

INTERIM REVIEW ONLY

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Engineer: Michael L. Reise P.E. Reg. No.: 122366 Date: <u>12-15-2021</u>

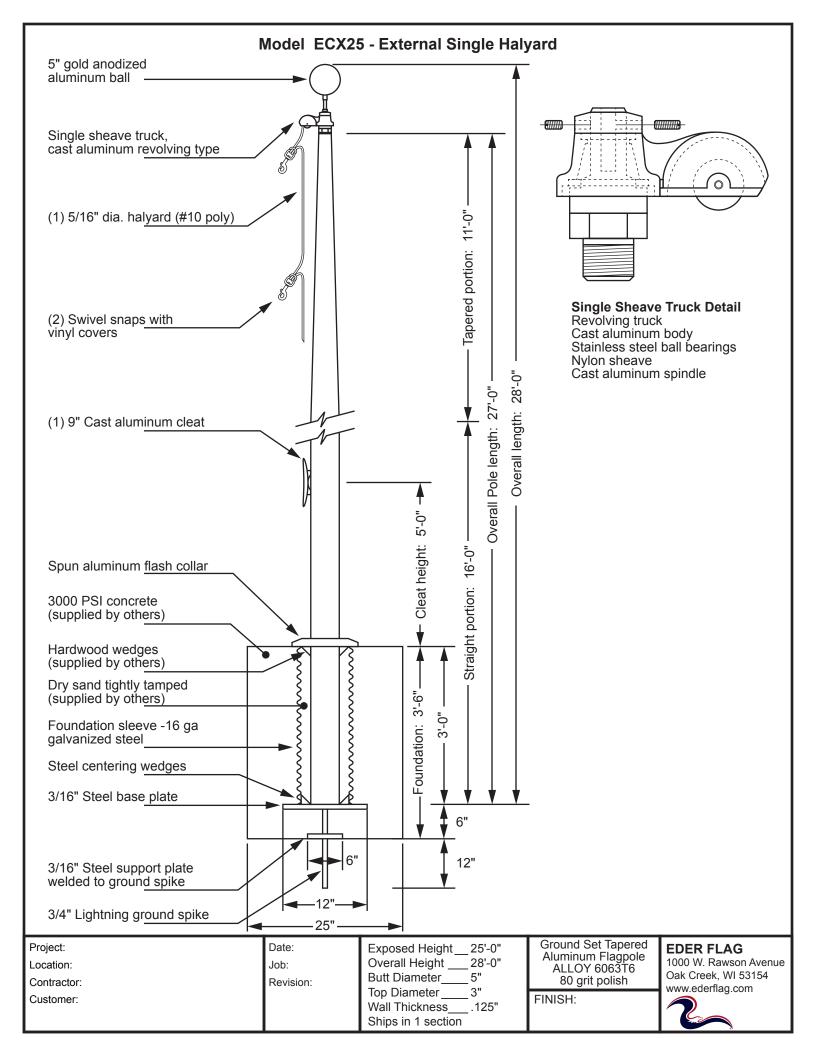
G.C. VETERAN'S CENTER

& ASSOCIATES

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Invue

The cylindrical form of the Vision Flood Small LED luminaire blends effortlessly to architectural and landscape environments. The Vision Flood Small LED luminaire offers optical, energy and maintenance solutions for the full breadth of floodlighting applications.

| Catalog # | SEE PAGE 2 | Туре |
|-------------|-------------------|------------|
| Project | VETERANS CENTER | S 4 |
| Comments | | Date |
| Prepared by | 2M LIGHTING, INC. | 12/15/21 |

SPECIFICATION FEATURES

Construction

HOUSING: One-piece, die-cast aluminum housing maintains a nominal .125" thickness to endure the toughest environments while maintaining precise tolerance control, DOOR: Die-cast aluminum door maintains a nominal .125" thickness and features concealed hinging to the housing. Door is secured with four tamper-resistant recessed stainless steel allen head fasteners. Door frame features an integral accessory channel for the mounting of optional light control accessories. Doorframe seals to housing with a continuous extruded silicone gasket. Lens is impact-resistant .180" thick tempered clear flat glass, sealed to the door with a one-piece silicone gasket. IP66 rated.

Optics

DISTRIBUTION: State-of-the-art optical designs offer the choice of high efficiency floodlighting optical distributions including symmetric round, symmetric rectangular, asymmetric rectangular and tight spot beam patterns. Optic module

is injection molded thermo plastic with highly reflective, metalized specular finish. LEDs: High output LEDs, 60,000+ hours life at >90% lumen maintenance per IESNA TM-21 Standards, offered standard in 4000K (+/- 275K) and nominal 70 CRI.

Electrical

DRIVER: LED drivers feature electronic universal voltage 120-277V (50/60Hz), 347V (60Hz) or 480V (60Hz) > 0.9 power factor, < 20% harmonic distortion. 480V is compatible for use with 480V Wye systems only. Features ambient temperature rating range of +40°C (104°F) down to minimum starting temperature of -40°C (-40°F). Shipped standard with our proprietary circuit module designed to withstand 10kV of transient line surge. LEDs and drivers mounted to assembly trays and equipped with quick disconnects for ease of maintenance.

Mounting

KNUCKLE: Heavy-duty die-cast

aluminum knuckle utilizes a taperlock adjustment mechanism for both solid engagement and infinite aiming adjustment. Knuckle adjustment is made via one captive stainless steel allen head fastener consistent with doorframe fasteners. Tested to sustain 2G of vibration without loosing aiming position. VFS knuckle features a 3/4" NPT nipple on bottom surface for rigid attachment to available mounting accessories. Optional slipfitter mount available for VFS.

Finish

Housing is finished in five-stage, super premium TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult Outdoor Architectural Colors brochure for a complete selection.

Warranty

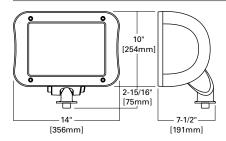
Five-year warranty.



VFS VISION FLOOD SMALL LED

ARCHITECTURAL FLOOD LUMINAIRE

DIMENSIONS



CERTIFICATION DATA

40°C Ambient Temperature Rating UL and cUL Listed ISO 9001 IP66 Luminaire LM79 / LM80 Compliant 2G Vibration Tested

ENERGY DATA

Electronic LED Driver

30.3 Tower Total
420% Total Harmonic Distortion
120-277V 50/60Hz, 347V/60Hz, 480V/60Hz
40°C Minimum Temperature

EPA

Effective Projected Area (Sq. Ft.): 1.19

SHIPPING DATA Approximate Net Weight: 18 lbs. (8 kgs.)





page 2 VFS VISION FLOOD SMALL LED

DELIVERED LUMENS BY DISTRIBUTION, LED QUANTITY AND DRIVE CURRENT

| | Drive Current / LED Quantity | | | | | | | |
|---------------------------------------|------------------------------|---------|---------|---------|---------|---------|--------------|--|
| Voltage | 350mA | | 525mA | | 700mA | | IES NEMA | |
| | 20 LEDs | 40 LEDs | 20 LEDs | 40 LEDs | 20 LEDs | 40 LEDs | Type (H x V) | |
| TS (Tight Spot) | 2,082 | 3,877 | 2,877 | 5,421 | 3,399 | 6,070 | 3 x 3 | |
| TBS (Tight Spot Baffle) | 1,260 | 2,347 | | | | | 1 x 1 | |
| WST (Wide Symmetric Rectangular) | 2,219 | 4,132 | 3,066 | 5,774 | 3,264 | 6,470 | 7 x 6 | |
| MST (Medium Symmetric Rectangular) | 2,261 | 4,210 | 3,123 | 5,885 | 3,692 | 6,590 | 6 x 5 | |
| VAT (Vertical Asymmetric Rectangular) | 2,243 | 4,177 | 3,100 | 5,840 | 3,663 | 6,540 | 6 x 6 | |
| NSR (Narrow Symmetric Round) | 2,112 | 3,943 | 2,918 | 5,496 | 3,450 | 6,158 | 3 x 3 | |
| MSR (Medium Symmetric Round) | 2,183 | 4,065 | 3,016 | 5,880 | 3,565 | 6,361 | 4 x 4 | |

NOTE: Lumens values based upon 4000K CCT and 25°C ambient operating temperatures.

INPUT WATTS BY VOLTAGE, LED QUANTITY AND DRIVE CURRENT

| | Input by Drive Current / LED Quantity | | | | | | | |
|------------------------|---------------------------------------|---------|---------|---------|----------------|------|--|--|
| Voltage | 350 | mA | 525 | mA | 700mA | | | |
| | 20 LEDs | 40 LEDs | 20 LEDs | 40 LEDs | 20 LEDs 40 LED | | | |
| Input Watts @ 120-277V | 24W | 46W | 35W | 67W | 49W | 94W | | |
| Input Watts @ 347V | 27W | 48W | 38W | 70W | 52W | 97W | | |
| Input Watts @ 480V | 31W | 52W | 42W | 73W | 55W | 100W | | |

LUMEN MULTIPLIER

LUMEN MAINTENANCE

| Ambient Temperature | Lumen Multiplier |
|------------------------|---------------------|
| 10°C | 1.04 |
| 15°C | 1.03 |
| 25°C | 1.00 |
| 40°C | 0.96 |
| 50°C | 0.92 |

| Ambient Temperature | TM-21 Lumen Maintenance (60,000 Hours) | Theoretical L70 (Hours) |
|------------------------|--|----------------------------|
| 25°C | > 94% | > 350,000 |
| 40°C | > 93% | > 250,000 |

ORDERING INFORMATION

COOPER # VFS-K-B40-5-LED-D1-TS-XX / JB-XX

Sample Number: VFS-K-B40-5-LED-E1-MST-GM

| Sample Number: Vr5-K-840-5-LED-E1-NIS1-GNI | | | | | | | | | |
|---|-----------------|---|---|---------------------------------|---|----------------------------------|--|--|---|
| Product Family | Mounting Type | Number of LEDs / Driver Current ¹ | | Lamp Type | Voltage | Distribution | | | Color |
| VFS=Vision Flood Small | K=Knuckle Mount | B20-3=20 LEDS at 350mA B20-5=20 LEDS at 525mA B20-7=20 LEDS at 700mA B40-3=40 LEDS at 350mA B40-5=40 LEDS at 525mA B40-7=40 LEDS at 700mA ^{2,3} | | LED=Light Emitting Diodes | E1=Electronic (120-277V) D1=Electronic Dimming 4 34/=34/V 480=480V 5.6 | TSB: WST MST VAT NSR | TS=Tight Spot TSB=Tight Spot WST=Wide Symmetrical Rectang MST=Medium Symmetrical Rect VAT=Vertical Asymmetrical Rectang MSR=Marrow Symmetrical Roun MSR=Medium Symmetrical Roun | | AP=Grey BK=Black BZ=Bronze DP=Dark Platinum GM=Graphite Metallic WH=White |
| Options (Add as Suffix) Accessories (Order Separately) | | | | | | | | | |
| PC=Button Photocontrol (Specify Voltage) SG=Softening Glass 9 7060=70 CRI / 6000 CCT 8030=80 CRI / 3000 CCT | | | JB-XX=Architectural Junction-box with Two 3/4" NPT Entries SM-XX=Stanchion Mount ST-XX=Stanchion Mount Tenon 10 WM-XX=Wall Mount WMA-XX=Wall Mount Arm WMT-XX=Wall Mount Tenon Mount 10 TMA-XX=Twin Mount Arm - EPA 0.35 TMT-XX=Twin Mount Arm Tenon Mount - EPA 0.42 10 SMT-XX=Surface Mount Tenon 10 SF-XX=Slipfitter | | | | PM1-XX=Post Mount Extension Single - EPA 0.12 PM2-XX=Post Mount Extension Double - EPA 0.12 VFS-CFR-XX=Color Filter Adapter with Red Gel " VFS-CFB-XX=Color Filter Adapter with Bright Blue Gel " VFS-CFG-XX=Color Filter Adapter with Deep Green Gel " VFS-CFO-XX=Color Filter Adapter with Warm Orange Gel " VFS-BD-XX=Barn Doors - EPA 1.01 VFS-TV-XX=Top Visor - EPA 0.6 VFS-4S-XX=Four Sided Visor VA6174=Tamper-proof Driver Bit CPR Cap Screw | | |

- 1. Standard 4000K CCT, nominal 70 CRI.
- 2. 40 LEDs at 700mA (B40-7) limited to 25°C ambient conditions.
 3. Not available with color filters or external shielding.
- 4. Not available with 20 LEDs at 700mA (B20-7). Provides 0-10V DC low voltage leads used in dimming control.
- 5. Only available with normal power factor and <30THD.
 6. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).

dimensions subject to

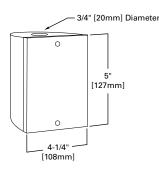
change without notice.

- 7. Not available with 347V or 480V.
- 8. Available with 20 or 40 LEDs at 350mA (B20-3 or B40-3) only.
- 9. Standard on WST distribution.
- 10. Must order SF Slipfitter.
- 11. Not available with B40-5 or B40-7.



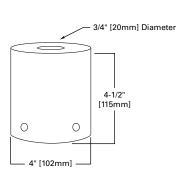
ACCESSORIES

The Vision Flood Small (VFS) knuckle features a 3/4" NPT threaded nipple on its bottom surface for direct mounting to the following accessories: Junction Box (JB), Slipfitter (SF), Stanchion Mount (SM), Twin Arm Mount (TMA), Wall Mount Arm (WMA), Wall Mount (WM) and Post Mount Extensions (PM1, PM2). When coupled with the available slipfitter (SF), the VFS can be mounted to the following accessories: Surface Mount Tenon (SMT), Stanchion Mount Tenon (ST), Twin Mount Arm Tenon (TMT) and Wall Mount Arm Tenon (WMT).



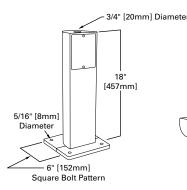
JUNCTION BOX (JB)

U.L. and CSA listed for wet locations, the Vision J-Box is supplied with a 3/4" clearance hole on the top surface and two 3/4" NPT openings on the bottom surface. An optional drilling consisting of one 1/2" NPT opening on the bottom surface can be specified.



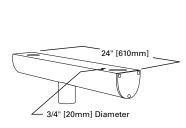
SLIPFITTER (SF)

Die-cast aluminum slipfitter features a 3/4" NPT entry point on top surface to mate to standard VFS knuckle. Allows fixture assembly to be mounted to standard 2" pipe size (2-3/8" O.D.) tenons and tenon equipped accessories.



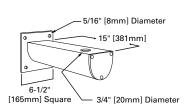
STANCHION MOUNT (SM)

Used to mount fixture above grade to solid surface, or partially buried when secured to concrete pad. Cast aluminum housing and mounting plate is 18" tall and is supplied with a single 3/4" clearance hole entry point.



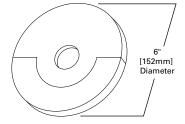
TWIN ARM MOUNT (TMA)

Soft form extruded aluminum arm is 24" in length and features two 3/4" clearance holes for twin fixture mount. Other lengths and drilling patterns available upon request. Twin arm base slip fits over standard 2" pipe size (2-3/8" O.D.) tenon. End caps are removable for wiring access. Useful in ground mount and pole mount applications.



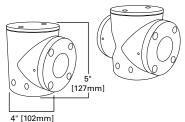
WALL MOUNT ARM (WMA)

Extruded aluminum arm with cast mounting plate is 15" in length and is supplied with a 3/4" clearance hole entry point.



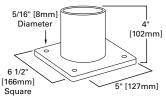
WALL MOUNT (WM)

Cast aluminum mounting plate adapts around 4" square or octagonal J-box by others. Additional stud mounting is required beyond J-box attachment. Consists of mounting bracket and cast aluminum splice access cover providing a clean transition to the wall surface. Hanger mount integral to mounting plate allows for ease of installation.



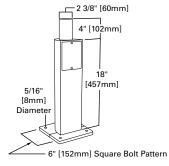
POST MOUNT EXTENSION (PM1/PM2)

Cast aluminum assembly slip fits over standard 2" pipe size (2-3/8" O.D.) tenons and allows for single (PM1), or double (PM2) mount configurations. Assembly allows for 360° of fixture rotation. Top cap provides splice access. Useful for single or twin, pole mounted downward aiming applications.



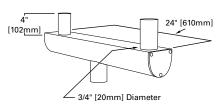
SURFACE MOUNT TENON (SMT)

For above-grade surface mount placement, the SMT is supplied with a 4" tall standard 2" pipe size (2-3/8" O.D.) tenon. Requires SF Slipfitter.



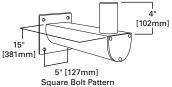
STANCHION MOUNT TENON (ST)

Used to mount fixture above grade to solid surface, or partially buried when secured to concrete pad. Cast luminum housing and mounting plate is 18" tall and is supplied with a standard 2" pipe size (2-3/8" O.D.) tenon. Requires SF Slipfitter.



TWIN ARM MOUNT TENON (TMT)

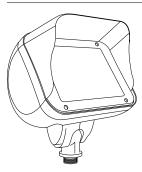
Soft form extruded aluminum arm is 24" in length and features two standard 2" pipe size (2-3/8" O.D.) tenons for twin fixture mount. Other lengths and drilling patterns available upon request. Twin arm base slip fits over standard 2" pipe size (2-3/8" O.D.) tenon. End caps are removable for wiring access. Useful in ground mount and pole mount applications. For extended downward aiming, utilize PM1 or PM2 in conjunction with TMT. Requires



WALL MOUNT ARM TENON (WMT)

Extruded aluminum arm with cast mounting plate is 15" in length and is supplied with a standard 2" pipe size (2-3/8" O.D.) tenon.
Also useful as an arm extension off square area lightpole. Requires SF Slipfitter.

ACCESSORIES



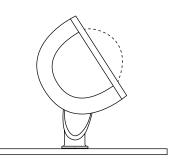
$\textbf{TOP VISOR} \; (\text{VFS-TV})$

Controls excess spill and glare on top portion of distribution. Especially useful in uplighting applications to limit light travel above intended wall surface or sign. Mounts to accessory channel in doorframe. Compatible with all distributions.



BARN DOORS (VFS-BD)

Four independently mounted and adjustable doors control cutoff angles in all directions, allowing custom distribution control for any application. Compatible with all distributions.



VANDAL SHIELD (VFS-VS)

3/16" thick molded polycarbonate convex lens. Treated with UV inhibitor to discourage the gradual discoloration that results from exposure to sunlight and metal halide lamps.

