REQUESTS FOR BIDS

TO PROVIDE STREETLIGHT REPAIRS THROUGHOUT THE VILLAGE

LEGAL NOTICE

INVITATION TO BID

TO PROVIDE STREETLIGHT REPAIRS

Sealed bids for Streetlight Repairs at various locations to be completed by October 20th, 2014 must be mailed or hand-delivered to the address listed below by Tuesday, September 2, 2014 at 10:00 a.m. Bids will be publically opened and read aloud at the above stated time and place. Proposals not physically received by the Village by 10:00 a.m. on Tuesday, September 2, 2014 will be returned, unopened to the firm. All proposals should be addressed to:

Village of Oswego
Re: (vendor name)
Proposal for the Village of Oswego, "Streetlight Repairs"
Attention: Tina Touchette
Village Clerk
100 Parkers Mill
Oswego IL 60543

Proposal packets are available online at http://www.oswegoil.org or at the Oswego Village Hall, 100 Parker's Mill, Oswego, Illinois.

Each bid must be accompanied by a Bid Guarantee in the form of a Bid Bond from a company with an A-1 best rating, or a cashier's check in the amount of ten percent (10%) of the bid and made payable to the client address Village of Oswego, Public Works Department, 100 Parker's Mill, Oswego IL. 60543. No bid shall be withdrawn for a period of thirty (30) days after the bid opening date without the consent of the Village. Checks or drafts of unsuccessful bidders will be returned as soon as possible after opening and checking the bids.

Successful bidder must provide proper insurance, a Performance Bond and a Labor and Material Payment Bond in the full amount of the Contract, acceptable to the Village. **Contractor must comply with Prevailing Wage Act.**

Each contractor is to submit their bid as indicated in the Specifications.

The Village reserves the right to reject any or all bids and to waive any informality in bidding.

Emailed or faxed bids will not be accepted.

Award of Contract: The Village of Oswego Board of Trustees will make the final award of the proposal or contract.

SPECIFICATIONS

STREETLIGHT REPAIRS

DEFINITIONS:

The Term "Village" whenever used in the contract documents shall be construed to mean the Village of Oswego.

I. Conditions:

The Contractor is responsible for being familiar with all conditions, instructions, and documents governing this contract. Failure to make such preparations shall not excuse the Contractor from performance of the duties and obligations imposed under the terms of this contract.

II. Bid Bond:

If the bidder's proposal for this project exceeds fifty thousand dollars ($50,000.00), bids shall be secured by a certified check, bank draft, satisfactory bid bond or approved letter of credit in the amount of ten percent (10%) of the total bid price.

III. Performance Bond:

The following bond shall be delivered to the Village and shall become binding with the acceptance of the bid.

Performance bond satisfactory to the Village, executed by Surety Company authorized to do business in the state or otherwise secured in a manner satisfactory to the Village, in an amount of $10,000.00.

IV. Insurance Requirements:

The Contractor will be required to meet the Village of Oswego insurance requirements. Unless otherwise specified the Contractor shall, before commencing satisfactory to the Village of Oswego an additionally named insured in the following minimum amounts with specific coverage which includes underground, explosion, and collapse.

Property Damage	$1,000,000 (each accident)
Bodily Injury	$500,000 (each person) $1,000,000 (each accident)
Workmen's Compensation Insurance:	All Liability imposed Workmen's Compensation stature
Employer's Liability Insurance	$100,000
Contractual Liability Insurance	$500,000
Completed Operations Insurance	$500,000
Owned, Hired, and Non-Ownership Vehicle Bodily Injury and Property Damaged to the following Limits	

V. Bid Questions:

Questions regarding this request for proposal should be in writing and directed to:

Village of Oswego
Attention: Tracy Miller
100 Parkers Mill
Oswego, IL 60543
Email: tmiller@oswegoil.org
FAX: 630-551-4854

The Village will only respond to questions received by 4:00 p.m. on August 26, 2014. Answers will be provided in writing on the Village's website at www.oswegoil.org by 1:00 p.m. on August 29, 2014. The Village will not provide oral interpretations to bidders. . Bidders will not be relieved of obligations due to failure to examine or receive documents, visit the site or become familiar with conditions or facts.

Information other than in the form of a written Addendum issued by the Village from any officer, agent, or employee of the Village or any other person shall not affect the risks or obligations assumed by the Bidder or relieve him/her from fulfilling any of the conditions and obligations set forth in the proposal and other contract documents. Before the proposals are opened, all modification or additions to the proposal documents will be made in the form of a written Addendum issued by the Village. The Village will send copies of any such Addendum to those persons who have received proposal packages and provided sufficient contact information. In the event of conflict with the original contract documents, addenda shall govern all other contract documents to the extent specified. Subsequent addenda shall govern over prior addenda only to the extent specified.

Bidders shall acknowledge receipt of the formal Addendum by signing the Addendum and including it with the proposal quotation. Failure of a Bidder to include a signed formal Addendum in its proposal quotation shall deem its quotation non-responsive: provided, however that the Village may waive this requirement if it in its best interest.

VI. Scope of Work:

The Village is looking for an electrical contractor to help with repairing a backlog of streetlights that are not working.

A. The Contractor shall inspect, supply component parts and repair the streetlights. The Village anticipates between 150 to 200 streetlights that will need repair.

B. The Contractor will be required to furnish unit prices for the bulbs, ballasts, photocells, fuses and cobra heads if necessary. Spec sheets are included in this packet.

C. Work is to begin immediately following the award of the contract and to go no longer than October 20, 2014.

D. A status report will be required every week on tine, material and costs for the week.

VII. Warranties

All bid prices are to include a minimum of 1 year warranty on all work and parts.

VIII. Project Bid/Quotes:

All work will be bid as one project.

IX. Billing/invoicing:

All billing and invoicing will be done at the completion of all locations.

X. Rejection of Bids:

A. The Village reserves the right to cancel invitations for bids or requests for proposals without penalty when it is in the best interest of the Village. Notice of cancellation shall be sent to all individuals or entities solicited.

B. The Village reserves the right to reject any or all bids, to waive any minor informality or irregularity in any bid, to negotiate changes and/or modifications with the lowest responsible bidder and to make award to the response deemed to be the most advantageous to the Village. Bidders shall be required to comply with all applicable federal, state and local laws, including those relating to employment of labor without discrimination on the basis of age, race, color handicap, sex, national origin or religious creed.

C. Any bid not conforming with the specifications or requirements set forth by the Village in the bid request may be rejected.

D. Bids may also be rejected if they are made by a bidder that is deemed un-responsible due to a lack of qualifications, capacity, skill, character, experience, reliability, financial stability or quality of services, supplies, materials, equipment or labor.

XI. Award of Bid:

A. Formal bid submission shall be tabulated and a recommendation shall be prepared by the Department Head making a purchase subject to the formal bid requirements and sent to the Finance Director for review. If an award is to be made to other than the lowest bidder or if the purchase was not included in the fiscal year budget, justification must be made in writing.

B. The Finance Director shall send a recommendation and tabulation of all formal bids received for purchases meeting the requirements to the Village President and the Board of Trustees for consideration of awarding a formal contract.

C. The Village reserves the right to award the contract to more than one contractor and in the event this happens, work will be assigned on a rotating basis based on the contractor's availability.

D. All awards made in accordance with this Code are final determinations.

XII. Change Orders:

A. After a contract is awarded pursuant to the competitive bid procedures specified herein, additional purchases or modifications may be made under the contract, or the terms of the

contract may be extended, without rebidding the materials, supplies, services or equipment involved, provided that the change order:

1. Is not of such a size or nature as to undermine the integrity of the original bidding process; and
2. Is germane to the original contract; and
3. Does not exceed twenty percent (20%) of the contractor amount; and
4. Is approved by the Board of Trustees. However, the Village Administrator, or his/her designee can approve change orders for amounts that are not greater than fifteen thousand dollars ($15,000.00). The Village Board shall be informed of any such Village Administrator approved change order at the next Village Board meeting.

B. Change orders for contracts for public improvements shall be as provided by state law.

XIII. Construction Contracts:

A. The bidder must furnish and pay for satisfactory performance, labor and material payment bonds in the amount of one hundred ten percent (110%) of the contract amount and any other security required by law or by the specifications for this particular project. Upon receipt of the performance bond, the Village will return the bid bond to the bidder.

B. The bidder must comply with all applicable laws prerequisite to doing business in the state.

C. The bidder must have a valid Federal Employer Tax Identification Number or Tax Identification Number (for individuals).

D. The bidder must provide a Statement of Compliance with provisions of the State and Federal Equal Opportunity Employer requirements.

E. The bidder must provide evidence of any professional or trade license required by law or local ordinance for any trade or specialty area in which the Contractor is seeking a contract award. Additionally, the Contractor must disclose any suspension or revocation of such license held by the company, or of any director, officer or manager of the company. Any material changes to the Contractor's status, at any time, must be reported in writing to the Village within 14 days of its occurrence. Failure to comply with this requirement is grounds for the Contractor to be deemed non-responsible.

F. The bidder must provide the name and addresses of all known Subcontractors, the general type of work to be performed by these Subcontractors and the expected amount of money that each will receive under the contract. If at any time during the term of the contract a Contractor adds or changes any Subcontractors, he or she shall promptly notify, in writing, the Village Finance Director or their designee of the names and addresses of each new or replaced Subcontractor and the general type of work to be performed.

G. The bidder must provide an affidavit indicating all incomplete work under Contractor and all pending Contractors, along with a schedule of the expected completion of each such contract.

IL. Additional Items

CONTRACT REQUIREMENTS

The successful bidder will be required to enter into a contract with the Village of Oswego consistent with the terms of this Request for Proposal which should contain the following terms:

WAGE RATE REQUIREMENTS

A. The Contract shall be based upon payment by Contractor and his Subcontractor of wage rates not less than the prevailing hourly wage rate for each classification of worker engaged on the work as determined by the State of Illinois, Department of Labor.

B. A copy of the wage determination shall be posted by the Contractor in a conspicuous place at the site of the work where it can be easily seen by the workers.

C. The Contractor shall maintain certified time sheets and submit to the Village with final invoice.

D. The Contractor will be required to sign a Wage Rate Requirement Certification.

Prevailing Wage

Some or all of the work herein may be subject to the provisions of Prevailing Wage Act, 820 ILCS 130/0.01 et.seq., providing for the payment of prevailing rate wages to all laborers, workmen and mechanics engaged on work. The Contractor agrees that, prior to making any payments to its own laborers, workers, or mechanics or to any subcontractor it will determine whether it must legally pay wages in accordance with the Prevailing Wage Act, and if so legally required, pay the then-current prevailing rate of wage as determined by the Illinois Department of Labor and posted at: http//www.state.il.us/agency/idol/. The prevailing wage for the month of September 2014 is attached.

The Village may at any time inquire of the Contractor as to rates of wages being paid employees of the Contractor, and any subcontractor or material men, whereupon such information shall be promptly provided by the Contractor. The Contractor shall agree to indemnify the Village for any and all violations of the prevailing wage laws and any rules and regulations now and hereafter issued pursuant to said laws.

The Contractor shall insert into each subcontract and into the project specifications for each subcontract a written stipulation requiring all laborers, workers and mechanics performing work under the contract to comply with the Prevailing Wage Act and to require each subcontractor to insert into each lower-tiered contract and into the project specification for each lower tiered subcontract a similar stipulation.

Indemnification

To the fullest extent permitted by law, Contractor shall indemnify, defend, save and hold the Village, its trustees, officers, employees, agents, attorneys and lenders (collectively the "Indemnitees") harmless from and against all loss and expense (including, but not limited to, reasonable attorney's fees and other costs and expenses) by reason of the liability imposed by law upon the Indemnitees, or any of them, for damages because of bodily injury, occupational sickness or disease, including death, resulting therefrom, sustained by any employees of Contractor or subcontractors, while performing the work or while at the site where work under the Contract is being conducted or elsewhere, while engaged in the performance of Work under the Contractor, or sustained by any person or persons other than employees of Contractor, however such injuries may be caused, whether attributable to a breach of statutory duty or administrative regulation or otherwise, and such injuries for which liability is imputed to the Indemnitees, or any of them, or claims for property damage because of injury to or destruction of tangible property, directly or indirectly arising or alleged to arise out of the performance of or the failure to perform the work or the failure to protect the work or the site, or the condition of the work, the site, adjoining land or driveways, or streets or alleys used in connection with the performance of the work. Without

limiting the generality of the foregoing, the defense and indemnity set forth in this section includes, subject only to the limitations contained in this section, all liabilities, damages, losses, claims, demands and actions on account of bodily injury, death or property loss to an Indemnitee or to any other person or entities, whether based upon, or claimed to be based upon, statutory, contractual, tort or other liability of any Indemnitee. In addition, such defense and indemnity shall include all liabilities, damages, losses, claims, demands and actions for defamation, false arrest, malicious prosecution or any other infringement or similar rights.

The provisions of the indemnity provided for herein shall not be construed to indemnify any Indemnitee for its own negligence. If any, to the extent not permitted by law or to eliminate or reduce any other indemnification, right or remedy which the Village is otherwise entitled to assert.

If any claim indemnified hereunder has not been settled or discharged when the work is completed, final payment of the Contract Sum shall not be due, unless and until Contractor provides a bond or other security equal to 150%of the amount of such claim in a form and substance satisfactory to the Village. In any and all claims against any Indemnitee or any of its agents or employees by any employee of Contractor, anyone directly or indirectly employed by him or anyone for whose acts he may be liable, the indemnification obligation under this Section shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor under Worker's Compensation acts or other employees benefit acts.

Sexual Harassment

During the entire term of the contract, Contractor shall have in full force and effect a written Sexual Harassment Policy, which complies with the Illinois Human Rights Act (775- ILCS 5/1-101 et.seq.) including at least the following: 1) a statement on the illegality of sexual harassment; 2) the definition of sexual harassment under Illinois Law; 3) a description of sexual harassment, utilizing examples; 4) an internal complaint process, including penalties; 5) the legal recourse, investigative and complaint process available through the Illinois Department of Human Rights ("Department") and the Illinois Human Rights Commission ("Commission"); 6) directions on how to contact the Department and the Commission; and 7) protection against retaliation as provided by Section 6-101 of the Act.

DRUG FREE WORKPLACE

In compliance with State of Illinois Compiled Statutes, Chapter 30-580, The Contractor certifies and agrees that it will provide a drug free workplace by:

Publishing a Statement:

A. Notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance, including cannabis, is prohibited in the Contractor's workplace.
    1. Specifying the actions that will be taken against employees for violations of such prohibition.

B. Notifying the employee that, as a condition of employment on such Contract, the employee will:
    1. Abide by the terms of the statement; and
    2. Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.

C. Establishing a drug free awareness program to inform employees about:
   1. The dangers of drug abuse in the workplace;
   2. The Contractor's policy for maintaining a drug free workplace;
   3. Available counseling, rehabilitation, or assistance programs; and
   4. Penalties imposed for drug violations.

D. Providing a copy of the Statement required by subsection (a) to each employee engaged in the performance of the Contract and to post the Statement in a prominent place in the workplace.

E. Notifying the contracting agency within ten (10) days after receiving notice of any violations as listed above.

F. Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program, by any employee who is so convicted, as required by Section 5 of the Drug Free Workplace Act.

G. Assisting employees in selecting a course of action in the event drug counseling, treatment, and rehabilitation are required and indicating that a trained referral team is in place.

H. Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.

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I. The Contractor will be required to sign a Drug Free Workplace Certification.

NON-COLLUSION

The Contractor is barred from bidding for this contract as a result of a violation of either Section 33E-3 or Section 33E-4 of Chapter 38 of the Illinois Revised Statutes concerning bid rigging, rotating, kickbacks, bribery and interference with public contracts. The Contractor will be required to sign the Non-Collusion Certification.

COMPLIANCE WITH LAWS AND REGULATIONS

In connection with the performance of the work, the Contractor shall comply with all statutes, laws, regulations, and orders of federal, state, county, or municipal authorities which shall impose any obligation or duty upon the Contractor.

IN WITNESS WHEREOF the parties hereto have executed or caused to be executed by their duly authorized agents, this contract in DUPLICATE, each of which shall be deemed original, on the day and year first written.

_____

Steve Jones, Village of Oswego Administrator Date

Attest_____ Title_____

_____

(Printed Name of Contractor)

_____

Address Date

_____

City State Zip Code

_____

Signature of Authorized Representative

_____

Title Date

WAGE RATE REQUIREMENTS CERTIFICATION

GENERAL

1. The Contract shall be based upon payment by Contractor and his Subcontractor of wage rates not less than the prevailing hourly wage rate for each classification of worker engaged on the work as determined by the State of Illinois, Department of Labor.

2. The Prevailing Wage Law does not prohibit payment of more than the prevailing rate of wages nor does it limit the hours of work which may be performed by any worker in any particular period of time.

3. A copy of the wage determination shall be posted by the Contractor in a conspicuous place at the site of the work where it can be easily seen by the workers.

4. The Contractor shall maintain certified time sheets and submit to the Village with final invoice.

_____

Steve Jones, Village of Oswego Administrator Date

Attest_____ Title _____

_____

(Printed Name of Contractor)

_____

Address

_____

DRUG FREE WORKPLACE CERTIFICATION

In compliance with State of Illinois Compiled Statutes, Chapter 30-580, The Contractor certifies and agrees that it will provide a drug free workplace by:

Publishing a Statement:

A. Notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance, including cannabis, is prohibited in the Contractor's workplace.

B. Specifying the actions that will be taken against employees for violations of such prohibition.

C. Notifying the employee that, as a condition of employment on such Contract, the employee will:
   1. Abide by the terms of the statement; and
   2. Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.

D. Establishing a Drug Free Awareness Program to inform employees about:
   1. The dangers of drug abuse in the workplace;
   2. The Contractor's policy for maintaining a drug free workplace;
   3. Available counseling, rehabilitation, or assistance programs; and
   4. Penalties imposed for drug violations.

E. Providing a copy of the Statement required by subsection (a) to each employee engaged in the performance of the Contract and to post the Statement in a prominent place in the workplace.

F. Notifying the contracting agency within ten (10) days after receiving notice under part (B) of paragraph (3) of subsection (a) above from an employee or otherwise receiving actual notice of such conviction.

G. Imposing a sanction on, or requiring the satisfactory participation in a Drug Abuse Assistance or Rehabilitation Program, by any employee who is so convicted, as required by Section 5 of the Drug Free Workplace Act.

H. Assisting employees in selecting a course of action in the event drug counseling, treatment, and rehabilitation are required and indicating that a trained referral team is in place.

I. Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.

The undersigned affirms, under penalties of perjury, that he/she is authorized to execute this certification on behalf of the designated organization.

_____

(Printed name of Contractor)

_____

Address

_____

City State Zip Code

_____

Signature of Authorized Representative

_____

Title Date

NON-COLLUSION CERTIFICATE

The Undersigned Bidder is not barred from bidding for this Contract as a result of a violation of either Section 33E-3 or Section 33E-4 of Chapter 38 of the Illinois Revised Statutes concerning bid rigging, rotating, kickbacks, bribery and interference with public contracts.

_____

(Printed Name of Contractor)

_____

Address

_____

City State Zip Code

_____

Signature of Authorized Representative

_____

Title Date

REFERENCES

VILLAGE OF OSWEGO

General Information, list below current business references for whom you have performed work similar to that required by this proposal.

Facility: _____

Address: _____

City, State, Zip Code:_____

Telephone Number: _____

Contact Person: _____

Dates of Service: _____

Facility: _____

Address: _____

City, State, Zip Code: _____

Telephone Number: _____

Contact Person: _____

Dates of Service: _____

Facility: _____

Address: _____

City, State, Zip Code: _____

Telephone Number: _____

Contact Person: _____

Dates of Service: _____

If additional sheets are needed, please make copies.

BID SHEET

Hourly rate: $_____

Supplies (see attached spec sheets)

Item	Price per unit	Estimated hours to repair per unit
Bulbs:		
GE# MVR100/UMED	$_____	_____
GE#MVR175/U	$_____	_____
GE# LU150/55/H/ECO	$_____	_____
EVOLVE LED	$ _____	_____
Ballast:		
GEM175MLTAA3-5	$_____	_____
GEM250MLTAC3-5	$ _____	_____
GES150MLTLA3D-5	$_____	_____
Photo Cell:		
PHOTO CONTROL: TORK 2007	$_____	_____
Fuses:		
KTK FAST-ACTING – 10 AMP	$ _____	_____
Cobra Heads:	$ _____	_____

PRINTED NAME _____

SIGNED _____

TITLE _____

COMPANY _____

DATE _____

CONTRACTOR BID AGREEMENT

TO: Village of Oswego
100 Parker's Mill
Oswego, IL. 60543

The undersigned bidder, in compliance with your advertisement for bids for work as specified, and related documents prepared by or at the direction of the Village of Oswego, Owner, and being familiar with all conditions surrounding the work, including availability of labor and material, does hereby propose to furnish materials, labor, equipment and services and pay for same and shall perform all work required for the completion of the Project, in accordance with the Contract documents and at the price provided.

The undersigned bidder understands that prevailing wages must be paid in connection with the work, and agrees to maintain and provide to the Village upon its request, required documentation to support compliance with the Illinois Prevailing Wage Act, in accordance with the law.

Bidder certifies this bid to be for the project described in the Instruction to Bidders document and to be in accordance with plans, specifications and Contract documents, including the invitation for bids.

In no event shall any delays or extensions of time be construed as cause or justification for payment of extra compensation to the Contractor. Any claims for an increase of the Contract time shall be made in writing to the Village within seven (7) days of the cause.

Signed: _____

Print Name: _____

Title: _____

Company Name: _____

Date: _____

GE Lighting

Product Catalog
for professionals

Print this Page

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87094 – GES150MLTLA3D-5

GE HID Distributor Replacement Kit Magnetic High Pressure Sodium Core and Coil Ballast

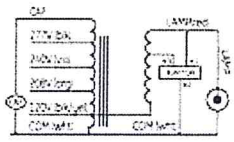
- Magnetic ballast construction ideal for a wide variety of lighting applications.
- Precision-wound aluminum coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core & coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

GENERAL CHARACTERISTICS

Category	High Intensity Discharge
Primary Application	1- 150w HPS S55 Quad (120/208/240/277V)
Ballast Type	Magnetic - High Pressure Sodium Core and Coil
Type	Replacement kit
Dimming Type	N/A
Starting Method	Pulse start
Lamp Wiring	Series
Line Voltage Regulation (+/-) (NOM)	10 %
Ambient Temperature (MIN)	-40 °C(-40 °F)
Ambient Temperature (MAX)	105 °C(221 °F)
Ballast Factor	1
Circuit Type	CWA
Insulation Class	UL Class H 180
Enclosure Type	Core and Coil
Capacitance (NOM)	14 µF
Capacitor Temperature Rating (NOM)	100 °C(212 °F)
Distance to Lamp (MAX)	10 ft

DIMENSIONS

Case dimensions	
Length (L)	4.0 in (101.60 mm)
Width (W)	2.8 in (71.45 mm)
Mounting dimensions	
Bracket Length (BL)	5.5 in (139.70 mm)
Mount Length (M)	3.5 in (88.90 mm)
Mount Width (X or F)	2.4 in (61.92 mm)
Mount Slots (MS)	0.2 in (4.95 mm)
Exit Type	Side



View Larger

ELECTRICAL CHARACTERISTICS

Lamp Operating Frequency (NOM)	60.0 Hz
Supply Current Frequency (NOM)	60.0 Hz
Voltage (MIN)	280.0

PRODUCT INFORMATION

Product Code	87094
Description	GES150MLTLA3D-5

Standard Package	Master
Standard Package Quantity	6
Sales Unit	Distributor Kit
No Of Items Per Sales Unit	1
No Of Items Per Standard Package	6
UPC	043168870948

SPECIFICATIONS BY LAMP & LINE VOLTAGE

Lamp	# of Lamps	Specifications by Line Voltage				
S55	1		**120**	**208**	**240**	**277**
		System Wattage (W)	175	175	175	175
		Nominal Current	1.60 A	0.90 A	0.80 A	0.70 A
		Ballast Factor	1	1	1	1
		Ballast Efficiency	1.429	1.429	1.429	1.429
		Drop Out Voltage	96 V	166 V	192 V	222 V
		Power factor (>=) %	90	90	90	90
		Min. starting temperature	-40 -40.0 / -40	-40 -40.0 / -40	-40 -40.0 / -40	-40 -40.0 / -40
		Fuse rating	10	5	5	5
			System specs	System specs	System specs	System specs

Safety & Performance

cUL Listed

UL Listed

See list of cautions & warnings.

NOTES

- Kit contains the appropriate core & coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

WARRANTY INFORMATION

GE Lighting warrants to the purchaser that each ballast will be free from defects in material or workmanship for period as defined in the attached documents from the date of manufacture when properly installed and under normal conditions of use.

Download full warranty

ADDITIONAL RESOURCES

Disposal Policies & Recycling Information

Return To Top

Photos are representational only. Sizes, shapes and labels of ballast may vary.

GE Lighting

Product Catalog
for professionals

Products > 86765

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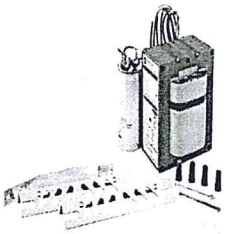
86765 – GEM250MLTAC3-5

GE HID Distributor Replacement Kit Magnetic Core & Coil Ballast

- Magnetic ballast construction ideal for a wide variety of lighting applications.
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity.
- Distributor replacement kit contains the appropriate core & coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)



GENERAL CHARACTERISTICS

Category	High Intensity Discharge
Primary Application	1- 250w MH M 58 or H 37 Quad
Ballast Type	Magnetic - Core & Coil
Type	Replacement kit
Line Voltage Regulation (+/-) (NOM)	10 %
Ballast Factor	Normal
Circuit Type	CWA
Insulation Class	180C
Enclosure Type	None
Capacitance (NOM)	15 µF
Capacitor Temperature Rating (NOM)	100 °C(212 °F)

ELECTRICAL CHARACTERISTICS

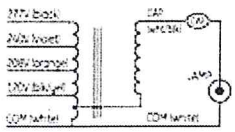
Supply Current Frequency (NOM)	60.0 Hz
Voltage (MIN)	400.0

PRODUCT INFORMATION

Product Code	86765
Description	GEM250MLTAC3-5
Standard Package	Master
Standard Package Quantity	6
Sales Unit	Distributor Kit
No Of Items Per Sales Unit	1
No Of Items Per Standard Package	6
UPC	043168867658

DIMENSIONS

Case dimensions	
Length (L)	4.0 in (101.60 mm)
Width (W)	2.8 in (71.45 mm)
Mounting dimensions	
Bracket Length (BL)	5.5 in (139.70 mm)
Mount Length (M)	3.5 in (88.90 mm)
Mount Width (X or F)	2.4 in (61.92 mm)
Mount Slots (MS)	0.2 in (4.95 mm)
Exit Type	Side



View Larger

SPECIFICATIONS BY LAMP & LINE VOLTAGE

Lamp	# of Lamps	Specifications by Line Voltage

SPECIFICATIONS BY LAMP & LINE VOLTAGE

Lamp	# of Lamps	Specifications by Line Voltage				
M58	1		120	208	240	277
		System Wattage (W)	294	294	294	294
		Nominal Current	2.65 A	1.50 A	1.30 A	1.13 A
		Ballast Factor	1	1	1	1
		Ballast Efficiency	0.850	0.850	0.850	0.850
		Drop Out Voltage	65 V	105 V	125 V	150 V
		Power factor (>=) %	90	90	90	90
		Min. starting temperature	-22 -22.0 / -30	-22 -22.0 / -30	-22 -22.0 / -30	-22 -22.0 / -30
		Fuse rating	8	5	4	3
H37	1		120	208	240	277
		System Wattage (W)	294	294	294	294
		Nominal Current	2.65 A	1.50 A	1.30 A	1.13 A
		Ballast Factor	1	1	1	1
		Ballast Efficiency	0.850	0.850	0.850	0.850
		Drop Out Voltage	65 V	105 V	125 V	150 V
		Power factor (>=) %	90	90	90	90
		Min. starting temperature	-22 -22.0 / -30	-22 -22.0 / -30	-22 -22.0 / -30	-22 -22.0 / -30
		Fuse rating	8	5	4	3
			System specs	System specs	System specs	System specs

Safety & Performance

cUL Listed

UL Listed

See list of cautions & warnings.

NOTES

- Kit contains the appropriate core & coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

WARRANTY INFORMATION

GE Lighting warrants to the purchaser that each ballast will be free from defects in material or workmanship for period as defined in the attached documents from the date of manufacture when properly installed and under normal conditions of use.

Download full warranty

ADDITIONAL RESOURCES

Disposal Policies & Recycling Information

Return To Top

Photos are representational only. Sizes, shapes and labels of ballast may vary.

GE Lighting

Product Catalog
for professionals

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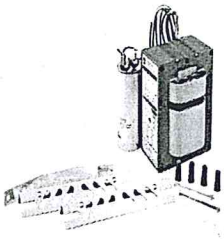
86741 – GEM175MLTAA3-5

GE HID Distributor Replacement Kit Magnetic Metal Halide Core and Coil Ballast

- Magnetic ballast construction ideal for a wide variety of lighting applications.
- Precision-wound aluminum coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core & coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

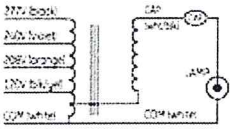


GENERAL CHARACTERISTICS

Category	High Intensity Discharge
Primary Application	1- 175w MH M 57 or H 39 Quad (120/208/240/277V)
Ballast Type	Magnetic - Metal Halide Core and Coil
Type	Replacement kit
Dimming Type	N/A
Starting Method	Probe Start
Lamp Wiring	Series
Line Voltage Regulation (+/-) (NOM)	10 %
Ambient Temperature (MIN)	-30 °C(-22 °F)
Ambient Temperature (MAX)	105 °C(221 °F)
Ballast Factor	1
Circuit Type	CWA
Insulation Class	UL Class H 180
Enclosure Type	Core and Coil
Capacitance (NOM)	10 µF
Capacitor Temperature Rating (NOM)	100 °C(212 °F)

DIMENSIONS

Case dimensions	
Length (L)	4.0 in (101.60 mm)
Width (W)	2.8 in (71.45 mm)
Mounting dimensions	
Bracket Length (BL)	5.5 in (139.70 mm)
Mount Length (M)	3.5 in (88.90 mm)
Mount Width (X or F)	2.4 in (61.92 mm)
Mount Slots (MS)	0.2 in (4.95 mm)
Exit Type	Side



View Larger

ELECTRICAL CHARACTERISTICS

Lamp Operating Frequency (NOM)	60.0 Hz
Supply Current Frequency (NOM)	60.0 Hz
Voltage (MIN)	400.0

PRODUCT INFORMATION

Product Code	86741
Description	GEM175MLTAA3-5

Standard Package	Master
Standard Package Quantity	6
Sales Unit	Distributor Kit
No Of Items Per Sales Unit	1
No Of Items Per Standard Package	6
UPC	043168867412

SPECIFICATIONS BY LAMP & LINE VOLTAGE

Lamp	# of Lamps	Specifications by Line Voltage				
M107	1		**120**	**208**	**240**	**277**
		System Wattage (W)	186.6	187.1	188.6	186.5
		Nominal Current	1.74 A	1.00 A	0.87 A	0.74 A
		Power factor (>=) %	90	90	91	90
		Fuse rating	5	3	3	2
M57	1		**120**	**208**	**240**	**277**
		System Wattage (W)	210	210	210	210
		Nominal Current	1.80 A	1.00 A	0.90 A	0.80 A
		Ballast Factor	1	1	1	1
		Ballast Efficiency	0.833	0.833	0.833	0.833
		Drop Out Voltage	60 V	100 V	115 V	135 V
		Power factor (>=) %	90	90	90	90
		Min. starting temperature	-22 -22.0 / -30	-22 -22.0 / -30	-22 -22.0 / -30	-22 -22.0 / -30
		Fuse rating	5	3	3	2
H39	1		**120**	**208**	**240**	**277**
		System Wattage (W)	210	210	210	210
		Nominal Current	1.80 A	1.00 A	0.90 A	0.80 A
		Ballast Factor	1	1	1	1
		Ballast Efficiency	0.833	0.833	0.833	0.833
		Drop Out Voltage	60 V	100 V	115 V	135 V
		Power factor (>=) %	90	90	90	90
		Min. starting temperature	-22 -22.0 / -30	-22 -22.0 / -30	-22 -22.0 / -30	-22 -22.0 / -30
		Fuse rating	5	3	3	2
			System specs	System specs	System specs	System specs

Safety & Performance

cUL Listed

UL Listed

See list of cautions & warnings.

NOTES

- Kit contains the appropriate core & coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

WARRANTY INFORMATION

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Download full warranty

ADDITIONAL RESOURCES

Disposal Policies & Recycling Information

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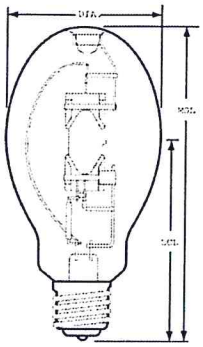
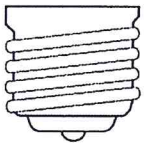
Photos are representational only. Sizes, shapes and labels of ballast may vary.

GE Lighting

47760 - MVR175/U

GE Multi-Vapor® Quartz Metal Halide ED28





CAUTIONS & WARNINGS

R- WARNING: This lamp can cause serious skin burn and eye inflammation from shortwave ultraviolet radiation if outer envelope of the lamp is broken or punctured, and the arc tube continues to operate. Do not use where people will remain for more than a few minutes unless adequate shielding or other safety precautions are used. Certain types of lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available. Visit the FDA website for more information: http://www.fda.gov/cdrh/radhealth/products/urburns.html

Caution

- Lamp may shatter and cause injury if broken
  - Dispose of lamp in a closed container.
  - Do not use excessive force when installing lamp.
  - Do not use lamp if outer glass is scratched or broken.

Warning

- Unexpected lamp rupture may cause injury, fire, or property damage
  - Do not exceed rated voltage.
  - Do not turn on lamp until fully installed.
  - Do not use beyond rated life.
  - Do not use lamp if outer glass is scratched or broken.
  - Do not use where directly exposed to water or outdoors without an enclosed fixture.
  - If used on a dimming system, see instructions.
  - Operate lamp only in specified position.
  - Turn lamp off at least once for 15 minutes per week.
  - Use in enclosed fixture rated for this product.
  - Use only properly rated ballast.
- A damaged lamp emits UV radiation which may cause eye/skin injury
  - Turn power off if glass bulb is broken. Remove and dispose of lamp.
- Risk of Burn
  - Allow lamp to cool before handling.
  - Do not turn on lamp until fully installed.
- Risk of Electric Shock
  - Do not use where directly exposed to water or outdoors without an enclosed fixture.
  - Turn power off before inspection, installation or removal.
- Risk of Fire
  - Keep combustible materials away from lamp.
  - Use in fixture rated for this product.

GRAPHS & CHARTS

Graphs_Spectral Power Distribution

GENERAL CHARACTERISTICS

Lamp Type	High Intensity Discharge - Quartz Metal Halide
Bulb	ED28
Base	Mogul Screw (E39)
Bulb Finish	Clear
Rated Life (Vert)	10000.0 h
Rated Life (Hor)	6000.0 h
Bulb Material	Hard glass
Lamp Enclosure Type (LET)	Enclosed fixtures only
Base Temperature (MAX)	210.0 °C
Bulb Temperature (MAX)	400.0 °C
Mercury Content (NOM)	25.74 mg
Picograms of Mercury (NOM)	292.5 pg

PHOTOMETRIC CHARACTERISTICS

Initial Lumens (Vert)	13600.0
Initial Lumens (Hor)	11700.0
Mean Lumens (Vert)	8800.0
Mean Lumens (Hor)	7900.0
Nominal Initial Lumens per Watt (NOM)	67.0 /78.0
Color Temperature (NOM)	4000.0 K
Color Rendering Index (CRI) (NOM)	65.0
Effective Arc Length (NOM)	1.0 in

ELECTRICAL CHARACTERISTICS

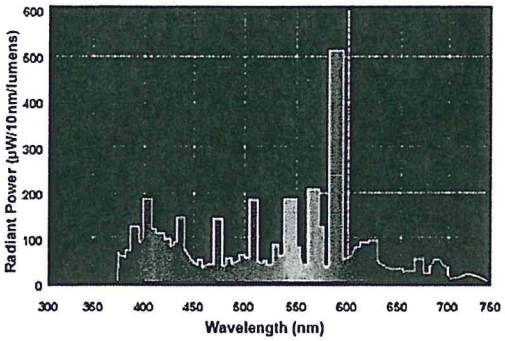
Wattage (NOM)	175.0
Burn Position	Universal burning position
Open Circuit Voltage (peak lead ballast) (MIN)	540.0 V
Open Circuit Voltage (RMS lag ballast) (MIN)	382.0 V
Warm Up Time to 90% (MIN)	2.0 min
Warm Up Time to 90% (MAX)	5.0 min
Hot Restart Time to 90% (MIN)	10.0 min
Hot Restart Time to 90% (MAX)	15.0 min

DIMENSIONS

Maximum Overall Length (MOL) (NOM)	8.250 in(209.5 mm)
Nominal Length (NOM)	8.250 in(209.5 mm)
Bulb Diameter (DIA) (NOM)	3.500 in(88.9 mm)
Light Center Length (LCL) (NOM)	5.000 in(127.0 mm)

PRODUCT INFORMATION

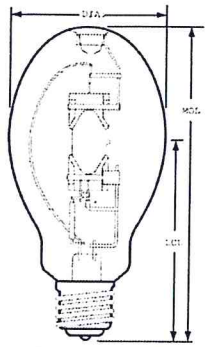
Product Code	47760
Description	MVR175/U
ANSI Code	M57
Standard Package	Case
Standard Package GTIN	10043168477601
Standard Package Quantity	12
Sales Unit	Unit
No Of Items Per Sales Unit	1
No Of Items Per Standard Package	12
UPC	043168477604

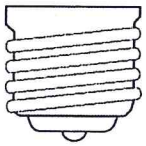

Radiant Power (µW/10nm/lumens)
600
500
400
300
200
100
0
300
350
400
450
500
550
600
650
700
750
Wavelength (nm)

GE Lighting

42729 - MVR250/U

GE Multi-Vapor® Quartz Metal Halide ED28





CAUTIONS & WARNINGS

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  - Do not use excessive force when installing lamp.
  - Do not use lamp if outer glass is scratched or broken.

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  - Do not exceed rated voltage.
  - Do not turn on lamp until fully installed.
  - Do not use beyond rated life.
  - Do not use lamp if outer glass is scratched or broken.
  - Do not use where directly exposed to water or outdoors without an enclosed fixture.
  - If used on a dimming system, see instructions.
  - Operate lamp only in specified position.
  - Turn lamp off at least once for 15 minutes per week.
  - Use in enclosed fixture rated for this product.
  - Use only properly rated ballast.
- A damaged lamp emits UV radiation which may cause eye/skin injury
  - Turn power off if glass bulb is broken. Remove and dispose of lamp.
- Risk of Burn
  - Allow lamp to cool before handling.
  - Do not turn on lamp until fully installed.
- Risk of Electric Shock
  - Do not use where directly exposed to water or outdoors without an enclosed fixture.
  - Turn power off before inspection, installation or removal.
- Risk of Fire
  - Keep combustible materials away from lamp.
  - Use in fixture rated for this product.

GRAPHS & CHARTS

Graphs_Spectral Power Distribution

GENERAL CHARACTERISTICS

Lamp Type	High Intensity Discharge - Quartz Metal Halide
Bulb	ED28
Base	Mogul Screw (E39)
Bulb Finish	Clear
Rated Life (Vert)	10000.0 h
Rated Life (Hor)	6000.0 h
Bulb Material	Hard glass
Lamp Enclosure Type (LET)	Enclosed fixtures only
Base Temperature (MAX)	210.0 °C
Bulb Temperature (MAX)	400.0 °C
Mercury Content (NOM)	31.0 mg
Picograms of Mercury (NOM)	229.6 pg

PHOTOMETRIC CHARACTERISTICS

Initial Lumens (Vert)	20800.0
Initial Lumens (Hor)	19100.0
Mean Lumens (Vert)	13500.0
Mean Lumens (Hor)	12400.0
Nominal Initial Lumens per Watt (NOM)	76.0 /83.0
Color Temperature (NOM)	4200.0 K
Color Rendering Index (CRI) (NOM)	65.0
Effective Arc Length (NOM)	1.4 in

ELECTRICAL CHARACTERISTICS

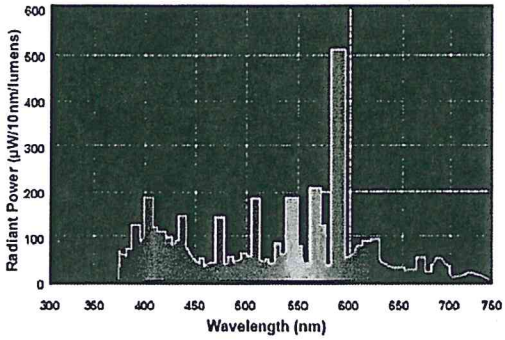
Wattage (NOM)	250.0
Burn Position	Universal burning position
Open Circuit Voltage (peak lead ballast) (MIN)	540.0 V
Open Circuit Voltage (RMS lag ballast) (MIN)	382.0 V
Warm Up Time to 90% (MIN)	2.0 min
Warm Up Time to 90% (MAX)	5.0 min
Hot Restart Time to 90% (MIN)	10.0 min
Hot Restart Time to 90% (MAX)	15.0 min

DIMENSIONS

Maximum Overall Length (MOL) (NOM)	8.250 in(209.5 mm)
Nominal Length (NOM)	8.250 in(209.5 mm)
Bulb Diameter (DIA) (NOM)	3.500 in(88.9 mm)
Light Center Length (LCL) (NOM)	5.000 in(127.0 mm)

PRODUCT INFORMATION

Product Code	42729
Description	MVR250/U
ANSI Code	M58
Standard Package	Case
Standard Package GTIN	10043168427293
Standard Package Quantity	12
Sales Unit	Unit
No Of Items Per Sales Unit	1
No Of Items Per Standard Package	12
UPC	043168427296

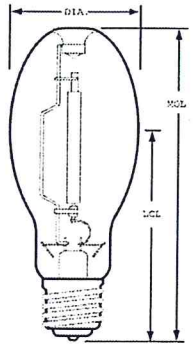

Radiant Power (µW/10nm/lumens)
600
500
400
300
200
100
0
300
350
400
450
500
550
600
650
700
750
Wavelength (nm)

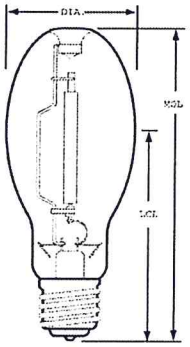
GE Lighting

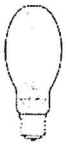
85371 - LU150/55/H/ECO

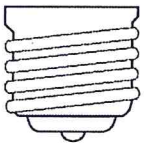
GE Ecolux® Lucalox® High Pressure Sodium ED23.5

- Passes TCLP, which can lower disposal costs.









GENERAL CHARACTERISTICS

Lamp Type	High Intensity Discharge - High Pressure Sodium
Bulb	ED23.5
Base	Mogul Screw (E39)
Bulb Finish	Clear
Rated Life (MIN)	24000.0 h
Rated Life (NOM)	24000.0 h
Bulb Material	Hard glass
Lamp Enclosure Type (LET)	Open or enclosed fixtures
Base Temperature (MAX)	210.0 °C
Bulb Temperature (MAX)	400.0 °C
Mercury Content (NOM)	14.85 mg
Picograms of Mercury (NOM)	43.0 pg
Additional Info	TCLP compliant

PHOTOMETRIC CHARACTERISTICS

Initial Lumens (NOM)	16000.0
Mean Lumens (NOM)	14400.0
Nominal Initial Lumens per Watt (NOM)	106.6667
Color Temperature (NOM)	2000.0 K
Color Rendering Index (CRI) (NOM)	22.0
Effective Arc Length (NOM)	1.53 in

ELECTRICAL CHARACTERISTICS

Wattage (NOM)	150.0
Burn Position	Universal burning position
Open Circuit Voltage (RMS lag ballast) (MIN)	110.0 V
Warm Up Time to 90% (NOM)	4.0 min
Hot Restart Time to 90% (NOM)	1.0 min

DIMENSIONS

Maximum Overall Length (MOL) (NOM)	7.750 in(196.8 mm)
Nominal Length (NOM)	7.750 in(196.8 mm)
Bulb Diameter (DIA) (MAX)	2.938 in(74.6 mm)
Bulb Diameter (DIA) (NOM)	2.950 in(74.9 mm)
Light Center Length (LCL) (NOM)	5.000 in(127.0 mm)

PRODUCT INFORMATION

Product Code	85371
Description	LU150/55/H/ECO
ANSI Code	S55
Standard Package	Case
Standard Package GTIN	10043168853719
Standard Package Quantity	12
Sales Unit	Unit
No Of Items Per Sales Unit	1
No Of Items Per Standard Package	12
UPC	043168853712

CAUTIONS & WARNINGS

Caution

- Lamp may shatter and cause injury if broken
  - Dispose of lamp in a closed container.
  - Do not use excessive force when installing lamp.
  - Do not use lamp if outer glass is scratched or broken.
  - Wear safety glasses and gloves when handling lamp.
- Risk of Burn
  - Allow lamp to cool before handling.
  - Do not turn on lamp until fully installed.

Warning

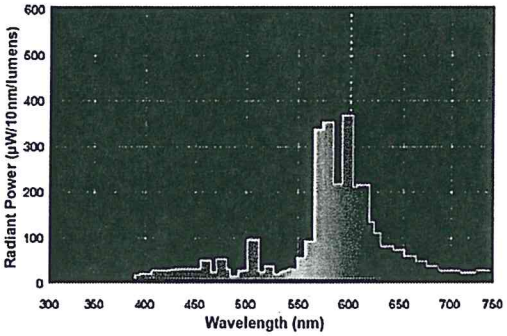
- Risk of Electric Shock
  - Do not use where directly exposed to water or outdoors without an enclosed fixture.
  - Turn power off before inspection, installation or removal.
- Risk of Fire
  - Keep combustible materials away from lamp.
  - Use in fixture rated for this product.

For additional information, visit www.gelighting.com

- Contains sodium – chemical burn risk
  - Avoid skin contact with broken pieces.
- Unexpected lamp rupture may cause injury, fire, or property damage
  - Do not exceed rated voltage.
  - Do not store flammable materials near/below lamp.
  - Do not turn on lamp until fully installed.
  - Do not use lamp if outer glass is scratched or broken.
  - Do not use where directly exposed to water or outdoors without an enclosed fixture.
  - Use only properly rated ballast.

GRAPHS & CHARTS

Graphs_Spectral Power Distribution



3000 SERIES

FLUSH MOUNTING, LEXAN® HOUSING

APPLICATIONS

- Pole Lantern Control
- Lawn Light Control
- Walkway Lighting Control

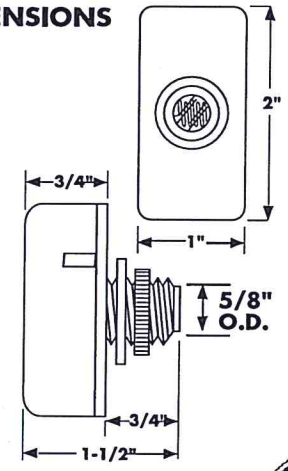
FEATURES

- Control housing is weather-resistant molded Lexan® with ultrasonically welded seams.
- Delay of up to two minutes prevents false switching due to momentary flashes of light.

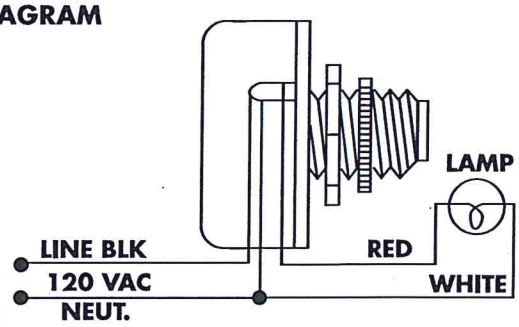
SPECIFICATIONS

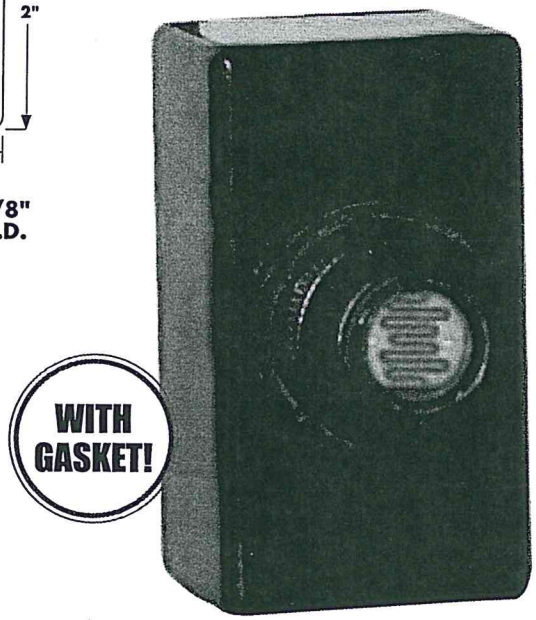
- TURN ON/TURN OFF:
  Turn ON is 1 to 5fc,
  Turn OFF is 3 to 15fc
- CELL: Cadmium sulphide, epoxy coated, ½" diameter.
- CONTACTS: Normally closed. (The unit fails in the ON position).
- LEAD WIRES: Three color coded, minimum 6" wire leads, #16AWG, rated for 105°C.
- POWER CONSUMPTION: Averages under 1watt.
- TEMPERATURE RANGE: -40° to +140°F (-40° to +60°C)
- MOUNTING: MODEL 3000: flush mounting through 11/16" hole in post lantern or lighting fixture. ⅜" NPT, Stem ¾" long. Gasket and nut supplied. MODEL 3010: flush mounting into standard, raintight junction box. Includes plate and gasket to fit FS type outdoor junction box.

DIMENSIONS



WIRING DIAGRAM





MODEL 3010

FLUSH MOUNTING FOR WEATHERPROOF JUNCTION BOX

CATALOG NO	UPC CODE	VOLTAGE 50-60HZ	RATING TUNGSTEN	RATING BALLAST
3000	60020	120	1500W	1200VA
3000C	60320		SAME AS ABOVE, IN CLAMSHELL PACKAGE	
3002	60019	208-277	1500W	1200VA
3006 CSA ONLY	60026	347	1500W	1200VA
3010	60021	120	1500W	1200VA
3010C	60321		SAME AS ABOVE, IN CLAMSHELL PACKAGE	

SPECIFICATION WRITER'S GUIDE

Photocontrol enclosure shall be constructed of Lexan® material with ultrasonically welded seams. Cell shall be cadmium sulphide, epoxy coated, ½ inch diameter. Contacts shall be normally closed and fail in the ON position. Photocontrol must withstand temperatures of -40°to +140°F. Unit to be provided with three color coded, minimum six inch wire leads, #16 AWG, rated for 105°C.

1. Photocontrol shall be capable of flush mounting. Furnish and install TORK Model 3000, 120VAC, (Model 3002, 208-277VAC).
2. Photocontrol shall be provided with a metal plate and gasket for mounting to a weatherproof junction box. Furnish and install TORK Model 3010 (120VAC).

Lexan® is a registered trademark of the General Electric Co.

2005A/2007A/2008A SERIES

TORK PHOTOCONTROLS

QUICK RESPONSE TURN-LOCK MOUNTING

APPLICATIONS

- Street, Highway and other luminaries equipped with locking type receptacles where instant response is required.

FEATURES

- Meets stringent utility standards for street and highway lighting
- Complies with ANSI C136.10 and EEI NEMA standards.

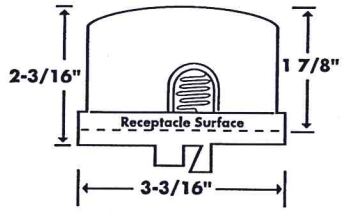
SPECIFICATIONS

- MOUNTING: Units and locking-type prongs meet requirements of ANSI C136.10.
- PHOTOCELL: Cadmium Sulphide.
- ENCLOSURE: Polypropylene, UV Stabilized, permanent color with UV resistant clear acrylic window. Provides high impact, flammability resistance and electrically safe operation.
- COLOR CODED DOMES: Meet ANSI designations as follows:

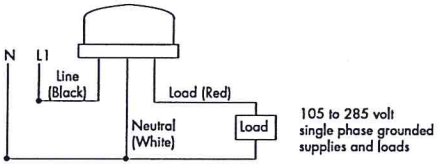
Grey:	105-130VAC
Blue:	105-285VAC
Yellow:	480VAC

- RELAY: Positive snap action switching, reducing bounce and prolonging contact life.
- LOCKING PRONGS: Solid brass for maximum corrosion resistance and electrical dependability.
- 360 joules MOV exceeds NEMA and ANSI requirements.
- TURN-ON/TURN-OFF: Turn-ON is 1 to 3 fc. Turn-OFF to Turn-ON ratio is 3 average.
- TEMPERATURE RANGE: -40° to +158°F (-40° to +70°C).

DIMENSIONS



WIRING DIAGRAMS



CATALOG NO	UPC CODE	VOLTAGE 50-60HZ	COLOR	RATING TUNGSTEN	RATING BALLAST
2005A	62012	105-130	GREY	1000W	1800VA
2007A	62013	105-285	BLUE	1000W	1800VA
2008A	62014	400-550	YELLOW	1000W	1800VA

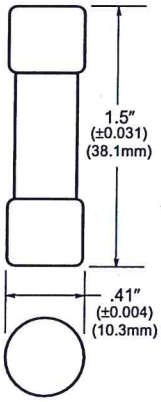
SPECIFICATION WRITER'S GUIDE

Furnish and install an instant response type photocontrol which meets all requirements of ANSI C136.10. Locking type prongs are to be solid brass. Relay is to provide positive snap action switching to ensure a minimum contact life of 5000 operations. Surge protection is to be provided using a 360 joules metal oxide varsitor. Enclosure must be ANSI color coded, high impact, UV stabilized polypropylene and contain a UV stabilized and absorbing acrylic window. Base must be high impact ABS with a cross linked polyethylene gasket. Unit must provide a load rating of 1000W tungsten, 1800 VA ballast. Unit must fail in the ON position. Furnish and install Tork Model 2005A (2007A, 2008A).

LIMITRON®
Fast-Acting Fuses
600 Volt, 1/10 - 30 Amps

KTK

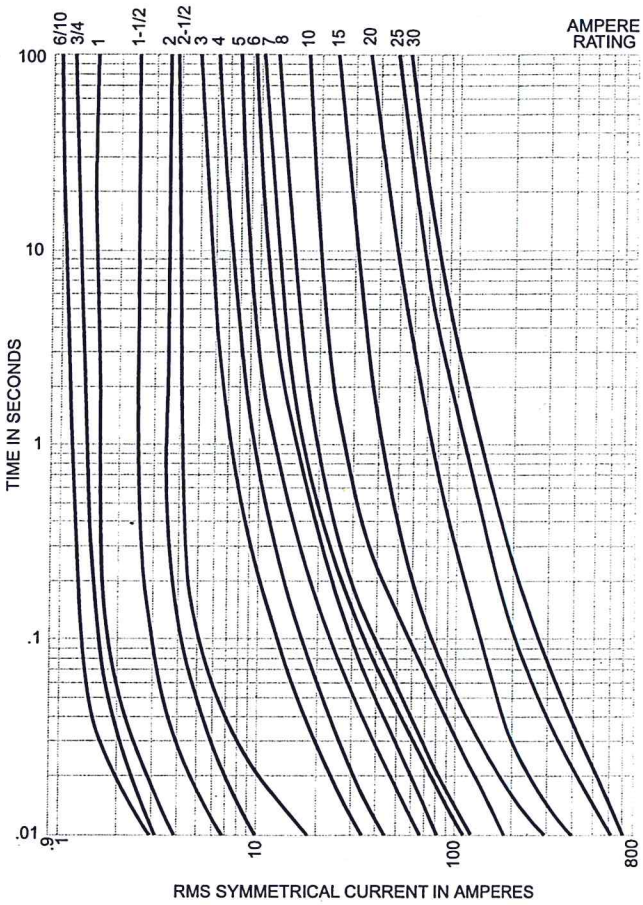
Dimensional Data



- LIMITRON® fast-acting fuse.
- Melamine tube.
- Nickel-plated bronze endcaps.

Catalog Symbol: KTK
Fast-Acting
1/10 TO 30A
600Vac (or less)
Interrupting Rating: 100,000A RMS Sym. (UL)
UL Listed, STD. 248-14, (Guide #JDYX, File #E19180)
CSA Certified: C22.2 NO. 248.14
(File #53787—Class #1422-01)
HRC-MISC

Time-Current Characteristic Curves–Average Melt



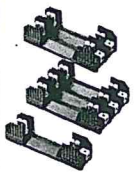
Electrical Ratings (Catalog Symbol and Amperes)

600Vac - UL Listed and C.S.A.			
KTK-1/10	KTK-1	KTK-6	KTK-25
KTK-1/8	KTK-1-1/4	KTK-7	KTK-30
KTK-2/10	KTK-1-1/2	KTK-7-1/2	—
KTK-1/4	KTK-2	KTK-8	—
KTK-3/10	KTK-2-1/2	KTK-9	—
KTK-4/10	KTK-3	KTK-10	—
KTK-1/2	KTK-3-1/2	KTK-12	—
KTK-6/10	KTK-4	KTK-15	—
KTK-3/4	KTK-5	KTK-20	—

Carton Quantity and Weight

Ampere Ratings	Carton Qty.	Weight* Lbs.	Weight* Kg.
1-30	10	.180	.082

*Weight per carton.



Recommended fuseblocks/fuseholders for 13/32" x 1-1/2" fuses

See Data Sheets listed below

- Open fuseblocks - 1104, 2104
- Finger-safe fuseholders - 1109, 1102, 1103, 1151
- Panel-mount fuseholders - 2114, 2113, 2108, 2112, 2109, 2140
- In-line fuseholders - 2127, 2126

CE

COOPER Bussmann

KTK-10

Fast-ActingSupplementary Fuse, 600V, 13/32 - 1-1/2 Inches

Product Information

Product Type:	Fuse
Product Family:	Electrical Power
Upgrade Product:	LP-CC-10
Brand:	Cooper Bussmann
Sub-brand:	Low-Peak

Certifications

UL Listed

CSA Certified

Recommended Products

Rec. Fuse Block:	BM603 Series
Rec. Inline Fuse Holder:	HEB Series
Rec. Panel-mount Fuse Holder:	HPS Series
Rec. Modular Fuse Holder:	CHM Series
Rec. Fuse Clips:	5960 Series
Rec. Cover:	SAMI-7 Series

Electrical Properties

Maximum AC Voltage:	600
Amperage Rating:	10
AC Interrupting Ratings:	• 100000 at 600V
Fast Acting:	Yes

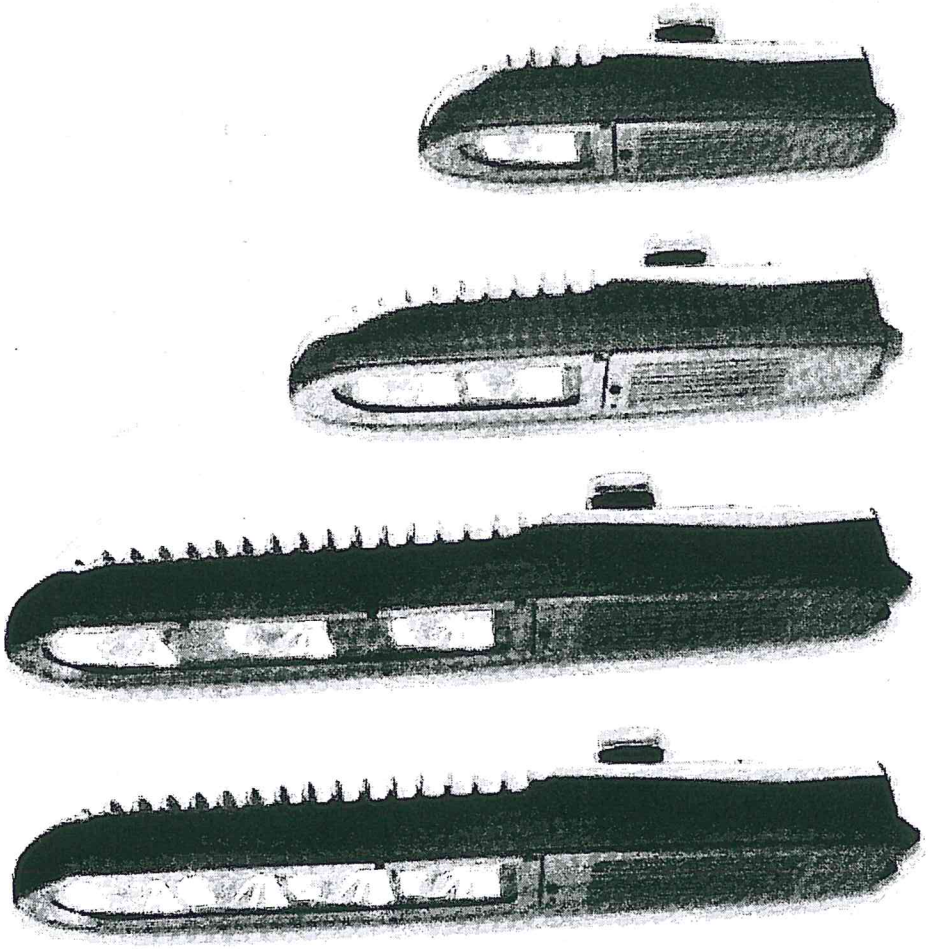
Physical Properties

Dimensions:	1.5in.(L) × 0.41in.(W) × 0in.(H)

GE
Lighting Solutions

Evolve™ LED Roadway Lighting

Scalable Cobrahead (ERS1, ERS2, ERS3 & ERS4)



imagination at work

Product Features

From local to major roadways, the GE Evolve™ LED Roadway Scalable Cobrahead fixtures are changing the way you light your lanes. Preserving the aesthetic look of traditional roadway Cobrahead fixtures, GE balances the technical needs of a sophisticated LED system with the functional demands of an outdoor fixture facing extreme weather hazards. GE's advanced LED optical design offers hundreds of photometric options to meet your precise lighting requirements, while delivering reduced glare and improved light control. The refined thermal management system incorporates a sleek and robust heat sink directly into the fixture to ensure maximum heat transfer and long LED life.

The GE Evolve LED Roadway Scalable Cobrahead offers more than 11 years of reliable service life to significantly reduce maintenance frequency and expense, based on a 50,000 hour life and 12 hours of operation per day. This efficient fixture can yield up to a 50-percent reduction in system energy compared with standard HID systems, depending on roadway applications, and can also be paired with programmable dimming options for even greater savings and control.

Applications

- Designed to meet recommended luminance and illuminance requirements for local to major roadway / street classifications.

Housing

- Die cast aluminum housing.
- A modern design preserving the aesthetic look of traditional roadway Cobrahead fixtures incorporates the heat sink directly into the unit ensuring maximum heat transfer and long LED life.
- Meets 2G vibration per C136.31-2010
  For 3G rating contact manufacturer.
- Power door assembly with removable retention latch.

LED & Optical Assembly

- Structured LED array for optimized roadway photometric distribution.
- Evolve light engine consisting of scalable reflective technology designed to optimize application efficiency and minimize glare.
- Reverse facing light engine options available.
- Utilizes high brightness LEDs, 70 CRI at 4000K & 5700K typical.
- LM-79 tests and reports are performed in accordance with IESNA standards.

Lumen Maintenance

- System rating is L85 at 50,000 hours. Contact manufacturer for Lxx rating (Lumen Depreciation) beyond 50,000 hours.

Ratings

- UL/cUL listed, suitable for wet locations per UL 1598.
- IP65 rated optical enclosure per ANSI C136.25-2009.
- Temperature rated at -40° to 50°C (-40° to 45°C for ERS4 347-480V fixtures).
- Upward Light Output Ratio (ULOR) = 0.

Mounting

- Slipfitter with +/- 5 degree of adjustment for leveling.
- Integral die cast mounting pipe stop feature.
- Wildlife intrusion protection at mounting pipe entry.
- Adjustable for 1.25 in. or 2 in. mounting pipe.

Finish

- Corrosion resistant polyester powder painted, minimum 2.0 mil. thickness.
- Standard colors: Black and Gray.
- RAL & custom colors available.

Electrical

- 120-277 volt and 347-480 volt available.
- System power factor is >90% and THD <20%.*
- Class "A" audible sound rating.
- Integral surge protection:
  - For 120-277VAC per IEEE/ANSI C62.41.-1991, 6kV/3kA Location Category B3 (120 Events).
- Optional high capability surge protection per IEEE/ANSI C62.41.2-2002.
  - Rating 1 - 10kV/5kA Location Category (120 events).
  - Rating 2 - 6kV/3kA Location Category C-Low (5000 events).
- EMI: Title 47 CFR Part 15 Class A.
- Photo electric sensors (PE) available for all voltages.

** System power factor and THD is tested and specified at 120V input and maximum load conditions.*

Warranty

- 5-year limited system warranty standard.

Ordering Number Logic

Scalable Cobrahead (ERS2)

E R S 2 - 0 - EX - DX - 5 - 57 - 2 - GRAY - ___

PROD. ID

- E = Evolve
- R = Roadway
- S = Scalable
- 2 = Optical Assembly

VOLTAGE

- 0 = 120 - 277
- H = 347 - 480
- 1 = 120*
- 2 = 208*
- 3 = 240*
- 4 = 277*
- 5 = 480*
- D = 347*

*Specify single voltage only if fuse option is selected.

OPTICAL CODE

PHOTOMETRIC TYPE

- AX = Extra Narrow Asymmetric (Medium)
- BX = Narrow Asymmetric (Medium)
- CX = Asymmetric (Short)
- DX = Asymmetric Forward (Very Short)
- EX = Asymmetric (Medium)

DRIVE CURRENT

- 5 = 525mA*

*Standard drive current is 525mA. 350mA and 700mA drive currents designated with a "3" or "7" respectively are available and set at the factory.

LED COLOR TEMP

- 40 = 4000K
- 57 = 5700K

PE FUNCTION

- 1 = None
- 2 = PE Rec.
- 4 = PE Rec. with Shorting Cap
- 5 = PE Rec. with Control
- 7 = Dimming PE Receptacle *†
- 9 = Dimming PE Receptacle with Shorting Cap †

PE control not available for multi-volt 347-480V. Must be a discrete voltage (347V or 480V).

* Order dimming control PE as a separate item

† When ordering PE function socket 7 or 9, a dimming option "D" or programmable dimming option "P" must also be ordered under the "OPTIONS" column

COLOR

- BLCK = Black
- GRAY = Gray

Contact manufacturer for other colors.

OPTIONS

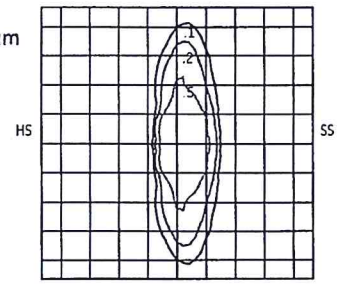
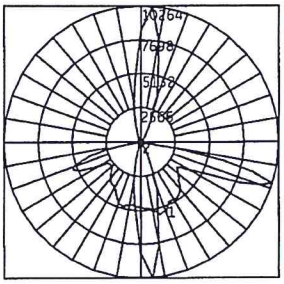
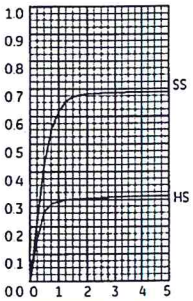
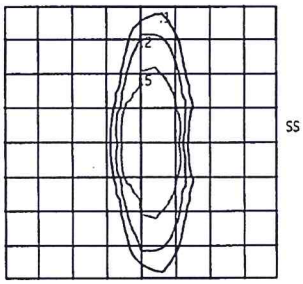
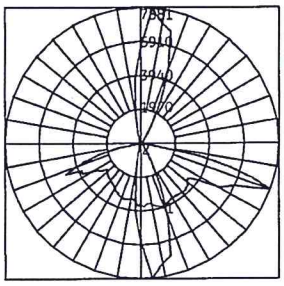
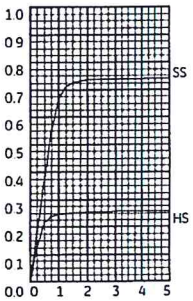
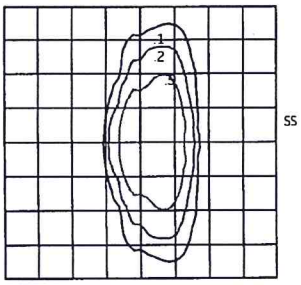
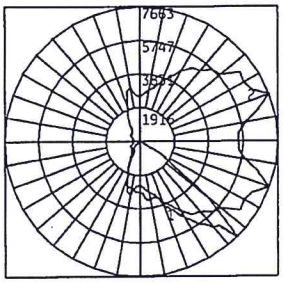
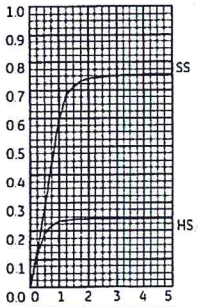
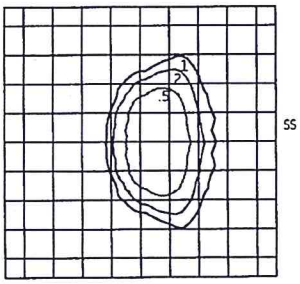
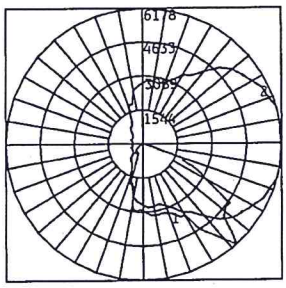
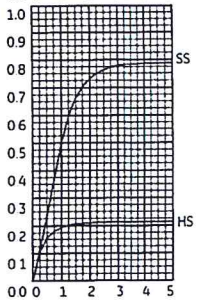
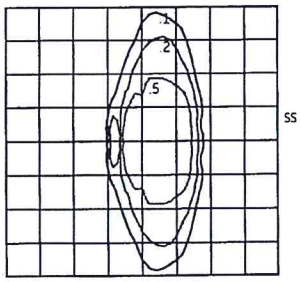
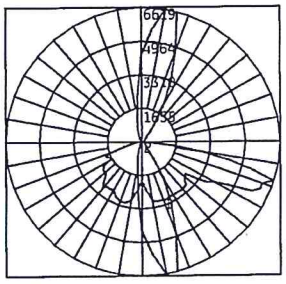
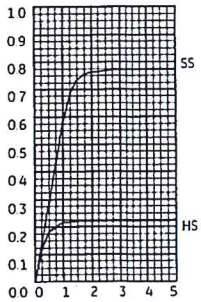
- C = IEC Construction
- D = Dimming (525mA)
- E = GE Level
- F = Fusing
- L = Tool-Less Entry
- P = Programmable Dimming (includes DALI)
- T = Extra Surge Protection*
- XXX = Special Options
- * Contact manufacturer for details and availability.

OPTICAL CODE	PHOTOMETRIC TYPE	TYPICAL INITIAL LUMENS 4000K	TYPICAL INITIAL LUMENS 5700K	TYPICAL SYSTEM WATTAGE 120-277V	TYPICAL SYSTEM WATTAGE 347-480V	IES FILE NUMBERS 4000K	IES FILE NUMBERS 5700K
DX	AX	6000	6500	82	89	454898	454903
EX		7000	7500	94	102	454899	454904
FX		8000	8600	106	114	454900	454905
GX		9000	9700	118	127	454901	454906
HX		10000	10800	130	140	454902	454907
DX	BX	6300	6800	82	89	454684	454683
EX		7300	7900	94	102	454685	454682
FX		8400	9000	106	114	454686	454681
GX		9400	10100	118	127	454687	454680
HX		10500	11300	130	140	454688	454643
DX	CX	6200	6700	82	89	454675	454674
EX		7300	7800	94	102	454676	454673
FX		8300	8900	106	114	454677	454672
GX		9300	10000	118	127	454678	454671
HX		10300	11100	130	140	454679	454641
DX	DX	6300	6800	82	89	454908	454913
EX		7300	7900	94	102	454909	454914
FX		8400	9000	106	114	454910	454915
GX		9400	10100	118	127	454911	454916
HX		10400	11200	130	140	454912	454917
DX	EX	6000	6400	82	89	454658	454650
EX		6900	7400	94	102	454657	454649
FX		7900	8500	106	114	454656	454647
GX		8800	9500	118	127	454655	454648
HX		9900	10600	130	140	454654	454642

House side photometry options available (using reverse facing light engines). Contact manufacturer for more information.

Photometrics

Scalable Cobrahead (ERS2)

	ISO Plot Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade	Polar Curve Polar Trace Vertical and Horizontal Plane through Horizontal Angle of Maximum Candlepower	CU Graph Coefficients of Utilization Street Width / Mounting Height
ERS2 Extra Narrow Asymmetric Medium (HXAX) 10,800 Lumens 5700K GE454907.ies			
ERS2 Narrow Asymmetric Medium (HXBX) 11,300 Lumens 5700K GE454643.ies			
ERS2 Asymmetric Short (HXCX) 11,100 Lumens 5700K GE454641.ies			
ERS2 Asymmetric Forward Very Short (HXDX) 11,200 Lumens 5700K GE454917.ies			
ERS2 Asymmetric Medium (HXEX) 10,600 Lumens 5700K GE454642.ies			

Kendall County Prevailing Wage for September 2014

(See explanation of column headings at bottom of wages)

Trade Name	RG	TYP	C	Base	FRMAN	M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
ASBESTOS ABT-GEN		ALL		38.200	38.700	1.5	1.5	2.0	13.42	10.48	0.000	0.500
ASBESTOS ABT-MEC		BLD		35.100	37.600	1.5	1.5	2.0	11.17	10.76	0.000	0.720
BOILERMAKER		BLD		44.240	48.220	2.0	2.0	2.0	6.970	17.54	0.000	0.350
BRICK MASON		BLD		42.580	46.840	1.5	1.5	2.0	9.850	13.60	0.000	1.030
CARPENTER		ALL		42.520	44.520	1.5	1.5	2.0	13.29	12.76	0.000	0.630
CEMENT MASON		ALL		42.900	44.900	2.0	1.5	2.0	9.900	16.32	0.000	0.500
CERAMIC TILE FNSHER		BLD		35.810	0.000	1.5	1.5	2.0	10.55	8.440	0.000	0.710
COMMUNICATION TECH		BLD		37.650	39.750	1.5	1.5	2.0	10.03	10.44	0.000	1.320
ELECTRIC PWR EQMT OP		ALL		37.890	51.480	1.5	1.5	2.0	5.000	11.75	0.000	0.380
ELECTRIC PWR GRNDMAN		ALL		29.300	51.480	1.5	1.5	2.0	5.000	9.090	0.000	0.290
ELECTRIC PWR LINEMAN		ALL		45.360	51.480	1.5	1.5	2.0	5.000	14.06	0.000	0.450
ELECTRIC PWR TRK DRV		ALL		30.340	51.480	1.5	1.5	2.0	5.000	9.400	0.000	0.300
ELECTRICIAN		BLD		45.370	49.910	1.5	1.5	2.0	10.44	12.70	0.000	1.590
ELEVATOR CONSTRUCTOR		BLD		49.900	56.140	2.0	2.0	2.0	12.73	13.46	3.990	0.600
FENCE ERECTOR		ALL		45.060	48.660	2.0	2.0	2.0	10.52	18.81	0.000	0.400
GLAZIER		BLD		40.000	41.500	1.5	2.0	2.0	12.49	15.99	0.000	0.940
HT/FROST INSULATOR		BLD		46.950	49.450	1.5	1.5	2.0	11.17	11.96	0.000	0.720
IRON WORKER		ALL		45.060	48.660	2.0	2.0	2.0	10.52	18.81	0.000	0.400
LABORER		ALL		38.000	38.750	1.5	1.5	2.0	13.42	10.48	0.000	0.500
LATHER		ALL		42.520	44.520	1.5	1.5	2.0	13.29	12.76	0.000	0.630
MACHINIST		BLD		44.350	46.850	1.5	1.5	2.0	6.760	8.950	1.850	0.000
MARBLE FINISHERS		ALL		31.400	32.970	1.5	1.5	2.0	9.850	13.10	0.000	0.600
MARBLE MASON		BLD		41.780	45.960	1.5	1.5	2.0	9.850	13.42	0.000	0.760
MATERIAL TESTER I		ALL		28.000	0.000	1.5	1.5	2.0	13.42	10.48	0.000	0.500
MATERIALS TESTER II		ALL		33.000	0.000	1.5	1.5	2.0	13.42	10.48	0.000	0.500
MILLWRIGHT		ALL		42.520	44.520	1.5	1.5	2.0	13.29	12.76	0.000	0.630
OPERATING ENGINEER		BLD	1	47.100	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD	2	45.800	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD	3	43.250	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD	4	41.500	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD	5	50.850	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD	6	48.100	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		BLD	7	50.100	51.100	2.0	2.0	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY	1	45.300	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY	2	44.750	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY	3	42.700	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY	4	41.300	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY	5	40.100	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY	6	48.300	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
OPERATING ENGINEER		HWY	7	46.300	49.300	1.5	1.5	2.0	17.10	11.80	1.900	1.250
ORNAMNTL IRON WORKER		ALL		45.060	48.660	2.0	2.0	2.0	10.52	18.81	0.000	0.400
PAINTER		ALL		41.730	43.730	1.5	1.5	1.5	10.30	8.200	0.000	1.350
PAINTER SIGNS		BLD		33.920	38.090	1.5	1.5	1.5	2.600	2.710	0.000	0.000
PILEDRIVER		ALL		42.520	44.520	1.5	1.5	2.0	13.29	12.76	0.000	0.630
PIPEFITTER		BLD		41.200	43.200	1.5	1.5	2.0	9.750	17.59	0.000	1.710
PLASTERER		BLD		42.250	44.790	1.5	1.5	2.0	11.40	12.19	0.000	0.650
PLUMBER		BLD		46.650	48.650	1.5	1.5	2.0	13.18	11.46	0.000	0.880
ROOFER		BLD		39.700	42.700	1.5	1.5	2.0	8.280	10.06	0.000	0.530
SHEETMETAL WORKER		BLD		43.250	45.250	1.5	1.5	2.0	10.65	12.90	0.000	0.820
SPRINKLER FITTER		BLD		49.200	51.200	1.5	1.5	2.0	11.25	9.500	0.000	0.450
STEEL ERECTOR		ALL		45.060	48.660	2.0	2.0	2.0	10.52	18.81	0.000	0.400
STONE MASON		BLD		42.580	46.840	1.5	1.5	2.0	9.850	13.60	0.000	1.030

~~SURVEY WORKER~~-> NOT IN EFFECT		37.000	37.750	1.5	1.5	2.0	12.97	9.930	0.000	0.500
TERRAZZO FINISHER	BLD	37.040	0.000	1.5	1.5	2.0	10.55	10.32	0.000	0.620
TERRAZZO MASON	BLD	40.880	43.880	1.5	1.5	2.0	10.55	11.63	0.000	0.820
TILE MASON	BLD	42.840	46.840	1.5	1.5	2.0	10.55	10.42	0.000	0.920
TRUCK DRIVER	ALL 1	35.650	36.200	1.5	1.5	2.0	7.250	6.319	0.000	0.250
TRUCK DRIVER	ALL 2	35.800	36.200	1.5	1.5	2.0	7.250	6.319	0.000	0.250
TRUCK DRIVER	ALL 3	36.000	36.200	1.5	1.5	2.0	7.250	6.319	0.000	0.250
TRUCK DRIVER	ALL 4	36.200	36.200	1.5	1.5	2.0	7.250	6.319	0.000	0.250
TUCKPOINTER	BLD	42.800	43.800	1.5	1.5	2.0	8.180	12.66	0.000	0.650

Legend:
- RG (Region)
- TYP (Trade Type - All,Highway,Building,Floating,Oil & Chip,Rivers)
- C (Class)
- Base (Base Wage Rate)
- FRMAN (Foreman Rate)
- M-F>8 (OT required for any hour greater than 8 worked each day, Mon through Fri.
- OSA (Overtime (OT) is required for every hour worked on Saturday)
- OSH (Overtime is required for every hour worked on Sunday and Holidays)
- H/W (Health & Welfare Insurance)
- Pensn (Pension)
- Vac (Vacation)
- Trng (Training)

Explanations

KENDALL COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings,

swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS TECHNICIAN

Construction, installation, maintenance and removal of telecommunication facilities (voice, sound, data and video), telephone, security, and data inside wire, interconnect, terminal equipment, central offices, PABX and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area network), LAN (local area networks), and ISDN (integrated system digital network), pulling of wire in raceways, but not the installation of raceways.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under: Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welder.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane: Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

SURVEY WORKER - Operated survey equipment including data collectors, G.P.S. and robotic instruments, as well as conventional levels and transits.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yeards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or

machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".