

# LightPolesPlus® CBX Cobrahead Area/Site



Above compliance pending.

Catalog # \_\_\_\_\_

Project \_\_\_\_\_

Comments \_\_\_\_\_



Proudly engineered and manufactured in Wisconsin, USA – our LightPolesPlus® family of LED lighting products combines 50 years of manufacturing expertise with premium components and top-notch Midwestern workmanship. LightPolesPlus® series products fit a variety of professional-grade general lighting applications including area, flood, and wall mount – and come supported by WiLL's unmatched design, engineering, and project support capabilities.

## Highlights

- Designed, engineered, and manufactured in Wisconsin, USA, from premium domestic and imported components
- Modern cobrahead design combined with cutting-edge LED lighting technology
- L90 calculated LED life over 100,000 hours
- Light engine options up to 19,500 delivered lumens
- PPG® Commercial Performance Coatings custom color matching available at the WiLL finishing center to match RAL codes and architectural colors
- Full light pole, bracket, and arm catalog available in aluminum, steel, fiberglass, and concrete materials
- Standard 5-year limited warranty with extended factory warranties available
- Self-sealing IP66 optical assembly molded from optical-grade acrylic material
- Recessed engine design with zero uplight rating (U0) at 0° fixture tilt
- Tool-less hinged electrical access

## Applications

- Parking lot and area lighting
- Street and roadway
- Security and perimeter
- Retail stores and commercial buildings
- Outdoor storage facilities

## Construction & Mounting

- Rugged, laser cut, fabricated chassis with spun aluminum light engine enclosure
- Tool-less hinged electrical access
- Black anodized light engine plate and propriety heat sink design for maximum thermal dissipation and low LED junction temperature
- Proprietary chassis and enclosure design provides superior strength and thermal management vs cast options due to low metal porosity combined with passive open air heat sinking while maintaining IP66 fixture rating
- 1.5-2.5" adjustable slipfit mounting standard
- Custom mounts, adapters, and accessories available from factory fabrication shop
- High-grade stainless steel hardware for superior strength and corrosion resistance
- Driver components are fully encased in potting material for moisture and vibration resistance
- Enclosure design allows for anodized options when required

## Compliance

- ETL Certification Pending for UL STD 1598 & CSA STD C22.2 # 250.0 for wet locations
- DLC Premium listings pending
- IP66 test pending per IEC standard 60529 and ANSI C136.25-2019
- 3G vibration testing pending to ANSI C136.31-2018 standards
- Meets Buy American Act requirements
- IDA compliance pending for 2700K or 3000K CCT (see local ordinances for specifics)
- Suitable for use in wet locations
- Meets CA Title 24 requirements with control options
- Complies with Part 15 of the FCC Rules, ANSI C63.4 Class B

## Electrical

- -40°C to +45°C ambient operating temperature
- Standard AC input voltage of 120-277V 50/60 Hz; up to 480V available
- IP66 rated (or better) electrical assemblies, including tool-less automotive connectors for easy service and upgrade options
- Isolated 1-5V/1-10V/10V PWM/3-Timer-Modes Dimmable (standard)
- Isolated 0-10V/PWM/3-Timer-Modes Dimmable and Dim-to-Off with Standby Power ≤ 0.5 W (optional)
- Power factor of 0.90 min
- Total harmonic distortion of 20% max
- Drivers include integral input Surge Protection of Differential Mode 6 kV, Common Mode 10 kV per EN 61000-4-5 standards
- Field-replaceable secondary 20kA/10kV surge suppression standard on all fixtures meeting IEEE C62.41.2: Location Category C High, ANSI C82.77-5-2015: Location C High, ANSI C136.2-2015: Extreme Level and US Dept. of Energy MSSSLC Model Spec
- Always-on Auxiliary Power: 12Vdc, 250mA, 3W (Transient Peak Power up to 10W) (optional)
- Secondary onboard embedded control options available for DMX and Synapse® protocols
- Local specifying engineer recommended for product selection and local compliance
- Licensed electrician required for installation

## Light Poles & Brackets

- WiLL offers one of the most comprehensive light pole, bracket, and arm catalogs in the industry
- Aluminum, steel, fiberglass, and concrete materials
- Straight, tapered, and decorative designs
- Custom fabrication, finishing, and accessories available
- Dedicated light pole application support team

## Light Engine

- Self-sealing IP66 optical assembly molded from optical-grade acrylic material
- Recessed engine design with zero uplight rating (U0) at 0° fixture tilt
- 93% typical lighting transmittance from optical assembly
- Standard lighting distributions available in Types 1, 2, 3, 4, and 5 with combination optics available for precision foot candle placement
- Minimum CRI of 70 with custom CRI available
- Standard color temperatures include 3000K, 4000K, and 5000K with custom options available
- **Amber LEDs available for turtle-friendly and wildlife compliance applications**
- IES files, photometric reports, and lighting simulations available

## Finish

- 5-stage iron phosphate pretreat system for enclosure
- Standard powder coat facilities are UL1332 (DTV2) certified for application of organic finish coatings for outdoor enclosures
- Anodized light engine plate and heat sinks meet MIL-A-8625 Type II (Class 1 & 2) standards and are RoHS, REACH, ELV, and WEEE compliant
- Common colors include bronze, black, white, gray, silver, and green
- PPG® Commercial Performance Coatings custom color matching available at the WiLL finishing center to match RAL codes and architectural colors

## Control Options

- Integral passive infrared Bluetooth® sensor for motion, photo, dimming, and daylight harvesting control
- Twist-lock photocell options
- Synapse® wireless system for large-scale control of zones, dimming, schedules, etc.
- Options available to meet CA Title 24 requirements

**EPA Chart**

Base Model	Weight (lbs)	0° Tilt	15° Tilt	30° Tilt	45° Tilt	60° Tilt	75° Tilt	90° Tilt
LP-CBX	15	0.71	0.76	1.1	1.4	1.6	1.7	2.04

**Lumen Output & Specifications**

Base Model	System Watts	Engine Qty	Drive Current (mA)	Distribution	3000K, 70 CRI				4000K, 70 CRI				5000K, 70 CRI						
					Lumens	B	U	G	lm/W	Lumens	B	U	G	lm/W	Lumens	B	U	G	lm/W
LP-CBX-30	30.5W	1	350	T1 (short)	4466	2	0	1	146	4721	2	0	1	155	4466	2	0	1	146
		1	350	T2 (medium)	4564	1	0	1	150	4825	1	0	1	158	4564	1	0	1	150
		1	350	T2/3 (long)	4564	1	0	2	150	4825	1	0	2	158	4564	1	0	2	150
		1	350	T3 (medium)	4466	1	0	1	146	4721	1	0	1	155	4466	1	0	1	146
		1	350	T4 (forward)	4564	1	0	2	150	4825	1	0	2	158	4564	1	0	2	150
		1	350	5W (square)	4613	3	0	1	151	4877	3	0	1	160	4613	3	0	1	151
LP-CBX-60	61W	2	350	T1 (short)	8932	2	0	2	146	9443	2	0	2	155	8932	2	0	2	146
		2	350	T2 (medium)	9129	2	0	2	150	9650	2	0	2	158	9129	2	0	2	150
		2	350	T2/3 (long)	9129	2	0	3	150	9650	2	0	3	158	9129	2	0	3	150
		2	350	T3 (medium)	8932	2	0	2	146	9443	2	0	2	155	8932	2	0	2	146
		2	350	T4 (forward)	9129	2	0	3	150	9650	2	0	3	158	9129	2	0	3	150
		2	350	5W (square)	9227	3	0	2	151	9754	3	0	2	160	9227	3	0	2	151
LP-CBX-90	91.5W	3	350	T1 (short)	13399	3	0	3	146	14164	3	0	3	155	13399	3	0	3	146
		3	350	T2 (medium)	13693	3	0	3	150	14475	3	0	3	158	13693	3	0	3	150
		3	350	T2/3 (long)	13693	3	0	3	150	14475	3	0	3	158	13693	3	0	3	150
		3	350	T3 (medium)	13399	2	0	2	146	14164	2	0	2	155	13399	2	0	2	146
		3	350	T4 (forward)	13693	3	0	3	150	14475	3	0	3	158	13693	3	0	3	150
		3	350	5W (square)	13840	4	0	2	151	14631	4	0	2	160	13840	4	0	2	151
LP-CBX-120	122W	4	350	T1 (short)	17865	3	0	3	146	18885	3	0	3	155	17865	3	0	3	146
		4	350	T2 (medium)	18257	3	0	3	150	19300	3	0	3	158	18257	3	0	3	150
		4	350	T2/3 (long)	18257	3	0	4	150	19300	3	0	4	158	18257	3	0	4	150
		4	350	T3 (medium)	17865	3	0	3	146	18885	3	0	3	155	17865	3	0	3	146
		4	350	T4 (forward)	18257	3	0	4	150	19300	3	0	4	158	18257	3	0	4	150
		4	350	5W (square)	18454	4	0	3	151	19508	4	0	3	160	18454	4	0	3	151

Base Model	System Watts	Engine Qty	Drive Current (mA)	Distribution	Amber Turtle Friendly, 585-595 nm				
					Lumens	B	U	G	lm/W
NF-CBX-60	61.3	4	250	T1 (short)	3944	1	0	1	64
		4	250	T2 (medium)	4031	1	0	1	66
		4	250	T2/3 (long)	4031	1	0	2	66
		4	250	T3 (medium)	3944	1	0	1	64
		4	250	T4 (forward)	4031	1	0	2	66
		4	250	5W (square)	4074	2	0	1	66

Note: Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end user environment and application.  
 Note: BUG ratings are calculated with fixture tilt set to 0°.

**Lumen Multiplier & Maintenance**

Ambient Temperature	Lumen Multiplier	TM-21 Lumen Maintenance (50,000 Hours)	Calculated L90 (Hours)	Calculated L70 (Hours)
0°C / 32°F	1.04	95.6	157000	606000
10°C / 50°F	1.02	95.3	143000	556000
25°C / 77°F	1	94.9	127000	494000
30°C / 86°F	0.99	94.6	119000	472000
35°C / 95°F	0.98	94.3	109000	433000
40°C / 104°F	0.97	93.9	100000	397000
45°C / 113°F	0.96	93.6	92000	365000

Voltage	Current (A)				
	30.5W	61W	91.5W	122W	60.2W
Input Current @ 120V (A)	0.25	0.51	0.76	1.02	0.51
Input Current @ 208V (A)	0.15	0.29	0.44	0.59	0.29
Input Current @ 240V (A)	0.13	0.25	0.38	0.51	0.26
Input Current @ 277V (A)	0.11	0.22	0.33	0.44	0.22
Input Current @ 347V (A)	0.09	0.18	0.26	0.35	0.18
Input Current @ 480V (A)	0.06	0.13	0.19	0.25	0.13

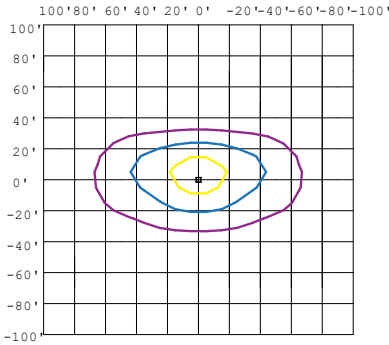
Note: Values calculated according to IESNA TM-21-11 methodology.  
 Note: Data in table does not apply to AMBER versions.

**Photometric Diagrams**

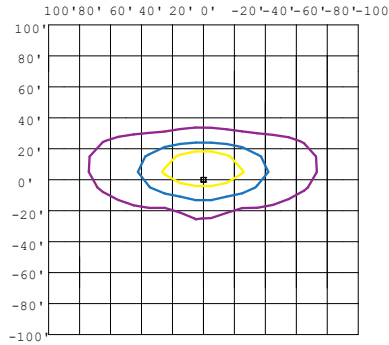
**LEGEND**

0.5 fc 2.0 fc 5.0 fc 10 fc 25 fc

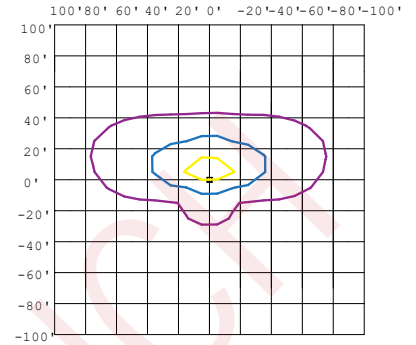
Simulated per IESNA LM-63-1995



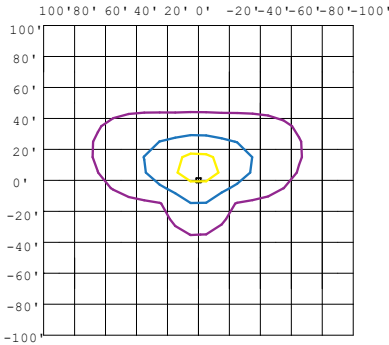
120W Type I Short  
25' Height



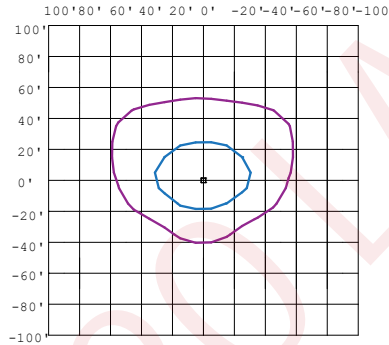
120W Type II Medium  
25' Height



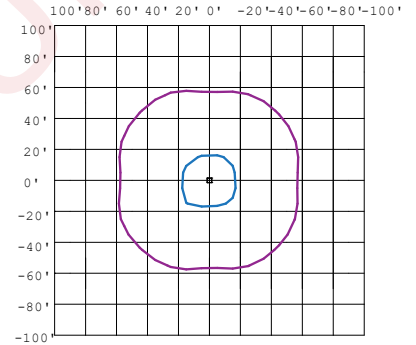
120W Type II/III Long  
25' Height



120W Type III Medium  
25' Height

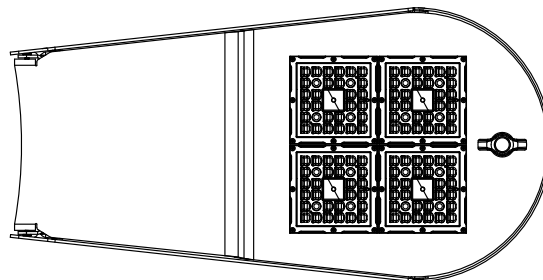
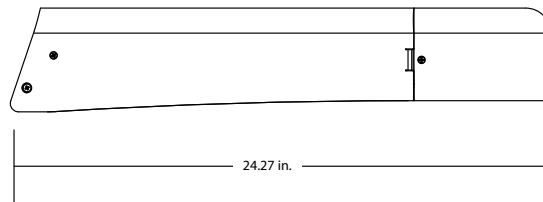
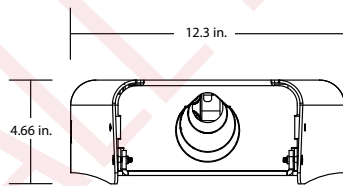


120W Type IV Forward  
25' Height



120W Type V Wide  
25' Height

**Dimensional Diagrams**



**Ordering Information**

Ex: LP-CBX-120-50-MV-4-LG-SF-SRG27710

Product Family	Housing Design	Performance (watts = lumens)	Color Temp	Voltage	Distribution	Finish Color
LP = LightPolesPlus	CBX = Cobrahead	30 = 4,500 lm	50 = 5000K, 70 CRI	MV = 120-277V	1 = Type I Short	BK = Black (Default)
	CH = Custom Housing	60 = 9,000 lm	40 = 4000K, 70 CRI	HV = 347-480V	2 = Type II Medium	BZ = Bronze
		90 = 14,000 lm	30 = 3000K, 70 CRI	CV = Custom Voltage	3 = Type III Medium	WH = White
		120 = 19,000 lm	AM = Amber, 585-595 nm		23 = Type II/III Long	NA = Nat Alum Silver
		60 = 2,500 lm	CT = Custom Temp		4 = Type IV Forward	DP = Dark Platinum
		CW = Custom Output			5W = Type V Wide (Square)	GM = Graphite Metallic
					CD = Custom Distribution	LG = Light Gray
						SG = Slate Gray
						DG = Dark Green
						SC = Custom Finish

Option & Accessories (Add as Suffix)			
Mounting	Electrical	Controls	Options
SF = 2.38" OD Slipfitter	SRG27710 = 10kV Surge Protector, 120-277V	N3P = NEMA 3-PIN TL Photocell Receptacle	HSS = Field Installed House Side Shield
TR = Trunnion Yoke	SRG48010 = 10kV Surge Protector, 347-480V	N5P = NEMA 5-PIN TL Photocell Receptacle	L90 = Optics Rotated 90° Left
CM = Custom Mount	SRG27720 = 20kV Surge Protector, 120-277v	N7P = NEMA 7-PIN TL Photocell Receptacle	R90 = Optics Rotated 90° Right
	SRG48020 = 20kV Surge Protector, 347-480v	TLPC1 = 120-277V TL Photocell	CO = Custom Option
	WHP3NP = 3' Cord w/o Plug, Stripped Pigtail	TLPC2 = 347V TL Photocell	
	WHP3P1 = 3' Cord w/ NEMA 5-15P Plug	TLPC3 = 480V TL Photocell	
	WHP7NP = 6' Cord w/o Plug, Stripped Pigtail	MPS = Programmable Motion Sensor w/ ON/OFF + Dimming + Photocontrol, Bluetooth Settings Adjust, 8-40' Mounting Heights (Installed)	
	WHP7P1 = 6' Cord w/ NEMA 5-15P Plug	SYN = Synapse Integrated Control Module	
	WHP11NP = 10' Cord w/o Plug, Stripped Pigtail	CC = Custom Control	
	WHP11P1 = 10' Cord w/ NEMA 5-15P Plug		
	WHP15NP = 14' Cord w/o Plug, Stripped Pigtail		
	WHP15P1 = 14' Cord w/ NEMA 5-15P Plug		
	SFS = Single Fuse		
	DFS = Double Fuse		
	CE = Custom Electrical		

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