

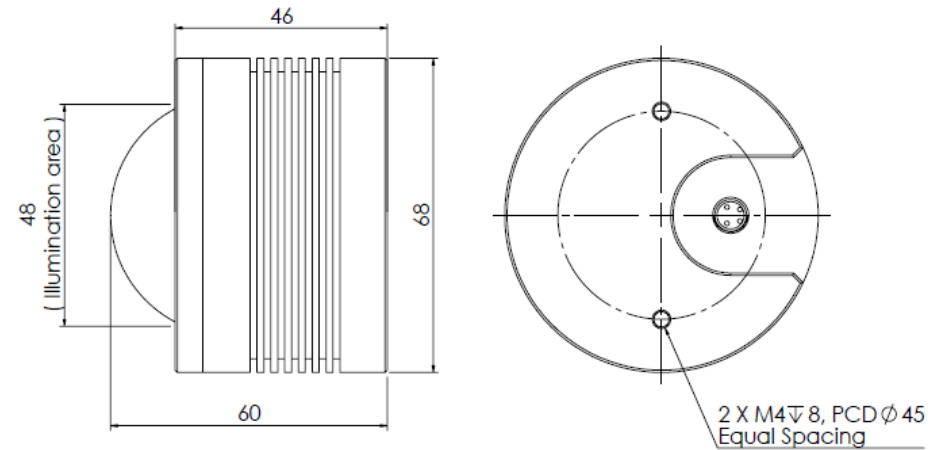
High Brightness Spot Light

 **FHSP-Si80**

Lighting Picture



Lighting Dimension



Mechanical Information	
Casing Material	Aluminium + Glass lens
Storage Temperature Range	Temp 0-35°C, Humidity 20-85%
Weight	412 g
Lighting Dimension, ϕ xH	ϕ 68.0 x 60.0mm
IP Rating	IP 55


Unit in mm

Optical Information				
Led Color	Red (R24)	GREEN (G)	BLUE (B)	WHITE (W)
Wavelength, CIE coordinate	850nm	525nm	470nm	xy=0.31,0.32
Illumination (number of LED)	12	21	21	21
Illumination Area, Ø	Ø48mm			
Led Package	SMD			
Eye Safety (EN 62471:2008)	RG-2 (Moderate Risk): Caution. Do not stare at exposed lamp in operation. May be harmful to eyes			

Electrical Information	R24	G/B/W
Lighting Supply Voltage (constant voltage mode)	24V ± 2%	
Supply Ripple Voltage	≤ Vs ± 5%	
Reverse Battery Protection	YES	
Lighting Forward voltage (for zero internal resistor value)	22.8 V	21.0 V
Continuous Current	0.35A (MAX)	1.05A (MAX)
Power Consumption (constant voltage mode)	8.40 W	25.20 W
Lighting casing temperature, Operating after 60 minutes in continuous mode	55°C	55°C
Strobe Mode Specification	R24	G/B/W
Max. Lighting Supply Voltage (Constant voltage power supply)	Pulsing at 24VDC to 40VDC, 0-10% Duty Cycle Recommended at 36VDC	Pulsing at 24VDC to 40VDC, 0-10% Duty Cycle Recommended at 36VDC
Pulse Current, (Max. 10msec) (Constant current power supply)	0.88A (MAX) (PULSE ONLY)	2.63A (MAX) (PULSE ONLY)
Constant Current Power Supply Voltage Level	23.8V (1.0V higher than the lighting Vf)	22.0V (1.0V higher than the lighting Vf)
Max. Trigger Pulse Duration, msec	10 msec	
Duty Cycle	0 to 10%	
Over Driving Mode		
Constraints	Major constraint in over current mode is tremendous heat generated on the lighting and results the led in permanent damage	
Maximum Current, (Constant current power supply)	0.70A (MAX) Ordering Option (FHSP-Si80-xxxx-0)	2.10A (MAX) Ordering Option (FHSP-Si80-xxxx-0)
Constant Current Power Supply Voltage Level	23.8V (1.0V higher than the lighting Vf)	22.0V (1.0V higher than the lighting Vf)
Max. Turn On Duration, sec	10 Sec	
Duty Cycle	50%	
Over driving in Constant voltage Mode	Ordering Option (FHSP-Si80-xxxx-2)	



Ordering Option	
FHSP-Si80-R24/G/B/W	With resistor to limit the current (Use in both constant voltage/ current power supply)
FHSP-Si80-R24/G/B/W-0	Internal resistor value= zero ohms (only use in constant current power supply)
FHSP-Si80-R24/G/B/W-2	Driving in 2x current with build in internal resistor (Use in both constant voltage/ current power supply)

Connection		R24/G/B/W	
Connector Type:	Pico M8 (Male)		
Cable Length out from lighting:	N/A		
Pin Configuration: Pico M8 (Male)	Pin	Light Segment	Börsig /Binder P/N: 79-3382-52-04 Wire Color
	1	LED 1 +	Brown
	2	N.C.	---
	3	LED 1 -	Blue
	4	N.C.	---

Additional Information		R24/G/B/W
Additional Cooling Method	1.	
Life span in continuous mode	20,000 hours (drop to 50% intensity) at 25°C	
Life span in strobe light mode Lighting drop to 50% intensity (at 25°C ambient temperature)	Est. >50,000 hours (drop to 50% intensity) at 25°C	
Intensity Controller Selection	PSA-Series, PSD-Series, LIC-Series	
CE Conformity	YES	
RoHS Compliance	YES	
ISO 9001:2008	SG11/03751	

Application	
Optimal Working Distance	10-1000mm
Optimize the lighting Life Span	1. It is recommended to turn ON the lighting only during image capturing or conjunction with camera exposure time. This will enable the lighting to work with longer life span and prevent overheating and resulting damage to the led.



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