

DESCRIPTION

Combining value and performance in a compact, robust design, the Night Falcon low wattage LED floodlight luminaire delivers superior uniformity and excellent illumination to the targeted application. The rugged, die-cast housing is IP66 rated for exceptional durability and long term reliability. Available in several mounting configurations and weighing less than 14 pounds, this fixture provides you with design flexibility while simplifying installation. The low wattage LED floodlight can be wall, ground, or pole mounted, making it ideal for all commercial, industrial, and residential low wattage floodlighting applications.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Heavy-duty, die-cast aluminum housing, driver compartment and driver housing door. The housing, driver compartment and optical chamber are IP66 rated. Access to the driver for maintenance is achieved with a removable driver door using pan head screws. A one-piece silicone gasket seals the door to the fixture housing. Suitable for mounting within 4' (1.2m) of the ground.

Optics

The LED chamber incorporates a vacuum metalized reflector that provides high-efficiency illumination. Optics are precisely designed to shape the wide NEMA type 6H x 6V distribution, maximizing efficiency and application spacing. A 3H x 3V distribution is available for lighting tall, narrow surfaces. Clear glass tempered lens with full circumference form-in-place silicone gasket protects the optics from damage. Offered standard in 4000K (+/- 275K) CCT and minimum 70 CRI optional. Optional 5700K CCT, 3000K CCT, 5000K CCT minimum 70 CRI are available.

Electrical

LED driver is mounted to the removable die-cast aluminum door

for optimal heat sinking and ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. Integral 3kV surge is standard. 10kV MOV surge protection is available. 0-10V dimming driver is standard. Button photocontrols are available in 120V and 208-277V. Suitable for ambient temperatures from -40°C to 40°C. Optional 50°C HA (high ambient) available. 93% lumen maintenance greater than 50,000 hours per IESNA TM-21.

Accessories

Heavy-duty steel top and side visors control glare and spill light. 1/8" thick UV stabilized vandal guard shields glass lens from impact when mounted at low levels. Easy to install wire guard features a heavy-gauge welded construction with corrosion resistant polyester powder coat finish to protect glass from projected objects.

Mounting

Heavy-gauge steel trunnion-mount utilizes interlocking slide adjustment and is supplied with 3 feet of pre-wired SOW, wet location rated cord. Trunnion base can be lag bolted to any surface and is 3G vibration rated (ANSI C136.31). Heavy-duty, die-cast aluminum knuckle base utilizes

tooth-lock adjustment with visual 5° adjustment indicators that allow for 180° rotation of the luminaire. Knuckle fits 1/2" NPT available mounting junction box cover (supplied by others) and is secured with supplied locking nut and is 1.5G vibration rated. A die-cast aluminum slipfitter with a tooth lock adjustment that can be adjusted in 5° increments is available and is 1.5G vibration rated.

Finish

Housing and cast parts finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard color is carbon bronze. Additional colors available in summit white, white, grey, bronze, black, dark platinum and graphite metallic. Consult your lighting representative at Eaton for a complete selection of standard colors.

Warranty

Five-year warranty.



NFFLD-S NIGHT FALCON SMALL

Solid State LED

FLOODLIGHT



CERTIFICATION DATA

UL/cUL Wet Location Listed
IP66 Fixture and Optical Chamber
LM79/LM80 Compliant
1.5G Vibration Rated - Knuckle Mount
3.0G Vibration Rated - Slipfitter Mount
3.0G Vibration Rated - Trunnion Mount
RoHS Compliant
DesignLights Consortium® Qualified*

ENERGY DATA

Electronic LED Driver
> 0.9 Power Factor
< 20% Total Harmonic Distortion
120V 50/60Hz, 347V/60Hz and 480V/60Hz
-40°C Min. Ambient Temperature Rating
+40°C Max. Ambient Temperature Rating

EPA

Effective Projected Area (Sq. Ft.): 0.55

SHIPPING DATA

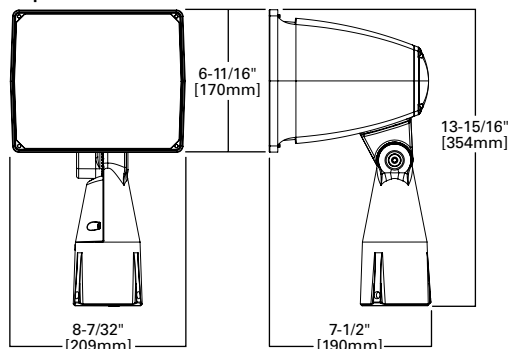
Approximate Net Weight:
13 lbs. (6 kgs.)



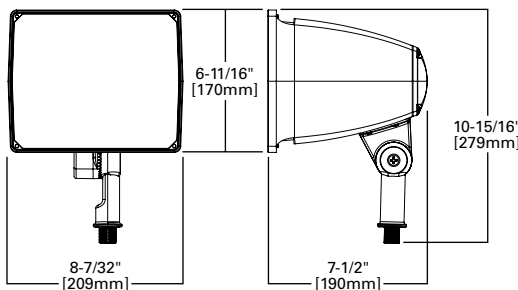
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DIMENSIONS

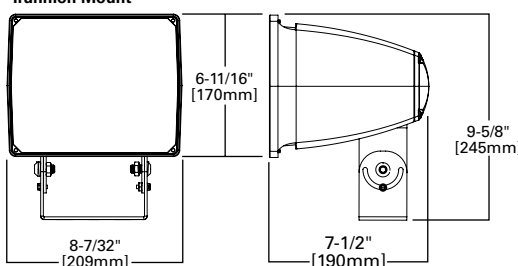
Slipfitter Mount



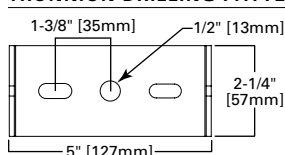
Knuckle Mount



Trunnion Mount

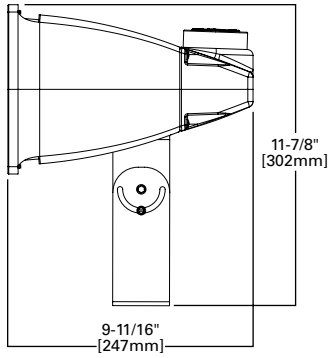


TRUNNION DRILLING PATTERN



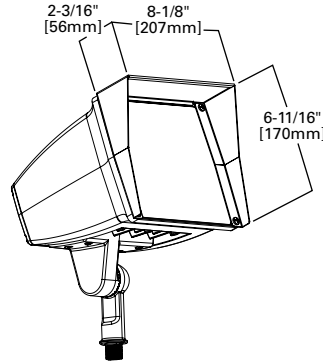
OPTION

NEMA Twistlock Photocontrol Receptacle

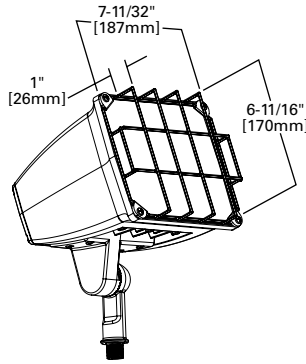


ACCESSORIES

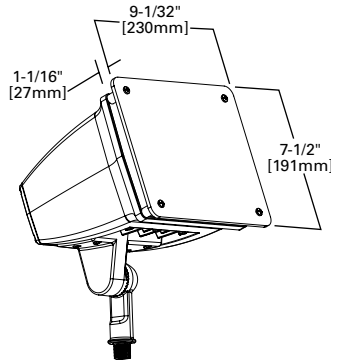
Top and Side Visors



Wire Guard



Vandal Shield



POWER AND LUMENS

	6 x 6				3 x 3			
C70 LED	NFFLD-S-C70	NFFLD-S-C70-7060	NFFLD-S-C70-7050	NFFLD-S-C70-7030	NFFLD-S-C70	NFFLD-S-C70-7060	NFFLD-S-C70-7050	NFFLD-S-C70-7030
Delivered Lumens	2,682	2,656	2,760	2,632	2,883	2,824	2,935	2,799
CCT (Kelvin)	4000K	5700K	5000K	3000K	4000K	5700K	5000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70	70	70
NEMA Distribution (H x V)	6H x 6V	6H x 6V	6H x 6V	6H x 6V	3H x 3V	3H x 3V	3H x 3V	3H x 3V
Power Consumption (Watts)	20	20	20	20	26	26	26	26
C15 LED	NFFLD-S-C15	NFFLD-S-C15-7060	NFFLD-S-C15-7050	NFFLD-S-C15-7030	NFFLD-S-C15	NFFLD-S-C15-7060	NFFLD-S-C15-7050	NFFLD-S-C15-7030
Delivered Lumens	5,797	5,741	6,066	5,785	5,499	5,386	5,596	5,337
CCT (Kelvin)	4000K	5700K	5000K	3000K	4000K	5700K	5000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70	70	70
NEMA Distribution (H x V)	6H x 6V	6H x 6V	6H x 6V	6H x 6V	3H x 3V	3H x 3V	3H x 3V	3H x 3V
Power Consumption (Watts)	51	51	51	51	52	52	52	52

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (50,000 Hours)	Theoretical L70 (Hours)
NFFLD-S-C15-33 (3 x 3 Spot)		
25°C	> 94.74%	> 336,000
40°C	> 93.37%	> 264,000
NFFLD-S-C15-66 (6 x 6 Wide)		
25°C	> 95.53%	> 399,000
40°C	> 95.10%	> 362,000
50°C	> 94.60%	> 324,000

CURRENT DRAW

Voltage (V)	6 x 6		3 x 3	
	NFFLD-S-C70	NFFLD-S-C15	NFFLD-S-C70	NFFLD-S-C15
	Current (A)	Current (A)	Current (A)	Current (A)
120V	0.15	0.45	0.21	0.46
208V	0.09	0.25	0.13	0.26
240V	0.08	0.22	0.11	0.23
277V	0.07	0.19	0.10	0.20
347V	0.06	0.16	0.10	0.21
480V	0.05	0.13	0.07	0.22

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.03
15°C	1.02
25°C	1.00
40°C	0.97
50°C	0.96

CONTROL OPTIONS

0-10V (D)

This fixture is offered standard with 0-10V dimming driver(s). The dimming option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (PER and PER7)

Photocontrol receptacles (PER and PER7) provide a flexible solution to enable “dusk-to-dawn” lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PER7 receptacle.

WaveLinx Wireless Outdoor Lighting Control Module (WOLC-7P-10A)

The 7-pin wireless outdoor lighting control module enables WaveLinx to control outdoor area, site and flood lighting. WaveLinx controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomic or time schedules based on a 7 day week.

ORDERING INFORMATION

Sample Number: NFFLD-S-C15-D-UNV-66-S-CB-PC1

Product Family ¹	Light Engine ²	Driver ³	Voltage	Distribution	Mounting	Color
NFFLD-S=Night Falcon Small	C70=2,700 Nominal Lumens C15=5,900 Nominal Lumens	D=Dimming (0-10V)	UNV=Universal 120-277V 347=347V ⁴ 480=480V ^{3, 5}	33=NEMA 3H x 3V ⁶ 66=NEMA 6H x 6V Wide	S=Slipfitter ⁷ T=Trunnion KNC=Knuckle	CB=Carbon Bronze (Standard) BK=Black BZ=Bronze AP=Grey WH=White WHT=Summit White DP=Dark Platinum GM=Graphite Metallic
Options (Add as Suffix)				Accessories (Order Separately) ¹³		
7030=70 CRI / 3000K ⁸ 7050=70 CRI / 5000K ⁸ 7060=70 CRI / 5700K ⁸ 10MSP=10kV MOV Surge Protection HA=50°C High Ambient Temperature ⁹ PC1=Button Type Photocontrol - 120V ¹⁰ PC2=Button Type Photocontrol - 208-277V ¹⁰ PER= 3-PIN Twistlock Photocontrol Receptacle ¹¹ PER7=7-PIN Twistlock Photocontrol Receptacle ^{11, 12}				RAB-XX=Right Angle Pipe Bracket for Slipfitter SAB-XX=Steel Angle Bracket for Trunnion TS2LW-NFFLD-XX=Top and Side Visors ¹⁴ VSLW-NFFLD=Vandal Shield ¹⁴ WGLW-NFFLD=Wire Guard ¹⁴ WOLC-7P-10A=WaveLinx Outdoor Control Module (7-pin) ¹⁵		

- NOTES:**
- DesignLights Consortium® Qualified and classified for both DLC Standard and DLC Premium, refer to www.designlights.org for details.
 - Standard 4000K CCT and minimum 70 CRI. Consult IES file for actual lumen output.
 - Consult factory for driver surge protection values.
 - 347V only available with PC2.
 - Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
 - Nominal lumen values are lower for the spot optic distribution see lumen table.
 - Fits 2-3/8" O.D. tenon, wire leads runs through bottom of slipfitter.
 - Extended lead times apply. Use dedicated IES files for 3000K, 5000K and 5700K when performing layouts. These files are published on the Night Falcon Small luminaire product page on the website.
 - HA option not available with 3x3 configurations.
 - Cannot order button photocontrol with C15 lumen package and 480V (PC1 or PC2).
 - Requires extended back box.
 - Require 0-10V dimming driver.
 - Replace XX with color designation. Additional brackets and adaptors available on the poles product page on the website.
 - Cannot combine TS2LW (Top and Side Visor), VSLW (Vandal Shield), or WGLW (Wire Guard), limited to one external guard per fixture.
 - Requires 7-pin NEMA twistlock photocontrol receptacle.

STOCK ORDERING INFORMATION

Stock Sample Number: NFFLD-S-C15-T-UNV

Series	Light Engine	Mounting	Voltage	Options (Add as Suffix)
NFFLD-S=Night Falcon Small	C70=2,700 Nominal Lumens C15=5,900 Nominal Lumens	T=Trunnion KNC=Knuckle	UNV=Universal 120-277V 347=347V	PC1=Button Type Photocontrol - 120V PC2=Button Photocontrol - 207-277V

NOTES: Options not available with stock products. Order accessories as separate items for field installation. Refer to standard ordering information to add options. Refer to In-Stock Guide for availability. Stock fixture is 4000K, dimming, 6x6 distribution, 120-277V or 347V, carbon bronze only. 347V only available with PC2.

DESCRIPTION

Combining value and performance in a compact, robust design, the Night Falcon low wattage LED floodlight luminaire delivers superior uniformity and excellent illumination to the targeted application. The rugged, die-cast housing is IP66 rated for exceptional durability and long term reliability. Available in several mounting configurations and weighing less than 14 pounds, this fixture provides you with design flexibility while simplifying installation. The low wattage LED floodlight can be wall, ground, or pole mounted, making it ideal for all commercial, industrial, and residential low wattage floodlighting applications.

Catalog #		Type	
Project			
Comments		Date	
Prepared by			

SPECIFICATION FEATURES

Construction

Heavy-duty, die-cast aluminum housing, driver compartment and driver housing door. The housing, driver compartment and optical chamber are IP66 rated. Access to the driver for maintenance is achieved with a removable driver door using pan head screws. A one-piece silicone gasket seals the door to the fixture housing. Suitable for mounting within 4' (1.2m) of the ground.

Optics

The LED chamber incorporates a vacuum metalized reflector that provides high-efficiency illumination. Optics are precisely designed to shape the wide NEMA type 6H x 6V distribution, maximizing efficiency and application spacing. A 3H x 3V distribution is available for lighting tall, narrow surfaces. Clear glass tempered lens with full circumference form-in-place silicone gasket protects the optics from damage. Offered standard in 4000K (+/- 275K) CCT and minimum 70 CRI optional. Optional 5700K CCT, 3000K CCT, 5000K CCT minimum 70 CRI are available.

Electrical

LED driver is mounted to the removable die-cast aluminum door

for optimal heat sinking and ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. Integral 3kV surge is standard. 10kV MOV surge protection is available. 0-10V dimming driver is standard. Button photocontrols are available in 120V and 208-277V. Suitable for ambient temperatures from -40°C to 40°C. Optional 50°C HA (high ambient) available. 93% lumen maintenance greater than 50,000 hours per IESNA TM-21.

Accessories

Heavy-duty steel top and side visors control glare and spill light. 1/8" thick UV stabilized vandal guard shields glass lens from impact when mounted at low levels. Easy to install wire guard features a heavy-gauge welded construction with corrosion resistant polyester powder coat finish to protect glass from projected objects.

Mounting

Heavy-gauge steel trunnion-mount utilizes interlocking slide adjustment and is supplied with 3 feet of pre-wired SOW, wet location rated cord. Trunnion base can be lag bolted to any surface and is 3G vibration rated (ANSI C136.31). Heavy-duty, die-cast aluminum knuckle base utilizes

tooth-lock adjustment with visual 5° adjustment indicators that allow for 180° rotation of the luminaire. Knuckle fits 1/2" NPT available mounting junction box cover (supplied by others) and is secured with supplied locking nut and is 1.5G vibration rated. A die-cast aluminum slipfitter with a tooth lock adjustment that can be adjusted in 5° increments is available and is 1.5G vibration rated.

Finish

Housing and cast parts finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard color is carbon bronze. Additional colors available in summit white, white, grey, bronze, black, dark platinum and graphite metallic. Consult your lighting representative at Eaton for a complete selection of standard colors.

Warranty

Five-year warranty.



NFFLD-S NIGHT FALCON SMALL

Solid State LED

FLOODLIGHT



CERTIFICATION DATA

UL/cUL Wet Location Listed
IP66 Fixture and Optical Chamber
LM79/LM80 Compliant
1.5G Vibration Rated - Knuckle Mount
3.0G Vibration Rated - Slipfitter Mount
3.0G Vibration Rated - Trunnion Mount
RoHS Compliant
DesignLights Consortium® Qualified*

ENERGY DATA

Electronic LED Driver
> 0.9 Power Factor
< 20% Total Harmonic Distortion
120V 50/60Hz, 347V/60Hz and 480V/60Hz
-40°C Min. Ambient Temperature Rating
+40°C Max. Ambient Temperature Rating

EPA

Effective Projected Area (Sq. Ft.): 0.55

SHIPPING DATA

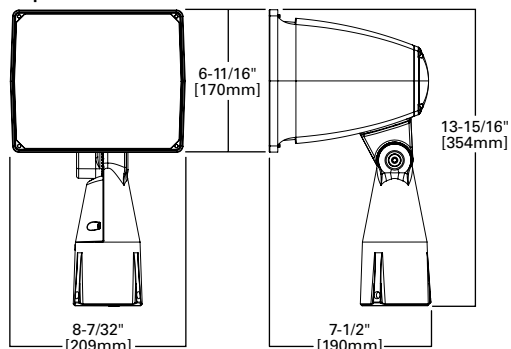
Approximate Net Weight:
13 lbs. (6 kgs.)



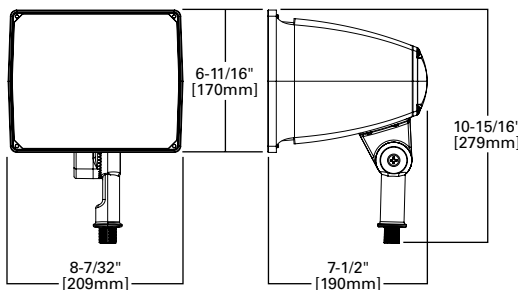
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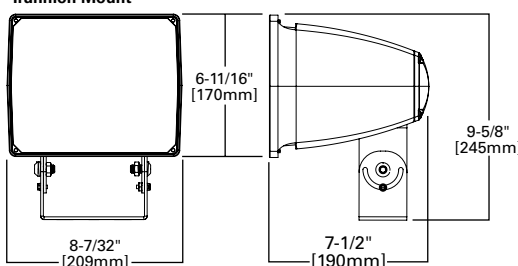
Slipfitter Mount



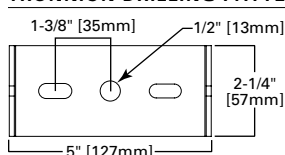
Knuckle Mount



Trunnion Mount

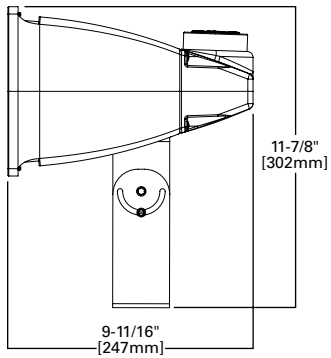


TRUNNION DRILLING PATTERN



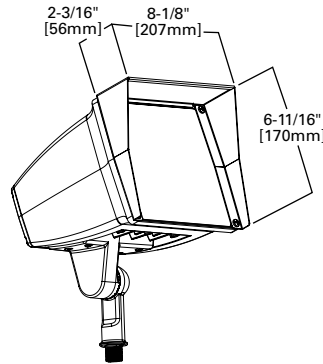
OPTION

NEMA Twistlock Photocontrol Receptacle

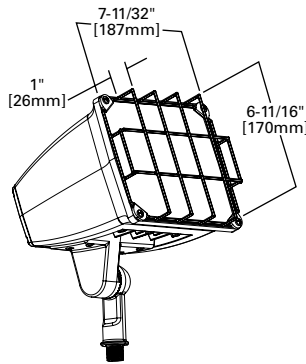


ACCESSORIES

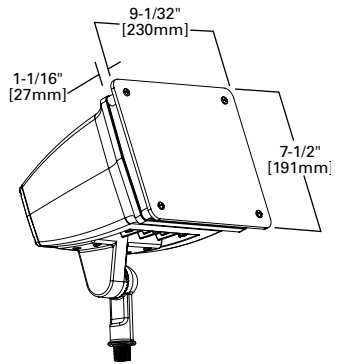
Top and Side Visors



Wire Guard



Vandal Shield



POWER AND LUMENS

	6 x 6				3 x 3			
	NFFLD-S-C70	NFFLD-S-C70-7060	NFFLD-S-C70-7050	NFFLD-S-C70-7030	NFFLD-S-C70	NFFLD-S-C70-7060	NFFLD-S-C70-7050	NFFLD-S-C70-7030
C70 LED								
Delivered Lumens	2,682	2,656	2,760	2,632	2,883	2,824	2,935	2,799
CCT (Kelvin)	4000K	5700K	5000K	3000K	4000K	5700K	5000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70	70	70
NEMA Distribution (H x V)	6H x 6V	6H x 6V	6H x 6V	6H x 6V	3H x 3V	3H x 3V	3H x 3V	3H x 3V
Power Consumption (Watts)	20	20	20	20	26	26	26	26
C15 LED								
Delivered Lumens	5,797	5,741	6,066	5,785	5,499	5,386	5,596	5,337
CCT (Kelvin)	4000K	5700K	5000K	3000K	4000K	5700K	5000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70	70	70
NEMA Distribution (H x V)	6H x 6V	6H x 6V	6H x 6V	6H x 6V	3H x 3V	3H x 3V	3H x 3V	3H x 3V
Power Consumption (Watts)	51	51	51	51	52	52	52	52

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (50,000 Hours)	Theoretical L70 (Hours)
NFFLD-S-C15-33 (3 x 3 Spot)		
25°C	> 94.74%	> 336,000
40°C	> 93.37%	> 264,000
NFFLD-S-C15-66 (6 x 6 Wide)		
25°C	> 95.53%	> 399,000
40°C	> 95.10%	> 362,000
50°C	> 94.60%	> 324,000

CURRENT DRAW

Voltage (V)	6 x 6		3 x 3	
	NFFLD-S-C70	NFFLD-S-C15	NFFLD-S-C70	NFFLD-S-C15
	Current (A)	Current (A)	Current (A)	Current (A)
120V	0.15	0.45	0.21	0.46
208V	0.09	0.25	0.13	0.26
240V	0.08	0.22	0.11	0.23
277V	0.07	0.19	0.10	0.20
347V	0.06	0.16	0.10	0.21
480V	0.05	0.13	0.07	0.22

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.03
15°C	1.02
25°C	1.00
40°C	0.97
50°C	0.96

CONTROL OPTIONS

0-10V (D)

This fixture is offered standard with 0-10V dimming driver(s). The dimming option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (PER and PER7)

Photocontrol receptacles (PER and PER7) provide a flexible solution to enable “dusk-to-dawn” lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PER7 receptacle.

WaveLinx Wireless Outdoor Lighting Control Module (WOLC-7P-10A)

The 7-pin wireless outdoor lighting control module enables WaveLinx to control outdoor area, site and flood lighting. WaveLinx controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomic or time schedules based on a 7 day week.

ORDERING INFORMATION

Sample Number: NFFLD-S-C15-D-UNV-66-S-CB-PC1

Product Family ¹	Light Engine ²	Driver ³	Voltage	Distribution	Mounting	Color
NFFLD-S=Night Falcon Small	C70=2,700 Nominal Lumens C15=5,900 Nominal Lumens	D=Dimming (0-10V)	UNV=Universal 120-277V 347=347V ⁴ 480=480V ^{3, 5}	33=NEMA 3H x 3V ⁶ 66=NEMA 6H x 6V Wide	S=Slipfitter ⁷ T=Trunnion KNC=Knuckle	CB=Carbon Bronze (Standard) BK=Black BZ=Bronze AP=Grey WH=White WHT=Summit White DP=Dark Platinum GM=Graphite Metallic
Options (Add as Suffix)				Accessories (Order Separately) ¹³		
7030=70 CRI / 3000K ⁸ 7050=70 CRI / 5000K ⁸ 7060=70 CRI / 5700K ⁸ 10MSP=10kV MOV Surge Protection HA=50°C High Ambient Temperature ⁹ PC1=Button Type Photocontrol - 120V ¹⁰ PC2=Button Type Photocontrol - 208-277V ¹⁰ PER= 3-PIN Twistlock Photocontrol Receptacle ¹¹ PER7=7-PIN Twistlock Photocontrol Receptacle ^{11, 12}				RAB-XX=Right Angle Pipe Bracket for Slipfitter SAB-XX=Steel Angle Bracket for Trunnion TS2LW-NFFLD-XX=Top and Side Visors ¹⁴ VSLW-NFFLD=Vandal Shield ¹⁴ WGLW-NFFLD=Wire Guard ¹⁴ WOLC-7P-10A=WaveLinx Outdoor Control Module (7-pin) ¹⁵		

- NOTES:**
- DesignLights Consortium® Qualified and classified for both DLC Standard and DLC Premium, refer to www.designlights.org for details.
 - Standard 4000K CCT and minimum 70 CRI. Consult IES file for actual lumen output.
 - Consult factory for driver surge protection values.
 - 347V only available with PC2.
 - Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
 - Nominal lumen values are lower for the spot optic distribution see lumen table.
 - Fits 2-3/8" O.D. tenon, wire leads runs through bottom of slipfitter.
 - Extended lead times apply. Use dedicated IES files for 3000K, 5000K and 5700K when performing layouts. These files are published on the Night Falcon Small luminaire product page on the website.
 - HA option not available with 3x3 configurations.
 - Cannot order button photocontrol with C15 lumen package and 480V (PC1 or PC2).
 - Requires extended back box.
 - Require 0-10V dimming driver.
 - Replace XX with color designation. Additional brackets and adaptors available on the poles product page on the website.
 - Cannot combine TS2LW (Top and Side Visor), VSLW (Vandal Shield), or WGLW (Wire Guard), limited to one external guard per fixture.
 - Requires 7-pin NEMA twistlock photocontrol receptacle.

STOCK ORDERING INFORMATION

Stock Sample Number: NFFLD-S-C15-T-UNV

Series	Light Engine	Mounting	Voltage	Options (Add as Suffix)
NFFLD-S=Night Falcon Small	C70=2,700 Nominal Lumens C15=5,900 Nominal Lumens	T=Trunnion KNC=Knuckle	UNV=Universal 120-277V 347=347V	PC1=Button Type Photocontrol - 120V PC2=Button Photocontrol - 207-277V

NOTES: Options not available with stock products. Order accessories as separate items for field installation. Refer to standard ordering information to add options. Refer to In-Stock Guide for availability. Stock fixture is 4000K, dimming, 6x6 distribution, 120-277V or 347V, carbon bronze only. 347V only available with PC2.