

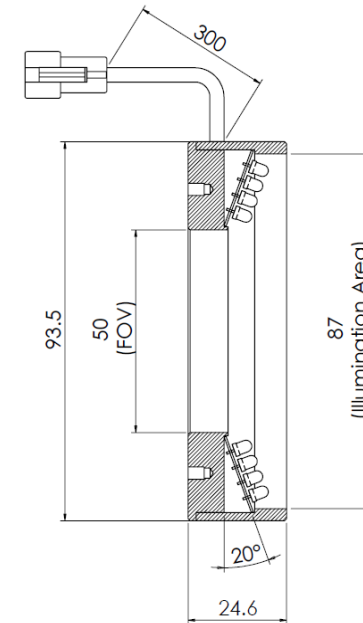
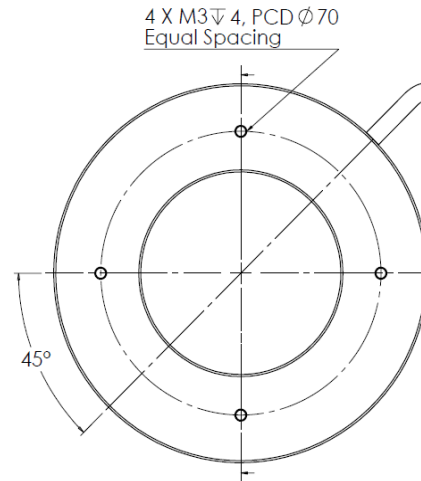
# Direct Angle Ring Light

## [FALCON] FLDR-i90B

### Lighting Picture



### Lighting Dimension



| Mechanical Information    |                              |
|---------------------------|------------------------------|
| Casing Material           | Aluminium                    |
| Storage Temperature Range | Temp 0-35°C, Humidity 20-85% |
| Weight                    | 200 g                        |
| Lighting Dimension ØxH    | Ø93.5 x 24.6mm               |
| IP Rating                 | IP00                         |



Unit in mm

| Optical Information          |              |                    |          |          |                |
|------------------------------|--------------|--------------------|----------|----------|----------------|
| Led Color                    | RED(SR/SR24) | InfraRed (IR/IR24) | GREEN(G) | BLUE (B) | WHITE (W)      |
| Wavelength                   | 626nm        | 875nm              | 525nm    | 470nm    | xy=(0.31,0.32) |
| Illumination (number of LED) | 170/200      | 196/180            | 196      | 196      | 196            |
| Illumination Area            | Ø87mm        |                    |          |          |                |
| Led Package                  | T1 3mm       |                    |          |          |                |
| Eye Safety (EN 62471:2008)   | Exempt Group |                    |          |          |                |

| Electrical Information  | SR          | IR          | SR24        | IR24        | G/B/W       |
|---|-------------|-------------|-------------|-------------|-------------|
| Lighting Supply Voltage (constant voltage mode)                         | 12V ± 2%    |             | 24V ± 2%    |             |             |
| Supply Ripple Voltage   | ≤ Vs ± 5%   |             |             |             |             |
| Reverse Battery Protection  | YES         |             |             |             |             |
| Typical Lighting Forward voltage, Vf (for zero internal resistor value) | 10.0 V      | 9.8 V       | 20.0V       | 19.6V       | 21.0V       |
| Continuous Current  | 1.02A (MAX) | 0.70A (MAX) | 0.40A (MAX) | 0.30A (MAX) | 0.56A (MAX) |
| Power Consumption   | 12.24 W     | 8.40 W      | 9.60 W      | 7.20 W      | 13.44 W     |
| Lighting casing temperature, Operating after 60 minutes                 | 56°C        | 58°C        | 56°C        | 59°C        | 69°C        |

| Strobe Mode Specification                                    | SR  | IR          | SR24  | IR24        | G/B/W       |
|--|---|-------------|---|-------------|-------------|
| Max. Lighting Supply Voltage (Constant voltage power supply) | Pulsing at 12VDC to 24VDC, 0-10% Duty Cycle<br>Recommended at 15VDC |             | Pulsing at 24VDC to 48VDC, 0-10% Duty Cycle<br>Recommended at 36VDC |             |             |
| Pulse Current, (Max. 10msec) (Constant current power supply) | 2.55A (MAX)   | 1.75A (MAX) | 1.00A (MAX)   | 0.75A (MAX) | 1.40A (MAX) |
| Max. Trigger Pulse Duration, msec                            | 10 msec   |             |   |             |             |
| Duty Cycle   | 0 - 10%   |             |   |             |             |

| Ordering Option                   |  |
|-----------------------------------|--|
| FLDR-i90B-SR/SR24/IR/IR24/G/B/W   | With resistor to limit the current<br>(Use in both constant voltage/ current power supply) |
| FLDR-i90B-SR/SR24/IR/IR24/G/B/W-0 | Internal resistor value= zero ohms<br>(only use in constant current power supply)          |

| <b>Connection</b>               |     | <b>SR/IR</b> |             |   |     | <b>SR24/IR24/G/B/W</b> |             |   |  |
|---------------------------------|-----|--------------|-------------|---|-----|------------------------|-------------|---|--|
| Connector Type (Default):       |     | JST SMR-02V  |             |   |     | JST SMR-03V            |             |   |  |
|                                 | Pin | Signal       | Cable Color |  | Pin | Signal                 | Cable Color |  |  |
|                                 | 1   | LED +        | Black/White |   | 1   | LED +                  | Black/White |   |  |
|                                 | 2   | LED -        | Black       |   | 2   | N.C.                   | ---         |   |  |
|                                 |     |              |             |   | 3   | LED -                  | Black       |   |  |
| Cable Length out from lighting: |     | 300mm        |             |   |     |                        |             |   |  |

| <b>Additional Information</b>   | <b>SR/SR24/G/B/W/IR/IR24</b>                         |
|---|--|
| Additional Cooling Method   | Attached to machine part for better heat dissipation |
| Life span in continuous mode  | 20,000 hours   |
| Life span in strobe light mode<br>Lighting drop to 50% intensity<br>(at 25°C ambient temperature) | 50,000 hours   |
| Intensity Controller Selection  | PSA-Series, PSD-Series, LIC-Series                   |
| CE Conformity   | YES  |
| RoHS Compliance   | YES  |
| ISO 9001:2008   | SG11/03751   |

| <b>Application</b>       |          |
|--------------------------|----------|
| Optimal Working Distance | 5-100 mm |

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