

# INVITATION TO BID

Greenfield LED Street Lighting Project – Phase II

IFB #15-19



TOWN OF GREENFIELD

MASSACHUSETTS

William F. Martin, Mayor

Carole Collins, Energy/Sustainability Manager

Date of Issuance: Wednesday, June 3, 2015  
Submission Deadline: Monday, June 22, 2015 @ 2:00 PM

Town of Greenfield, Massachusetts  
Carole Collins  
Energy/Sustainability Manager  
14 Court Square, Greenfield, MA 01301  
Email: [Energy@greenfield-ma.gov](mailto:Energy@greenfield-ma.gov)  
Tel: (413) 772-1412 Fax: (413) 772-1309

#### Invitation to Bid

The Town of Greenfield, acting through its Department of Energy and Sustainability, invites sealed bids from responsive and responsible Electrical Contractors licensed in the Commonwealth of Massachusetts for providing the services necessary to remove and properly dispose of existing High Pressure Sodium, Incandescent and Mercury Vapor streetlights and to install new Light Emitting Diode (LED) streetlights and photocells on the existing brackets. This procurement is part of a grant funded energy conservation initiative being conducted by the Town of Greenfield in conjunction with an Eversource energy efficiency incentive program. The Town gives notice that no bid award will be made for the procurement of any service that does not meet the requirements for reimbursement, as determined solely by Eversource, at the time of the award.

#### Submission Requirements

All bids submitted by responsible and responsive vendors shall be a signed original document and be enclosed in a sealed envelope clearly marked on the outside of the envelope as follows:

#### **“Town of Greenfield - LED Street Light Installation – Phase II”**

Each bid should be submitted on the attached Bid Response Form and must be signed by an authorized agent of the bidder as disclosed on the Certificate of Authority included in the bid package and required to be a part of the bid submission. All bid packages must also contain a Certificate of Non-collusion and Tax Compliance Form in substantially the same form as included in this bid package. A bidder checklist is required for submission. Attachment B details the Insurance Requirements for this contract.

All bids must be received at the Department of Energy and Sustainability with a physical location at 114 Main Street in Greenfield MA 01301 on or before 2:00 p.m. on Monday, June 22, 2015, at which time they will be opened and publicly read. Bids that are sent via post need to be addressed to the Department of Energy and Sustainability, 14 Court Square, Greenfield, MA 01301.

No bid may be withdrawn after the time specified above except by written notice received prior to the bid opening. All bid amounts must remain valid for a minimum period of 180 days from the bid opening date and any award made under this procurement will be made within that time period.

The Town of Greenfield reserves the right to reject any or all bids, or a portion of any or all bids received under this procurement, as deemed to be in the best interest of the citizens of the Town of Greenfield.

### Purchase Description and Specifications

The Town of Greenfield, a tax exempt municipal corporation, is seeking to install LED light fixtures and photocells, provided by the Town, to replace existing cobra style high pressure sodium (HPS), incandescent (I) and mercury vapor (MV) street light fixtures already in service. This procurement is funded through a Green Communities grant from the Massachusetts Department of Energy Resources in conjunction with financial incentives provided under the Eversource energy efficiency program applicable to this initiative. Proof of liability and workers compensation insurance is required and the insurance requirements are listed in Attachment B. The lights to be replaced are installed on round bracket arms attached to existing utility poles located along the right-of-way of existing Town streets. Refer to Attachment A for the list of streets with corresponding street lights covered under this contract.

#### **Specifications:**

This procurement is for professional workmanlike labor and equipment services only. This bid does not include any requirement to supply light fixtures, photoelectric shorts or street light mounting brackets. The light fixtures and photocells to be installed are intended for use in a municipally owned street lighting system that is used to illuminate the public way. The mounting mechanisms of the existing and replacement fixtures require the use of standard hand tools commonly used in the electrical trade. Attachment D contains the specifications on the LED light fixture and photocell to be installed.

The power wire extending from the utility company secondary electricity distribution circuit to the Town-owned light fixture will remain energized during the removal and replacement process whenever possible. The provision of electrical connectors, insulating tape and other general supplies routinely used in the electrical trade shall be included in the price quoted hereunder.

Proper mounting on the existing bracket will require the electrical contractor to maintain a horizontal relationship between the luminaire and the ground when the light is finally secured. An adjustment of plus or minus 5 degrees will be inherent in each fixture. Further adjustment may require manipulation or removal and reattachment of the mounting bracket. All mounting brackets shall be checked for tightness and shall be properly secured, if required, as a part of the bid for this work. All electrical connections shall be secure and in conformance with all applicable codes and regulations then in effect. Incidental materials, hardware, supplies or disposal costs associated with the required work shall be included in the quoted price.

The successful bidder will be responsible for scheduling and coordinating the services of any Police Officer(s) that may be required to safely complete the work, as determined by the Greenfield Chief of Police and shall notify the Energy/Sustainability Manager of any such scheduled police services. All costs for such required police services shall be paid for directly by the Town with proceeds identified for this procurement. The cost of such police services are not to be included in the bid price provided herein.

The successful bidder will also be responsible for coordinating their work with that of the electric utility company, Eversource Energy.

**Quantity estimate:**

Seven hundred fifty five (755) fixtures are to be removed and installed under this procurement A list of all pole locations for this work is found in Attachment A for reference purposes. To facilitate workforce efficiency, this procurement includes all applicable street lights located on each designated street listed in Attachment A.

**Rule of Award:**

This bid will be awarded to the qualified contractor who proposes the lowest overall price for the removal, disposal and replacement of the number of street lights provided for under this solicitation. The overall price calculated under this solicitation shall be determined by multiplying the per unit bid price submitted by 755 (the quantity of units to be replaced with the funding available to the Town from the sources identified above).

**General:**

This solicitation for services is being conducted under Massachusetts General Law (MGL), Chapter 30B.

All labor performed pursuant to this solicitation is subject to the Massachusetts Prevailing Wage Law as required under MGL, Chapter 149. A list of prevailing wage rates for this project is included in this invitation to bid.

All work must be performed by qualified contractors possessing a current electrician license issued by the Commonwealth of Massachusetts.

All bids must include executed certificates of non-collusion and tax compliance.

Bids from corporations must include a corporate authorization to submit said bid and all bid response forms must be signed by an individual authorized to submit the bid on behalf of the respondent.

The Town maintains the right to waive any minor informality as it pertains to information submitted under this solicitation.

All proposers must be able to provide insurance in the amounts specified in the Insurance Requirements Document in Attachment B.

All bids must include a Bidder Checklist.

All items submitted under this solicitation must comply with the minimum specifications as set forth therein and any substantive variation in such compliance shall be grounds for rejection.

A contract leading to the acquisition of services to be performed under this bid will include all terms listed as being specifically required under the stated purchase description and specifications. Refer to Attachment C for a Sample Agreement.

**Questions and Interpretations:**

Any substantive questions regarding the proposal documents shall be referred to Carole Collins in writing (usually e-mail) at least five working days prior to the date and time for receipt of proposals. All answers and interpretations and any changes to the documents will be issued in the form of addenda to all proposers of record. Please refer any questions concerning this solicitation to the following:

Carole Collins, Energy/Sustainability Manager  
Town of Greenfield  
Department of Energy and Sustainability  
14 Court Square  
Greenfield, MA 01301  
Phone: 413-772-1412  
Fax: 413-772-1309  
[Energy@greenfield-ma.gov](mailto:Energy@greenfield-ma.gov)

## Certificate of Non-Collusion

THE UNDERSIGNED CERTIFIES UNDER THE PENALTIES OF PERJURY THAT THIS BID OR PROPOSAL HAS BEEN MADE AND SUBMITTED IN GOOD FAITH AND WITHOUT COLLUSION OR FRAUD WITH ANY OTHER PERSON. AS USED IN THIS CERTIFICATION, THE WORD "PERSON" SHALL MEAN ANY NATURAL PERSON, BUSINESS, PARTNERSHIP, CORPORATION, UNION, COMMITTEE, CLUB, OR OTHER ORGANIZATION, ENTITY, OR GROUP OF INDIVIDUALS.

\_\_\_\_\_  
Signature of individual submitting bid or proposal

\_\_\_\_\_  
Title & Name of Business

\_\_\_\_\_  
Date

## Tax Compliance Certification

PURSUANT TO MASSACHUSETTS GENERAL LAW, CHAPTER 62C, SECTION 49A, I CERTIFY UNDER THE PENALTIES OF PERJURY THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, I AM IN COMPLIANCE WITH ALL LAWS OF THE COMMONWEALTH RELATING TO TAXES.

\_\_\_\_\_  
Signature of individual submitting bid or proposal

\_\_\_\_\_  
Title and Name of Business

\_\_\_\_\_  
Date

\_\_\_\_\_  
Federal Tax Identification Number

# Certificate by Corporation to Submit Bids and Execute Contracts

At a duly authorized meeting of the Board of Directors of the following named corporation,  
\_\_\_\_\_, held on \_\_\_\_\_ (date),  
at which all Directors were either present to vote or waived notice of such, it was voted that;

\_\_\_\_\_

(Name)

\_\_\_\_\_

(Title)

of this company, be and hereby is authorized to submit bids and to execute contracts, bonds and related instruments in the name and on behalf of said corporation, and affix its Corporate Seal thereto, and such execution of any contract or obligation in this company's name on its behalf by such person, under the title so indicated above, shall be binding and valid upon the above named corporation.

A TRUE COPY,

ATTEST: \_\_\_\_\_, Clerk

PLACE OF BUSINESS: \_\_\_\_\_

\_\_\_\_\_

I hereby certify that I am the Clerk of \_\_\_\_\_ and that  
\_\_\_\_\_ is the duly elected \_\_\_\_\_ of said corporation, and  
the above vote has not been amended or rescinded and remains in full force and effect as of the date  
of this certification.

\_\_\_\_\_

(Clerk)

(Corporate seal)

**Bid Response Form**  
**Town of Greenfield – LED Street Lights – Phase II**

Name of bidder: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Authorized representative: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone number: \_\_\_\_\_ Facsimile number: \_\_\_\_\_

Electronic mailing address: \_\_\_\_\_

In my capacity as an authorized agent of the above referenced company, I hereby submit the following bid to remove and dispose of existing street light fixtures and install new LED light fixtures and photocells as specified. I further acknowledge that the price specified herein is being provided without fraud or collusion and that said price will remain valid for a period of 180 days from the bid opening date or until a later date is mutually agreed upon.

**Remove and properly dispose of one existing streetlight and install one new LED streetlight with photocell, provided by the Town of Greenfield, on the existing bracket (estimated to be 755 units).**

Price each: \$ \_\_\_\_\_ (in words) \_\_\_\_\_

Printed name of bidders agent: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Bidder Checklist

- Submitted all information as requested
- Signed and dated Cost/Pricing Proposal
- Received \_\_\_\_\_ number of addendum(s).
- Signed and dated Certificate of Non-Collusion and Tax Compliance Form
- No conditions or restrictions have been placed by the company on this proposal that would declare it non-responsive.
- Prepared to provide the insurance required.

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**Signature of Authorized Official Date**

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**Company Name**

ATTACHMENT A:

Streets for LED Street Lighting Program – Phase II

Street Name	Total	100W	100W	70 W	60 W Incan	50W HPS	100 W	LED Replacement	
		MV	HPS	HPS			MHal	25 W	42 W
ABBOTT ST	3			3				3	0
ADAMS RD	9	4	2	2		1		7	2
ALBERT AVE	2			2				2	0
ALDEN ST	4			4				4	0
ARBOR DR	1					1		1	0
ARCH ST	2			2				2	0
ARMORY ST	2			2				2	0
ARNOLD LN	3			3				3	0
BARBER AVE	1			1				1	0
BARR AVE	3			3				3	0
BARTON HTS	1			1				1	0
BARTON RD	11	1	1	8		1		10	1
BEACON ST	10		1	9				9	1
BEECH ST	9			9				9	0
BIRCH ST	10		1	9				9	1
BOUKER ST	2			2				2	0
BOWLES ST	1					1		1	0
BROOKSIDE AVE	4	1		3				4	0
BUNGALOW AVE	3			3				3	0
BURNHAM RD	7	6		1				7	0
BUTTERNUT ST	3		3					0	3
CAMP AVE	1			1				1	0
CANADA HL	2	1		1				2	0
CAROL LN	2	1				1		2	0
CARPENTERS LN	2			2				2	0
CEDAR ST	3			3				3	0
CHAMPNEY RD	1			1				1	0
CHARLES ST	2			2				2	0
CHEAPSIDE ST	7		6	1				1	6
CHERRY ST	2			2				2	0
CHESTNUT HL	3			3				3	0
CHURCH ST	6		6					0	6
COLORADO AVE	1			1				1	0
COLRAIN RD	17		3	11		3		14	3
COLUMBUS AVE	2			2				2	0
CONGRESS ST	6		1	5				5	1
CONWAY DR	1			1				1	0
COOKE ST	2			2				2	0
COOLIDGE AVE	1	1						1	0
COOMBS AVE	1					1		1	0

COTTAGE ST	2			2				2	0
CYPRESS ST	4			4				4	0
DEVENS CT	1			1				1	0
DEVENS ST	4			4				4	0
DICKINSON ST	1			1				1	0
DUNNELL RD	2			2				2	0
E CLEVELAND ST	5			5				5	0
E HILL RD	1			1				1	0
EARL AVE	1			1				1	0
EASTERN AVE	2			2				2	0
ELIZA LN	1			1				1	0
ELM ST	18		1	17				17	1
ESTER AVE	1			1				1	0
EUCLID AVE	2			2				2	0
FACTORY HOLLOW	3	2		1				3	0
FAIRVIEW ST	5			5				5	0
FAIRVIEW ST W	6		6					0	6
FAIRVIEW TER	2			2				2	0
FERRANTE AVE	6			6				6	0
FOREST AVE	5			2		3		5	0
FRANCIS ST	2			2				2	0
FRANKLIN ST	8			8				8	0
FREDERICK RD	2			2				2	0
FREEMAN DR	4			4				4	0
FRENCH KING HWY	4		1	3				3	1
GARFIELD ST	4			4				4	0
GEORGE ST	1			1				1	0
GILL RD	1	1						1	0
GOLD ST	3			3				3	0
GRANT ST	2			2				2	0
GRAVES RD	4	1	1	1	1			3	1
GREEN RIVER RD	7	2		5				7	0
GREEN ST	2			2				2	0
GREENFIELD LEYDEN LINE	1			1				1	0
GREENFIELD ST	4		4					0	4
GREENWAY LN	2			2				2	0
GRINNELL ST	4			4				4	0
GROVE ST	6		1	5				5	1
HALL AVE	1			1				1	0
HARRISON AVE	9			9				9	0
HASTINGS ST	7			7				7	0
HAYES AVE	1	1						1	0
HAYWOOD ST	7			7				7	0
HIGHLAND AVE	9		3	6				6	3
HOLLAND AVE	1			1				1	0
HOLLY AVE	3			2		1		3	0

HOMESTEAD AVE	6	6						6	0
JAMES ST	10			10				10	0
JEFFERSON AVE	1	1						1	0
KENWOOD ST	5					5		5	0
KNAPP AVE	1	1						1	0
LAKEVIEW DR	1		1					0	1
LAMPBLACK RD	2	1		1				2	0
LAUREL ST	6			6				6	0
LEONARD ST	2			2				2	0
LEYDEN RD	24	11	1	10	1	1		23	1
LILLIAN ST	2	1				1		2	0
LINCOLN ST	6			6				6	0
LINDEN AVE	1					1		1	0
LINWOOD ST	1			1				1	0
LOG PLAIN RD	10			8		2		10	0
LOG PLAIN RD E	1			1				1	0
LONG AVE	3			3				3	0
LOOMIS RD	2		2					0	2
LUNT DR	4	2				2		4	0
MACLELLAN LN	3			3				3	0
MADISON CIR	5			5				5	0
MAPLE ST	12		3	9				9	3
MARSHALL ST	2			2				2	0
MEAD ST	2		1	1				1	1
MEADOW LN	4	4						4	0
MILL ST	5		2	3				3	2
MINER ST	1			1				1	0
MONROE AVE	1	1						1	0
MONTAGUE CITY RD	12		9	3				3	9
MOUNTAIN RD	10		1	9				9	1
MUNSON ST	12			12				12	0
MYRTLE ST	1			1				1	0
NEWELL CT	1			1				1	0
NEWELL POND RD	3			3				3	0
NEWTON ST	4			4				4	0
NORTH ST	4		1	3				3	1
NORWOOD ST	5			2		3		5	0
OAK HILL ACRES	5	3	1	1				4	1
OAK HILL RD	3	2					1	3	0
OAK RIDGE RD	1			1				1	0
OAK ST	2			2				2	0
OAKLAND ST	6			6				6	0
OLIVE ST	2		2					0	2
ORCHARD ST	6		1	5				5	1
OSGOOD ST	1		1					0	1
OVERLAND RD	4	3		1				4	0

PARK AVE	3			3				3	0
PARK ST	2			2				2	0
PARKWAY ST	5		1	4				4	1
PETTY PLAIN RD	8		1	7				7	1
PHILLIPS ST	6			6				6	0
PINE ST	2			2				2	0
PLAIN RD	14	12	1	1				13	1
POND ST	3			3				3	0
POPLAR ST	1		1					0	1
POWER CT	2			2				2	0
POWER SQ	3			3				3	0
PRENTICE AVE	2			2				2	0
PROSPECT AVE	3			3				3	0
QUINCY ST	2			1		1		2	0
RAINGLEY RD	2			2				2	0
RIDDELL ST	9			8		1		9	0
ROBBINS RD	2		1	1				1	1
ROCKLAND RD	1					1		1	0
RUGG PL	1			1				1	0
RUSSELL ST	5		2	3				3	2
S SHELBURNE RD	6			6				6	0
SANDERSON ST	9			9				9	0
SAUTER LN	2			2				2	0
SEVERANCE ST	1			1				1	0
SHATTUCK ST	3					3		3	0
SHELBURNE RD	12		3	9				9	3
SILVER PL	1		1					0	1
SMITH ST	7			7				7	0
SOUTHERN AVE	1			1				1	0
SPRING TER	4			4				4	0
SPRUCE ST	3			3				3	0
ST JAMES CT	1			1				1	0
STANLEY ST	2			2				2	0
STEVENS ST	1			1				1	0
STONE FARM LN	3		2	1				1	2
STONE RIDGE LN	1			1				1	0
SUMMER ST	7		2	5				5	2
SUNRISE AVE	3	1		1		1		3	0
SUNSET SQ	1	1						1	0
TEMPLE AVE	2			2				2	0
THAYER EXT	1					1		1	0
THAYER RD	5		1	3		1		4	1
TRAVER CT	1			1				1	0
TULIP LN	2			2				2	0
UNION ST	5			5				5	0
VALLEY VIEW DR	1	1						1	0

VERMONT ST	2			2				2	0
VERNON ST	9			9				9	0
WALNUT ST	3			3				3	0
WARNER ST	2			2				2	0
WASHBURN AVE	3			3				3	0
WASHINGTON ST	6			6				6	0
WATER ST	3			3				3	0
WEST ST	4			4				4	0
WESTERN AVE	1			1				1	0
WHITE BIRCH AVE	4			3		1		4	0
WILDWOOD AVE	8			8				8	0
WILLOW ST	2			2				2	0
WILSON AVE	2			2				2	0
WISDOM PL	2			2				2	0
WISDOM WAY	7		1	6				6	1
WOODARD RD	1			1				1	0
WOODLEIGH AVE	3			3				3	0
WUNSCH RD	3	3						3	0
	<b>755</b>	<b>755</b>	<b>76</b>	<b>84</b>	<b>554</b>	<b>2</b>	<b>38</b>	<b>1</b>	

ATTACHMENT B:

**Insurance Requirements**

Before starting, and until completion of the guarantee period, the Contractor shall procure, deposit, and maintain with the Town, insurance satisfactory to the Town as follows:

- A. Workmen's Compensation and Employer's Liability Insurance as required by the Workmen's Compensation Laws of the Commonwealth of Massachusetts.
- B. Comprehensive General Liability Insurance covering Bodily Injury and Property Damage as follows:

Limits of Liability:

Bodily Injury *	\$300,000 each person \$500,000 each occurrence \$500,000 aggregate products
Property Damage *	\$100,000 each occurrence \$100,000 aggregate operations \$100,000 aggregate protective \$100,000 aggregate products \$100,000 aggregate contractual

\* Or \$500,000 single limit combined Bodily Injury and Property Damage.

The Comprehensive General Liability Policy shall provide insurance for the Contractor for Bodily Injury and Property Damage to third persons arising out of:

1. Work performed by the Contractor himself with his own employees, called "premises operations."
2. Work performed by his subcontractors, called "sublet work" or Independent Contractors (this is referred to as Contractor's Protective Liability).
3. The Contractor's liability assumed under this contract, called "Hold Harmless" clauses or indemnity agreement. (This is referred to as Contractual Liability Insurance).
4. Products liability coverage covering the completed building or installation or products furnished. (This is called Products Liability Insurance for the manufacturer and Complete Operations Liability Insurance for the Contractor).
5. If any work is to be performed below the surface of the ground, the coverage shall be extended to include protection against property damage caused by explosion (including blasting), collapse of structures and damage to underground pipes and utilities. (This is known as "XCU" coverage).

- C. Comprehensive Automobile Liability Insurance covering Bodily Injury and Property Damage, as follows:

Limits of Liability

Bodily Injury	\$300,000 each person \$500,000 each accident
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Property Damage

\$100,000 each accident

This insurance is to apply with respect to all owned or hired vehicles of the Contractor and non-ownership protection for all employees of the Contractor engaged in the performance of this contract.

- D. All policies shall be so written that the Town will be notified of cancellation or restrictive amendment at least 30 days prior to the effective date of such cancellation or amendment. Certificates from the insurance carrier stating the limits of liability and expiration date shall be filed in triplicate with the Town before operations are begun. Such certificates not only shall name the types of policy provided, but also shall refer specifically to this Contract\* and article and the above paragraphs in accordance with which insurance is being furnished and shall state that such insurance is as required by such paragraphs of this Contract and shall be sufficiently comprehensive as to permit the owner to determine that the required insurance coverage has been provided without the necessity of examining the individual insurance policies.

If the initial insurance expires prior to completion of the Work, renewal certificates shall be furnished by the date of expiration.

\* If blanket coverage is furnished, this particular Contract need not be referred to.

ATTACHMENT C:

**SAMPLE AGREEMENT**

**THIS AGREEMENT**, executed this \_\_\_\_\_ day of \_\_\_\_\_, 2015

(herein referred to as the "AGREEMENT"), by and between the City of Greenfield, Massachusetts, acting by and through its Purchasing Office, duly authorized therefore, which acts solely for said Town and without personal liability to itself, party of the first part, and

\_\_\_\_\_ Party of the second part.

WITNESSETH, that the parties to these presents, each in consideration of the undertakings, promises, and agreements on the part of the other herein contained, have undertaken, promised and agreed and do hereby undertake, promise, and agree, the party of the first part for itself, its successors and assigns, and the party of the second part for himself and his heirs, executors, administrators, successors and assigns, as follows:

The Contractor agrees to furnish all equipment, machinery, tools and labor, to furnish and deliver all materials required to be furnished and delivered in and about the improvement and to do and perform all work in accordance with the specifications and conditions attached hereto and made a part hereof, in strict conformity with the provisions herein contained and the Advertisement for Bidders, Information for Bidders, Proposal, General Specifications, and Special Provisions hereto annexed. All said General Specifications, Special Provisions, Addenda, Advertisement for Bidders, Information for Bidders, and Proposal are hereby specifically made a part of this contract as fully and to the same effect as if the same had been set forth at length herein.

In consideration of the foregoing premises, the Owner agrees to pay and the Contractor agrees to receive as full compensation for everything furnished and done by the Contractor under this contract; including all work required, for all loss or damage arising out of the nature of the work aforesaid, or from the action of the elements, or from any delay or from any unforeseen obstruction or difficulty encountered in the prosecution of the work, and for all risks of every description connected with the work, and for all expenses incurred by or in consequence of the suspension or discontinuance of the work as herein specified, and for well and faithfully completing the work, and the whole thereof, as herein provided, such price or prices as are set out in the accompanying proposal, and for all work required, for which there is no item in the proposal, such compensation as is provided for in the aforesaid specifications.

The Contractor's original bid price for this project is \$ \_\_\_\_\_.

IN WITNESS WHEREOF, the Owner has caused this instrument to be signed and its corporate seal to be hereto affixed in its behalf, and the Contractor has caused this instrument to be signed in its behalf.

FOR THE OWNER: \_\_\_\_\_

Witness: \_\_\_\_\_

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

FOR THE CONTRACTOR: \_\_\_\_\_

Witness: \_\_\_\_\_

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

(If a corporation, attach to each signed Agreement a notarized copy of the corporate vote authorizing the signatory to sign this Agreement.)

Approved as to Appropriation:

\_\_\_\_\_

Town Accountant

ATTACHMENT D:

Specifications on the LED light fixture – CREE XSPR™ BXSPRA03 and  
TRS SERIES LED photocell

# XSPR™ BXSPRA03

XSP Series LED Street Light – Horizontal Tenon Mount – Type III

## Product Description

Designed from the ground up as a totally optimized LED street light system, the XSP Series delivers incredible efficiency without sacrificing application performance. Beyond substantial energy savings and reduced maintenance, Cree achieves better optical control with our NanoOptic® Precision Delivery Grid™ optic than a traditional cobra head luminaire. The Cree XSP Series LED Street Light is the best alternative for traditional street lighting with better payback and better performance.

## Performance Summary

Utilizes BetaLED® Technology

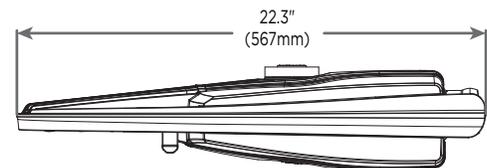
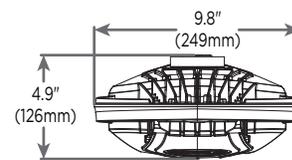
NanoOptic® Precision Delivery Grid™ optic

Made in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

CCT: 4000K (+ / - 300K), 5700K (+ / - 500K)

Limited Warranty†: 10 years on luminaire / 10 years on Colorfast DeltaGuard® finish



## Ordering Information

Example: BXSPRA03FC-US-OPTIONS

BXSPR	A	O							
Product	Version	Mounting	Optic	Modules	Input Power Designator	-	Voltage	Color	Options
BXSPR	A	O Horizontal Tenon	3 Type III	F Module 4000K M Module 5700K	C 42W G 25W	- US * Canada	U Universal 120-277V	S Silver	<b>Y 0-10V Dimming</b> - Control by others - Available with Input Power Designator C only <b>N Utility Label and NEMA Photocell Receptacle</b> <b>R NEMA Photocell Receptacle</b> - Photocell by others <b>U Utility</b> - Label per ANSI C136.15 - Includes exterior wattage label that indicates the maximum available wattage of the luminaire

† See [www.cree.com/lighting/products/warranty](http://www.cree.com/lighting/products/warranty) for warranty terms.



Rev. Date: 08/05/13



### Product Specifications

#### CONSTRUCTION & MATERIALS

- Die cast aluminum housing w/ UV stabilized polymeric door for long weathering and reliability
- Tool-less entry
- Mounts on 1.25" IP, 1.66" (42mm) O.D. or 2" IP, 2.375" (60mm) O.D. horizontal tenon (minimum 8" [203mm] in length) and is adjustable +/- 5° to allow for fixture leveling
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Standard is silver

#### ELECTRICAL SYSTEM

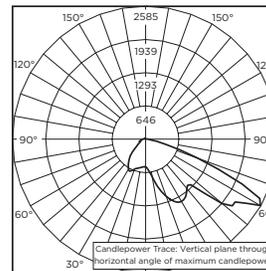
- **Input Voltage:** 120–277V, 50 / 60Hz
- Class 2 output
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C / D breaker should be used

#### REGULATORY & VOLUNTARY QUALIFICATIONS

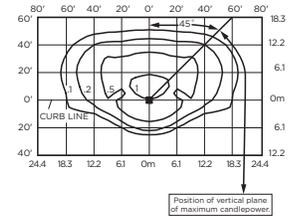
- cULus Listed
- Suitable for wet locations
- Product qualified on the DesignLights Consortium ("DLC") Qualified Products List ("QPL")
- Pending certification to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- Pending CALTrans 611 Vibration testing
- 10kV surge suppression protection tested in accordance with IEEE / ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA

### Photometry

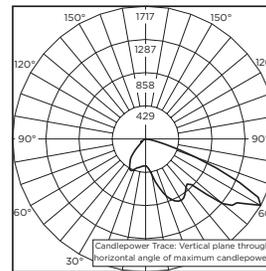
All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP certified laboratory.



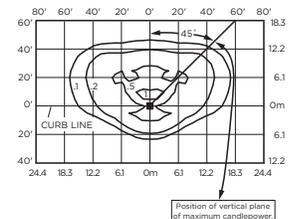
CESTL Test Report #: 2013-0150  
BXSPRA\*3FC-U  
Initial Delivered Lumens: 3,695



BXSPRA\*3FC-U  
Mounting Height: 25' (7.6m)  
Initial Delivered Lumens: 3,819  
Initial FC at grade



CESTL Test Report #: 2013-0153  
BXSPRA\*3FG-U  
Initial Delivered Lumens: 2,440



BXSPRA\*3FG-U  
Mounting Height: 25' (7.6m)  
Initial Delivered Lumens: 2,529  
Initial FC at grade

### EPA and Weight

Weight	EPA				
	1	2@180	2@90	3@90	4@90
13.9 lbs (6.3kg)	0.57	1.14	0.85	1.42	1.56

### Lumen Output, Electrical, and Lumen Maintenance Data

Input Power Designator	Type III Distribution					TOTAL CURRENT				50K Hours Calculated Lumen Maintenance Factor @ 15°C (59°F)***
	5700K		4000K		System Watts 120-277V Nominal	120V	208V	240V	277V	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11						
C	4,109	B1 U0 G1	3,819	B1 U0 G1	42	0.34	0.20	0.18	0.16	92%
G	2,722	B1 U0 G1	2,529	B1 U0 G1	25	0.21	0.12	0.10	0.10	93%

\* Actual production yield may vary between -4 and +10% of initial delivered lumens.  
 \*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf). Valid with no tilt.  
 \*\*\* For recommended lumen maintenance factor data see TD-13. Calculated L70 based on 6,000 hours LM-80-08 testing: > 100,000 hours.



# TRS Series

The Real Score - LED photocontrol

## A Photocontrol is like a chain

It's only as strong as its weakest link

### Is the printed circuit board constructed for a 20 year life?

Standard cellulose (paper) materials with bottom only solder connections cannot be expected to last 20 years.

The Score Control Board is constructed of high quality glass epoxy material that meets MIL-1-24768/2/27-GEE, GEE-F environmentally resistant glass material with plated through-holes.

### Will the base and gasket last 20 years?

Standard photocontrol gaskets and bases cannot be expected to maintain their integrity over a 20 year field life.

The Score Control base material and neoprene blend gasket that passes ASTM D 1056 for stability were selected for their 20 year field life expectancy.

### Are the electronics environmentally protected for a 20 year life?

Electronics unprotected from the environment cannot be expected to have a 20 year field life. Sealing the cover to base protects the electronics, but also eliminates heat venting that results in the components operating in much higher temperatures. This condition is worse.

To protect the electronics The Score Control is protected with an Immersion Silicon Conformal Coating to MIL-I-46058C process. This produces protection from the environment without causing excess heat. In addition, the electronics are cleaned and Ionic Decontaminated in a MIL-PRF-55110F compliant process so no contaminants are sealed in the coating process.

### Will the cover and window last 20 years?

Standard photocontrol plastic housings cannot be expected to resist UV degradation over a 20 year field life expectancy.



The Score Control uses ultra long life Xenoy® material with proven performance in applications like irrigation equipment, ski lift gondolas, bulldozers and other equipment where strength and longevity for constant outdoor use is required.

### Will the surge protection contribute to a 20 year life expectancy?

Don't be fooled by competitors claims of high joule ratings. The high joule ratings are the result of high RMS and clamping voltage. High clamping voltage allows surges/spikes into the electronic circuit thereby reducing component life.

### Now that's a MOV

To protect the electronic components ( and the LED Fixture) for 20 year expected life The Score Control RMS clamping voltage is just above line voltage. Our 40,000 amp MOV can be expected to protect against repeated spikes/surges over a 20 year period, where smaller MOVs would not.

### Will the relay last 20 years?

Asking a standard photocontrol relay to last nearly twice as long is too much.

The Score Control relay has triple the performance of standard relays. In addition, it provides an Air Gap load break thus eliminating the voltage leakage from solid state switches that damage the LED fixture.

### Will the photosensor last 20 years?

Standard unprotected photosensors cannot be expected to have a 20 year field life.

The Score Control photosensor is encapsulated in a hermetic glass and metal enclosure compliant with MIL STD 202D Method 112A, Test Condition B to protect it from contaminants over a 20 year life.

### Model Number

TRS-1 120 VAC LED Control

TRS-2 105-305 VAC LED Control

TRS-2-FO 105-305 VAC Fail-Off LED Control

### Contact Factory:

Sunrise Technologies, Inc. | FP Outdoor Lighting Controls  
Raynham, MA 02767

Ph: (508) 821-1597, Fax: (508) 822 -0593

www.sun-tech.biz | www.fpolc.com

