

DESCRIPTION

The Night Falcon™ high wattage LED floodlight luminaire combines high-efficiency, precision engineered optics and energy efficiency in a cost-effective solution. Incorporating an innovative thermal management design into the fixture, that maximizes heat dissipation, results in longer fixture and LED life. The rugged, die-cast housing is IP66 and 3G vibration rated for exceptional durability and long term reliability. The Night Falcon luminaire is ideal floodlight for many area outdoor lighting situations, including parking lots, construction and storage sites, rail yards, light industrial locations, marinas and service areas.

Catalog #		Type	
Project			
Comments		Date	
Prepared by			

SPECIFICATION FEATURES

Construction

Heavy-duty, die cast aluminum housing, driver compartment and driver housing door. A separate driver compartment and external fins provide optimal thermal management that result in longer LED and driver life. 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. The fixture is 3G vibration rated (ANSI C136.31) to ensure durability in area and site lighting applications.

Optics

The LED chamber(s) incorporate a vacuum metalized reflector that provides high-efficiency illumination. Optics are precisely designed to shape the the NEMA 6H x 6V wide distribution and the 3H x 3V spot distribution, maximizing efficiency and application spacing. 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 3000K, 5000K and 5700K CCT.

Electrical

LED drivers are mounted to the removable die-cast aluminum doors for optimal heat sinking and ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. Integral 6kV surge is standard. 10kV/10kA common- and differential- mode surge protection available as an option. 0-10V dimming driver is standard to accommodate controls capability such as dimming and occupancy. Standard NEMA 3-PIN twistlock photocontrol receptacle and NEMA 7-PIN twistlock photocontrol receptacles are available as options. Suitable for ambient temperatures from -40°C to 40°C. 93% lumen maintenance greater than 50,000 hours per IESNA TM-21 at 25°C.

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

Mounting options include an integral die-cast aluminum slipfitter that fits 2-3/8" - 3" O.D. tenon. The trunnion mounting includes a 1/4" polyester powder coated galvanized steel trunnion with a 16/3 SOW cord. The trunnion mount uses an interlocking slide adjustment that is locked into place with a set screw.

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-L NIGHT FALCON LARGE

Solid State LED

FLOODLIGHT



CERTIFICATION DATA

UL/cUL Wet Location Listed
IP66 Fixture and Optical Chamber
LM79/LM80 Compliant
3G Vibration Rated
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 Minimum Ambient Temperature Rating
+40°C Maximum Ambient Temperature Rating

EPA

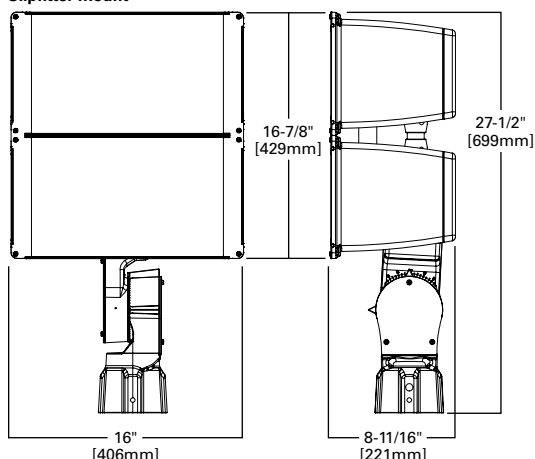
Effective Projected Area (Sq. Ft.): 2.5

SHIPPING DATA

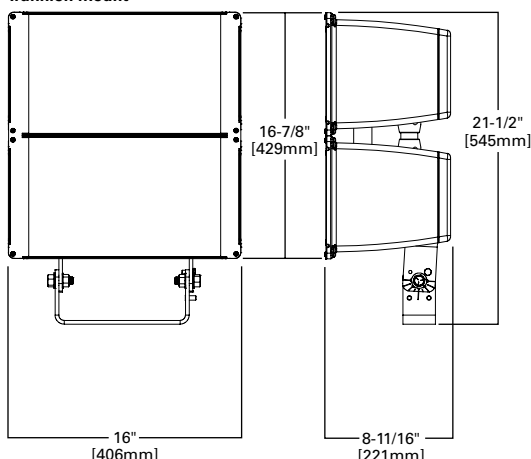
Approximate Net Weight:
48 lbs. (22 kgs.)

DIMENSIONS

Slipfitter Mount



Trunnion Mount



POWER AND LUMENS

	6x6				3x3			
	NFFLD-L-C100	NFFLD-L-C100-7060	NFFLD-L-C100-7050	NFFLD-L-C100-7030	NFFLD-L-C100	NFFLD-L-C100-7060	NFFLD-L-C100-7050	NFFLD-L-C100-7030
C100 LED								
Delivered Lumens	33,941	32,933	33,466	32,627	29,302	28,432	28,892	28,168
CCT (Kelvin)	4000K	5700K	5000K	3000K	4000K	5700K	5000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70	70	70
Power Consumption (Watts)	252	252	252	252	284	284	284	284
C75 LED								
Delivered Lumens	25,942	25,172	25,579	24,938	24,667	23,925	24,322	23,712
CCT (Kelvin)	4000K	5700K	5000K	3000K	4000K	5700K	5000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70	70	70
Power Consumption (Watts)	179W	179W	179W	179W	236W	236W	236W	236W
C125 LED								
Delivered Lumens	38,215	37,069	38,600	37,188				
CCT (Kelvin)	4000K	5700K	5000K	3000K				
CRI (Color Rendering Index)	70	70	70	70				
Power Consumption (Watts)	268W	268W	268W	268W				
C150 LED								
Delivered Lumens	43,098	41,805	43,533	41,939				
CCT (Kelvin)	4000K	5700K	5000K	3000K				
CRI (Color Rendering Index)	70	70	70	70				
Power Consumption (Watts)	316W	316W	316W	316W				
C175 LED								
Delivered Lumens	48,028	46,587	48,512	46,737				
CCT (Kelvin)	4000K	5700K	5000K	3000K				
CRI (Color Rendering Index)	70	70	70	70				
Power Consumption (Watts)	371W	371W	371W	371W				

CURRENT DRAW

Voltage (V)	Model Series						
	6x6					3x3	
	NFFLD-L-C75	NFFLD-L-C100	NFFLD-L-C125	NFFLD-L-C150	NFFLD-L-C175	NFFLD-L-C75	NFFLD-L-C100
	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)
120V	1.499	2.141	2.279	2.688	3.155	2.008	2.391
277V	0.661	0.923	0.991	1.155	1.341	0.859	1.039
347V	0.539	0.760	0.784	0.924	1.082	0.692	0.841
480V	0.398	0.548	0.565	0.666	0.772	0.509	0.639

LUMEN MAINTENANCE

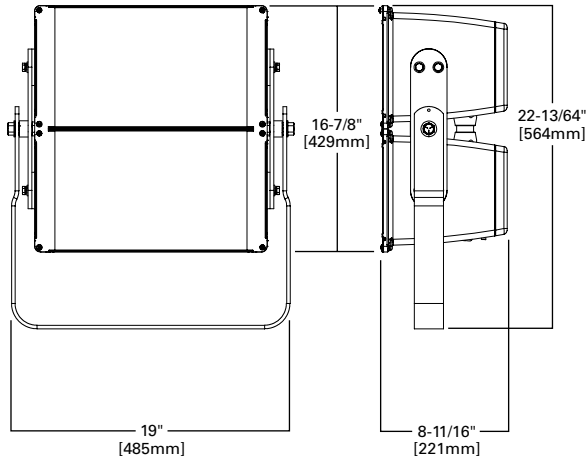
Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
6H x 6V (Wide)		
25°C	90.0%	>393,000
40°C	88.9%	>180,000
3H x 3V (Spot)		
25°C	93.38%	>317,000
40°C	92.34%	>271,000

LUMEN MULTIPLIER

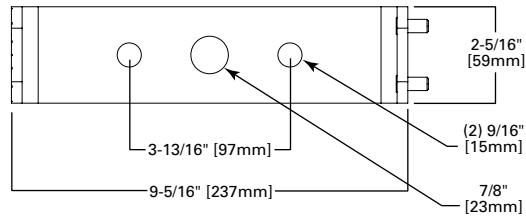
Ambient Temperature	Lumen Multiplier
10°C	1.03
15°C	1.02
25°C	1.00
40°C	0.97

DIMENSIONS

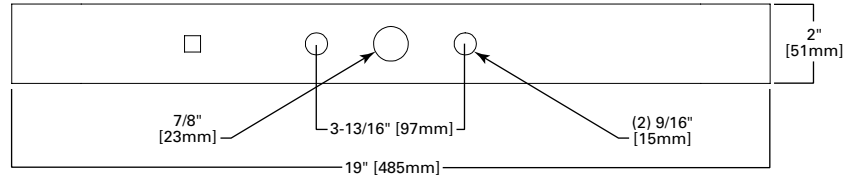
Yoke Mount



TRUNNION MOUNT DRILL PATTERN

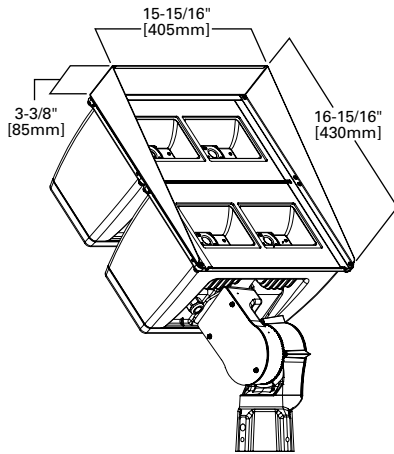


YOKE MOUNT DRILL PATTERN

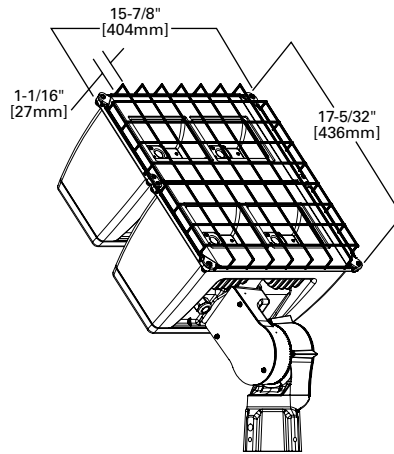


ACCESSORIES

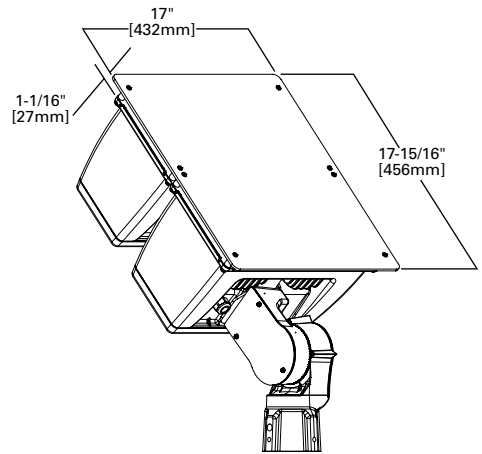
Top and Side Visors



Wire Guard



Vandal Shield



CONTROL OPTIONS

0-10V (D)

This fixture is offered standard with 0-10V dimming driver(s). The D 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-L-C100-D-UNV-66-S-CB-PER

Product Family ^{1,2}	Light Engine ³	Driver ⁴	Voltage	Distribution	Mounting	Color
NFFLD-L=Night Falcon Large	C100=33,900 Nominal Lumens C75=25,900 Nominal Lumens C125=38,000 Nominal Lumens C150=43,000 Nominal Lumens C175=48,000 Nominal Lumens	D=Dimming (0-10V)	UNV=120-277V 347=347V 480=480V ⁵	66=NEMA 6H x 6V Wide 33=NEMA 3H x 3V Spot ⁶	S=Slipfitter ⁷ T=Trunnion Y=Yoke	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) ¹⁰			
7030=70 CRI / 3000K ⁸ 7050=70 CRI / 5000K ⁸ 7060=70 CRI / 5700K ⁸ PER=NEMA 3-PIN Twistlock Photocontrol Receptacle PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle ⁹ 10K=10kV/10kA UL 1449 Surge Protective Device			FA63=3" O.D. Surface Mount Bracket RAB-X=Right Angle Bracket for Slipfitter SAB-X=Steel Angle Bracket for Trunnion TYS-XX=Slipfitter Adapter for 2-3/8", 3" or 3-1/2" O.D. Tenon OA1223=10kV/10kA UL 1449 Surge Protective Device Replacement OA/RA1013=Photocontrol Shorting Cap OA/RA1014=NEMA Photocontrol - 120V OA/RA1016=NEMA Photocontrol - Multi-Tap OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V TS2HW/NFFLD-XX=Top and Side Visors ¹¹ VSHW/NFFLD=Vandal Shield ¹¹ WGHW/NFFLD=Wire Guard ¹¹ WOLC-7P-10A=WaveLinx Outdoor Control Module (7-pin) ¹²			

- NOTES:**
1. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
 2. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our pole white paper WP513001EN for additional support information.
 3. Standard 4000K CCT and minimum 70 CRI. Consult IES file for actual lumen output.
 4. Consult factory for driver surge protection values.
 5. 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).
 6. Only available in C75 and C100 light engines.
 7. Fits 2-3/8" to 3" O.D. tenon, wire leads run through slipfitter.
 8. Extended lead times apply. Use dedicated IES files for 3000K, 5000K and 5700K when performing layouts. These files are published on the Night Falcon large luminaire product page on the website.
 9. Must order with dimming driver.
 10. Replace XX with paint color.
 11. Cannot combine TS2HW/NFFLD (Top and Side Visor), VSHW/NFFLD (Vandal Shield), or WGHW/NFFLD (Wire Guard), limited to one external guard per fixture.
 12. Requires 7-pin NEMA twistlock photocontrol receptacle.

STOCK ORDERING INFORMATION

Stock Sample Number: NFFLD-L-C100-S

Series	Light Engine	Mounting	Voltage
NFFLD-L=Night Falcon Large	C100=33,900 Nominal Lumens C75=25,900 Nominal Lumens	S=Slipfitter T=Trunnion	[BLANK]=120-277V 347=347V

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, 6x6 distribution, dimming, 120-277V or 347V, carbon bronze only.

DESCRIPTION

The Night Falcon™ high wattage LED floodlight luminaire combines high-efficiency, precision engineered optics and energy efficiency in a cost-effective solution. Incorporating an innovative thermal management design into the fixture, that maximizes heat dissipation, results in longer fixture and LED life. The rugged, die-cast housing is IP66 and 3G vibration rated for exceptional durability and long term reliability. The Night Falcon luminaire is ideal floodlight for many area outdoor lighting situations, including parking lots, construction and storage sites, rail yards, light industrial locations, marinas and service areas.

Catalog #		Type	
Project			
Comments		Date	
Prepared by			

SPECIFICATION FEATURES

Construction

Heavy-duty, die cast aluminum housing, driver compartment and driver housing door. A separate driver compartment and external fins provide optimal thermal management that result in longer LED and driver life. 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. The fixture is 3G vibration rated (ANSI C136.31) to ensure durability in area and site lighting applications.

Optics

The LED chamber(s) incorporate a vacuum metalized reflector that provides high-efficiency illumination. Optics are precisely designed to shape the the NEMA 6H x 6V wide distribution and the 3H x 3V spot distribution, maximizing efficiency and application spacing. 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 3000K, 5000K and 5700K CCT.

Electrical

LED drivers are mounted to the removable die-cast aluminum doors for optimal heat sinking and ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. Integral 6kV surge is standard. 10kV/10kA common- and differential- mode surge protection available as an option. 0-10V dimming driver is standard to accommodate controls capability such as dimming and occupancy. Standard NEMA 3-PIN twistlock photocontrol receptacle and NEMA 7-PIN twistlock photocontrol receptacles are available as options. Suitable for ambient temperatures from -40°C to 40°C. 93% lumen maintenance greater than 50,000 hours per IESNA TM-21 at 25°C.

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

Mounting options include an integral die-cast aluminum slipfitter that fits 2-3/8" - 3" O.D. tenon. The trunnion mounting includes a 1/4" polyester powder coated galvanized steel trunnion with a 16/3 SOW cord. The trunnion mount uses an interlocking slide adjustment that is locked into place with a set screw.

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-L NIGHT FALCON LARGE

Solid State LED

FLOODLIGHT



CERTIFICATION DATA

UL/cUL Wet Location Listed
IP66 Fixture and Optical Chamber
LM79/LM80 Compliant
3G Vibration Rated
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 Minimum Ambient Temperature Rating
+40°C Maximum Ambient Temperature Rating

EPA

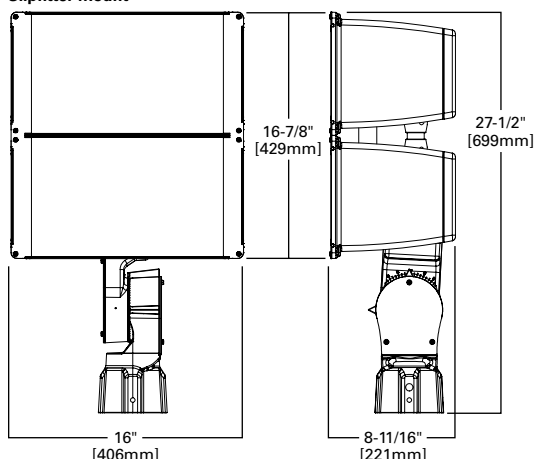
Effective Projected Area (Sq. Ft.): 2.5

SHIPPING DATA

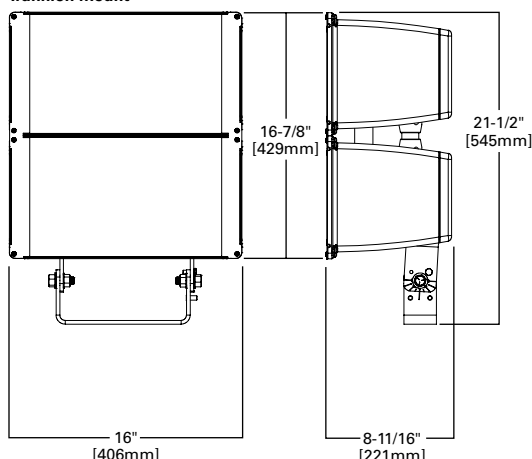
Approximate Net Weight:
48 lbs. (22 kgs.)

DIMENSIONS

Slipfitter Mount



Trunnion Mount



POWER AND LUMENS

	6x6				3x3			
	NFFLD-L-C100	NFFLD-L-C100-7060	NFFLD-L-C100-7050	NFFLD-L-C100-7030	NFFLD-L-C100	NFFLD-L-C100-7060	NFFLD-L-C100-7050	NFFLD-L-C100-7030
C100 LED								
Delivered Lumens	33,941	32,933	33,466	32,627	29,302	28,432	28,892	28,168
CCT (Kelvin)	4000K	5700K	5000K	3000K	4000K	5700K	5000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70	70	70
Power Consumption (Watts)	252	252	252	252	284	284	284	284
C75 LED								
Delivered Lumens	25,942	25,172	25,579	24,938	24,667	23,925	24,322	23,712
CCT (Kelvin)	4000K	5700K	5000K	3000K	4000K	5700K	5000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70	70	70
Power Consumption (Watts)	179W	179W	179W	179W	236W	236W	236W	236W
C125 LED								
Delivered Lumens	38,215	37,069	38,600	37,188				
CCT (Kelvin)	4000K	5700K	5000K	3000K				
CRI (Color Rendering Index)	70	70	70	70				
Power Consumption (Watts)	268W	268W	268W	268W				
C150 LED								
Delivered Lumens	43,098	41,805	43,533	41,939				
CCT (Kelvin)	4000K	5700K	5000K	3000K				
CRI (Color Rendering Index)	70	70	70	70				
Power Consumption (Watts)	316W	316W	316W	316W				
C175 LED								
Delivered Lumens	48,028	46,587	48,512	46,737				
CCT (Kelvin)	4000K	5700K	5000K	3000K				
CRI (Color Rendering Index)	70	70	70	70				
Power Consumption (Watts)	371W	371W	371W	371W				

CURRENT DRAW

Voltage (V)	Model Series						
	6x6					3x3	
	NFFLD-L-C75	NFFLD-L-C100	NFFLD-L-C125	NFFLD-L-C150	NFFLD-L-C175	NFFLD-L-C75	NFFLD-L-C100
	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)
120V	1.499	2.141	2.279	2.688	3.155	2.008	2.391
277V	0.661	0.923	0.991	1.155	1.341	0.859	1.039
347V	0.539	0.760	0.784	0.924	1.082	0.692	0.841
480V	0.398	0.548	0.565	0.666	0.772	0.509	0.639

LUMEN MAINTENANCE

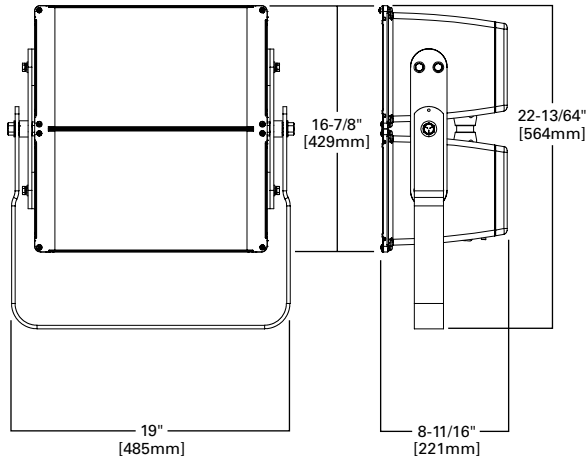
Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
6H x 6V (Wide)		
25°C	90.0%	>393,000
40°C	88.9%	>180,000
3H x 3V (Spot)		
25°C	93.38%	>317,000
40°C	92.34%	>271,000

LUMEN MULTIPLIER

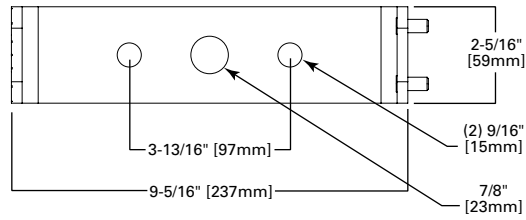
Ambient Temperature	Lumen Multiplier
10°C	1.03
15°C	1.02
25°C	1.00
40°C	0.97

DIMENSIONS

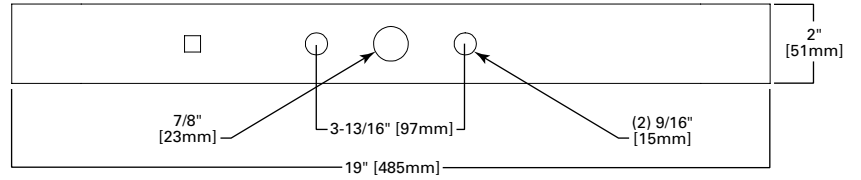
Yoke Mount



TRUNNION MOUNT DRILL PATTERN

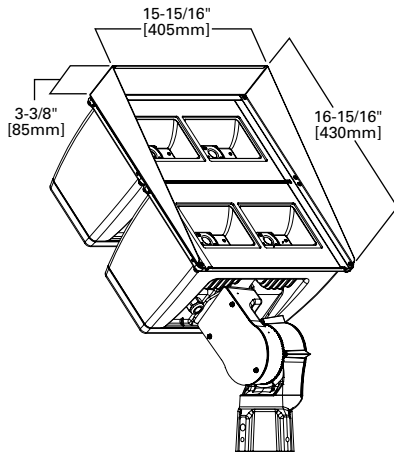


YOKE MOUNT DRILL PATTERN

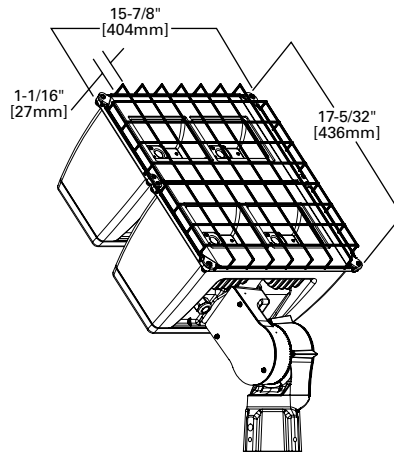


ACCESSORIES

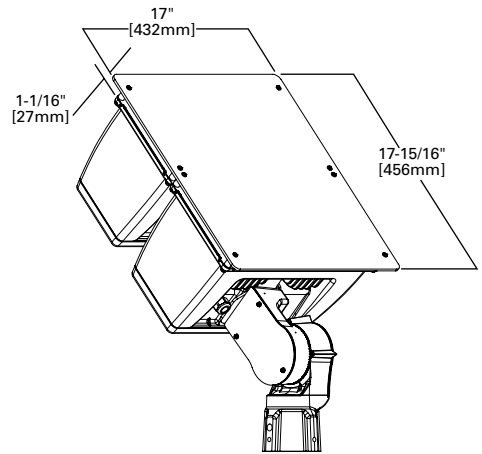
Top and Side Visors



Wire Guard



Vandal Shield



CONTROL OPTIONS

0-10V (D)

This fixture is offered standard with 0-10V dimming driver(s). The D 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-L-C100-D-UNV-66-S-CB-PER

Product Family ^{1,2}	Light Engine ³	Driver ⁴	Voltage	Distribution	Mounting	Color
NFFLD-L=Night Falcon Large	C100=33,900 Nominal Lumens C75=25,900 Nominal Lumens C125=38,000 Nominal Lumens C150=43,000 Nominal Lumens C175=48,000 Nominal Lumens	D=Dimming (0-10V)	UNV=120-277V 347=347V 480=480V ⁵	66=NEMA 6H x 6V Wide 33=NEMA 3H x 3V Spot ⁶	S=Slipfitter ⁷ T=Trunnion Y=Yoke	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) ¹⁰			
7030=70 CRI / 3000K ⁸ 7050=70 CRI / 5000K ⁸ 7060=70 CRI / 5700K ⁸ PER=NEMA 3-PIN Twistlock Photocontrol Receptacle PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle ⁹ 10K=10kV/10kA UL 1449 Surge Protective Device			FA63=3" O.D. Surface Mount Bracket RAB-X=Right Angle Bracket for Slipfitter SAB-X=Steel Angle Bracket for Trunnion TYS-XX=Slipfitter Adapter for 2-3/8", 3" or 3-1/2" O.D. Tenon OA1223=10kV/10kA UL 1449 Surge Protective Device Replacement OA/RA1013=Photocontrol Shorting Cap OA/RA1014=NEMA Photocontrol - 120V OA/RA1016=NEMA Photocontrol - Multi-Tap OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V TS2HW/NFFLD-XX=Top and Side Visors ¹¹ VSHW/NFFLD=Vandal Shield ¹¹ WGHW/NFFLD=Wire Guard ¹¹ WOLC-7P-10A=WaveLinx Outdoor Control Module (7-pin) ¹²			

- NOTES:**
1. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
 2. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our pole white paper WP513001EN for additional support information.
 3. Standard 4000K CCT and minimum 70 CRI. Consult IES file for actual lumen output.
 4. Consult factory for driver surge protection values.
 5. 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).
 6. Only available in C75 and C100 light engines.
 7. Fits 2-3/8" to 3" O.D. tenon, wire leads run through slipfitter.
 8. Extended lead times apply. Use dedicated IES files for 3000K, 5000K and 5700K when performing layouts. These files are published on the Night Falcon large luminaire product page on the website.
 9. Must order with dimming driver.
 10. Replace XX with paint color.
 11. Cannot combine TS2HW/NFFLD (Top and Side Visor), VSHW/NFFLD (Vandal Shield), or WGHW/NFFLD (Wire Guard), limited to one external guard per fixture.
 12. Requires 7-pin NEMA twistlock photocontrol receptacle.

STOCK ORDERING INFORMATION

Stock Sample Number: NFFLD-L-C100-S

Series	Light Engine	Mounting	Voltage
NFFLD-L=Night Falcon Large	C100=33,900 Nominal Lumens C75=25,900 Nominal Lumens	S=Slipfitter T=Trunnion	[BLANK]=120-277V 347=347V

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, 6x6 distribution, dimming, 120-277V or 347V, carbon bronze only.