

# FIREscape

## NFW89/O

### High Powered Open Area Luminaire

#### Features

- ▶ High Powered LED Technology
- ▶ Fixes to Battery Spacer (shown and supplied) and standard Hochiki base YBN-R/3 (shown but sold separately)
- ▶ Requires NF89 battery (sold separately)
- ▶ Luminaires awarded BSI Kitemark™.



#### Description


The NFW89/O Open Area luminaire is an addressable processor controlled device using modern LED technology and is equipped with a battery. It uses one conductor pair for both power and communication. The conductors are connected to a separate round mounting base onto which the luminaire is mounted. The luminaire uses a bigger battery than standard and needs a battery spacer (supplied). The battery is mounted into the spacer and the spacer is connected to the luminaire with bayonet fix. The product is then mounted onto the base.

#### Specification

Ordering code	NFW89/O			
Case colour	White (RAL 9003 "Signal White")			
Case material	Aluminium			
Fire class	UL94 V-O			
Operation time (from full charge)	1 hour			
Dimensions (mm)	99.7 Ø x 65 H (inc base sealing mounting)			
Weight (g) inc. battery	100			
Operating humidity	RH95% non-condensing			
Operating temperature	+ 10 °C to + 40 °C			
Storage temperature	- 30 °C to + 70 °C			
IP Rating	IP20			
Control gear type	Nepcon 9			
Control gear charge rating (min & max current)	22/130 mA			
Control gear charge rating (min & max voltage)	8.5 V			
Operating voltage (max.)	41 V			
Supply current (Amps)	53.2 mA			
Current consumption (charger set for 3h standby time (mA)) / Intensity	53.5 / 0	60.5 / 1	67.9 / 2	75.2 / 3
	82.6 / 4	90.0 / 5	104.7 / 6	Not allowed
Sleep mode	1 mA			
Energy consumption	1.65 W (charging)			
Tc Value (max. permissible temperature)	+ 45 °C at IC3/L1			
Open circuit voltage	3.5 V			
Max. working voltage (battery terminal & LED terminal) (Cl 35 61347 & Cl 21 61347)	U-OUT=10V			
Supply current from battery (D.C.)	850 mA			
Discharge rate	52 mA			
Battery voltage range	8.4 V to 5.27 V			

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Battery discharge current	600-1062 mA
I (emergency) for LED control gear	754 mA
Light source type & rated wattage	LED, 5W
Supply conductors	0.8 mm <sup>2</sup>
Compatible bases	YBN-R/3, YBN-R/3(WHT)
Approvals and markings	 Luminaires awarded BSI Kitemark™ & EL sign
Safety Information	Protection against electric shock relies upon luminaire enclosure. The luminaire (control gear) is supplied VY line voltage and/or battery voltage. The luminaire (control gear) is only suitable for high risk areas when controlling line voltage to device but high risk areas are excluded from scope of emergency lighting approvals. The luminaire is 'proof against voltage polarity reversal' (through diode bridge). No insulation used between supply and the battery circuit. During abnormal operating condition the recharging of battery is performed automatically. The control gear is not suitable for use only on battery supply not having trickle or intermittent re-charging. The control gear is supplied from an internal power supply.

### Luminaire Currents

Standby time				1 Hour		3 Hours*				
Intensity	Led current [mA]	Luminance [Cd/m <sup>2</sup> ]	Average power consumption [W]	Max. Power consumption from line [mA]	Max. Power consumption [NU]	Max. Power consumption from line [mA]	Max. Power consumption [NU]	Avg. Current from battery	Min. Current from battery	Max. Current from battery
0	0		0.03	22.9	14	53.2	33			
1	40		0.15	30.2	19	60.5	38			
2	80		0.26	37.6	23	67.9	42			
3	100		0.49	44.9	28	75.2	47			
4	120		0.83	52.3	32	82.6	51			
5	200		1.17	59.7	37	90.0	56			
6	260		1.51	74.4	46	104.7	65			
7	1280	>1	-	-	-	-	-	498	427	597
Battery charge Current				22		66				
Energy @ 24h (mAh)				528		1584				
Battery charging Voltage				8.5		8.5				
Charger cut off Voltage				8.45		8.45				
LED open circuit Voltage				3.5		3.5				

\*Devices do not hold Approval for 3 hour duration

### Photometric Data

NON-MAINTAINED	2m Wide Corridor	
Mounting Height (m)	Spacing 1 Lux to Wall	Spacing 1 Lux Between
		
2.00	4.60	9.00
2.20	5.00	9.60
2.50	5.50	10.60
2.70	5.90	11.60
3.00	6.60	12.60
3.50	7.20	14.20
4.0	8.00	15.60
4.50	8.90	17.00
5.00	9.60	19.00
6.00	10.50	20.00
7.00	12.00	22.00
3.40	5.95	14.66
3.50	5.90	14.94