# City of Bethlehem, Pennsylvania

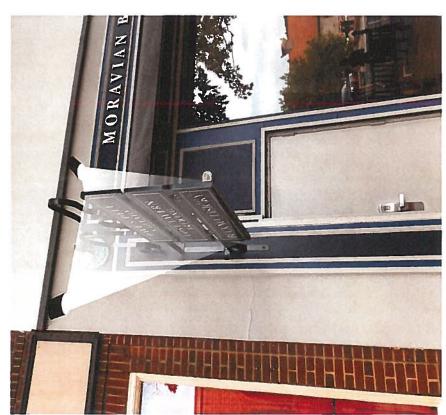
# APPLICATION FOR CERTIFICATE OF APPROPRIATENESS (COA)

Building address 444 Main St.				
Owner of building Moravian College	Phone			
Owner's email & mailing address				
Applicant Amber Donato	Phone:	5-7981		
Applicant's email & mailing address	a@moravian.edu, 1200	Main St., E	ethlehem, PA 18013	
Street and Number	City	State	Zip Code	
APPLICANT MUST AT	TEND MEETING FOR CAS	SE TO BE H	EARD.	
USE THE CHECKLIST ON THE BACK O	OF THIS APPLICATION T			
	<u>COMPLETE.</u>			
<b>Historic &amp; Architectural Review Board</b> – Applica Noon on the last Wednesday of the month in order to b			ssary) must be submitted by <u>12</u>	<u>:00</u>
South Bethlehem & Mount Airy Historic Conser necessary) must be submitted by 12:00 noon on the sec				
ecessary) must be submitted by <u>12:00 noon</u> on the sec teeting	ona Monaay of the month th or	aer to be place	ea on the agenua for the next	
1. PHOTOGRAPHS - Photographs of your buildin	a and noighboring buildings 20	ust seeemn	PMW vous application	٦
PHOTOGRAPHS - Photographs of your building	g and neighboring buildings m	ust accompa	any your application.	
2. TYPE OF WORK PROPOSED – Check all tha	t apply. Please bring any sampl	es or manufac	tures specifications for	
products you will use in this project.				
Trim and decorative woodwork	Skyligh	nts		
Siding and Masonry	Metal v	vork		
Roofing, gutter and downspout	X Light fi	xtures		Ì
Windows, doors, and associated hardware	Signs			
Storm windows and storm doors	Demoli	tion		
Shutters and associated hardware	X Other	Roof scree	n -	
Paint (Submit color chips – HARB only)				
3. DRAWINGS OF PROPOSED WORK – Requir	ed drawings must accompany	our applicatio	n. Please submit <u>ONE</u>	Ī
ORIGINAL AND TEN (10) COPIES OF DRA		• •	<del></del>	
SPECIFICATIONS				
Alteration, renovation, restoration (1/4 or 1	/8"=1'0" scale drawings require	ed IF walls or o	openings altered.)	
New addition (1/4" or 1/8"=1'0" scale draw			,	
New building or structure (1/4" or 1/8"=1"		-	plan)	
Demolition, removal of building features o	_	-	-	
and site plan)				
A scale drawing, with an elevation view, is	required for all sign submittals			
4. DESCRIBE PROJECT – Describe any work ch	ecked in #2 and #3 above. Atta	ch additional s	heets as needed.	
New exterior lighting to highlight tenal				
Roof screen along Heckewelder Dr. to			al equipment; height of	sor
be discussed at meeting	,		, , , , , , , , , , , , , , , , , , , ,	
Α ,		42		
5. APPLICANT'S SIGNATURE	Duto	DATE:	9/18/19	
J. MITLICANT BUIGNATURE 1000	v	DAIL.		

Moravian College 444 Main Street Exterior Tenant Lighting HARB Submission October 2, 2019

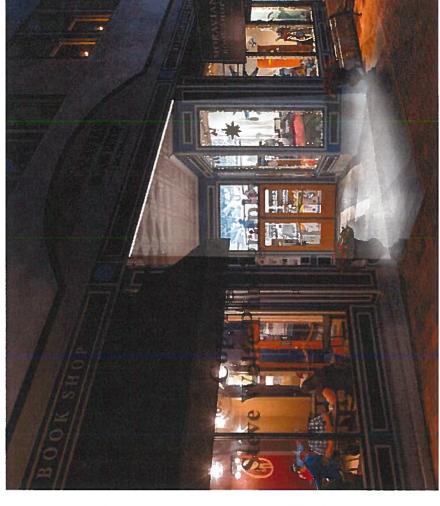
LIGHT #1

LIGHT #2



# Spotlight on Exterior Hanging Signs

Will help location be more visible from the street and sidewalk Helps to highlight business signs after dark



# Linear Down Light over Entrance Alcove

Helps to illuminate entrance threshold from sidewalk Mounted to underside of ceiling, concealed by the exterior wall

# TARGETTI

# JUPITER MINI PROJECTOR

Professional Compact Adjustable LED Flood Light

Concept: Ultra compact adjustable LED projector.

Materials: Finished Ferrite Grey anodized polished aluminum body, Aluminum front ring. Bevelled extra-clear front glass. Stainless steel bracket fixed to the body for adjustability.

Optic: Precision optic system with PMMA lenses for the spot, flood and wide flood versions with a light cut system integrated into the front glass.

Mounting: Fixed onto an adjustable yoke bracket.

Power Supply: Remote Class 2 120V-277VAC power supply required, see page 2 for options.

Installation: Pre-cabled with 10ft direct burial 18ga 2 Conductor Cable for Connection to remote power supply.

Wattage: 3W

Color Temperature: 2700°K / 3000°K / 3500°K / 4000°K

CRI: Ra84

3000°K 4000°K Lumens:

> Spot 17° = 298Lm 319Lm Flood 30° = 291Lm 311Lm Wide Flood 60° = 303Lm 324Lm

Lumen Maintenance (L70): 50,000hrs Calculation for LED fixtures are based on measurements that comply with IES LM-80.

Voltage: 24V DC IP Rating: IP67 IK Rating: IK10

Certifications: cULus Class 2 Wet Location Listed

Tested in accordance with LM-79-08 <sup>A</sup>Title 24 commercial installation compliant.

Warranty: 5 year limited warranty









PRODUCT CODE	DRIVER	FINISH	LENS	WATTAGE	COLOR TEMP	VOLTAGE	+	OPTICAL ACCESSORY	+	DRIVER
JP – JUPITER Mini Projector	R - Remote Driver	FE - Ferrite Grey	<b>SP</b> — Spot 17°	<b>L1</b> — 3W	<b>27</b> — 2700K	24 — 24V DC		LV — Anti-glare honeycomb louver		Required (See Pg 2)
Projector			FL - Flood 30°		<b>30</b> — 3000K					
			<b>WF</b> — Wide Flood 60	G	<b>35</b> — 3500K					

40- 4000K

### Views





# **TARGETTI**

# JUPITER MINI PROJECTOR

### INSTALLATION ACCESSORIES

1E0995FE

Ferrite painted peg for ground anchorage. Dimensions 4.33"L



### **MAX FIXTURES PER DRIVER**

e e				D	river W	attage			
attag		40W	60W	96W	90W	2X90W	3X90W	100W	2X100
Œ Š	3W	10	16	25	24	48	72	26	53

Power Supply (REQUIRED)	Туре	Wattage	Input/Output Voltage	Dimmable	IP Rating	Output	Dimensions
DEL60PWM	ELECTRONIC PWM DRIVER STANDALONE, UL LISTED ENCLOSURE PROVIDED BY OTHERS	60W	120-277V / 24V	0-10V/PWM 10%	IP67	UR CLASS 2	5.9" X 2.09" X 1.38"
DEL90PWM	ELECTRONIC PWM DRIVER STANDALONE, UL LISTED ENCLOSURE PROVIDED BY OTHERS	90W	120-277V / 24V	0-10V/PWM 10%	IP67	UR CLASS 2	6.73" X 2.48" X 1.48"
DEDD10010	ELECTRONIC 0-10V DRIVER STANDALONE, UL LISTED ENCLOSURE PROVIDED BY OTHERS	100W	120-277V / 24V	0-10V DIMMING 0.1%	IP20	UR CLASS 2	6.02" x 1.97" x 0.91"
DELV40124D	ELECTRONIC LOW VOLTAGE TRANSFORMER	40W	120-277V / 24V	PHASE (120V ONLY) /0-10V DIMMING 10%	IP66 / NEMA4 ENCLOSURE	UL CLASS 2	11" × 4" × 2.21"
DELV60124D	ELECTRONIC LOW VOLTAGE TRANSFORMER	60W	120-277V / 24V	PHASE (120V ONLY) /0-10V DIMMING 10%	IP66 / NEMA4 ENCLOSURE	UL CLASS 2	11" x 4" x 2.21"
DELV96124D	ELECTRONIC LOW VOLTAGE TRANSFORMER	96W	120-277V / 24V	PHASE (120V ONLY) /0-10V DIMMING 10%	IP67 / NEMA4 ENCLOSURE	UL CLASS 2	11" x 4" x 2.21"
DELX601241CPWM	ELECTRONIC PWM DRIVER	60W	120-277V / 24V	0-10V/PWM 10%	IP67 / NEMA3R ENCLOSURE	UL CLASS 2	10" x 10" x 4" <sup>1</sup>
DELX901241CPWM	ELECTRONIC PWM DRIVER	90W	120-277V / 24V	0-10V/PWM 10%	IP67 / NEMA3R ENCLOSURE	UL CLASS 2	10" x 10" x 4"1
DELX1802242CPWM	ELECTRONIC PWM DRIVER	2X90W	120-277V / 24V	0-10V/PWM 10%	IP67 / NEMA3R ENCLOSURE	UL CLASS 2	12" x 12" x 4" <sup>1</sup>
DELX2703243CPWM	ELECTRONIC PWM DRIVER	3X90W	120-277V / 24V	0-10V/PWM 10%	IP67 / NEMA3R ENCLOSURE	UL CLASS 2	12" × 12" × 4"1
PS060	LUTRON HI-LUME PREMIER 01% CONSTANT VOLTAGE DRIVER WITH UL LISTED ENCLOSURE	96W	UNIVERSAL 120-277 VAC	HI-LUM DIMMABLE 0.1%	iP20/NOM CERTIFIED	UL CLASS 2	10.5" x 5.5" x 2"1

<sup>&</sup>lt;sup>1</sup> Dimensions include enclosure with mounting bracket.

\* Constant voltage drivers 50/60HZ, voltage regulated with short circuit protection. Operating temperature -40 C- 80° C

Installation of power supply must be compliant to Class 2 installation standards. Refer to NEC and local building code requirements.

<sup>\*</sup> Consult factory for additional driver options (ie: DMX, DALI, wattage, size, shape, Lutron, ELDO, or others).

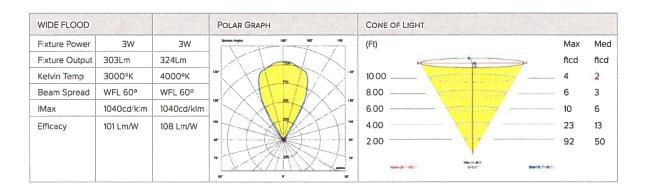
# **TARGETTI**

# JUPITER MINI PROJECTOR

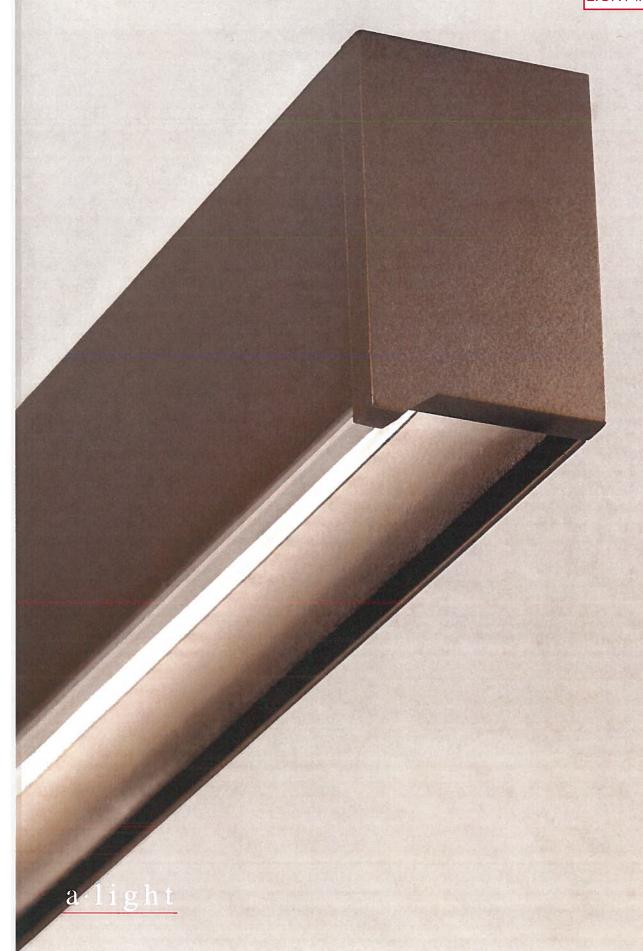
## **Photometry**

SPOT			POLAR GRAPH	CONE OF LIGHT		
Fixture Power	3W	3W	Carring Angels 100 190"	(Ft)	Max	Med
Fixture Output	298Lm	319Lm		the same	ftcd	ftcd
Kelvin Temp	3000°K	4000°K		10.00	20	13
Beam Spread	SP 17°	SP 17°	I X X TITX X	8.00	32	20
IMax	5771cd/k/m	5771cd/klm	1" \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	6.00	57	36
Efficacy	99 Lm/W	106 Lm/W		4.00	127	80
		2		2.00	509	322
			7	modP4P our am	erer	

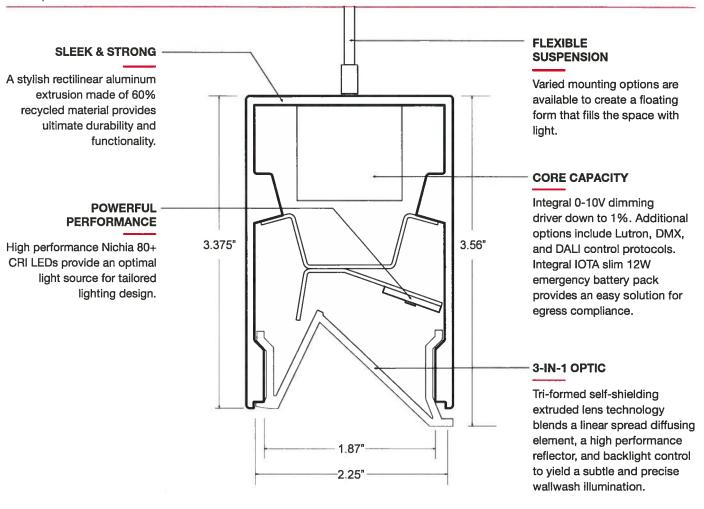
FLOOD			POLAR GRAPH	CONE OF LIGHT		
Fixture Power	3W	3W	Omero Angles 1607 1607 1607	(Ft)	Max	Med
Fixture Output	291Lm	311Lm			ftcd	ftcd
Kelvin Temp	3000°K	4000°K		10.00	11	7
Beam Spread	FL 30°	FL 30°		8.00	17	11
lMax	3009cd/klm	3009cd/klm		6.00	30	19
Efficacy	97 Lm/W	103 Lm/W		4.00	66	42
				2.00	256	169
			79	MANUSCHIP DEF	lee-17-11.2	



LIGHT #2

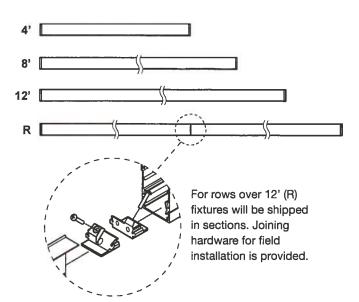


ACL8



### **ELEMENTS**

Elements is a simplified product line comprised of 4', 8', and 12' nominal length fixtures that can be joined to create continuous rows.



### **INTEGRATIONS**

Integrations is a comprehensive product line comprised of nominal and exact length fixtures and continuous rows.

### **CUSTOM**

A completely custom ordering process allowing unique modifications is available through collaboration with Design Assist.

### **LIGHT OUTPUT**

DISTRIBUTION

Direct Asymmetric

### **OUTPUT**

LH: High output -10 W/ft

LS: Standard output - 5 W/ft

C: Custom tuned output - Specify Wattage

### **LIGHT LOSS FACTORS**

LH: Baseline LS: 50%

4000K: Baseline 3500K: 97%

3000K: 93%

80+CRI: Baseline 90+CRI: 80%

### **PHOTOMETRIC DATA**

**DIRECT ASYMMETRIC** LH - 4000K - TRI-FORMED LENS

Lumens: 413 lm/ft Input watts: 9.6 W/ft Efficacy: 43 Im/W

DLH -DLS ----



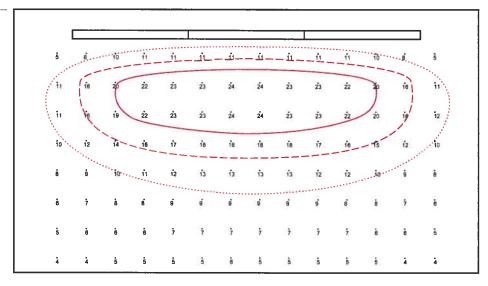
### **SAMPLE INSTALLATION - ACCENT WALL**

LH DOWN / 4000K

Wall height: 9 ft

Reflectance: 80% / 50% / 20% Mounting height: 8 ft A.F.F. Distance from wall: 2.5 ft Fixture length: 12 ft Calculation grid: 1 ft x 1 ft Calculation plane (vertical): On wall

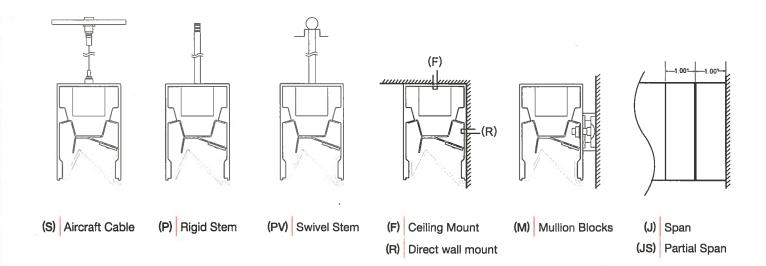
Average Illuminance (E<sub>v</sub>): 12 fc Uniformity: 6.0:1 (max/min)



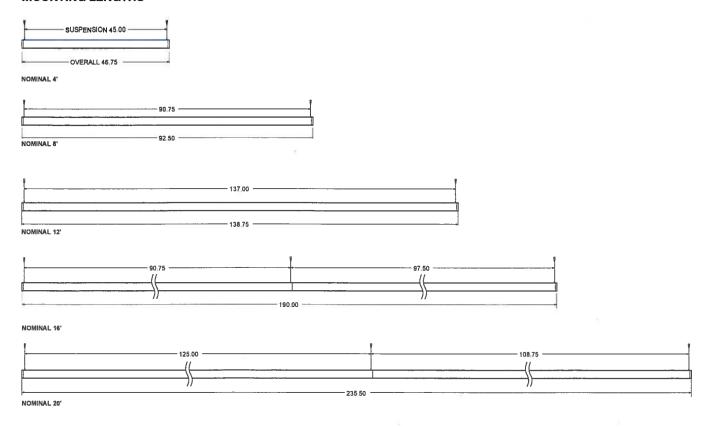
TOP VIEW

20 fc =

15 fc — — — — 10 fc



### **MOUNTING LENGTHS**



## ACL8 | SPECIFICATION GUIDE





### PERFORMANCE AT 4000K

	NOMINAL LUMEN OUTPUT	INPUT WATTS	EFFICACY
OUTPUT			
High	413 lm/ft	9.6 W/ft	43 lm/W
Standard	206.5 lm/ft	5 W/ft	43 lm/W

Custom tuned output available from 25% to 125% of high output. Please consult factory for custom lumen output and wattage.

### ORDERING CODE

ACL8

TF

PROJECT INFO

DATE

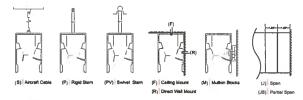
TYPE

QUANTITY

### **LIGHT LOSS FACTORS**

	OUTPUT	LED CCT	CRI
BASELINE	LH	4000K	80+ CRI
	LS - 50%	3500K - 97%	90+ CRI - 80%
	1	3000K - 93%	

### **MOUNTING OPTIONS**



ACL8					TF
SERIES	LENGTH	OUTPUT	LED CCT	VOLTAGE	DIRECT ASYMMETRIC OPTICS
ACL8	_ Nominal Length* M_ Exact Length**	LS LED Standard Output LH LED High Output C_ LED Custom Output*	30 3000K 35 3500K 40 4000K	U Universal 120V - 277V 3 347V	TF Tri-Formed Self-Shielding Lens
	"Specify in feet to the nearest foot (i.e. 12) "Specify in inches to then nearest 1/8 (i.e. M180.125)	*Available from 25% to 125% of LED High Output			

MOUNTING	FINISH	DIMMING	EMERGENCY	OPTIONS
Aircraft Cable* Character	T a•lightanium™ W White B Black O_ Other*	D Standard 0-10 dimming* D1 HiLume Ecosystems 1% (LDE1) D3 Other Dimming**	EC Emergency - circuited E_ Emergency - battery*	M Multi-Circuit* R Right Endcap Feed L Left Endcap Feed N New York City Code Q Wet Location** CRI 90+ CRI
Standard 48" field adjustable cable specify length to nearest toch if over 48" Black power cord provided for black and sriights- turn frielsh and white power cord provided for all other fature riskner, unless otherwise specified. "Indicates atom length to nearest inch. 1.00" minimum "Enter" "" for "1" depth. Enter "5" for 1/2" depth.	*Specify RAL#	"Dimming to 1% stated for standard 0-10v dimming "Specify mode/series	*Factory-installed emergency battery pack. Specify desired quantity of betteries. Not evaluable on fintures < 4 lergth. Not available for 347V. See technical data for more information.	"Submit multi-circulting requirements "Not available with aircraft cable. Wet location suitable full coverage envior multion mounted applications (direc to sky not recommended); not suitable for extreme wear applications. Refer to Vitet Location torochure and contac Design Assist for more information.





### LINEAR DIMENSIONS

**Elements** - 4', 8', and 12' nominal length individual fixtures that can be joined to create continuous row lengths.

Integrations - Nominal or exact lengths to the nearest 1/8th of an inch available as individual fixtures or joined to create continuous row lengths, minimum fixture lengths is 12 inches. Patterns comprised of 90 degree precisely welded fully illuminated corners provide a multitude of geometric options and architectural transitions.

**Custom** - Contact <u>Design Assist</u> for modifications to product not detailed within Elements or Integrations specification sheets.

### **OPTICS**

Cutting edge extruded acrylic lens technology is achieved with the triformed self- shielding lens. A linear spread diffuser, opaque white reflector, and black absorber combine to deliver a soft direct asymmetric distribution with effective backlight control from a single alluring optical element.

### LED LIGHT SOURCE

Custom manufactured linear board array uses high performance Nichia® LED in combination with a performance driven heat sink technology. Tested in accordance with LM79 and LM-80; L70>60,0000hr; operated at reduced output for high efficacy and lumen maintenance. 3000K, 3500K, and 4000K with 80+ CRI standard; other color temperatures and 90+ CRI available upon request, contact factory. LED color variation maintained at a 3-step MacAdam ellipse (SDCM 3x). LEDs are available in Low, Standard, and High outputs. Refer to photometry for delivered lumens. Custom output available in the range 25% to 125% of high output, contact factory.

### **LED DIMMING DRIVER**

Factory tuned constant current electronic 0-10V control dimming driver is standard. Specification grade dimming down to 1%. Driver life of 50,000 hrs with ambient operating temperature range of -30°C to 50°C, maximum case temperature of 75°C. Electrical specifications at maximum driver load: PF >0.9, THD <20%, >85% Efficiency. Other available drivers include Lutron Hi-lume 1% EcoSystem LED Driver (LDE1) with Soft On, Fade to Black dimming technology; and DMX and DALI protocol drivers. Other Lutron and specialty drivers available, contact factory.

### **EMERGENCY**

This luminaire is provided with a factory installed LED emergency lighting battery pack for both normal and emergency operation, 120-277v only. This fixture integrated unit contains long-life Ni- Cad recyclable battery, 24 hour charger, and converter circuit. Test switch and charge indicator provided. Test button to be remote located within 3 feet of the luminaire, by others in accordance with local code. Emergency mode provides constant power to a nominal 12W LED load for a period of 90 minutes, delivering 1200 lumens of unwavering illumination throughout the full 90 minute emergency duration. Unless otherwise specified, the emergency battery pack will illuminate one 2 foot end in the direct portion of the fixture.

Emergency circuiting provided as a separate circuit from normal power circuit according to NEC requirements, specify circuit length and location.

### MOUNTING

Suspension with aircraft cables or pendant stems, and full or partial span mounting available.

Aircraft cable set includes 48" standard length 1/16" stainless steel adjustable aircraft cables with secure micro grippers to field set suspension length, comes factory installed in fixture. 4-1/2" x 4-1/2" square white canopies. Cord strain also included. Power cord options available for aircraft cable. Black power cord provided for black and a-lightanium finish, white power cord provided for all other fixture finishes unless otherwise specified.

Rigid pendant stem set includes 1/4" hollow white threaded rod for suspension and power feed, standard specification length, 1" minimum. 5" square mono point white canopies.

Swivel stem set includes 1/4" hollow white threaded rod for suspension and power feed, standard specification length, 1" minimum. 5" square mono point white 45 degree angle swivel stem.

Specify if other suspension length is required. Canopies provided as required for quantity of power feed and non power feed locations (crossbar included). Specify if other shape, size, or color is required.

Direct wall mounting is ADA compliant. Fixture mounts directly to wall surface requiring field drilled mounting and power feed holes. Factory pre-drilled holes can be drilled and tapped for ½" chase nipple, submit dimension requirements when ordering.

Mullion blocks are used to mount fixture to a horizontal or vertical window mullion and can also be used to offset fixture from wall. ½" or 1" deep milled aluminum blocks are available standard, 3/8" and 2" deep blocks also available upon request. (2) blocks provided for fixtures 8ft or less, fixtures larger than 8ft provided with (3) blocks every 12ft. Quantity of power feed and non power feed blocks provided as required. Fixture mounting requires field drilled mounting and power feed holes. Factory pre-drilled holes can be drilled and tapped for ½" chase nipple, submit dimension requirements when ordering.

### **STRUCTURE**

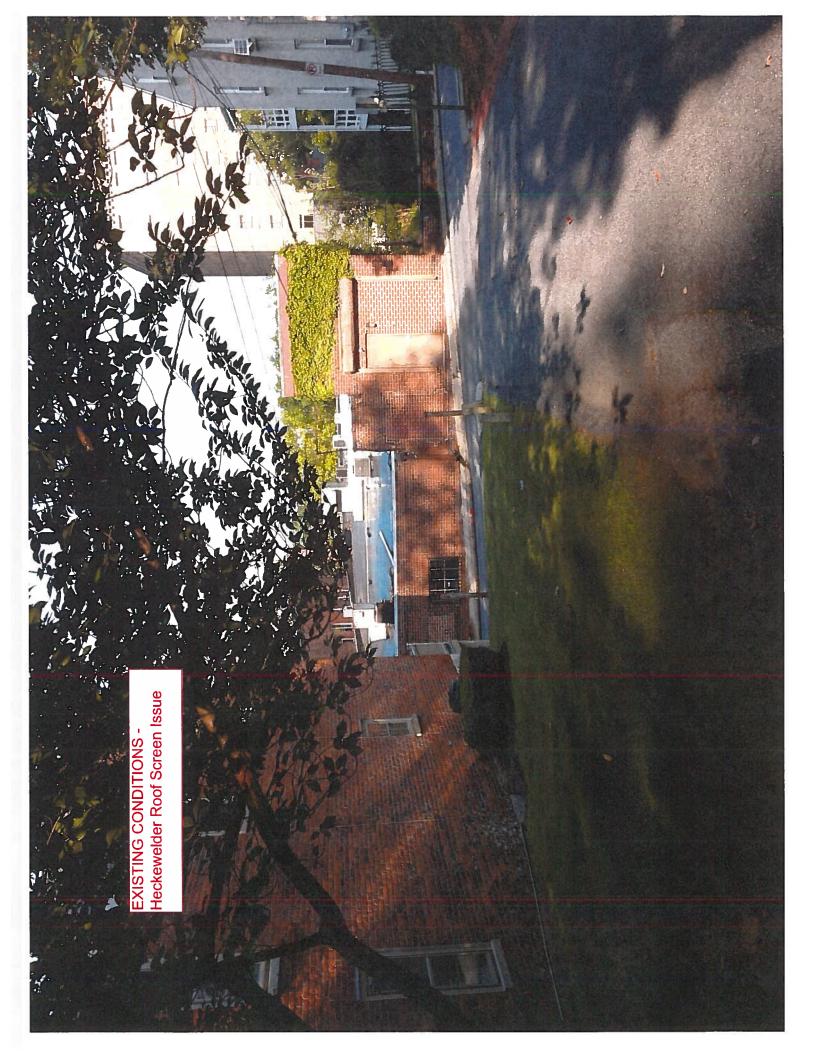
Robust, high quality 60% recycled aluminum extruded housing. 0.040" thick aluminum internal gear trays, Flat or flanged aluminum end caps, Aluminum joiner brackets. 4 lbs/ft approximate fixture weight.

### FINISH

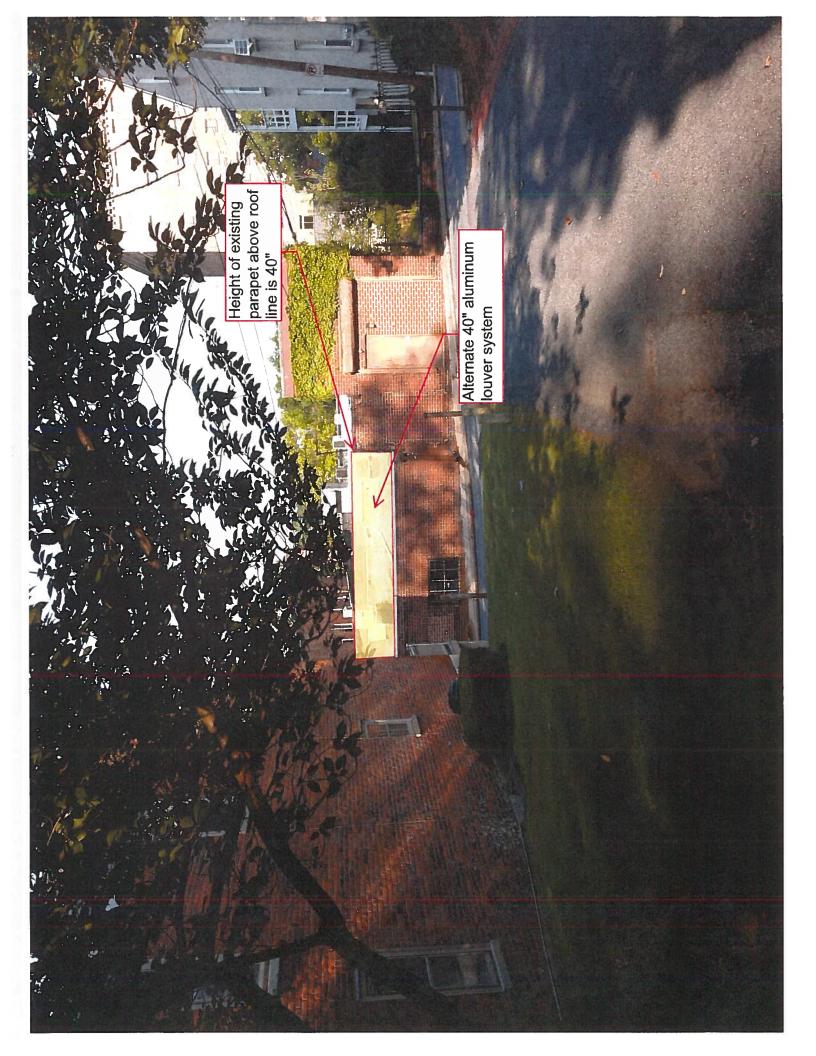
Electrostatically applied powder coat finish. Standard finish options include alightanium<sup>TM</sup>, white, and black. Other colors and custom finish options available, specify RAL# or contact factory regarding custom finish requirement.

### LISTING

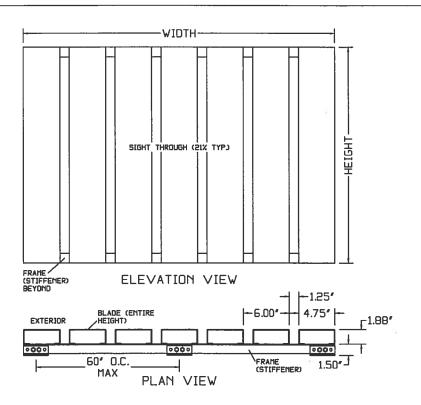
UL/CUL rated for Damp Locations. Tested in accordance with UL 1598 and certified to CEC/CSA C22.1, NEC, ANSI/NFPA 70, and NOM-001-SEDE.







# V2TV6 - 2" DEEP VERTICAL TUBE BLADE 6" SPACING EXTRUDED ALUMINUM LOUVERED EQUIPMENT SCREEN



BLADE - 0.081' THICKNESS TYPE 6063-T5 EXTRUDED ALUMINUM

FRAME - CONCEALED 0.125'
THICKNESS TYPE 5053-T5 EXTRUDED
ALUMINUM

DESIGNED FOR 30 PSF WIND LOAD

SIZES 12' VIOE X 12' HIGH UP TO UNLIMITED SIZE AVAILABLE

OPTIONS:

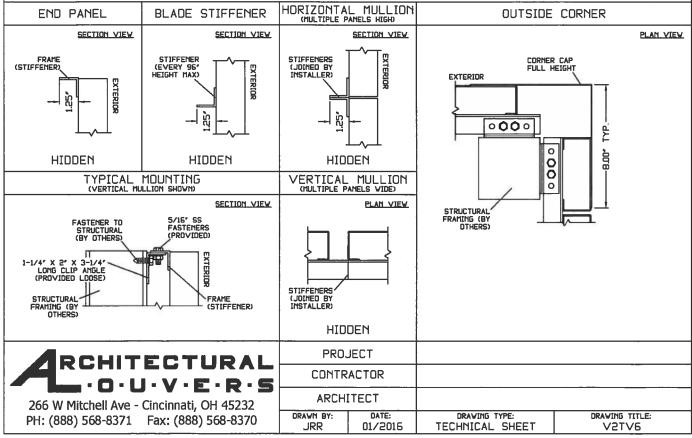
HIGHER WIND LOAD RATINGS

ARCHITECTURAL FINISHES

HINGED SINGLE AND DOUBLE DOORS

### NOTE:

STRUCTURAL FRAHING TO SUPPORTING STRUCTURE (ROOF DECK, WALLS, CONCRETE PAO, ETC.) BY OTHERS. STRUCTURAL FRAHING IS REDUIRED FOR ATTACHHENT POINTS EVERY 50° OF VIOTH AND HEIGHT TO MEET 30 PSF WIND LOAD.





# STANDARD BAKED ENAMEL / KYNAR® COLORS



# Sturdistruct Framing System Image provided for reference

(\) (a) (f) (y) (6) (in)









Home

**Products** 

**How It Works** 

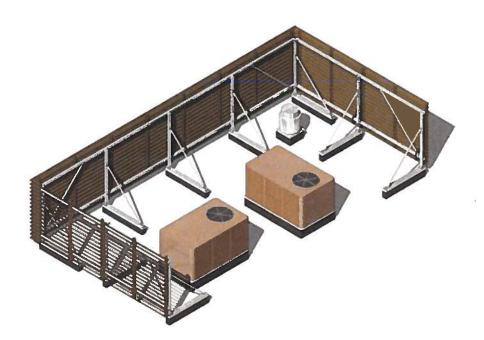
**Design Help** 

only to show how screen will sit on the roof

**Online Store** 

# Structural Framing for Equipment Screens

Allow us to provide the roof framing system for your louvered equipment screens. The allaluminum design was created for use with Architectural Louvers' standard mount equipment screen models. It is intended for use on flat roofs with asphalt or membrane surface material.



### Features:

- Easy assembly
- Perfect fit to all standard mount equipment screen models.
- Attaches to flat roofs with membrane or asphalt surface material (penetrations required).
- No risk of corrosion from dissimilar metals

# Specs:

- Framing can support equipment screens up to 96" height maximum
- Posts spaced at 96" on center maximum
- 30 psf wind load design

### Options: