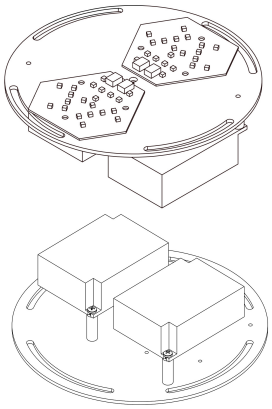
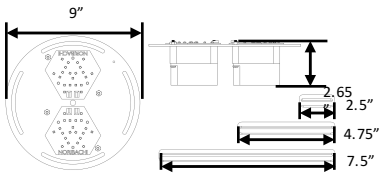
ZIPPY-042

NORIBACHI





Product Information

Product Order Code:	ZIPPY-042-CW-MT
DLC Order Code:	L-C-CUS-42-REC-B-CW-MT
Common Replacement:	200W MH, 250W HPS

The Zippy-042 retrofit kit can be used in Arealight, Canopy, Cans, Cobrahead, Downlight, Floodlight, Post Top and Wallpack lighting fixtures.

Performance Ratings and Certifications

UL 1598
UL 8750
CSA C22.2#250.0
CSA C22.2#250.13

Performance Summary

Lumens:	9,724 lumens
Lumens Per Watt (Typical):	140 LPW
Power Consumption:	69 W
Light Engine:	L70 Rated Lifetime of 100,000+ hours.
CRI:	Minimum 70 CRI. Custom CRI available upon request.
CCT (Typical):	3000K, 4000K, 5700K

Manufactured in the U.S. with parts from U.S. and imported.

Fixture Information

Mounting Plate:	Aluminum 3003
Mounting:	Universal mounting kit with four 2.5” four 4.75” and four 7.5” magic tabs
Length:	9”
Width:	9”
Depth:	2.65”
Weight:	1.62 lbs.
Shipping Weight:	3.38 lbs.

Fits Luminaires with Internal Dimensions of

Length:	9” – 24”
Width:	9” – 24”
Depth:	3” (minimum)

Electrical System Characteristics / Data

AC Input:	120/277 VAC (standard), 480 VAC (upgrade)
FCC:	Title 47, Part 2, Part 15, Class A
EM:	Compliance to EN55015, EN55022 (CISPR22) Class B, EN61000-3-2 Class C (60% load); EN61000-3-3
EM Immunity:	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level (surge 4KV), criteria A
Withstand Voltage:	I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P - FG:1.5KVAC
Isolation Resistance:	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25 / 70% RH
Power Factor:	PF > 0.98/115VAC, PF > 0.92/277VAC
Total Harmonic Distortion:	THD < 20%
Standard Surge Protection:	All-Around Protection: OVP, SCP, OLP.
Enhanced Surge Protection:	Protects against surges according to IEEE C62.41.2 C and ANSI C136.2
Emergency Batt. Backup:	Optional upgrades available.

Optional Controls:

Wireless Controls:	Optional via Pulse Wireless Mesh Network
Dimming:	Standard: 0-10V Optional: step, line voltage or bi-level
Daylight Harvesting Sensor:	Optional
Occupancy Sensor:	Optional

Warranty

3-Month Limited Warranty. Optional 5-Year Manufacturer’s Warranty Available. Full Warranty Terms Available At www.noribachi.com/products/warranty

V1.0

ZIPPY-042

Performance Specifications

Electrical Load				
Light Engine	Drive Current (Amps@120VAC)	Drive Current (Amps@277VAC)	Drive Current (Amps@480VAC)	System Power (Watts)*
ZIPPY-042	0.58	0.25	0.14	69

* ideal wattage

Operating Characteristics (Typical @5700K CCT)				
Light Engine	Lumens (Medium Dist)	Input Power (Watts)	Lumens per Watt	Replaces
ZIPPY-042	9,724	69	140.00	200 – 250W

Fixture Specifications

Construction
Durable aluminum 3003 plate with high lumen packages.

Mounting Options
All Zippy Kits! come with a package of hardware that precludes the use of a custom plate. Mounting kits include several different sized, fully adjustable magic-tabs, a collection of wire connectors, fastening hardware, spacers and zip-ties.

Electrical System Specifications

Electrical System
Standard AC input of 120 – 277VAC. Optional upgrade to 480VAC. Driver meets maximum harmonic distortion (THD) of 20% and is ROHS compliant. Power Factor = > 0.9. Standard Surge protection according to IEC/EN 61000-4-5 EMC test standard and can protect against up to 4KV transient surge. Optional, enhanced Surge Protection protects Line-Ground, Line-Neutral, and Neutral-Ground. Protects against surges according to IEEE C62.41.2 C(10kA and 10kV) and ANSI C136.2.

Controls
Optional controls include: 0-10V (010V), Step, line voltage and Bi-Level Dimming functionality (not guaranteed to work with all dimming systems). Occupancy and Daylight Harvest Sensors available. Optional Emergency Battery Backup: Nickel-Cadmium Batteries, 5W, 600 Lumens for 90 minutes. Optional Cold Emergency Battery Backup: 23W, 2000 Lumens for 90 minutes. The battery has a 7-10 year lifespan.

Driver
All LED drivers provide constant current to give flicker free lighting. Two different drive currents are provided; A (350 mA) and B (525 mA). Highly reliable. Suitable for dry, damp and wet locations. Compliant to worldwide safety regulations for lighting.

Ambient Temperature
We provide fixtures that can sustain ambient temperature ranging from -40F to 140F (-40C to 60C).

Wireless Control Options
Optional wireless networking using the Noribachi Pulse Wireless controller. Pulse is an Arduino-based hardware platform that provides communication between fixtures and a base station using Digi's XBEE based mesh network. Pulse controls up to 16 independent LED lighting fixtures using an FCC approved 900 MHz frequency with up to 200 Kbps data transmission speed. Transmit power output 50 mW. Data transmission rate is 156.25 kbps. 128 bit AES Encryption.

Occupancy Sensor and Daylight Harvesting
Sensor provides 60' diameter coverage from a 40' height. Time can be set from 30 seconds to 30 minutes.

RGBW Controls
Optional RGBW controls with communication to fixture via DMX512 or DMX256 and four channel controls. Four channel control uses red, green, blue and white (to control intensity). DMX controller optional, either software DMX master (via CD and USB adapter) or a physical DMX master. 2.4 GHz wireless DMX networking optional. Other frequencies available upon request.

Testing Compliance
Noribachi complies with and exceeds standards set forth by UL and CSA. All luminaires comply with UL 1598 (CSA C22.2#250.13), and UL 8750 (CSA C22.2#250.0) standards for safety.
Performance testing is done in accordance with LM-79 color measurements and LM-79 distribution measurements, and LM-80 lumen maintenance testing.

Manufacturing
Manufactured in beautiful Harbor City, CA. ARRA Compliant. NAFTA Compliant. Test and burn-in of 100% of all luminaries before shipment. No less than 8-years experience in manufacturing LED-based products.

Warranty
Standard limited 3-month warranty, first year includes labor. Optional 5-year warranty available. See details at www.Noribachi.com.

Note
All safety tests and performance data is done in ambient (STP) conditions. Specifications subject to change without notice. Actual performance may differ as a result of end-user environment application. Actual wattage may differ by +/- 8%. Lumen values may vary within compliance with ANSI C78-377 (unless specifying tight color bins).

Ordering
In stock and ready to ship in 72 hours!

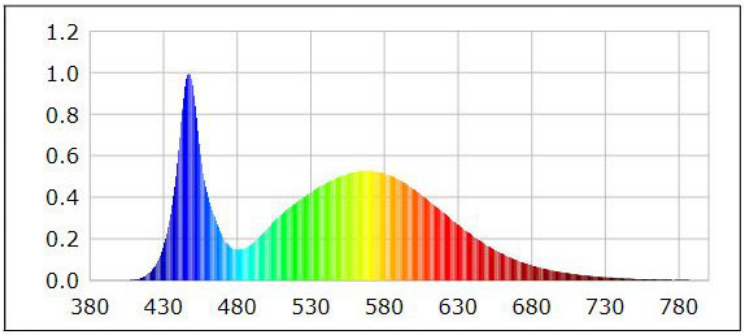
Optic Specifications

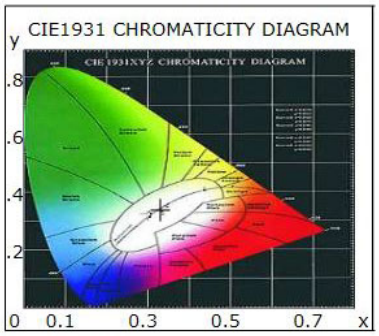
White LED Optics
High brightness, high efficiency LEDs. Standard color temperature is Cool White (5700K typical). Neutral White (4000K typical) and Warm White (3000K typical) also available. All with minimum 70 CRI. Tight bins (<+/-50degK variability) also available – recommended for WW installations as the eye is sensitive to variations in this color range. 40deg and 80deg beam angle optional (n/a for RGBW).

RGBW Light Engine Optics
RGBW light engine also available, compatible with DMX controller. RGBW colors, to allow changing from pure white light to any hue available. Multiple channels of LEDS produce a full spectrum of light anywhere from deepest red to farthest violet. CRI great than 75 in the 2700K – 4000K range.

Single color light engines also available. Red=630 nanometers, Green=525 nanometers. Blue=475 nanometers.

Photometric Data for White LED Light Engine



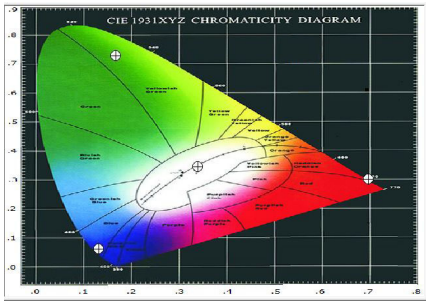


Chromaticity coordinates: x=0.3305 y=0.3424 u(u')=0.2050 v=0.3186 v'=0.4779
CCT: Tc=5700K (duv=0.00156) Color Ratio: R=0.133 G=0.827 B=0.040
Peak Wavelength: 447.2nm Half Bandwidth: 19.1nm
Dominant Wavelength: 535.2nm Color Purity: 0.020
Color Render Index: Ra= 75.0, avgR(1~14)= 65.6, avgR(1~15)= 65.9

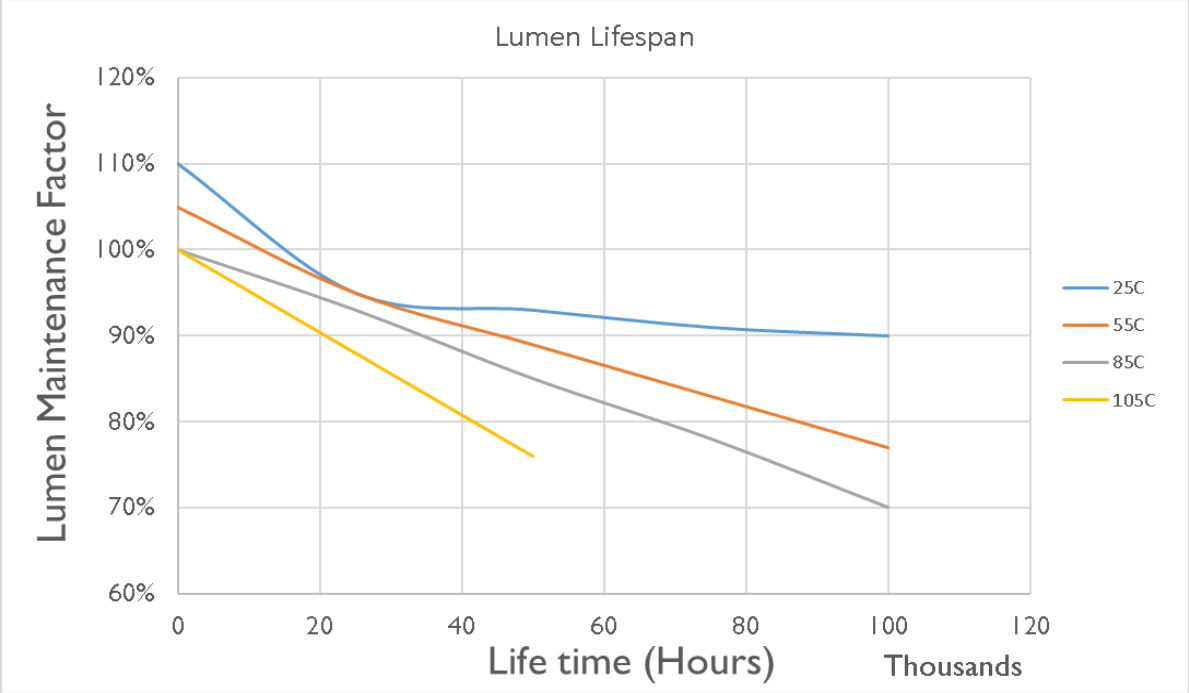
R1 =74	R2 =76	R3 =76	R4 =81	R5 =75	R6 =66	R7 =84	R8 =67
R9 =0	R10=41	R11=78	R12=40	R13=73	R14=86	R15=71	

Photometric Data for RGBW LED Light Engine

Chromaticity coordinates:
White x = 0.3405, y = 0.3459
Green x = 0.1687, y = 0.7296
Red x = 0.6968, y = 0.3024
Blue x = 0.1316, y = 0.0636



Lumen Performance



Lumen Maintenance Factors (B Drive)					
T_j (Junction Temp)	INITIAL LMF	25K HR PROJECTED LMF	50K HR PROJECTED LMF	75K HR PROJECTED LMF	100K HR PROJECTED LMF
25°c	1.10	0.95	0.93	0.91	0.90
55°c	1.05	0.95	0.89	0.83	0.77
85°c	1.00	0.93	0.85	0.78	0.70
105°c	1.00	0.88	0.76	N/A	N/A

Each temperature has an independent initial value. In accordance with IESNA TM021011, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip). In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip)

Lumen Multiplier	
AMBIENT TEMPERATURE	LUMEN MULTIPLIER
10°C	1.032
15°C	1.021
25°C	1.000
40°C	0.968
50°C	0.946

ZIPPY-042

How to Order

Sample Order Code: Only include the optional upgrades you need.

ZIPPY	042	CW	MT	CORD6	L515P	010V
Light Board (required)	Number of Diodes (required)	LED Color Temperature (required)	Voltage (required)	Voltage (optional)	Twist Lock Plug (optional)	Dimming (optional)

EM	OS	PC2	DHS	SRG1	PUL	80D
Emergency Battery Backup (optional)	Occupancy Sensor (optional)	Photocell (optional)	Daylight Harvesting Sensor (optional)	Surge Protection (optional)	Controller (optional)	Beam Angle (optional)

For Rebates, use DLC order code. **Ex: L-C-CUS-42-REC-B-CW-MT**

Numbering Order	Specification	Required or Optional	Allowed Values	Description
1	Light Board	Required	ZIPPY	For ZIPPY-042
2	Number of Diodes	Required	042	For ZIPPY-042
3	LED Color Temperature	Required	CW	Standard Cool White LEDs (5700K)
			NW	Neutral White LEDs (4000K)
			WW	Warm White LEDs (3000K)
			[Specific degree Kelvin]	Specific color temp LEDs [Specific degree Kelvin]
			TB1 [Specific degree Kelvin]	Tight Bin LED Color [Specific degree Kelvin] for < 150W
			TB2 [Specific degree Kelvin]	Tight Bin LED Color [Specific degree Kelvin] for > 150W
			RGBW*	Red/Green/Blue/White light engine
			SC [R, G, B]*	Red, Green, or Blue light engine
4	Voltage	Required	MT	Standard AC input: 120VAC - 277VAC
			HV1	High Voltage (480VAC) option for up to 150W
			HV2	High Voltage (480VAC) option for greater than 150W
5	Cord	Optional	CORD6	6' 16/3 STW Cord
			CORD10	10' 16/3 STW Cord
6	Twist Lock Plug	Optional	L515P	L515P 125V Twist Lock Plug
			L615P	L615P 250V Twist Lock Plug
			L715P	L715P 277V Twist Lock Plug
			L720P	L720P 277V Twist Lock Plug
			L820P	L820P 480V Twist Lock Plug
			L830P	L830P 480V Twist Lock Plug
7	Dimming	Optional	010V	0 - 10V dimming
			STEP	Step dimming
			LVDIM	Line Voltage dimming
			BLD	Bi-level dimming
8	Emergency Battery Backup	Optional	EM	Emergency Battery Backup
			EMC	Emergency Battery Backup - Cold
9	Occupancy Sensor	Optional	OS	Occupancy Sensor
10	Photocell	Optional	PC1	Photocell for 120V applications
			PC2	Photocell for 277V applications
11	Daylight Harvesting Sensor	Optional	DHS	Daylight Harvesting Sensor
12	Surge Protection	Optional	SRG1	Enhanced Surge Protection 120-277VAC
			SRG2	Enhance Surge Protection 480VAC
13	Controller	Optional	PUL	Pulse Wireless Controller
14	Beam Angle	Optional	80D	80degree beam angle optics
			40D	40degree beam angle optics

*Lead time will be greater than 72 hours