

Northport 360 Solar

Specification Sheet | DR401



Northport for 360 Solar offers pedestrian-centric and roadway performance options within a beautifully crafted homage to the historical ‘acorn’ style. As a style so deeply rooted in the American streetscape, Northport subtly reveals the ‘acorn’ form within the negative space, dispensing with the drop lens and making a modern, efficient, dark sky compliant statement. Northport for 360 Solar serves environments beyond purely pedestrian – transit, streetscapes and other environments with a wide range of illumination requirements and visual experience expectations.

Northport is International Dark-Sky Approved.

Housing & Materials

Cast Aluminum construction. Factory sealed and replaceable light engine cartridge with UV stable, impact modified clear acrylic lens. All hardware is magni-coated for optimum corrosion and ‘anti-seize’ protection. Assembly is IP66 rated.

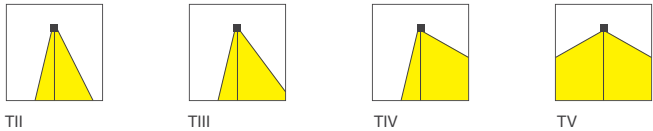
360 Solar - System Components

System consists of: Solar modules (1-2 units), pre-wired with MPPT controllers and required connectors. Each Solar module is home-run connected to the control unit housed within the pole. Control unit (IP67 rated enclosure) contains solar control electronics, LED driver and Lithium-NMC battery. System ships with all required cables and connectors-overmolded and labeled for use. Each 360 Solar battery/control unit is programmed with voltage and drive current parameters pre-configured at the factory to match its designated luminaire and performance specification.

Light Engine

High output light engine features efficacy up to up to 192lm/W and 6400lm delivered through a selection of roadway distribution types. High power LEDs on a RoHS compliant circuit board with secondary optics in Roadway distribution types. All configurations are available in 2700K, 3000K, and 4000K, >80CRI across all available color temperatures. Other CCT’s available on request. Luminaires meet TM21 L70: >60,000hrs. L90: >60,000hrs (at maximum operating current).

Distributions



Warranty

Luminaires are warranted for six years.
360 Solar technology warranted for three years.

Certification

UL Listed for Wet Location (Luminaire only), CE, International DarkSky Approved, RoHS Compliant



Designed by FlexSol Lighting Solutions & Robert A.M. Stern Architects

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360 Solar Technology Specifications

Solar Module	
Solar technology	Monocrystalline silicon solar cells
Qty of solar modules	Variable, from 1 up to 3. 4 available on request
Cell efficiency	> 24%
Module power	> 110 Wp
Total system power	110 - 440 Wp
Number of cells per module	32
Number of strings per module	4 strings
Number of MPPT channels	4 per solar module
Cylinder Material	Borosilicate glass - toughened
Solar module color	Black
Dimensions per module	Ø 8.0 x 43.7 inches
Weight per module	~ 19 lbs

Control Unit	
Control Unit Location	In pole, rail mounted
Control Unit Material	Marine grade aluminum EN AW 6060-T66
Finishing	Anodized
Ingress protection	IP67
Security	Security screw-fixed handhole, with provisions for additional internal padlock protection (client-provided)
Control Unit Weight	850 Wh ~ 18 lbs
	1275 Wh ~ 22 lbs
Battery technology	Lithium (NMC)
Battery capacity	850 Wh or 1275 Wh
Battery voltage	14.9 Vdc (850 Wh)
	22.3 Vdc (1275 Wh)
Battery State of Charge window	10 ~ 95%
Service life	~10 years
Battery Operating temperature	-5 to 140 °F

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360 Solar Technology Specifications

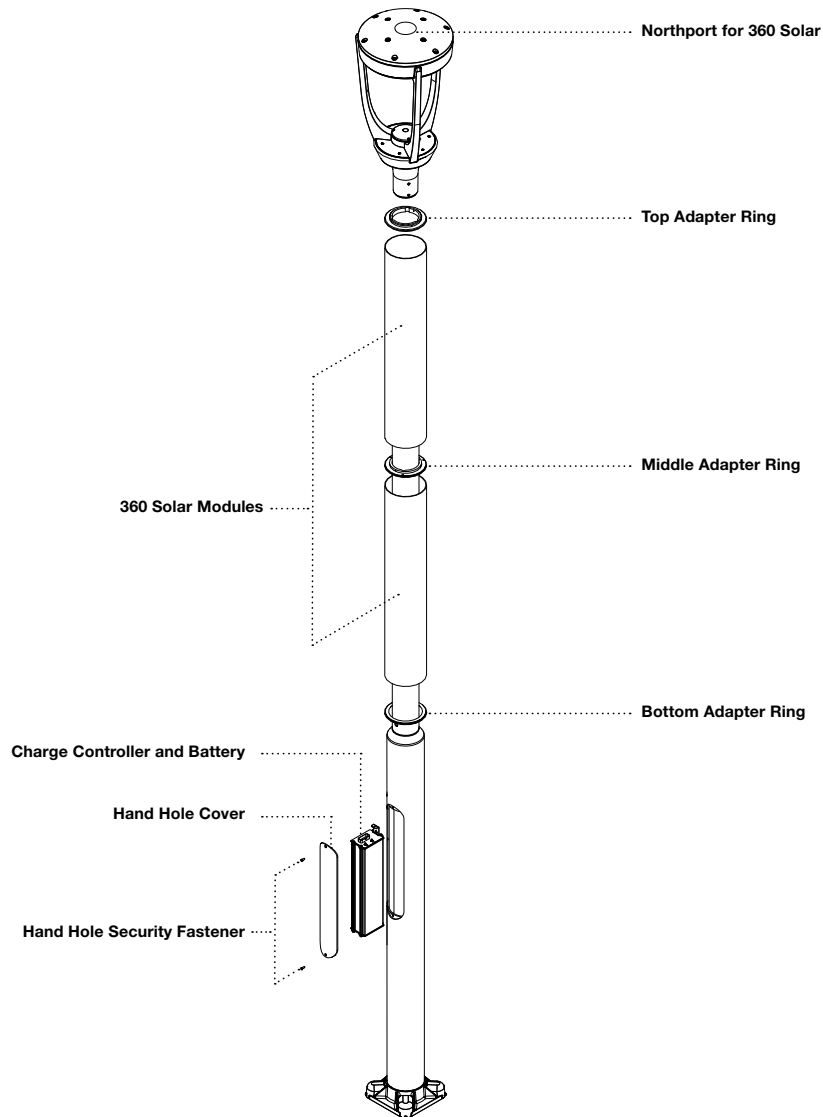
Control Electronics	
Battery Management System (BMS)	Integrated 6-cell monitoring and balancing
Control electronics temperature and humidity monitoring	Integrated temperature sensor built-in lithium pack Integrated temperature sensor built-in electronics Integrated humidity sensor built-in electronics
LED driver type	Integrated high-efficiency (>97%) DC LED driver
Max. drive voltage	75 Vdc (limited to 36V dc)
Max. drive current	1850 mA
Max. power	80 W
SIM card	Global M2M eSIM (inc.), NanoSIM (opt.)
GNSS	GPS, BeiDou, Galileo, GLONASS, QZSS
Over-the-Cable updateable	Yes (USB-programming device optional)
Over-the-Air updateable	Yes
Remote monitoring and configuring	Available - Contact Factory
Time and date	Astronomical clock
Lighting scheme	Automatic adaptation to sunset and sunrise
Dimming scheme	HelioSync™ algorithmic, off-hours dimming scheme included. Other profiles available - contact factory.
Smart city ready	Yes
Service plan	5 years included. 10 year plans and extended features available - contact factory.

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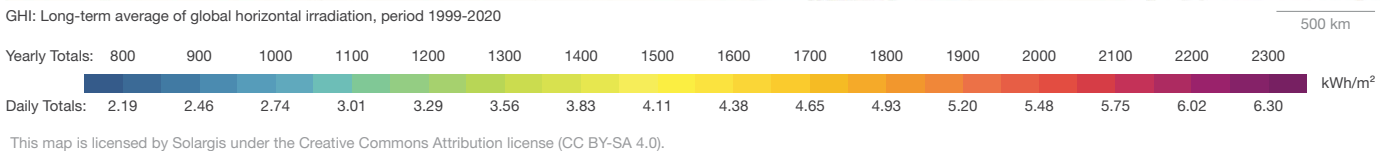
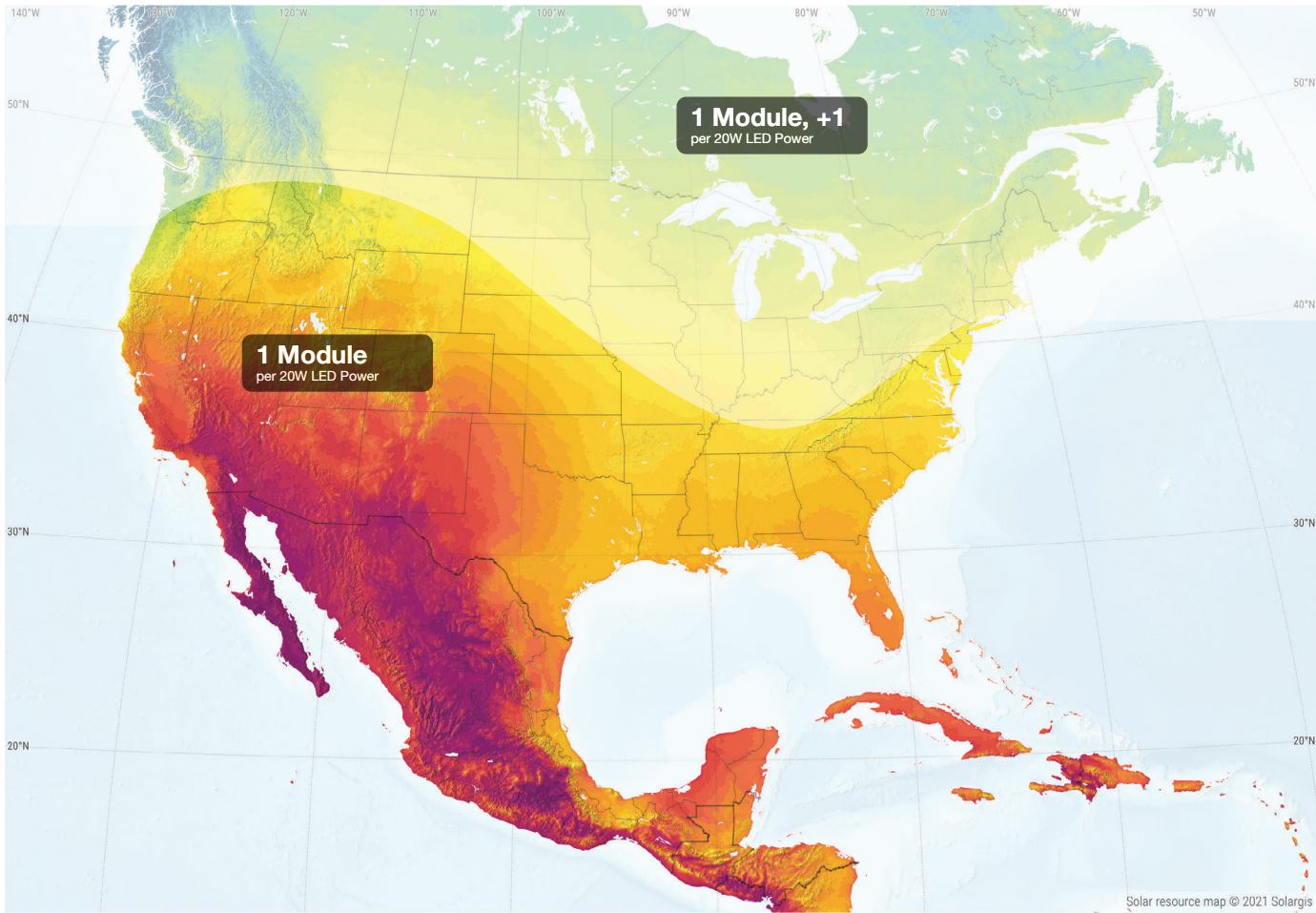
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Will it Work Here?



Global Horizontal Irradiation - North America

This chart provides guidance on the recommended number of solar modules required to support 20W increments of rated LED power (Watts). This provides a baseline for reliable performance based on latitude. Further site-specific considerations may be required. Refer to FAQ document for additional information or contact factory.

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Specification

Luminaire #1 _____

Pole _____

(Luminaire arrangement and Pole Configuration)

Luminaire

Product Northport Solar	LED Configuration	Light Engine Power*	Color Temp	Distribution	Lens	Powdercoat
DR401 (Single Luminaire)	36 (LEDs)	16W	27K (3000K)	T2 (Type II)	CLR (Clear)	See powdercoat color options on the Material / Colors Sheet.
		20W	30K (3000K)	T3 (Type III)		
		30W	40K (4000K)	T4 (Type IV)		
		40W		T5 (Type V)		

* Refer to the Global Horizontal Irradiation Map.
Example: AP401-36-20W-30K-T3-CLR-MBK

360 Solar - Luminaire and Pole Configuration, Modules and Battery

Product	Luminaire Config	Solar Modules	Battery	Base Cover	Powdercoat
DRS (360 Solar Pole)	13-A (Single 13')	1 (Single)	85* (850Wh Battery)	NUT (Nut Cover)	See powdercoat color options on the Material / Colors Sheet.
	15-A (Single 15')		128 (1277Wh Battery)		
	17-A (Single 17')				

*Available with single solar module only.
^^17' lens height required
Example: DRS-17-A-2-128-NUT-MBK

Pole Modifications

Part Number	Modification	Description
CAM	Camera	
SPE	Speaker	
WAP	WiFi Access Point	
BAN	Banner Arms	
VIB	Vibration Dampener	
CPH	Custom Pole Height	
CLH	Custom Lens Height	
CPC	Custom Powdercoat Color	
--	Other	

Modifications listed are the most common changes/additions requested. If your requirements aren't shown here, select 'other' and write in the modification needed. Please provide as much detail as possible to streamline the quoting process. All modifications to standard products will require evaluation and quoting approved by Landscape Forms prior to order placement.

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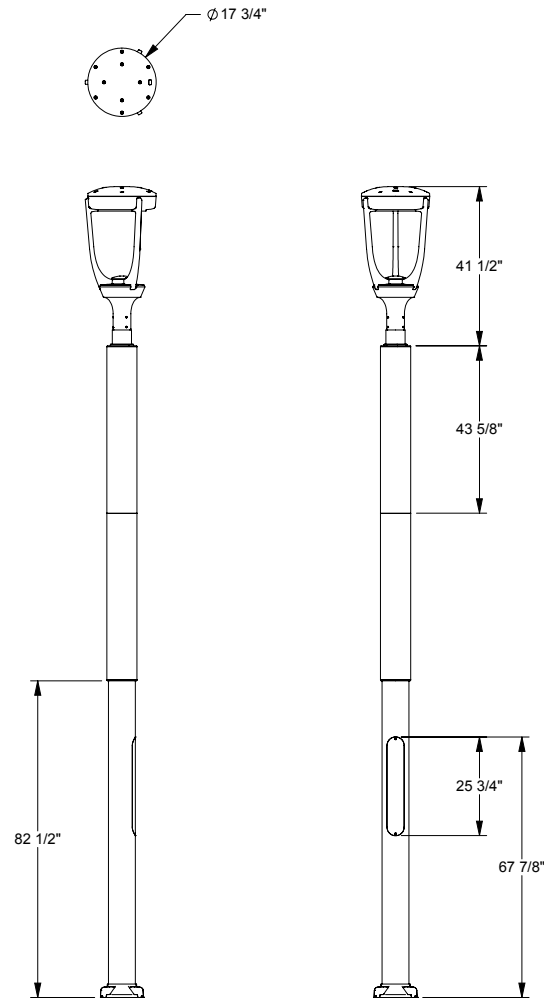
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Luminaire Dimensions, weights and EPA's

Single Luminaire Arm Mount

Weight: 61.57 lbs

EPA: 2.790 ft²

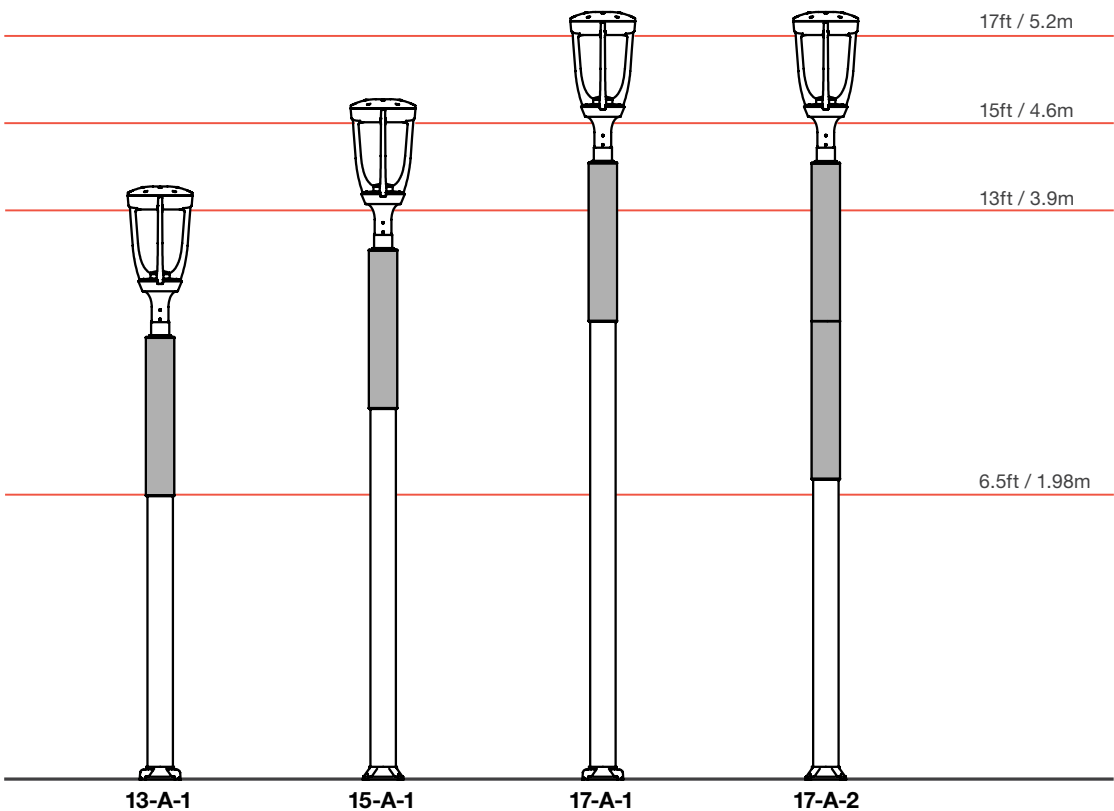


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Lens Height and Pole Configuration Selection Guide



Pole & Base

Poles are manufactured from seamless aluminum alloy with a flush mounted, oversized and lockable hand hole cover. Poles are pre-drilled to suit the specified mounting conditions prior to powdercoating, and include flush top pole cap. Pole base plate is cast aluminum and includes four cast aluminum nut covers. Mounting template and anchor hardware included. Anchor bolts conform to ASTM F1554 Grade 55 and are provided with two hex nuts and two flat washers. Bolts have an "L" bend on one end and are galvanized a minimum of 12" on the threaded end.

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Wind Load Chart

Part Number	Pole Description	Luminaire		Max EPA (ft ²)					Max Wind Speed (MPH)		
		Total Weight (lbs)	Total EPA (ft ²)	90 MPH	100 MPH	110 MPH	120 MPH	130 MPH	Max Wind Speed (MPH)	Base Overturning (ft-lbf)	Base Shear (lbf)
DRS-13-A-1	12' Lens Height, 1 Solar Module, 1 Luminaire	61.57	2.790	26.6	21.4	17.5	14.6	12.4	229	8513	861
DRS-15-A-1	14' Lens Height, 1 Solar Module, 1 Luminaire	61.57	2.790	22.4	18.0	14.7	12.2	10.3	208	8531	772
DRS-17-A-1	16' Lens Height, 1 Solar Module, 1 Luminaire	61.57	2.790	18.8	15.0	12.3	10.2	8.5	189	8464	693
DRS-17-A-2	16' Lens Height, 2 Solar Module, 1 Luminaire	61.57	2.790	18.8	15.0	12.3	10.2	8.5	189	8464	693

Generic weight adder for max EPA calcs: 50lbs
Default Wall thickness 0.188"

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Luminaire Performance Data - 3000K

Wattage	Distribution Type	Lumen Output	Efficacy	Input Power (W)	BUG Rating
16W	T2	3144	192	16.4	B1 - U1 - G1
	T3	2727	166	16.4	B1 - U1 - G1
	T4	2372	145	16.4	B1 - U0 - G1
	T5	2217	135	16.4	B1 - U0 - G1
20W	T2	2580	126	20.4	B1 - U1 - G1
	T3	3324	163	20.4	B1 - U1 - G1
	T4	2890	142	20.4	B1 - U0 - G1
	T5	2702	132	20.4	B1 - U0 - G1
30W	T2	4556	149	30.5	B2 - U2 - G2
	T3	4816	158	30.5	B2 - U1 - G2
	T4	4188	137	30.5	B2 - U0 - G2
	T5	3915	128	30.5	B2 - U0 - G2
40W	T2	6037	147	41.1	B2 - U2 - G2
	T3	6382	155	41.1	B2 - U2 - G2
	T4	5550	135	41.1	B2 - U0 - G2
	T5	5188	126	41.1	B2 - U0 - G2

Lumen output scaling factors: 2700K (0.947), 3500K (1.046), 4000K (1.053)

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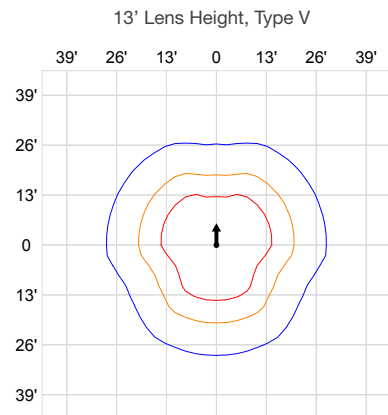
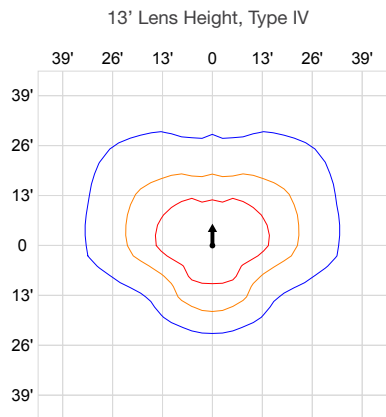
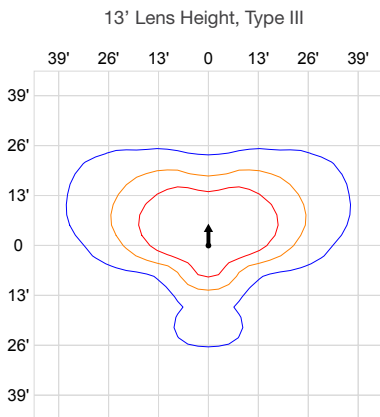
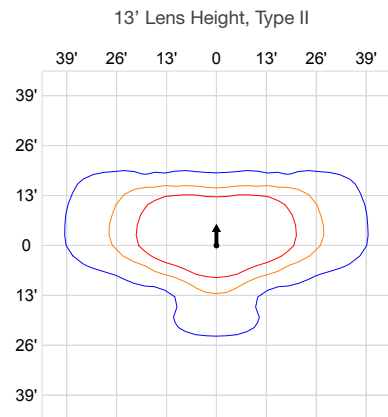
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400 Series - 36 LED 16W at 13'

Performance light engine @ 3000K

1.0fc 0.5fc 0.2fc



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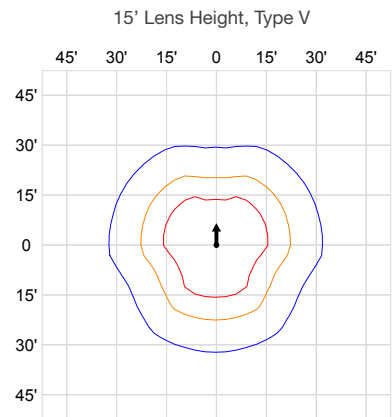
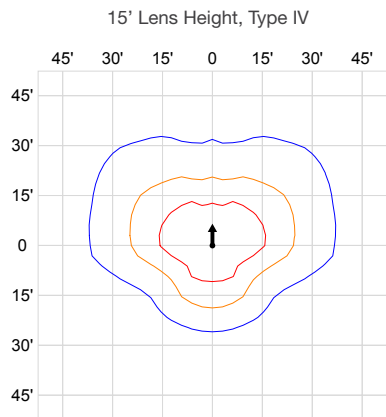
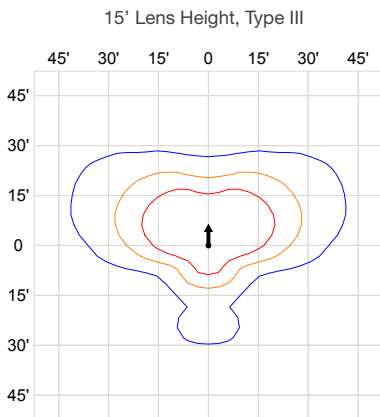
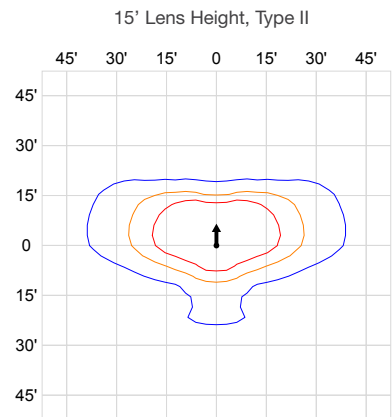
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400 Series - 36 LED 20W at 15'

Performance light engine @ 3000K

1.0fc 0.5fc 0.2fc



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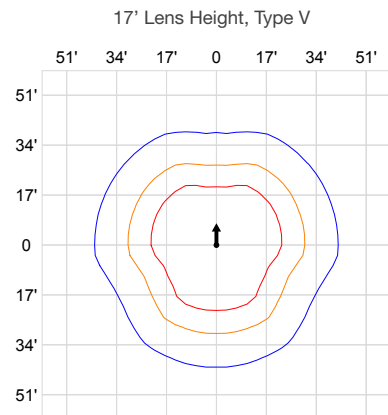
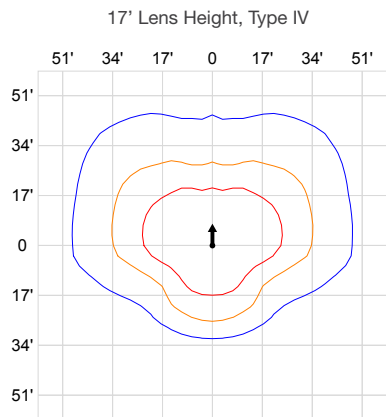
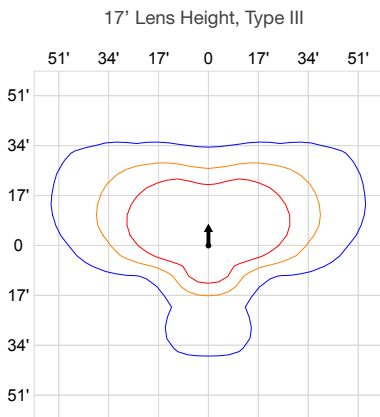
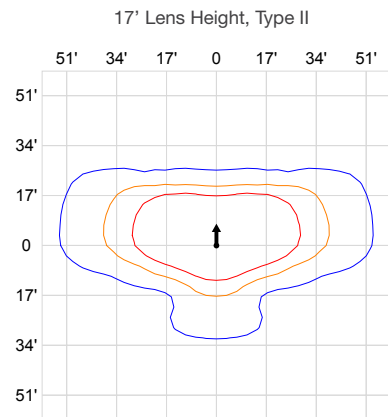
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400 Series - 36 LED 40W at 17'

Performance light engine @ 3000K

1.0fc 0.5fc 0.2fc



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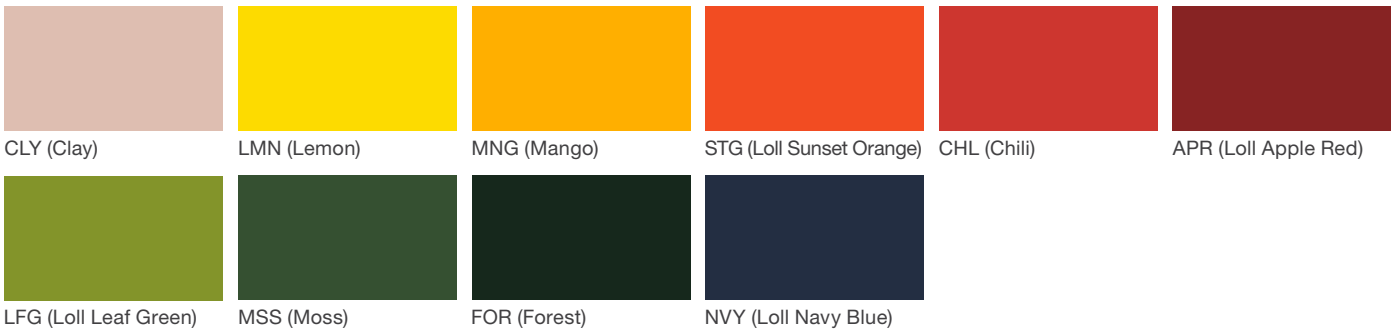
Architectural Series - Powdercoated Metal* (Fine Texture)



Neutral Series - Powdercoated Metal*



Vivid Series - Powdercoated Metal* (Fine Texture)



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Powdercoated Metal

Powdercoated Metal Pangard II® Polyester Powdercoat is a hard, yet flexible, finish that resists rusting, chipping, peeling and fading. In addition to colors shown, a wide selection of optional and custom colors may be specified for an upcharge.

* All colors and patterns shown are approximate and may vary from sample and final.

Visit landscapeforms.com for more information.

Specifications are subject to change without notice.

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