

**City of Fayetteville Staff Review Form**

**2015-0048**

**Legistar File ID**

**February 17th, 2015**

City Council Meeting Date - Agenda Item Only  
N/A for Non-Agenda Item

Matt Mihalevich

1/30/2015

Engineering /  
Development Services Department

**Submitted By**

**Submitted Date**

**Division / Department**

**Action Recommendation:**

Approval of a resolution awarding Bid 15-17 and authorizing the purchase of LED trail light fixtures from Amerlux Exterior, LLC in various amounts including applicable sales tax through the end of calendar year 2015.

**Budget Impact:**

Various		Various	
Account Number		Fund	
Various		Various	
Project Number		Project Title	
<b>Budgeted Item?</b>	Yes	Current Budget	\$ -
		Funds Obligated	\$ -
		Current Balance	\$ -
<b>Does item have a cost?</b>	Yes	Item Cost	
<b>Budget Adjustment Attached?</b>	No	Budget Adjustment	
		Remaining Budget	\$ -

V20140710

Previous Ordinance or Resolution # \_\_\_\_\_

Original Contract Number: \_\_\_\_\_

Approval Date: \_\_\_\_\_

Comments: The "item cost" and "current budget" boxes have been left blank because these items will vary depending upon the Transportation and Engineering Division's needs for lighting projects based on construction projects approved.

**MEETING OF FEBRUARY 17<sup>TH</sup> 2015**

**TO:** Mayor and City Council

**THRU:** Don Marr, Chief of Staff  
 Jeremy Pate, Development Services Director  
 Chris Brown, City Engineer

**FROM:** Matt Mihalevich, Trails Coordinator

**DATE:** January 27<sup>th</sup>, 2015

**SUBJECT: LED Trail Light Fixture Purchase – Equipment Only**

**RECOMMENDATION:**

Approval of a resolution awarding Bid 15-17 and authorizing the purchase of LED trail light fixtures from Amerlux Exterior, LLC in various amounts including applicable sales tax through the end of calendar year 2015.

**BACKGROUND:**

Several City trail projects are planned to include lighting over the year. These projects include the extension of Frisco Trail through Walker Park to the Town Branch Trail, The Town Branch Trail from Greathouse Park to the Tsa La Gi Trail, Mud Creek Trail and Van Asche extension from Gregg Ave to Garland Ave. Anticipated quantities and installation date are shown below.

<b>Trail Name</b>	<b>Estimated Quantity</b>	<b>Estimated Installation Date</b>
Frisco/Town Branch	52	March 2015
Van Asche	49	May 2015
Town Branch	90	December 2015
Mud Creek	159	December 2015

In order to get the best price on these lights and poles, these planned projects have been combined for a total anticipated purchase of 350 trail light poles and fixtures. Electrical conduit is being installed on the Frisco Trail and Van Asche extension in preparation for installation of lighting along these new trails. The trail light fixtures and poles are intended to match the standard black fixture seen along most of the trail system and will include the energy efficiency and reduced maintenance advantage of LED (Light Emitting Diode) light source while providing excellent light coverage for the trail.

**DISCUSSION:**

Upchurch Electrical Supply Co was the low bidder of this contract; however, their bid has been deemed non-responsive since the proposed fixture does not meet the specification of the bid, as detailed below.

Amerlux Exterior and their previous company called Dynamic Lighting have provided all of the trail lights currently in operation along the trail system. Amerlux has been very responsive with any maintenance issues by providing repairs or replacements at their cost over the years. In addition, Amerlux has continued to work to improve the design of our trail light over the years to meet our specific to the needs of providing consistent light coverage over the trail while minimizing the number of poles and lights. The most current Amerlux LED fixture is installed on the Frisco, Tsa La Gi and Town Branch Trails. This fixture is providing such superior light coverage that we are now able to spread the poles to 100 feet apart instead of the previous 80 foot spacing while still meeting AASHTO standards and saving maintenance, installation and energy costs.

The City has sampled similar fixtures including King Luminaires and Holophane by requesting installation along an existing trail and sampling the light output. No fixture has been comparable to the light coverage provided by the Amerlux fixture. A photometric comparison is included demonstrating the performance of the Amerlux fixture compared to the low bidder's Lumec fixture provided through Upchurch Electrical Supply, Co. In order to meet the AASHTO standard of a minimum 0.5 foot candles, the Lumec fixture would have to be installed at 80 foot spacing, resulting in a 20% increase in the number of lights and poles needed. The cost to purchase 20% or 70 additional Lumec fixtures and fiberglass poles would be \$118,860. This cost exceed the cost to purchase the higher priced Amerlux fixtures by \$52,360.

The original trail light fixtures installed along Scull Creek have a flat glass lens on the bottom face. This glass face has been a target for vandalism as many of the glass lenses have been shattered by rocks or other projectiles. To eliminate this problem, the current Amerlux fixture does not include a glass lens, rather the LED's are protected by a polycarbonate covering. The fixture design has been installed on the Frisco, Tsa La Gi and Town Branch Trail with no reports of damage. The Lumec fixture provided in this bid includes a glass lens, therefore does not meet the specifications requested in the model number for the Amerlux fixture. The glass lens presents a significant maintenance challenge as each lens has to be replaced with Lexan Plexiglas when broken. If the glass lens was simply removed from the Lumec fixture, the LED's would be exposed and vulnerable to the elements.

In addition, the Lumec fixture submitted is noticeably larger than the existing trail fixtures and does not meet the specifications. The Lumec fixture is 19" tall by 27" in diameter compared to the existing trail fixtures specified at 16 ¼" by 22 ½" diameter. This larger fixture is typically installed on taller poles for parking lot scale. The trail lights are installed on 12 foot tall poles and the smaller fixture creates an appropriate scale of users of the trail.

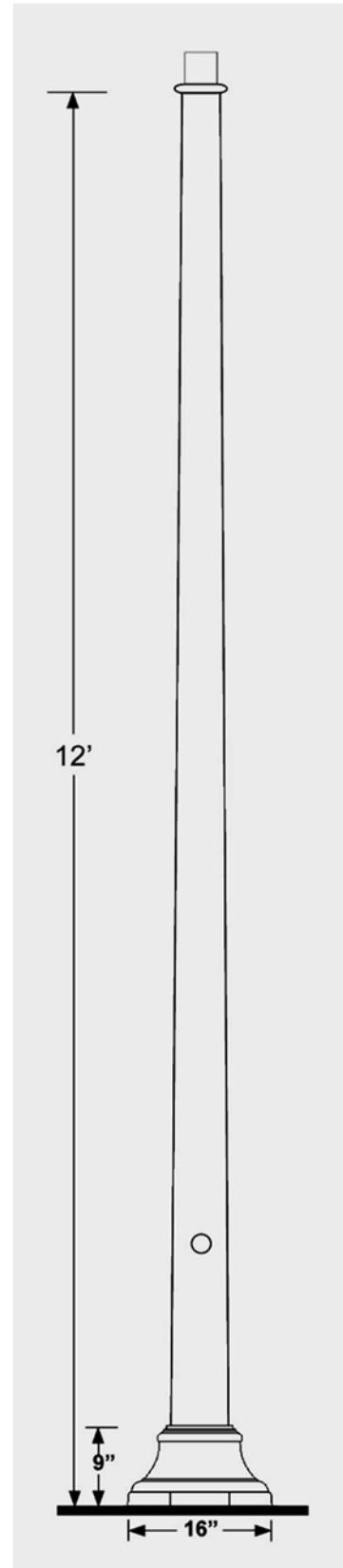
**BUDGET/STAFF IMPACT:**

Funds for the purchase of trail light fixtures and poles has been budgeted through the Trail Development Capital Improvement Program and the Transportation Bond Program. The Frisco and Town Branch trails are also being matched 50:50 with funding from the Walton Family Foundation.

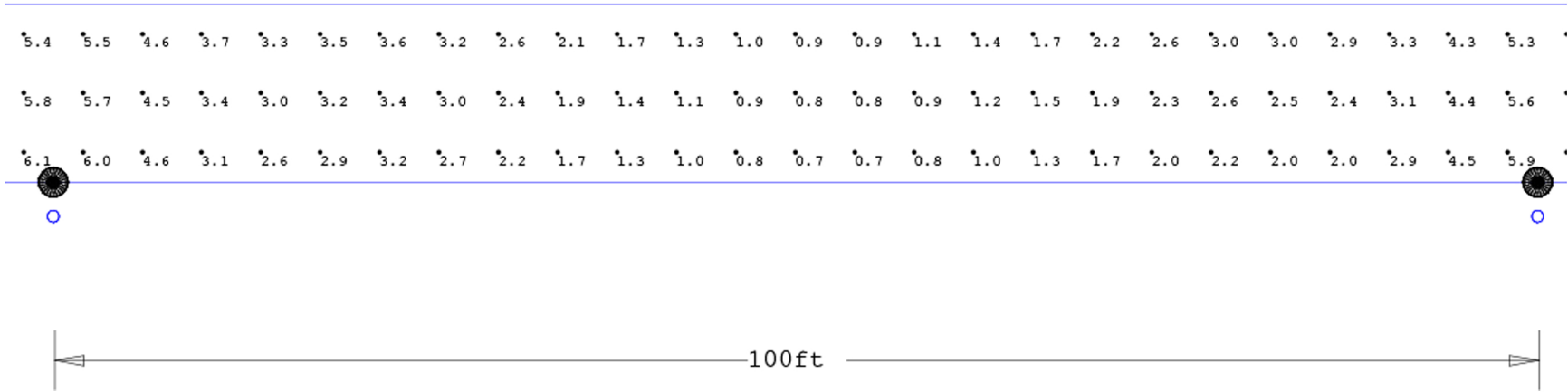
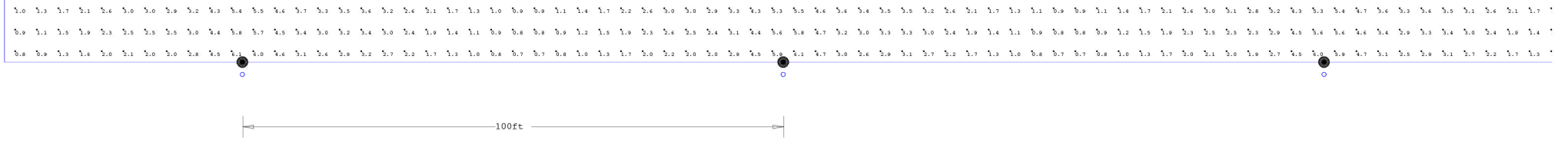
**Attachments:**

Staff Review Form  
Trail lighting coverage photometric layouts  
Amerlux DPM Series Submittal  
Lumec DMS Series Submittal  
Bid 15-17, Trail Lighting – Equipment Only Bid tabulation  
Amerlux Exterior - Purchase Requisition

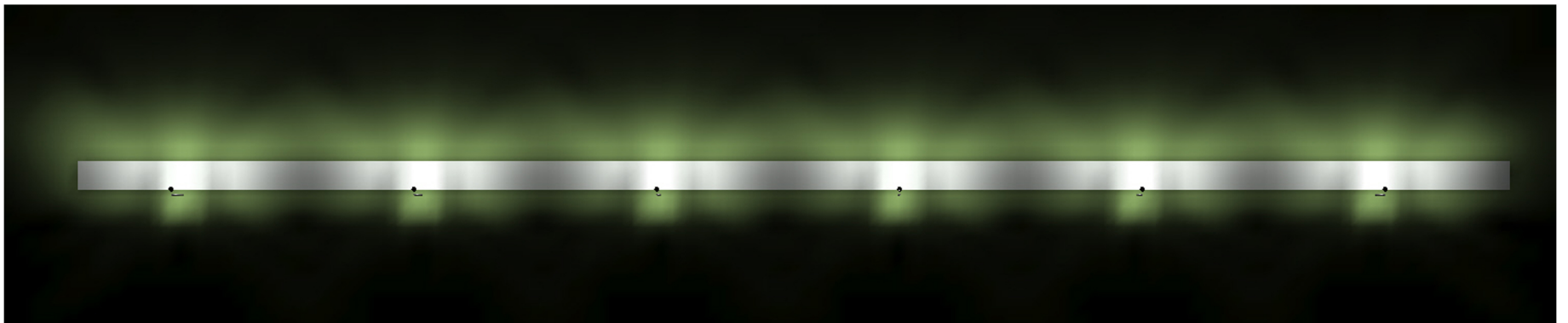
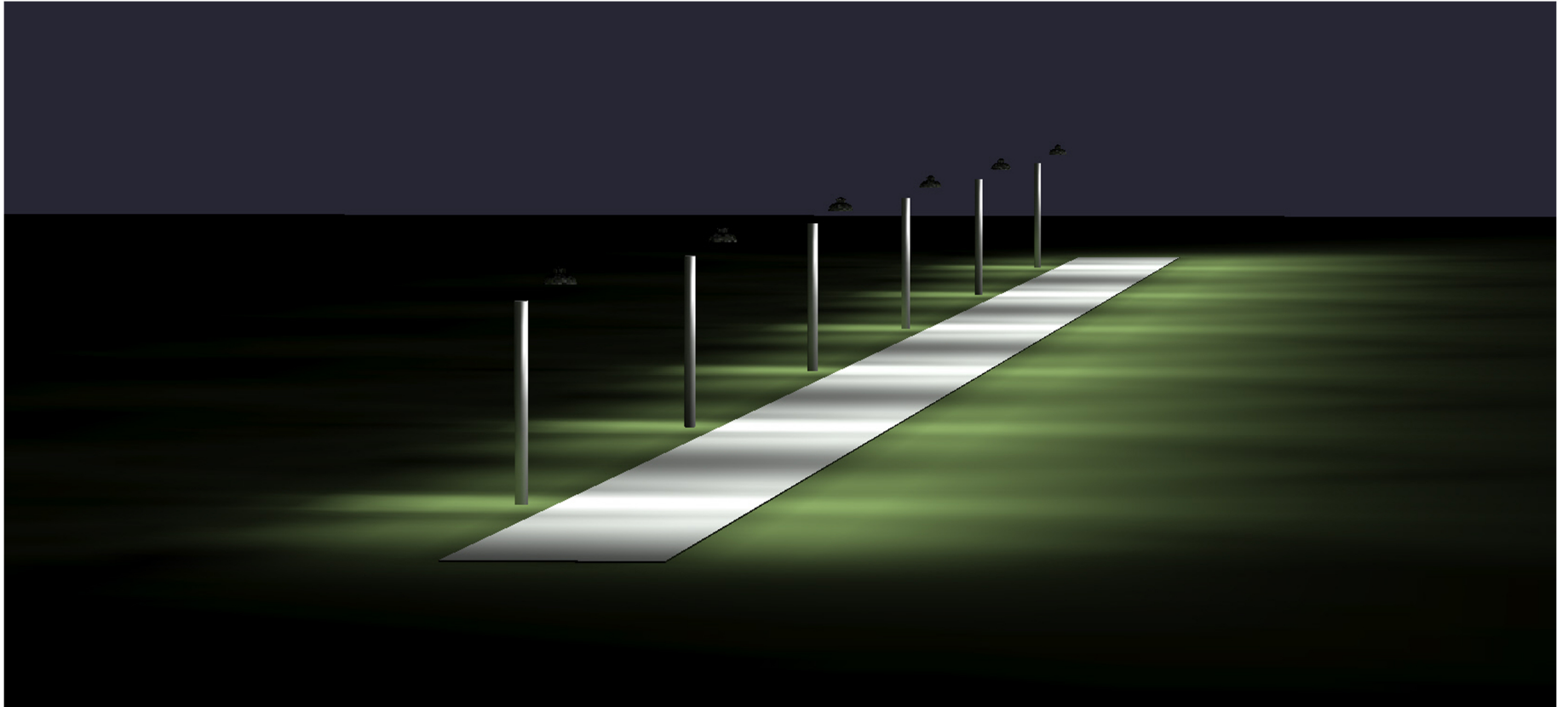
# Fayetteville Trails Standard Light Fixture and Pole Example



# AMERLUX EXTERIOR PART# PT40/DPM-3M/5L/BLK 100' SPACING

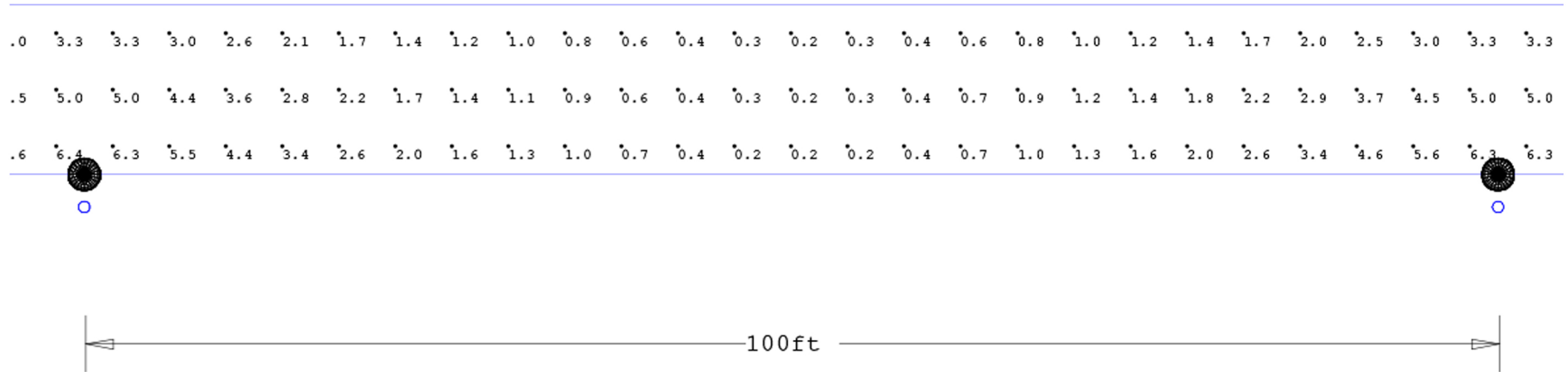
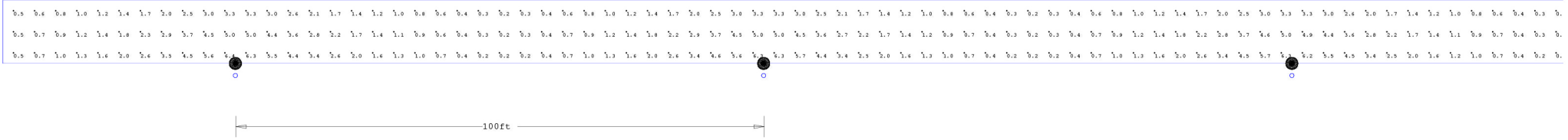


**AMERLUX EXTERIOR PART# PT40/DPM-3M/5L/BLK**  
**100' SPACING**

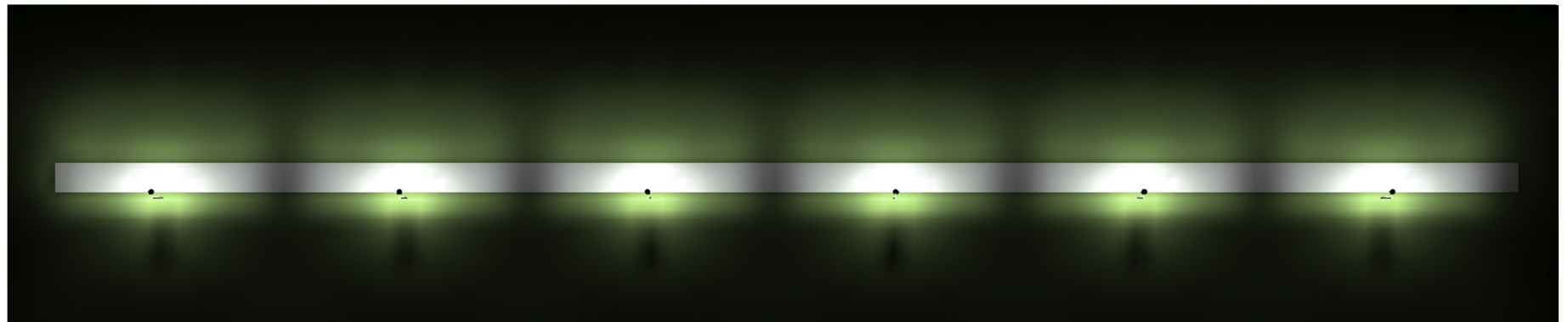
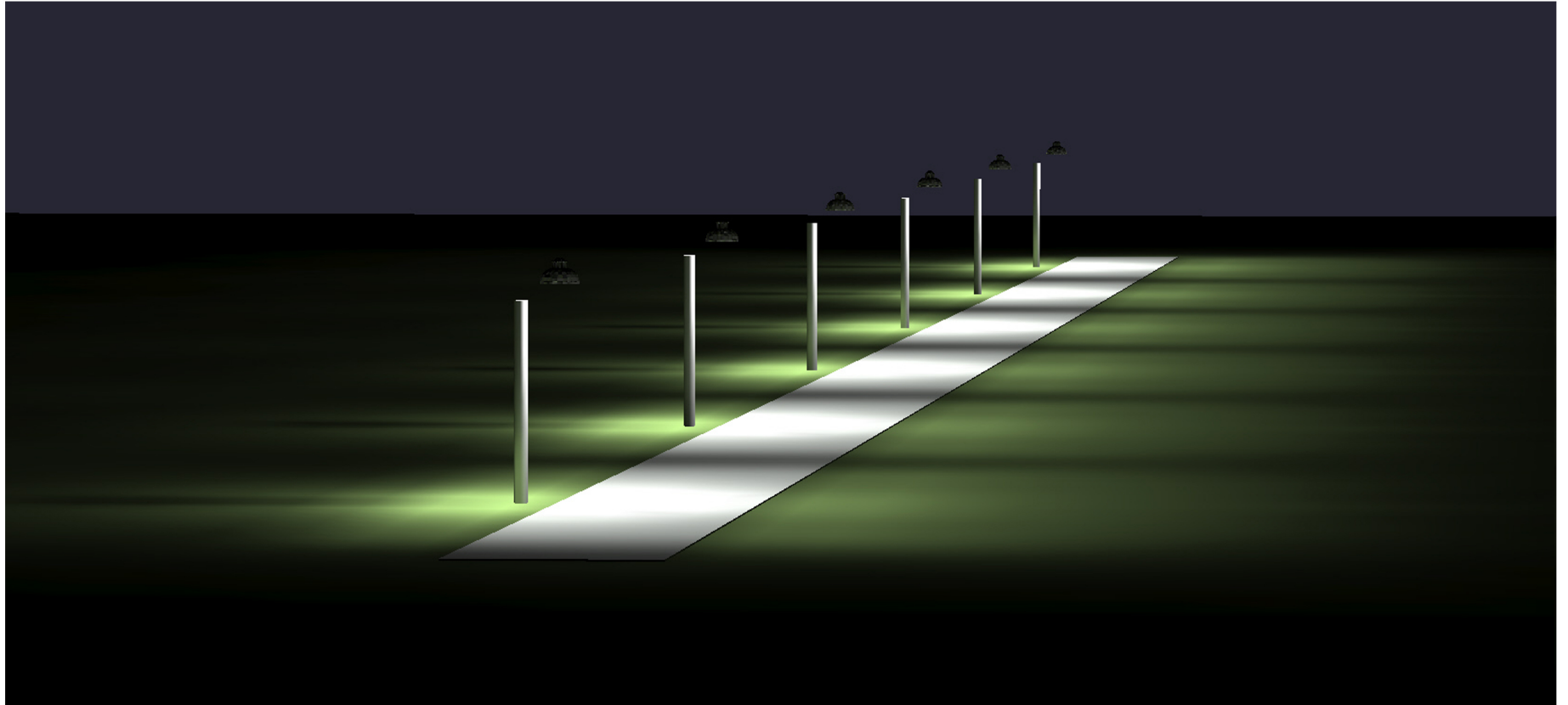


# LUMEC PART# DMS50-5W48LED5K-R-LE3F-UNIV-BKTX

## 100' SPACING



**LUMEC PART# DMS50-5W48LED5K-R-LE3F-UNIV-BKTX**  
**100' SPACING**





# DOWNLIGHT PENDANT-MEDIUM

CITY OF FAYETTEVILLE 22" LED LUMINAIRE

## Description

Performance and directional control make this luminaire highly versatile and able to accommodate needs in the strictest environments. Multiple size and shade configurations make this luminaire suitable for a wide variety of decorative applications, especially where a Dark Sky friendly instrument is desirable.

The decorative housing encloses IP66 sealed optical modules, while protecting heat-sink fins from debris collection. The driver is accessible through the bottom. Greater than 88% optical efficiency, highly uniform with reduced hot-spot and greater fixture center spacing. This luminaire uses less than 60% of the energy yet achieves greater fixture spacing, improved uniformity vs. Metal Halide.

## Construction:

- Cast aluminum housing
- Spun aluminum shade

## Optical Chamber:

Individual IP66 sealed optical modules

## Installation

The luminaire will mount to the bracket. Post top luminaire brackets will mount to a 4" OD post or tenon with (6) 5/16" stainless steel set screws. Wall bracket models have four 3/8" holes for mounting (wall mount hardware is not included).

## Driver:

Electronic constant current driver has built in 4kV surge and short circuit protection. Auto senses incoming voltage from 120v to 277v. Additional 10kV transient surge protection device is installed in front of the driver and is independently replaceable when necessary.

## Optics:

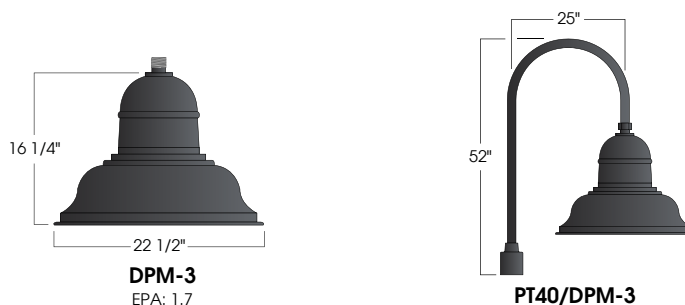
- High Performance individual optical refractive lens for each LED module.
- Cool, neutral, or warm color temperatures
- Type 3 light distribution (B1,U1,G2)

## Finish

Premium quality thermoset polyester powdercoat for a durable finish in the following:

**BLK** - Satin Black

## Available Shade Styles



## Ordering Information:

Mounting	Model	Light Dist. Type	Order Code	CCT	CRI	Approx. Lumens Delivered	Nominal Input Power	Finish
PT40	DPM-3	T3	5L	5000K	70	6,702	82W	BLK

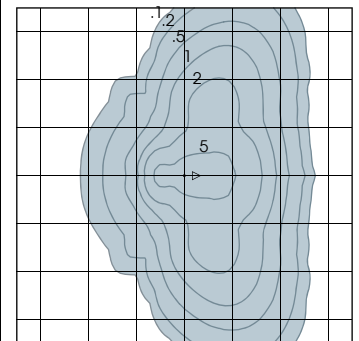
DPM Series  
LED



PROJECT:

TYPE:

## Typical Photometry



Type III



Electrostatic sensitive device.  
observe precautions for handling

**10** year limited  
warranty  
AMERLUX LED



Part String

Example: DPM-3/T3/5L/BLK

Submitted by Gildner Maddox, LLC



**Job Name:**  
City of Fayetteville - Trail Lighting

**Catalog Number:**  
DMS50-55W48LED5K-R-LE3F-UNIV-  
MJ-1A-BKTX  
Notes:

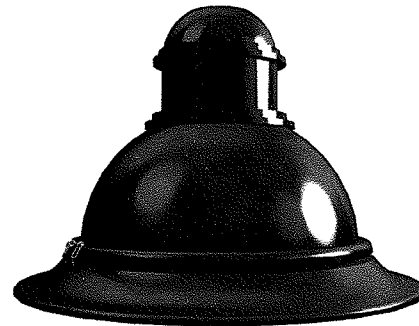
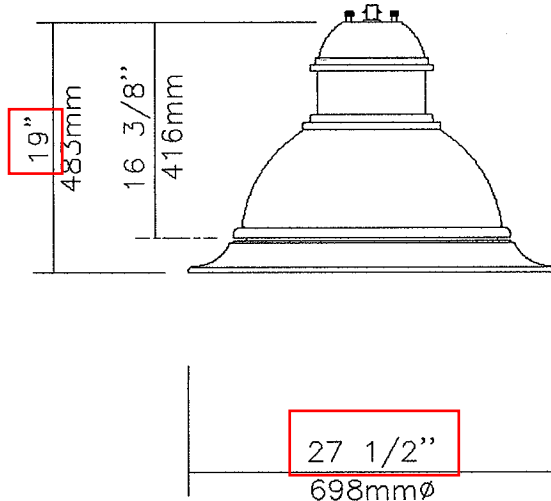
**Type:**

GMLLC15-3535

**City of Fayetteville (57225)**



LEDGINE



EPA: 1.42 sq ft / weight: 42 lb (19.1 kg)  
Note: 3D image may not represent color or option selected.  
Logos above include link, click to access.

Qty	350	Luminaire	DMS50-55W48LED5K-R-LE3F-UNIV-BKTX
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**Description of Components:**

**Hood:** A die cast A360.1 aluminum dome complete with a cast-in technical ring with latch and hinge. The mechanism shall offer tool-free access to the inside of the luminaire. An embedded memory-retentive gasket shall ensure weatherproofing.

**Skirt:** A die cast A360 aluminum skirt complete with a cast-in technical ring.

**Housing:** In a round shape, this housing is made of cast 356 aluminum, c/w a watertight grommet, mechanically assembled to the bracket with four bolts 3/8-16 UNC. This suspension system permits for a full rotation of the luminaire in 90 degree increments.


**Light Engine: LEDgine** composed of 5 main components: **Heat Sink / Lens / LED lamp / Optical System / Driver**  
Electrical components are RoHS compliant.

**Heat Sink:** Heat Sink: Made of die cast A360 aluminum optimising the LEDs efficiency and life, complete with a cast in skirt and technical ring. Product does not use any cooling device with moving parts (only passive cooling device)

**Lens:** Made of soda-lime clear tempered glass lens, mechanically assembled and sealed onto the lower part of the heat sink.

**Lamp: LED Module (Included),** LED type Philips Lumileds LUXEON R. Composed of 48 high-performance white LEDs. Color temperature of 5000 Kelvin nominal, 70 CRI. Operating lifespan based on TM-21 extrapolation to get results after which 50% of LEDs still emits over 70% (L70) of its original lumen output. Use of metal core board ensures greater heat transfer and longer lifespan of the light engine. The LED circuit board is included with a quick disconnect wiring connection for ease of replacement.

**PHILIPS  
LUMEC**

Submitted by Gildner Maddox, LLC	<b>Job Name:</b>	<b>Catalog Number:</b>	<b>Type:</b>
	City of Fayetteville - Trail Lighting	DMS50-55W48LED5K-R-LE3F-UNIV-MJ-1A-BKTX Notes:	GMLLC15-3535

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**City of Fayetteville (57225)**

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Miscellaneous

**Description of Components:**

**Hardware:** All exposed screws shall be stainless steel with Ceramic primer-seal basecoat to reduce seizing of the parts. All seals and sealing devices are made and/or lined with EPDM and/or silicone and/or rubber.

**Finish:** Color to be **black textured RAL9005TX (BKTX)** and in accordance with the AAMA 2603 standard. Application of polyester powder coat paint (4 mils/100 microns) with  $\pm 1$  mils/24 microns of tolerance. The Thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D2244 standard, as well as luster retention in keeping with the ASTM D523 standard and humidity proof in accordance with the ASTM D2247 standard.

The surface treatment achieves a minimum of 2000 hours for salt spray resistant finish in accordance with testing performed and per ASTM B117 standard.

**Pole Information: *IMPORTANT: All missing details must be clearly specified on the return of these approval drawings. Thank you for your cooperation.***

This bracket is **available for a 4"(102mm), 5"(127mm) or 5 9/16" (141mm) Outside Diameter** pole or tenon.

Please specify **diameter required:** \_\_\_\_\_

**LED products manufacturing standard:** The electronic components sensitive to electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with IEC61340-5-1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

**Quality Control:** The manufacturer must provide a written confirmation of its ISO 9001-2008 and ISO 14001-2004 International Quality Standards Certification.

**Vibration Resistance:** The DMS50 meets the **ANSI C136.31**, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications. (Tested for 3G over 100 000 cycles by an independent lab)

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**PHILIPS  
LUMEC**



BID: 15-17  
 1/29/2015  
 2:00 PM  
 CITY OF FAYETTEVILLE

## Bid 15-17 - Trail Lighting - Equipment Only

BIDDER	QTY	Luminaire Each	Luminaire Total	Pole Each	Pole Total	TOTAL BID PRICE
1 Amerlux Exterior	350	\$ 1,450.00	\$ 507,500.00	NO BID	\$ -	\$ 507,500.00
		<i>Amerlux Exterior - PT40/DPM-3M/5L/BLK</i>				
2 Alliance Composites	350	NO BID	\$ -	\$ 450.00	\$ 157,500.00	\$ 157,500.00
				<i>Alliance Composites - DS15ASDS4-JXB</i>		
3 Continental Pole & Lighting	350	NO BID	\$ -	\$ 438.00	\$ 153,300.00	\$ 153,300.00
				<i>Continental - RTFG12DB-F169</i>		
4 Upchurch Electrical Supply Co	350	\$ 1,260.00	\$ 441,000.00	\$ 603.75	\$ 211,312.50	\$ 652,312.50
		<i>Lumec - DMS50-55W48LED5K-R-LE3F-UNIV-BKTX</i>		<i>CMT - LYF(S)B12-T-3-T400X4.5-S</i>		
5 Valmont Composite Structures - Whaley	350	NO BID	\$ -	\$ 535.00	\$ 187,250.00	\$ 187,250.00
				<i>Valmont/Whalley ST45-D10M-OCT 12-DE-DGR-30-60</i>		

**\*NOTICE: Bid award is contingent upon vendor meeting minimum specifications and formal authorization by City officials.**

CERTIFIED:

*P. Vice*

P. VICE, Purchasing MGR

*Carolyn Reef*  
 Witness

*1-29-15*

DATE

## City of Fayetteville - Purchase Order Request (PO)

(Not a Purchase Order)

**All PO Requests shall be scanned to the Purchasing e-mail: [Purchasing@fayetteville-ar.gov](mailto:Purchasing@fayetteville-ar.gov).**  
Purchase shall not be made until an actual PO has been issued.

Requisition No.:	Date: <b>1/29/2015</b>
P.O Number:	

Vendor #: <b>20058</b>	Vendor Name: <b>Amerlux Exterior, LLC</b>	Mail <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>Legistar#: 2015-0048</b>
Address:		FOB Point:	Expected Delivery Date:
City:	State:	Zip Code:	
		Ship to code: <b>104</b>	Quotes Attached <input type="checkbox"/> Yes <input type="checkbox"/> No
Requester: <b>Matt Mihalevich</b>		Requester's Employee #: <b>2509</b>	Extension: <b>3416</b>

Item	Description	Quantity	Unit of Issue	Unit Cost	Extended Cost	Account Number	Project.Sub#	Inventory #	Fixed Asset #
1	<b>Town Branch Trail (Walker Park to 71B)</b>				<b>\$0.00</b>				
2	Trail Light Fixture Purchase	52	LOT	1,450.00	\$75,400.00	4470.9470.5814.05	02016/1302		
3					\$0.00				
4					\$0.00				
5					\$0.00				
6					\$0.00				
7					\$0.00				
8					\$0.00				
9					\$0.00				
10					\$0.00				
*	Shipping/Handling		Lot		\$0.00				

Special Instructions:	Subtotal: <u>          <b>\$75,400.00</b></u> Tax: <u>                  <b>\$7,351.50</b></u> Total: <u>                  <b>\$82,751.50</b></u>
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Approvals:

Mayor: _____	Department Director: _____	Purchasing Manager: _____
Chief Financial Officer: _____	Budget Director: _____	IT Director: _____
Dispatch Manager: _____	Utilities Manager: _____	Other: _____