

AGENDA REPORT

TO: Mayor Pat Humphrey and the Clare City Commission
FROM: Ken Hibl, City Manager
DATE: February 11, 2016
RE: Street Light LED Conversion Project

For the Agenda of February 15, 2016

Background. Consumers Energy is offering a rebate program for conversion or retrofit from existing street lighting to replacement with LED fixtures; they are concurrently offering a 20% discount for purchase of new LED fixtures manufactured by Michigan-based companies. The rebate program is being offered on a first-come/first-served basis. When the funds allocated by Consumers Energy are exhausted, the program is ended for this year with no absolute guarantee the rebate will again be offered in future years.

We currently have 182 street light fixtures that we (the City and/or the DDA) own that are eligible for the rebate program regardless if we replace or retrofit the fixtures, plus we are eligible for the associated 20% discount if we replace the fixtures. The parking lot lights owned by the DDA in the Fourth and Fifth Street Municipal Parking Lots are similarly eligible for both the rebate and discount.

Based on information we've received from Medler Electric, the annual energy savings (regardless of which option we select – retrofit existing fixtures or replacement with new fixtures) in the amount of electricity used and our related monthly/annual cost reductions is substantial - approximately \$10K annually for streetlights and \$900 annually for parking lots (*see three att'd Energy Savings Estimates*). The estimated costs to retrofit our street lights is outlined in the three attached quotation; similarly the estimated costs to replace our existing fixtures is outlined in the attached quotation; also attached is the quotation for parking lot fixture replacement. Other supporting documents associated with each option are also attached.

The City Staff strongly urges that we pursue this energy alternative due to the relatively short pay-back on our investment, the long-term energy savings, and the significant reduction in costs (both manpower and materials) associated with purchasing and replacing non-functioning bulbs – which we have not included in our assessment of the conversion.

As the parking lot fixtures are owned by the DDA, we will present this proposal to them at their scheduled meeting on Feb 12th. The City pays the electric bill for all of our street lights (the DDA only pays for electrical charges associated with the parking lot lights), but the design of the fixtures is inherent to that organization, thus we will also ask for their guidance on whether to replace our existing fixtures or to retrofit them (note that the replacement fixtures are slightly different in design – thus if we replace one, we should replace all (and visa versa)).

Steve has consulted with our bonding attorney and has confirmed that this project would be eligible for PA 99 funding. And that is the purpose of tonight's presentation to the City Commission: to ask for the authority to proceed with placing the PA 99 mechanism in place to allow us to fund this project. Once we've done that, we will finalize all the project numbers and come back to the Commission asking for your approval to actually proceed with the project.

Issues & Questions Specified. Should the City Commission provide the authority to proceed with placing the PA 99 mechanism in place to subsequently allow us to fund the Street Light LED Conversion Project if we chose to do so?

Alternatives.

1. Provide the authority to allow commencement of the PA 99 process.
2. Do not provide that authority.
3. Set aside the decision regarding this matter to a later date.

Financial Impact: The quotations are estimates outlined in the attachments preliminary – but accurate enough to make a determination whether to allow the Act 99 process to be initiated. As the DDA is not eligible for Act 99 Funding, all costs (to include parking lot fixtures) would be borne by the City and then the DDA would reimburse the City for the costs associated with the parking lots.

Recommendation. I recommend that the City Commission provide the authority to proceed with PA 99 funding process for the Street Light LED Conversion Project by adoption of Resolution 2016-020 (*copy att'd*).

Attachments.

1. Energy Savings Estimates.
2. Quotations w/Supporting Documents.
3. Resolution 2016-020.



Medler Electric Company
An Employee Owned Company

MEDLER ELECTRIC CO. #2
6740 EAST PICKARD ROAD
MT. PLEASANT, MI 48858
989-772-0981 Fax 989-772-3999

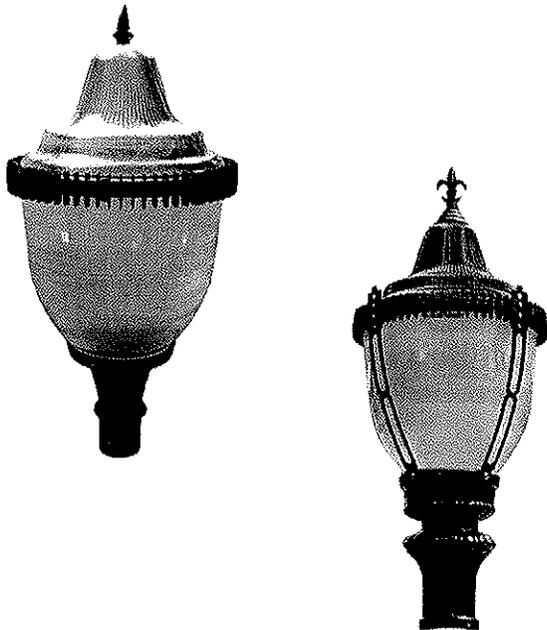
Quotation

QUOTE DATE	QUOTE NUMBER
02/09/16	S3910874
ORDER TO: MEDLER ELECTRIC CO. #2 6740 EAST PICKARD ROAD MT. PLEASANT, MI 48858 989-772-0981 Fax 989-772-3999	PAGE NO. 1

QUOTE TO:
 CITY OF CLARE AD
 202 WEST FIFTH ST.
 ATTN: ACCOUNTS PAYABLE
 CLARE, MI 48617-1490

SHIP TO:
 CITY OF CLARE CI
 ASK
 CLARE, MI 48617

WRITER		CUSTOMER ORDER NUMBER	RELEASE NUMBER	SHIP DATE
Daniel Throop (MTP)		STREET LIGHTS		02/09/16
SALESPERSON		SHIP VIA	TERMS	FREIGHT EXEMPT
Doug Jenkins (MTP)		NH NOHANDLING	1%10th Net 30	No
ORDER QTY	PART NO	DESCRIPTION	UNIT PRICE	NET AMOUNT
166EA	1380632	LROF-3-1-NW-A-CL-8-X-1-S-CC-X-X-L RING OF FIRE *Above Item Not Returnable W/O RGA*	810.000	134460.00
16EA	1380633	LROF-4-1-NW-A-CL-8-X-1-S-CC-X-X-L RING OF FIRE *Above Item Not Returnable W/O RGA* TAXES NOT INCLUDED	900.000	14400.00
THIS IS A QUOTATION Prices will expire on 02/16/16 APPLICABLE TAXES EXTRA !			Subtotal	148860.00
			S&H CHGS	0.00
			Amount Due	148860.00



PRODUCT DESCRIPTION & SPECIFICATIONS

The LROF post-top fixture utilizes our patented thermal integrated trim ring for maximize heat dissipation. Available in multiple wattage and distribution versions, this fixture is able to replace existing 175W-250W HID's one-for-one. Each model delivers superior lumen output to illuminate your next downtown lighting project.

INPUT VOLTAGE: 120-277V or 347-480V

LIGHT DISTRIBUTION: Type 5 (Standard) or Type 3

GLOBE: Two-piece acrylic or polycarbonate lens

COLOR TEMPERATURE: 2,700K Warm, 4,000K Neutral (standard), 5,700K Cool

DIMMING: 0-10V standard

SURGE PROTECTION: 20kA surge suppressor standard

WARRANTY: 10 Year L70 performance based warranty

ETL Listed to UL 1598 / 8750 and CSA 22.2 No. 250 for Wet Locations

*Meets Buy American requirements within the ARRA

RING OF FIRE®

LROF - 1: 27W - Type III

Watts	27
Light Output (Lumens)	2,370
Lumens per Watt (Efficacy)	88
Color Rendering Index (CRI)	84

Recommended 175W HID replacement

LROF - 2: 54W - Type V

Watts	54
Light Output (Lumens)	4,692
Lumens per Watt (Efficacy)	86
Color Rendering Index (CRI)	84

Recommended 175W HID replacement

LROF - 3: 58W - Type III

Watts	57
Light Output (Lumens)	4,574
Lumens per Watt (Efficacy)	80
Color Rendering Index (CRI)	84

Recommended 250W HID replacement

LROF - 4: 84W - Type V

Watts	84
Light Output (Lumens)	6,809
Lumens per Watt (Efficacy)	81
Color Rendering Index (CRI)	84

Recommended 250W HID replacement

LROF - 5: 88W - Type III

Watts	88
Light Output (Lumens)	6,240
Lumens per Watt (Efficacy)	71
Color Rendering Index (CRI)	84

Recommended 250W HID replacement

LROF - 6: 113W - Type V

Watts	113
Light Output (Lumens)	8,426
Lumens per Watt (Efficacy)	74
Color Rendering Index (CRI)	84

Recommended 250W HID replacement

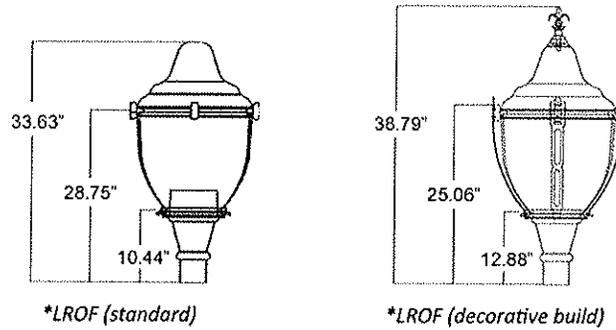


NATIONAL ASSOCIATION OF ELECTRICAL DISTRIBUTORS

20 year L70 Luminaire Lifetime • 10 Year Unmatched Warranty • Lumecon ETD™ System for Superior Thermal Management

For more information, visit www.lumecon.com or call 248.477.5009

SPECIFICATIONS



Model #: LROF
 Depth: 15.9"
 Height: 25.06"
 EPA: 1.4ft²
 Weight: 22 lbs.

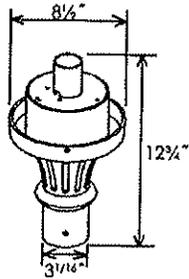
ORDERING GUIDE

LROF Options / Ordering Example: LROF-1-1-NW-A-CL-8-X-X-X-B-X-X-X

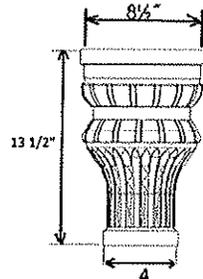
WATTAGE / DISTRIBUTION TYPE	VOLTAGE	COLOR TEMPERATURE	GLOBE MATERIAL	TOP GLOBE COLOR	GLOBE NECK SIZE
1 - 27W / Type III	1 - 120v - 277v	NW - Neutral	A - Acrylic	CL - Clear	8 - 8" Neck
2 - 54W / Type V	2 - 347v - 480v	CW - Cool	P - Polycarbonate	B - Black	9 - 9" Neck
3 - 58W / Type III		WW - Warm		CC - Custom Color*	
4 - 84W / Type V				*Includes cutoff shield	
5 - 88W / Type III					
6 - 113W / Type V					

DECORATIVE STRUTS	FITTER / BASE	FINIAL	PAINT COLOR	PHOTOCELL	SHIELD	UPLIGHT LID
X - None	X - None	X - None	B - Black	X - None	X - None	X - None
DS - Decorative Struts	1 - 8" Fitter for 3" OD Pole	S - Spike	CC - Custom Color*	PC1 - 120v	H - House Shield	L - Perforated
	2 - 8" Fitter for 4" OD Pole	L - Fleur-De-Lis	*Will need RAL number	PC2 - 277v		C - Cut-Off*
	3 - 9" Fitter for 3" OD Pole			*Requires a fitter/base		*Included on custom color top globe color orders

ACCESSORIES



Option 1 Fitter / Holder Base
 Accepts 8" neck with 3" OD Pole



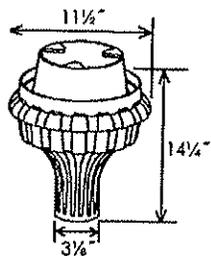
Option 2 Fitter / Holder Base
 Accepts 8" neck with 4" OD Pole



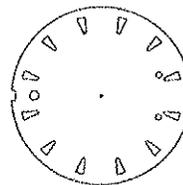
Spike Finial



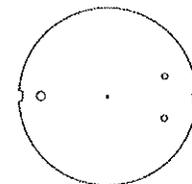
Fleur-De-Lis



Option 3 Fitter / Holder Base
 Accepts 9" neck with 3" OD Pole



Perforated Lidelid



Cut-Off Lidelid



STANDARDS AND OPTIONS

Lumecon prides itself on selecting the highest quality components to build its line of LED products. This precise selection process is why all of the Lumecon products and fixture options are covered under a 10 year L70 All-Parts Warranty. Full compliance and test documentation is available for TM-21, LM-79, LM-80, ETL Listing to UL1598 and UL8750, Lighting Facts, and DLC.

All Lumecon Standard products are housed under the same 10 Year L70 All-Parts Warranty.

LUMECON ETD™ SYSTEM

The Lumecon High Output LED Light engine utilizes the Lumecon ETD™ (Enhanced Thermal Dissipation) System. The ETD System Engines are thermally bonded to provide maximum thermal dissipation to the exterior of the fixture to ensure long life. To protect the light engine panel from moisture and corrosion, the LED light engine panel is uniformly coated with a UV stabilized acrylic polymer resin that meets MIL and ASTM dielectric standards and UL and IPC standards for flammability, moisture resistance and thermal shock.

LED LIGHT COLOR / QUALITY

The High Output LEDs come standard in 4,000k Neutral White, with additional options of 2,700k Warm White and 5,700k Cool White on the Kelvin temperature scale. All are rated for a minimum of 90,000 hours of continuous operation at select ambient temperature ranges. Contact our office for product specific specifications.

20kA SURGE PROTECTION

A 20kA surge suppressor is included to provide an additional level of protection against power line disturbances in industrial and commercial applications. Complies with IEEE/ANSI C62.41.2 guidelines for "C High." Surge location rated Category C3.

BATTERY BACK-UP (Optional)

When normal power fails, the emergency driver, which works in conjunction with the AC LED driver, immediately switches into emergency mode, operating the LEDs for a code-compliant 90 minutes. When AC power is restored, the driver automatically returns to charging mode. This is a UL Recognized component, and meets all applicable safety standards.

OCCUPANCY SENSOR (Optional)

Outdoor motion sensors provide occupancy based control of outdoor lighting. Raintight and rated for -40°F to 130°F, sensors perform reliably in all weather conditions. Available for on/off or dim/high functionality.



NATIONAL ASSOCIATION OF ELECTRICAL DISTRIBUTORS

20 year L70 Luminaire Lifetime • 10 Year Unmatched Warranty • Lumecon ETD™ System for Superior Thermal Management

For more information, visit www.lumecon.com or call 248.477.5009



Medler Electric Company
An Employee Owned Company

MEDLER ELECTRIC CO. #2
6740 EAST PICKARD ROAD
MT. PLEASANT, MI 48858
989-772-0981 Fax 989-772-3999

Quotation

QUOTE DATE	QUOTE NUMBER
01/27/16	S3904391
ORDER TO: MEDLER ELECTRIC CO. #2 6740 EAST PICKARD ROAD MT. PLEASANT, MI 48858 989-772-0981 Fax 989-772-3999	PAGE NO. 1

QUOTE TO:
 CITY OF CLARE AD
 202 WEST FIFTH ST.
 ATTN: ACCOUNTS PAYABLE
 CLARE, MI 48617-1490

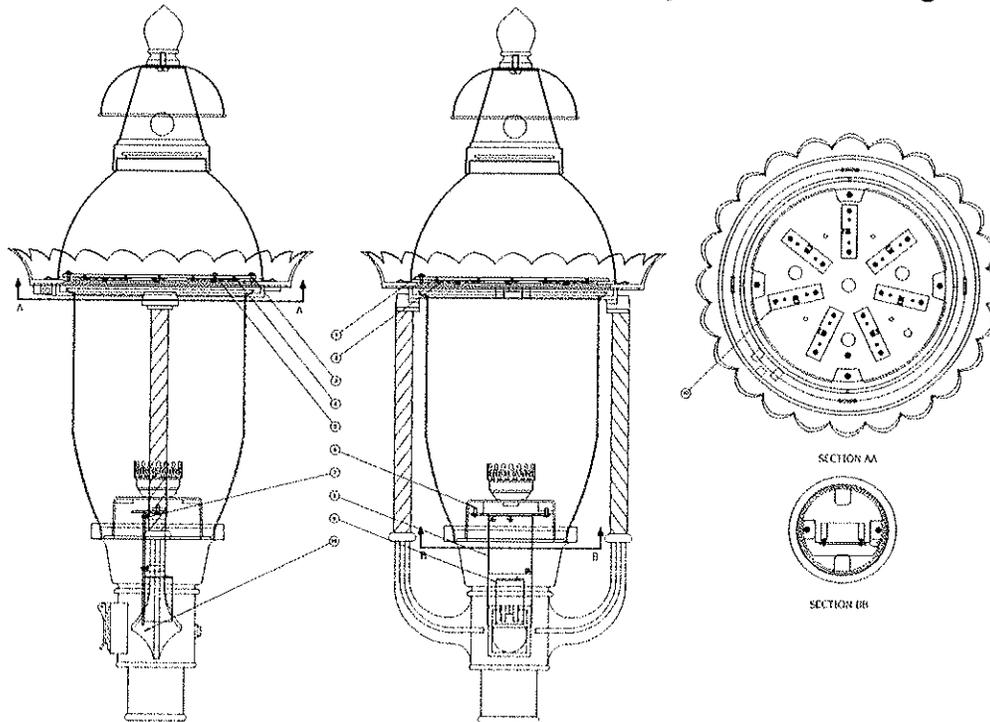
SHIP TO:
 CITY OF CLARE CI
 ASK
 CLARE, MI 48617

WRITER		CUSTOMER ORDER NUMBER	RELEASE NUMBER	SHIP DATE
Daniel Throop (MTP)		STREET LIGHTS RETRO		01/27/16
SALESPERSON		SHIP VIA	TERMS	FREIGHT EXEMPT
Doug Jenkins (MTP)		NH NOHANDLING	1%10th Net 30	No
ORDER QTY	PART NO	DESCRIPTION	UNIT PRICE	NET AMOUNT
182EA	1379785	D1264-V2 RETORFIT KIT *Above Item Not Returnable W/O RGA* TAXES NOT INCLUDED	350.000	63700.00

THIS IS A QUOTATION
 Prices will expire on 02/03/16
 APPLICABLE TAXES EXTRA !

Subtotal	63700.00
S&H CHGS	0.00
Amount Due	63700.00

401670-D1264-V2: LED Retrofit Kit for Doylestown Burrough



35 watts max
 2625 lumens est.

CONSTRUCTION

1. Light Engine

Each 35-watt LED light engine consists of a maximum of 16 Cree XT-E LEDs at a color temperature of 3100K ±250K. The LED boards are mounted to a 0.125 aluminum panel that is custom fit to the submitted post top fixture. The retrofit kit is UL1598C Classified by ETL.

2. Power Supply

A single wide range (120V to 277V) 42 Watt, regulated DC power supply is included. The power supply is compliant with UL 1012 and 1310. The drive current provided to the LEDs is 700mA.

The power supply performance meets the following electrical characteristics:

THD:	Less than 20%
PF:	Greater than 0.90 @ 120v
Max Power:	42 Watts or less

3. Kit Dimensions

The kit consists of an aluminum panel with integrated LED circuit boards, LED driver, 20kA surge suppressor, and all wiring and hardware required for installation. Installation of the kit to the existing fixture is accomplished via provided mounting screws, will no drilling or alteration to the existing housing required.

WARRANTY - LIGHT ENGINE and POWER SUPPLY

Lumecon provides a 10-year warranty for the LED retrofit kit. The LED array(s) will maintain a minimum of 70% of original light output for the warranty period from date of manufacture, and will be free of defects in materials and workmanship. The power supply is included in the warranty. See Lumecon's full written warranty for more details.



Medler Electric Company
An Employee Owned Company

MEDLER ELECTRIC CO. #2
6740 EAST PICKARD ROAD
MT. PLEASANT, MI 48858
989-772-0981 Fax 989-772-3999

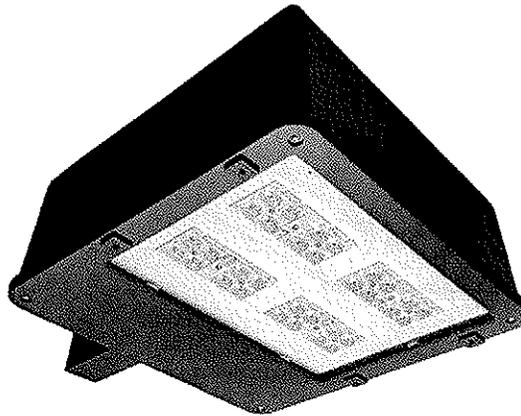
Quotation

QUOTE DATE	QUOTE NUMBER
02/01/16	S3906381
ORDER TO: MEDLER ELECTRIC CO. #2 6740 EAST PICKARD ROAD MT. PLEASANT, MI 48858 989-772-0981 Fax 989-772-3999	PAGE NO. 1

QUOTE TO:
 CITY OF CLARE AD
 202 WEST FIFTH ST.
 ATTN: ACCOUNTS PAYABLE
 CLARE, MI 48617-1490

SHIP TO:
 CITY OF CLARE CI
 ASK
 CLARE, MI 48617

WRITER		CUSTOMER ORDER NUMBER	RELEASE NUMBER	SHIP DATE
Doug Jenkins (MTP)		Fifth Street Parking		02/01/16
SALESPERSON		SHIP VIA	TERMS	FREIGHT EXEMPT
Doug Jenkins (MTP)		NH NOHANDLING	1%10th Net 30	No
ORDER QTY	PART NO	DESCRIPTION	UNIT PRICE	NET AMOUNT
5EA	1370052	LAL-SB-120-DB-T5-1-NW-ES6-X-X-X-X-X -X LARGE AREA LIGHT,123W,12,614 LUMENS,TYPE V DIST,4000K,120-277,6" ARM,20KA SURGE *Above Item Not Returnable W/O RGA*	500.000	2500.00
2EA	1379963	LFS-LFL-280-DB-WD-C-1-CW-MAS-X-X 281 WATT LED AREA LIGHT W/ARM FOR SQ POLE *Above Item Not Returnable W/O RGA*	900.000	1800.00
TAXES NOT INCLUDED				
<p style="text-align: center;">THIS IS A QUOTATION Prices will expire on 01/31/16 APPLICABLE TAXES EXTRA !</p>			Subtotal	4300.00
			S&H CHGS	0.00
			Amount Due	4300.00



PRODUCT DESCRIPTION & SPECIFICATIONS

The LAL-SB shoebox fixture is available in two wattage packages, comes standard with a 6" arm for either a round, or square pole and is available in a type 5 distribution pattern. With the ability to replace a 250W-400W HID fixture one-for-one, the LAL-SB is ideal for parking lot / area flood applications.

INPUT VOLTAGE: 120-277V or 347-480V

HOUSING: Die cast aluminum housing with hinged lens

LENS: Tempered clear glass lens

MOUNTING: 6" extruded mounting arm (standard)

COLOR TEMPERATURE: 2,700K Warm, 4,000K Neutral (standard), 5,7000K Cool

DIMMING: 0-10V standard

SURGE PROTECTION: 20kA surge suppressor standard

WARRANTY: 10 Year L70 performance based warranty

ETL Listed to UL 1598 / 8750 and CSA 22.2 No. 250 for Wet Locations.

*Meets Buy American requirements within the ARRA

AREA LIGHT

LAL-SB-60 (Type 3)

Watts	55
Light Output (Lumens)	5,772
Lumens per Watt (Efficacy)	105
Color Rendering Index (CRI)	80

LAL-SB-60 (Type 5)

Watts	62
Light Output (Lumens)	7,164
Lumens per Watt (Efficacy)	115
Color Rendering Index (CRI)	80

LAL-SB-120 (Type 3)

Watts	111
Light Output (Lumens)	11,305
Lumens per Watt (Efficacy)	102
Color Rendering Index (CRI)	80

LAL-SB-120 (Type 5)

Watts	124
Light Output (Lumens)	13,574
Lumens per Watt (Efficacy)	110
Color Rendering Index (CRI)	80

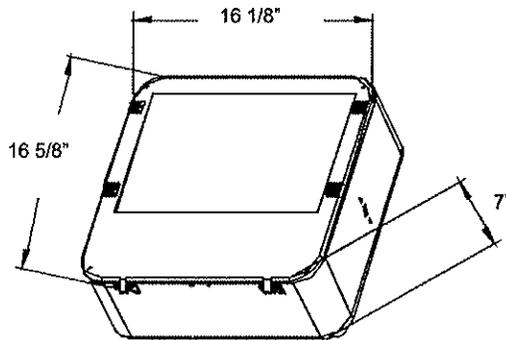


NATIONAL ASSOCIATION OF ELECTRICAL DISTRIBUTORS

20 year L70 Luminaire Lifetime • 10 Year Unmatched Warranty • Lumecon ETD™ System for Superior Thermal Management

For more information, visit www.lumecon.com or call 248.477.5009

SPECIFICATIONS



Model #: LAL-SB
 Width: 16 1/8"
 Height: 7"
 Depth: 16 5/8"
 EPA: 1.87 Sq ft.
 Weight: 21 lbs.

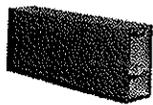
ORDERING GUIDE

LAL – SB Options / Ordering Example: LAL-SB-60-DB-T5-1-NW-ES6-1-BB1-X-X-X-X

WATTAGE	COLOR	DISTRIBUTION TYPE	VOLTAGE	COLOR TEMPERATURE	MOUNTING METHODS
60 - 60 Watts	DB - Dark Bronze	T5 - Type V	1 - 120v - 277v	NW - Neutral	ES6 - 6" Extruded Arm, Square Pole
120 - 120 Watts		T3 - Type III	2 - 347v - 480v	CW - Cool WW - Warm	ER6 - 6" Extruded Arm, Round Pole* ES0 - 10" Extruded Arm, Square Pole ER0 - 10" Extruded Arm, Round Pole* ES12 - 12" Extruded Arm, Square Pole ER12 - 12" Extruded Arm, Round Pole* <i>*Designed for a 4" OD Round Pole</i>

GUARD	BATTERY BACK - UP	SPLIT CIRCUIT	PHOTOCELL	OCCUPANCY SENSOR	INLINE FUSE
X - None	X - None	X - None	X - None	X - None	X - None
1 - Wire	BB1 - 120v BBU BB2 - 277v BBU BBC1 - 120v BBU Cold Temp Rated BBC2 - 277v BBU Cold Temp Rated	SC - Split Circuit	PC1 - 120v PC PC2 - 277v PC	OC1 - On/Off OC2 - Dim/High	F - Inline Fuse, 2.5A

ACCESSORIES



Extruded Arm



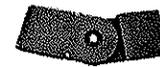
Wire Guard



Swivel Bracket*



Slip Fitter*



Adjustable Arm*



Yoke*

* Swivel Bracket, Slip Fitter, Adjustable Arm and Yoke Mount options are available on the LF-LG fixture.



STANDARDS AND OPTIONS

Lumecon prides itself on selecting the highest quality components to build its line of LED products. This precise selection process is why all of the Lumecon products and fixture options are covered under a 10 year L70 All-Parts Warranty. Full compliance and test documentation is available for TM-21, LM-79, LM-80, ETL Listing to UL1598 and UL8750, Lighting Facts, and DLC.

All Lumecon Standard products are housed under the same 10 Year L70 All-Parts Warranty.

LUMECON ETD™ SYSTEM

The Lumecon High Output LED Light engine utilizes the Lumecon ETD™ (Enhanced Thermal Dissipation) System. The ETD System Engines are thermally bonded to provide maximum thermal dissipation to the exterior of the fixture to ensure long life. To protect the light engine panel from moisture and corrosion, the LED light engine panel is uniformly coated with a UV stabilized acrylic polymer resin that meets MIL and ASTM dielectric standards and UL and IPC standards for flammability, moisture resistance and thermal shock.

LED LIGHT COLOR / QUALITY

The High Output LEDs come standard in 4,000k Neutral White, with additional options of 2,700k Warm White and 5,700k Cool White on the Kelvin temperature scale. All are rated for a minimum of 90,000 hours of continuous operation at select ambient temperature ranges. Contact our office for product specific specifications.

20kA SURGE PROTECTION

A 20kA surge suppressor is included to provide an additional level of protection against power line disturbances in industrial and commercial applications. Complies with IEEE/ANSI C62.41.2 guidelines for "C High." Surge location rated Category C3.

BATTERY BACK-UP (Optional)

When normal power fails, the emergency driver, which works in conjunction with the AC LED driver, immediately switches into emergency mode, operating the LEDs for a code-compliant 90 minutes. When AC power is restored, the driver automatically returns to charging mode. This is a UL Recognized component, and meets all applicable safety standards.

OCCUPANCY SENSOR (Optional)

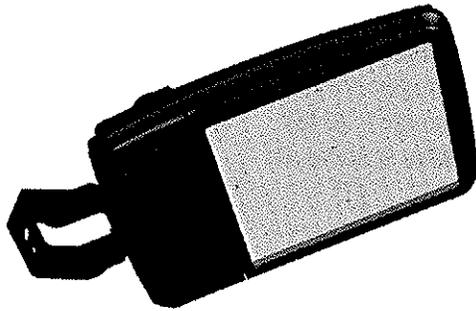
Outdoor motion sensors provide occupancy based control of outdoor lighting. Raintight and rated for -40°F to 130°F, sensors perform reliably in all weather conditions. Available for on/off or dim/high functionality.



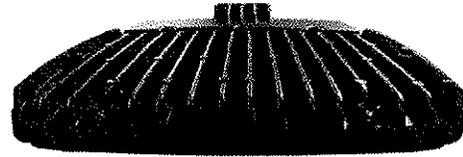
NATIONAL ASSOCIATION OF ELECTRICAL DISTRIBUTORS

20 year L70 Luminaire Lifetime • 10 Year Unmatched Warranty • Lumecon ETD™ System for Superior Thermal Management

For more information, visit www.lumecon.com or call 248.477.5009



Side Profile



Front Profile

PRODUCT DESCRIPTION & SPECIFICATIONS

The LFS-LFL large flood is the first of its kind in Lumecon's LED Fire Series. Combining a sleek fixture design with energy efficient performance allows this fixture to be used in parking lots, roadways, pathways and general area lighting applications replacing existing 1,000W HID fixtures one-for-one.

INPUT VOLTAGE: 120-277V or 347-480V

HOUSING: Die cast aluminum housing with powdercoat chromate coating

LENS: Clear flat glass lens

MOUNTING: Swivel Bracket

COLOR TEMPERATURE: Cool White - 5,000K standard

DIMMING: 0-10V standard

SURGE PROTECTION: 20kA surge suppressor standard

WARRANTY: 10 Year L70 performance based warranty

CSA Listed to UL 1598 / 8750 and CSA 22.2 No. 250 for Wet Locations.

LARGE FLOOD LIGHT LUMINAIRE

LFS-LFL-180

Watts	177
Light Output (Lumens)	16,709
Lumens per Watt (Efficacy)	94
Color Rendering Index (CRI)	72

LFS-LFL-280

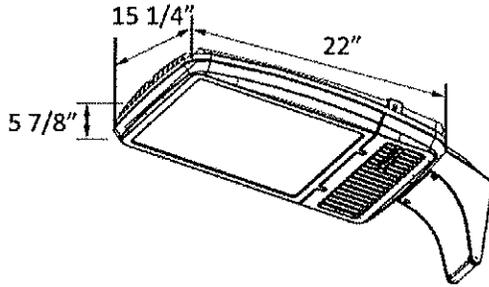
Watts	281
Light Output (Lumens)	25,007
Lumens per Watt (Efficacy)	89
Color Rendering Index (CRI)	72



20 year L70 Luminaire Lifetime • 10 Year Unmatched Warranty

For more information, visit www.lumecon.com or call 248.477.5009

SPECIFICATIONS



Model #: LFS-LFL
 Length: 22"
 Width: 15 1/4"
 Height: 5 7/8"
 Weight: 30 lbs.
 EPA: 3.30 Sq. ft.

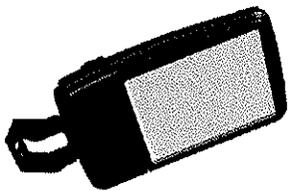
ORDERING GUIDE

LFS-LFL – Options / Ordering Example: LFS-LFL-280-DB-WD-C-1-CW-SB-X-X

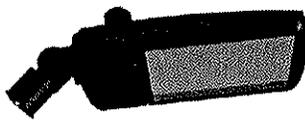
WATTAGE	COLOR	DISTRIBUTION TYPE	LENS	VOLTAGE	COLOR TEMPERATURE	MOUNTING METHODS
180 - 180 Watts	DB - Dark Bronze	WD - Wide	C - Clear Glass	1 - 120v - 277v	CW - Cool	SB - Swivel Bracket SF - Slip Fitter Y - Yoke MAS - Mounting Arm (Square Pole) MAR - Mounting Arm (Round Pole) PM - Pole Mount Arm Adaptor
280 - 280 Watts	CC - Custom Color			2 - 347v - 480v		

PHOTOCELL	OCCUPANCY SENSOR
X - None	X - None
PC1 - 120v - 277v PC	OC1 - On/Off
	OC2 - Dim/High

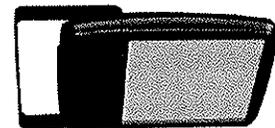
ACCESSORIES



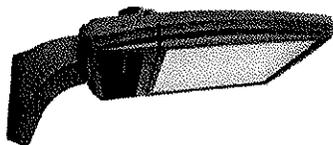
Swivel Bracket



Slip Fitter



Yoke Mount



Mounted Arm (square pole)



Pole Mounting
 Arm Adaptor

STANDARDS AND OPTIONS

Lumecon prides itself on selecting the highest quality components to build its line of LED products. This precise selection process is why all of the Lumecon products and fixture options are covered under a 10 year L70 All-Parts Warranty. Full compliance and test documentation is available for TM-21, LM-79, LM-80, CSA Listed to UL 1598 / 8750 and CSA 22.2 No. 250 for Wet Locations.

All Lumecon Standard products are housed under the same
10 Year L70 All-Parts Warranty.

LED LIGHT COLOR / QUALITY

The High Output LEDs come standard in 5,000k Cool White on the Kelvin temperature scale. All are rated for a minimum of 90,000 hours of continuous operation at ambient temperatures from -40°F (-40°C) to 149°F (+65°C).

20kA SURGE PROTECTION

A 20kA surge suppressor is included to provide an additional level of protection against power line disturbances in industrial and commercial applications. Complies with IEEE/ANSI C62.41.2 guidelines for "C High." Surge location rated Category C3.

OCCUPANCY SENSOR (Optional)

Outdoor motion sensors provide occupancy based control of outdoor lighting. Raintight and rated for -40°F to 130°F, sensors perform reliably in all weather conditions. Available for on/off or dim/high functionality.



NATIONAL ASSOCIATION OF
ELECTRICAL DISTRIBUTORS

20 year L70 Luminaire Lifetime • 10 Year Unmatched Warranty

For more information, visit www.lumecon.com or call 248.477.5009

RESOLUTION 2016-020

A RESOLUTION OF THE CLARE CITY COMMISSION GRANTING AUTHORITY TO INITIATE PUBLIC ACT 99 PROCEEDINGS ASSOCIATED WITH THE PROPOSED STREETLIGHT LED CONVERSION PROJECT.

WHEREAS, Consumers Energy is offering a discount and rebate program for converting street lights and parking lot lighting to LED lighting; and

WHEREAS, said program has a limited amount of funding and is on a first-come, first-serve basis with no guarantee of funding for succeeding years; and

WHEREAS, the City Staff has reviewed the program and determined it has great potential for cost and energy savings; and

WHEREAS, the City Finance Director has confirmed that said conversion program is eligible for Public Act 99 funding; and

WHEREAS, the City Staff has requested authority to initiate the PA 99 process to allow funding for said Project should the City Commission subsequently approve the proposed Street Light LED Conversion Project for the City of Clare; and

WHEREAS, the City Commission has reviewed, considered, and discussed all said recommendations and determined it is prudent to provide said requested authority.

NOW THEREFORE BE IT RESOLVED THAT, the Clare City Commission hereby grants the authority to initiate the Public Act 99 Funding process which will tentatively be used as the primary funding mechanism should the Clare City Commission subsequently approve the proposed Street Light LED Conversion Project for the City of Clare.

ALL RESOLUTIONS AND PARTS OF RESOLUTIONS INsofar AS THEY CONFLICT WITH THE PROVISIONS OF THIS RESOLUTION BE AND THE SAME ARE HEREBY RESCINDED.

The Resolution was introduced by Commissioner _____ and supported by Commissioner _____. The Resolution declared adopted by the following roll call vote:

YEAS:

NAYS:

ABSENT:

Resolution approved for adoption on this 15th day of February 2016.

Diane Lyon, City Clerk