



RL-200

MaxLumina® Range Lantern

RL-200 range lanterns are used to mark entrance channels, rivers, canals and straight reaches of channel across bays. With two RL-200s, one positioned above and behind the other, navigators can establish the channel centreline by keeping the lights vertically aligned.

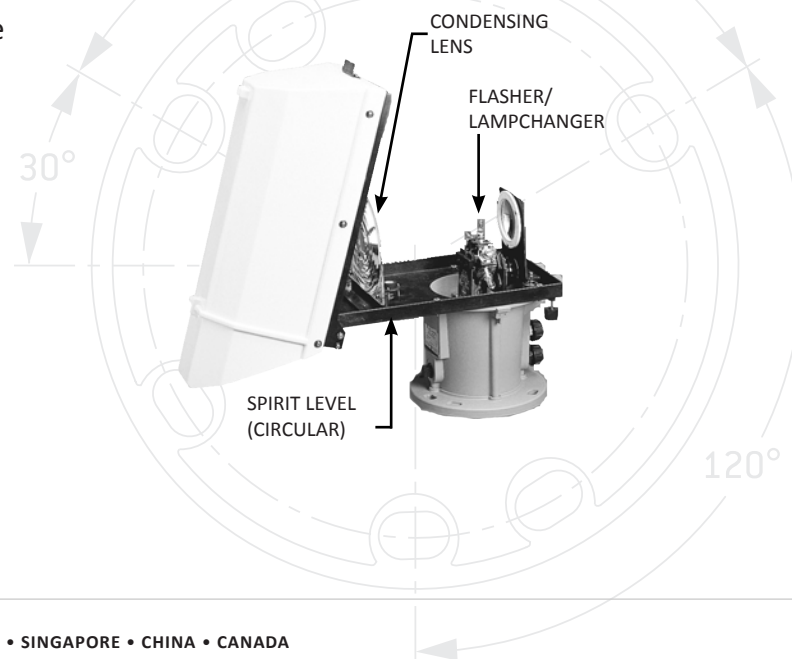
FEATURES

- Optics are factory focused prior to shipment
- Lenses available in all IALA approved colours
- Range lantern is strong, lightweight and highly resistant to all weather conditions
- Hood assembly opens from back for easy access
- Utilises either Tideland's TF-3B MicroPower OMNIBUS® II six-place incandescent flasher/lampchanger or MLED-RETRO flasher, an LED replacement light source
- Aiming sights within hood are used for azimuth alignment
- Leveling hardware factory supplied
- Full monitor and control access

OPTIONAL FEATURES

- A 229mm (9in) tall swivel pedestal is available to facilitate aiming
- To maintain flash synchronisation of two or more RL-200 range lanterns, specify Tideland's GPS based automatic system

RL-200 MaxLumina®
Range Lantern



RL-200
MaxLumina® HIGH
EFFICIENCY RANGE
LIGHT

RL-200 INTENSITY TABLES
(All Calculations were made with the Schmidt-Clausen Method*)
RL-200 MaxLumina with Selected Lamps for 3°, 7.5°, 10°, 20° and 27° Beam Width Angles

Fixed Intensity Table

Lamp Size	Flat Plate (cd)	3° Spreader (cd)	7.5° Spreader (cd)	10° Spreader (cd)	20° Spreader (cd)	27° Spreader (cd)
12V/10W	39,330	7,872	3,921	2,600	1,455	1,078
12V/20W HP	106,974	21,460	10,900	7,540	4,143	3,028
12V/35W HP	135,478	34,013	17,620	11,675	6,468	4,674
12V/50W HP	182,444	46,863	23,527	15,700	8,537	6,358
12V/75W	186,137	53,435	28,327	17,620	9,792	7,156
12V/100W	240,044	74,112	37,706	24,709	13,558	10,087

Effective Intensity Table

Lamp Size	Incandescent Time	Effective Intensity in Candelas – Flashing White**													
		3° Spreader						7.5° Spreader							
		0.3 sec	0.4 sec	0.5 sec	0.6 sec	1.0 sec	1.2 sec	2.0 sec	0.3 sec	0.4 sec	0.5 sec	0.6 sec	1.0 sec	1.2 sec	2.0 sec
12V/10W	0.12 sec	4,369	5,022	5,432	5,762	6,494	6,691	7,164	2,176	2,502	2,705	2,870	3,235	3,333	3,568
12V/20W HP	0.19 sec	11,202	13,198	14,593	15,494	17,597	18,241	19,486	5,690	6,704	7,412	7,870	8,938	9,265	9,897
12V/35W HP	0.29 sec	15,986	19,796	22,380	24,081	27,721	28,639	30,782	8,281	10,255	11,594	12,475	14,360	14,836	15,946
12V/50W HP	0.38 sec	-	25,775	29,758	32,335	37,865	39,365	42,177	-	12,940	14,940	16,234	19,010	19,763	21,174
12V/75W	0.51 sec	-	-	-	35,267	42,641	44,351	47,985	-	-	-	18,696	22,605	23,511	25,436
12V/100W	0.63 sec	-	-	-	-	58,179	60,772	65,960	-	-	-	-	29,599	30,919	33,558

Effective Intensity Table

Lamp Size	Incandescent Time	Effective Intensity in Candelas – Flashing White**													
		10° Spreader						20° Spreader							
		0.3 sec	0.4 sec	0.5 sec	0.6 sec	1.0 sec	1.2 sec	2.0 sec	0.3 sec	0.4 sec	0.5 sec	0.6 sec	1.0 sec	1.2 sec	2.0 sec
12V/10W	0.12 sec	1,443	1,659	1,794	1,903	2,145	2,210	2,366	806	928	1,004	1,065	1,200	1,237	1,324
12V/20W HP	0.19 sec	3,936	4,637	5,127	5,444	6,183	6,409	6,846	2,163	2,548	2,817	2,991	3,397	3,522	3,762
12V/35W HP	0.29 sec	5,487	6,795	7,682	8,266	9,515	9,830	10,566	3,040	3,764	4,256	4,579	5,271	5,446	5,836
12V/50W HP	0.38 sec	-	8,635	9,970	10,833	12,686	13,188	14,130	-	4,695	5,421	5,891	6,898	7,171	7,683
12V/75W	0.51 sec	-	-	-	11,629	14,061	14,625	15,823	-	-	-	6,463	7,814	8,127	8,793
12V/100W	0.63 sec	-	-	-	-	19,397	20,261	21,991	-	-	-	-	10,643	11,117	12,066

Effective Intensity Table

Lamp Size	Incandescent Time	Effective Intensity in Candelas – Flashing White**							
		27° Spreader							
		0.3 sec	0.4 sec	0.5 sec	0.6 sec	1.0 sec	1.2 sec	2.0 sec	
12V/10W	0.12 sec	598	698	744	789	889	916	981	
12V/20W HP	0.19 sec	1,580	1,862	2,059	2,186	2,483	2,574	2,749	
12V/35W HP	0.29 sec	2,197	2,720	3,075	3,309	3,809	3,936	4,230	
12V/50W HP	0.38 sec	-	3,497	4,037	4,387	5,137	5,341	5,722	
12V/75W	0.51 sec	-	-	-	4,723	5,710	5,939	6,426	
12V/100W	0.63 sec	-	-	-	-	7,919	8,271	8,977	

*NOTE: The Schmidt-Clausen Formula is used in compliance with IALA's "Recommendation for the Calculation of the Effective Intensity of a Rhythmic Light", November 1980.

**Use multiplier of 0.30 for red lens, 0.30 for green lens and 0.74 for yellow lens.

RL-200 optics are factory focused prior to shipment. Field confirmation and any necessary refocusing are quickly and easily accomplished during installation by adjusting three spring-loaded screws on the concave reflector bracket.

MLED-RETRO FIXED INTENSITY TABLES

1 Watt AC

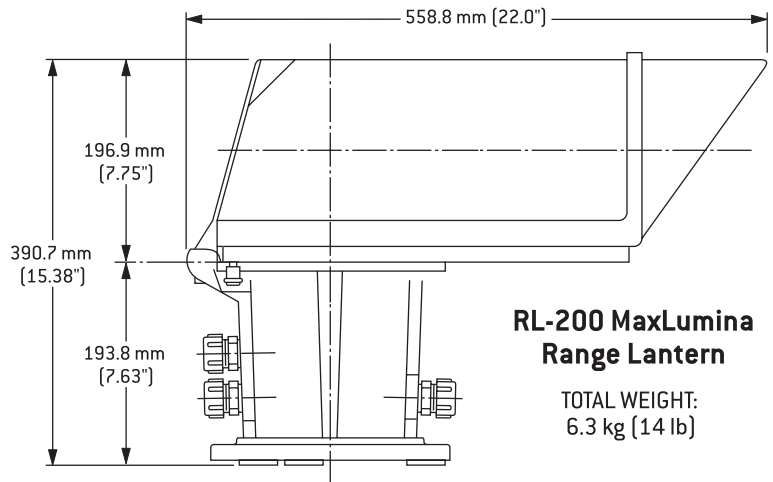
LED Colour	Peak Fixed Intensity in Candelas						
	3° Spreader	6° Spreader	7.5° Spreader	10° Spreader	20° Spreader	27° Spreader	
Red	2,888	1,943	1,599	1,055	601	472	
Green	4,467	3,051	2,585	1,650	936	720	
White	5,010	3,549	2,762	1,845	1,025	783	
Yellow	2,011	1,479	1,123	928	466	365	

1 Watt DC

LED Colour	Peak Fixed Intensity in Candelas						
	3° Spreader	6° Spreader	7.5° Spreader	10° Spreader	20° Spreader	27° Spreader	
Red	4,343	3,027	2,282	1,580	830	652	
Green	5,444	3,795	2,965	2,082	1,124	874	
White	5,433	3,787	3,124	2,178	1,209	956	
Yellow	2,946	2,053	1,533	1,072	618	444	

The MLED-RETRO 1 Watt can be used in an existing coloured lens or beam spreaders. However, the fixed intensity values shown above are multiplied by the following factors:

Filter Factor	Colour	Lens/Spreader Colour	Filter Factor
	Red	Red	0.84
	Green	Green	0.75
	Yellow	Yellow	1.00



RL-200 MaxLumina Range Lantern

TOTAL WEIGHT: 6.3 kg (14 lb)

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