

# Noctura Series

## LED Flood Luminaires

Rev. Date: V10 02/08/2023

### Product Description

The Noctura® LED Flood Luminaire minimizes cost of ownership with easy installation, high performance and quality backed by a Cree Lighting 5-year limited warranty. The Noctura Series has a coordinated style across area, flood and wall mount luminaires to provide a consistent daytime appearance across a building site or campus. Versatile mounting configurations offer installation flexibility and ease of application for ground, direct pole, tenon or vertical flat surface mounting.

**Applications:** Ideal for both retrofit and new installation: accent, sign or facade lighting applications.

### Performance Summary

**Lumen Output:** Up to 28,600 lumens

**Efficacy:** Up to 158 LPW

**CRI:** Minimum 70 CRI

**CCT:** 4000K, 5000K

**Limited Warranty\*:** 5 years on luminaire, mounts, visors, occupancy sensor and cables/1 year on remaining field-installed accessories

\* See <http://creelighting.com/warranty> for warranty terms

### Accessories

Field-Installed			
<b>Top Visor</b> - Lumen multiplier from standard optic: 0.976 NTF-TV-1L-BZ - For use with 1L only NTF-TV-3L-BZ - For use with 3L only NTF-TV-6L-BZ - For use with 6L only	NTF-TV-10L-BZ - For use with 10L only NTF-TV-14L-BZ - For use with 14L only NTF-TV-21L-BZ - For use with 21L only NTF-TV-28L-BZ - For use with 28L only	<b>Button Photocell</b> JL-423CZ - UL (120-277V) Voltage only <b>Cable</b> NTX-QC-5 (120-277 Volt only) NTX-QC-5-U (120-480 Volt) - 5' (1.5m) cable replacement <b>Shorting Cap</b> XA-XSLSHRT	<b>Pole Mounted Occupancy Sensor</b> NTX-FSP221B-S-L7-W - For use with UL and UH voltages - Requires XA-SENSREM <b>Hand-Held Remote</b> XA-SENSREM - For successful implementation of the Pole Mounted Occupancy sensor, a minimum of one hand-held remote is required

### Ordering Information

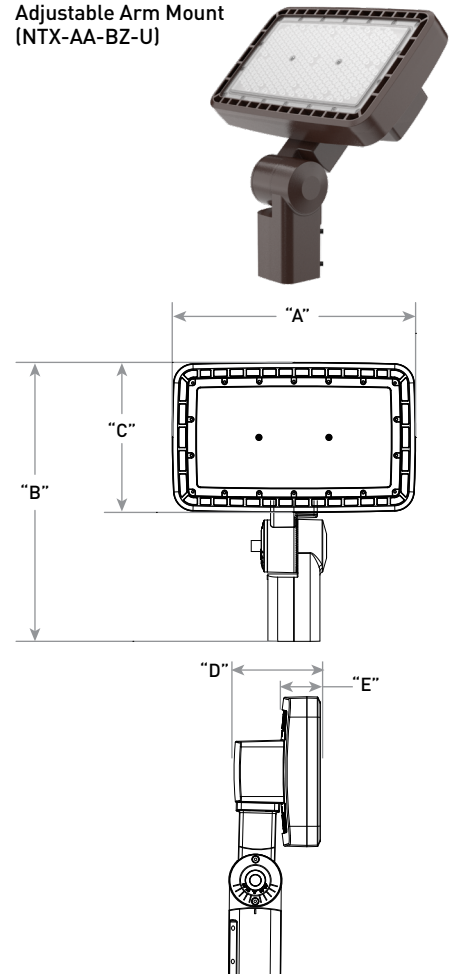
Fully assembled luminaire is composed of two components that must be ordered separately:

Example: **Mount:** NTX-AA-BZ-U + **Luminaire:** NTF-A-NM-N4-21L-40K-UL-BZ

Mount (Luminaire must be ordered separately)*		
<b>Knuckle Mount (Small Lumen Packages only)</b> NTF-KN-BZ - For use with 1L, 3L, 6L, 10L only <b>Yoke Mounts (Small Lumen Packages only)</b> NTF-YM-1L-BZ - For use with 1L only NTF-YM-3L-BZ - For use with 3L only NTF-YM-6L-BZ - For use with 6L only NTF-YM-10L-BZ - For use with 10L only	<b>Adjustable Arm Mounts (Large Lumen Packages only)</b> NTX-AA-BZ-U (120-480 Volt) - Adjustable Arm Mount w/knockout for Field-Installed Button Photocell (by others) NTX-AA-7R-BZ-U (120-480 Volt) - Adjustable Arm Mount w/NEMA® 7-pin Photocell Receptacle	<b>Trunnion Mounts (Large Lumen Packages only)</b> NTX-TR-BZ-U (120-480 Volt) - Trunnion Mount NTX-TR-7R-BZ-U (120-480 Volt) - Trunnion Mount w/NEMA® 7-pin Photocell Receptacle NTX-TR-PK-BZ-U (120-480 Volt) - Trunnion Mount w/knockout for Field-Installed Button Photocell (by others)
<b>Note:</b> NEMA® 7-pin Photocell Receptacle requires photocell or shorting cap by others		

\* Reference EPA and pole configuration suitability data beginning on page 7

### 21L Adjustable Arm Mount (NTX-AA-BZ-U)



Lumen Package	Weight*	Dim "A"	Dim "B"	Dim "C"	Dim "D"	Dim "E"
14L*	10.8 lbs (4.9kg)	13.4" (340mm)	15.8" (401mm)	7.5" (191mm)	5.1" (130mm)	2.3" (58mm)
21L*	13.5 lbs (6.1kg)	14.4" (366mm)	15.2" (386mm)	8.9" (226mm)	5.1" (130mm)	2.3" (58mm)
28L*	17.2 lbs (7.8kg)	13.4" (340mm)	22.8" (582mm)	14.7" (373mm)	5.0" (127mm)	2.1" (53mm)

See pages 3-5 for additional line drawings

\* Includes housing & mount (for housing weight only refer to page 2)

### Ordering Information\*\*

Example: NTF-A-NM-N4-1L-40K-UL-BZ

Luminaire (Mount must be ordered separately)								
NTF	A	NM						BZ
Product	Version	Mounting	Optic	Lumen Package*		CCT	Voltage	Color Options
NTF	A	NM No Mount	N4 NEMA 4x4 N6 NEMA 6x6	<b>Small</b> 1L 1,600 lumens - Not available in 347-480V 3L 3,000 lumens - Not available in 347-480V 6L 6,500 lumens 10L 10,000 lumens	<b>Large</b> 14L 14,000 lumens 21L 21,500 lumens 28L 28,600 lumens	40K 4000K 50K 5000K	UL Universal 120-277V UH Universal 347-480V	BZ Bronze

\* See mount descriptions for applicable mounts. Lumen Package codes identify approximate light output only. Actual lumen output levels may vary depending on CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values

\*\* Consult factory for availability



US: [creelighting.com](http://creelighting.com) (800) 236-6800

Canada: [creelighting-canada.com](http://creelighting-canada.com) (800) 473-1234

# CREE LIGHTING®

Product Specifications

CONSTRUCTION & MATERIALS

- Luminaire housing is rugged die cast aluminum with integral LED driver compartment which is specifically designed for LED applications with advanced LED thermal management
- Housing and mounting accessories finished in polyester powder coat paint, 2.5 mil nominal thickness
- Small flood housings include knockout provision for field-installed button type photocell (by others)
- Field-installed button photocells should not exceed the following size limitations: 2.14" (54.5mm) L x 1.14" (29mm) W x 1.73" (44mm) H. Nipple should be centered in the housing to ensure proper fit
- Mounting options (for 1L, 3L, 6L, 10L) include:**
  - Yoke Mount is heavy gauge steel construction and mounts to flat surfaces
  - Yoke mount includes 18" (340mm) prewired SOW cord exiting the housing
  - Mounting for the knuckle adaptor is rugged die cast aluminum and mounts to 1/2" (12.7mm) NPT, junction box cover (supplied by others)
  - Knuckle mount includes tooth lock aiming that can be adjusted 180° in 5° increments
- Mounting options for (14L, 21L and 28L) include:**
  - Adjustable arm w/knockout provision for field-installed button type photocell (by others), adjustable arm w/NEMA® 7-pin photocell receptacle, trunnion mount, trunnion mount w/NEMA® 7-pin photocell receptacle, and trunnion mount w/knockout provision for field-installed button type photocell (by others)
  - Photocell or shorting cap by others. Intended for downlight applications with maximum 45° tilt
  - Adjustable arm mount is constructed of rugged die cast aluminum and mounts to 2" (51mm) IP, 2.375" (60mm) O.D. tenons. It includes tooth lock aiming that can be adjusted from 0° (horizontal) to 180° in 5° increments
  - Trunnion mount features rugged steel construction, mounts to vertical flat surfaces, and can be adjusted from 0° (horizontal) to 180° in 15° increments
- Housing Weight:** 1L-2.6 lbs. (1.2kg), 3L-2.9 lbs. (1.3kg), 6L-3.2 lbs. (1.4kg), 10L-6.3 lbs. (2.9kg), 14L-7.0 lbs. (3.2kg), 21L-9.7 lbs. (4.4kg), 28L-13.4 lbs. (6.1kg)

OPTICS


- Mid-power LED array Floodlight optics are available in: medium flood (NEMA 4x4) and wide flood (NEMA 6x6) for 4000K and 5000K CCTs with a minimum of 70 CRI. Efficacies up to 158 LPW for minimal energy consumption. Top cutoff visors are available for light trespass and glare

ELECTRICAL SYSTEM

- Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- Power Factor:** > 0.9 at full load
- Total Harmonic Distortion:** < 20% at full load
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Integral 10kV/5kA surge suppression protection standard
- Designed with 0-10V dimming capabilities. Controls by others. Dimming only available on 14L, 21L and 28L
- 10V Source Current:** 0.20 mA
- Operating Temperature Range:** -30°C - +40°C (-22°F - +104°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed (UL1598)
- Suitable for wet locations
- Meets NEMA C82.77 standards
- Drivers and LEDs are UL Recognized in accordance with UL8750
- Enclosure meets IP66 requirements per IEC 60529
- ANSI C136.2 10kV/5kA surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- RoHS compliant. Consult factory for additional details

- Adjustable arm and knuckle mounts are certified to ANSI C136.31-2018, 3G vibration standards. Yoke and trunnion mounts are certified to ANSI C136.31-2001, 1.5G vibration standards
-  **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

Electrical Data*								
Lumen Package	System Watts 120-277V	System Watts 347-480V	Total Current (A)					
			120V	208V	240V	277V	347V	480V
1L	12	N/A	0.12	0.07	0.06	0.05	N/A	N/A
3L	21	N/A	0.21	0.12	0.11	0.09	N/A	N/A
6L	40	N/A	0.4	0.23	0.20	0.17	N/A	N/A
10L	64	N/A	0.64	0.37	0.32	0.28	N/A	N/A
14L	93	93	0.93	0.54	0.47	0.40	0.32	0.23
21L	140	140	1.40	0.8	0.7	0.61	0.48	0.35
28L	186	186	1.86	1.07	0.93	0.81	0.64	0.47

\* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/-10%

Noctura Series Ambient Adjusted Lumen Maintenance¹					
Ambient	Initial LMF	25K hr Reported² LMF	50K hr Reported² LMF	75K hr Estimated³ LMF	100K hr Estimated³ LMF
5°C (41°F)	1.04	0.98	0.92	0.87	0.82
10°C (50°F)	1.03	0.97	0.91	0.86	0.81
15°C (59°F)	1.02	0.96	0.91	0.85	0.80
20°C (68°F)	1.01	0.95	0.90	0.84	0.79
25°C (77°F)	1.00	0.94	0.89	0.83	0.79
30°C (86°F)	0.99	0.93	0.88	0.83	0.78
35°C (95°F)	0.98	0.93	0.87	0.82	0.77
40°C (104°F)	0.97	0.91	0.85	0.80	0.74

¹ Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the [Temperature Zone Reference Document](#) for outdoor average nighttime ambient conditions.

² In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

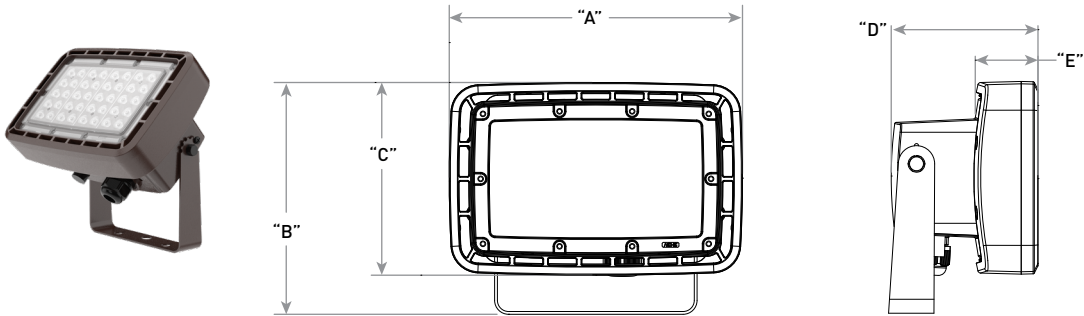
³ Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

Noctura Series Flood Distributions		
Optic	Field Angle Range*	Beam Angle*
N4	46-70	30D
N6	100-130	70D

\* The field angle is the included angle between points of 10% of maximum intensity, and the beam angle is the included angle between points of 50% of maximum intensity.



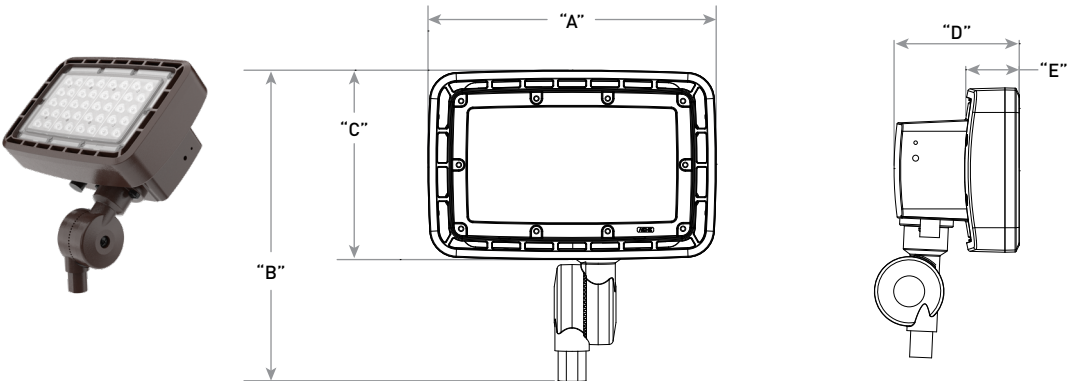
3L  
Yoke Mount (NTF-YM-\*L-BZ)  
\* Specify 1L, 3L, 6L or 10L Lumen Package



Lumen Package	Weight*	Dim "A"	Dim "B"	Dim "C"	Dim "D"	Dim "E"
1L	2.9 lbs (1.3kg)	7.7" (196mm)	5.8" (147mm)	4.5" (114mm)	3.7" (94mm)	1.7" (43mm)
3L	3.3 lbs. (1.5kg)	8.3" (211mm)	6.5" (165mm)	5.4" (137mm)	4.1" (104mm)	1.8" (46mm)
6L	3.6 lbs.(1.6kg)	9.5" (241mm)	6.7" (170mm)	5.7" (145mm)	4.1" (104mm)	1.8" (46mm)
10L	6.7 lbs (3.1kg)	10.6" (269mm)	7.2" (180mm)	5.9" (150mm)	4.4" (112mm)	2.3" (58mm)

\* Includes housing & mount (for housing weight only refer to page 2)

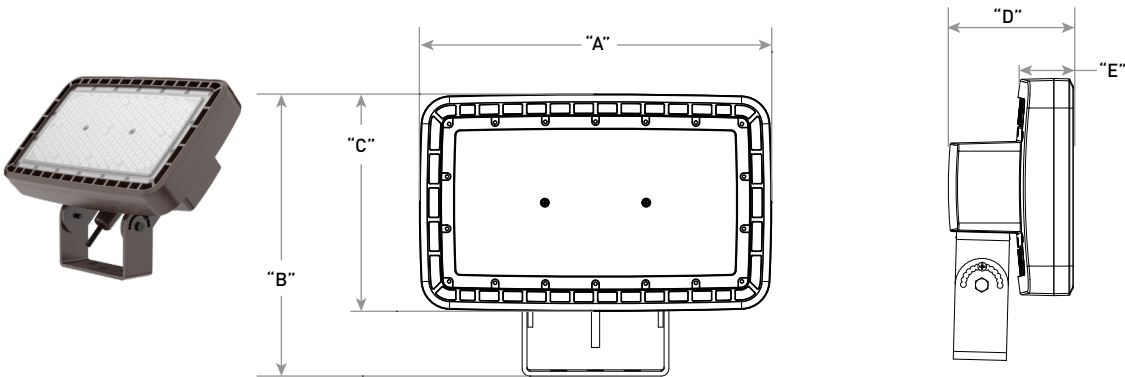
3L  
Knuckle Mount (NTF-KN-BZ)



Lumen Package	Weight*	Dim "A"	Dim "B"	Dim "C"	Dim "D"	Dim "E"
1L	3.0 lbs. (1.3kg)	7.7" (196mm)	8.0" (203mm)	4.5" (114mm)	3.7" (94mm)	1.7" (43mm)
3L	3.3 lbs. (1.5kg)	8.3" (211mm)	8.9" (226mm)	5.4" (137mm)	4.1" (104mm)	1.8" (46mm)
6L	3.6 lbs. (1.6kg)	9.5" (241mm)	6.7" (170mm)	5.7" (145mm)	4.1" (104mm)	1.8" (46mm)
10L	6.7 lbs. (3.0kg)	10.6" (269mm)	9.3" (236mm)	5.9" (150mm)	4.4" (112mm)	2.3" (58mm)

\* Includes housing & mount (for housing weight only refer to page 2)

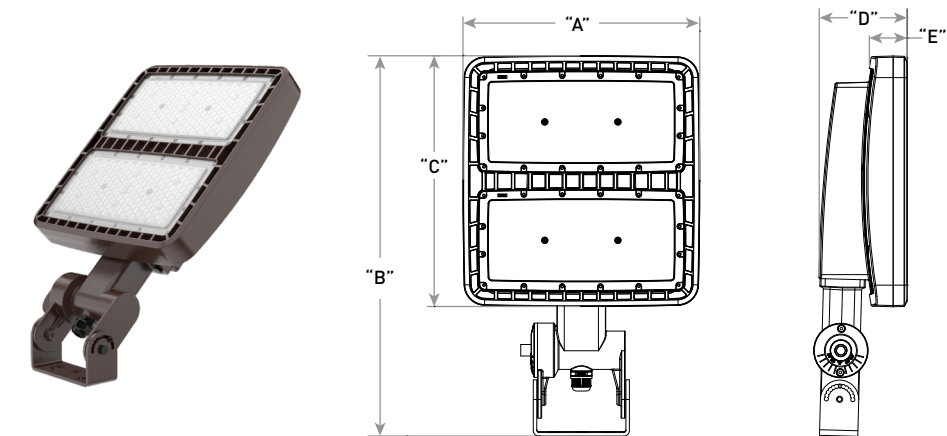
21L  
Trunnion Mount (NTX-TR-BZ-U)



Lumen Package	Weight*	Dim "A"	Dim "B"	Dim "C"	Dim "D"	Dim "E"
14L	10.1 lbs. [4.6kg]	13.4" [340mm]	10.8" [274mm]	7.5" [191mm]	5.1" [130mm]	2.3" [58mm]
21L	12.8 lbs. [5.8kg]	14.4" [366mm]	11.4" [290mm]	8.9" [226mm]	5.1" [130mm]	2.3" [58mm]
28L	16.5 lbs. [7.5kg]	13.4" [340mm]	17.8" [452mm]	14.2" [361mm]	5.0" [127mm]	2.1" [53mm]

\* Includes housing & mount (for housing weight only refer to page 2)

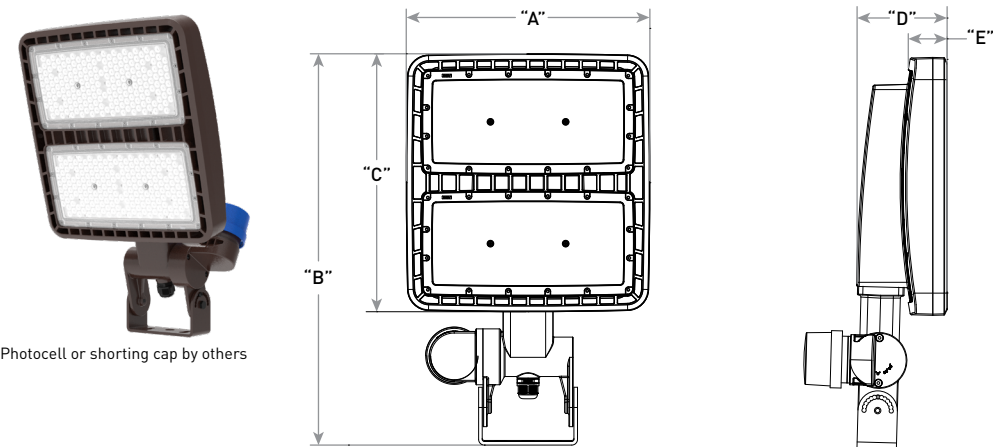
28L  
Trunnion Mount w/Knockout for Field-Installed Button Photocell (by others)  
(NTX-TR-PK-BZ-U)



Lumen Package	Weight*	Dim "A"	Dim "B"	Dim "C"	Dim "D"	Dim "E"
14L	11.2 lbs. [5.1kg]	13.4" [340mm]	14.5" [368mm]	7.5" [191mm]	5.1" [130mm]	2.3" [58mm]
21L	13.9 lbs. [1.8kg]	14.4" [366mm]	15.2" [386mm]	8.9" [1226mm]	5.1" [130mm]	2.3" [58mm]
28L	17.6 lbs. [8.0kg]	13.4" [340mm]	21.5" [546mm]	14.7" [373mm]	5.0" [127mm]	2.1" [53mm]

\* Includes housing & mount (for housing weight only refer to page 2)

28L  
Trunnion Mount w/NEMA® 7-pin Photocell Receptacle  
(NTX-TR-7R-BZ-U)



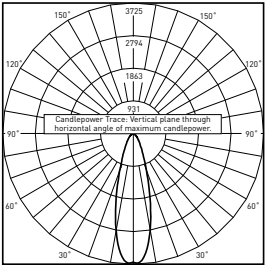
Lumen Package	Weight*	Dim "A"	Dim "B"	Dim "C"	Dim "D"	Dim "E"
14L	11.2 lbs. [5.1kg]	13.4" [340mm]	14.5" [368mm]	7.5" [191mm]	5.1" [130mm]	2.3" [58mm]
21L	13.9 lbs. [6.3kg]	14.4" [366mm]	15.2" [386mm]	8.9" [226mm]	5.1" [130mm]	2.3" [58mm]
28L	17.6 lbs. [8.0kg]	13.4" [340mm]	21.5" [546mm]	14.7" [373mm]	5.0" [127mm]	2.1" [53mm]

\* Includes housing & mount (for housing weight only refer to page 2)

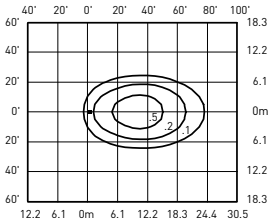
Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult:  
<http://creelighting.com/products/outdoor/flood/noctura-flood>

N4



Ningbo TengLi Testing Co. Test Report #:  
STD190155NB-TB  
NTF-A-\*\*-N4-1L-30K-UL-\*\*-  
Initial Delivered Lumens:1,673



NTF-A-\*\*-N4-1L-40K-UL-BZ  
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt  
Initial Delivered Lumens: 1,750  
Initial FC at grade

NEMA® 4 Flood Distribution		
Lumen Package	4000K/5000K	
	Initial Delivered Lumens*	Efficacy (LPW)
1L	1,750	146
3L	3,010	143
6L	6,300	158
10L	9,900	155
14L	14,150	152
21L	21,700	155
28L	28,600	154

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

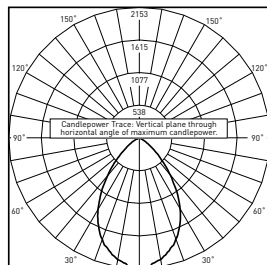
## Noctura® LED Flood Luminaire

### Photometry

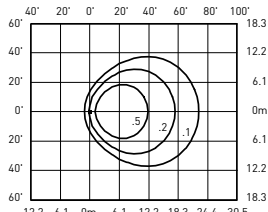
All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult:

<http://creelighting.com/products/outdoor/flood/noctura-flood>

#### N6



Ningbo TengLi Testing Co. Test Report #: STD190155NB-TH  
NTF-A-\*\*-N6-3L-30K-UL-\*\*-  
Initial Delivered Lumens: 2,929



NTF-A-\*\*-N6-3L-40K-UL-BZ  
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt  
Initial Delivered Lumens: 1,750  
Initial FC at grade

#### NEMA® 6 Flood Distribution

Lumen Package	4000K/5000K	
	Initial Delivered Lumens*	Efficacy (LPW)
1L	1,750	146
3L	3,010	143
6L	6,300	158
10L	9,900	155
14L	14,150	152
21L	21,700	155
28L	28,600	154

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

### Luminaire EPA

Adjustable Arm Mount - NTX-AA-BZ-U w/housing Weight: 14L: 10.8 lbs. [4.9kg]; 21L: 13.5 lbs. [6.1kg]; 28L: 17.2 lbs. [7.8kg]; Add 1.1lbs. [0.5kg] for NTX-AA-7R-BZ-U mount								
Lumen Package	Single	2 @ 90°	2 @ 180°	3 @ 90°	3 @ 120°	3 @ 180°	4 @ 90°	4 @ 180°
Tenon Configuration (0°-45° Tilt): If used with Cree Lighting tenons, please add tenon EPA with Luminaire EPA								
	PB-1A*; PT-1; PW-1A3**	PB-2A*; PB-2R2.375; PD-2A4(90); PT-2(90)*	PB-2A*; PB-2R2.375; PD-2A4(180); PT-2(180); PW-2A3**	PB-3A*; PB-3R2.375; PD-3A4(90); PT-3(90)	PB-3A*; PB-3R2.375; PT-3(120)	PB-3A*; PB-3R2.375	PB-4A*(90); PB-4R2.375; PD-4A4(90); PT-4(90)	PB-4A*(180); PB-4R2.375
0° Tilt								
14L	0.54	1.08	1.08	1.62	1.62	1.62	2.16	2.16
21L	0.54	1.08	1.08	1.62	1.62	1.62	2.16	2.16
28L	0.73	1.46	1.46	1.99	1.99	1.99	2.52	2.52
10° Tilt								
14L	0.64	1.28	1.28	1.92	1.92	1.92	2.56	2.56
21L	0.67	1.34	1.34	2.01	2.01	2.01	2.68	2.68
28L	0.74	1.48	1.48	2.22	2.36	2.22	2.96	2.96
20° Tilt								
14L	0.72	1.44	1.44	2.16	2.16	2.16	2.88	2.88
21L	0.78	1.56	1.56	2.34	2.34	2.34	3.12	3.12
28L	0.91	1.82	1.82	2.73	2.74	2.73	3.64	3.64
30° Tilt								
14L	0.75	1.50	1.50	2.25	2.25	2.25	3.00	3.00
21L	0.83	1.66	1.66	2.49	2.49	2.49	3.32	3.32
28L	1.02	2.04	2.04	3.06	3.06	3.06	4.08	4.08
45° Tilt								
14L	0.77	1.54	1.54	2.31	2.31	2.31	3.08	3.08
21L	0.87	1.74	1.74	2.61	2.61	2.61	3.48	3.48
28L	1.13	2.26	2.26	3.39	3.39	3.39	4.52	4.52

\* Specify pole size: 3 [3"], 4 [4"], 5 [5"], or 6 [6"] for single, double or triple luminaire orientation or 4 [4"], 5 [5"], or 6 [6"] for quad luminaire orientation

\*\* These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 [3"], 4 [4"], 5 [5"], or 6 [6"]

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Canada: [creelighting-canada.com](http://creelighting-canada.com) (800) 473-1234

**CREE** **LIGHTING®**

Tenon EPA

Part Number	EPA
PB-1A*	None
PB-2A*	0.82
PB-3A*	1.52
PB-4A*[180]	2.22
PB-4A*[90]	1.11
PB-2R2.375	0.92
PB-7R2.375	1.62
PB-4R2.375	2.32
PD Series Tenons	0.09
PT Series Tenons	0.10
PW-1A3**	0.47
PW-2A3**	0.94
WM-2	0.08
WM-4	0.25

\* Specify pole size: 3 [3"], 4 [4"], 5 [5"], or 6 [6"] for single, double or triple luminaire orientation or 4 [4"], 5 [5"], or 6 [6"] for quad luminaire orientation  
\*\* These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 [3"], 4 [4"], 5 [5"], or 6 [6"]

Tenons and Brackets* (must specify color)	
<b>Square Internal Mount Vertical Tenons (Steel)</b> - Mounts to 3-6" (76-152mm) square aluminum or steel poles PB-1A* – Single PB-2A* – 180° Twin PB-3A* – 180° Triple PB-4A*[90] – 90° Quad PB-4A*[180] – 180° Quad	<b>Round External Mount Vertical Tenons (Steel)</b> - Mounts to 2.375" (60mm) O.D. round aluminum or steel poles or tenons PB-2R2.375 – Twin PB-4R2.375 – Quad PB-7R2.375 – Triple
<b>Square Internal Mount Horizontal Tenons (Aluminum)</b> - Mounts to 4" (102mm) square aluminum or steel poles PD-2A4[90] – 90° Twin PD-3A4[90] – 90° Triple PD-2A4[180] – 180° Twin PD-4A4[90] – 90° Quad	<b>Round External Mount Horizontal Tenons (Aluminum)</b> - Mounts to 2.375" (60mm) O.D. round aluminum or steel poles or tenons - Mounts to square pole with PB-1A* tenon PT-1 – Single (Vertical) PT-2[90] – 90° Twin PT-2[180] – 180° Twin PT-3[90] – 90° Triple PT-3[120] – 120° Triple PT-4[90] – 90° Quad
<b>Wall Mount Brackets</b> - Mounts to wall or roof WM-2 – Horizontal for NTX-AA mounts WM-4 – L-Shape for NTX-AA mounts	<b>Mid-Pole Bracket</b> - Mounts to square pole PW-1A3** – Single PW-2A3** – Double
<b>Conduit Slipfitter</b> - Hub with a threaded entry for 1/2" knuckle mount - Slips over a 2.375" (60mm) O.D. pipe or tenon MNH-2 – for NTF-KN mounts	<b>Ground Mount Post</b> - For ground-mounted flood luminaires PGM-1 – for NTX-AA mounts

\* Refer to the [Bracket and Tenons spec sheet](#) for more details