


Specifications

See page 3 (Housing not included)

M9800

LED Retrofit

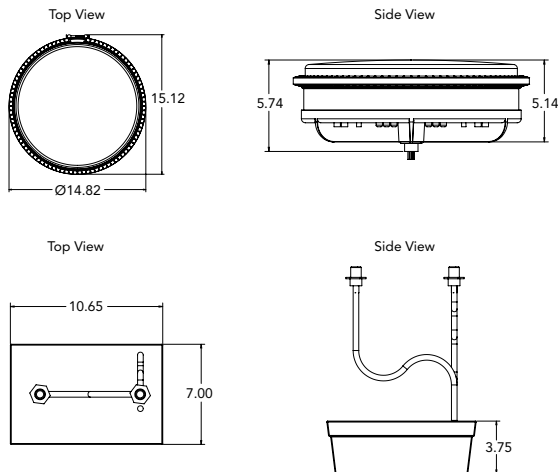
Modular Retrofit Kit

HIGHLIGHTS

- LED retro fit kit for use with Hydrel's M9800
- LED retro fit consists of the MACXL LED module and MHSL98 driver module
- Factory-sealed LED lamp module and encapsulated power module
- Optical and mechanical aiming with an optional double lens
- Optimal efficiency through photometric improvements
- 0-10V Dimming
- Flow-through technology

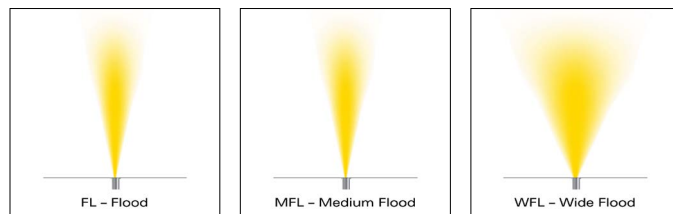
5
YEAR
warranty

IP68

DIMENSIONS

LUMEN PACKAGES

	NSP	MFL	FL	WFL	HSP	HFL	VWFL
Delivered Lumens	4,828	4,828	4,260	4,828	5,396	4,544	3,976
Watts	54	54	54	54	54	54	54
LPW	89	89	79	89	100	84	74

Note: Information based on WHT41K

STANDARD DISTRIBUTION


ORDERING INFORMATION

EXAMPLE: RFM98 LED WHT53K MVOLT NSP FLC LDIM

Model	Source	LED Color	Voltage	Distribution	Lens	Accessories	Options		
RFM98	LED	WHT30K	3000K	MVOLT (120 - 277)	NSP	Narrow Spot	FLC Flat Lens Clear FLC5 Flat Lens Clear, 5° Axial Spread	Internal IHL Internal Honeycomb Louver	LDIM 0-10V Dimming (Dims to 1%)
		WHT41K	4100K		MFL	Medium Flood			
		WHT53K	5300K		FL	Flood			
					WFL	Wide Flood			
				VWFL	Very Wide Flood (no optics)				
				HSP	Horizontal Spot				
				HFL	Horizontal Flood				

ELECTRICAL LOAD

Light Engines	Drive Current (mA)	System Watts	Current (A)					
			120	208	240	277	347	480
12 LED	350mA	14	0.117	0.067	0.058	0.051	0.040	0.029

PROJECTED LED LUMEN MAINTENANCE

Data references the extrapolated performance projections for the Fixture platform in a 25°C ambient, based on 13,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.00	0.99	0.98	0.96

LUMEN AMBIENT TEMPERATURE (LAT) MULTIPLIERS

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient	Lumen Multiplier
0°C	1.02
10°C	1.01
20°C	1.00
25°C	1.00
30°C	0.99
40°C	0.98

SLIP RESISTANCE AND LOAD RATING

M9400
MAXIMUM LOAD RATING Peak compression force of 7,700 lbs. (single lens) or 2,550 lbs. (double lens).
LENS STATIC COEFFICIENT OF FRICTION M9400 Anti-Slip Lens (FLCAS): Dry = 0.76; Wet = 0.10 M9400 Slip Resistant Lens (FLSR): Dry = 0.84; Wet = 0.65

Requires both the MACXL and the MHSL98 driver module to operate - order as separate line items.

The RFM98 LED Retro fit consists of the following individual components parts

MACXL LED Module
MHSL98 Driver Module

PERFORMANCE DATA

LUMEN OUTPUT

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Contact factory for performance data on any configurations not shown here.

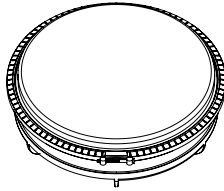
	Distribution	Nema Type	Beam Angle (50%) H x V	Field Angle (10%) H x V	Watts	LPW	Delivered Lumens
3000K 80CRI	NSP	2 x 2	14.8 x 14.8	27.1 x 27.1	54	53	2,840
	MFL	6 x 6	35.7 x 35.7	109 x 109	54	53	2,840
	FL	5 x 5	75.8 x 56.2	95.7 x 83.4	54	47	2,556
	WFL	7 x 7	114.2 x 114.2	136.1 x 136.1	54	53	2,840
	HSP	3 x 3	20.8 x 20.8	38.9 x 38.9	54	58	3,124
	HFL	4 x 3	40.5 x 15.6	60.8 x 30.4	54	50	2,698
	VWFL	7 x 7	110.2 x 110.2	141 x 141	51	44	2,272
4000K 70CRI	NSP	2 x 2	14.8 x 14.8	27.1 x 27.1	54	89	4,828
	MFL	6 x 6	35.7 x 35.7	109 x 109	54	89	4,828
	FL	5 x 5	75.8 x 56.2	95.7 x 83.4	54	79	4,260
	WFL	7 x 7	114.2 x 114.2	136.1 x 136.1	54	89	4,828
	HSP	3 x 3	20.8 x 20.8	38.9 x 38.9	54	100	5,396
	HFL	4 x 3	40.5 x 15.6	60.8 x 30.4	54	84	4,544
	VWFL	7 x 7	110.2 x 110.2	141 x 141	54	74	3,976
5000K 70CRI	NSP	2 x 2	14.8 x 14.8	27.1 x 27.1	54	89	4,828
	MFL	6 x 6	35.7 x 35.7	109 x 109	54	89	4,828
	FL	5 x 5	75.8 x 56.2	95.7 x 83.4	54	79	4,260
	WFL	7 x 7	114.2 x 114.2	136.1 x 136.1	54	89	4,828
	HSP	3 x 3	20.8 x 20.8	38.9 x 38.9	54	100	5,396
	HFL	4 x 3	40.5 x 15.6	60.8 x 30.4	54	84	4,544
	VWFL	7 x 7	110.2 x 110.2	141 x 141	54	74	3,976

LED LIFE: L70/60,000 hours

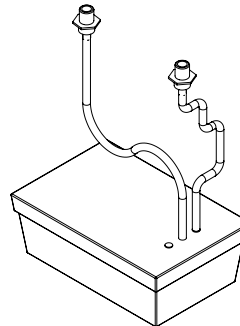
OPERATING TEMPERATURE: -30°C Through 40°C

ACCESSORIES

MACXL LED Array Module

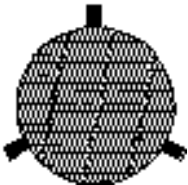


MHSL98 Driver Module



ACCESSORIES

INTERNAL



INTERNAL HONEYCOMB LOUVERS — IHL

Hexagonal cell louver with 45° cut-off.

SPECIFICATIONS AND FEATURES

LAMP MODULE: Stainless steel housing, factory-sealed and purged of all moisture for longer component life. Lens is sealed with silicone gasket and stainless steel clamp band assembly with single fastener. Electrical connection to lamp module is done through a submersible quick pull plug connector with goldplated contacts.

LED: White LEDs, 84W, available in 3000K, 4100K and 5300K CCTs.

VOLTAGE: MVOLT (120 - 277 volt), 50/60HZ.

POWER MODULE: LED driver is encapsulated in a custom designed heat-dissipating epoxy resin that also eliminates all moisture intrusion. Module is provided with submersible rated cord leads for connection to integral junction box and lamp module.

NOTE: Potting compound (PC21) recommended for junction box splices. PC21 sold separately.

LISTING: U.L., C.U.L., C.E., IP68

GOVERNMENT PROCUREMENT

BAA – Buy America(n) Act: Product qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product also qualifies as manufactured in the United States under DOT Buy America regulations.

BABA – Build America Buy America: Product qualifies as produced in the United States under the definitions of the Build America, Buy America Act.

Please refer to www.acuitybrands.com/resources/buy-american for additional information.

WARRANTY: 5-year limited warranty. Complete warranty terms located at:

www.acuitybrands.com/support/customer-support/terms-and-conditions

Consult factory for details.

NOTE: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.