

# ML-140 MaxLumina® Marine Signal Lantern



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T I D E L A N D • S I G N A L

Tideland ML-140 MaxLumina® lantern is ideal for use as an aid to navigation wherever a wide-angle vertical divergence of the light beam is required. The use of wider light beams is recognized as an important factor in compensating for buoy-roll. Visibility is also improved in locations, such as high bridges, where there may be extreme differences in the angle of observation at various ranges.

The ML-140 lens is a single-piece injection molding of acrylic with Fresnel optics specially designed to increase beam divergence in the vertical plane (see table overleaf). Rigorous guidelines for precise manufacture have produced an excellent lens-to-lamp ratio, enabling the ML-140 to meet required luminous intensity levels while consuming less power than lanterns fitted with 200 mm glass lenses.

Lightweight and durable, the ML-140 is designed for long-term service in the harshest climate. Compression molded from UV-stabilized fiberglass and polyester resin compound, the base has outstanding corrosion resistance and long-term strength.

The lens is dimensionally stable and will not discolor with age. It is secured to the base through an integral hinge and six-point fasteners, and will not open due to wind or ice build-up. A molded, raintight lens-to-base seal efficiently weatherproofs the lantern interior.



462.0 mm (18.17")  
103.0 mm (4.05")  
194.0 mm (7.64")  
250.0 mm (9.84")

FOCAL PLANE  
0.75 WPT  
0.70 WPT  
120°  
120°  
BOTTOM VIEW

(20) SLOPE 15.0 mm (0.59") x 25.4 mm (1.00")  
ON # 200.2 mm (7.88") SLOTTED OBJECT

### OPTIONS

**Lens:** Color options — clear, red, green or yellow. The lens is attached to the base by three draw catches and three captive fasteners. A modified lens for use on ice buoys is also offered.

**Base:** Bolt hole patterns on the mounting flange permit three- or four-bolt attachment. The lantern accommodates standard English or metric sizes (depending on model selected) and is supplied with appropriate cable glands and connectors.

**Flasher/lampchangers:** The ML-140 can be fitted with most marine flasher/lampchangers, including the following Tideland units — TF-3B MicroPower six-place, multi-code flasher/lampchanger; DuoFlash™ multi-code twin-filament flasher; EconoLight or EconoFlash single lamp holders; TF-3AC six-place flasher/lampchanger.

#### ML-140 INTENSITY TABLE

##### STANDARD FILAMENT LAMPS

Lamp Size Rating/Filament and Envelope	Filament Length (mm)	Vertical Divergence (Degrees)		Fixed Intensity	Incandescence Time Sec.	Effective Intensity in Candelas Flashing Whites									
		50%	50%			50	100	150	200	300	400	500	600	700	800
12V, 155ACA 36*	29	5.3	1.0	9	0.55	3	6	7	7	7	8	8	8	8	
12V, 20A08 50	25	5.4	1.5	34	0.25	15	16	20	20	20	21	20	21	20	
12V, 30A08 50	49	6.5	2.7	69	0.50	12	20	26	26	26	28	28	28	29	
12V, 30A08 55	23	6.3	2.7	99	0.15	—	15	16	20	20	20	20	21	21	
12V, 30A08 55	45	6.3	2.0	120	0.15	—	51	50	48	49	49	49	49	49	
12V, 30A08 55	65	6.6	2.6	196	0.17	—	53	50	52	50	50	50	50	50	
12V, 30A08 55	50	6.5	3.1	58	0.05	17	30	29	31	31	31	31	31	31	
12V, 35A08 58	29	6.9	2.2	72	0.28	9	15	22	26	26	26	26	26	26	
12V, 35A08 58	49	7.5	3.7	140	0.11	—	92	81	75	74	75	75	75	75	
12V, 1.25A08 58	7.6	15.4	4.5	267	0.19	—	91	81	131	208	210	209	204	203	
12V, 1.25A08 58	7.5	15.2	5.1	267	0.17	—	68	109	150	200	210	210	209	207	
12V, 2.0A08 58	8.2	15.1	5.4	562	0.20	—	50	131	198	298	299	299	299	299	
12V, 3.0A08 58*	11.25	13.6	7.5	94	0.11	—	60	67	67	74	80	85	85	85	
12V, 3.0A08 58*	11.25	13.6	7.5	207	0.22	—	122	128	125	132	132	132	132	132	

\* Extended filament lamps.  
† Reference British Standard BS 924, 1949. Use multiplier of 0.30 for red or green lens and 0.74 for yellow lens. UL lamp limitations apply.

The lantern described and illustrated in this brochure is for general marine use (GMU). The ML-140 is listed by UL for use in Class 1, Division 2, Group D Hazardous Locations (as defined by the NEC), when used with the TF-3B MicroPower.



## HENDERSON MARINE SUPPLY, INC.

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