

**AGENDA
PUBLIC WORKS
COMMITTEE**

**MONDAY, AUGUST 16, 2010
ROOM 202
6:30 P.M.**

**G. John Ruffolo, Chairman
Anthony Nudo, Vice Chairman
Steve Bostrom**

**Patrick Juliana
Jan Michalski
Ray Misner**

A. APPROVAL OF MINUTES

A-1 Approval of minutes of regular meeting held on August 9, 2010.

C. REFERRED TO COMMITTEE

C-1 Award of Performance Contract to Johnson Controls, Inc. (*also referred to Finance Committee*)

C-2 Proposed Electronic Recycling Contract.

CITIZENS COMMENTS RELATED ONLY TO JURISDICTION OF PUBLIC WORKS COMMITTEE

ALDERMAN COMMENTS

IF YOU ARE DISABLED AND IN NEED OF ASSISTANCE CALL 653-4050 BEFORE NOON ON THE DATE INDICATED FOR THIS MEETING.

NOTICE IS HEREBY GIVEN THAT A MAJORITY OF THE MEMEBERS OF THE COMMON COUNCIL MAY BE PRESENT AT THE MEETING, AND ALTHOUGH THIS MAY CONSITUTE A QUORUM OF THE COMMON COUNCIL, THE COUNCIL WILL NOT TAKE ANY ACTION AT THIS MEETING.

PUBLIC WORKS COMMITTEE
- MINUTES -

MONDAY, AUGUST 9, 2010
4:30 P.M.

G. John Ruffolo, Chairman
Anthony Nudo, Vice Chairman
Steve Bostrom

Patrick Juliana
Jan Michalski
Ray Misner

The regular meeting of the Public Works Committee was held on Monday, August 9, 2010, in Room 204 of the Municipal Building. The following members were present: Chairman G. John Ruffolo, Vice Chairman Anthony Nudo, Aldermen Steve Bostrom, and Jan Michalski. Alderman Patrick Juliana was excused. Alderman Ray Misner arrived during discussion of item C-4. The meeting was called to order at 4:47 PM. Staff members in attendance were Ron Bursek, Jan Schroeder, Mike Lemens, Kevin Risch, Brian Wilke, Jeff Warnock and Guy Santelli.

A-1 Approval of minutes of regular meeting held July 26, 2010.

It was moved by Alderman Bostrom, seconded by Alderman Michalski to approve. Motion passed 4-0.

B-1 Proposed Ordinance to Create Paragraph 5.11 B.5 of the Code of General Ordinances Regarding Sidewalks and Alleys to be Kept Clean by Responsible Party. (deferred from July 26, 2010 meeting.)

It was moved by Alderman Nudo, seconded by Alderman Bostrom to moved to the end of the agenda order. Motion passed 4-0.

It was moved by Alderman Michalski, seconded by Alderman Bostrom to deny. Motion passed 4-1, with Alderman Misner voting no.

C-1 Request by TG's Restaurant & Pub (4120 7th Avenue) to install Bike Rack in Lawn Park Area (District 2).

Alderman Ruffalo spoke on this issue. It was moved by Alderman Nudo, seconded by Aldermen Bostrom to approve. Motion passed 4-0.

C-2 Acceptance of Project 09-1111 Miscellaneous Storm Sewers (50th Avenue – 61st Street to 63rd Street, Gangler Park – 82nd Street approximately 200 ft west of 65th Avenue) which has been satisfactorily completed by A.W. Oakes & Son, Inc., Racine, Wisconsin, in the amount of \$162,935.27. (District 15) (also referred to Park Commission)

It was moved by Alderman Nudo, seconded by Alderman Bostrom to approve. Motion passed 4-0.

C-3 Temporary Limited Easement between the City of Kenosha and CJVLJV, LLC, for property at 6300 120th Avenue (West Frontage Road Project) (District 17).

Alderman Nudo asked for copies of appraisals in future transactions. It was moved by Alderman Michalski, seconded by Alderman Nudo to approve. Motion passed 4-0.

- C-4 Resolution to amend the Official Map for the City of Kenosha, Wisconsin, to rescind the designation of 21st Street from 27th Avenue to the existing terminus, west of 26th Avenue, pursuant to Section 62.23(6), Wisconsin Statutes. (District 5) (*City Plan Commission approved 6:1, 1 abstain*) (*Public Works Committee approved 3:2 at July 26, 2010 meeting*) (*referred back to Committee at Common Council meeting of August 2, 2010*).

Brian Wilke, City Development spoke. Thomas Kandathil, 5620 College Point Court, Racine, WI spoke. It was moved by Alderman Misner, seconded by Alderman Bostrom to deny. Motion passed 5-0.

INFORMATIONAL:

1. Electronics Recycling
2. Project Status Report
3. Award of Performance Contract to John Controls, Inc.
Ron Bursek and Kevin Risch spoke. Asked committee to hold a special meeting prior to Common Council, Monday, August 16, 2010 at 6:30pm to review contract. Committee agreed.

ALDERMEN COMMENTS: Alderman Ruffolo asked that Administration be contacted that Public Works would like to meet Monday, October 25, 2010, at 4:30pm to discuss the 2011 Public Works Operations and CIP Budget.

ADJOURNMENT - *There being no further business to come before the Public Works Committee, it was moved, seconded and unanimously approved to adjourn the meeting at 5:33pm.*



ENGINEERING DIVISION
MICHAEL M. LEMENS, P.E.
DIRECTOR/CITY ENGINEER

STREET DIVISION
JOHN H. PRIJIC
SUPERINTENDENT

FLEET MAINTENANCE
MAURO LENCI
SUPERINTENDENT

WASTE DIVISION
ROCKY BEDNAR
SUPERINTENDENT

PARK DIVISION
JEFF WARNOCK
SUPERINTENDENT

ADMINISTRATION SUPERVISOR
JANICE D. SCHROEDER

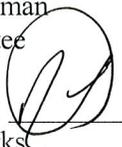
DEPARTMENT OF PUBLIC WORKS

RONALD L. BURSEK, P.E., DIRECTOR

MUNICIPAL BUILDING • 625 - 52ND ST. • RM. 305 • KENOSHA, WI 53140
TELEPHONE (262) 653-4050 • FAX (262) 653-4056

August 12, 2010

To: G. John Ruffolo, Chairman
Public Works Committee

From: Ronald L. Bursek, P.E. 
Director of Public Works

Subject: *Award of Performance Contract to Johnson Controls, Inc. (JCI)*

BACKGROUND/ANALYSIS

Staff solicited a Request for Proposals (RFP's) for the Energy Conservation Improvement Project & received two proposals (Johnson Controls, Inc. & Orion Energy Solution, Inc.). The proposals were graded based on firm qualifications, technical approach, finance approach, performance documentation and finally overall impression. The final score was unanimous to recommend Johnson Controls, Inc. Staff recommends concurrence from the committee to use Johnson Controls, Inc. as the most qualified firm for the Conservation Improvement Project.

The City of Kenosha received a \$902,500 grant under the Energy Independence and Security Act of 2007 (EISA) to retrofit and/or re-lamp city street lights with a more efficient fixture in order to save energy cost & reduce the amount of required maintenance. This grant offsets the total amount the city would have to contribute. The total cost allocated for this work is \$1,302,500 (including \$400,000 in the current CIP). With an overwhelming choice of vendors and products available, Staff and Jonson Controls, Inc. reviewed and field tested various retrofit alternatives to our current high pressure sodium light fixtures. The intended outcome of the process was to be an efficient, cost effective fixture that provides adequate lighting for the motorist and pedestrian alike. JCI testing resulted in a recommendation for two distinct possibilities, either of which met the stated criteria and provided a suitable guarantee for long life. Based on input from the Public Works Committee members, the city will have JCI purchase the Amerlux solution for retrofit in the existing Holophane glass fixtures so the original daytime appearance is retained.

JCI will also provide a performance contract to cover the installation of approximately 721 lights, the testing of lighting products and vendor negotiations, placement and removal of field trial units, and final product deliveries and warranties, and final completion by spring of 2011. JCI has calculated the program will result in approximately \$780,000 savings over the next 15 years using a very conservative annual cost escalation. With a more typical rate of inflation, the cost savings could be significantly higher. The final contract cost could not be determined until selection of the lighting solution had been completed, and JCI can not be paid until the contract is approved and executed. However, JCI has done a lot of work already to get the process to this point.

RECOMMENDATION

Authorize the approval of the contract with Johnson Controls, Inc.

Cc: Ald. Ted Ruffalo, District 2
mml

PERFORMANCE CONTRACT

This Performance Contract (this "Agreement") is made this [REDACTED] day of [REDACTED], 2010 between:

PARTIES

JOHNSON CONTROLS, INC. ("JCI")
3007 Malmo Dr.
Arlington Heights, IL 60005

and

CITY OF KENOSHA ("Customer")
625 52nd street
Kenosha, WI 53140

RECITALS

WHEREAS, Customer desires to retain JCI to perform the work specified in Schedule 1 ("Scope of Work") hereto (the "Work") relating to the installation of the improvement measures (the "Improvement Measures") which is defined to mean the Scope of Work attached hereto as Schedule 1 ; and

WHEREAS, Customer is authorized and empowered under applicable Laws (as defined below) to enter into this Agreement, and has taken all necessary action under applicable Laws to enter into this Agreement; and

WHEREAS, Customer has selected JCI to perform the Work after it determined JCI's proposal was the most advantageous to Customer in accordance with all applicable procurement and other Laws.

NOW, THEREFORE, in consideration of the mutual promises set forth herein, the parties agree as follows:

AGREEMENT

1. **SCOPE OF THE AGREEMENT.** JCI shall perform the Work set forth in Schedule 1. Customer shall make payments to JCI for the Work in accordance with Schedule 4 ("Price and Payment Terms"). Cost of the project not to exceed \$1,302,500 where \$902,500 will be funds from EECBG DOE grant and \$400,000 are Capital Improvement Funds.

2. **AGREEMENT DOCUMENTS:** In addition to the terms and conditions of this Agreement, the following Schedules are incorporated into and shall be deemed an integral part of this Agreement:

Schedule 1 – Scope of Work
Schedule 2 – Expected Performance
Schedule 3 – Customer Responsibilities
Schedule 4 – Price and Payment Terms
Attachment 1 – Notice to Proceed
Attachment 2 – Change Order
Attachment 3-A – Certificate of Substantial Completion
Attachment 3-B – Certificate of Final Acceptance
Attachment 4 – Amerlux Exterior product warranty
Attachment 5 - Third Party Light Level Test Results

3. **NOTICE TO PROCEED; SUBSTANTIAL COMPLETION;** This Agreement shall become effective on the date of the last signature on the signature page below. JCI shall commence performance of the Work within ten (10) business days of receipt of Customer's Notice to Proceed, a form of which is attached hereto as Attachment 1,

and shall achieve Substantial Completion of the Work by the Substantial Completion date, which shall be the earlier of:

- (a) the date on which Customer executes a Certificate of Final Acceptance as in Attachment 3-B;
- or
- (b) 12 months after JCI's receipt of Customer's Notice to Proceed, subject to adjustments set forth in Section 4 and Section 5 below.

For purposes of this Agreement, "Substantial Completion" means that JCI has provided sufficient materials and services to permit Customer to operate the Improvement Measures.

4. **DELAYS AND IMPACTS.** If JCI is delayed in the commencement, performance, or completion of the Work by causes beyond its control and without its fault, including but not limited to inability to access property; concealed or unknown conditions encountered at the project, differing from the conditions represented by Customer in the bid documents or otherwise disclosed by Customer to JCI prior to the commencement of the Work; a Force Majeure (as defined below) condition; failure by Customer to perform its obligations under this Agreement; or failure by Customer to cooperate with JCI in the timely completion of the Work, JCI shall provide written notice to Customer of the existence, extent of, and reason for such delays and impacts. Under such circumstances, an equitable adjustment in the time for performance, price and payment terms shall be made.
5. **ACCESS.** Customer shall provide JCI, its subcontractors, and its agents reasonable and safe access to all facilities and properties in Customer's control that are subject to the Work. Customer further agrees to assist JCI, its subcontractors, and its agents to gain access to facilities and properties that are not controlled by Customer but are necessary for JCI to complete the Work. An equitable adjustment in the time for performance, price and payment terms shall be made as a result of any failure to grant such access.
6. **PERMITS, TAXES, AND FEES.** Unless otherwise specified in Schedule 3 (Customer Responsibilities), JCI shall be responsible for obtaining all permits required for it to perform the Work. Unless otherwise specified in Schedule 1 (Scope of Work), Customer shall be responsible for obtaining all other permits, licenses, approvals, permissions and certifications, including but not limited to, all zoning and land use changes or exceptions required for the provision of the Work or the ownership and use of the Improvement Measures. JCI shall not be obligated to provide any changes to or improvement of the facilities or any portion thereof required under any applicable building, fire, safety, sprinkler or other applicable code, standard, law, regulation, ordinance or other requirement unless the same expressly regulates the installation of the Improvement Measures. Without limiting the foregoing, JCI's obligations with respect to the Work is not intended to encompass any changes or improvements that relate to any compliance matters (whether known or unknown) that are not directly related to the installation of the Improvement Measures or which have been imposed or enforced because of the occasion or opportunity of review by any governmental authority. Customer shall be responsible for and shall pay when due all assessments, charges and sales, use, property, excise, or other taxes now or hereafter imposed by any governmental body or agency upon the provision of the Work, implementation or presence of the Improvement Measures, the use of the Improvement Measures or payments due to JCI under this Agreement, other than taxes upon the net income of JCI. Customer shall also be responsible for real or personal property taxes relating to equipment or material included in the Improvement Measures. Any fees, taxes, or other lawful charges paid by JCI on account of Customer shall become immediately due from Customer to JCI.
7. **WARRANTY.** JCI will perform the Work in a professional, workman-like manner. JCI will promptly re-perform any non-conforming Work for no charge, as long as Customer provides written notice to JCI within one (1) year following Final Acceptance by the Common Council for the City of Kenosha or such other period identified in Schedule 1. If JCI installs or furnishes goods or equipment under this Agreement, and such goods or equipment are covered by an end-user warranty from their manufacturer, JCI will transfer the benefits of such warranty to Customer. The foregoing remedy with respect to the Work, together with any remedy provided by goods or equipment manufacturers, shall be Customer's sole and exclusive remedies for warranty claims. Customer agrees that the one (1) year period following Final Acceptance, or such other period identified in Schedule 1, shall be a reasonable time for purposes of submitting valid warranty claims with respect to the Work. These exclusive remedies shall not have failed of their essential purpose so long as JCI transfers the benefits of any goods or equipment end-user warranty to Customer and remains willing to re-perform any non-conforming Work for no charge within the one (1) year period described above or such other period identified in Schedule 1. **OTHER THAN FITNESS FOR THE CUSTOMER'S PURPOSE, NO OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY ARE PROVIDED BY**

JCI. This warranty does not extend to any Work that has been abused, altered, or misused, or repaired by Customer or third parties without the supervision or prior written approval of JCI. Except with respect to goods or equipment manufactured by JCI and furnished to Customer hereunder, for which JCI shall provide its express written manufacturer's warranty, JCI shall not be considered a merchant or vendor of goods or equipment. The parties agree that the manufacturer's warranty in substantially the form attached as Attachment 5 hereto shall be transferred and assigned to the Customer upon Final Acceptable of the Work pursuant to this Agreement.

8. **CLEANUP.** JCI shall keep the premises and the surrounding area free from accumulation of waste materials or rubbish caused by the Work and, upon completion of the Work each day, JCI shall remove all waste materials, rubbish, tools, construction equipment, machinery, and surplus materials.
9. **SAFETY; COMPLIANCE WITH LAWS.** JCI shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Work. Each of JCI and Customer shall comply with all applicable laws, ordinances, rules, regulations, and lawful orders of public authorities (collectively, "Laws") in connection with its performance hereunder.
10. **ASBESTOS-CONTAINING MATERIALS AND OTHER HAZARDOUS MATERIALS.**

Asbestos-Containing Materials: Neither party desires to or is licensed to undertake direct obligations relating to the identification, abatement, cleanup, control, removal or disposal of asbestos-containing materials ("ACM"). Consistent with applicable Laws, Customer shall supply JCI with any information in its possession relating to the presence of ACM in areas where JCI undertakes any Work that may result in the disturbance of ACM. It is JCI's policy to seek certification for facilities constructed prior to 1982 that no ACM is present, and Customer shall provide such certification for buildings it owns, or aid JCI in obtaining such certification from facility owners in the case of buildings that Customer does not own, if JCI will undertake Work in the facility that could disturb ACM. If either Customer or JCI becomes aware of or suspects the presence of ACM that may be disturbed by JCI's Work, it shall promptly stop the Work in the affected area and notify the other. As between Customer and JCI, Customer shall be responsible at its sole expense for addressing the potential for or the presence of ACM in conformance with all applicable Laws and addressing the impact of its disturbance before JCI continues with its Work, unless JCI had actual knowledge that ACM was present and acted with intentional disregard of that knowledge, in which case (i) JCI shall be responsible at its sole expense for remediating areas impacted by the disturbance of the ACM, and (ii) Customer shall resume its responsibilities for the ACM after JCI's remediation has been completed.

Other Hazardous Materials: JCI shall be responsible for removing or disposing of any Hazardous Materials (as defined below) that it uses in providing Work ("JCI Hazardous Materials") and for the remediation of any areas impacted by the release of JCI Hazardous Materials. For other Hazardous Materials that may be otherwise present at Customer's facilities ("Non-JCI Hazardous Materials"), Customer shall supply JCI with any information in its possession relating to the presence of such materials if their presence may affect JCI's performance of the Work. If either Customer or JCI becomes aware of or suspects the presence of Non-JCI Hazardous Materials that may interfere with JCI's Work, it shall promptly stop the Work in the affected area and notify the other. As between Customer and JCI, Customer shall be responsible at its sole expense for removing and disposing of Non-JCI Hazardous Materials from its facilities and the remediation of any areas impacted by the release of Non-JCI Hazardous Materials, unless JCI had actual knowledge that Non-JCI Hazardous Materials were present and acted with intentional disregard of that knowledge, in which case (i) JCI shall be responsible at its sole expense for the remediation of any areas impacted by its release of such Non-JCI Hazardous Materials, and (ii) Customer shall remain responsible at its sole expense for the removal of Non-JCI Hazardous Materials that have not been released and for releases not resulting from JCI's performance of the Work. For purposes of this Agreement, "Hazardous Materials" means any material or substance that, whether by its nature or use, is now or hereafter defined or regulated as a hazardous waste, hazardous substance, pollutant or contaminant under applicable Law relating to or addressing public or employee health and safety and protection of the environment, or which is toxic, explosive, corrosive, flammable, radioactive, carcinogenic, mutagenic or otherwise hazardous or which is or contains petroleum, gasoline, diesel, fuel, another petroleum hydrocarbon product, or polychlorinated biphenyls. "Hazardous Materials" specifically includes lead-based paint and specifically excludes ACM.

Environmental Indemnity: JCI shall not be liable for any losses, costs, damages, expenses (including reasonable legal fees and defense costs), claims, causes of action or liability, directly or indirectly, relating to or

arising from the Customer's use, or the storage, release, discharge, handling or presence of ACM or Non-JCI Hazardous Materials on, under or about the facilities, or Customer's failure to comply with this Section 10.

11. CHANGE ORDERS. The parties, without invalidating this Agreement, may request changes in the Work to be performed under this Agreement, consisting of additions, deletions, or other revisions to the Work ("Change Orders"). The price and payment terms, time for performance shall be equitably adjusted in accordance with the Change Order. Such adjustments shall be determined by mutual agreement of the parties. JCI may delay performance until adjustments arising out of the Change Order are clarified and agreed upon. Any Change Order must be signed by an authorized representative of each party. If concealed or unknown conditions are encountered at the project, differing from the conditions represented by Customer in the bid documents or otherwise disclosed by Customer to JCI prior to the commencement of the Work, price and payment terms, time for performance, shall be equitably adjusted. Claims for equitable adjustment may be asserted in writing within a reasonable time from the date a party becomes aware of a change to the Work by written notification. Failure to promptly assert a request for equitable adjustment, however, shall not constitute a waiver of any rights to seek any equitable adjustment with respect to such change.

12. CUSTOMER FINANCING; TREATMENT; TAXES. The parties acknowledge and agree that JCI is not making any representation or warranty to Customer with respect to matters not expressly addressed in this Agreement, including, but not limited to:

- (a) Customer's ability to obtain or make payments on any financing associated with paying for the Improvement Measures, related services, or otherwise;
- (b) Customer's proper legal, tax, accounting, or credit rating agency treatment relating to this Agreement; and
- (c) the necessity of Customer to raise taxes or seek additional funding for any purpose.

Customer is solely responsible for its obligations and determinations with respect to the foregoing matters. In addition, the parties acknowledge and agree that Customer shall be responsible to comply, at its cost and expense, with all Laws that may be applicable to it relating to performance contracting, including, without limitation, any requirements relating to the procurement of goods and/or services and any legal, accounting, or engineering opinions or reviews required or obtained in connection with this Agreement.

13. INSURANCE. JCI shall maintain insurance in amounts no less than those set forth below in full force and effect at all times until the Work has been completed, and shall provide a certificate evidencing such coverage promptly following Customer's request therefor.

COVERAGES	LIMITS OF LIABILITY
Workmen's Compensation Insurance or self insurance, including Employer's Liability	Statutory
Commercial General Liability Insurance	\$5,000,000 Per Occurrence \$5,000,000 Aggregate
Comprehensive Automobile Liability Insurance	\$5,000,000 Combined Single Limit

The above limits may be obtained through primary and excess policies, and may be subject to self-insured retentions.

Customer shall be responsible for obtaining builder's risk insurance coverage for the Improvement Measures and shall at all times be responsible for any loss or casualty to the Improvement Measures. Customer shall also maintain insurance coverage, of the types and in the amounts customary for the conduct of its business, throughout the term of this Agreement.

14. INDEMNIFICATION. To the fullest extent permitted by applicable Law, each party shall indemnify the other with respect to any third party claim alleging bodily injury, including death, or property damage to the extent such injury or damage is caused by the negligence or willful misconduct of the indemnifying party. A condition precedent to any obligation of a party to indemnify the other pursuant to this Section 14 shall be for the indemnified party to promptly advise the indemnifying party of the claim pursuant to the notice provision of this Agreement.

- 15. LIMITATION OF LIABILITY.** NEITHER JCI NOR CUSTOMER WILL BE RESPONSIBLE TO THE OTHER FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL, REMOTE, PUNITIVE, EXEMPLARY, LOSS OF PROFITS OR REVENUE, LOSS OF USE, OR SIMILAR DAMAGES, REGARDLESS OF HOW CHARACTERIZED AND REGARDLESS OF A PARTY HAVING BEEN ADVISED OF THE POSSIBILITY OF SUCH POTENTIAL LOSSES OR RELIEF, ARISING IN ANY MANNER FROM THIS AGREEMENT, THE WORK, THE IMPROVEMENT MEASURES, THE PREMISES, OR OTHERWISE. JCI'S LIABILITY UNDER THIS AGREEMENT, REGARDLESS OF THE FORM OF ACTION, SHALL IN NO EVENT EXCEED FIVE MILLION DOLLARS (\$5,000,000). If this Agreement covers fire safety or security equipment, Customer understands that JCI is not an insurer regarding those services, and that JCI shall not be responsible for any damage or loss that may result from fire safety or security equipment that fails to prevent a casualty loss. The foregoing waivers and limitations are fundamental elements of the basis for this Agreement between JCI and Customer, and each party acknowledges that JCI would not be able to provide the work and services contemplated by this Agreement on an economic basis in the absence of such waivers and limitations, and would not have entered into this Agreement without such waivers and limitations.
- 16. FORCE MAJEURE.** Neither party will be responsible to the other for damages, loss, injury, or delay caused by conditions that are beyond the reasonable control, and without the intentional misconduct or negligence of that party. Such conditions (each, a "Force Majeure") include, but are not limited to: acts of God; acts of government agencies; strikes; labor disputes; fires; explosions or other casualties; thefts; vandalism; riots or war; acts of terrorism; electrical power outages; interruptions or degradations in telecommunications, computer, or electronic communications systems; changes in Laws; or unavailability of parts, materials or supplies.
- 17. JCI'S PROPERTY.** All materials furnished or used by JCI personnel and/or JCI subcontractors or agents at the installation site, including documentation, schematics, test equipment, software and associated media remain the exclusive property of JCI or such other third party. Customer agrees not to use such materials for any purpose at any time without the express authorization of JCI. Customer agrees to allow JCI personnel and/or JCI subcontractors or agents to retrieve and to remove all such materials remaining after installation or maintenance operations have been completed. Customer acknowledges that any software furnished in connection with the Work is proprietary and subject to the provisions of any software license agreement associated with such software.
- 18. DISPUTES.** JCI and Customer will attempt to settle any controversy, dispute, difference, or claim between them concerning the performance, enforcement, or interpretation of this Agreement (collectively, "Dispute") through direct discussion in good faith, but if unsuccessful, will submit any Dispute to non-binding mediation in the nearest major metropolitan area of the state where the project is performed. If the parties are unable to agree on a mediator or a date for mediation, either party may request JAMS, Inc. to appoint a mediator and designate the time and procedure for mediation. Such mediator shall be knowledgeable, to each party's reasonable satisfaction, with respect to matters concerning construction law. Neither JCI nor Customer will file a lawsuit against the other until not less than sixty (60) days after the mediation referred to herein has occurred, unless one or both parties is genuinely and reasonably concerned that any applicable statute of limitations is on the verge of expiring.
- 19. GOVERNING LAW.** This Agreement and the construction and enforceability thereof shall be interpreted in accordance with the laws of the state where the Work is conducted.
- 20. MODIFICATIONS.** Additions, deletions, and modifications to this Agreement may be made upon the mutual agreement of the parties in writing. The parties contemplate that such modifications may include, but are not limited to, the installation of additional improvement measures, energy conservation measures, facility improvement measures, and operational efficiency improvements or furnishing of additional services within the identified facilities, as well as other facilities owned or operated by the Customer. These modifications may take the form of additional phases of work or modifications to the original scope of Work or Services.
- 21. CONSENTS; APPROVALS; COOPERATION.** Whenever Customer's consent, approval, satisfaction or determination shall be required or permitted under this Agreement, and this Agreement does not expressly state that Customer may act in its sole discretion, such consent, approval, satisfaction or determination shall not be unreasonably withheld, qualified, conditioned or delayed, whether or not such a "reasonableness" standard is expressly stated in this Agreement. Whenever Customer's cooperation is required by JCI in order to carry out JCI's obligations hereunder, Customer agrees that it shall act in good faith and reasonably in so cooperating with JCI and/or JCI's designated representatives or assignees or subcontractors. Customer shall

furnish decisions, information, and approvals required by this Agreement in a timely manner so as not to delay the performance of the Work.

- 22. FURTHER ASSURANCES.** The parties shall execute and deliver all documents and perform all further acts that may be reasonably necessary to effectuate the provisions of this Agreement.
- 23. INDEPENDENT CONTRACTOR.** The relationship of the parties hereunder shall be that of independent contractors. Nothing in this Agreement shall be deemed to create a partnership, joint venture, fiduciary, or similar relationship between the parties.
- 24. POWER AND AUTHORITY.** Each party represents and warrants to the other that (i) it has all requisite power and authority to execute and deliver this Agreement and perform its obligations hereunder, (ii) all corporate, board, body politic, or other approvals necessary for its execution, delivery, and performance of this Agreement have been or will be obtained, and (iii) this Agreement constitutes its legal, valid, and binding obligation.
- 25. SEVERABILITY.** In the event that any clause, provision, or portion of this Agreement or any part thereof shall be declared invalid, void, or unenforceable by any court having jurisdiction, such invalidity shall not affect the validity or enforceability of the remaining portions of this Agreement unless the result would be manifestly inequitable or materially impair the benefits intended to inure to either party under this Agreement.
- 26. COMPLETE AGREEMENT.** It is understood and agreed that this Agreement contains the entire agreement between the parties relating to all issues involving the subject matter of this Agreement. No binding understandings, statements, promises or inducements contrary to this Agreement exist. This Agreement supersedes and cancels all previous agreements, negotiations, communications, commitments and understandings with respect to the subject matter hereof, whether made orally or in writing. Each of the parties to this Agreement expressly warrants and represents to the other that no promise or agreement which is not herein expressed has been made to the other, and that neither party is relying upon any statement or representation of the other that is not expressly set forth in this Agreement. Each party hereto is relying exclusively on the terms of this Agreement, its own judgment, and the advice of its own legal counsel and/or other advisors in entering into this Agreement. Customer acknowledges and agrees that any purchase order issued by Customer associated with this Agreement is intended only to establish payment authority for Customer's internal accounting purposes. No purchase order shall be considered a counteroffer, amendment, modification, or other revision to the terms of this Agreement.
- 27. HEADINGS.** The captions and titles in this Agreement are for convenience only and shall not affect the interpretation or meaning of this Agreement.
- 28. COUNTERPARTS.** This Agreement may be executed in any number of counterparts, all of which when taken together shall constitute one single agreement between the parties.
- 29. NOTICES.** All notices or communications related to this Agreement shall be in writing and shall be deemed served if and when sent by facsimile or mailed by certified or registered mail: to Johnson Controls, Inc. at the address listed on the first page of this Agreement, ATTN: Regional Solutions Manager, with a copy to Johnson Controls, Inc., ATTN: General Counsel – Building Efficiency Americas, 507 East Michigan Street, Milwaukee, Wisconsin, 53202; and to Customer at the address listed on the first page of this Agreement with a copy to the City of Kenosha Director of Public Works, 625 52ND Street, Kenosha, WI 53140-3480, and a copy to the City of Kenosha City Attorney 625 52ND Street, Kenosha, WI 53140-3480
- 30. ARRA.** The Parties acknowledge and agree that the project covered by this Agreement is funded in part by a grant or funds made available through the American Recovery and Reinvestment Act of 2009, 111 P.L. 5 (the "ARRA"). The Parties will comply and shall cause their subcontractors to comply with any applicable provisions of the ARRA and any implementing regulations governing the use of such funds in connection with the project which may include, but not be limited to, Buy American, reporting and Davis-Bacon Act requirements.

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Signature Page to Follow

CITY OF KENOSHA

Signature: _____

Printed Name: Keith G. Bosman

Title: Mayor, City of Kenosha, Wisconsin

Date: _____

Signature: _____

Printed Name: Michael Higgins

Title: City Clerk Treasurer, City of Kenosha, Wisconsin

Date: _____

JOHNSON CONTROLS, INC.

Signature: _____

Printed Name: _____

Title: _____

Date: _____

SCOPE OF WORK

Procure and install City of Kenosha selected Amerlux RF-LED replacements to go into existing decorative fixtures as per locations and quantities in the table below:

Segment/ Description			
	150 watt	250 watt	150 with defuser
7th Avenue; 49th Street - 52nd Street		49	
50th Street – 700 Block; 7th Avenue - 52nd Street - 8th Avenue		21	
54th Street/ 56th Street/ Ring Road/2nd Avenue/3rd Avenue/4th Avenue/5th Avenue in Harborpark	320		
6th Avenue; 54th Street - 59th Place			100
22nd Avenue; 63rd Street - 60th Street	52		
63rd Street; 2100 - 24th Avenue	28		
Sheridan Road; 6100 - 50th Street		69	
63rd Street; 2100 – Sheridan Road		33	
Lincoln Blvd; 28th Avenue - 22nd Avenue			
56th Street; 13th Avenue - 22nd Avenue	23		
54th Street; Sheridan Road – Train Station	26		
Total #	449	172	100

The Customer acknowledges that the Amerlux RF-LED replacements are the Customer's selected product, and that the Customer's selection is not based upon JCI's recommendation. In summary, the total fixtures to be installed with Amerlux retrofit product shall not exceed 721 based on the table above. The Customer reserves the right to change any locations prior to the installation as long as the quantities, light pole style, fixture type and wattage does not change.

Installation will be scheduled in two phases:

Phase One expected to start in late summer/fall of 2010 will include the retrofit of 449 fixtures that are 150 watt compatible, an additional 100 fixtures retrofit on 6th Avenue that are 150 watt compatible with new acrylic globe, and an additional 49 fixtures retrofit on 7th Avenue that are 250 watt compatible. The initial DOE grant will cover the cost of Phase One install.

Phase Two Expected to start early spring 2011. Project will involve (a) \$200,000 for the installation of the remaining 123 retrofits that are 250 watt compatible as listed in the table above, and (b) \$200,000 in funds for the additional lighting and technology solutions to be finalized in early 2011, which shall apply to the cost of equipment, materials, labor, and JCI's fee for the work in connection with such additional lighting and technology solutions. An additional Scope of Work may be made upon the mutual agreement of the parties in writing. The parties contemplate that such modifications may include, but are not limited to, the installation of additional improvement measures, energy conservation measures, facility improvement measures, and operational efficiency

Schedule 1

improvements or furnishing of additional services within the identified facilities, as well as other facilities owned or operated by the Customer. These modifications may take the form of additional phases of work or modifications to the original scope of Work or Services.

As part of the lighting performance as requested by the Customer, the Customer has selected Amerlux RF-LED lighting product, for which lighting product Amerlux has provided acceptable specifications and testing results attached hereto as Attachment 5 which will satisfy the criteria as set forth in the Illuminating Engineering Society (IES) of North America under the RP-8 recommended maintained luminance using a Local Road in a Commercial Area.

(The following criteria shall be used: $L_{avg} = 0.6$, L_{avg} to $L_{min} = 6$ to 1 , L_{max} to $L_{min} = 10$ to 1).

(Note: Since this Agreement does not involve relocating any light poles, some deviations from the above criteria is expected and can be ignored). The Customer acknowledges that light measurements in the field and by an independent lab (as provided in Attachment 5 hereto) confirm that required light level measurements have been met and exceeded. In addition, product warranty and compliance with the Illuminating Engineering Society (IES) of North America under the RP-8 recommended maintained luminance using a Local Road in a Commercial Area will be between the manufacturer and Customer.

Included in the cost of the Work are the following:

All of the pre-work invested to consider city wide street lighting options as well as boiler options at two swimming pools, vendor negotiations to secure nine test products and select qualified suppliers, test product installation, light level and energy level output measurements and reports, packaging and returning of vendor products, final product and warranty negotiations, project management, insurance, bond, and installation of 721 fixtures of the Amerlux LED retrofit kit.

- JCI scope of work per city of Kenosha requirements and specifications includes procurement of Amerlux RF-LED. project management, installation, insurance and bond
- JCI to deliver removed fixture internals to the City of Kenosha Streets Department office
- Disposal of fixture packaging
- JCI will obtain building permits and Customer will waive the permit fees
- One year Johnson Controls warranty for installation labor. The material warranty will be covered by the manufacturer
- All testing necessary to determine Post-Installation Baseline necessary to effectuate the Amerlux Exterior's product warranty

Johnson Controls, Inc. Initials: _____

Customer Initials: _____

EXPECTED PERFORMANCE

I. PROJECT BENEFITS

A. Certain Definitions. For purposes of this Agreement, the following terms have the meanings set forth below:

Annual Project Benefits are the portion of the projected Total Project Benefits to be achieved in any one year.

Pre-Installation Baseline is the mutually agreed upon data and/or usage amounts that reflect conditions prior to the installation of the Improvement Measures.

Post-Installation Baseline is the mutually agreed upon data and/or usage amounts that reflect conditions following the installation of the Improvement Measures.

Non-Measured Project Benefits are identified in Section II below. The Non-Measured Project Benefits have been agreed to by Customer and will be deemed achieved in accordance with the schedule set forth in the Total Project Benefits table below. Customer and JCI agree that: (i) the Non-Measured Project Benefits may include, but are not limited to, future capital and operational costs avoided as a result of the Work and implementation of the Improvement Measures, (ii) achievement of the Non-Measured Project Benefits is outside of JCI's control, and (iii) Customer has evaluated sufficient information to conclude that the Non-Measured Project Benefits will occur and bears sole responsibility for ensuring that the Non-Measured Project Benefits will be realized. Accordingly, the Non-Measured Project Benefits shall not be measured or monitored by JCI at any time during the Guarantee Term, but rather shall be deemed achieved in accordance with the schedule set forth in the Total Project Benefits table below.

Project Benefits are the total Non-Measured Project Benefits indicated in Schedule 1 hereto.

B. Project Benefits Summary. Subject to the terms and conditions of this Agreement, JCI and Customer agree that Customer will be deemed to achieve a total of \$781,929 in Non-Measured Project Benefits as set forth in the Total Project Benefits table below.

Total Project Benefits

1	\$ 20,887	\$ 26,513	\$ 902,500	\$ 949,900
2	\$ 21,304	\$ 26,714	\$ -	\$ 48,018
3	\$ 21,731	\$ 26,919	\$ -	\$ 48,649
4	\$ 22,165	\$ 27,128	\$ -	\$ 49,293
5	\$ 22,608	\$ 27,341	\$ -	\$ 49,949
6	\$ 23,061	\$ 27,558	\$ -	\$ 50,619
7	\$ 23,522	\$ 27,780	\$ -	\$ 51,302
8	\$ 23,992	\$ 28,006	\$ -	\$ 51,998
9	\$ 24,472	\$ 28,237	\$ -	\$ 52,709
10	\$ 24,962	\$ 28,472	\$ -	\$ 53,434
11	\$ 25,461	\$ 28,712	\$ -	\$ 54,173
12	\$ 25,970	\$ 28,957	\$ -	\$ 54,927
13	\$ 26,489	\$ 29,207	\$ -	\$ 55,696
14	\$ 27,019	\$ 29,462	\$ -	\$ 56,481
15	\$ 27,560	\$ 29,721	\$ -	\$ 57,281
Total	\$ 361,202	\$ 420,727	\$ 902,500	\$ 1,684,429

*Utility Cost Avoidance is a Non-Measured Project Benefit. Utility Cost Avoidance figures in the table above are based on anticipated increases in unit energy costs based on a mutually agreed fixed annual energy escalation rate of two percent (2%). Refer to Section II for energy savings calculations.

** Operations & Maintenance Cost Avoidance and Future Capital Cost Avoidance are Non-Measured Project Benefits. Refer to Section II for operations and maintenance savings calculations and agreed fixed escalation rate.

For purposes of this Schedule 2, "Year 1" is defined to mean the first day after Substantial Completion and continuing until the first anniversary thereof.

Within sixty (60) days Substantial Completion, JCI will calculate the Non-Measured Project Benefits achieved during the Installation applicable to the period and advise the Customer of the same.

II. NON-MEASURED PROJECT BENEFITS

Exterior Acorn Lighting Upgrades	\$ 20,887	\$ 26,513	\$ 902,500
----------------------------------	-----------	-----------	------------

Lighting Upgrades: Utility Cost Avoidance

Utility savings is realized by installing a lower wattage retrofit LED retrofit and driver, in place of the existing high pressure sodium bulb and ballast. The following is the agreed-upon energy savings calculation that represents the Non-Measured Benefits (energy savings) for this project.

Lighting Upgrades: O&M Cost Avoidance

By replacing the lighting fixtures now the Customer will avoid additional material and labor cost of upgrading and maintaining these fixtures over the project term.

Lighting Upgrades: Capital Cost Avoidance

Schedule 2

By receiving EECBG grant in the amount of \$902,500 Customer will be able to buy down significant portion of the project cost and maximize utility and O&M savings.

Customer has furnished the foregoing information to JCI, which information forms the basis of the Non-Measured Project Benefits. Customer agrees that the Non-Measured Project Benefits are reasonable and that the installation of the Improvement Measures will enable Customer to take actions that will result in the achievement of such Non-Measured Project Benefits.

Johnson Controls, Inc. Initials: _____

Customer Initials: _____

CUSTOMER RESPONSIBILITIES

To the extent applicable, in order for JCI to perform its obligations under this Agreement with respect to the Work, Customer shall be responsible for:

1. Providing JCI, its subcontractors, and its agents reasonable and safe access to all facilities and properties that are subject to the Work;
2. Providing for shut down and scheduling of affected locations during installation, including timely shutdowns of chilled water and hot water systems as needed to accomplish the Work;
3. Providing timely reviews and approvals of design submissions, proposed change orders, and other project documents;
4. Providing the following information with respect to the project and project site as soon as practicable following JCI's request:
 - a. surveys describing the property, boundaries, topography and reference points for use during construction, including existing service and utility lines;
 - b. geotechnical studies describing subsurface conditions, and other surveys describing other latent or concealed physical conditions at the project site;
 - c. temporary and permanent easements, zoning and other requirements and encumbrances affecting land use, or necessary to permit the proper design and construction of the project and enable JCI to perform the Work;
 - d. a legal description of the project site;
 - e. as-built and record drawings of any existing structures at the project site; and
 - f. environmental studies, reports and impact statement describing the environmental conditions, including hazardous conditions or materials, in existence at the project site.
5. Securing and executing all necessary agreements with adjacent land or property owners that are necessary to enable JCI to perform the Work;
6. Providing assistance to JCI in obtaining any permits, approvals, and licenses that are JCI's responsibility to obtain as set forth in Schedule 1;
7. Obtaining any permits, approvals, and licenses that are necessary for the performance of the Work and are not JCI's responsibility to obtain as set forth in Schedule 1;
8. Properly maintaining, and performing appropriate preventative maintenance on, all equipment and building systems in accordance with manufacturers' standards and specifications;
9. Providing all records relating to energy and/or water usage and related maintenance of the premises and relevant equipment requested by JCI;
10. Taking all actions reasonably necessary to achieve the Non-Measured Project Benefits.

PRICE AND PAYMENT TERMS

Customer shall make payments to JCI pursuant to this Schedule 4.

1. Work. The price to be paid by Customer for the Work shall be \$ 1,302,500. Payments (including payment for materials delivered to JCI and work performed on and off-site) shall be made to JCI as follows:

SCOPE OF WORK

First payment due:	\$ 450,000 August 16, 2010
Second payment due:	\$ 420,000 September 20, 2010
Third payment due:	\$ 32,500 October 25, 2010
Fourth payment due:	\$ 50,000 January 10, 2011
Fifth payment due:	\$ 150,000 March 21, 2011
Sixth payment due:	\$ 170,000 April 18, 2011
Final payment due:	\$ 30,000 on Final Acceptance

Johnson Controls, Inc. Initials: _____

Customer Initials: _____

NOTICE TO PROCEED

Johnson Controls, Inc.

ATTN: [REDACTED]

Re: Notice to Proceed for [REDACTED]

Dear [REDACTED]:

This Notice to Proceed is being issued by [REDACTED] ("Customer") to Johnson Controls, Inc. ("JCI") pursuant to that certain Performance Contract entered into between Customer and JCI for the purpose of notifying JCI to commence work under such contract.

In the event that this Notice to Proceed is delivered by Customer prior to the execution of the Performance Contract by Customer and JCI, Customer understands and expects JCI will incur significant costs and expenses in complying with this Notice to Proceed. In the event the Performance Contract is not executed by the parties, for any reason, Customer agrees to pay JCI for its costs and fees incurred in complying with this Notice to Proceed on a time and material basis. Customer also agrees JCI shall be entitled to a reasonable markup thereon for profit and overhead. Customer agrees to pay amounts billed by JCI no later than five (5) days after Customer receives JCI's payment application. JCI will continue to submit payment applications to Customer until the Performance Contract is executed. Once the Performance Contract is executed, JCI will begin submitting its payment applications to Customer in accordance with the terms and conditions set forth therein. Any amounts already paid by Customer will be credited towards the Performance Contract price.

By signing and dating this Notice to Proceed, the parties hereto agree to these terms and represent and warrant they have the authority to execute this Notice to Proceed on behalf of their respective organizations.

CITY OF KENOSHA

Signature: _____

Printed Name: _____

Title: _____

Date: _____

ACKNOWLEDGED & AGREED TO:

JOHNSON CONTROLS, INC.

Signature: _____

Printed Name: _____

Title: _____

Date: _____

CHANGE ORDER

Performance Contract dated _____, 20____ between Johnson Controls, Inc. and Customer	Change Order No.	Date (mo/day/yr)
Customer ██████████		
The above referenced Performance Contract is hereby modified to the extent described below in accordance with the Terms and Conditions of the CHANGE ORDERS section thereof.		
Scope of Work changed as follows:		
Total amount of this Change Order	\$	
Total Performance Contract amount as revised by this Change Order	\$	
The time for completion is: <input type="checkbox"/> increased, <input type="checkbox"/> decreased, <input type="checkbox"/> unchanged. The new completion date resulting from this Change Order is:		(mo, day, yr)
[check if applicable] Assured Performance Guarantee changed as follows:		
Unless specifically changed by this Change Order, all terms, conditions and provisions of the above referenced Performance Contract remain unchanged and in full effect.		
JOHNSON CONTROLS, INC.	CUSTOMER	
Signature:	Signature:	
Printed Name:	Printed Name:	
Title:	Title:	

CERTIFICATE OF SUBSTANTIAL COMPLETION

PARTIES: JOHNSON CONTROLS, INC. ("JCI")

[REDACTED]

[REDACTED] ("Customer")

[REDACTED]

PROJECT: [REDACTED]; Performance Contract dated [REDACTED] between JCI and Customer

By executing this Certificate of Substantial Completion, Customer acknowledges the following:

- a. The work set forth in the Performance Contract is substantially complete.
- b. Customer has received the manuals, warranty information, and training required under the Performance Contract.
- c. The following punch list items must be completed by JCI (check as applicable):
 - punch list attached
 - punch list complete
- d. Upon completion of the punch list items, or if such punch list items are complete and final action by the Common Council, JCI and Customer shall sign the Certificate of Final Acceptance attached hereto.

Dated [REDACTED], 20[REDACTED].

CUSTOMER:

JOHNSON CONTROLS, INC.

Signature: _____

Signature: _____

Printed Name: _____

Printed Name: _____

Title: _____

Title: _____

CERTIFICATE OF FINAL ACCEPTANCE

PARTIES: JOHNSON CONTROLS, INC. ("JCI")

[Redacted]

[Redacted] ("Customer")

[Redacted]

PROJECT: [Redacted]; Performance Contract dated [Redacted] between JCI and Customer

By executing this Certificate of Final Acceptance, Customer acknowledges the following:

- a. The work set forth in the Performance Contract has been reviewed and determined by Customer to be fully complete.
- b. Customer accepts the work as complete and hereby releases JCI's obligations under any performance and payment bonds posted for the project as of the date set forth below.

Dated [Redacted] 20 [Redacted].

CUSTOMER: CITY OF KENOSHA

JOHNSON CONTROLS, INC.

Signature: _____

Signature: _____

Printed Name: Keith G. Bosman,

Printed Name: _____

Title: Mayor, City of Kenosha

Title: _____

Signature: _____

Signature: _____

Printed Name: Michael Higgins

Printed Name: _____

Title: City Clerk Treasurer, City of Kenosha

Title: _____

Dynamic Lighting Solutions, LLC dba



LIMITED WARRANTY
City of Kenosha LED Retrofit

Amerlux warrants to Johnson Controls and the City of Kenosha that products will be free from defects in material and workmanship for a period of **TEN YEARS** from date of shipment.

This warranty includes LED Drive Module, the LED lamp packages, and any other electrical or mechanical parts provided by Amerlux that cause the system to fail. LED system failure is defined as any (1) non-operating LED. The warranty does not include system damage from abnormal or excessive voltage surges (including lighting strikes), physical damage or incorrect installation. The warranty does not cover defects resulting from acts of God, fire, vandalism or civil disturbances.

Additionally, the LED chip packages are warranted to maintain at least 70% of initial lumens through 70,000 hours of operation. This warranty does not cover lumen depreciation due to environmental conditions outside of the fixture or dirt accumulation on the fixture's diffuser or glass lens. The LM79 data provided for project approval will be used as a baseline in determining the 70% standard. If a problem is suspected in the field with excessive light loss the City would be required to remove the fixture and send to Amerlux to be tested in the lab. If the test results show that the fixture is in compliance with the specification, the City would be required to pay for the costs of the test. If the fixture is found to not be in compliance, then Amerlux would be responsible for the costs of the test and replacing the components in order to bring it into compliance.

This warranty only covers equipment provided by Amerlux and does not extend to transportation, installation, or replacement charges; nor does it apply to any equipment of another manufacturer used in conjunction with the products provided by Amerlux.

All defective parts will be remedied by replacement of part or replacement of fixture, which will be determined by Amerlux.

Amerlux shall not be liable for incidental, special or consequential damages. This warranty is extended to the original purchaser and their client (Johnson Controls and the City of Kenosha) only and is not transferable or assignable. Except for the implied warranty for fitness for the City of Kenosha's purpose, no other warranty is given, including without limitation any implied warranty of merchantability, and no terms or conditions other than those stated herein shall be binding on Amerlux.

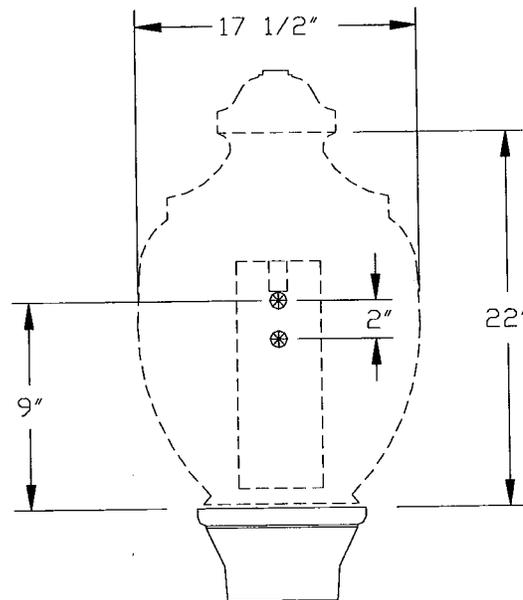
Third Party Light Level Test Results



CERTIFIED TEST REPORT No. 27339

AMERLUX LIGHTING - LED STREET LIGHT LUMINAIRE
WITH SMALL SPECULAR REFLECTORS AND ACORN PRISMATIC GLASS LENS
EIGHT ARRAYS OF LEDS. LUMINAIRE OUTPUT: 4545 Lms.
LUMINAIRE OPERATING AT 120 VAC AND 82.1 WATTS

IESNA CUTOFF CLASSIFICATION: NON-CUTOFF



PREPARED FOR:

AMERLUX GLOBAL LIGHTING
PEARLAND, TX

DATE: JUL 13, 2010

CERTIFIED BY:

James E. Walker III

LABORATORY RESULTS MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.
BALLAST FACTORS HAVE NOT BEEN APPLIED

TESTED IN 30 PLANES LEFT SIDE, 30 PLANES RIGHT SIDE, LEFT AND RIGHT AVERAGED

VERTICAL TEST INCREMENTS ARE 2.5 DEGREES.

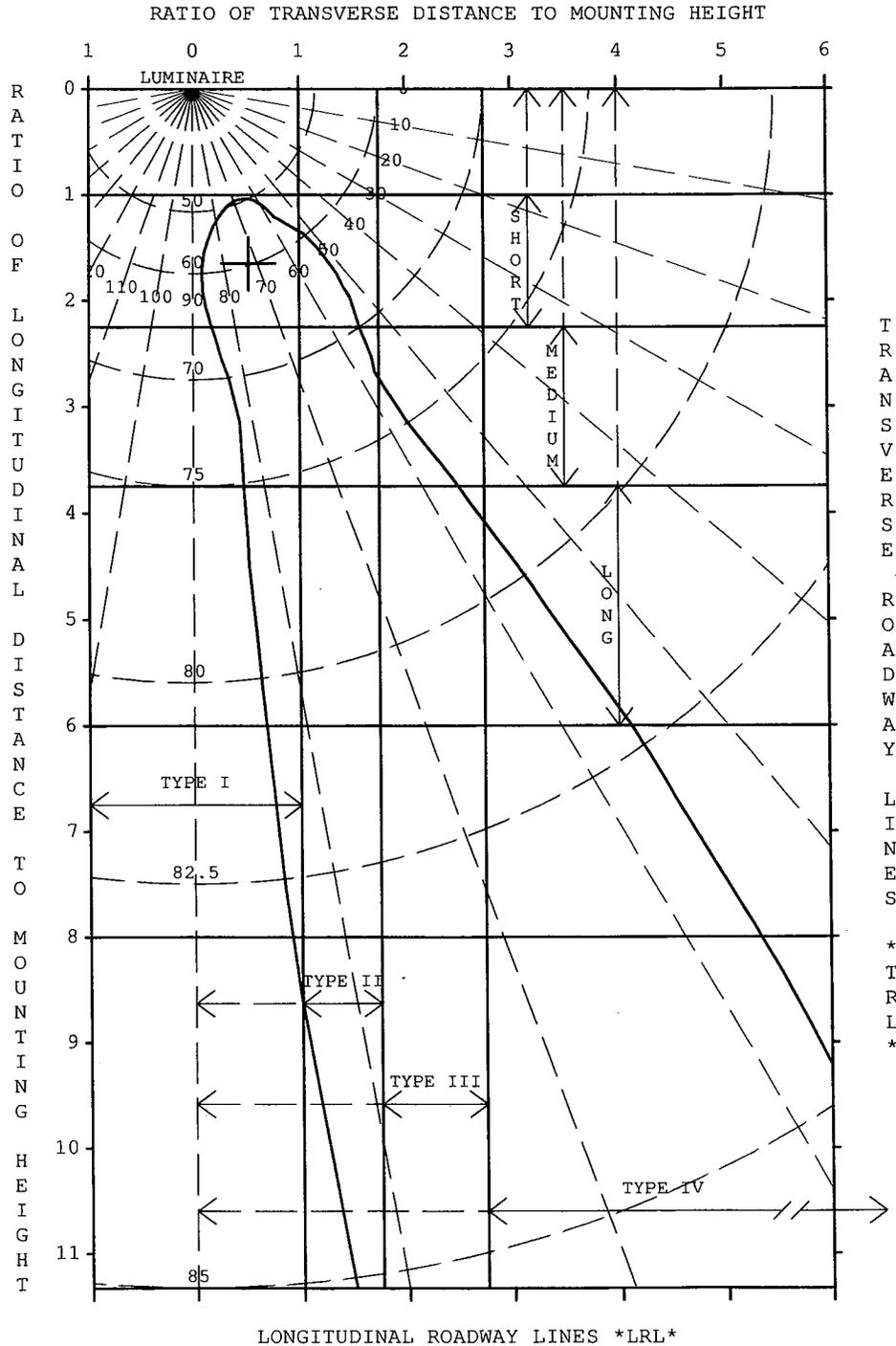
TEST DISTANCE EXCEEDS FIVE TIMES THE GREATEST
LUMINOUS OPENING OF LUMINAIRE.

LIGHTING SCIENCES, INC.

7826 E. EVANS RD.
SCOTTSDALE, AZ, USA 85260

CERTIFIED TEST REPORT NO.27339

AMERLUX LIGHTING - LED STREET LIGHT LUMINAIRE
WITH SMALL SPECULAR REFLECTORS AND ACORN PRISMATIC GLASS LENS
EIGHT ARRAYS OF LEDS. LUMINAIRE OUTPUT: 4545 Lms.
LUMINAIRE OPERATING AT 120 VAC AND 82.1 WATTS



NOTE:
CONTOUR LINE
IS FOR 50%
OF THE MAXIMUM
INTENSITY

IES ROADWAY CLASSIFICATION: TYPE II, SHORT

LIGHTING SCIENCES, INC.
7826 E. EVANS RD.
SCOTTSDALE, AZ, USA 85260

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*** THIS IS AN ABSOLUTE TEST REPORT ***

UTILIZATION TABLE

CO-EFFICIENT OF UTILIZATION

RATIO	HOUSE SIDE	STREET SIDE	TOTAL
0.5	0.064	0.118	0.183
1.0	0.111	0.232	0.342
1.5	0.141	0.301	0.441
2.0	0.162	0.342	0.504
2.5	0.175	0.368	0.542
3.0	0.184	0.383	0.567
3.5	0.191	0.398	0.589
4.0	0.196	0.407	0.603
5.0	0.203	0.420	0.623
TOTAL:	0.235	0.475	0.710

PERCENTAGE OUTPUTS

DOWNWARD:	STREET SIDE =	47.5%
	HOUSE SIDE =	23.5%
	TOTAL =	71.0%
UPWARD:	STREET SIDE =	15.4%
	HOUSE SIDE =	13.6%
	TOTAL =	29.0%

EFFICACY (LUMENS PER WATT) 55.4

THE ABOVE COEFFICIENTS HAVE BEEN CALCULATED BASED ON LUMINAIRE LUMENS
BECAUSE IN AN ABSOLUTE TEST THE BARE LAMP LUMENS ARE UNKNOWN.
LIGHTING DESIGN CALCULATIONS MADE USING THESE COEFFICIENTS SHOULD
THEREFORE USE THE LUMINAIRE LUMENS IN THE CALCULATION FORMULA

LIGHTING SCIENCES, INC.
7826 E. EVANS RD.
SCOTTSDALE, AZ, USA 85260

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ZONAL LUMEN SUMMARY PER IES PUBLICATION TM-15-07

*** THIS IS AN ABSOLUTE TEST REPORT ***

FORWARD LIGHT:

LUMENS	2159.3
% LUMENS	47.5 %
FORWARD LOW ZONE (0 TO 30 DEGREES)	2.2 %
FORWARD MID ZONE (30 TO 60 DEGREES)	15.4 %
FORWARD HIGH ZONE (60 TO 80 DEGREES)	20.4 %
FORWARD VERY HIGH ZONE (80 TO 90 DEGREES)	9.6 %

BACK LIGHT:

LUMENS	1068.0
% LUMENS	23.5 %
BACK LIGHT LOW ZONE (0 TO 30 DEGREES)	1.6 %
BACK LIGHT MID ZONE (30 TO 60 DEGREES)	7.2 %
BACK LIGHT HIGH ZONE (60 TO 80 DEGREES)	9.8 %
BACK LIGHT VERY HIGH ZONE (80 TO 90 DEGREES)	5.0 %

UPLIGHT:

LUMENS	1318.0
% LUMENS	29.0 %
UPLIGHT LOW ZONE (90 TO 100 DEGREES)	8.9 %
UPLIGHT HIGH ZONE (100 TO 180 DEGREES)	20.0 %

TRAPPED LIGHT: NOT APPLICABLE TO AN ABSOLUTE TEST

LIGHTING SCIENCES, INC.
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WITH SMALL SPECULAR REFLECTORS AND ACORN PRISMATIC GLASS LENS
EIGHT ARRAYS OF LEDS. LUMINAIRE OUTPUT: 4545 Lms.
LUMINAIRE OPERATING AT 120 VAC AND 82.1 WATTS

IES "BUG" RATING (BACK LIGHT, UPLIGHT, GLARE)
PER ADDENDUM TO IES TM-15-07

	LUMENS	SECONDARY SOLID ANGLE RATING
BACK LIGHT		
BH (60-80 DEGREES)	443.4	B1
BM (30-60 DEGREES)	327.3	B1
BL (0-30 DEGREES)	71.4	B0
UPLIGHT		
UH (100-180 DEGREES)	911.3	U4
UL (90-100 DEGREES)	406.7	U3
FVH (80-90 DEGREES)	434.3	U3
BVH (80-90 DEGREES)	226.0	U3
GLARE LIGHT		
FVH (80-90 DEGREES)	434.3	G3
BVH (80-90 DEGREES)	226.0	G1
FH (60-80 DEGREES)	925.1	G1
BH (60-80 DEGREES)	443.4	G1

IES BUG RATING: B1 U4 G3

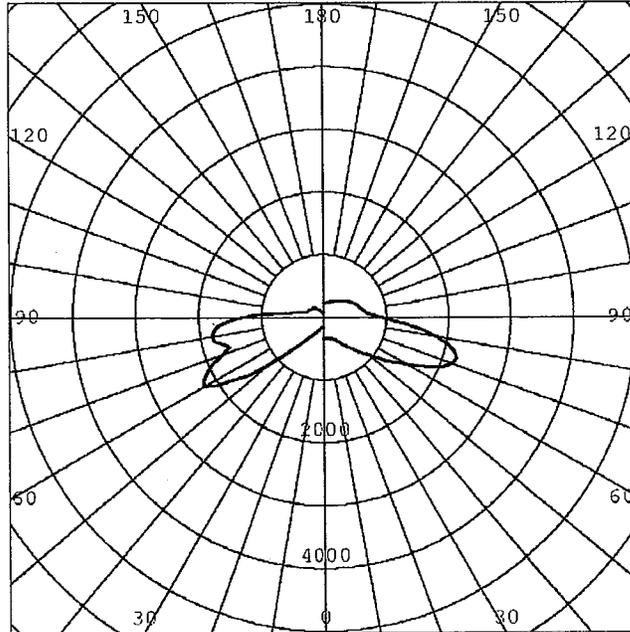
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INTENSITY (CANDLEPOWER)
IN MAX. PLANE

ANGLE	CANDLEPOWER
0.0	178
5.0	164
10.0	168
15.0	190
20.0	218
25.0	256
30.0	304
35.0	381
40.0	510
45.0	747
50.0	1236
52.5	1510
55.0	1719
57.5	2002
60.0	2221
62.5	2171
65.0	2065
67.5	1927
70.0	1738
72.5	1599
75.0	1671
77.5	1801
80.0	1821
82.5	1784
85.0	1715
87.5	1540
90.0	1319
95.0	770
105.0	316
115.0	269
125.0	239
135.0	214
145.0	167
155.0	167
165.0	120
175.0	79
180.0	79



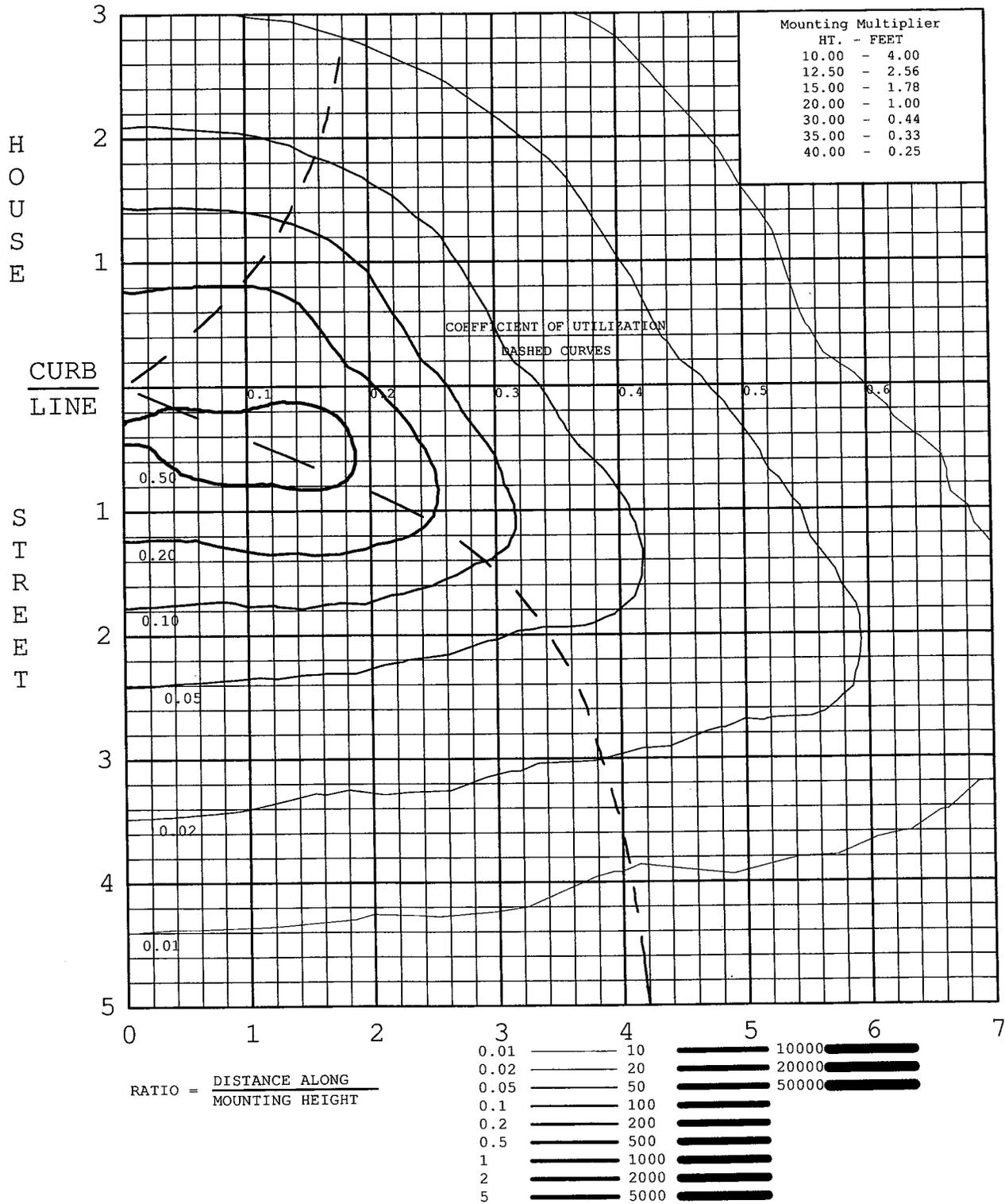
INTENSITY (CANDLEPOWER)
IN MAX. CONE

ANGLE	CANDLEPOWER
0.0	336
5.0	336
15.0	348
25.0	391
35.0	538
45.0	782
55.0	1213
60.0	1509
62.5	1688
65.0	1889
67.5	2070
70.0	2182
72.5	2221
75.0	2169
77.5	2036
80.0	1830
82.5	1576
85.0	1315
87.5	1087
90.0	907
95.0	702
105.0	599
115.0	540
125.0	454
135.0	369
145.0	313
155.0	272
165.0	247
175.0	234
180.0	233

MAXIMUM INTENSITY (CANDLEPOWER) : 2221 CD
PLANE OF MAXIMUM: 72.5
VERTICAL ANGLE OF MAXIMUM: 60.0

AMERLUX LIGHTING - LED STREET LIGHT LUMINAIRE
 WITH SMALL SPECULAR REFLECTORS AND ACORN PRISMATIC GLASS LENS
 EIGHT ARRAYS OF LEDS. LUMINAIRE OUTPUT: 4545 Lms.
 LUMINAIRE OPERATING AT 120 VAC AND 82.1 WATTS

MOUNTING HEIGHT FOR ISOFC 20.0 FEET



LIGHTING SCIENCES, INC.
7826 E. EVANS RD.
SCOTTSDALE, AZ, USA 85260

CERTIFIED TEST REPORT No. 27339

AMERLUX LIGHTING - LED STREET LIGHT LUMINAIRE
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EIGHT ARRAYS OF LEDS. LUMINAIRE OUTPUT: 4545 Lms.
LUMINAIRE OPERATING AT 120 VAC AND 82.1 WATTS

INTENSITY (CANDLEPOWER) SUMMARY

VERT. ANGLE	HORIZONTAL ANGLES - STREET SIDE										
	0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	72.5	75.0	85.0

0.0	178	178	178	178	178	178	178	178	178	178	178
5.0	175	179	186	186	183	175	168	164	164	165	166
10.0	160	169	177	180	180	176	172	169	168	168	169
15.0	212	220	221	219	216	210	204	197	190	188	182
20.0	250	253	251	254	259	254	247	233	218	214	199
25.0	266	266	271	283	302	301	296	280	256	248	217
30.0	268	272	281	305	351	364	361	341	304	290	239
35.0	269	274	294	334	405	454	465	439	381	355	266
40.0	281	286	303	351	460	541	597	602	510	465	314
45.0	304	308	326	370	486	619	740	827	747	684	413
50.0	320	321	338	384	507	682	915	1206	1236	1163	658
55.0	327	327	340	384	516	707	986	1476	1719	1685	1046
60.0**	336	336	348	391	538	782	1213	1889	2221	2169	1315
65.0	346	347	362	404	535	767	1257	1992	2065	1929	1175
70.0	363	363	380	418	534	723	1105	1792	1738	1587	1016
75.0	370	371	385	417	536	713	990	1616	1671	1569	998
80.0	367	368	384	411	528	721	1069	1801	1821	1695	1032
85.0	343	339	351	375	459	644	989	1690	1715	1577	1002
90.0	292	288	297	320	373	480	748	1342	1319	1201	762

VERT. ANGLE	HORIZONTAL ANGLES - HOUSE SIDE										
	90.0	95.0	105.0	115.0	125.0	135.0	145.0	155.0	165.0	175.0	180.0
0.0	178	178	178	178	178	178	178	178	178	178	178
5.0	165	164	165	165	164	166	168	170	172	174	174
10.0	169	168	167	167	165	164	162	161	161	161	163
15.0	180	178	176	175	172	167	162	158	155	155	155
20.0	194	191	186	182	176	169	162	156	151	148	148
25.0	207	201	194	188	179	170	161	153	147	144	143
30.0	222	212	204	197	187	177	166	156	149	145	145
35.0	242	231	224	218	205	193	179	167	157	153	153
40.0	280	268	265	258	237	218	199	184	172	166	167
45.0	347	327	323	310	280	250	223	202	189	181	181
50.0	488	430	418	393	341	290	251	223	206	197	197
55.0	722	588	539	489	410	335	283	248	226	214	214
60.0**	907	702	599	540	454	369	313	272	247	234	233
65.0	923	736	606	554	473	387	334	293	266	252	250
70.0	852	702	588	537	461	381	337	302	278	264	261
75.0	843	700	576	527	459	388	343	305	281	269	267
80.0	862	719	585	533	465	395	352	311	281	268	265
85.0	833	685	560	510	446	381	347	312	281	265	261
90.0	639	550	459	420	378	338	311	284	263	251	247

** DENOTES VERTICAL ANGLE OF MAXIMUM CONE

**** DENOTES LATERAL ANGLE OF MAXIMUM PLANE

INTENSITY WAS MEASURED IN 2.5 DEGREE STEPS - TABULATIONS ARE AVAILABLE

LIGHTING SCIENCES, INC.
7826 E. EVANS RD.
SCOTTSDALE, AZ, USA 85260

CERTIFIED TEST REPORT No. 27339

AMERLUX LIGHTING - LED STREET LIGHT LUMINAIRE
WITH SMALL SPECULAR REFLECTORS AND ACORN PRISMATIC GLASS LENS
EIGHT ARRAYS OF LEDS. LUMINAIRE OUTPUT: 4545 Lms.
LUMINAIRE OPERATING AT 120 VAC AND 82.1 WATTS

** ILLUMINANCE (FOOTCANDLE) TABLE FOR SINGLE LUMINAIRE AT 20.0 FT. **

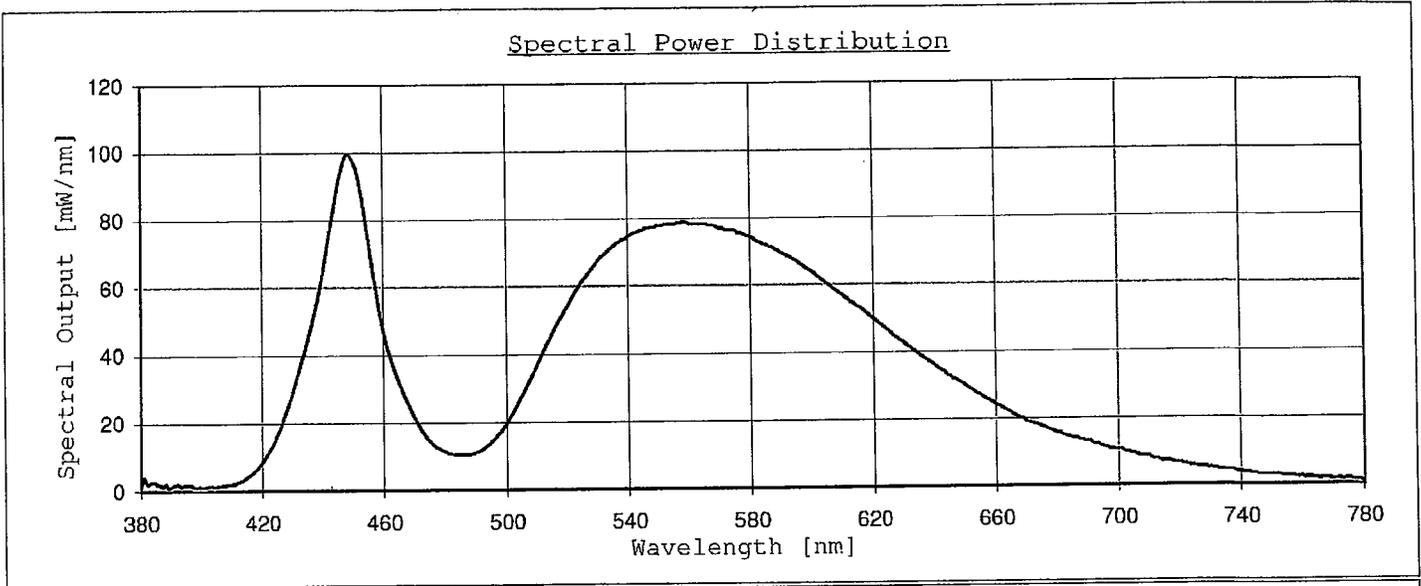
LATERAL RATIOS	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
-3.00	.021	.021	.020	.018	.016	.014	.012	.010	.008	.007	.006	.005	.004	.004	.003
-2.50	.033	.033	.031	.028	.024	.020	.016	.013	.011	.009	.007	.006	.005	.004	.003
-2.00	.055	.055	.051	.044	.035	.029	.022	.017	.013	.010	.008	.007	.005	.004	.004
-1.50	.094	.094	.089	.075	.058	.042	.030	.022	.016	.012	.010	.008	.006	.005	.004
-1.00	0.16	0.16	0.16	0.13	.091	.059	.039	.027	.019	.014	.011	.009	.007	.006	.005
-0.50	0.25	0.26	0.26	0.21	0.12	.077	.049	.033	.024	.017	.013	.010	.008	.006	.005
HOUSE	CURB LINE														
STREET	0.44	0.37	0.30	0.33	0.20	0.11	.066	.044	.030	.022	.016	.012	.010	.008	.006
0.50	0.47	0.62	0.76	0.76	0.39	0.17	.093	.058	.039	.028	.020	.015	.011	.009	.007
1.00	0.26	0.29	0.33	0.37	0.31	0.20	0.11	.074	.051	.036	.026	.019	.014	.011	.008
1.50	0.14	0.13	0.14	0.14	0.14	0.11	.087	.070	.054	.040	.030	.022	.016	.013	.010
2.00	.077	.074	.073	.074	.067	.058	.051	.046	.043	.036	.029	.023	.018	.014	.011
2.50	.046	.045	.043	.042	.039	.036	.033	.029	.027	.025	.023	.020	.017	.014	.011
3.00	.029	.029	.027	.025	.025	.024	.022	.021	.019	.017	.016	.015	.013	.012	.010
3.50	.019	.019	.018	.017	.017	.016	.015	.014	.013	.012	.011	.011	.010	.009	.008
4.00	.013	.013	.013	.012	.011	.011	.011	.010	.010	.009	.009	.008	.007	.007	.006
4.50	.009	.009	.009	.009	.008	.008	.008	.008	.007	.007	.007	.006	.006	.005	.005
5.00	.007	.007	.007	.007	.006	.006	.006	.005	.005	.005	.005	.005	.005	.004	.004
	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0

CORRECTION FACTORS FOR OTHER MOUNTING HEIGHTS: SEE ISOFOOTCANDLE PAGE

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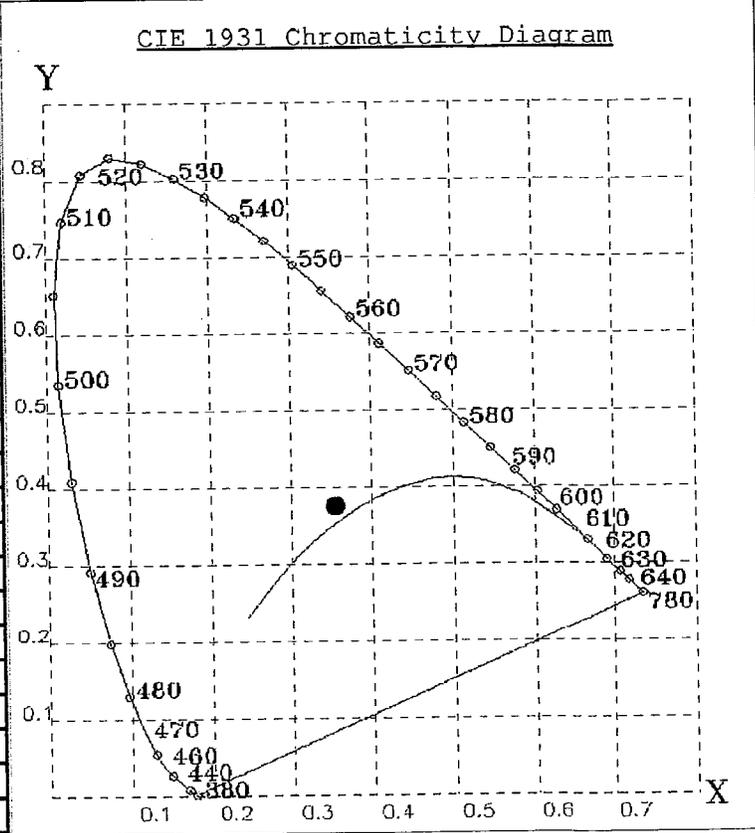
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Tabulated Spectral Power Distribution

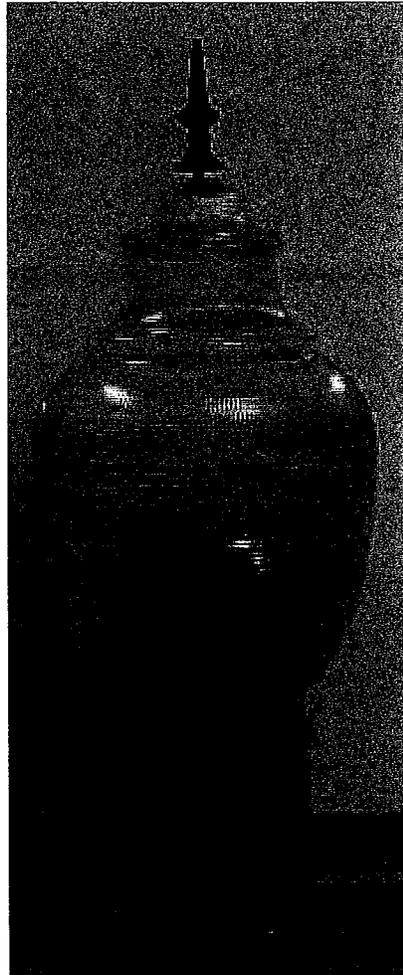
Wavelength [nm]	[mW/nm]	Wavelength [nm]	[mW/nm]
380	1.66909	590	69.52605
390	1.49921	600	64.09949
400	1.15407	610	57.11035
410	2.14771	620	49.88527
420	8.68385	630	42.84355
430	28.70618	640	35.87733
440	64.69675	650	29.85890
450	97.63902	660	24.32987
460	46.74798	670	19.10015
470	21.49727	680	15.64063
480	11.43151	690	13.33384
490	11.16995	700	10.63336
500	19.87268	710	8.64610
510	36.77119	720	6.71411
520	54.27910	730	5.19062
530	67.75180	740	4.00420
540	74.69511	750	3.01730
550	78.09395	760	2.55352
560	78.48089	770	1.59494
570	76.93584	780	0.57973
580	74.34457		



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All testing was conducted in accordance with LM-79-08,

Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products as published by the Illuminating Engineering Society of North America (IESNA).

The condition of the item tested was new. Stabilization time before testing exceeded 16 hours.

The test results (luminous distribution and flux) were obtained by using a Lighting Sciences series 6000 Type C Moving Mirror Goniophotometer

- The photometric reference standard used is a set of three incandescent luminous intensity standard lamps calibrated and traceable to the U.S. National Institute of Standards and Technology.

The test results (colorimetric and luminous flux) were obtained by using a Lighting Sciences model 4000 Integrating Sphere of either 1 or 2 meters diameter, having an internal reflectance exceeding 0.80. 4π geometry was used. Correction factors were applied for spectral mismatch and self-absorption. The spectroradiometer employed was a LSC model 500E having a bandwidth of .84.

- The photometric reference standard used is a set of three incandescent luminous flux standard lamps calibrated and traceable to the U.S. National Institute of Standards and Technology.
- The colorimetric reference standard used is an incandescent spectral standard lamp calibrated and traceable to the U.S. National Institute of Standards and Technology.

Power measurements were obtained with a Yokogawa WT210 power analyzer.

Ambient temperature during testing was $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$, measured using an Omega model DP460.

Calibration certificates are on file at the laboratories of Lighting Sciences Inc.



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ROCKY BEDNAR
SUPERINTENDENT

PARK DIVISION
JEFF WARNOCK
SUPERINTENDENT

ADMINISTRATION SUPERVISOR
JANICE D. SCHROEDER

C-2

DEPARTMENT OF PUBLIC WORKS

RONALD L. BURSEK, P.E., DIRECTOR

MUNICIPAL BUILDING • 625 - 52ND ST. • RM. 305 • KENOSHA, WI 53140
TELEPHONE (262) 653-4050 • FAX (262) 653-4056

August 13, 2010

To: G. John Ruffolo, Chairman
Public Works Committee

From: Ronald L. Bursek, P.E. 
Director of Public Works

Subject: ***Proposed Electronic Recycling Contract***

BACKGROUND/ANALYSIS

Public Works staff has been working for several months to position the City for compliance with the 2009 Wisconsin Act 50, the new Wisconsin electronics recycling law. As previously discussed at previous Public Works Committee meeting(s), the City's obligation under the new law is to educate residents about the need to recycle old, unused electronics items, and to prohibit collection of such with normal trash pickup because Wisconsin Act 50 prohibits the placement of CED's in landfills.

Although the City is not obligated to provide electronics recycling services, staff sent out RFP's (Requests for Proposals) to determine the feasibility of such service. After evaluating submittals, staff selected URT (Universal Recycling Technologies) as the best qualified firm; vetted the performance of the firm with about half a dozen other municipalities which are currently working with URT; and verified that the contract will be revenue generating, and will be for a one year term with 2 year option.

The cost proposal recommended by staff will be \$0.00/lb for CED's (Covered Electronics Devices, which included TV's, Monitors, Printers, etc.); \$0.00/lb for EED's, (which include computer peripherals, Fax machines, DVD players and VCR's, etc.); \$0.00/lb for non-CED's (which include cell phones, digital cameras, IPODS, etc.); \$0.00 for logistics (transportation and packaging); and \$0.15/lb revenue for CPU's Laptops, etc. Attached is a copy of the proposed area to be used for the electronics recycling.

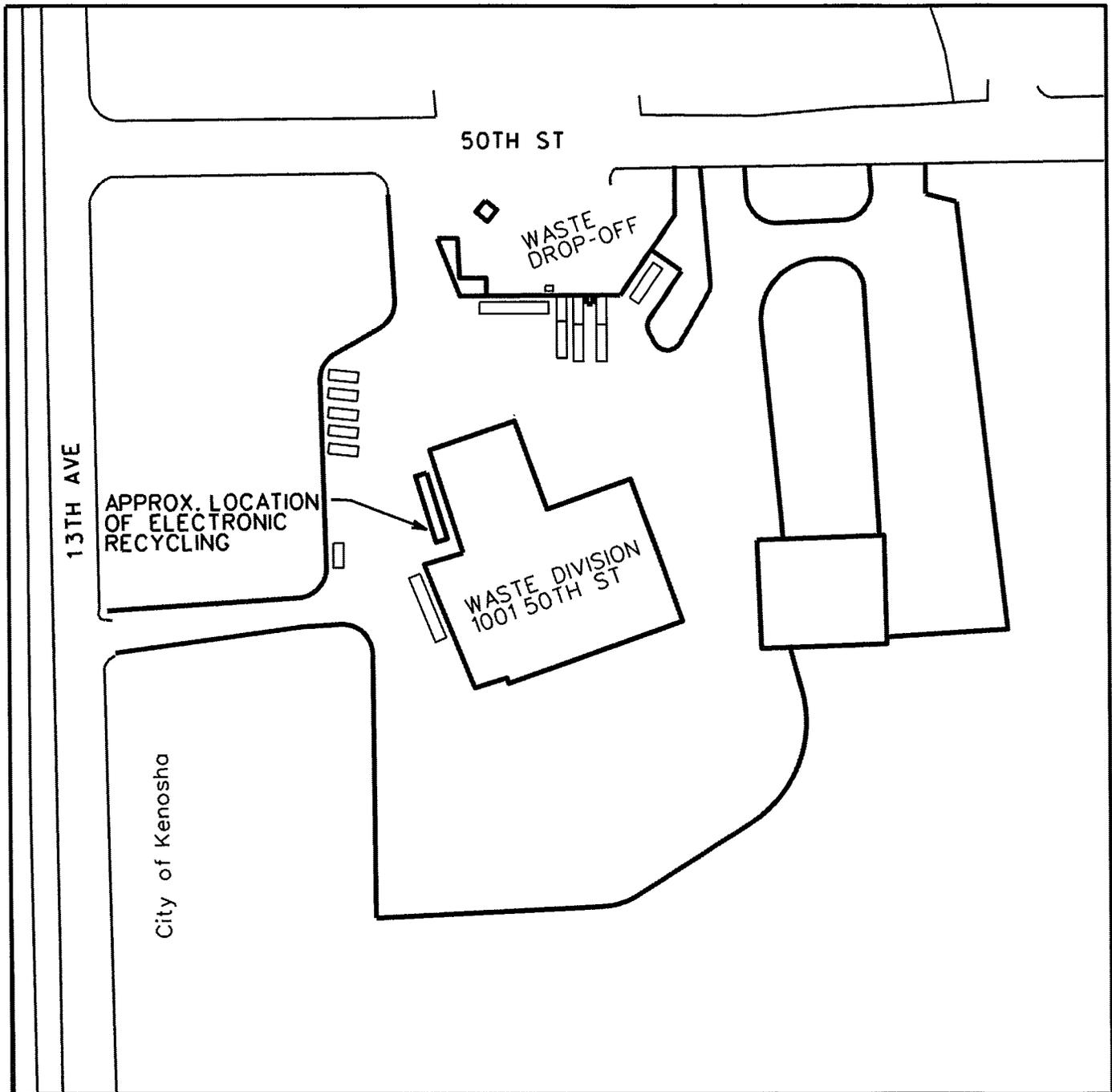
Since the contract will be revenue generating, there will not be any cost obligation or expense involved with the addition of this proposed added service.

RECOMMENDATION

Staff recommends that the Director of Public Works be authorized to negotiate the final contract with URT and execute it on behalf of the City of Kenosha.

mml

GENERAL LOCATION MAP



CITY OF KENOSHA - WASTE DIVISION
1001 50TH STREET

