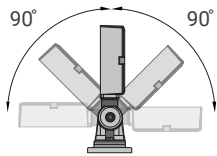


- Excellent oil resistance with a special sealing structure with IP67 protection rating, suitable for machine tool applications with cutting fluids
- Suitable for high pressure and high temperature water cleaning environment(IP69K)
- Tempered glass prevents damage from machine tool chips
- Flat glass bonding structure
- No external substances on the glass despite of long-term use
- Can select between QML model (Anti-glare type) and QMHL model (High luminance type) depending on your work conditions
- Can select from a variety of bracket options from direct mount, tilt mount, and pan/ tilt mount type to fit your work environment or lighting condition needs
- Wired type and M12 connector type allow for a customized model that M12 connector can be attached at the end of wires.
- Customized oil resistant cable attached type available

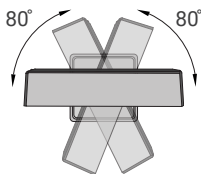
Tilt/Pan Type MF Bracket, Water and Oil Resistant

MF type bracket

SIDE VIEW



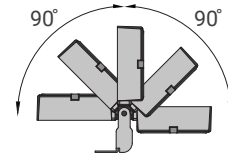
TOP VIEW



- Water and oil resistant MF type brackets protect output cable from cutting fluid and chips
- Has a tilt adjustment angle of 180° and a pan angle of 160°

K type bracket

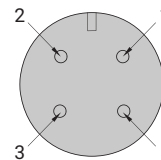
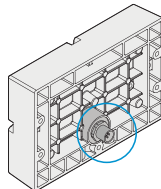
SIDE VIEW



- Has tilt adjustment with wide angle of 180°

M12 connector equipped

- Applicable model: QML-150-D, QML-150-K, QML-250-D, QML-250-K, QMHL-150-D, QMHL-150-K, QMHL-250-D, QMHL-250-K



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

Test Conditions/Regulations

Vibration Resistance Test	<ul style="list-style-type: none"> · Acceleration: 20m/s² · Duration: 1 octave/min · Range of frequency: 10-150Hz · Amplitude: 10 times maximum 7.5mm, direction: test 10times in 3 directions(X, Y, Z)
Shock Resistance Test	<ul style="list-style-type: none"> · Acceleration: 20g · Directions: ±X, ±Y, ±Z · Numbers: 3 times each directions · Time period: 11ms for each direction · Waveform: Half sine
Oil Resistance Test	<ul style="list-style-type: none"> · 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)	<ul style="list-style-type: none"> · 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
High-pressure, High-temperature Wash-down Test (IPX7)	<ul style="list-style-type: none"> · 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 style="list-style-type: none"> · 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



QML-150 / QML-250

- Equipped anti-glare filter
- Suitable for environments that require stable intensity illumination for improved visibility



QML-150-D



QML-250-D



QML-150-K



QML-250-K



QML-150-MF



QML-250-MF

QMHL-150 / QMHL-250

- High intensity illumination and condenser lens combination
- High intensity illumination allows for the environment both long distance and straightness are required



QMHL-150-D



QMHL-250-D



QMHL-150-K



QMHL-250-K



QMHL-150-MF



QMHL-250-MF

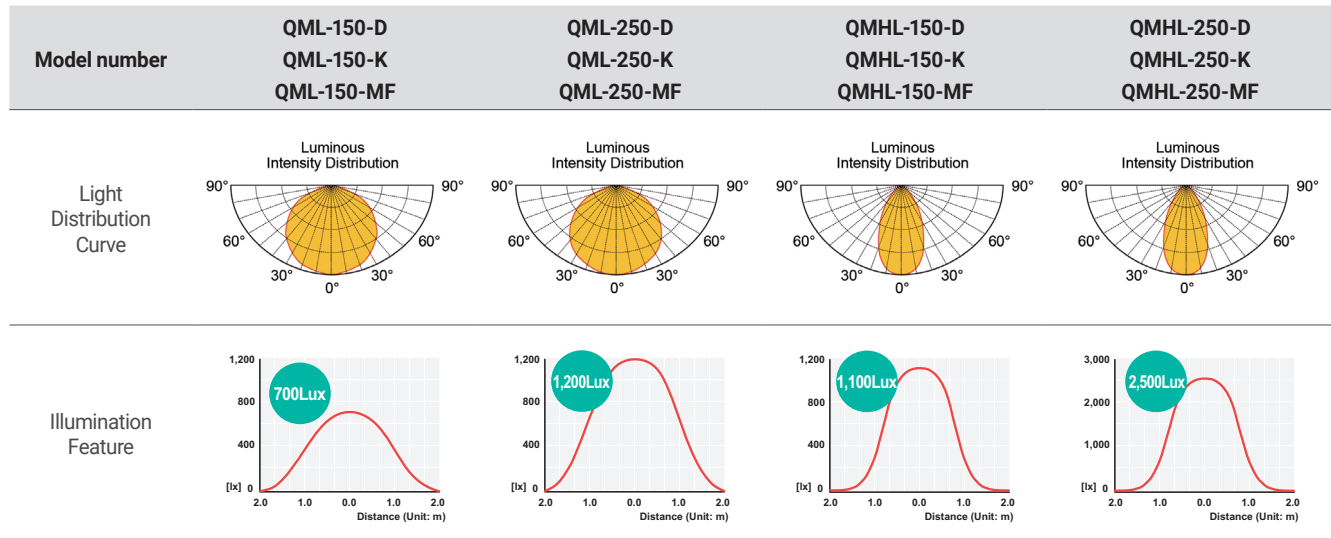
QML / QMHL Water, Vibration and Oil Resistant LED Work Lights

Optics Specifications				
Model number	QML-150-D QML-150-K QML-150-MF	QML-250-D QML-250-K QML-250-MF	QMHL-150-D QMHL-150-K QMHL-150-MF	QMHL-250-D QMHL-250-K QMHL-250-MF
Lens color	Translucent	Translucent	Transparent	Transparent
Light color	Cooldaylight			
Color temperature	6,000-7,000K			
Luminous flux	850lm	1,900lm	900lm	1,800lm
Illumination(at 1m)	700Lux	1,200Lux	1,100Lux	2,500Lux
Specifications				
Model number	QML-150-D QML-150-K QML-150-MF	QML-250-D QML-250-K QML-250-MF	QMHL-150-D QMHL-150-K QMHL-150-MF	QMHL-250-D QMHL-250-K QMHL-250-MF
Voltage	DC24V	DC24V	DC24V	DC24V
Range for operation voltage	DC21.5V-26.5V			
Power consumption	15W	32.4W	15W	25W
Insulation resistance	Min. 100MΩ(500V DC mega ohm meter)			
Withstanding voltage	DC: 500VAC, 60Hz, 1 minute			
Operating temperature	-30°C to +60°C			
Protection rating	IP67/IP69K			
Materials	Housing-Al, Lens-Tempered glass, Bracket-K Type-STS430/MF Type-Al			
Certifications				
Weight(Approx.)	QML-150-D: 0.82kg QML-150-K: 0.88kg QML-150-MF: 1.09kg	QML-250-D: 1.31kg QML-250-K: 1.37kg QML-250-MF: 1.58kg	QMHL-150-D: 0.84kg QMHL-150-K: 0.99kg QMHL-150-MF: 1.11kg	QMHL-250-D: 1.32kg QMHL-250-K: 1.39kg QMHL-250-MF: 1.60kg

※ UL Listed (Cable Type), UL Recognized Component (RU/UR, Cable & M12 Type): QML Series only

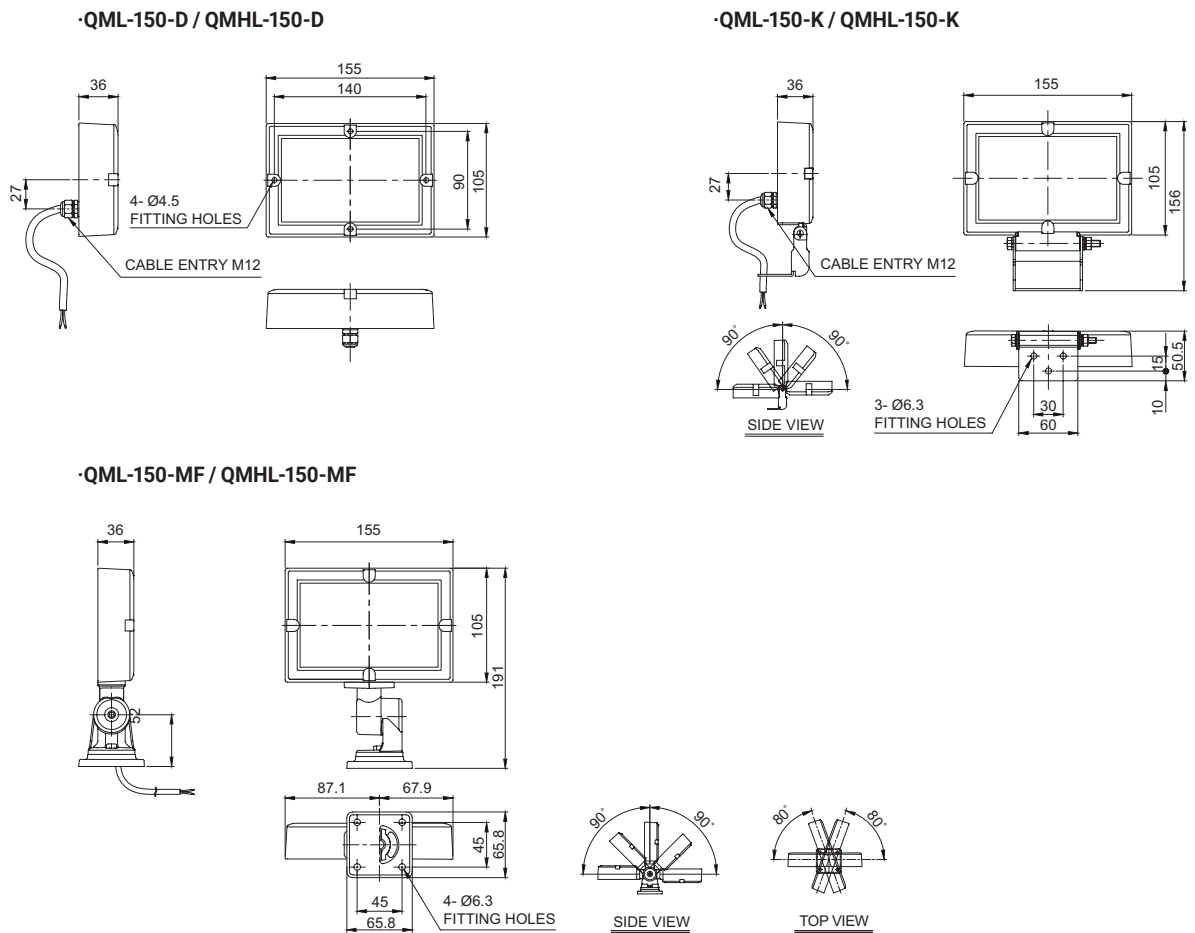
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Light Distribution and Illuminance



Technical Diagram

Units: mm

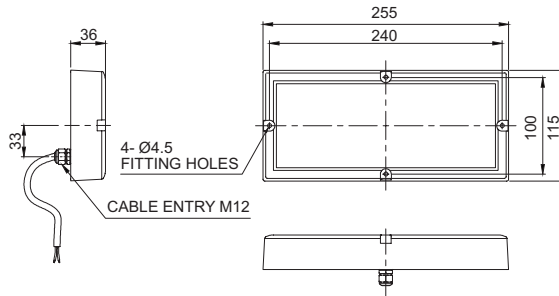


· External power line - Dura & Flex-F VU(0.5sq) x 2C 450mm

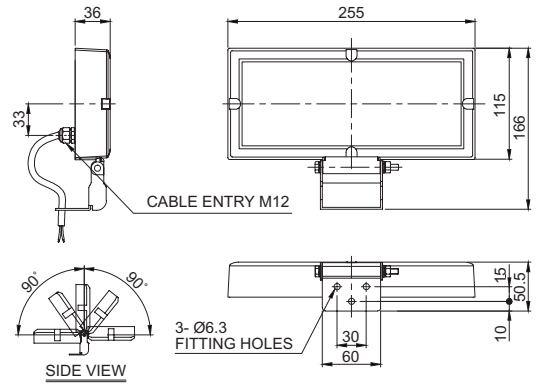
Technical Diagram

Units: mm

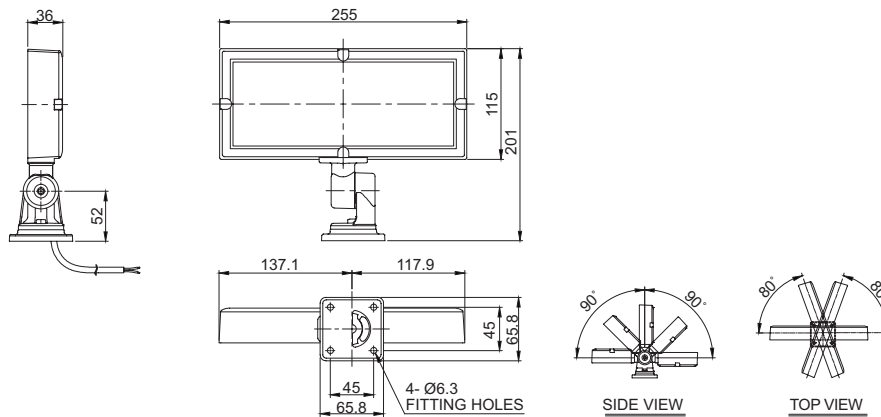
·QML-250-D / QMHL-250-D



·QML-250-K / QMHL-250-K



·QML-250-MF / QMHL-250-MF



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

Ordering Specification

QML	-	150	-	D	-	24	-	M12
[Model number]		[Product length]		[Mount bracket]		[Voltage]		[Connector]
QML-Anti-Glare		150-155mm		D: Self stand		24-DC24V		(None) - power cable withdrawal type
QMHL-High illumination		250-255mm		K: Vertical angle adjustment MF: Vertical, horizontality angle adjustment				M12 - M12 connector type

Cautions in use

- Please check the safety manual before use, accidents such as fire or electric shock can occur if the safety manual is not followed.
- This product can be changed without any notification. Latest information is on the website.