Madison Water Utility – New Material Storage Building & Vehicle Storage Building Site Redevelopment at 115 South Paterson Street

Project Narrative

The proposed project development is to provide a more respectful and efficient use of the existing Madison Water Utility Vehicle Storage Building Site. Currently the site area north and east of the Vehicle Storage Building is used as yard space for the storage of materials used in repairing of water mains., which includes sand, gravel and spoil from construction sites along with pipes and valves and miscellaneous equipment used to support construction. Also, the existing yard space is now a gravel lot surrounded by chain link fencing.

The new building and site development proposes to construct an enclosed materials storage building of 5,380 square feet to house materials of construction, paving of the yard space, a new fence line and site lighting.

To develop the vocabulary for the materials storage building and site development the design team has inspiration from the surrounding area, as depicted in the Context Board and Inspiration Board. The vocabulary for construction on the near east side of the Madison Isthmus is evolving from a predominantly industrial activity to a mixed use of residential, commercial, recreational and industrial. The Madison Water Utilities continuing activities at this site must now reflect development more sympathetic to surrounding activities while maintaining work functions.

The design solution as proposed encloses the less desirable visual elements of the site into a materials storage building constructed of board formed concrete exterior walls, sloped steel framed roof structure and metal roofing and polycarbonate panels, used for infill and daylight integration and visual interest. The yard will be paved with concrete and the lot will be surrounded by new fencing, similar to Central Park, and a new landscaped terrace that integrates plant materials with concrete site knee walls that border the property and will also provide points of interest by containing elements of the Water Utilities work product, such as pipes and valves. The site will be lighted by new LED fixtures, designed for night sky and light penetration cut off. Also, included is a rain water harvesting system to capture roof water from the Vehicle Storage building in a 30,000 gallon holding tank and using that water as vehicle wash water.

The Proposed design solution is based on a functional and aesthetic integration that starts the discussion on the maintenance of industrial activities into an evolving neighborhood dynamic.

Luminaire Schedule Cut Sheets

For

Madison Water Utility

Vehicle Storage Renovation and Material Storage Building – Urban Design Commission

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4 March 2015

Prepared by:

Madison Water Utility mwu

Mead & Hunt

D-Series
LED Surface Canopy

Catalog Number

Notes

Type M1

Hit the Tab key or mouse over the page to see all interactive elements.

d-series

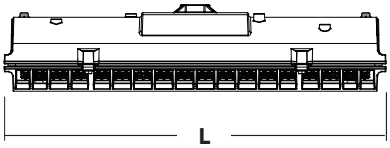
Specifications

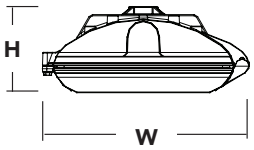
Length: 17-3/4" *(45.1 cm)*

Width: 8-1/2" *(21.6 cm)*

Height: 3-7/16" *(8.7 cm)*

Weight (max): 16 lbs *(7.3 kg)*





Introduction

The D-Series LED Surface Canopy luminaire is ideal for covered walkways or drive-thrus, semi-covered outdoor aisles, and walk-in coolers and freezers. Its five optical choices provide the design flexibility to potentially reduce luminaire counts while still meeting IES criteria, lowering overall energy consumption.

Its expected service life of over 100,000 hours (20 years of nighttime operation) combined with the available motion/ambient sensor offers an extremely low maintenance solution that yields quick payback.

Ordering Information

EXAMPLE: DSXSC LED 20C 700 40K T5M MVOLT SRM DWHXD

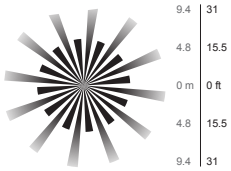
DSXSC LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting	Options	Finish *(required)*
DSXSC LED	10C 10 LEDs (one engine) [1,2] 20C 20 LEDs (two engines) 30C 30 LEDs (three engines)	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA (1 A)	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted[3]	T5E Type V, entryway [4] T5M Type V, medium T5W Type V, wide T5R Type V, rectangular ASY Asymmetric	MVOLT[5] 120 [5] 208 [5] 240 [5] 277 [5] 347 [6] 480 [6]	**Shipped included** SRM Surface mount	**Shipped installed** DMG 0-10V dimming driver (no controls) HS House-side shield (housing visor) [7] SF Single fuse (120, 277, 347V) [8,9] DF Double fuse (208, 240, 480V) [8,9] PIR360SS Motion/ambient sensor, 8-15' mounting height [9,10] PIRH360SS Motion/ambient sensor, 15-30' mounting height [9,10] SPD Separate surge protection [11] XAD XPoint Wireless enabled [12] CFMH Cover finish matches housing [13] **Shipped separately** BDS Bird shroud [7]	DWHXD White DNAXD Natural aluminum DDBXD Dark bronze

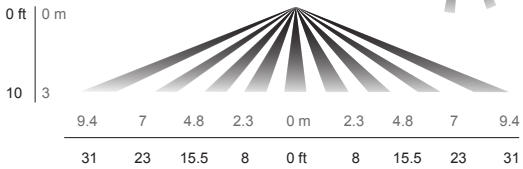
Motion Sensing

The motion/ambient sensor options (PIR360SS or PIRH360SS) have 360° of passive infrared sensing and adjustable bi-level dimming to save energy when there are no occupants.

TOP VIEW

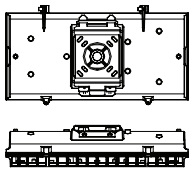


SIDE VIEW



Mounting Options

Surface Mounting



Accessories

Ordered and shipped separately.

DSXSCHS U	House-side shield (1 per light engine)
DSXSCBDSSJ DWHXD U	Bird shroud for SRM on surface J-box only, white (specify finish)

NOTES

1. Available with 700mA or 1000mA option only.
2. Not available with 347 or 480V.
3. AMBPC only available with 530mA or 700mA.
4. DesignLights Consortium qualified.
5. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options).
6. N/A with one light engine (10C). Only available with 700mA or 1000mA.
7. Also available as a separate accessory; see Accessories information at left.
8. Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
9. Not available with XAD.
10. PIR360SS specifies the SensorSwitch SBOR-10-ODP control; PIRH360SS specifies the SensorSwitch SBOR-6-ODP control; see Motion Sensor Guide for details. Dimming driver standard.
11. See the electrical section on page 3 for more details.
12. Dimming driver standard. Available 120v or 277v only. Not available with fusing, PIR360SS or PIRH360SS.
13. Available with DNAXD or DDBXD only.

LITHONIA LIGHTING

One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8041 • Fax: 770.918.1209 • www.lithonia.com

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Actual wattage may differ by +/- 8% when operating between 120-480V +/- 10%.

Light Engines	Drive Current (mA)	Performance Package	System Watts	Dist. Type	30K (3000 K, 80 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 65 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
10C (10 LEDs)	700 mA	10C 700--K	26W	ASY	1,792	0	0	1	69	2,253	1	0	1	87	2,428	1	0	1	93
				T5E	1,882	1	0	0	72	2,366	1	0	0	91	2,550	1	0	0	98
				T5M	1,889	1	0	0	73	2,375	2	0	0	91	2,560	2	0	0	98
				T5R	1,860	2	0	2	72	2,339	2	0	2	90	2,521	2	0	2	97
				T5W	1,771	2	0	1	68	2,226	2	0	1	86	2,399	2	0	1	92
	1000 mA	10C1000 --K	37W	ASY	2,444	1	0	1	66	3,074	1	0	1	83	3,314	1	0	1	90
				T5E	2,566	1	0	0	69	3,227	2	0	0	87	3,479	2	0	0	94
				T5M	2,576	2	0	0	70	3,241	2	0	1	88	3,493	2	0	1	94
				T5R	2,537	2	0	2	69	3,191	2	0	2	86	3,440	3	0	3	93
				T5W	2,414	2	0	1	65	3,037	2	0	1	82	3,274	3	0	1	88
20C (20 LEDs)	350 mA	20C 350 --K	25W	ASY	1,995	1	0	1	80	2,511	1	0	1	100	2,705	1	0	1	108
				T5E	2,095	1	0	0	84	2,637	1	0	0	105	2,840	2	0	0	114
				T5M	2,103	2	0	0	84	2,647	2	0	0	106	2,851	2	0	1	114
				T5R	2,071	2	0	2	83	2,607	2	0	2	104	2,808	2	0	2	112
				T5W	1,971	2	0	1	79	2,481	2	0	1	99	2,672	2	0	1	107
	530 mA	20C 530 --K	37W	ASY	2,803	1	0	1	76	3,526	1	0	1	95	3,799	1	0	1	103
				T5E	2,943	2	0	0	80	3,702	2	0	0	100	3,989	2	0	0	108
				T5M	2,955	2	0	1	80	3,717	2	0	1	100	4,005	2	0	1	108
				T5R	2,910	2	0	2	79	3,660	3	0	3	99	3,944	3	0	3	107
				T5W	2,770	2	0	1	75	3,483	3	0	1	94	3,754	3	0	1	101
	700 mA	20C 700 --K	46W	ASY	3,449	1	0	1	75	4,337	1	0	1	94	4,675	1	0	1	102
				T5E	3,621	2	0	0	79	4,554	2	0	0	99	4,909	2	0	0	107
				T5M	3,636	2	0	1	79	4,572	3	0	1	99	4,928	3	0	1	107
				T5R	3,580	3	0	3	78	4,502	3	0	3	98	4,853	3	0	3	106
				T5W	3,407	3	0	1	74	4,285	3	0	1	93	4,619	3	0	1	100
	1000 mA	20C 1000 --K	74W	ASY	4,632	1	0	1	63	5,828	1	0	1	79	6,283	1	0	2	85
				T5E	4,864	2	0	0	66	6,119	2	0	0	83	6,597	2	0	1	89
				T5M	4,883	3	0	1	66	6,143	3	1	1	83	6,623	3	0	1	90
				T5R	4,808	3	0	3	65	6,050	3	0	3	82	6,522	3	0	3	88
				T5W	4,577	3	0	1	62	5,758	3	0	2	78	6,207	3	0	2	84
30C (30 LEDs)	350 mA	30C 350 --K	35W	ASY	3,022	1	0	1	86	3,799	1	0	1	109	4,097	1	0	1	117
				T5E	3,172	2	0	0	91	3,989	2	0	0	114	4,302	2	0	0	123
				T5M	3,185	2	0	1	91	4,005	2	0	1	114	4,319	3	0	1	123
				T5R	3,137	2	0	2	90	3,944	3	0	3	113	4,253	3	0	3	122
				T5W	2,985	2	0	1	85	3,754	3	0	1	107	4,048	3	0	1	116
	530 mA	30C 530 --K	53W	ASY	4,239	1	0	1	80	5,333	1	0	1	101	5,748	1	0	1	108
				T5E	4,451	2	0	0	84	5,599	2	0	0	106	6,035	2	0	0	114
				T5M	4,468	3	0	1	84	5,622	3	0	1	106	6,059	3	0	1	114
				T5R	4,400	3	0	3	83	5,536	3	0	3	104	5,967	3	0	3	113
				T5W	4,188	3	0	1	79	5,269	3	0	1	99	5,679	3	0	1	107
	700 mA	30C 700 --K	67W	ASY	5,170	1	0	1	77	6,504	1	0	2	97	7,011	1	0	2	105
				T5E	5,428	2	0	0	81	6,829	3	0	1	102	7,362	3	0	1	110
				T5M	5,450	3	0	1	81	6,856	3	0	1	102	7,391	3	0	2	110
				T5R	5,367	3	0	3	80	6,752	3	0	3	101	7,278	3	0	3	109
				T5W	5,108	3	0	1	76	6,426	3	0	2	96	6,927	3	0	2	103
	1000 mA	30C 1000 --K	107W	ASY	6,775	1	0	2	63	8,520	2	0	2	80	9,187	2	0	2	86
				T5E	7,113	3	0	1	66	8,946	3	0	1	84	9,646	3	0	1	90
				T5M	7,141	3	0	1	67	8,982	3	0	2	84	9,685	3	0	2	91
				T5R	7,032	3	0	3	66	8,845	4	0	4	83	9,537	4	0	4	89
				T5W	6,693	3	0	2	63	8,418	4	0	2	79	9,077	4	0	2	85

Note: Available with phosphor-converted amber LEDs (nomenclature AMBPC). These LEDs produce light with 97+% >530 nm. Output can be calculated by applying a 0.7 factor to 4000 K lumen values and photometric files (for 530mA and 700mA drive currents only).

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.98

Electrical Load

LEDs	Drive Current (mA)	System Watts	Current (A)					
			120	208	240	277	347	480
10C	700	26W	0.25	0.15	0.13	0.11	–	–
	1000	37W	0.37	0.21	0.18	0.16	–	–
20C	350	25W	0.23	0.13	0.12	0.10	–	–
	530	37W	0.33	0.19	0.17	0.14	–	–
	700	46W	0.43	0.25	0.22	0.19	0.15	0.11
	1000	74W	0.68	0.39	0.34	0.29	–	–
30C	350	35W	0.33	0.19	0.16	0.14	–	–
	530	53W	0.50	0.29	0.25	0.22	–	–
	700	67W	0.66	0.38	0.33	0.29	0.23	0.17
	1000	107W	1.01	0.58	0.50	0.44	–	–

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

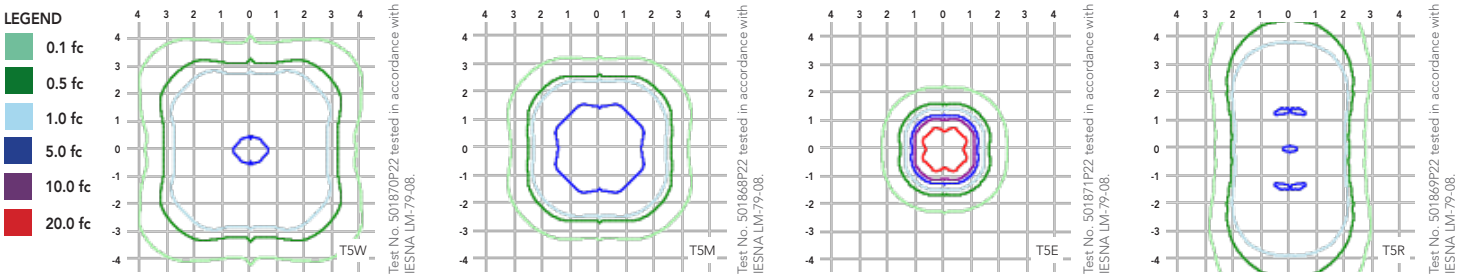
To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	DSXSC LED 10C 1000			
	1.0	0.97	0.94	0.90
	DSXSC LED 30C 1000			
	1.0	0.93	0.89	0.80
	DSXSC LED 30C 700			
	1.0	0.98	0.97	0.95

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Parking Garage homepage.

Isofootcandle plots for the DSXSC LED 30C 700 40K. Distances are in units of mounting height (8').



FEATURES & SPECIFICATIONS

INTENDED USE
The energy savings, long life, and easy-to-install design of the D-Series LED Surface Canopy luminaire make it the smart choice for canopy lighting in commercial, industrial and institutional applications with mounting heights of 8-15'.

CONSTRUCTION
Two-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP66) and is suitable for hose-down.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling.

OPTICS
Precision-molded proprietary acrylic lenses provide five different photometric distributions suited to a variety of canopy and walkway applications. Light engines are available in 3000 K (80 min. CRI), 4000 K (70 min. CRI) or 5000 K (65 min. CRI) configurations.

ELECTRICAL
Light engines consist of 10 high-efficacy LEDs mounted to a metal-core circuit board to maximize heat dissipation and promote long life. The electronic driver has a power factor of >90%, THD <20%, and a minimum 2.5 KV surge rating. When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C low operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Mounts to a 4x4" recessed or surface mount outlet box using a quick-mount kit (included); kit contains galvanized steel luminaire and outlet box plates and a full pad gasket. Kit has an integral mounting support that allows the luminaire to hinge down for easy electrical connections. Luminaire and plates are secured with captive screws. Supply leads are 12" in length as standard. For longer supply leads, please consult factory.

LISTINGS
CSA certified to U.S. and Canadian standards. Light engines and luminaire are IP66 rated. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) qualified product — Fuel Pump Canopy Luminaires category. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY
Five-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Specifications subject to change without notice.

D-Series Size 1
LED Area Luminaire

Catalog Number

Notes

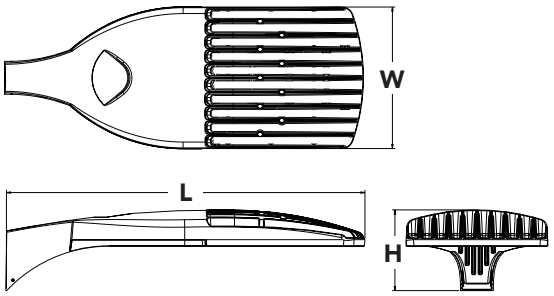
Type OA1

Hit the Tab key or mouse over the page to see all interactive elements.

d-series

Specifications

EPA:	1.2 ft² (0.11 m²)
Length:	33" (83.8 cm)
Width:	13" (33.0 cm)
Height:	7-1/2" (19.0 cm)
Weight (max):	27 lbs (12.2 kg)



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment.

The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing 100 – 400W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

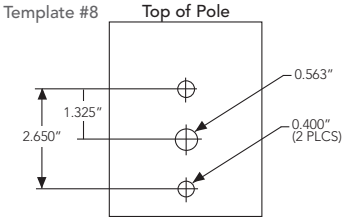
EXAMPLE: DSX1 LED 60C 1000 40K T3M MVOLT SPA DDBXD

DSX1 LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting	Control options	Other options	Finish *(required)*
DSX1 LED	**Forward optics** 30C 30 LEDs (one engine) 40C 40 LEDs (two engines) 60C 60 LEDs (two engines) **Rotated optics** [1] 60C 60 LEDs (two engines)	530 530 mA 700 700 mA 1000 1000 mA (1 A)	30K 3000 K (80 CRI min.) 40K 4000 K (70 CRI min.) 50K 5000 K(70 CRI) AMBPC Amber phosphor converted [2]	T1S Type I short T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium T5VS Type V very short T5S Type V short T5M Type V medium T5W Type V wide	MVOLT [3] 120 [3] 208 [3] 240 [3] 277 [3] 347 [4] 480 [4]	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor [5] RPUMBA Round pole universal mounting adaptor [5] **Shipped separately** [6] KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)	**Shipped installed** PER NEMA twist-lock receptacle only (no controls) [7] DMG 0-10V dimming driver (no controls) [8] DCR Dimmable and controllable via ROAM® (no controls) [9] DS Dual switching [10,11] PIR Motion sensor, 8-15' mounting height [12] PIRH Motion sensor, 15-30' mounting height [12] BL30 Bi-level switched dimming, 30% [11,13] BL50 Bi-level switched dimming, 50% [11,13]	**Shipped installed** HS House-side shield [14] WTB Utility terminal block [15] SF Single fuse (120, 277, 347V) [16] DF Double fuse (208, 240, 480V) [16] L90 Left rotated optics [17] R90 Right rotated optics [17]	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

Drilling

Template #8 Top of Pole



DSX1 shares a unique drilling pattern with the AERIS™ family. Specify this drilling pattern when specifying poles, per the table below.

DM19AS	Single unit	**DM29AS**	2 at 90° *
DM28AS	2 at 180°	**DM39AS**	3 at 90° *
DM49AS	4 at 90° *	**DM32AS**	3 at 120° **

Example: SSA 20 4C **DM19AS** DDBXD

Visit Lithonia Lighting's POLES CENTRAL to see our wide selection of poles, accessories and educational tools.

*Round pole top must be 3.25" O.D. minimum.
**For round pole mounting (RPA) only.

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [18]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [18]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [18]
SC U	Shorting cap [18]
DSX1HS 30C U	House-side shield for 30 LED unit
DSX1HS 40C U	House-side shield for 40 LED unit
DSX1HS 60C U	House-side shield for 60 LED unit
PUMBA DDBXD U*	Square and round pole universal mounting bracket adaptor (specify finish)
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [6]

For more control options, visit DTL and ROAM online.

Tenon Mounting Slipfitter**

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	AST20-190	AST20-280	AST20-290	AST20-320	AST20-390	AST20-490
2-7/8"	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

NOTES

1. Rotated optics only available with 60C.
2. AMBPC only available with 530mA or 700mA.
3. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options).
4. Not available with single board, 530mA product (30C 530, or 60C 530 DS). Not available with DCR, BL30 or BL50.
5. Available as a separate combination accessory: PUMBA (finish) U.
6. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" mast arm (not included).
7. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option.
8. DMG option for 347v or 480v requires 1000mA
9. Specifies a ROAM® enabled luminaire with 0-10V dimming capability; PER option required. Not available with 347 or 480V. Additional hardware and services required for ROAM® deployment; must be purchased separately. Call 1-800-442-6745 or email: sales@roamservices.net. N/A with BL30, BL50, DS, PIR or PIRH.
10. Requires 40C or 60C. Provides 50/50 luminaire operation via two independent drivers on two separate circuits. N/A with PER, DCR, WTB, PIR, or PIRH.
11. Requires an additional switched circuit.
12. PIR specifies the SensorSwitch SBGR-10-ODP control; PIRH specifies the SensorSwitch SBGR-6-ODP control; see Motion Sensor Guide for details. Dimming driver standard. Not available with DS or DCR.
13. Dimming driver standard. MVOLT only. Not available with DCR.
14. Also available as a separate accessory; see Accessories information.
15. WTB not available with DS.
16. Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
17. Available with 60 LEDs (60C option) only.
18. Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item from Acuity Brands Control.

LITHONIA LIGHTING

One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8041 • Fax: 770.918.1209 • www.lithonia.com

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Actual wattage may differ by +/- 8% when operating between 120-480V +/-10%. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 80 minimum CRI)					40K (4000 K, 70 minimum CRI)					50K (5000 K, 70 CRI)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30C (30 LEDs)	700 mA	68 W	T1S	5,290	1	0	1	78	6,524	2	0	2	96	7,053	2	0	2	104
			T2S	5,540	1	0	1	81	6,833	2	0	2	100	7,387	2	0	2	109
			T2M	5,360	1	0	2	79	6,611	2	0	2	97	7,147	2	0	2	105
			T3S	5,479	1	0	1	81	6,757	1	0	2	99	7,305	2	0	2	107
			T3M	5,452	1	0	2	80	6,724	2	0	2	99	7,269	2	0	2	107
			T4M	5,461	1	0	2	80	6,736	2	0	2	99	7,282	2	0	2	107
			TFTM	5,378	1	0	2	79	6,633	1	0	2	98	7,171	1	0	2	105
			T5VS	5,708	2	0	0	84	7,040	3	0	0	104	7,611	3	0	1	112
			T5S	5,639	2	0	0	83	6,955	2	0	0	102	7,519	3	0	0	111
			T5M	5,710	3	0	1	84	7,042	3	0	1	104	7,613	3	0	2	112
			T5W	5,551	3	0	1	82	6,847	3	0	2	101	7,401	3	0	2	109
	1000 mA	105 W	T1S	7,229	2	0	2	69	9,168	2	0	2	87	9,874	2	0	2	94
			T2S	7,572	2	0	2	72	9,603	2	0	2	91	10,342	2	0	2	98
			T2M	7,325	2	0	2	70	9,291	2	0	2	88	10,005	2	0	3	95
			T3S	7,488	2	0	2	71	9,496	2	0	2	90	10,227	2	0	2	97
			T3M	7,451	2	0	2	71	9,450	2	0	2	90	10,177	2	0	2	97
			T4M	7,464	2	0	2	71	9,467	2	0	2	90	10,195	2	0	2	97
			TFTM	7,351	1	0	2	70	9,323	2	0	2	89	10,040	2	0	3	96
			T5VS	7,801	3	0	1	74	9,894	3	0	1	94	10,655	3	0	1	101
			T5S	7,803	3	0	2	74	9,774	3	0	1	93	10,526	3	0	1	100
			T5M	7,707	3	0	0	73	9,897	3	0	2	94	10,658	4	0	2	102
			T5W	7,586	3	0	2	72	9,621	4	0	2	92	10,363	4	0	2	99
40C (40 LEDs)	700 mA	89 W	T1S	6,876	2	0	2	77	8,639	2	0	2	97	9,345	2	0	2	105
			T2S	7,202	2	0	2	81	9,049	2	0	2	102	9,788	2	0	2	110
			T2M	6,968	2	0	2	78	8,755	2	0	2	98	9,469	2	0	3	106
			T3S	7,122	2	0	2	80	8,948	2	0	2	101	9,679	2	0	2	109
			T3M	7,088	2	0	2	80	8,905	2	0	2	100	9,632	2	0	2	108
			T4M	7,100	2	0	2	80	8,920	2	0	2	100	9,649	2	0	2	108
			TFTM	6,992	1	0	2	79	8,785	2	0	2	99	9,502	2	0	2	107
			T5VS	7,421	3	0	0	83	9,323	3	0	1	105	10,085	3	0	1	113
			T5S	7,331	2	0	0	82	9,210	3	0	1	103	9,962	3	0	1	112
			T5M	7,423	3	0	2	83	9,326	3	0	2	105	10,087	4	0	2	113
			T5W	7,216	3	0	2	81	9,066	4	0	2	102	9,807	4	0	2	110
	1000 mA	138 W	T1S	9,521	2	0	2	69	11,970	2	0	2	87	12,871	3	3	0	93
			T2S	9,972	2	0	2	72	12,558	3	0	3	91	13,481	3	0	3	98
			T2M	9,648	2	0	3	70	12,149	3	0	3	88	13,043	3	0	3	95
			T3S	9,862	2	0	2	71	12,418	2	0	2	90	13,331	2	0	2	97
			T3M	9,814	2	0	2	71	12,358	3	0	3	90	13,267	3	0	3	96
			T4M	9,831	2	0	2	71	12,379	2	0	3	90	13,290	2	0	3	96
			TFTM	9,681	2	0	2	70	12,191	2	0	3	88	13,087	2	0	3	95
			T5VS	10,275	3	0	1	74	12,937	3	0	1	94	13,890	4	0	1	101
			T5S	10,150	3	0	1	74	12,782	3	0	1	93	13,721	3	0	1	99
			T5M	10,278	4	0	2	74	12,942	4	0	2	94	13,894	4	0	2	101
			T5W	9,991	4	0	2	72	12,582	4	0	2	91	13,507	4	0	2	98
60C (60 LEDs)	700 mA	131 W	T1S	10,226	2	0	2	78	12,871	3	0	3	98	13,929	3	0	3	106
			T2S	10,711	2	0	2	82	13,481	3	0	3	103	14,589	3	0	3	111
			T2M	10,363	2	0	3	79	13,043	3	0	3	100	14,115	3	0	3	108
			T3S	10,592	2	0	2	81	13,331	2	0	2	102	14,427	3	0	3	110
			T3M	10,541	2	0	2	80	13,267	3	0	3	101	14,357	3	0	3	110
			T4M	10,559	2	0	2	81	13,290	2	0	3	101	14,382	3	0	3	110
			TFTM	10,398	2	0	3	79	13,087	2	0	3	100	14,163	2	0	3	108
			T5VS	11,036	3	0	1	84	13,890	4	0	4	106	15,032	4	0	1	115
			T5S	10,902	3	0	1	83	13,721	3	0	1	105	14,849	4	0	1	113
			T5M	11,039	4	0	2	84	13,894	4	0	2	106	15,036	4	0	2	115
			T5W	10,732	4	0	2	82	13,507	4	0	2	103	14,617	4	0	2	112
	1000 mA	209 W	T1S	14,017	3	0	3	67	17,632	3	0	3	84	19,007	3	0	3	91
			T2S	14,681	3	0	3	70	18,467	3	0	3	88	19,908	3	0	3	95
			T2M	14,204	3	0	3	68	17,867	3	0	3	85	19,260	3	0	3	92
			T3S	14,518	3	0	3	69	18,262	3	0	3	87	19,687	3	0	3	94
			T3M	14,448	3	0	3	69	18,173	3	0	4	87	19,591	3	0	4	94
			T4M	14,473	3	0	3	69	18,205	3	0	3	87	19,625	3	0	4	94
			TFTM	14,253	2	0	3	68	17,928	3	0	4	86	19,326	3	0	4	92
			T5VS	15,127	4	0	1	72	19,028	4	0	1	91	20,512	4	0	1	98
			T5S	14,943	4	0	1	71	18,797	4	0	1	90	20,263	4	0	1	97
			T5M	15,131	4	0	2	72	19,033	4	0	2	91	20,517	5	0	3	98
			T5W	14,710	4	0	2	70	18,503	5	0	3	89	19,946	5	0	3	95

Note: Available with phosphor-converted amber LED's (nomenclature AMBPC). These LED's produce light with 97+% >530 nm. Output can be calculated by applying a 0.7 factor to 4000 K lumen values and photometric files.

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.99

Electrical Load

			Current (A)					
Number of LEDs	Drive Current (mA)	System Watts	120	208	240	277	347	480
30	530	52	0.52	0.30	0.26	0.23	--	--
	700	68	0.68	0.39	0.34	0.30	0.24	0.17
	1000	105	1.03	0.59	0.51	0.45	0.36	0.26
40	530	68	0.67	0.39	0.34	0.29	0.23	0.17
	700	89	0.89	0.51	0.44	0.38	0.31	0.22
	1000	138	1.35	0.78	0.67	0.58	0.47	0.34
60	530	99	0.97	0.56	0.48	0.42	0.34	0.24
	700	131	1.29	0.74	0.65	0.56	0.45	0.32
	1000	209	1.98	1.14	0.99	0.86	0.69	0.50

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

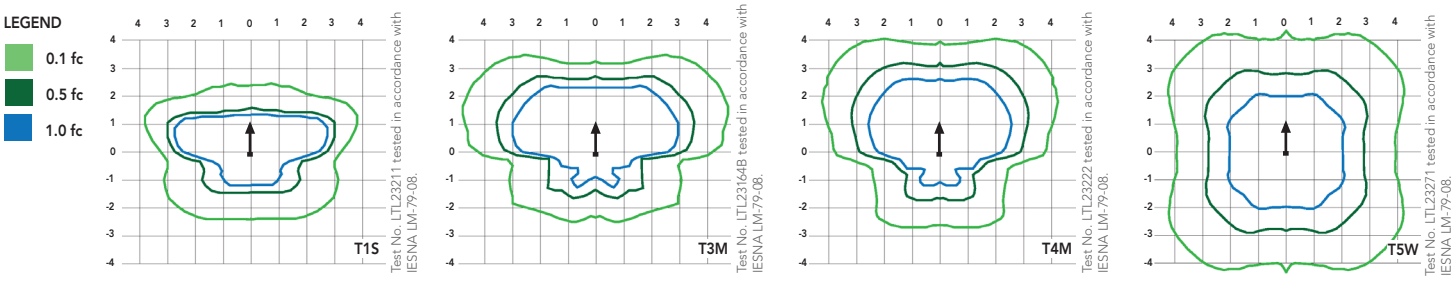
To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	DSX1 LED 60C 1000			
	1.0	0.95	0.93	0.88
	DSX1 LED 60C 700			
	1.0	0.99	0.98	0.96

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 1 homepage.

Isofootcandle plots for the DSX1 LED 60C 1000 40K. Distances are in units of mounting height (20').



FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.2 ft^2) for optimized pole wind loading.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 4000 K (70 minimum CRI) or optional 3000 K (80 minimum CRI) or 5000 K (70 CRI) configurations. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine configurations consist of 30, 40 or 60 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L96/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV or 6kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

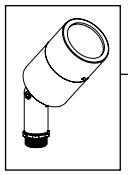
INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 1 utilizes the AERIS™ series pole drilling pattern. Optional terminal block, tool-less entry, and NEMA photocontrol receptacle are also available.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY
Five-year limited warranty. Full warranty terms located at:
www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Specifications subject to change without notice.



BIGGSL SOLID STATE LIGHTING

the power of dimming with adjust-e-lume® TECHNOLOGY

NITE STAR™

PROJECT:	
TYPE:	OF1
CATALOG NUMBER:	
SOURCE:	
NOTES:	

CATALOG NUMBER LOGIC

	NS	LED								
Example	- NS	- LED	- e23	- SP	- A5	- BZW	- 12	- 11	- 360SL	

Material
- **Blank** - Aluminum
- **B** - Brass
- **S** - Stainless Steel

Series
- **NS** - Nite Star™

Source
- **LED** - **'e'** Technology with Integral Dimming Driver (25W min. load when dimmed)
  **Requires magnetic Low Voltage dimmer*

LED Type
- **e36** - 8WLED/2.7K
- **e22** - 8WLED/3K
- **e23** - 8WLED/4K
- **e27** - 8WLED/Amber

Optics*
- **NSP** - Narrow Spot (Red Indicator)
- **SP** - Spot (Green Indicator)
- **MFL** - Medium Flood (Yellow Indicator)
- **WFL** - Wide Flood (Blue Indicator)

Adjust-e-Lume® Output Intensity** *(Choose factory setting)*
A9 (Standard), **A8, A7, A6, A5, A4, A3, A2, A1**
***Please see Adjust-e-Lume® photometry to determine desired intensity.*

Finish

Aluminum Finish

Powder Coat Color	Satin	Wrinkle
Bronze	BZP	BZW
Black	BLP	BLW
White (Gloss)	WHP	WHW
Aluminum	SAP	—
Verde	—	VER

Brass Finish

Machined	MAC
Polished	POL
Mitique™	MIT

Stainless Finish

Machined	MAC
Polished	POL
Brushed	BRU *Interior use only.*

Premium Finish

ABP	Antique Brass Powder	CMG	Cascade Mountain Granite	RMG	Rocky Mountain Granite
AMG	Aleutian Mountain Granite	CRI	Cracked Ice	SDS	Sonoran Desert Sandstone
AQW	Antique White	CRM	Cream	SMG	Sierra Mountain Granite
BCM	Black Chrome	HUG	Hunter Green	TXF	Textured Forest
BGE	Beige	MDS	Mojave Desert Sandstone	WCP	Weathered Copper
BPP	Brown Patina Powder	NBP	Natural Brass Powder	WIR	Weathered Iron
CAP	Clear Anodized Powder	OCP	Old Copper	*Also available in RAL Finishes See submittal SUB-1439-00*	

Lens Type
- **12** - Soft Focus Lens
- **13** - Rectilinear Lens

Shielding
- **11** - Honeycomb Baffle

Option
- **360SL** - 360SL™ Rotational Knuckle Mounting System

DRIVER DATA

Input Volts	InRush Current	Dimmable	Operation Ambient Temperature
12VAC/DC 50/60Hz	<1A (non-dimmed)	Magnetic Low Voltage Dimmer	-10°F-130°F

LM79 DATA

BK No.	CCT (Typ.)	Input Watts (Typ.)	CRI (Typ.)
e36	2700K	8.4	90
e22	3100K	8.4	90
e23	4100K	8.4	75
e27	Amber (590nm)	7.9	~

L70 DATA

Minimum Rated Life (hrs.) 70% of initial lumens (L_{70})
50,000
50,000
50,000
50,000

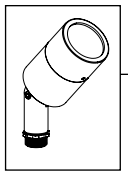
*OPTICAL DATA

Beam Type	Angle	Visual Indicator
Narrow Spot	14°	Red Dot
Spot	18°	Green Dot
Medium Flood	25°	Yellow Dot
Wide Flood	36°	Blue Dot

B-K LIGHTING

40429 Brickyard Drive • Madera, CA 93636 • USA
559.438.5800 • FAX 559.438.5900
www.bklighting.com • info@bklighting.com

SUBMITTAL DATE	DRAWING NUMBER
1-8-14	SUB000929



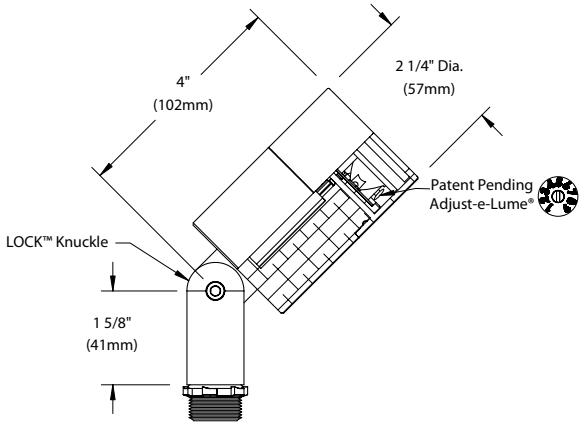
BKSSL SOLID STATE LIGHTING

the power of dimming with adjust-e-lume® TECHNOLOGY

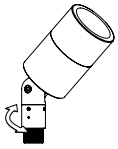
NITE STAR™

PROJECT:	
TYPE:	

SIDE VIEW



360 SL™

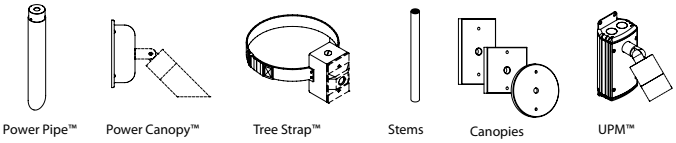


Horizontal Rotation
(Optional 360SL™ Knuckle)

Accessories *(Configure separately)*

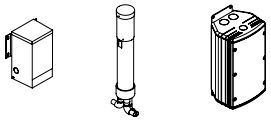
All dimensions indicated on this submittal are nominal.
Contact Technical Sales if you require more stringent specifications.

Mounting:



Power Pipe™ | Power Canopy™ | Tree Strap™ | Stems | Canopies | UPM™

Remote Transformers:



TR Series | Power Pipe™ | UPMRM™

SPECIFICATIONS

GreenSource Initiative™
Metal and packaging components are made from recycled materials. Manufactured using renewable solar energy, produced onsite. Returnable to manufacturer at end of life to ensure cradle-to-cradle handling. Packaging contains no chlorofluorocarbons (CFC's). Use of this product may qualify for GreenSource efficacy and recycling rebate(s). Consult www.bklighting.com/greensource for program requirements.

Materials
Furnished in Copper-Free Aluminum (Type 6061-T6), Brass (Type 360) or Stainless Steel (Type 304).

Body
Fully machined from solid billet. Unibody design provides enclosed, water-proof wireway and integral heat sink for maximum component life. Integral knuckle for maximum mechanical strength. High temperature, silicone 'O' Ring provides water-tight seal.

Knuckle
The LOCK™ (Locking 'O' Ring Compression Knuckle) is comprised of two components. The first is integral to the body and features an interior, machined taper. The second is machined from solid billet and features a second, reverse angle taper. The resultant mechanical taper-lock allows a full 180° vertical adjustment without the use of serrated teeth, which inherently limit aiming. High temperature, silicone 'O' Ring provides water-tight seal and compressive resistance to maintain fixture position. Design withstands 73 lb. static load prior to movement to ensure decades of optical alignment. ½" pipe thread for mounting.

Optional 360SL™ additionally provides biaxial source control with 360° horizontal rotation in addition to vertical adjustment.

Cap
Fully machined. Accommodates [1] lens or louver media. Flush lens.

Lens
Shock resistant, tempered, glass lens is factory adhered to fixture cap and provides hermetically sealed optical compartment. Specify soft focus (#12) or rectilinear (#13) lens.

BKSSL®
Integrated solid state system with 'e' technology is scalable for field upgrade. Modular design with electrical quick disconnects permit field maintenance. High power, forward throw source complies with ANSI C78.377 binning requirements. Exceeds ENERGY STAR® lumen maintenance requirements. LM-80 certified components.

Integral, constant current driver. 12VAC/VDC input. 50/60Hz. Proprietary input control scheme achieves power factor correction and eliminates inrush current. Output, over-voltage, open-circuit, and short circuit protected. Inrush current limited to <1A (non-dimming). Conforms to Safety Std. C22.2 No. 250.13-12.

Line dimmable. For use with low voltage dimmer with dedicated neutral conductor. Minimum 25 watt load required for dimming.

Adjust-e-Lume® (Pat. Pending)
Integral electronics allows dynamic lumen response at the individual fixture. Indexed (100% to 25% nom.) lumen output. Maintains output at desired level or may be changed as conditions require. Specify factory preset o*utput intensity.*

Optics
Interchangeable OPTIKIT™ modules permit field changes to optical distribution. Color-coded for easy reference: Narrow Spot (NSP) = Red. Spot (SP) = Green. Medium Flood (MFL) = Yellow. Wide Flood (WFL) = Blue.

Remote Transformer
For use with 12VAC BKSSL remote transformer.

Wiring
Teflon® coated, 18AWG, 600V, 250° C rated and certified to UL 1659 standard.

Hardware
Tamper-resistant, stainless steel hardware. LOCK™ aiming screw is additionally black oxide treated for additional corrosion resistance.

Finish
StarGuard®, our exclusive RoHs compliant, 15 stage chromate-free process cleans and conversion coats aluminum components prior to application of Class 'A' TGIC polyester powder coating. Brass components are available in powder coat or handcrafted metal finish. Stainless steel components are available in handcrafted metal finish. (Brushed finish for interior use only).

Warranty
5 year limited warranty.

Certification and Listing
ITL tested to IESNA LM-79. Lighting Facts Registration per USDOE (www.lightingfacts.com). ETL Listed to ANSI/UL Standard 1838 and UL Standard 8750. Certified to CAN/CSA Standard C22.2 No. 9, CSA TIL B-58B. RoHs compliant. Suitable for indoor or outdoor use. Suitable for use in wet locations. Suitable for installation within 4' of the ground. IP66 Rated. Made in USA.

Intertek | MADE IN THE USA | lighting facts | RoHS

**Teflon is a registered trademark of DuPont Corporation.*
**Energy Star is a registered trademark of the United States Environmental Protection Agency.*

B-K LIGHTING
40429 Brickyard Drive • Madera, CA 93636 • USA
559.438.5800 • FAX 559.438.5900
www.bklighting.com • info@bklighting.com

SUBMITTAL DATE	DRAWING NUMBER
1-8-14	SUB000929

adjust-e-lume® TECHNOLOGY

Photometry for use with e36 **2.7K**

Select OptiKit™ for desired distribution

RED	Narrow Spot (NSP)
GREEN	Spot (SP)
YELLOW	Medium Flood (MFL)
BLUE	Wide Flood (WFL)

Set adjust-e-lume™ Dial to desired output

Narrow Spot

Distance from lamp	Adjust-e-Lume™ Setting 1	2	3	4	5	6	7	8	9
20'	2.4	3.1	5.0	6.3	7.6	8.9	9.2	9.3	9.3
16'	3.8	4.9	7.9	9.9	11.9	13.9	14.3	14.6	14.6
12'	6.7	8.6	14.0	17.6	21.2	24.7	25.5	25.9	25.9
8'	15.1	19.4	31.4	39.7	47.6	55.5	57.3	58.3	58.3
4'	60.4	77.7	125.8	158.6	190.4	222.1	229.2	233.0	233.2

4' 2' 0' 2' 4'

Note: If using No. 11 honeycomb baffle multiply footcandle values by .80

Spot

Distance from lamp	Adjust-e-Lume™ Setting 1	2	3	4	5	6	7	8	9
20'	1.6	2.1	3.3	4.3	5.3	5.9	6.1	6.3	6.3
16'	2.6	3.3	5.2	6.7	8.2	9.3	9.6	9.8	9.9
12'	4.5	5.8	9.3	12.0	14.7	16.5	17.0	17.5	17.5
8'	10.2	13.0	20.9	26.9	33.0	37.0	38.3	39.4	39.4
4'	40.9	52.1	83.4	107.8	131.9	148.1	153.1	157.5	157.8

8' 6' 4' 2' 0' 2' 4' 6' 8'

Note: If using No. 11 honeycomb baffle multiply footcandle values by .80

Medium Flood

Distance from lamp	Adjust-e-Lume™ Setting 1	2	3	4	5	6	7	8	9
20'	0.9	1.3	2.0	2.5	3.1	3.4	3.6	3.6	3.6
16'	1.5	2.0	3.1	3.9	4.8	5.4	5.6	5.6	5.7
12'	2.6	3.6	5.5	6.9	8.6	9.5	9.9	9.9	10.1
8'	5.9	8.0	12.3	15.5	19.3	21.5	22.2	22.4	22.6
4'	23.6	32.1	49.3	62.2	77.1	85.8	88.9	89.5	90.5

10' 8' 6' 4' 2' 0' 2' 4' 6' 8' 10'

Note: If using No. 11 honeycomb baffle multiply footcandle values by .80

Wide Flood

Distance from lamp	Adjust-e-Lume™ Setting 1	2	3	4	5	6	7	8	9
20'	0.4	0.6	0.9	1.1	1.4	1.6	1.6	1.7	1.7
16'	0.7	0.9	1.4	1.8	2.1	2.5	2.6	2.6	2.6
12'	1.2	1.6	2.5	3.2	3.8	4.4	4.6	4.7	4.7
8'	2.7	3.7	5.6	7.2	8.6	10.0	10.3	10.5	10.6
4'	10.9	14.8	22.3	28.6	34.3	39.9	41.1	42.2	42.3

14' 12' 10' 8' 6' 4' 2' 0' 2' 4' 6' 8' 10' 12' 14'

Note: If using No. 11 honeycomb baffle multiply footcandle values by .80

B-K LIGHTING

40429 Brickyard Drive • Madera, California 93636 • 559.438.5800
www.bklighting.com • www.adjust-e-lume.com • www.bkssl.com

Select OptiKit™ for desired distribution

RED	Narrow Spot (NSP)
GREEN	Spot (SP)
YELLOW	Medium Flood (MFL)
BLUE	Wide Flood (WFL)

Set adjust-e-lume™ Dial to desired output

Narrow Spot

Distance from lamp	Adjust-e-Lume™ Setting 1	2	3	4	5	6	7	8	9
20'	2.4	2.9	4.9	6.1	7.3	8.8	9.1	9.3	9.3
16'	3.8	4.6	7.6	9.6	11.4	13.8	14.3	14.5	14.6
12'	6.7	8.2	13.5	17.0	20.3	24.5	25.4	25.7	25.9
8'	15.1	18.4	30.3	38.2	45.8	55.2	57.0	57.9	58.2
4'	60.3	73.6	121.3	152.8	183.1	220.9	228.2	231.6	232.8

4' 2' 0' 2' 4'

Note: If using No. 11 honeycomb baffle multiply footcandle values by .80

Spot

Distance from lamp	Adjust-e-Lume™ Setting 1	2	3	4	5	6	7	8	9
20'	1.6	2.1	3.1	4.1	4.9	6.0	6.1	6.2	6.3
16'	2.5	3.3	4.9	6.4	7.6	9.3	9.6	9.8	9.9
12'	4.5	5.9	8.7	11.4	13.5	16.6	17.0	17.3	17.5
8'	10.2	13.2	19.5	25.6	30.5	37.3	38.3	39.0	39.4
4'	40.6	52.7	78.1	102.3	121.9	149.1	153.1	156.0	157.8

8' 6' 4' 2' 0' 2' 4' 6' 8'

Note: If using No. 11 honeycomb baffle multiply footcandle values by .80

Medium Flood

Distance from lamp	Adjust-e-Lume™ Setting 1	2	3	4	5	6	7	8	9
20'	1.0	1.2	1.9	2.4	2.9	3.4	3.5	3.6	3.7
16'	1.5	1.8	2.9	3.8	4.6	5.3	5.4	5.7	5.8
12'	2.6	3.3	5.2	6.7	8.1	9.5	9.6	10.1	10.2
8'	6.0	7.4	11.8	15.0	18.3	21.3	21.6	22.8	23.0
4'	23.8	29.5	47.0	60.2	73.3	85.1	86.4	91.2	92.2

10' 8' 6' 4' 2' 0' 2' 4' 6' 8' 10'

Note: If using No. 11 honeycomb baffle multiply footcandle values by .80

Wide Flood

Distance from lamp	Adjust-e-Lume™ Setting 1	2	3	4	5	6	7	8	9
20'	0.4	0.5	0.9	1.1	1.3	1.6	1.7	1.7	1.7
16'	0.7	0.8	1.4	1.7	2.0	2.4	2.6	2.7	2.7
12'	1.2	1.5	2.5	3.0	3.5	4.3	4.7	4.7	4.7
8'	2.8	3.4	5.5	6.7	7.9	9.8	10.5	10.7	10.7
4'	11.1	13.4	22.2	26.8	31.7	39.0	41.9	42.6	42.7

14' 12' 10' 8' 6' 4' 2' 0' 2' 4' 6' 8' 10' 12' 14'

Note: If using No. 11 honeycomb baffle multiply footcandle values by .80

Select OptiKit™ for desired distribution

RED	Narrow Spot (NSP)
GREEN	Spot (SP)
YELLOW	Medium Flood (MFL)
BLUE	Wide Flood (WFL)

Set adjust-e-lume™ Dial to desired output

Narrow Spot

Distance from lamp	Adjust-e-Lume™ Setting 1	2	3	4	5	6	7	8	9
20'	2.7	3.7	5.5	6.9	8.5	10.1	10.4	10.6	10.6
16'	4.3	5.7	8.7	10.8	13.3	15.7	16.2	16.5	16.5
12'	7.6	10.2	15.4	19.2	23.6	27.9	28.8	29.3	29.4
8'	17.1	23.0	34.7	43.2	53.0	62.8	64.8	66.0	66.1
4'	68.6	91.9	138.6	172.9	212.1	251.3	259.2	263.8	264.3

4' 2' 0' 2' 4'

Note: If using No. 11 honeycomb baffle multiply footcandle values by .80

Spot

Distance from lamp	Adjust-e-Lume™ Setting 1	2	3	4	5	6	7	8	9
20'	1.9	2.4	3.7	4.8	6.0	6.8	7.1	7.1	7.1
16'	2.9	3.7	5.9	7.4	9.4	10.6	11.0	11.1	11.2
12'	5.2	6.6	10.4	13.2	16.7	18.9	19.6	19.8	19.8
8'	11.8	14.9	23.4	29.7	37.6	42.5	44.1	44.6	44.6
4'	47.0	59.6	93.6	118.9	150.3	170.1	176.3	178.3	178.6

8' 6' 4' 2' 0' 2' 4' 6' 8'

Note: If using No. 11 honeycomb baffle multiply footcandle values by .80

Medium Flood

Distance from lamp	Adjust-e-Lume™ Setting 1	2	3	4	5	6	7	8	9
20'	1.1	1.4	2.2	2.8	3.3	3.8	4.0	4.1	4.1
16'	1.7	2.1	3.4	4.3	5.1	5.9	6.3	6.4	6.4
12'	3.0	3.8	6.1	7.7	9.1	10.5	11.2	11.3	11.4
8'	6.7	8.5	13.8	17.3	20.5	23.7	25.2	25.4	25.6
4'	26.9	34.2	55.0	69.3	81.9	94.7	100.6	101.6	102.4

10' 8' 6' 4' 2' 0' 2' 4' 6' 8' 10'

Note: If using No. 11 honeycomb baffle multiply footcandle values by .80

Wide Flood

Distance from lamp	Adjust-e-Lume™ Setting 1	2	3	4	5	6	7	8	9
20'	0.5	0.6	1.0	1.2	1.4	1.7	1.8	1.8	1.8
16'	0.8	1.0	1.5	1.8	2.2	2.7	2.8	2.8	2.9
12'	1.3	1.8	2.7	3.3	3.9	4.7	4.9	5.0	5.1
8'	3.0	4.0	6.0	7.3	8.8	10.7	11.1	11.3	11.4
4'	12.0	15.9	23.9	29.3	35.1	42.6	44.4	45.1	45.7

14' 12' 10' 8' 6' 4' 2' 0' 2' 4' 6' 8' 10' 12' 14'

Note: If using No. 11 honeycomb baffle multiply footcandle values by .80

Nitestar - Spot

lighting facts℠

A Program of the U.S. DOE

Light Output (Lumens)	253
Watts	8.2
Lumens per Watt (Efficacy)	30
Color Accuracy Color Rendering Index (CRI)	83
Light Color Correlated Color Temperature (CCT)	3182 (Bright White)

All results are according to IESNA LM-79-2008: *Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.* The U.S. Department of Energy (DOE) verifies product test data and results.

Visit www.lightingfacts.com for the *Label Reference Guide*.

Registration Number: GCXV-EK4LV4
Model Number: NS-LED-e22-SP-12
Type: Other

Nitestar - Spot

lighting facts℠

A Program of the U.S. DOE

Light Output (Lumens)	354
Watts	8.1
Lumens per Watt (Efficacy)	43
Color Accuracy Color Rendering Index (CRI)	68
Light Color Correlated Color Temperature (CCT)	4080 (Bright White)

All results are according to IESNA LM-79-2008: *Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.* The U.S. Department of Energy (DOE) verifies product test data and results.

Visit www.lightingfacts.com for the *Label Reference Guide*.

Registration Number: GCXV-XKQZJR
Model Number: NS-LED-e23-SP-12
Type: Other

Nitestar - N. Spot

lighting facts℠

A Program of the U.S. DOE

Light Output (Lumens)	365
Watts	8.2
Lumens per Watt (Efficacy)	44
Color Accuracy Color Rendering Index (CRI)	68
Light Color Correlated Color Temperature (CCT)	4102 (Bright White)

All results are according to IESNA LM-79-2008: *Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.* The U.S. Department of Energy (DOE) verifies product test data and results.

Visit www.lightingfacts.com for the *Label Reference Guide*.

Registration Number: GCXV-F8KBF2
Model Number: NS-LED-e23-NSP-12
Type: Other

Nite Star™ - Med. Flood - Rectilinear

lighting facts℠

A Program of the U.S. DOE

Light Output (Lumens)	299
Watts	8.5
Lumens per Watt (Efficacy)	35
Color Accuracy Color Rendering Index (CRI)	66
Light Color Correlated Color Temperature (CCT)	4022 (Bright White)

All results are according to IESNA LM-79-2008: *Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.* The U.S. Department of Energy (DOE) verifies product test data and results.

Visit www.lightingfacts.com for the *Label Reference Guide*.

Registration Number: GCXV-AXCRJJ
Model Number: NS-LED-e23-MFL-13
Type: Other

Nitestar - M. Flood

lighting facts℠

A Program of the U.S. DOE

Light Output (Lumens)	346
Watts	8.2
Lumens per Watt (Efficacy)	42
Color Accuracy Color Rendering Index (CRI)	68
Light Color Correlated Color Temperature (CCT)	4047 (Bright White)

All results are according to IESNA LM-79-2008: *Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.* The U.S. Department of Energy (DOE) verifies product test data and results.

Visit www.lightingfacts.com for the *Label Reference Guide*.

Registration Number: GCXV-VHBB1D
Model Number: NS-LED-e23-MFL-12
Type: Other

Nitestar - W. Flood

lighting facts℠

A Program of the U.S. DOE

Light Output (Lumens)	345
Watts	8.3
Lumens per Watt (Efficacy)	41
Color Accuracy Color Rendering Index (CRI)	67
Light Color Correlated Color Temperature (CCT)	3981 (Bright White)

All results are according to IESNA LM-79-2008: *Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.* The U.S. Department of Energy (DOE) verifies product test data and results.

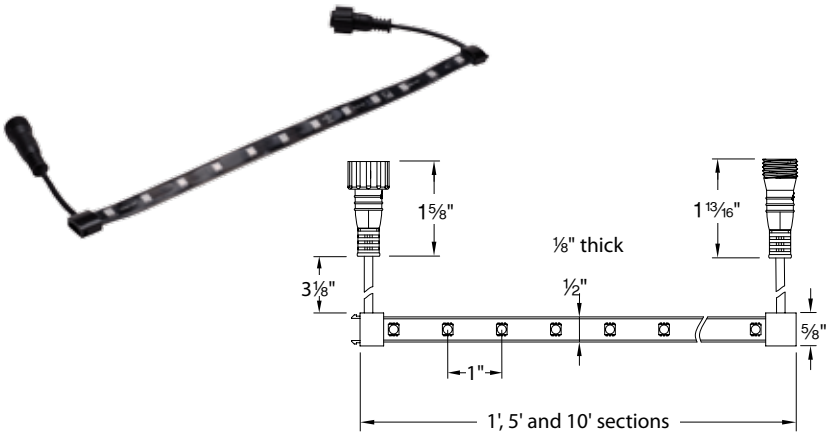
Visit www.lightingfacts.com for the *Label Reference Guide*.

Registration Number: GCXV-MJ8TLS
Model Number: NS-LED-e23-WFL-12
Type: Other

InvisiLED® Palette Outdoor

24V Outdoor Color Changing LED Tape Light

WAC LIGHTING
Responsible Lighting®



Fixture Type: Q12

Catalog Number:

Project:

Location:

PRODUCT DESCRIPTION

Color changing 24V system for any and all outdoor accent lighting applications. Uses the latest LED technology water sealed in silicone cased tape, while still delivering crisp, quality light and effortless navigation of curves.

FEATURES

- IP-68 rated, allows for submersion up to five feet
- Power supply is UL and CUL listed
- Wet location listed
- DMX controller option (consult factory)
- Select from any color to visibly change an interior design
- Switch to warm 3500K white light with the push of a button
- Ultra thin profile at ⅛"
- Diodes spaced evenly at 1" on center
- Minimum run length of 1' and maximum of 40'
- May be field cut every 2" at the end of a run
- Unique tape section connections ensure even LED spacing and no dark spots
- Four mounting options provided for different surfaces
- 80,000 hour rated life
- 5 year WAC Lighting product warranty

SPECIFICATIONS

Construction: Flexible, silicone sealed tape light. Indicating marks on back for field cutting

Power Supply: Remote electronic Class 2 transformer.
120VAC 50/60Hz input, 24VDC 100W output.

Light Source: 12 LED diodes per foot. Runs on 24V at 1.5W per foot.

Dimming: Dimmable using an LED-TO24-WS wireless controller.

Operating Temperature: -4°F – 122°F (-20°C – 50°C), relative humidity 95%.

Standards: UL & CUL Listed. UL (E204239) wet location certified.

POWER SUPPLY

EN-O24100-RB2-T	24VDC/100W Class 2 LED transformer

CONTROLLERS

LED-TO24-WS	4 function wireless controller
LED-TO24-CM	Master controller
LED-TO24-CS	Slave controller

CONTROLLER COMPONENTS

LED-TO24-IC	Joiner cables
LED-TO24-SW	Master to Slave signal wire
LED-TO24-MW	DMX to Master signal wire

TAPE LIGHT ACCESSORIES

LED-TO24-IC-RGB	RGB Joiner Cable
LED-TO24-X-RGB	4 way "X" connector
LED-TO24-Y-RGB	3 way "Y" connector
LED-TO24-EC	End cap
LED-TO24-C1	Mounting clip 1 (10 per pack)
LED-TO24-C2	Mounting clip 2 (10 per pack)
LED-TO24-C3	Mounting clip 3 (10 per pack)
LED-TO24-CH	Retrofit channel

ORDER NUMBER

Model #	Length		Color
LED-TCO	**1**	*1 foot*	**RGB**
	5	*5 feet*	
	10	*10 feet*	

LED-TCO – [ ] – **RGB**

Example: **LED-TCO-10-RGB**

Stop at any point
for a custom color effect.

WAC Lighting
www.waclighting.com
Phone (800) 526.2588 • Fax (800) 526.2585

Headquarters/Eastern Distribution Center
44 Harbor Park Drive • Port Washington, NY 11050
Phone (516) 515.5000 • Fax (516) 515.5050

Western Distribution Center
1750 Archibald Avenue • Ontario, CA 91760
Phone (800) 526.2588 • Fax (800) 526.2585

InvisiLED® Palette Outdoor

Power Supplies and Accessories

WAC LIGHTING
Responsible Lighting®

POWER SUPPLY		Model #	Input	Output	Dimensions	Description
Remote Class 2 DC Transformer		**EN-O24100-RB2-T**	120V-277V AC	24V DC/96W	11 7/16" × 4 1/8" × 1 15/16"	6' lead wire included. Requires a minimum load of 1W. Max run 100W: 40'

CONTROLLERS		Model #	Dimensions	Description
Wireless Palette Controller		**LED-TO24-WS**	4" × 2 1/2" × 5/8"	**Wireless connection to Master Controller.** • Use to switch from color changing to white light • Play/Pause the color changing effect • Control the brightness and speed of the color changing effect *Includes 2 AAA batteries.*
Master Controller		**LED-TO24-CM**	4" × 2" × 1 1/2"	Powers one run up to 40'. Connects and controls all slave controllers for runs over 40'.
Slave Controller		**LED-TO24-CS**	4" × 2" × 1 1/2"	Connects to Master Controller for runs over 40'. Uses a separate 120V power supply. Powers up to another 40', a new Slave Controller is needed for every 40' extension.

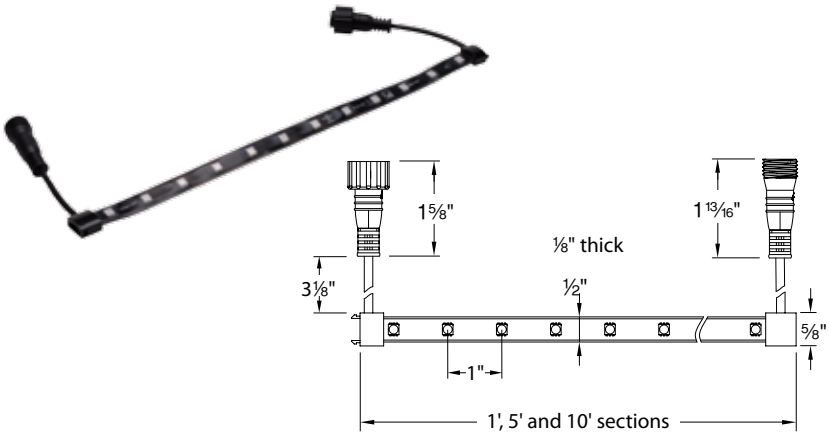
CONTROLLER COMPONENTS		Model #	Dimensions	Description
Joiner Cable		**LED-TO24-IC6** **LED-TO24-IC12** **LED-TO24-IC72** **LED-TO24-IC120**	6" 12" 72" 120"	Extends distance between Power Supply and Master Controller.
Signal wire		**LED-TO24-SW60** **LED-TO24-SW120**	60" 120"	Connects Master Controller and Slave Controller.
DMX Signal Wire		**LED-TO24-MW60** **LED-TO24-MW120**	60" 120"	Connects DMX system to Master Controller.

TAPE LIGHT ACCESSORIES		Model #	Dimensions	Description
RGB Joiner Cable		**LED-TO24-IC6-RGB** **LED-TO24-IC12-RGB** **LED-TO24-IC72-RGB** **LED-TO24-IC120-RGB**	6" 12" 72" 120"	Use to connect two sections of InvisiLED® Outdoor Palette tape.
4-Way "X" Connector		**LED-TO24-X-RGB**	wires: 5" each connectors: 3/4" each	"X" connector has one male and three female connectors and can be used to easily customize your design layout.
3-Way "Y" Connector		**LED-TO24-Y-RGB**	wires: 5" each connectors: 3/4" each	"Y" connector has one male and two female connectors and can be used to easily customize your design layout.
End cap		**LED-TO24-EC**	5/8" × 5/8" × 3/8"	Use to terminate every run to protect against contaminants. Seal cut end with silicone after adding end cap.
Mounting Clip 1 (10 pack)		**LED-TO24-C1**	1 1/8" × 3/8" × 1/4"	For installation on non-flat surfaces where there is no edge contact. 2 clips per ft are recommended for straight runs.
Mounting Clip 2 (10 pack)		**LED-TO24-C2**	7/8" × 3/8" × 1/4"	For installation on non-flat surfaces, allows for contact on one edge. 2 clips per ft are recommended for straight runs.
Mounting Clip 3 (10 pack)		**LED-TO24-C3**	5/8" × 5/8" × 1/4"	For installation on non-flat surfaces, allows for contact on both edges. 2 clips per ft are recommended for straight runs.
Retrofit Channel		**LED-TO24-CH1** **LED-TO24-CH5**	12" × 5/8" × 1/4" 60" × 5/8" × 1/4"	Rigid, non-flexible channel for mounting to a straight, solid surface.

InvisiLED® Palette Outdoor

24V Outdoor Color Changing LED Tape Light

WAC LIGHTING
Responsible Lighting®



Fixture Type: Q13

Catalog Number:

Project:

Location:

PRODUCT DESCRIPTION

Color changing 24V system for any and all outdoor accent lighting applications. Uses the latest LED technology water sealed in silicone cased tape, while still delivering crisp, quality light and effortless navigation of curves.

FEATURES

- IP-68 rated, allows for submersion up to five feet
- Power supply is UL and CUL listed
- Wet location listed
- DMX controller option (consult factory)
- Select from any color to visibly change an interior design
- Switch to warm 3500K white light with the push of a button
- Ultra thin profile at ⅛"
- Diodes spaced evenly at 1" on center
- Minimum run length of 1' and maximum of 40'
- May be field cut every 2" at the end of a run
- Unique tape section connections ensure even LED spacing and no dark spots
- Four mounting options provided for different surfaces
- 80,000 hour rated life
- 5 year WAC Lighting product warranty

SPECIFICATIONS

Construction: Flexible, silicone sealed tape light. Indicating marks on back for field cutting

Power Supply: Remote electronic Class 2 transformer.
120VAC 50/60Hz input, 24VDC 100W output.

Light Source: 12 LED diodes per foot. Runs on 24V at 1.5W per foot.

Dimming: Dimmable using an LED-TO24-WS wireless controller.

Operating Temperature: -4°F – 122°F (-20°C – 50°C), relative humidity 95%.

Standards: UL & CUL Listed. UL (E204239) wet location certified.

POWER SUPPLY

EN-O24100-RB2-T	24VDC/100W Class 2 LED transformer

CONTROLLERS

LED-TO24-WS	4 function wireless controller
LED-TO24-CM	Master controller
LED-TO24-CS	Slave controller

CONTROLLER COMPONENTS

LED-TO24-IC	Joiner cables
LED-TO24-SW	Master to Slave signal wire
LED-TO24-MW	DMX to Master signal wire

TAPE LIGHT ACCESSORIES

LED-TO24-IC-RGB	RGB Joiner Cable
LED-TO24-X-RGB	4 way "X" connector
LED-TO24-Y-RGB	3 way "Y" connector
LED-TO24-EC	End cap
LED-TO24-C1	Mounting clip 1 (10 per pack)
LED-TO24-C2	Mounting clip 2 (10 per pack)
LED-TO24-C3	Mounting clip 3 (10 per pack)
LED-TO24-CH	Retrofit channel

ORDER NUMBER

Model #	Length		Color
LED-TCO	**1**	*1 foot*	**RGB**
	5	*5 feet*	
	10	*10 feet*	

LED-TCO – [ ] – **RGB**

Example: **LED-TCO-10-RGB**

WAC Lighting
www.waclighting.com
Phone (800) 526.2588 • Fax (800) 526.2585

Headquarters/Eastern Distribution Center
44 Harbor Park Drive • Port Washington, NY 11050
Phone (516) 515.5000 • Fax (516) 515.5050

Western Distribution Center
1750 Archibald Avenue • Ontario, CA 91760
Phone (800) 526.2588 • Fax (800) 526.2585

InvisiLED® Palette Outdoor

Power Supplies and Accessories

WAC LIGHTING
Responsible Lighting®

POWER SUPPLY		Model #	Input	Output	Dimensions	Description
Remote Class 2 DC Transformer		**EN-O24100-RB2-T**	120V-277V AC	24V DC/96W	11 7/16" × 4 1/8" × 1 15/16"	6' lead wire included. Requires a minimum load of 1W. Max run 100W: 40'

CONTROLLERS		Model #	Dimensions	Description
Wireless Palette Controller		**LED-TO24-WS**	4" × 2 1/2" × 5/8"	**Wireless connection to Master Controller.** • Use to switch from color changing to white light • Play/Pause the color changing effect • Control the brightness and speed of the color changing effect *Includes 2 AAA batteries.*
Master Controller		**LED-TO24-CM**	4" × 2" × 1 1/2"	Powers one run up to 40'. Connects and controls all slave controllers for runs over 40'.
Slave Controller		**LED-TO24-CS**	4" × 2" × 1 1/2"	Connects to Master Controller for runs over 40'. Uses a separate 120V power supply. Powers up to another 40', a new Slave Controller is needed for every 40' extension.

CONTROLLER COMPONENTS		Model #	Dimensions	Description
Joiner Cable		**LED-TO24-IC6** **LED-TO24-IC12** **LED-TO24-IC72** **LED-TO24-IC120**	6" 12" 72" 120"	Extends distance between Power Supply and Master Controller.
Signal wire		**LED-TO24-SW60** **LED-TO24-SW120**	60" 120"	Connects Master Controller and Slave Controller.
DMX Signal Wire		**LED-TO24-MW60** **LED-TO24-MW120**	60" 120"	Connects DMX system to Master Controller.

TAPE LIGHT ACCESSORIES		Model #	Dimensions	Description
RGB Joiner Cable		**LED-TO24-IC6-RGB** **LED-TO24-IC12-RGB** **LED-TO24-IC72-RGB** **LED-TO24-IC120-RGB**	6" 12" 72" 120"	Use to connect two sections of InvisiLED® Outdoor Palette tape.
4-Way "X" Connector		**LED-TO24-X-RGB**	wires: 5" each connectors: 3/4" each	"X" connector has one male and three female connectors and can be used to easily customize your design layout.
3-Way "Y" Connector		**LED-TO24-Y-RGB**	wires: 5" each connectors: 3/4" each	"Y" connector has one male and two female connectors and can be used to easily customize your design layout.
End cap		**LED-TO24-EC**	5/8" × 5/8" × 3/8"	Use to terminate every run to protect against contaminants. Seal cut end with silicone after adding end cap.
Mounting Clip 1 (10 pack)		**LED-TO24-C1**	1 1/8" × 3/8" × 1/4"	For installation on non-flat surfaces where there is no edge contact. 2 clips per ft are recommended for straight runs.
Mounting Clip 2 (10 pack)		**LED-TO24-C2**	7/8" × 3/8" × 1/4"	For installation on non-flat surfaces, allows for contact on one edge. 2 clips per ft are recommended for straight runs.
Mounting Clip 3 (10 pack)		**LED-TO24-C3**	5/8" × 5/8" × 1/4"	For installation on non-flat surfaces, allows for contact on both edges. 2 clips per ft are recommended for straight runs.
Retrofit Channel		**LED-TO24-CH1** **LED-TO24-CH5**	12" × 5/8" × 1/4" 60" × 5/8" × 1/4"	Rigid, non-flexible channel for mounting to a straight, solid surface.

LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

QUANTUM®

Thermoplastic Emergency Light

ELM2 LED

LED Lamp Head
Ni-Cad Battery

FIDO LED

FEATURES & SPECIFICATIONS

INTENDED USE — Provides a minimum of 90 minutes of illumination for the rated wattage upon loss of AC power. Ideal for applications requiring attractive unit equipment with quick installation. **Certain airborne contaminants can diminish integrity of acrylic.** **Click here for Acrylic Environmental Compatibility table, for suitable uses.**

CONSTRUCTION — White, compact, low-profile contemporary design. Engineering-grade thermoplastic housing is impact-resistant, scratch-resistant and corrosion-proof. UL94V-0 flame rating. UV-stable resin resists discoloration from natural and man-made light sources.

Two LED lamp heads with 12 series-parallel white LEDs each, provide redundant light sources to ensure emergency lighting performance. Typical LED lamp life is 10 years.

Dual-voltage input capability (120/277V). Edge connector on printed circuit board ensures long-term durability.

Low-profile, integrated test switch/pilot light. Easily visible bright red status indicator.

Unique track-and-swivel arrangement permits full range of direction of lamp head adjustment. Universal J-box mounting pattern. Tool-less access for maintenance. Flexible conduit entry provision on top of the unit.

Ceiling- or wall-mount standard.

ELECTRICAL — Current-limiting charger maximizes battery life and minimizes energy consumption. Provides low operating costs.

Short-circuit protection — current-limiting charger circuitry protects printed circuit board from shorts.

Thermal compensation adjusts charger output to provide optimum charge voltage relative to ambient temperature.

Regulated charge voltage maintains constant-charge voltage over a wide range of line voltages. Prevents over/undercharging that shortens battery life and reduces capacity.

Filtered charger input minimizes charge voltage ripple and extends battery life.

AC/LVD reset allows battery connection before AC power is applied and prevents battery damage from deep discharge.

BATTERY: Sealed, maintenance-free nickel-cadmium battery delivers 90 minute capacity to emergency lamps. Two-state constant-current charge maximizes battery life and automatically recharges after battery discharge. Low-voltage disconnect prevents excessively deep discharge that can permanently damage the battery. Optional high-output battery available to power both local and optional LED remote lamp heads simultaneously.

Wireless Reporting System (WRS option): Data from self-diagnostics will be communicated via wireless transceivers within their vicinity, creating a self-configuring, self-healing and self-optimizing wireless network that exchanges the data between FIDO-compatible emergency lighting fixtures on an event-driven basis. Wireless communications electronics to operate 2.4GHz mesh network are enclosed entirely within the fixture.

Self -Diagnostics (SD- Option) Single multi-color LED indicator to display two-state charging, test activation and three-state diagnostic test. Test switch provides manual activation of 30-second diagnostic testing for on-demand visual inspection. Self-diagnostic testing for 30 seconds every 30 days, 30 minutes at 180-day interval, and 90 minutes annually. Diagnostic evaluation of LED light source, AC to DC transfer, charging and battery condition.

Wireless Reporting System (WRS option) must be ordered with FIDO edge router.

INSTALLATION — Radio range is 500' between fixtures in most buildings. Actual performance may vary depending on application environment and electromagnetic interference. Substantially longer distances have been recorded in uninterrupted open air. Consult factory for more details.

LISTING — UL damp location listed standard 50-104ºF (10-40°C). Meets UL 924, NFPA 101 (current Life Safety Code), NEC and OSHA illumination standards.

WARRANTY — Five-year limited warranty. Full warranty terms located at www.AcuityBrands.com/CustomerResources/Terms_and_Conditions.aspx.

Specifications subject to change without notice.

Actual performance may differ as a result of end-user environment and application.

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: ELM2 LED

ELM2	LED				
Series	**Lamp type**		**Housing**		**Options**	
ELM2	LED	Two 1.5W/3.6V white LED	(blank)	White	HO	High-output ni-cad battery for 6W remote capacity [1]
			B	Black	SD	Self-diagnostics [1]
					NOM	Meets Mexican standards
					WRS	Dual-voltage 120/277, nickel-cadmium battery back-up and self-diagnostics with FIDO wireless reporting system capability [1]

Accessories: *Order as separate catalog number.*

ELA Q L0304 SD	Single LED indoor remote head, white, self-diagnostics [2,3,4]	ELA Q L0304	Single LED indoor remote head, white [2,3,4]
ELA T Q L0304 SD	Twin LED indoor remote head, white, self-diagnostics [2,3,4]	ELA T Q L0304	Twin LED indoor remote head, white [2,3,4]
ELA QWP L0304 SD	Single LED weather-proof remote head, gray, self-diagnostics [2,3,4]	ELA QWP L0304	Single LED weather-proof remote head, gray [2,4]
ELA T QWP L0304 SD	Twin LED weather-proof remote head, gray, self-diagnostics	ELA T QWP L0304	Twin LED weather-proof remote head, gray [2,4]
ELA WG1	Wireguard, 15"W x 13-1/2"H x 6"D (See spec sheet ELA-WG)		
FIDO	Emergency wireless reporting system edge router (See spec sheet FIDO)		

Notes

1. Not available with NOM.
2. Only available with HO option. See spec sheet ELA Q LED.
3. Also available in black. Add "B" after ELA to order black finish. Example: ELA B Q L0304 SD. See spec sheet ELA Q LED.
4. Only compatible with Quantum LED series.

ELM2 LED QUANTUM® Thermoplastic Emergency Light

SPECIFICATIONS

Electrical Primary Circuit				
Typical LED life[1]	Supply voltage	Max amps	Max watts	HO/max watts
10 years	120	.04	1.44	2.88
	277	.03	1.44	2.88

BATTERY

Ni-Cad				
Voltage	Shelf life[2]	Typical life[2]	Maintenance[3]	Optimum temperature[4]
3.6	3 years	7-9 years	none	50-104°F (10-40°C)

1 Based on continuous operation.

2 At 77°F (25°C).

3 All life safety equipment, including emergency lighting path of egress, must be maintained, serviced and tested in accordance with all National Fire Protection Association and local codes. Failure to perform the required maintenance, service or testing could jeopardize the safety of occupants and will void all warranties.

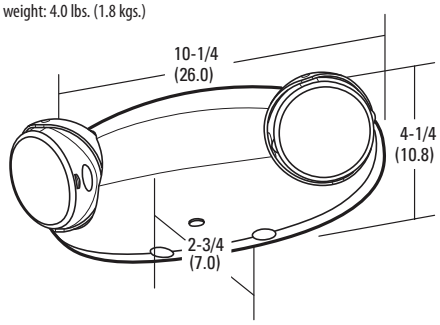
4 Optimum ambient temperature range where unit will provide capacity for 90 minutes. Higher and lower temperatures affect life and capacity. Consult factory for detailed information.

Remote Output Capacity	
Standard unit	Unit/HO battery
NA	6W

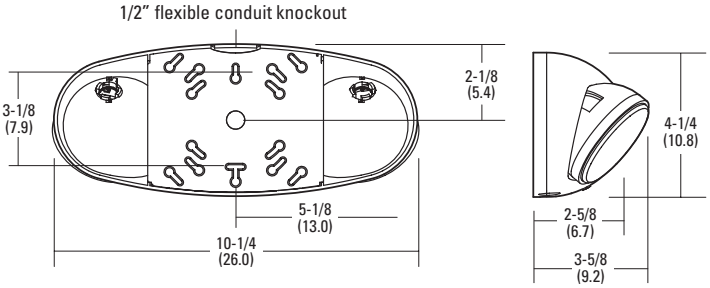
MOUNTING

All dimensions are inches (centimeters).

Shipping weight: 4.0 lbs. (1.8 kgs.)

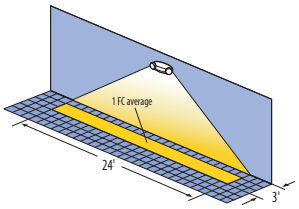


Mounting Plate

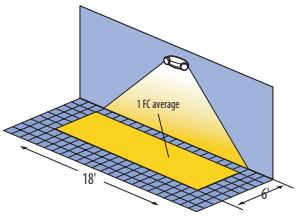


LAMP PHOTOMETRICS

QUANTUM LED SERIES – SINGLE COVERAGE
3W Total White LEDs
Using a single unit at a typical 7.5' mounting height delivers an average illuminance of 1.0 FC over a distance of 24' on a 3' path of egress and 18' on a 6' path of egress.

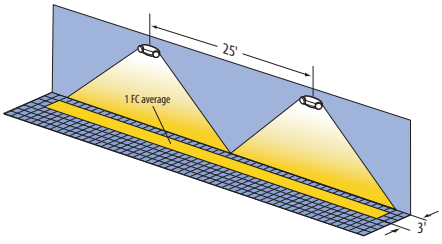


Example of single ELM2 LED WRS unit illuminating a 3' path of egress

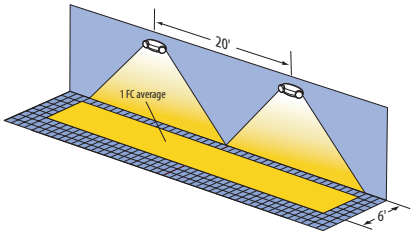


Example of single ELM2 LED WRS unit illuminating a 6' path of egress

QUANTUM LED SERIES – MULTIPLE COVERAGE
3W Total White LEDs
Using multiple units at a typical 7.5' mounting height delivers 25' center-to-center spacing on a 3' path of egress and 20' center-to-center spacing on a 6' path of egress.



Example of multiple ELM2 LED WRS units illuminating a 3' path of egress



Example of multiple ELM2 LED WRS units illuminating a 6' path of egress

EXTENDED RUN-TIME FOR HIGH-OUTPUT UNITS

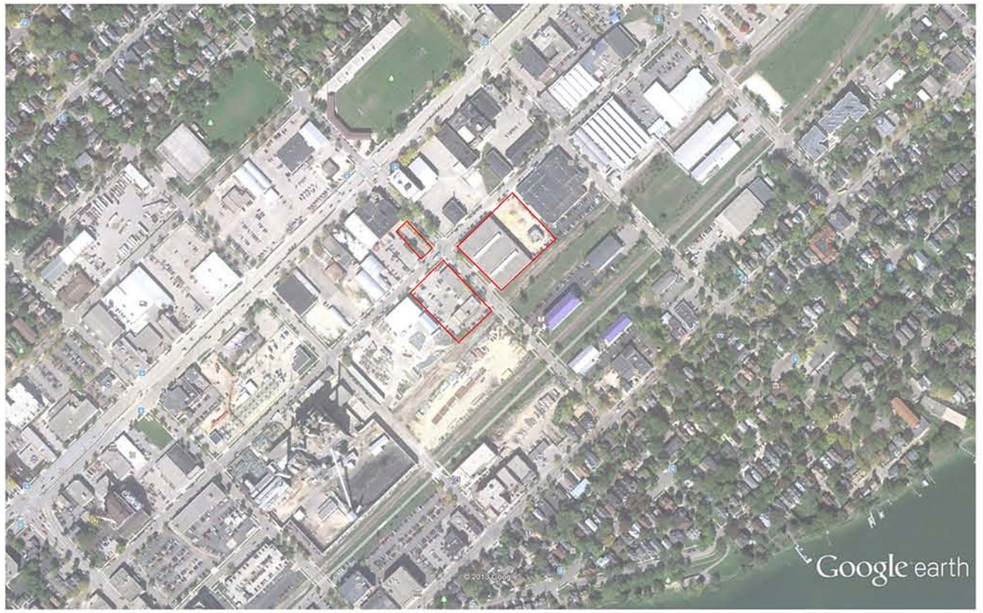
Product	Run time
ELM2 LED HO WRS (no remotes)	3.9 hours

* Meets Life Safety Code standard minimum illuminance of 0.1 FC and average illuminance of 1.0 FC. Assumes open space with no obstructions, mounting height: 7.5', ceiling height: 9', and reflectances: 80/50/20. Analysis based on independently tested photometrics.

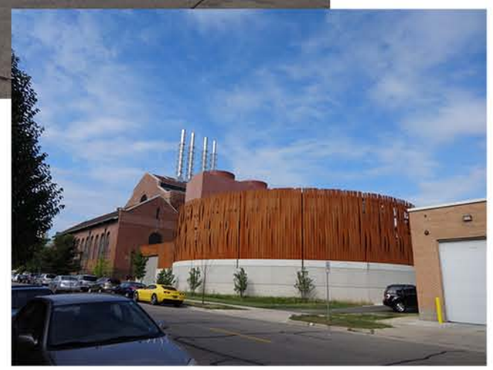
EMERGENCY: One Lithonia Way Conyers, GA 30012 Phone: 800.334.8694 Fax: 770-981-8141 www.lithonia.com

Rev. 02/04/14


RAILSING
CROSSROAD

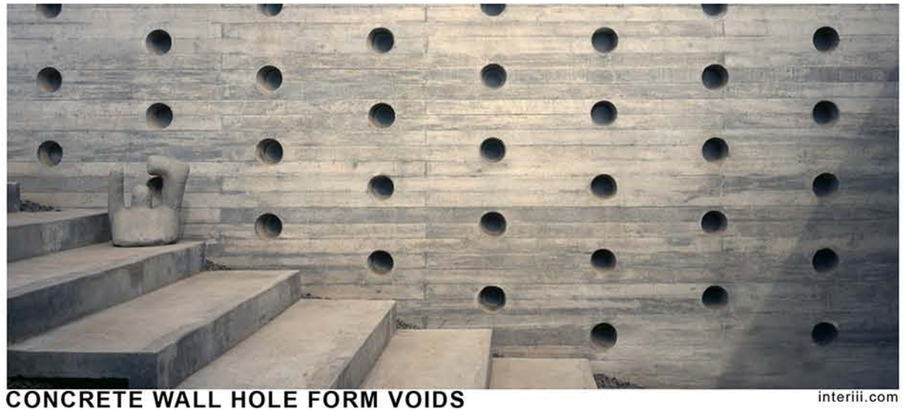

Google earth


FOR SALE



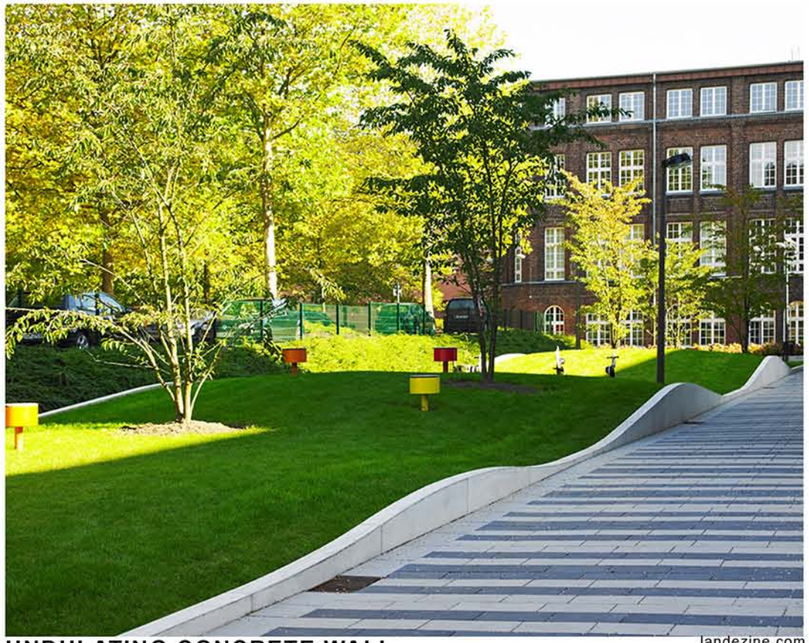
PATERSON STREET LOOKING SOUTHEAST

WELDED WIRE FENCE (MATCH CENTRAL PARK)



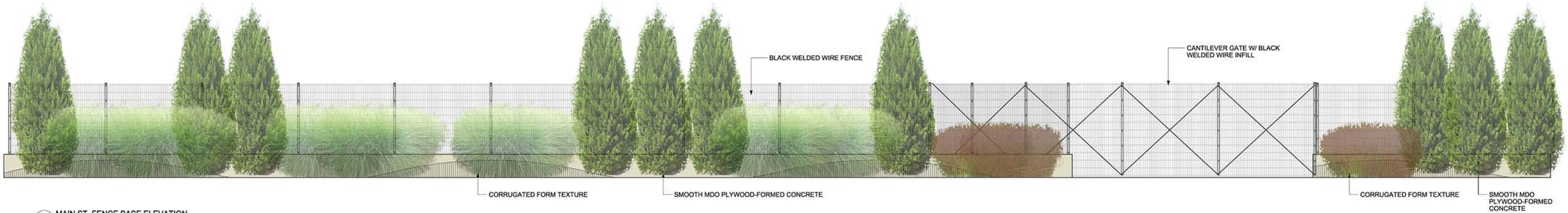
CONCRETE WALL HOLE FORM VOIDS interiii.com

CORRUGATED CONCRETE FORMS housepstudiodope.com

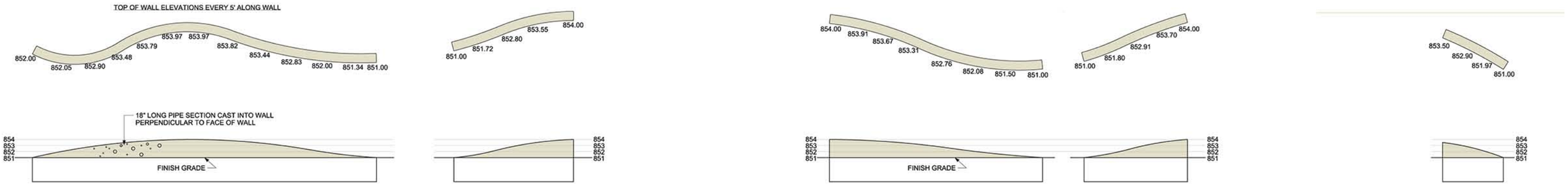


UNDULATING CONCRETE WALL landezine.com

FENCE SCREENING INFILL (NON-PUBLIC AREAS)

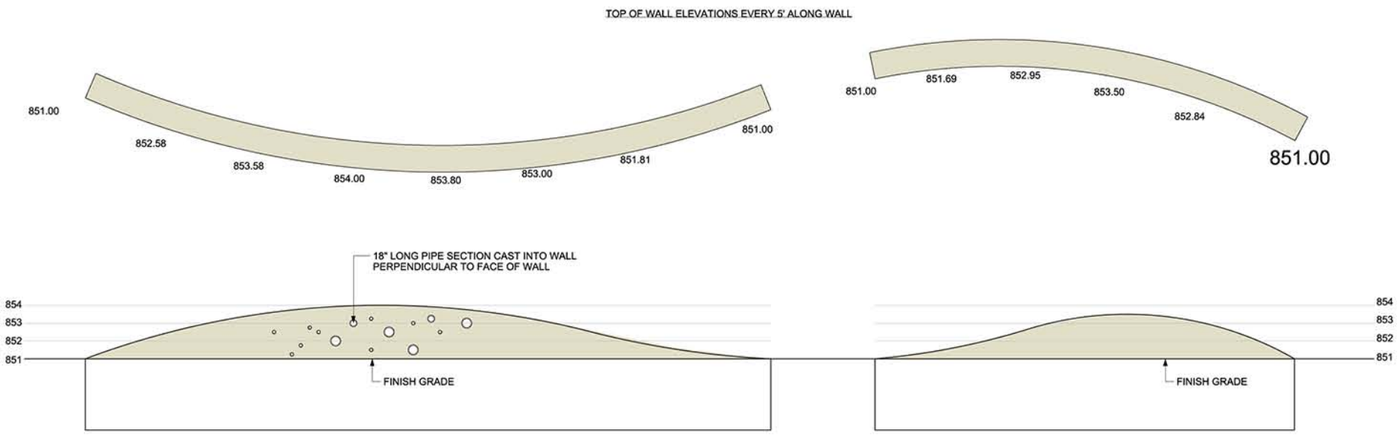


3 L401 MAIN ST. FENCE BASE ELEVATION
1/4" = 1'-0"

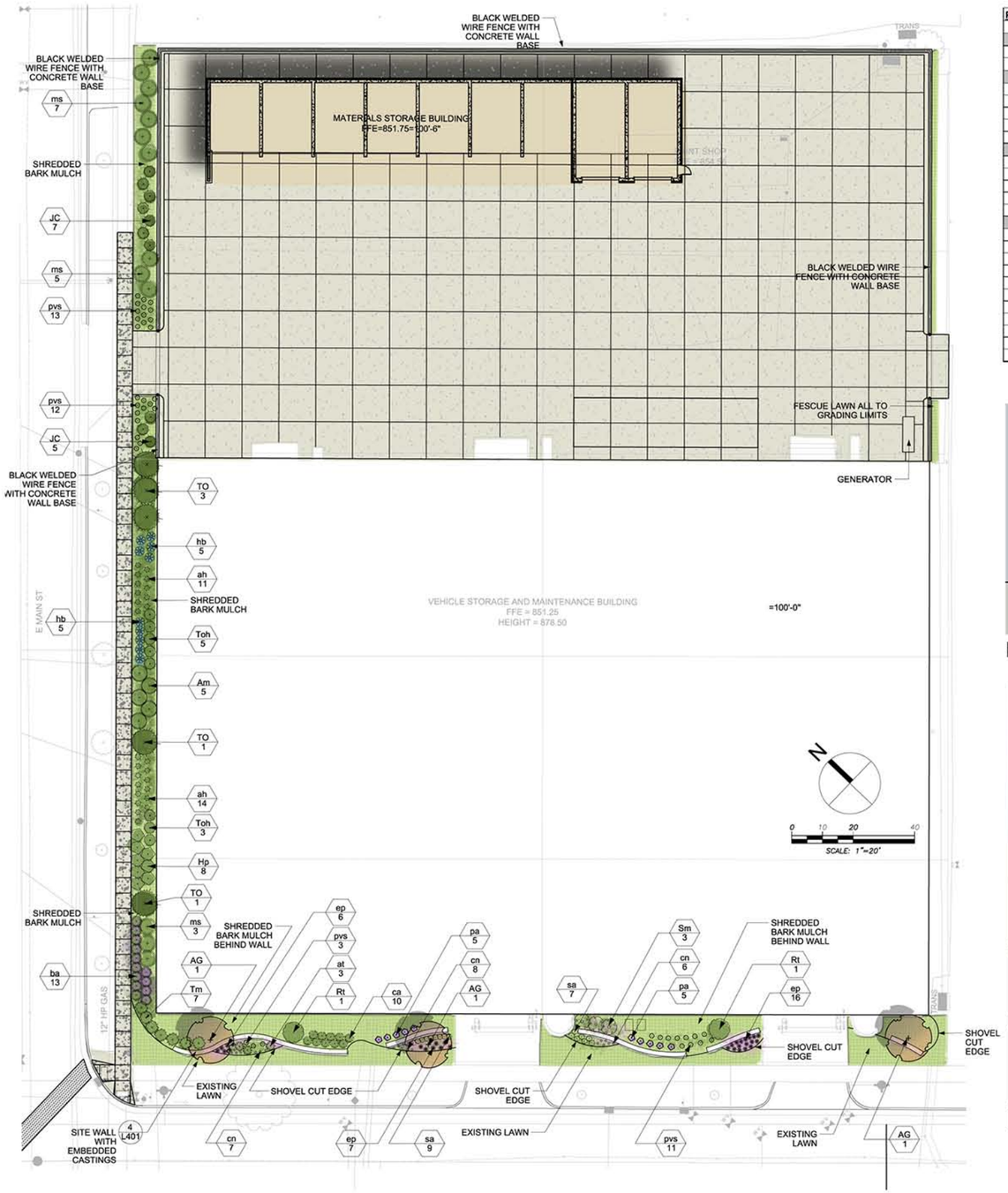


NOTE:
1. HORIZONTAL DISTANCES ARE SKEWED DUE TO WALL CURVATURE.

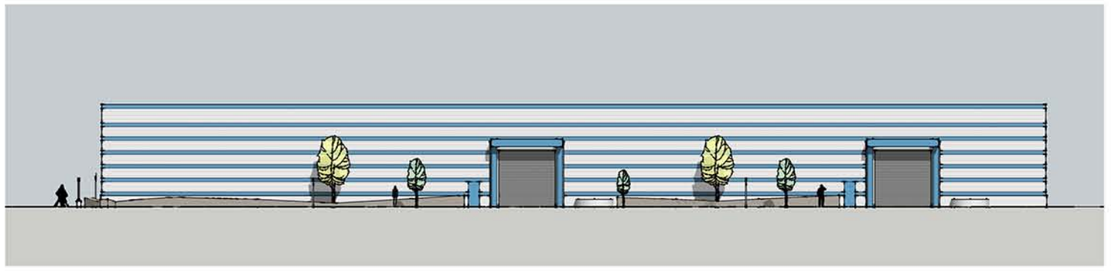
4 L401 PATERSON ST. SITE WALL ELEVATION
1/8" = 1'-0"



4 L301 MAIN ST. SITE WALL ELEVATION
1/4" = 1'-0"



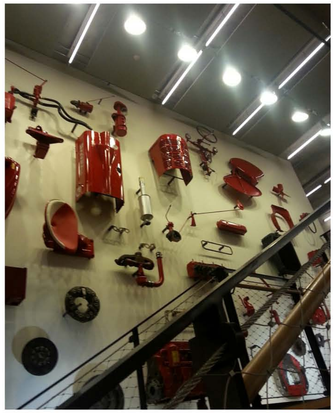
Plant List							
Key	Botanical Name	Common Name	Quantity	Size	Spec	Comments	Mature Size
	Deciduous Trees						
AG	*Amelanchier x grandiflora 'Robin Hill'*	Robin Hill Serviceberry	3	7' Ht.	B&B	See plan for spacing	20-25' ht x 10'-15' sp
	Evergreen Shrubs & Trees						
JC	*Juniperus chinensis 'Trautman'*	Trautman Juniper	10	5' Ht.	B&B	See plan for spacing	12' ht x 4' sp
To	*Thuja occidentalis 'Hetz Wintergreen'*	Hetz Wintergreen Arborvitae	5	6' Ht.	B&B	See plan for spacing	20-30' ht x 5-10' sp
Toh	*Thuja occidentalis 'Hetz Midget'*	Hetz Midget Arborvitae	8	6' Ht.	B&B	See plan for spacing	3-4' ht x 4-5' sp
Tm	*Taxus x media 'Taunton'*	Taunton Yew	7	24" Ht.	B&B	Single, straight leader; match specimens	2-3' ht x 4-5' sp
	Deciduous Shrubs & Vines						
Am	*Aronia melanocarpa var. elata*	Glossy Black Chokeberry	5	5 gal.	Cont.	Space 4'-0" o.c.	4-6' ht x 4-6' sp
Hp	*Hydrangea paniculata 'Jane'*	Little Lime Hydrangea	8	36" Ht	B&B	Space 4'-0" o.c.	4-5'ht x 4-5' sp
Rt	*Rhus typhina 'Bailtiger'*	Tiger Eyes Sumac	2	5 gal.	Cont.	See plan for spacing	3-6' ht x 3-6' sp
Sm	*Syringa meyeri 'Palibin'*	Meyeri Lilac	3	3 gal.	Cont.	Space 5'-0" o.c.	4-5' ht x 5-7' sp
	Perennials & Ornamental Grasses						
ah	*Amsonia hubrichtii 'Halfway to Arkansas'*	Halfway to Arkansas Narrow Leaf Blue Star	25	1 gal.	Cont.	Space 3'-0" o.c.	3' ht x 2.5-3' sp
at	*Ascelpias tuberosa*	Butterfly Weed	3	1 gal.	Cont.	Space 24" o.c.	1-2.5' ht x 1.5' sp
ba	*Baptisia australis*	Blue False Indigo	13	1 gal.	Cont.	Space 3'-0" o.c.	3' ht x 2.5-3' sp
ca	*Calamagrostis x acutiflora 'Karl Foerster'*	Karl Foerster Feather Reed Grass	10	3 gal.	Cont.	Space 24" o.c.	4-6' ht x 2-3' sp
cn	*Calamintha nepeta ssp. nepeta*	Lesser Calamintha	21	1 gal.	Cont.	Space 24" o.c.	1.5-2' ht x 1.5-2' sp
ep	*Echinacea x 'Pixie Meadowbrite'*	Pixie Meadowbrite Coneflower	29	1 gal.	Cont.	Space 18" o.c.	1.5-2' ht x 1.5-2' sp
hb	*Hosta 'Blue Angel'*	Blue Angel Hosta	10	2 gal.	Cont.	Space 3'-6" o.c.	2.5'ht x 4' sp
ms	*Miscanthus sinensis 'Gracillimus'*	Narrow Leaved Japanese Silver Grass	15	3 gal.	Cont.	Space 5'-0" o.c.	4-6' ht x 4-6' sp
pa	*Perovskia atriplicifolia 'Little Spire'*	Little Spire Russian Sage	10	1 gal.	Cont.	Space 32" o.c.	1.5-2' ht x 1.5-2' sp
pvs	*Panicum virgatum 'Shenandoah'*	Shenandoah Switchgrass	39	1 gal.	Cont.	Space 4'-0" o.c.	3.5' ht x 2.5-3' sp
sa	*Seslaria autumnalis*	Autumn Moor Grass	16	1 gal.	Cont.	Space 1'-6" o.c.	1.5' ht x 1.5' sp



PATERSON STREET ELEVATION

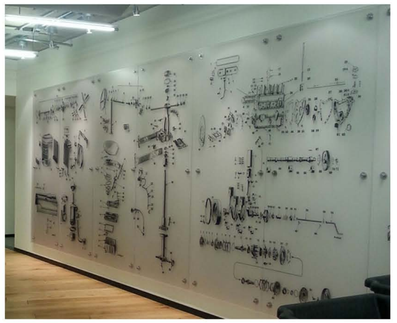
PATERSON STREET PERSPECTIVE

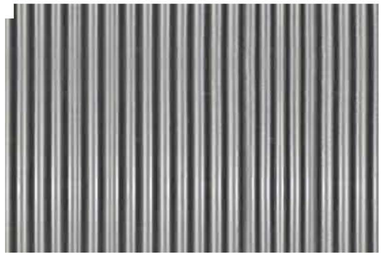

EAST END
BAZAAR




8


SEATTLE FIRE DEPARTMENT





MADISON WATER UTILITY

Vehicle Storage Renovation and Material Storage Building - Urban Design Commission

RENDERING

4 March 2015