



The mPower Emergency Illuminator™ Specifications Sheet

mPower On Command™ Reserve Battery Specifications

- 18650 stainless steel case
- Nominal dimensions of case: 18.5 mm x 67.6 mm (0.73" x 2.66")
- Weight: 48 g (1.7 oz)
- Tamper-resistant safety seal prevents accidental activation
- Turn screw activation followed by audible snap
- Activation in any orientation
- Ramp up to full power within 5 seconds
- Nominal open circuit output of 3 Volts with a minimum expected capacity of 0.9 Amp-hour at room temperature at a 500 mA charging rate
- A hermetic seal that ensures 20-year minimum shelf life
- Once activated, no more than 3% capacity loss per year at room temperature
- Operating temperature range for 0.9 Amp-hour capacity: 20°C to 75°C (68°F to 167°F)
- Basic reserve battery components:
 - Anode – lithium metal
 - Cathode – MnO₂ and carbon
 - Separator – microporous polypropylene
 - Electrolyte – Mixture of lithium Perchlorate, Propylene Carbonate, Tetrahydrofuran, Dimethoxyethane (pH 5)
- Reserve battery chemistry is essentially the same as CR123 batteries. The basic reaction is $\text{Li} + \text{MnO}_2 \rightarrow \text{MnO}_2(\text{Li}^+)$
- Weight of metallic lithium in each battery: Approximately 0.5 grams of lithium.

mPower Emergency Illuminator™ Dimensions/Specifications

- Dimensions: L 140 mm x W 49 mm x H 37 mm (L 5.51" x W 1.92" x H 1.46")
- Weight: 194 g (6.8 oz) without batteries; 227 g (8.0 oz) with primary batteries; 275 g (9.7 oz) with reserve and primary batteries
- 275 grams (9.7 ounces)
- Two CR123 primary lithium batteries arranged in parallel (typical 3 V, 1.5 Ah capacity, 7 year minimum shelf life)
- One mPower On Command™ Reserve Battery
- 3 settings: OFF/LED/USB
- Cree XR-E Q5 LED (~180 lumens at 700 mA) *See chart below*
- 200 lux uniform beam brightness at 3 m; 150-200 m beam range
- Up to 4 hours of continuous LED run time at full brightness (700 mA)
- Type A USB connection for charging portable electronic devices
 - Charging current typically limited to 500 mA by the charging circuit of cell phones.
 - Electronics capable of delivering 600 mA at 4.75 V down to 2.0 V battery voltage.
- Splash-proof and corrosion resistant

mPower Emergency Illuminator Dimensions/Specifications - Continued

- 3-year limited warranty
- Illuminator design by Porsche Design Studio
- CES Innovations Award Honoree
- CE compliant

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Other Features

- Brushed aluminum body in titanium satin or black chrome finishes
- Polycarbonate total internal reflection collimation (TIRC) lens
- Wrist lanyard
- Leather pouch in black, grey or brown
- Sturdy packing box with storage compartments
- Optional glove box bracket accessory

Additional Information

- Contact and servicing information:
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Product Image – mPower Emergency Illuminator



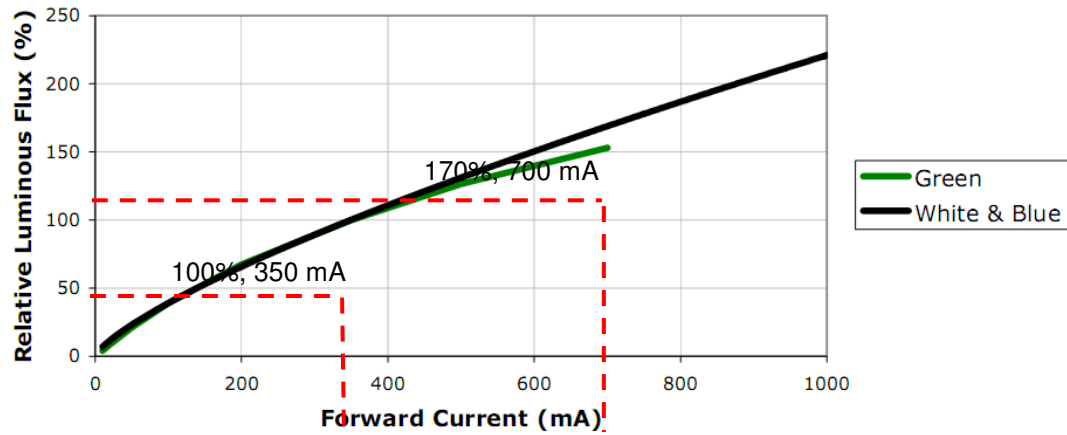
Product Image – mPower On Command Reserve Battery



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Relative Flux vs. Current ($T_1 = 25^\circ\text{C}$)



Cree XR-E Q5 LED

350 mA → 100% relative luminous flux = 107 lm absolute luminous flux

700 mA → 170% relative luminous flux = 182 lm absolute luminous flux