

16. Trail Lighting Alternatives

Hammond School, Thinking Ahead, Partners with Colite Technologies on Renewable Lighting Systems

Project Overview

- Hammond offers a thoughtfully developed academic experience for pre-K through grade 12
- The School opened a brand new 30,000sqft Innovation Center to kick off the 2018-19 academic year
- Hammond wanted its students to have unrivaled access to tools for learning in science and technology
- The new Center synthesizes research gleaned from schools and universities about their science and technology centers
- To highlight the application of renewable energy, Hammond installed two renewable lighting systems anchoring the main entrances

Project Benefits

- Lighting systems are totally off grid and self sustaining
- Reduced power usage results in electricity costs savings of roughly \$1500 over life of units
- No costly wiring or trenching
- Limited infrastructure reduced maintenance over time
- Over 16 metric tons of carbon emissions avoided over 20years
- Systems serve as a visible sign of Hammond's commitment to innovation and to exploring emerging energy technologies



Main Components:

Wind Turbine

- Vertical axis design
- Internal and external blades maximize efficiency, minimize noise
- Rated power: 300watts
- Useful life: 20+ years

Solar Photovoltaic (PV) Panel

- Monocrystalline panels (highest efficiency available)
- Rated power: 295watts
- Useful life: 25+ years

LED Lighting

- Low energy consumption (12volt, 48watt, dimmable)
- High output (5,000 lumens)
- Useful life: 12+ years

Battery Energy Storage

- Lithium Phosphate
- 13.8volts, 111amp-hours
- Useful life: 10+ years

Control Module

- Optimizes battery charging cycles
- Allows real-time monitoring, adjustments, and turbine braking



Case Study



South Carolina Research Authority is partnering with Colite Technologies to systematically replace older on-grid lighting with renewable lighting at its Carolina Research Park in Columbia, SC.

Project Overview

- The South Carolina Research Authority (SCRA) was chartered in 1983 as a public, non-profit corporation to foster innovation in SC's economy
- Carolina Research Park was established over 25 years ago as a state-of-the-art industrial park
- A significant portion of the existing on-grid lighting in the park is non-functional; repair and replacement would be costly and time-consuming

Project Benefits

- Lighting systems are totally off-grid and self-sustaining
- Reduced power usage will result in electricity costs savings of roughly \$100,000 over the life of the units
- No costly rewiring or trenching is required
- Limited infrastructure reduces overall maintenance requirements
- Over 84 metric tons of carbon emissions will be avoided over 20 years
- These updates improve the image of SCRA Park as a leader of technological research



Main Components:

Wind Turbine

- Vertical axis design
- Internal and external blades maximize efficiency while minimizing noise
- Rated power: 300watts
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OFF GRID ENERGY BOX

Reliable, Off-grid Power Generation and Storage

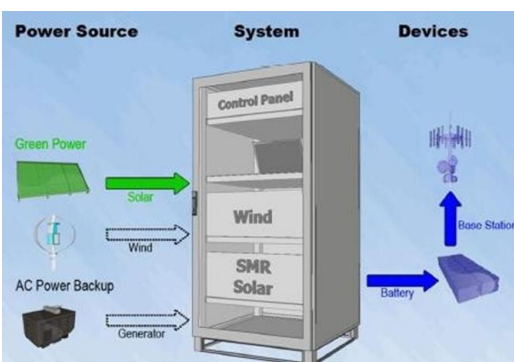
colite
technologies

The **OFF GRID ENERGY BOX** utilizes a system of recycled shipping containers, vertical axis wind turbines, solar photovoltaic panels, various battery technologies, and a back up generator to produce and store energy. These systems can be shipped anywhere and require no grid connection, making them an excellent solution for temporary power needs. They're ideal where power is not available, is unreliable, or expensive. Because they use renewable energy, it is a win-win serving both your needs and those of the environment.



Benefits

- Modular designs offer power outputs from just a few kilowatts up to 30kW for a wide range of applications
- Hybrid system of solar and wind power ensures reliable energy sources for power generation across all seasons
- Back-up diesel generator for assured power if and when needed
- Clear display of green energy production and consumption
- All components can be easily transported quickly where needed
- Key storage and electronic components are protected from the elements
- Quick setup with minimal equipment and infrastructure
- Container can be creatively disguised depending on the application



Components

Recycled shipping container
Vertical Axis Wind Turbine
Solar photovoltaic panels

Battery bank
Control Cabinet
Chargers

Diesel generator
Terminal connection bus
Connection Accessories as needed

For more information, please visit our website or contact us.

www.colitetech.com

(803) 935-9000

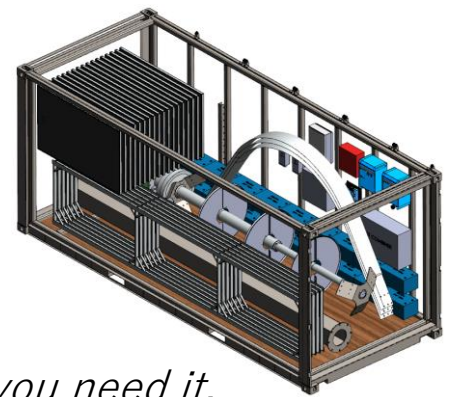
yreynolds@colitetech.com

Renewable Power Systems

Grid-tied Energy from Renewable Sources

The Colite Technologies **Renewable Power Systems** combine vertical axis wind turbines, solar photovoltaic panels, and a backup generator to create ready-to-use energy supplemented by traditional energy sources. They are tied to the existing electricity grid to pull back-up power when necessary, ensuring dependability when you need it.

These systems are ideal for sustainability-conscious customers and those in areas where grid energy is unreliable or costly. It is easy to install with quick setup times and minimal equipment and infrastructure. Innovative designs allow this product to conveniently meet all of your needs for newfound independence, while simultaneously benefiting the environment.



*Endless supply **renewable energy** transformed into **valuable power** when you need it.*

Benefits

- Modular designs offer power outputs from just a few kilowatts up to 30kW for a wide range of applications
- Hybrid system of solar and wind power ensures reliable energy sources for power generation
- Back-up power from the existing grid in times of need, and back-up generator for additional guarantee of power
- Clear display of green energy production
- Can offset electricity costs from traditional sources
- All components can be easily transported quickly where needed
- Key storage and electronic components are protected from the elements
- Container can be creatively disguised depending on the application



For more information, please visit our website or contact us.

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Wind + Solar + Signs = A Beautiful Idea

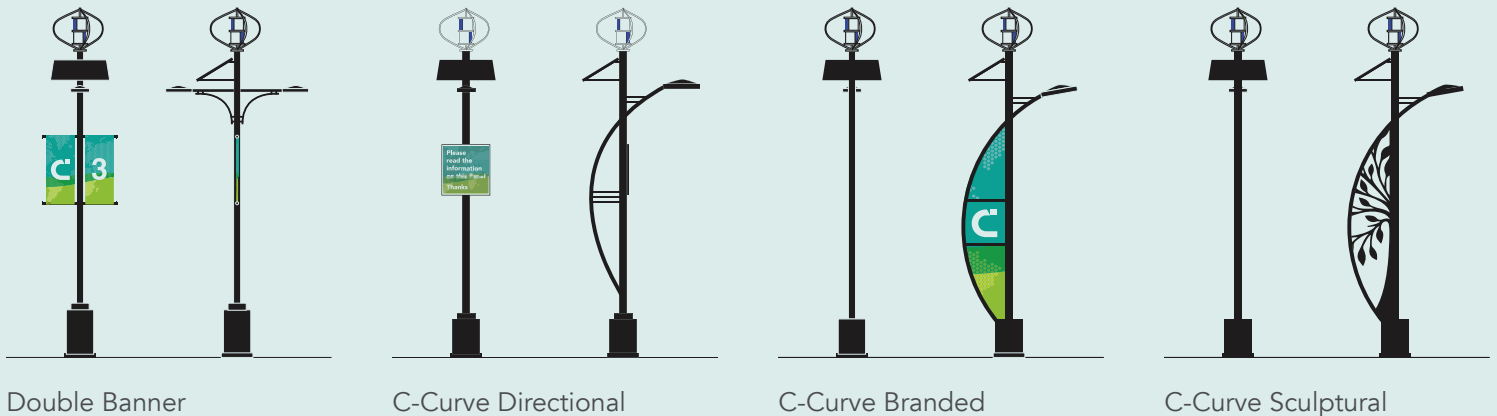
Meet Colite Technologies Renewable Lighting

As a global company, we're using our capabilities to help our customers practice environmental stewardship.

We're proud to present Colite Technologies Renewable Lighting: a unique hybrid of wind, solar power and signage for an off-grid solution with three times the impact of traditional electric lighting.



Brand Applications



Colite Technologies Renewable Lighting

For companies trying to reduce their carbon footprint and increase their use of renewable energy, our renewable lighting is a highly reliable off-grid solution. It's perfect for parking lots, pathways, business parks, public areas and remote locations.

EACH LIGHTING SOLUTION COMBINES:

- a vertical axis turbine
- solar photovoltaic panel
- high-output LED light fixture
- battery and controller
- the option for custom signage, giving you a unique branding opportunity

Why choose Colite Technologies Renewable Lighting for your business?

Lower Your Energy Costs. Imagine no monthly utility bills. This means a lifetime of energy savings once your installment costs are paid. The savings are significant.

Reduce Your Carbon Footprint. Today 100% renewable energy is more than a buzzword—it's a mandate, as companies worldwide transition to renewable energy sources. Our Renewable Lighting is a green power installation that not only saves money, it takes facility lighting off the grid to greatly reduce your carbon footprint.

Enjoy Off Grid Flexibility. Have light exactly where you need it. It doesn't matter if the power of the grid is far away. Installation is easy, and doesn't depend on existing infrastructure. There is no costly trenching to bury power lines.

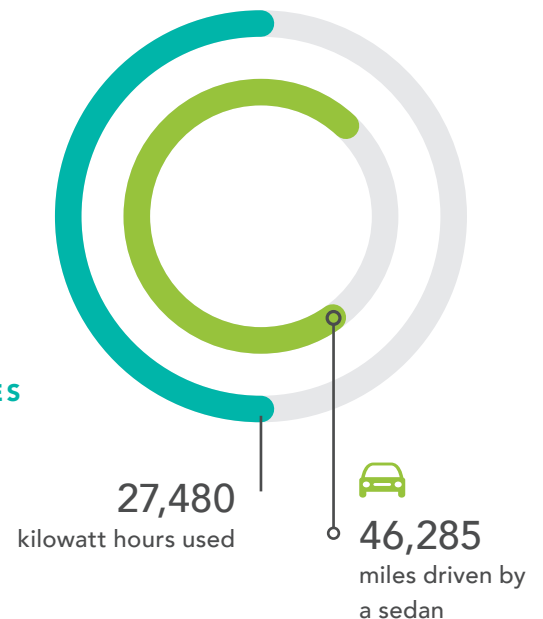
Practice Environmental Stewardship. Put your company in the best light by making it a leader in the green energy movement.

Rely on Strong Design. Light wherever and whenever it's needed. Even in a power outage. Maximum efficiency in all wind conditions and solar energy to charge the battery system for year-round reliability.



Enhance Your Facility. Durable and beautiful, each turbine is made from high-strength anodized aluminum for strength and longevity. They harvest winds at low speeds. And they're quiet. Our signage provides attractive company branding and there are no power lines to spoil the view.

KNOW THE EFFECTS



AN AVERAGE PARKING LOT WITH 20 FIXTURES USES 27,480 KWH IN A YEAR, WHICH IS EQUIVALENT TO THE GREENHOUSE GAS EMISSION FROM DRIVING 46,285 MILES. OURS USE ZERO.

Reduce your energy costs for a competitive advantage.

Colite is lighting the way to the next generation of solutions because solving problems for our customers is our priority. Learn more about our Renewable Lighting and how it can benefit your company.

Call **800.760.7926** or email us at lighting@colite.com for a demonstration.

Integrating technology, aesthetics, and function for unlimited applications



Colite Technologies' *Renewable Smart Pole* links accessibility and exquisite design for an endless array of applications, ranging from recreation to security.

Powered by solar energy, the *Smart Pole* is completely off-grid and self-sustaining, which eliminates costly utility and infrastructure expenses. It also makes a strong statement on sustainability while providing reliable power for various functions, delivering significant value to the bottom line *and* top of mind.

Features

- Monocrystalline solar panel
- Lithium ion or AGM battery
- LED lighting with motion sensor
- Optional HD Camera
- Optional USB charging ports
- Optional wi-fi communications
- Optional bench for seating

Benefits

Innovative design

Self-sustaining and off-grid

- No infrastructure costs
- Energy storage for reliable power when you need it

Clear sustainability commitment

Customized for each location

Security

- Remote HD Camera monitoring and data storage
- Motion sensing
- Bright LED lighting

Recreational

- Relaxation and socialization
- Wi-Fi connectivity
- Charging ports for small devices

Bench Top:



Charge Ports



SOLANA® SL360

UL LISTED 	RATED IP65 	CCT OPTIONS 2700 3500 4500	LIFE SPAN L70 100,000 HOURS OR MORE	7 YEAR WARRANTY ON ELECTRONICS 	LUMEN OUTPUT 1730 to 3840
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PROJECT: _____

TYPE: _____

ORDERING EXAMPLE: PT8-SL360-FG-26L45T5-F-MDL03-PEC-FHD/UBKT

		SL360												
MOUNTING CONFIG.	HEIGHT (H) FT¹	SERIES	LENS	NO. OF LEDS	COLOR TEMP K	DISTRIBUTION TYPE	DISTRIBUTION ORIENTATION	DRIVER	BUTTON PHOTO-CELL	GROUND FAULT BREAKER	DUAL FUSE & HOLDER	ROUND POLE ADAPTER	COLOR	
BL	2	Outdoor Ground, Pole, Post Top or Wall Mounted Luminaire	FG	26L	27(00)K	T2	F	MDL03	OPTIONS				UGMT	UGM
PB	3		FFG		35(00)K	T3	R	MDL05	PEC	GFI LPIUC	FHD	RP45	UBT	UB
PM	4		CA		45(00)K	T3R		MDL07	PEC4				ULBT	ULB
PT	5		SV1			T4		MDH03					USLT	USL
WM	6		SV2			T5		MDH05					UWHT	UWH
	7							MDH07					UCHS	BKT
	8													

¹PB = 2 BL = 3, 4 PT = 5, 6, 7, 8

Product Specs

Optical

- Full-cutoff. IP65 rated optic module.
- Available in IES Type 2, 3, 3R, 4 and 5 distributions.
- Utilizes high output, high brightness LEDs.
- Typical CRI of 70, CCT 2700, 3500 and 4500K. Call factory for custom CCT.
- LM-79 and LM-80 tests in accordance with IESNA standards.
- Lumen depreciation rating L70 > 100,000 hours, projected per TM-21 guideline using 700mA drive current at 25°C ambient.
- RoHS Compliant.

Electrical

- 120-277 volt and 347-480 volt available.
- Minimum driver power factor: > 0.9.
- Electrical surge protection in accordance with IEEE/ANSI C62.41.2 guidelines.
- UL listed in U.S. and Canada.

Mechanical

- Cast aluminum heat sink, arms, lens cover, heat sink cover, housing top cover and housing/fitter.
- AAD™ "Advanced Air-flow Dynamics" maximizes heat sink expulsion.

Controls

- **PEC:** Electronic Button Photocell (120v-277v)
- **PEC4:** Electronic Button Photocell (480v)

Finish

- Durable, color retentive powder coat finish.

Ground Fault Breaker

- **GFI LPIUC:** Optional 15A Duplex GFCI receptacle with a low profile in-use cover

Warranty & Standards

LED Systems and Drivers - 7 years.
All fixtures shall be free from all defects in materials and workmanship for a period of 7 years from the date of manufacture. The luminaire manufacturer shall warrant the LED boards/system, during the stated warranty period, against failure defined as more than 10 percent of non-operating LEDs.

Drivers (0-10V dimming):

- **MDL03:** 350mA, 120-277V
- **MDL05:** 525mA, 120-277V
- **MDL07:** 700mA, 120-277V
- **MDH03*:** 350mA, 347-480V
- **MDH05:** 525mA, 347-480V
- **MDH07:** 700mA, 347-480V

*Requires step down transformer

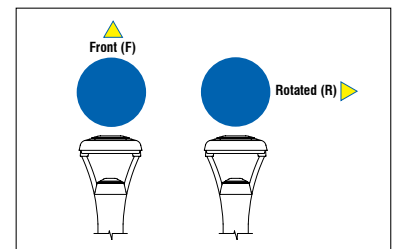
Lens:

- FG** - Anti-Reflectance Flat Glass
- FFG** - Frosted Flat Glass
- CA** - Clear Flat Acrylic

Soft Vue:

- SV1*** - Flat Diffuse Acrylic Lens
- SV2**** - Flat Diffuse Acrylic Lens

Distribution Orientation:



*Provides moderate reduction in Brightness while only a minimal reduction in lumen output. **Provides maximum reduction in Brightness while only a nominal reduction in lumen output. Consult photometric files for exact lumen performance as percentages noted are averages.

Round Pole Adapter:

RP45: For 4" - 5" Pole Diameters
Required for round poles

Colors:

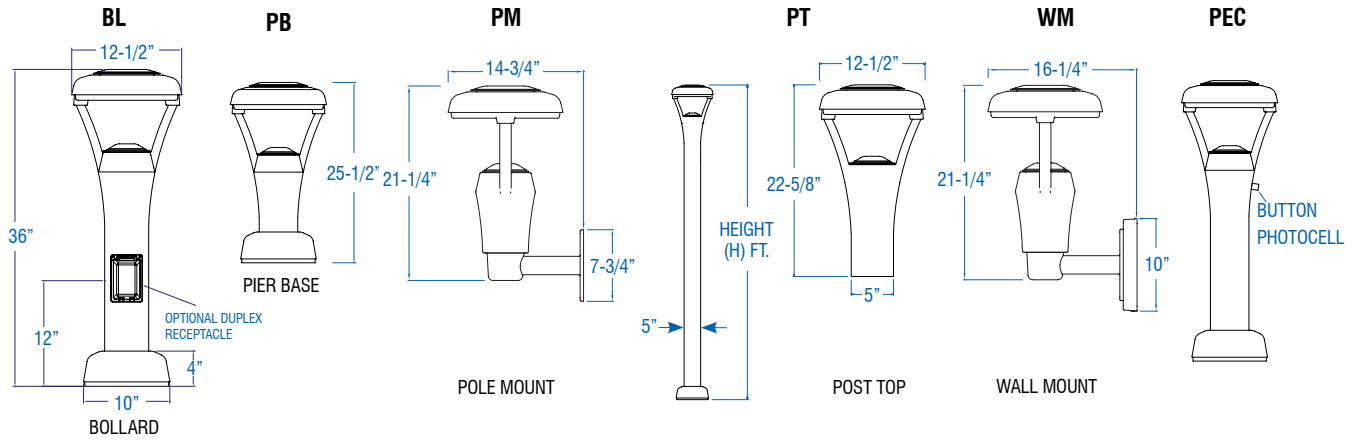
- UGMT** - Urban Gun Metal Textured
- UBT** - Urban Bronze Textured
- ULBT** - Urban Light Bronze Textured
- USLT** - Urban Silver Textured
- UWHT** - Urban White Textured
- UCHS** - Urban Champagne Satin Smooth
- UGM** - Urban Gun Metal Matte
- UB** - Urban Bronze Matte
- ULB** - Urban Light Bronze Matte
- USL** - Urban Silver Matte
- UWH** - Urban White Matte
- BKT** - Black Textured

Performance (Based on FG Lens)

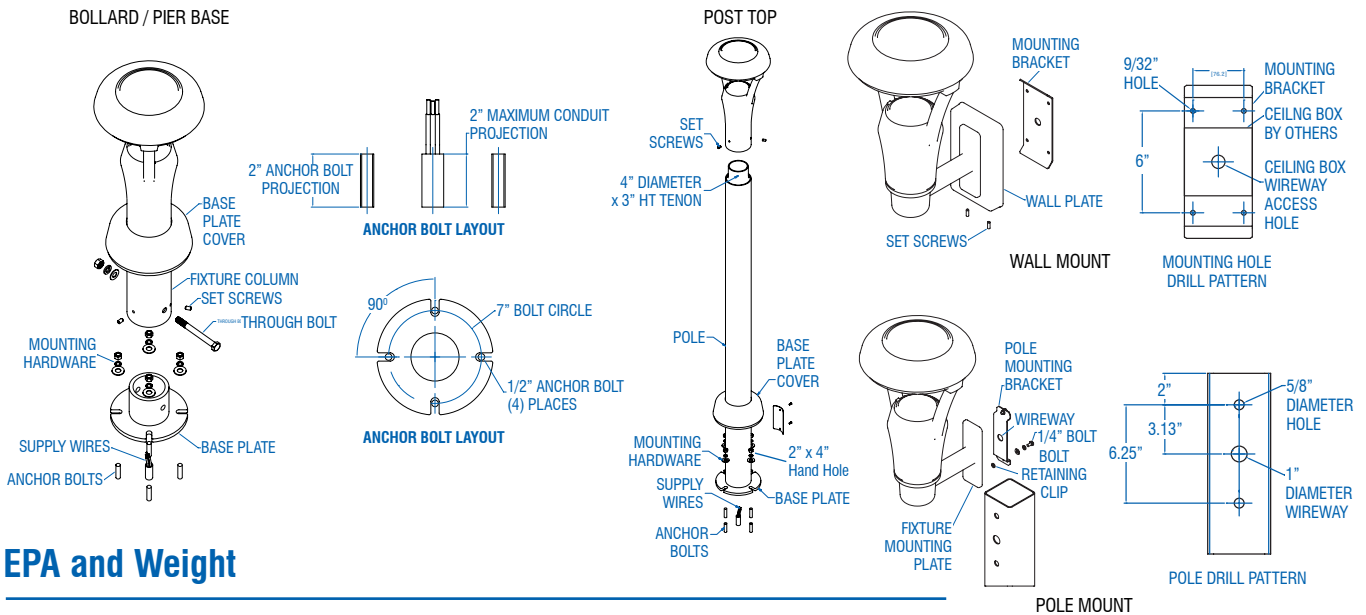
MODEL #	T2 DELIVERED LUMENS	EFFICACY (LPW)	T3 DELIVERED LUMENS	EFFICACY (LPW)	T3R DELIVERED LUMENS	EFFICACY (LPW)	T4 DELIVERED LUMENS	EFFICACY (LPW)	T5 DELIVERED LUMENS	EFFICACY (LPW)	WATTAGE
26L27T_-MD_03	1735	57.0	1730	57.0	1860	62.0	1930	64.0	1960	65.0	30
26L35T_-MD_03	1975	65.0	1975	65.0	2120	70.0	2205	73.0	2235	74.0	30
26L45T_-MD_03	2105	70.0	2105	70.0	2260	75.0	2345	78.0	2385	79.0	30
26L27T_-MD_05	2365	53.0	2340	53.0	2485	56.0	2610	59.0	2665	60.0	44
26L35T_-MD_05	2700	61.0	2670	60.0	2835	64.0	2980	67.0	3040	69.0	44
26L45T_-MD_05	2875	65.0	2845	64.0	3020	68.0	3175	72.0	3240	73.0	44
26L27T_-MD_07	2800	50.0	2780	50.0	2930	53.0	3075	55.0	3160	57.0	55
26L35T_-MD_07	3195	58.0	3170	57.0	3340	60.0	3505	63.0	3605	65.0	55
26L45T_-MD_07	3405	61.0	3375	61.0	3560	64.0	3735	67.0	3840	69.0	55

Product Dimensions & Features

Other Options



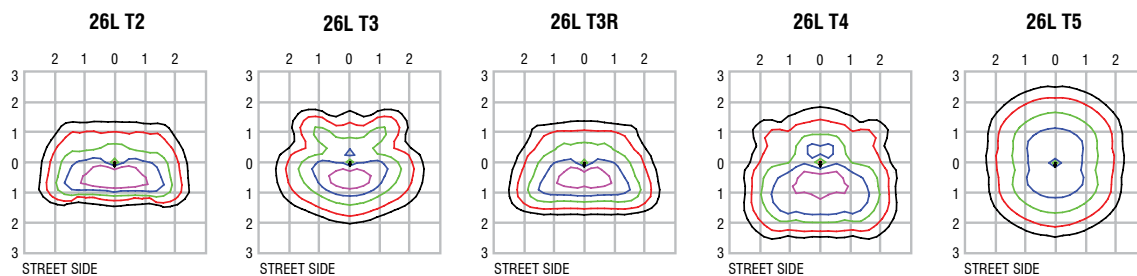
Mounting Configurations



EPA and Weight

SL360	EPA	WT	SL360	EPA	WT
BL	1.5 SQ. FT.	28.6 LBS. (3 FT. HT.)	PT	0.7 SQ. FT.	18.5 LBS. (FIXTURE ONLY)
PB	1.2 SQ. FT.	25.3 LBS.	WM	0.8 SQ. FT.	22.9 LBS.
PM	0.7 SQ. FT.	20.3 LBS.			

ISO Footcandle Plots



All published luminaire photometric testing performed to IESNA LM-79 standards by NVLAP certified laboratory. ISO footcandle plots demonstrate the SOLANA® SL360 light patterns only. Not for total fixture output. For complete specifications and IES files, see website.



SOLANA® SL760

The Solana® SL760 Post-Top Luminaire's modern geometric design complements a diverse assortment of contemporary architectural settings. It's urbanesque yoke design offers not only aesthetic beauty, durability and optical efficiency, but takes street, area, and medium mount lighting to another level. The Solana® SL760 is well suited for all roadway, site and pedestrian environments.



PROJECT: _____

TYPE: _____

ORDERING EXAMPLE: PT-SL760-CA-140L45T5-MDH05-MOT1-HSS-FHD / UBKT

SL760														
MOUNTING CONFIG.	SERIES	LENS	NO. OF LEDS	COLOR TEMP K	DISTRIBUTION TYPE	DRIVER	OPTIONAL CONTROL RECEPTACLE	OPTIONAL CONTROL	MOTION SENSOR	HOUSE SIDE SHIELD	DUAL FUSE & HOLDER	COLOR		
PT	Large Area Post Top	CA	84L ¹	27(00) K	T2	MDL03	O P T I O N S					UBKT	UBK	
1W		FG	112L	35(00) K	T3	MDL05	R ²	PE ³	MOT1 ⁴	HSS	FHD	UBT	UB	
1A		SA	140L	45(00) K	T3R	MDH03	R5 ²	PE3 ³	MOT2 ⁴			ULBT	ULB	
2A		FFG			T4	MDH05	R7 ²	PE4 ³				USLT	USL	
2A90		TDC			T5			SC ³				UWHT	UWH	
1AM		SV1*						PEC				UCHS		
2AM		SV2**						PEC4						
		SV1SA*	BLOC OPTICS											
		SV2SA**	80BL			T3RBL								
		SV1TD*	96BL			T4BL								
	SV2TD**	128BL												

A = Arm Mount AM = Arm Mid-Mount W = Wall Mount (* Designate 1WCB if surface mount box required) ¹ Not available in 05 driver

Product Specs

Optical

- IP65 rated optic module with BUG rating of U-1.
- Available in IES Type 2, 3, 3R, 4 and 5 distribution.
- Utilizes high output, high brightness LEDs.
- Operates at -40°C (-40°F) to +50°C (122°F) ambient air temperature range.
- Minimum CRI of 70, CCT 2700,3500 and 4500K. Call factory for custom CCT.
- LM-79 and LM-80 tests in accordance with IESNA standards.
- Lumen depreciation rating L₇₀>150,000 hrs. projected per TM-21 guideline using 525mA drive at 25°C ambient.
- RoHS Compliant.
- Bloc optic available 1st quarter 2014.

Electrical

- 120-277 volt and 347-480 volt available.
- Minimum drivers power factor: >0.9.
- Electrical surge protection in accordance with IEEE/ANSI C62.41.2 guidelines.
- UL listed in U.S. and Canada.

Mechanical

- Cast aluminum heat sink, arms, lens cover, housing top cover and housing/fitter.
- Spun aluminum heat sink cover.
- Fitter installs on standard 3 in tenon.
- Tool-less driver access and removeable driver tray.
- AAD™ "Advanced Air-flow Dynamics" maximizes heat sink expulsion.

Controls

- Supplied with dimmable driver. (0-10 volts)
- R 3-Pin ANSI receptacle only.
- R5 5-Pin ANS. receptacle only.
- R7 7-Pin ANS. receptacle only.
- PE twist-lock photocontrol (120v-277v)
- PE3 twist-lock photocontrol (347v)
- PE4 twist-lock photocontrol (480v)
- SC Shorting Cap
- PEC button photocontrol (120v-277v)
- PEC4 button photocontrol (480v)

Finish

- Durable, color retentive powder coat finish.

Warranty & Standards

LED Systems and Drivers - 7 years.
All fixtures shall be free from all defects in materials and workmanship for a period of 7 years from the date of manufacture. The luminaire manufacturer shall warrant the LED boards/system, during the stated warranty period, against failure defined as more than 10 percent of non-operating LEDs.

Motion Sensors:

- MOT1⁴**: 360° lens, maximum coverage 40' diameter from 20' height
- MOT2⁴**: 360° lens, maximum coverage 70' diameter from 20' height

² Note: Requires acrylic flat lens (CA, SV1 or SV2)

Drivers:

- MDL03**: 350mA, 120-277V
- MDL05**: 525mA, 120-277V
- MDH03**: 350mA, 347-480V
- MDH05**: 525mA, 347-480V

Lens:

- CA** - Clear Flat Acrylic
- FG** - Clear Flat Glass
- SA** - Clear Sag Acrylic
- FFG** - Frosted Flat Glass
- TDC** - Clear Acrylic Tear Drop

Soft Vue:

- SV1*** - Flat Medium Diffuse Acrylic Lens
 - SV2**** - Flat Heavy Diffuse Acrylic Lens
 - SV1SA*** - Sag Medium Diffuse Acrylic Lens
 - SV2SA**** - Sag Heavy Diffuse Acrylic Lens
 - SV1TD*** - Tear Drop Medium Diffuse Acrylic Lens
 - SV2TD**** - Tear Drop Heavy Diffuse Acrylic Lens
- *Provides moderate reduction in Brightness while only a minimal reduction in lumen output. **Provides maximum reduction in Brightness while only a nominal reduction in lumen output. Consult photometric files for exact lumen performance as percentages noted are averages.

Colors:

- UBKT** - Urban Black Textured
- UBT** - Urban Bronze Textured
- ULBT** - Urban Light Bronze Textured
- USLT** - Urban Silver Textured
- UWHT** - Urban White Textured
- UCHS** - Urban Champagne Satin Smooth

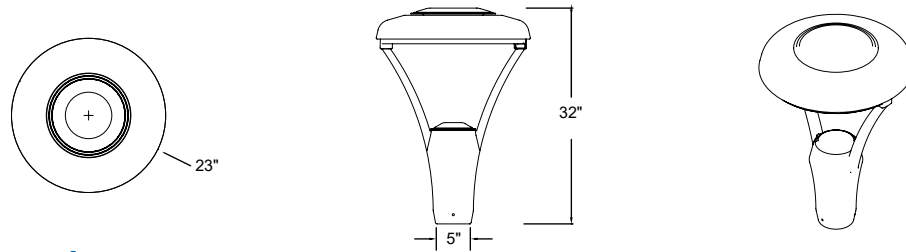
- UBK** - Urban Black Matte
- UB** - Urban Bronze Matte
- ULB** - Urban Light Bronze Matte
- USL** - Urban Silver Matte
- UWH** - Urban White Matte

Performance (Based on FG Lens)

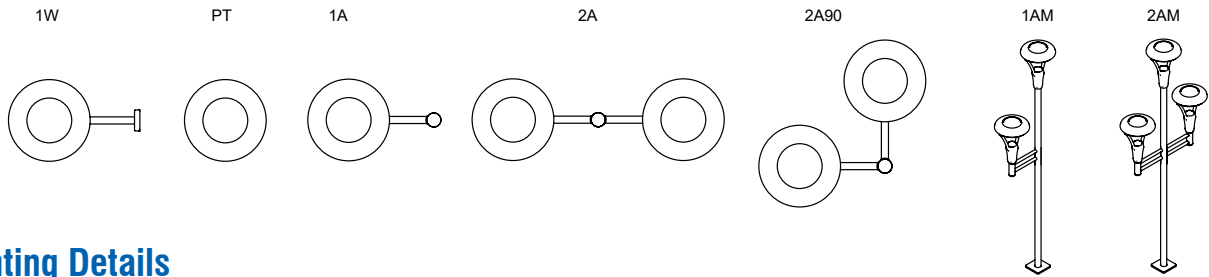
MODEL #	T2 DELIVERED LUMENS	EFFICACY (LPW)	T3 DELIVERED LUMENS	EFFICACY (LPW)	T3R DELIVERED LUMENS	EFFICACY (LPW)	T4 DELIVERED LUMENS	EFFICACY (LPW)	T5 DELIVERED LUMENS	EFFICACY (LPW)	WATTAGE
140L27T_MD_05	14570	60.2	14040	58.0	14345	59.3	14630	60.4	14950	61.8	242
140L35T_MD_05	16605	68.6	16000	66.1	16345	67.6	16665	68.9	17030	70.4	242
140L45T_MD_05	17700	73.2	17060	70.6	17430	71.9	17770	73.7	18160	75.1	242
112L27T_MD_05	11710	59.7	11440	58.4	11570	59.0	11840	60.4	12220	62.5	196
112L35T_MD_05	13340	68.1	13035	66.5	13180	67.3	13490	68.8	13925	71.0	196
112L45T_MD_05	14225	72.5	13900	70.6	14055	71.5	14380	73.7	14845	75.7	196
140L27T_MD_03	10985	70.9	10535	68.0	10955	70.7	10955	70.7	11145	71.9	155
140L35T_MD_03	12515	80.8	12005	77.5	12485	80.5	12525	80.8	12700	81.9	155
140L45T_MD_03	13345	86.1	12800	82.7	13310	85.8	13355	86.1	13540	87.5	155
112L27T_MD_03	8710	69.7	8370	67.0	8580	68.6	8760	70.1	8890	71.1	125
112L35T_MD_03	9920	79.4	9535	76.3	9775	78.2	9980	79.9	10130	81.0	125
112L45T_MD_03	10580	83.7	10170	81.0	10425	84.3	10640	84.9	10800	86.9	125
84L27T_MD_03	6645	69.9	6450	67.9	6505	68.5	6535	68.8	6585	69.3	95
84L35T_MD_03	7570	79.7	7345	77.4	7415	78.1	7445	78.4	7500	79.0	95
84L45T_MD_03	8075	84.0	7835	81.5	7905	84.0	7935	83.1	8000	84.4	95

Product Dimensions and Features

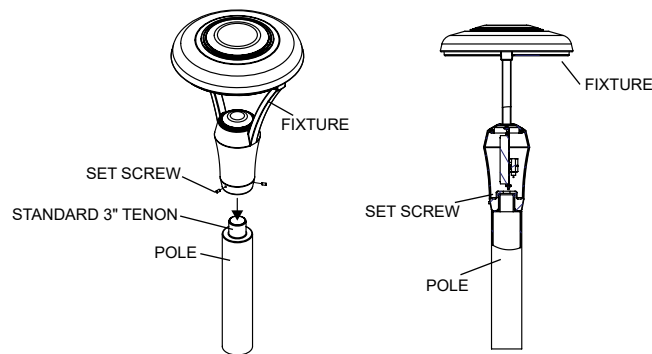
EPA: 1.3 SQUARE FT
WEIGHT: 53 LBS



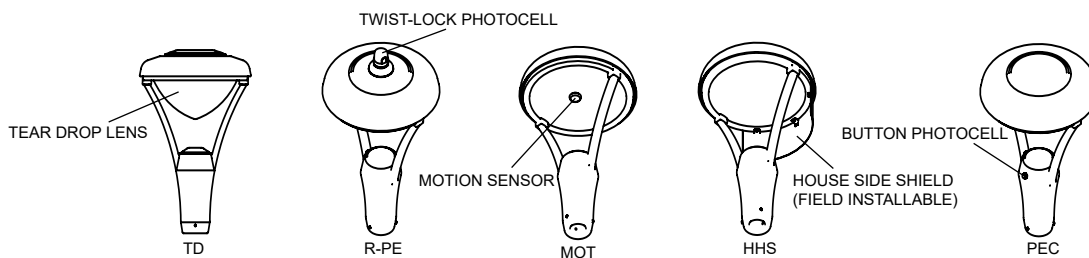
Mounting Configurations



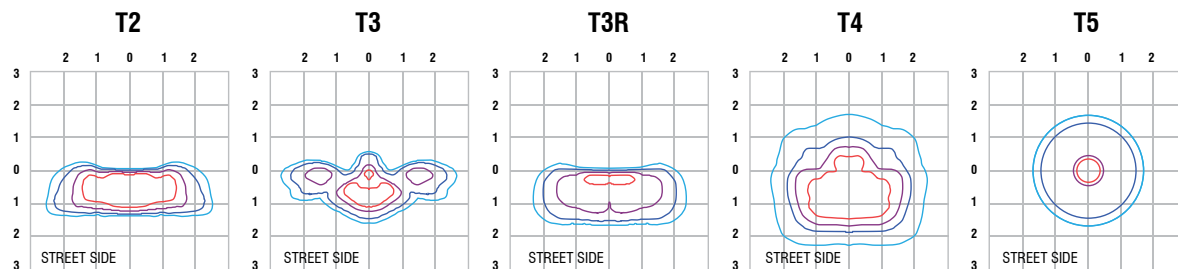
Mounting Details



Other Options



ISO Footcandle Plots



All published luminaire photometric testing performed to IESNA LM-79 standards by NVLAP, certified laboratory. ISO footcandle plots above demonstrate the SOLANA's light patterns only. Not for total fixture output. For complete specifications and IES files, see website.



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Performance

MODEL #	T3R DELIVERED LUMENS	EFFICACY (LPW)	B U G	T4 DELIVERED LUMENS	EFFICACY (LPW)	B U G	WATTS
80L35T_-MDL03	6669	72.0	1 1 2	6665	72	1 1 2	92
80L45T_-MDL03	7095	77.0	1 1 2	7090	77	1 1 2	92
80L62T_-MDL03	7592	82.0	1 1 2	7586	82	1 1 2	92
96L35T_-MDL03	7849	72.0	1 1 2	7882	72	1 1 2	109
96L45T_-MDL03	8350	76.0	1 1 2	8385	76	1 1 2	109
96L62T_-MDL03	8935	81.0	1 1 2	8972	82	1 1 2	109
128L35T_-MDL03	10537	73.0	1 2 2	10378	72	1 1 2	144
128L45T_-MDL03	11210	77.0	1 2 2	11040	76	1 1 2	144
128L62T_-MDL03	11995	83.0	1 2 2	11813	82	1 1 2	144
96L35T_-MDL05	10801	62.0	1 1 2	10547	60	1 1 2	173
96L45T_-MDL05	11490	66.0	1 1 2	11220	64	1 1 2	173
96L62T_-MDL05	12294	71.0	1 1 2	12005	69	1 1 2	173
128L35T_-MDL05	14161	63.0	2 1 3	13950	62	2 1 3	224
128L45T_-MDL05	15065	67.0	2 1 3	14840	66	2 1 3	224
128L62T_-MDL05	16120	71.0	2 1 3	15879	70	2 1 3	224

