

City of Mt. Pleasant, Michigan

CONTRACT DOCUMENTS

For Construction
of

2013 Parking Lot #2 Improvements
Street Light Purchase



KATHLEEN L. LING
Mayor

KATHIE GRINZINGER
City Manager

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Midland, MI

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DPW Director

February 2013

City of Mt. Pleasant, Michigan

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THE CITY OF MT. PLEASANT, MICHIGAN

CITY HALL

320 W. Broadway • 48858-2447
(989) 779-5300
(989) 773-4691 fax

PUBLIC SAFETY

804 E. High • 48858-3595
(989) 779-5100
(989) 773-4020 fax

PUBLIC WORKS

1303 N. Franklin • 48858-4682
(989) 779-5400
(989) 772-6250 fax

NOTICE TO BIDDERS

2013 Parking Lot #2 Improvements Street Light Purchase

The City of Mt. Pleasant, Michigan, is requesting sealed bids at the Office of the City Clerk, City Hall, 320 W. Broadway, Mt. Pleasant, Michigan 48858, until 1:30 p.m. (local time), on March 5, 2013, at which time and place the bids will be publicly opened and read. All bids shall be submitted in a sealed envelope, plainly marked "2013 Parking Lot #2 Improvements, Street Light Purchase – March 5, 2013."

Proposals are solicited on a unit price basis, for the following work (approx. quantities):

15' Poles w/ single arms	9	EA
24' Poles w/ double arms	4	EA

A bid bond is not required for this project

This project is partially funded by MEDC.

To view and download complete Plans and Specifications at no charge, visit the City of Mt. Pleasant website at www.mt-pleasant.org and navigate to the [bids and quotes](#) page.

A non-refundable \$10.00 fee is required for specifications picked up at the Public Works Building, 1303 N. Franklin Street, Mt. Pleasant, Michigan 48858, (989) 779-5401, Monday through Friday, 8:00 a.m. to 4:30 p.m. A non-refundable \$15.00 fee is required for plans and specifications that must be mailed.

The City of Mt. Pleasant reserves the right to accept or reject any or all bids, to waive any irregularities in the bids, and to select the bid considered most advantageous to the City.

Jason Moore
Engineering Aide
(989) 779-5405

Jeremy Howard
City Clerk

City of Mt. Pleasant, Michigan
INSTRUCTIONS TO BIDDERS

1. **Proposals**

Proposals must be made upon the forms provided therefore, with the Bid amount both written and shown in figures, and all other data required submitted.

The Proposal, bound together with all Proposal Documents, must be enclosed in a sealed envelope marked as specified in the Notice to Bidders for such Bid and clearly indicating the name and address of the Bidder and must be received by the City Clerk, City Hall, 320 West Broadway Street, Mt. Pleasant, Michigan 48858, no later than the time and date specified in the Notice to Bidders. At such specified time, Proposals shall be publicly opened and read aloud.

2. **Basis of Proposals**

Proposals are solicited on the basis of unit price(s) and/or lump sum(s), as specified on the Proposal form.

The City of Mt. Pleasant (also referred to as "Owner"), reserves the right to accept any Bid, to reject any or all Bids, to waive any irregularities in the Bids, and to select the Bid considered most advantageous to the city.

3. **Comparison of Bids**

In comparing Bids, consideration shall be given to the time proposed for completion of the Contract, qualifications of Bidder, price differentials, alternate Proposals for the alternate items listed in the Proposal (if applicable), and any other pertinent factors. **The City of Mt. Pleasant grants a preference to businesses located within the Mt. Pleasant City Limits. The preference given is a differential above the low bid if the low bid is not from a City of Mt. Pleasant bidder. The differential allowed is 3% of the total for bids between \$5,000 and \$9,999 and 2% of the total for bids over \$10,000. The maximum credit allowed is \$1500.00.** The Owner reserves the right to make an award to the Bidder whose Proposal is deemed to be in the best interest of the Owner.

4. **Time**

Time is of the essence in the performance of the Contract, and each Bidder, by submitting a Proposal, certifies his/her acceptance of the time allowed by the Contract for the completion of the work specified.

5. **Indemnification**

The Contractor shall save and hold harmless the city and its employees from and against all claims, damages, losses, or expenses, including attorney's fees, arising out of or resulting from the performance of the work; provided that any such claim, damage, loss or expense is caused in whole or in part by any negligent or willful act of omission of the contractor, subcontractor, employee, or anyone under their direction. The Contractor shall at his/her own expense, defend any and all such actions and shall pay all attorney's fees, costs, and expenses pertaining thereto.

6. **Bid Deposits**

Not required.

7. **Liquidated Damages**

Not applicable.

8. **Insurance and Bonds**

Not required.

9. **Permits and Local Codes**

Not required.

10. **Qualifications of Bidders**

It is the intent of the Owner to award the Contract to a Bidder fully capable, both financially and with regard to experience, to perform and complete all work in a satisfactory and timely manner. Evidence of such competency must be furnished on the forms included in the proposal, listing projects of similar difficulty, scope of work, and size, which the Bidder has satisfactorily undertaken and completed.

It is the intention of the City to award the contract to a Contractor whose ability and financial resources are fully equal to the task of performing the work in a satisfactory manner. With this in view, the Proposal calls for at least five (5) references, using specific names of persons to contact concerning the Contractor's ability to do this particular class of work. References from municipalities are preferred. The mere ability to furnish a Performance Bond shall not be accepted as sufficient evidence of responsibility on the part of the Bidder. The Bidder may also be required to furnish evidence of his current financial status.

11. **Interpretation of Documents**

If any Bidder is in doubt as to the true meaning of any part of the Plans, Specifications or any Contract Document, he/she may submit to the Owner a written request for an interpretation thereof. Any interpretation made in response to such a query shall be made only by Addendum, duly issued, and a copy of such Addendum shall be mailed or duly delivered to each prospective Bidder. The Owner shall not be responsible for any other explanation or interpretation of the Contract Documents. Alternative proposals that are suggested by bidders will be given consideration, if presented before the bid opening. If accepted, an addendum will be issued and sent out to all potential bidders, so that they may bid on the alternatives that have been identified.

12. **Execution of Bid Proposal**

A Bid Proposal, which is not signed by the individual making it, should have attached thereto a Power of Attorney evidencing authority to sign the Bid Proposal in the name of the person for whom it is signed.

A Bid Proposal, which is signed by a partnership, shall be signed by all of the partners or by an Attorney-in-Fact. If signed by an Attorney-in-Fact, there should be attached to the Bid a Power of Attorney evidencing authority to sign the Bid Proposal in the name of the partnership and such Power of Attorney shall be signed by all partners of the partnership.

A Bid Proposal, which is signed for a corporation, should have the correct corporate name thereof and the signature of the President, or other authorized officer(s) of the corporation, manually written below the corporate name and on the line indicating "By:_____." If such a Bid Proposal is manually signed by an officer other than the President of the corporation, a certified copy of a Resolution of the Board of Directors evidencing the authority of such officer(s) to sign the Bid Proposal should be attached thereto. Such a Bid Proposal should also bear the attested signature of the Secretary of the corporation and an impression of the corporate seal.

13. **Execution of Contract**

The successful Bidder to whom an award is made shall be required to enter into a written agreement, in the form attached hereto, within ten (10) days after receipt of a Notice of Award and copies of the documents to be executed. In the event the successful Bidder fails to comply with this provision, he/she may be considered by the Owner to have abandoned all his/her rights and interests in the award and his/her certified check or amount of the Bid Bond may be declared to be forfeited to the Owner, and the Contract may be awarded to another.

Revised: February 2013

City of Mt. Pleasant, Michigan
BID PROPOSAL

**2013 PARKING LOT #2 IMPROVEMENTS
STREET LIGHT PURCHASE**

TO: City Hall/City Clerk
320 W. Broadway Street
Mt. Pleasant, MI 48858

BID DATE: March 5, 2013
TIME: 1:30 p.m.

The undersigned, as Bidder, hereby declares that his bid is made in good faith without fraud or collusion with any person or persons bidding on the same Contract; that he has carefully read and examined the Contract Documents, including the Notice to Bidders, Instructions, and Technical and Detailed Specifications for the designated work and understands all of the same; and he proposes and agrees that if this Proposal is accepted, he will contract with the Owner in the form of the Contract hereto annexed, to provide necessary components and transportation services, necessary to do all the work and furnish all the materials specified or referred to in the Contract Documents, including Addenda No. __, __, and __, in the manner and time therein prescribed, and according to the requirements of the Owner as therein set forth.

The Bidder understands that the Owner reserves the right to reject any or all bids and to waive any irregularities in the bidding.

The Bidder agrees that his bid shall be good and may not be withdrawn for a period of sixty (60) calendar days after the scheduled closing time for receiving the bids.

Upon receipt of a written Notice of Award of the Bid, the Bidder shall execute the formal Contract Agreement attached hereto within ten (10) days.

The Bidder hereby agrees to commence work under this Contract on or before date to be specified in the written Notice to Proceed executed by the Owner and to fully complete the project as stipulated in the Special Conditions.

The below unit prices shall include all labor, materials, overhead, profit, insurance, etc., to cover the finished work of the several kinds specified, and the Bidder agrees to perform all of the work described in the Specifications and/or shown on the Plans for the following unit prices:

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
1	15' Pole w/ Single Arm Fixtures	9	EA	\$	\$
2	24' Pole w/ Double Arm Fixtures	4	EA	\$	\$

TOTAL \$
=====

(figures)

(written)

_____ and ____/100 Dollars

RESPECTFULLY SUBMITTED:

Company Name _____

Address _____

City _____ ST _____ Zip Code _____

Area Code/Telephone Number _____ Date _____

Fax _____

EMAIL _____

Authorized Signature _____

Print of Type Name and Title _____

EXPERIENCE QUESTIONNAIRE

To be furnished by Bidder
City of Mt. Pleasant, Michigan

The signatory of this proposal guarantees the truth and accuracy of all statements and of all answers hereinafter made.

1. How many years have you been in business as a contractor under your present name?

2. How many years have you been a principal officer of a firm under a different name?

Name of Firm _____

3. What projects of a similar nature has your organization contracted for within the past five years? (NOTE: Fill out each blank completely.)

Name of Owner & Location	Name/Address/Phone # of Person in Charge as Reference	Type of Work	Value of Work	Date Completed
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1. _____

2. _____

3. _____

4. _____

**City of Mt. Pleasant, Michigan
SUPPLEMENTAL SPECIFICATIONS**

2013 Parking Lot #2 Improvements

Construction Specifications

1. Time Constraints

Completion of this project within the time constraints described below is essential. The Supplier shall submit shop drawings by March 15, 2013, anchor bolts and bolt templates by April 1, 2013, and light poles and fixtures by May 15, 2013.

City of Mt. Pleasant

SPECIAL PROVISION
FOR
ELECTRICAL AND LIGHTING

City of MtPleasant

1 of 1

January 29, 2013

A) Description

This work consists of furnishing light fixtures, poles, outlets and arms per the attached specification. Approved equals will be considered, but have to match the existing fixtures at the Main St / Mosher St Roundabout exactly.

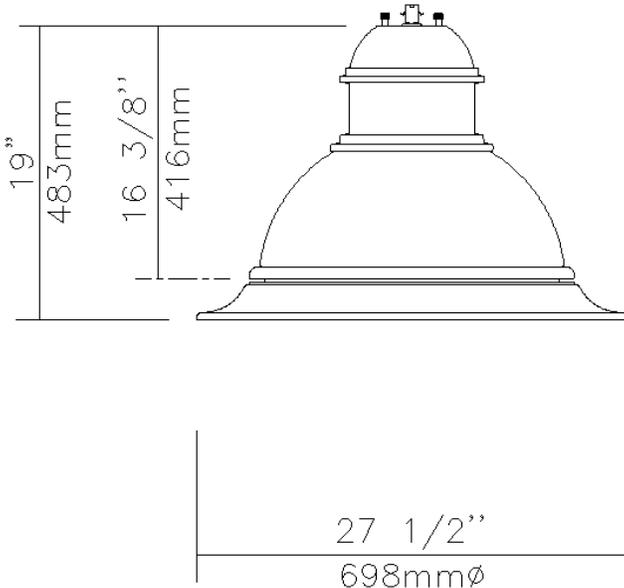
B) Materials

- i) Provide light fixtures, poles, outlets and arms per the attached specification, or approved equal. The items are to be delivered to the Mt. Pleasant DPW Garage, 1303 N. Franklin St., Mt Pleasant, MI 48858.
- ii) 15' light poles are to have the luminaire at an elevation of 15' above finish grade with the light pole foundations (by others) extending 4" above finish grade.
- iii) 24' light poles are to have the luminaire at an elevation of 24' above finish grade with the light pole foundations (by others) extending 30" above finish grade.

C) Construction

15' Pole, Single Arm FixturesEach
24' Pole, Double Arm Fixtures.....Each

Mount Pleasant Jockey Alley (68435)



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



Qty 1 Luminaire DMS50-90W49LED4K-ES-LE3F-240-BE2TX

Description of Components:

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

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

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

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

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

Lamp: (Included), Lamp type Philips Lumileds Rebel ES. Composed of 49 high-performance white LEDs, 90w lamp wattage. Color temperature of 4000 Kelvin nominal, 70 CRI. Operating lifespan after which the system emits 70% of its original lumen output, all of those parameters are tested for 100% of light engines. Use of a metal core board insures greater heat transfer and longer lifespan of the light engine.

Optical System: (LE3F), IES type III (asymmetrical). Composed of high-performance acrylic collimators, optimized with varying beam angles to achieve desired distribution. System is rated IP66. Performance shall be tested per LM63 and LM79 (IESNA) certifying its photometric performance. Street-side indicated.

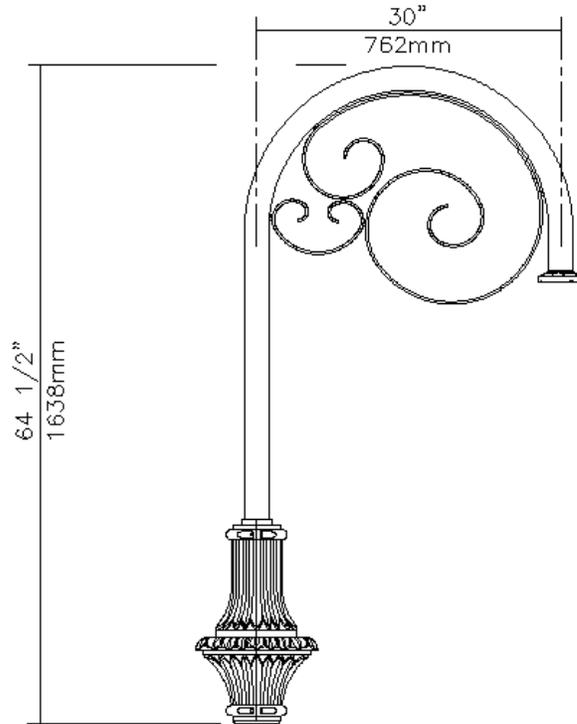
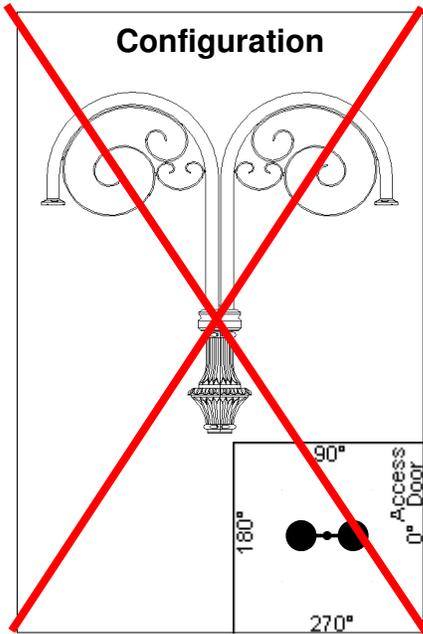
Mount Pleasant Jockey Alley (68435)

Heat Sink: Made of cast aluminum optimising the LEDs efficiency and life. Product does not use any cooling device with moving parts (only passive cooling device)

Driver: High power factor of 90%. Electronic driver, operating range 50/60 Hz. **Auto-adjusting to a voltage between 120 and 277 volt AC rated for both application line to line or line to neutral, Class II**, THD of 20% max. Maximum ambient operating temperature from -40F(-40C) to 130F(55C) degrees. Certified in compliance to cULus requirement. Dry and damp location. Assembled on a unitized removable tray with Tyco quick disconnect plug resisting to 221F(105C) degrees.

The current supplying the LEDs will be reduced by the driver if the internal driver temperature exceeds 185F(85C), as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction.

Surge Protector: LED Driver 3 poles 10KV surge Protectors that protect Line-Ground, Line-Neutral, and Neutral-Ground in accordance with IEEE / ANSI C62.41.2 guidelines.



Qty 1 Bracket [NM-001]-1-BE2TX

Description of Components:

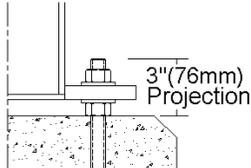
Arm: Shall be made from bent 6061-T6 aluminum tubing, 2 3/8" (60mm) outside diameter, welded.

Decorative Element: Made of cast 356 aluminum, welded.

Adaptor: Made of cast 356 aluminum. **Slip-fits on a 4" (102mm) outside diameter x 9" (229mm) long tenon.** Mechanically fastened by two sets of four set-screws at 90 degrees around the bracket.

Mount Pleasant Jockey Alley (68435)

Base & Bolts Information



3" (76mm) Projection

Comes with 4 steel anchor bolts, 3/4" X 17" + 3", 8 nuts and 8 washers. Important: Do not obstruct space between anchor plate and concrete base.

Anchor Plate

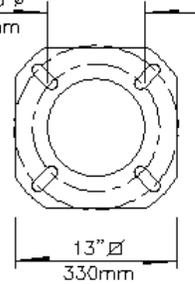
Free opening

8 1/8" ϕ
206mm

- Bolt Circle:
12 1/2" (318mm)

- Material:
Cast Aluminum

- NOTE:
Bolt Circle Allowed:
11" to 13"
279mm to 330mm



13" ϕ
330mm



Qty 1 Pole RTA61F-15-GFII-BE2TX

Description of Components:

Pole Shaft: Shall be made from a mandrel-formed aluminum tapered shaft, 12 fluted round, having a 0.125" (3.2mm) wall thickness, welded to the pole base

Joint Cover: One-piece round joint cover made from cast 356 aluminum, welded to the pole shaft and to the base.

Pole Base: Shall be made from a 8 5/8" (219mm) round extruded 6061-T6 aluminum tubing base having a 0.148" (4.8mm) wall thickness, welded to both the bottom and top of the anchor plate.

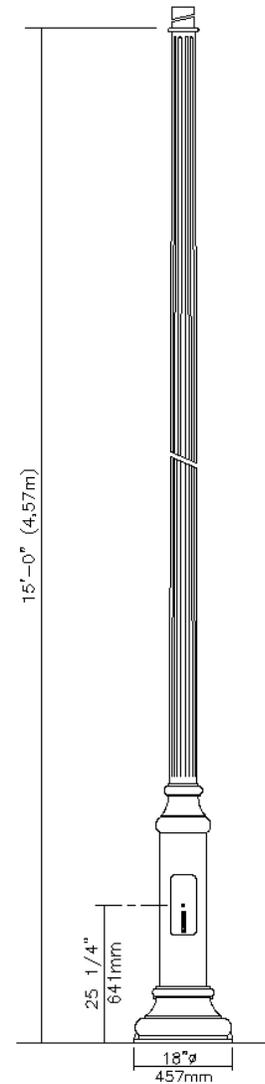
Maintenance Opening: The pole shall have a 4 1/2" x 10" (114mm x 254mm) maintenance opening centered 25 1/4" (641mm) from the bottom of the anchor plate, complete with a weatherproof embossed aluminum cover and a copper ground lug.

Base Cover: Two piece round base cover made from cast 356 aluminum, mechanically fastened with stainless steel screws.

Pole Options: (GFI) Duplex receptacle, 120 volts, ground fault interrupter, **complete with an in-use weatherproof aluminum painted cover**. Possibility of padlock (Padlock not included). **15 amp., NEMA 5-15R.** Provide 2 receptacles one at top and one at base.

Note: A tenon will be provided when the luminaire or bracket does not fit directly on pole shaft. Tenon not shown on the drawing.

IMPORTANT: Philips Lumec strongly recommends the installation of the complete lighting assembly with all of its accessories upon the anchoring of the pole. This will ensure that the structural integrity of the product is maintained throughout its lifetime.



Mount Pleasant Jockey Alley (68435)

Miscellaneous

Description of Components:

Wiring: Gauge (#14) TEW/AWM 1015 or 1230 wires, 6" (152mm) minimum exceeding the bracket.

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

Finish: Color to be **textured dark blue (BE2TX)** and in accordance with the AAMA 2603 standard. Application of a polyester powdercoat paint (4 mils/100 microns) with ± 1 mils/24 microns of tolerance. The Thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D 2244 standard, as well as luster retention in keeping with the ASTM D 523 standard and humidity proof in accordance with the ASTM-D2247 standard.

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

Warning: IMPORTANT 120 volt line needed on site for (GFI).

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

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

Vibration Resistance: The DMS50 meets the **ANSI C136.31-2001** table 2, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications. (Tested for 3G over 100 000 cycles by an independent lab)

Mechanical resistance: In order to ensure the mechanical resistance of the poles, the reflected area should be calculated according to AASHTO standards and resists to a wind of 140 km/hr.

Web site information details: Click on any specific information details you need:

[Paint finish](#) / [Warranties](#) / [Installation pictures](#) / [ISO 9001-2008 Certification](#) / [ISO 14001-2004 Certification](#) / [CSA Pole Certification](#)

Mount Pleasant Jockey Alley (68435)

Lamp technical information for DMS50 DMS55 DMS60 TR10 TR20													
LED = Philips Lumileds Rebel ES, CRI = 70, CCT = 4000K (+/- 350K)													
LED rated life = 100,000 hrs ¹ - Driver rated life = 50,000 hrs													
Lamp	Typical delivered lumens ²			Typical lamp wattage (W)	Typical system wattage ³ (W)	Typical current @ 120 V (A)	Typical current @ 240 V (A)	Typical current @ 277 V (A)	LED current (mA)	HPS equivalent ⁴	Luminaire Efficacy Rating (Lm/W)		
	Flat lens	Sag lens	Prismatic globe								Flat lens	Sag lens	Prismatic globe
40W49LED4K-ES	4025	4070	3550	42	47	0.39	0.20	0.17	285	100 W	86	87	76
65W49LED4K-ES	5385	5440	4745	65	72	0.60	0.30	0.26	428	100 W	75	76	66
90W49LED4K-ES	6450	6515	5685	90	102	0.85	0.43	0.37	571	150 W	63	64	56

¹ L70 = 100,000 hrs (at ambient temperature= 25°C and forward current = 700 mA)
² May vary depending on the optical distribution used
³ System wattage includes the lamp and the LED driver.
⁴ Compared to Domus (equivalence should always be confirmed by a photometric layout)

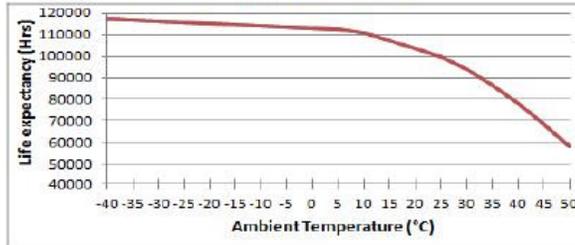
Photometric tests are done at 25°C ambient (as requested by LM-79). If our product is used at a different ambient temperature (nighttime average), you can multiply the lumens by the percentage below.

Ambient (°C)	-20	-10	0	5	10	15	20	25
% Flux	105.8	105.1	104.2	103.8	102.8	101.9	101	100

As 4000K is our standard, photometric tests are only done with this CCT. If you want to use another CCT (6000K or 3000K) you can multiply the lumens by the percentage below

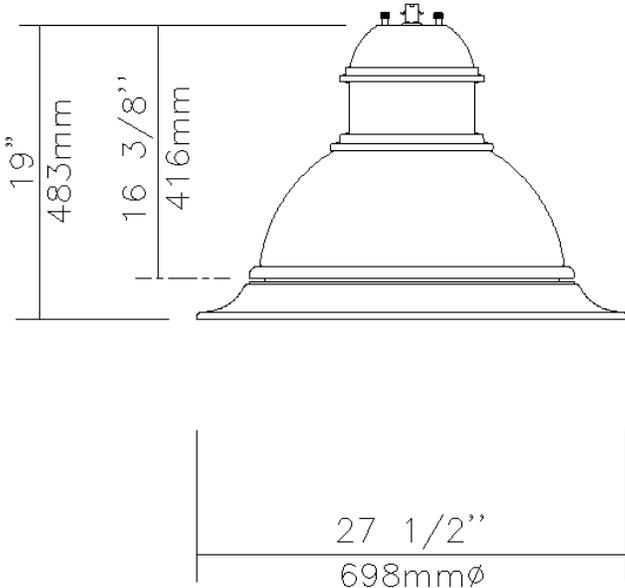
CCT (K)	6000	4000	3000
% Flux	100	100	59.28

Life expectancy vs ambient temperature (@ 700 mA)



Note : Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Philips.

Mount Pleasant City of Jockey Alley (68435) MAV v1 (24334)



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



Qty	2	Luminaire	DMS50-90W49LED4K-ES-LE3F-120-BE2TX
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Description of Components:

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

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

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

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

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

Lamp: (Included), Lamp type Philips Lumileds Rebel ES. Composed of 49 high-performance white LEDs, 90w lamp wattage. Color temperature of 4000 Kelvin nominal, 70 CRI. Operating lifespan after which the system emits 70% of its original lumen output, all of those parameters are tested for 100% of light engines. Use of a metal core board insures greater heat transfer and longer lifespan of the light engine.

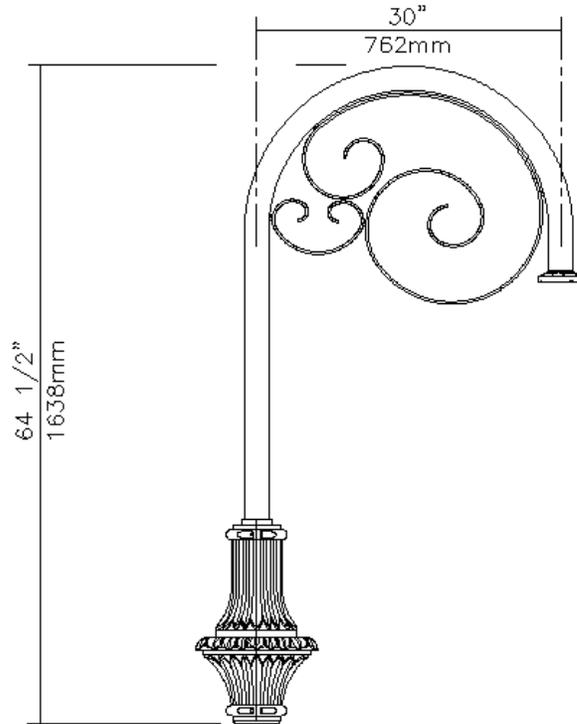
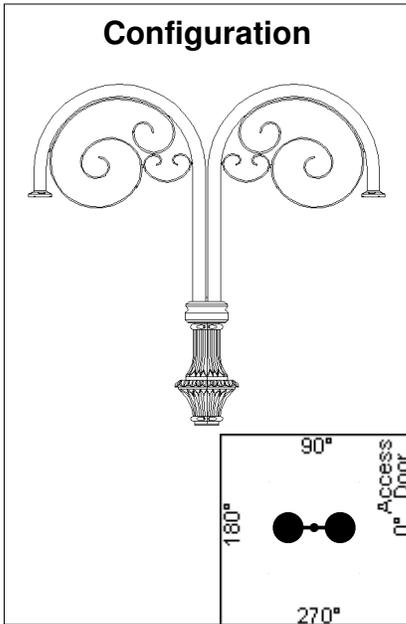
Optical System: (LE3F), IES type III (asymmetrical). Composed of high-performance acrylic collimators, optimized with varying beam angles to achieve desired distribution. System is rated IP66. Performance shall be tested per LM63 and LM79 (IESNA) certifying its photometric performance. Street-side indicated.

Heat Sink: Made of cast aluminum optimising the LEDs efficiency and life. Product does not use any cooling device with moving parts (only passive cooling device)

Driver: High power factor of 90%. Electronic driver, operating range 50/60 Hz. **Auto-adjusting to a voltage between 120 and 277 volt AC rated for both application line to line or line to neutral, Class II**, THD of 20% max. Maximum ambient operating temperature from -40F(-40C) to 130F(55C) degrees. Certified in compliance to cULus requirement. Dry and damp location. Assembled on a unitized removable tray with Tyco quick disconnect plug resisting to 221F(105C) degrees.

The current supplying the LEDs will be reduced by the driver if the internal driver temperature exceeds 185F(85C), as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction.

Surge Protector: LED Driver 3 poles 10KV surge Protectors that protect Line-Ground, Line-Neutral, and Neutral-Ground in accordance with IEEE / ANSI C62.41.2 guidelines.



	Qty	1	Bracket	[NM-001]-2-BE2TX
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Description of Components:

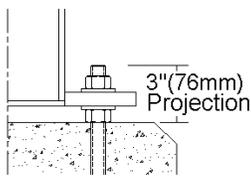
Arm: Shall be made from bent 6061-T6 aluminum tubing, 2 3/8" (60mm) outside diameter, welded.

Decorative Element: Made of cast 356 aluminum, welded.

Adaptor: Made of cast 356 aluminum. **Slip-fits on a 4" (102mm) outside diameter x 9" (229mm) long tenon.** Mechanically fastened by two sets of four set-screws at 90 degrees around the bracket.

Mount Pleasant City of Jockey Alley (68435) MAV v1 (24334)

Base & Bolts Information



3" (76mm) Projection

Comes with 4 steel anchor bolts, 3/4" X 24" + 3", 8 nuts and 8 washers. Important: Do not obstruct space between anchor plate and concrete base.

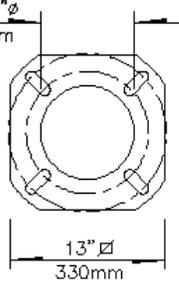
Anchor Plate

Free opening

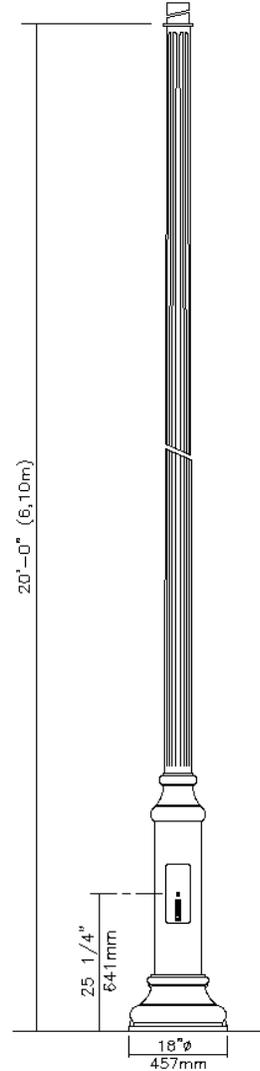
- Bolt Circle: 8 1/8" ϕ 206mm
12 1/2" (318mm)

- Material: Cast Aluminum

- NOTE: Bolt Circle Allowed: 11" to 13" 279mm to 330mm



13" ϕ 330mm




Qty 1 Pole RTA61V-20-[GFI-038]-BE2TX

Description of Components:

Pole Shaft: Shall be made from a mandrel-formed aluminum tapered shaft, 12 fluted round, having a 0.250" (6.4mm) wall thickness, welded to the pole base

Joint Cover: One-piece round joint cover made from cast 356 aluminum, welded to the pole shaft and to the base.

Pole Base: Shall be made from a 8 5/8" (219mm) round extruded 6061-T6 aluminum tubing base having a 0.148" (4.8mm) wall thickness, welded to both the bottom and top of the anchor plate.

Maintenance Opening: The pole shall have a 4 1/2" x 10" (114mm x 254mm) maintenance opening centered 25 1/4" (641mm) from the bottom of the anchor plate, complete with a weatherproof embossed aluminum cover and a copper ground lug.

Base Cover: Two piece round base cover made from cast 356 aluminum, mechanically fastened with stainless steel screws.

Pole Options: 2x (GFI) Duplex receptacle, 120 volts, ground fault interrupter, complete with a weatherproof painted aluminum cover. 20 amp., R rated.

Note: A tenon will be provided when the luminaire or bracket does not fit directly on pole shaft. Tenon not shown on the drawing.

IMPORTANT: Philips Lumec strongly recommends the installation of the complete lighting assembly with all of its accessories upon the anchoring of the pole. This will ensure that the structural integrity of the product is maintained throughout its lifetime.

Miscellaneous

Description of Components:

Wiring: Gauge (#14) TEW/AWM 1015 or 1230 wires, 6" (152mm) minimum exceeding the bracket.

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

Finish: Color to be **textured dark blue (BE2TX)** and in accordance with the AAMA 2603 standard. Application of a polyester powdercoat paint (4 mils/100 microns) with ± 1 mils/24 microns of tolerance. The Thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D 2244 standard, as well as luster retention in keeping with the ASTM D 523 standard and humidity proof in accordance with the ASTM-D2247 standard.

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

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

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

Vibration Resistance: The DMS50 meets the **ANSI C136.31-2001** table 2, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications. (Tested for 3G over 100 000 cycles by an independent lab)

Mechanical resistance: In order to ensure the mechanical resistance of the poles, the reflected area should be calculated according to AASHTO standards and resists to a wind of 140 km/hr.

Web site information details: Click on any specific information details you need:

[Paint finish](#) / [Warranties](#) / [Installation pictures](#) / [ISO 9001-2008 Certification](#) / [ISO 14001-2004 Certification](#) / [CSA Pole Certification](#)

Mount Pleasant City of Jockey Alley (68435) MAV v1 (24334)

Lamp technical information for DMS50 DMS55 DMS60 TR10 TR20													
LED = Philips Lumileds Rebel ES, CRI = 70, CCT = 4000K (+/- 350K)													
LED rated life = 100,000 hrs ¹ - Driver rated life = 50,000 hrs													
Lamp	Typical delivered lumens ²			Typical lamp wattage (W)	Typical system wattage ³ (W)	Typical current @ 120 V (A)	Typical current @ 240 V (A)	Typical current @ 277 V (A)	LED current (mA)	HPS equivalent ⁴	Luminaire Efficacy Rating (lm/W)		
	Flat lens	Sag lens	Prismatic globe								Flat lens	Sag lens	Prismatic globe
40W49LED4K-ES	4025	4070	3550	42	47	0.39	0.20	0.17	285	100 W	86	87	76
65W49LED4K-ES	5385	5440	4745	65	72	0.60	0.30	0.26	428	100 W	75	76	66
90W49LED4K-ES	6450	6515	5685	90	102	0.85	0.43	0.37	571	150 W	63	64	56

¹ L70 = 100,000 hrs (at ambient temperature= 25°C and forward current = 700 mA)
² May vary depending on the optical distribution used
³ System wattage includes the lamp and the LED driver.
⁴ Compared to Domus (equivalence should always be confirmed by a photometric layout)

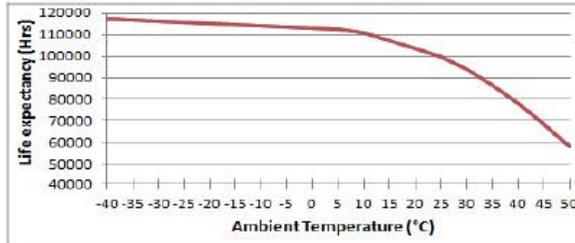
Photometric tests are done at 25°C ambient (as requested by LM-79). If our product is used at a different ambient temperature (nighttime average), you can multiply the lumens by the percentage below.

Ambient (°C)	-20	-10	0	5	10	15	20	25
% Flux	105.8	105.1	104.2	103.8	102.8	101.9	101	100

As 4000K is our standard, photometric tests are only done with this CCT. If you want to use another CCT (6000K or 3000K) you can multiply the lumens by the percentage below

CCT (K)	6000	4000	3000
% Flux	100	100	59.28

Life expectancy vs ambient temperature (@ 700 mA)



Note : Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Philips.