General Contractors

# M.A. & M., Inc. dba ARESCO CONSTRUCTION COMPANY

175 North Main Street Middletown, CT 06457 Phone (860) 346-6621 Fax (860) 344-8236

### RCO - Request for Change

Middletown Senior/Community Center

December 4, 2014

RCO # 039

Silver /Petrucelli & Associates

3190 Whitney Highway Hamden, CT 06518 Attn: Mr. Steven June

Description: Flagpole and sign lights

The following is our cost to furnish and install new flagpole and sign lights per owner's request. I have also attached cut sheets of proposed lights.

Subcontractor	\$4	,208
GC	\$	421
Bond	\$	69

Total \$4,698

Joseph D. Aresco

President



175 Main Street
Rockfall, CT 06481
860 343 0467 Telephone
860 343 1572 Fax
electricworksinc.biz

# PROPOSAL FOR CHANGE ORDER

**PROJECT AUTHORIZATION #** 

001

We are a Certified Small Business Enterprise for the State of Connecticut Small Contractors Set-Aside Program.

TO:			PHONE		DATE
			860-346-6621		3-Dec-14
MA+M		ĺ	JOB NAME / LOCATION		
Middletown ct			Flag pole light		
			Sign light		********
We hereby agree to make the change(s) specified be	low;				
	***************************************				######################################
Install wiring for a flag pole light. 1 t	fixturer. Furnish an	ıd	install light fixtuere	€.	
program operation of the light throu	gh the lighting con	itro	ol panel.		
	******************				***************************************
Wire, and materials \$350					# # # # # # # # # # # # # # # # # # #
Light fixturer LED. \$900	******************		*************		
	******		***************************************		4 4 4 7 7 4 4 4 4 4 4 4 6 6 6 6 6 6 6 6
Labor 2 men 6hr At \$89 per hr. = \$1	.068	• • • •	***************************************		***************************************
\$2,318	*************		****		* * * * * * * * * * * * * * * * * * *
+ 10% =\$2550			****		
. 10 / 0 φ2000					***************************************
Furnish and Install 2 sign lights ligh	 ht				
		· • • •	<i>c</i> 3 .		10 a 20
wiring back to the control panel.	•••••		FORAL	1000°	17908
					, ,
wiring and materials \$350					
2 light at \$270 each \$540	*************				
Labor 2 men 6 hr each, at \$89/ hr =	\$1068				
\$1,958.00	***********************				
·	FALSE	• • •			
NOTE: This Change Order bec		n c	conformance with t	he e	existing contract.
WE AGREE hereby to make the o				- 1	100
DATE					
AUTHORITED GIONATURE (CONTRACTOR)	PREVIOUS CON	TF	RACT AMOUNT:		
AUTHORIZED SIGNATURE (CONTRACTOR)	REVISED CONTI	RΑ	CT TOTAL:		
ACCEPTED The above prices and specification		.,			
Change Order are satisfactory and are hereby	accepted, Date of a	acc	eptance:		
All work to be performed under same ter conditions as specified in original contract		ian	ature:		
otherwise stipulated.		J. 1			PAGE 1 OF 1

Cat#
Job Type HUBBELL Outdoor Lighting
Approvals

#### **SPECIFICATIONS**

LED ALF

#### Intended Use:

**FAMILY** 

ALF is excellent for small floodlighting applications such as signs, façade, landscape accent or small area illumination. The compact, low profile size allows the flood to be easily hidden or blend into the landscape environment.

#### Construction:

- Low copper extruded aluminum construction provides long life in outdoor ground mounted applications. Ribbed design adds styling while dissipating LED and driver heat, providing longer component life.
- Tempered and impact resistant glass lens with decorative silk screen seals to housing with silicone gasket
- Dark Bronze powder paint finish provides durable and lasting appearance

#### Optics/Electrical LED:

- Six or twelve 1.5w LEDs produce 510 or 1000 lumens at 5100K
- Wide 110 degree lateral spread covers three times the set back distance with uniform light
- Universal voltage driver is 120-277V\*, 50/60hz, with 10.7 input watts (ALF-6LU) 22.7 input watts (ALF-12LU)

\*in Canada, ALF should be used for voltages 120-240 only

#### Installation:

- Knuckie mount: Universal ½" swivel knuckle has serrated teeth for sure aiming. Knuckle threads are brass insuring quality installation and corrosion resistance
- Wall mount: Cast aluminum cover/quick mount plate and universal adapter allows easy installation to 3-1/2 or 4" standard junction hoves

#### Listings:

Listed to UL 1598 for use in wet locations

#### Warranty:

Five year limited warranty (for more information visit: http://www.hubbelloutdoor.com/resources/warranty/

#### PRODUCT IMAGE(S)



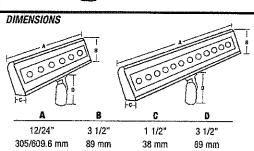
ALF 6 LED KNUCKLE MOUNT



ALFW 6 LED WALL MOUNT



ALF 12 LED KNUCKLE MOUNT





Δ	В	e	В
5 1/2" (	3 1/2"	1 1/8"	2 1/8"
	55 mm	28 mm	54 mm

#### CERTIFICATIONS/ LISTINGS





#### SHIPPING INFORMATION

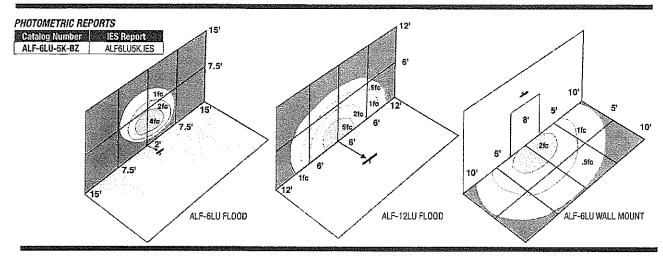
		C <sub>i</sub>	Carton Dimensions					
Number	CTN	Length Inch (cm)	Width Inch (cm)	Height Inch (cm)	per Master Pack			
ALF-GLU	9.7 (4.4)	18.5 (47)	14.3 (36.5)	5.7 (14.5)	2			
ALFW-6LU	11. 4 (5.2)	18.5 (47)	14.3 (36.5)	5.7 (14.5)	2			
ALF-12LU	8.5 (2.97)	24.8 (63)	8.8 (22.5)	3.14 (8)	1			

#### ORDERING INFORMATION

ORDERING EXAMPLE: ALF-6LU-5K-BZ

Catalog Number	Wattage	Number of LEDs	Voltage <sup>1</sup>	Lumens	Life	ROT	Weight lbs. (kg)
			1/2" KNU(	KLE MOUNT			[ 100.(69)
ALF-6LU-5K-BZ	10.7	6	120-277V	510	50,000 hrs	5100K	4.0 (1.8)
ALF-12LU-5K-BZ	22	12	120-277V	1000	50,000 hrs	5100K	8.0 (3.6)
			WALI	.MOUNT			, , , , , , , , , , , , , , , , , , , ,
ALFW-6LU-5K-BZ	10.7	6	120-277V	510	50,000 hrs	5100K	4.5 (2.0)
ALFW-6LU-5K-BZ-PC	10.7	6	120V	510	50,000 hrs	5100K	4.5 (2.0)

1 Unit should not be used above 240V in Canada



#### PERFORMANCE DATA

# OF LEDS	DRIVE CURRENT	CCT	LUMENS	BEAM (H X V)	LPW <sup>1</sup>
6	STD. (470mA)	5K	510	119° X 93°	85
12	STD. (470mA)	5K	1000	119° X 93°	82

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application.

#### ELECTRICAL DATA

ELECTION II	P 99 (11.)					
# OF LEDS	DRIVE CURRENT (mA)		SYSTEM POWER (w)	CURRENT (Amps)	IN RUSH CURRENT	POWER FACTOR
e	STD. (470mA)	STD (470mA) 120		.10		.97
0	310.(470884)	277	12.6	.06		.77
			2			
12	STD. (470mA)	120	22.7	.20		.98
14	oru. (470IIIA)	277	26.9	.12		.97

FLAGPULE

## ARF3 LED

DECORATIVE FLOOD

Cat.# Job

Туре



#### **SPECIFICATIONS**

#### Intended lise:

Large LED flood with a variety of NEMA distributions for lighting applications such as safety/security, accent, flag pole, columns, facade, area, or signs; operating temperature of -35°C to 40°C

#### Construction:

- Rugged die-cast aluminum housing with seven finish choices
- Tempered glass lens protects LEDs and allows for easy cleaning/debris removal
- Vented housing isolates LED module from driver, maximizing product life and performance
- · Visor accessory available

#### LED:

- 42 high powered LEDs deliver up to 9,535 lumens
- · 3000K 80 CRI, 4200K 70 CRI, 5100K CCT 67 CRI

#### Optical/Electrical

- Variety of NEMA distributions N (3x3), M (4x4), RM (5x5) and W (6x6) - for wide range of lighting application
- 120-277V operation, 50/60Hz
   97w, 700mA, up to 98 LPW

- IP65 fixture, driver RoHS compliant and IP66
- 0-10V dimming driver
- 10KA surge protector (over current device) option available

#### Installation:

- Knuckle mount 15" aiming angle increments for precise aiming and control, fits 2-3/8" tenons or pipes
- Heavy duty steel yoke with adjustable stainless steel hardware, mounting holes for one center - 3/4" bolt or two side - 3/8" holts
- . 3' SEOOW cord with yoke mount

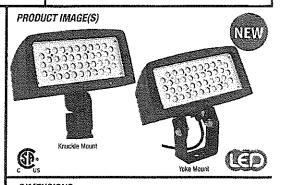
#### Listings:

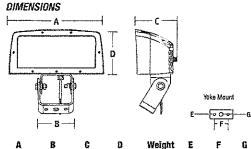
- . IP65, Listed to UL1598 for use in wet locations
- DLC Qualified (4200K and 5100K models only)
   Consult DLC website for more details: http://www.designlights.org/QPL

#### Warranty:

For more information visit:

http://www.hubbelloutdoor.com/resources/warranty/





A	В	G	D	Weight	E	F	G
14.9"	5.5"	6.0"	7.0	20.6 lbs.	17/32"	7/8"	3-1/8"
378 mm	140 mm	152 mm	177mm	9.3 kg	14mm	22mm	79mm

#### CERTIFICATIONS/LISTINGS



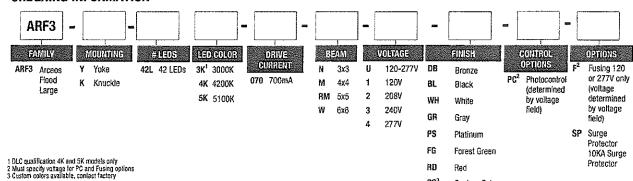


#### SHIPPING INFORMATION

Carton dimensions for shipping purposes only

6.1-1	A 1977	Ca	rton Dimens	0N5
Catalog Number	CTN CTN	Length	Width	Height
		andr (em)	Inch (em)	tnen(cm)
ARF3 (Single carton 1 pc.)	25 (12.3)	17.72"	13.0"	9.45"

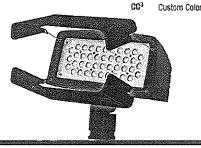
#### ORDERING INFORMATION



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	• • •
Catalog Number	Description
FLL-VISOR-XX1	Top/Bottom visor (Tap holes in tens frame for field installation)
FLL-LENS	Replacement glass with gasket and hardware for ARF3 and ARF4
93053187	96w, 120-277V Dimming driver, 700mA (1 Qty)

ACCESSORIES/REPLACEMENT PARTS - Order Separately







<sup>1</sup> Specify finish color to match fixture; e.g. D8 - Dark Bronze

#### PERFORMANCE DATA

						(510	5) OK nomi	( nal; 67 CRI)	(420	4 IOK nem	K inal, 70 CRI)	(3000	3 JK nom	K inal, 80 CRI)
# OF LEDS	DRIVE CURRENT	SYSTEM WATTS	DIST. Type	NEMA	FIELD ANGLE H'XV	LUMENS	LPW <sup>1</sup>	MAX BEAM Candlepower	LUMENS	LPW <sup>1</sup>	MAX BEAM CANDLEPOWER	LUMENS	ı pw1	MAX BEAM CANDI EPOWER
			N	3 x 3	32" x 32" 53" x 53"	9097	94	77118	8597	90	71429	6261	65 67	52908
42	700mA	97W	RM	4 x 4 5 x 5	84" x 86"	9535 8192	98 84	39358 14179	8640 7424	90 77	28207 12366	6399 5602	67 58	22018 9524
			W	6 x 6	107 x 107	9132	94	6743	8441	88	6105	6378	66	4601

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application.

#### PROJECTED LUMEN MAINTENANCE

			DPERATIN	G HOURS		
AMBIENT			Alexantra	¹TM-21-11		Calculated L70
TEMP	0	25,000	50,000	60,000	100,000	(HOURS)
25°C / 77°F	1.00	0.98	0.96	0.96	0.94	>625,000
40°C / 104°F	1.00	0.96	0.94	0.93	0.90	>435,000

#### ELECTRICAL DATA

# OF LEDS	NUMBER OF DRIVERS	DRIVE CURRENT	INPUT VOLTAGE	CURRENT (Amps)	SYSTEM POWER
42	4	700m4	120	.80	97
444	'	/ GOITIA	277	35	97

#### LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

AMBIENT TEN	PERATURE	LUMEN MULTIPLIER	
0°C	32°F	1.02	
10°C	50°F	1.01	
20°C	68°F	1.00	
25°C	77°F	1,00	
30°C	86°F	1.00	
40°C	104°F	0.99	

Use these factors to determine resative lumen output for average ambient temperatures from 0-40°C (32-104°F).

#### PHOTOMETRICS For additional photometric information and IES downloads, visit our web site at www.spauldinglighting.com

