

Traffic Operations

### **APPROVED PRODUCTS LIST**

TRAFFIC SIGNALS, HIGHWAY LIGHTING, AND HIGHWAY SIGNING EQUIPMENT

### TRAFFIC SIGNALS AND HIGHWAY LIGHTING EQUIPMENT

#### I. GENERAL

This Approved Products List (APL) is based on equipment meeting department specifications and being tested for the specified test period with satisfactory performance. All models shall conform to the latest revisions of the Missouri Standard Specifications for Highway Construction, the Missouri Standard Plans for Highway Construction, the MoDOT Engineering Policy Guide, and any other applicable documents unless otherwise indicated. In addition, all products shall comply with 2 CFR 200.216 – Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment. Conformance to MoDOT standards and specifications does not guarantee addition to the APL. Other factors such as, but not limited to, build quality, durability, ease of installation and use, and cost of repair may be taken into consideration. The models indicated on the list are approved but are subject to final field inspection before acceptance.

The department frequently tests new products and equipment for traffic signals and highway lighting. These new products may be installed on a construction project, purchased on parts orders, or with controller orders. Vendors may also submit a device, at no cost to the department, for the test period. MoDOT will determine the methods and needs of the product for test. Only a limited number of units will be accepted for test statewide until an item is added to the Approved Products List. A vendor wishing to initiate a test on a new product shall submit a Product Evaluation Request Form - Signal and Lighting Equipment. Copies of this form can be obtained from our website at <a href="https://www.modot.org/traffic">https://www.modot.org/traffic</a>. Minor model changes do not require an evaluation period; however, the vendor shall submit specification sheets, a summary of changes from the current to former model, and a sample of the product for the Department to inspect.

All equipment evaluations are coordinated through MoDOT Traffic Operations. The vendor supplying the equipment shall provide equipment specifications and a certification that the equipment meets department specifications before the test is performed. The equipment is tested for the period specified in the APL. Products not performing satisfactorily or falls below established standards will be replaced with an approved product if the vendor cannot provide timely correction of the problem or if unsatisfactory operation of the intersection results.

If a vendor is proposing a product that does not meet department specifications, an explanation of why the product meets or exceeds the current specifications must be provided by the vendor in writing to Traffic Operations. If approved, the product may be tested for the specified period noted in the APL. If the product is satisfactory, the Department will consider a revision to the applicable specifications. Any modification to the device must be reviewed and approved by MoDOT prior to sale/use of the modified device. Products will not be added to the Approved Products List that do not meet department specifications.

Products on the APL shall continue to perform satisfactorily. In addition, the vendors shall support the products. Products not performing as required or not supported are subject to removal from the APL.

Grounds for removal of products include, but limited to:

- Significant change in product specifications or design without notification to the department.
- Failure to correct or replace products that are defective in manufacturing or workmanship.
- Repeated patterns of malfunctions of a product not adequately corrected by the vendor.
- Unreasonable pricing of repair parts or repair work. Repair work not completed in a reasonable time frame.
- Excessive delivery times for new purchases or replacement parts.

Changes in standard specifications may also necessitate removal of specific products from the APL. If this occurs, there will be a grace period where the product will be retained on the list after the specifications are changed. However, the product will be removed from the list if it is not revised to meet specifications.

### **II. TRAFFIC SIGNAL EQUIPMENT**

All traffic signal equipment requires a one-year evaluation period.

### **CONTROLLERS**

NEMA TS1 CONTROLLERS	MODEL
Econolite	X-3 Series – NEMA X3C
NEMA ON-STREET MASTER CONTROLLER	MODEL
Econolite	ASC/2M
170 CONTROLLERS	MODEL
McCain	

### CABINETS AND BACK PANELS (NEMA & S.S. PRETIMED)

NOTE: Cabinets and Back panels that meet MoDOT specifications from the following manufacturers will be accepted. ALL other manufacturers must provide a model that meets specifications and complete a satisfactory one-year evaluation as described above to be added to the list.

### **NEMA CABINET AND BACK PANEL ASSEMBLIES**

Control Technologies (Southern Manufacturing)
Econolite
Bison
Trafficware
Mobotrex

### **CABINETS AND RACKS (TYPE 170 CONTROLLERS)**

NOTE: Cabinets and Racks that meet MoDOT specifications from the following manufacturers will be accepted. ALL other manufacturers must provide a model that meets specifications and complete a satisfactory one-year evaluation as described above to be added to the list.

### 332 AND 336S CABINET AND RACK ASSEMBLIES

McCain (332D, 332E, 332L and 336L) Safetran Mobotrex (33x)

### **CONFLICT MONITORS**

NEMA CONFLICT MONITORS	MODEL
Eberle Design Incorporated (EDI)	NSM-6E

Eberle Design Incorporated (EDI)	NSM-12E
Eberle Design Incorporated (EDI)	SSM-12LE Series
Eberle Design Incorporated (EDI)	
Eberle Design Incorporated (EDI)	
Reno A&E	
Trafficware	NM512
170 CONFLICT MONITORS	MODEL
Eberle Design Incorporated (EDI)	2010ECLip
Eberle Design Incorporated (EDI)	
Eberle Design Incorporated (EDI)	
Eberie Design incorporated (EDI)	2016
CABINET ACCESSORIES	
AUXILIARY TIME CLOCK	MODEL
Ella -	TO 40
Eltec	
RTC	AP22
Applied Information	AI-500-070
EXTERNAL T.B.C. COORDINATORS	MODEL
Eltec	TC-18
FLASHERS	MODEL
	MODEL
(NEMA & 170)	
	0.4.0
Eberle Design Incorporated (EDI)	
Reno A&E	FL-200
Traffic Sensor Corp	204
Traffic Sensor Corp	
Traffic Sensor Corp	
·	
Traffic Sensor Corp	
Power Distribution & Control (PDC)	
Power Distribution & Control (PDC)	SSF-88
,	
FLASH TRANSFER RELAYS	MODEL
=	
AMECO	
Struthers-Dunn	21ACPX-2/21ACPXD-5
Mid-Tex	136-62T-3A1
Power Distribution & Control (PDC)	
Eberle Design Incorporated (EDI)	
Ebene Design incorporated (EDI)	IN-200
LOAD SWITCHES	MODEL
(NEMA & 170)	MODEL
(INLINIA & I/U)	
Ebada Daring Incompanded (EDI)	540
Eberle Design Incorporated (EDI)	
Reno A&E	
Power Distribution & Control (PDC)	SSS-86
Power Distribution & Control (PDC)	
	SSS-88
Traffic Sensor Corp	

Traffic Sensor Corp	200-15
Traffic Sensor Corp	
Traffic Sensor Corp	
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ISOLATORS (170 only) (242=DC, 252=AC)	MODEL
Eberle Design Incorporated	242
GDI Communications	
GDI Communications	ACIM252
Reno A&E	
Safetran	
Safetran	252
Power Distribution & Control (PDC)	242
Power Distribution & Control (PDC)	
SURGE PROTECTORS	MODEL
ASCO Power Technologies	258120NF015ATBN0
TONE RECEIVERS	MODEL
Iniven	IR30M-05-30
TONE TRANSMITTERS	MODEL
Iniven	IT30
DETECTORS .	
MICROWAVE DETECTORS	MODEL
MC Codos	TC 26D
MS SedcoImage Sensing Systems (ISS)	
PEDESTRIAN PUSH BUTTONS	MODEL
Campbell	4 EVR MOAB
Pelco	SE-2178-Pxx
Polara Engineering, Inc	
POWER SUPPLY FOR CARD RACK DETECTORS - NEMA	MODEL
Eberle Design Incorporated EDI	PS-175B
SINGLE CHANNEL SHELF MOUNT DETECTORS, STANDARD	MODEL
Eberle Design Incorporated (EDI)	LMD301S
SINGLE CHANNEL SHELF MOUNT DETECTORS, TIME DELAY	MODEL
Eberle Design Incorporated (EDI)	LMD301T

ULTRASONIC DETECTORS		MODEL
MS Sedco		TC-30
2-CHANNEL CARD RACK C DETECTORS, DUAL OUTPU		
Eberle Design Incorporated (E	EDI)	LMD632
2-CHANNEL CARD RACK CONTROL OF CONTROL OF CONTROL (NEMA)		MODEL
	EDI)	
2-CHANNEL CARD RACK D (170)	ETECTORS, STANDARD	MODEL
Eberle Design Incorporated (E	EDI)	LMD222 22
2-CHANNEL CARD RACK D	ETECTORS, STANDARD	MODEL
Reno A&E	EDI)	
2-CHANNEL CARD RACK D (NEMA)	ETECTORS, TIME DELAY	MODEL
Reno A&E	EDI)	
SIGNAL HEADS		
BACKPLATES		MODEL
Intelight		BP INTLIT Series
LOUVERS		MODEL
Pelco		GL-1000 Series
POLYCARBONATE SIDE-MOWER WITH RELATED HARDWAR		MODEL
Component Products		All models

Mobotrex	UKS1452AB
SIGNAL HEADS - OPTICALLY LIMITED	MODEL
Intelight, IncMcCain	
SIGNAL HEADS - POLY CONVENTIONAL	MODEL
Traffic Parts, Inc. Traffic Parts, Inc. Mobotrex Econolite General Traffic Equipment Corp. McCain North American Signal Oriux	SIG-TPB-586-CTN-NVN-0N (5 section)SA SeriesTP SeriesT-30 POLYMTSTP SeriesPTXOOBB_0CB
PEDESTRIAN HEAD - POLY 1-SECTION	MODEL
McCainGeneral Traffic Equipment	P8-CDLED-SAMx-GV-B

### PEDESTRIAN LED SIGNAL INDICATION

Pedestrian LED signal indications must be ETL verified. The ETL verified listing is located at: <a href="http://www.intertek.com/lighting/infrastructure/traffic-signals/">http://www.intertek.com/lighting/infrastructure/traffic-signals/</a>

### **HARDWARE**

NOTE: Hardware that meets MoDOT specifications from the following manufacturers will be accepted. ALL other manufacturers must provide equipment that meets specifications and complete a satisfactory sixmonth evaluation as described above to be added to the list.

### **SIGNAL HARDWARE**

Pelco

STRANDVISE	MODEL
MacLean Power Systems	5202 (Reliable 3/8" Strandvise)
MacLean Power Systems	5200 (Reliable 1/4" Strandvise)

### **POSTS AND MAST ARMS**

Note: Posts and Mast Arms do not require an evaluation period. Posts and Mast Arms shall be fabricated in accordance with MoDOT specifications and standards. Posts and Mast Arms shall be pre-approved as required by the MoDOT standards and specifications to be added to the list. The following manufacturers have pre-

approved fabrication details and documentation on file with the department. Posts and Mast Arms are subject to field inspection before acceptance.

STEEL POSTS AND MAST ARMS	DRAWING NUMBER
Ameron Pole Products	MO13TR11 - Rev. B (Type C)
Ameron Pole Products	MO13TR12 - Rev. B (Type CL)
Ameron Pole Products	MO13TR13 - Rev. B (Type B)
Ameron Pole Products	MO13TR14 - Rev. B (Type BL)
JEM Engineering & Manufacturing	MODOT1-4 Rev. 2 (Types C, CL, B & BL)
Maico Industries, Inc	
Millerbernd Manufacturing Company	1005022 (Type B)
Millerbernd Manufacturing Company	1003534 (Type BL)
Millerbernd Manufacturing Company	1005004 (Type C)
Millerbernd Manufacturing Company	1003523 (Type CL)
Millerbernd Manufacturing Company	500A971 Millerbernd
Pelco Structural, LLC	MODMA1001 & 1002 (Type B)
Pelco Structural, LLC	MODMAL1001 & 1002 (Type BL)
Pelco Structural, LLC	MOSMA1001 & 1002 (Type C)
Pelco Structural, LLC	MOSMAL1001 & 1002 (Type CL)
Union Metal Industries Corp	30443-B202 - Rev. 19 (Types C, CL, B & BL)
Valmont	DB00408 - Rev. H

### **MISCELLANEOUS**

LOOP SEALANTS (Loop sealants do not require material certification)	MODEL
3M	575 P606 290S 296-06 Stat-A-Flex Polyseal NR-201
PEDESTAL BASES	MODEL
Akron Foundry Akron Foundry Pelco Pelco Traffic Parts	TS-1000-L-WP PB5336 PB5337
SPLICE KITS (DETECTOR LEAD-IN)	MODEL

METER SERVICE PEDESTAL (SIGNALS/SIGNALS & LIGHTING) MODEL

Milbank 120V Signal Only (Ameren) Milbank 120V Signal with 2-Circuit 240V Lighting (Ameren) Milbank 120V Signal with 2-Circuit 240V Lighting Dual Meter Myers 120V Signal with 2-Circuit 240V Lighting Myers 120V Signal with 2-Circuit 240V Lighting Pacific Utility Products 120V Signal Only	CP3B51C1PBAOMO2 CP3B62C2NBAOMO1 MEUGLA-M100-MDOT MEUG 20
Pacific Utility Products 120V Signal with 2-Circuit 240V Lighting  Note: (Pacific Utility Products - product listed with "R" is ring less meter sockets, o utilities requiring ring type meter socket, have the "6" at the end of the catalog numb	ther

Pacific Utility Products 120V Signal with 2-Circuit 240V Lighting ......USP16R-M2100-112C-MODOT Note: -- (Pacific Utility Products - product listed with "R" is ring less meter sockets, other utilities requiring ring type meter socket, have the "6" at the end of the catalog number)

Pacific Utility Products 120V Signal with 2-Circuit 240V Lighting ......USP24-M2100-100-MODOT6-TSL Pacific Utility Products 120V Sgnl w/2-Circuit 240V Lighting Dual Mtr USPD-2M2100-100-MODOT6 Tesco 120V Signal with 2-Circuit 240V Lighting ......28-105 Type III BF Tesco 120V Signal with 2-Circuit 240V Lighting ......28-102F

### **LIGHT EMITTING DIODES (LED)**

LEDs (circular and arrow) must be ETL verified. The ETL verified listing is located at: http://www.intertek.com/lighting/infrastructure/traffic-signals/

PROGRAMMABLE VIEW	MODEL
Dialight	P46-3R33-003 (Red Ball)
Dialight	
Dialight	P46-3G33-003 (Green Ball)
GELcore	DR3-RCFB-01A (Red Ball)
GELcore	
GELcore	

### **VIDEO DETECTION SYSTEMS**

VIDEO DETECTOR	MODEL
Cubic	Gridsmart
Econolite	Autoscope RackVision
Econolite	Autoscope RackVision Terra
Econolite	Autoscope Vision
Iteris	
Iteris	
Iteris	
Oriux	VideoTrak IQ-P
Oriux	VideoTrak IQ-ITS
FLIR	VIP 3D.x Series
Miovision	Core DCM w/ Smartview 360 camera

### RADAR DETECTION SYSTEMS

RADAR DETECTOR	MODEL
Wavetronix	SmartSensor Matrix

### **III. HIGHWAY LIGHTING**

All highway lighting equipment require a one-year evaluation period except for items noted requiring a six-month evaluation.

### **LIGHTING POLES**

Note: Poles do not require an evaluation period. Poles shall be fabricated in accordance with MoDOT specifications and standards. They shall be pre-approved as required by the MoDOT standards and specifications in order to be added to the list. The following manufacturers have pre-approved fabrication details and documentation on file with the department. Lighting poles are subject to field inspection before acceptance.

STEEL POLES	DRAWING NUMBER
Ameron Pole Products	
JEM Engineering and Manufacturing	
JEM Engineering and Manufacturing	
Millerbernd Manufacturing Co	,
Millerbernd Manufacturing Co	
Millerbernd Manufacturing Co	730B908 (Type B30)
Millerbernd Manufacturing Co	, , ,
Millerbernd Manufacturing Co	
Union Metal Industries Corp	71020-B2 - Rev. 5 (Type AT30)
Union Metal Industries Corp.	71020-B3 - Rev. 4 (Type B30)
Union Metal Industries Corp.	71019-B6 - Rev. 7 (Type AT45)
Union Metal Industries Corp.	71019-B7 - Rev .4 (Types B45 & MB45)
Union Metal Industries Corp	71019-B8 – Rev. 3 (Type B30)
Union Metal Industries Corp	71019-B9 – Rev. 3 (Type B45)
Union Metal Industries Corp	71019-B10 – Rev. 3 (Type MB45)
Union Metal Industries Corp.	71020-B103 – Rev. 3 (Type AT30)
Union Metal Industries Corp.	
Valmont	DB00019 – Rev. N (Types AT30 & B30)
Valmont	DB00020 – Rev. N (Types AT45, B45 & MB45)
ALUMINUM POLES	DRAWING NUMBER
Valmont	MO-051707 (Type AT-30)

### **FOUNDATIONS**

Note: Screw anchor foundations do not require an evaluation period. Screw anchor foundations shall be fabricated in accordance with MoDOT specifications and standards. They shall be pre-approved as required by the MoDOT standards and specifications in order to be added to the list. The following manufacturers have pre-approved fabrication details and documentation on file with the department. Screw anchor foundations are subject to field inspection before acceptance.

### **SCREW ANCHOR FOUNDATIONS**

### **DRAWING NUMBER**

Component Products, Inc.	SLSF 8-5 (Type AT30)
Component Products, Inc.	SLSF 10-7 (Type AT45)
Hubbell Chance	SA112-0696 - Rev. H (Type AT30)
Hubbell Chance	SA112-0786 – Rev. E (Type AT45)
Integrated Traffic Solutions, Inc.	ITS AT30 (Type AT30)
Integrated Traffic Solutions, Inc.	ITS AT45 (Type AT45)
J. H. Botts	JHB MOH 30 – Rev. C (Type AT30)
J. H. Botts	JHB MOH 45 – Rev. D (Type AT45)

### **LED LUMINAIRES**

NOTE: LED Luminaires do not require a field evaluation period. LED Luminaires shall be pre-approved by submittal of documents as required by the MoDOT standards and specifications in order to be added to the list. LED Luminaires shall be fabricated in accordance with MoDOT specifications and standards. Because there is no evaluation period MoDOT reserves the right to deny a product due to evaluations or experiences with a product by other agencies.

LED Luminaire models listed meet the minimum requirements of MoDOT standards and specifications. Higher lumen outputs, as required by site-specific design, may be provided for the listed models provided that MoDOT standards and specifications continue to be met.

### **BRACKET ARM MOUNT (120/277V)**

ED A	MODEL
FD-A	MODEL

American Electric Lighting (AEL)	ATB0-P203-MVOLT-R3-3K-NL-NR
American Electric Lighting (AEL)	ATB0-P203-MVOLT-R3-3K-NL-P7-SH**
Cooper	ARCH-S-PA1-60-730-U-T3-AP-10K-K
Cooper	ARCH-S-PA1-60-730-U-T3-AP-10K-K-PSC-PR7**
Cree	XSPSM-D-HT-3ME-8L-30K7-UL-SV-N-Q7*
Cree	RSWM-A-HT-3ME-9L-30K7-UL-GY-N-Q3*
GE	ERLH-0-10-C3-30-D-GRAY-G-R**
LeoTek	GCJ2-20H-MV-WW-3-GY-1A-WL-4B
LeoTek	GCJ2-20H-MV-WW-3-GY-1A-PCR7-WL-4B-SC**
Lumec	RPN-65W20LED-730-G1-R3M-UNV-DMG-NRC-GY3
Lumec	RPN-65W20LED-730-G1-R3M-UNV-DMG-PH9-TLRD7-GY3**
Solar Max	SMX-68WiE-NV-LL5-00-3070-T302-P**

<sup>\*</sup> ANSI C136.41 7-pin receptacle included

<sup>\*\*</sup> ANSI C136.41 7-pin receptacle with shorting cap included

LED-B	MODEL
LLD-D	INICOLL

American Electric Lighting (AEL)	ATB0-P303-MVOLT-R3-3K-GRAY-NL-NR
American Electric Lighting (AEL)	ATB0-P303-MVOLT-R3-3K-GRAY-NL-P7-SH**
American Electric Lighting (AEL)	ATB2-40BLEDE10-MVOLT-R3-3K-NL-HK-NR
American Electric Lighting (AEL)	ATB2-40BLEDE10-MVOLT-R3-3K-NL-HK-P7-SH**
Cooper	ARCH-S-PA2-110-730-U-T3-AP-10K-K
Cooper	ARCH-S-PA2-110-730-U-T3-AP-10K-K-PSC-PR7**
Cree	XSPLG-D-HT-3ME-18L-30K7-UL-SV-N-Q5*
Cree	RSWL-A-HT-3ME-14L-30K7-UL-GY-N-Q9*
GE	ERLH-0-15-C3-30-D-GRAY-G-R**
Lumec	RPM-105W40LED-730-G1-R3M-UNV-DMG-NRC-GY3
Lumec	RPM-105W40LED-730-G1-R3M-UNV-DMG-PH9-TLRD7-GY3**
Solar Max	SMX-105WiE-NV-LL5-00-3070-T302-P**

<sup>\*</sup> ANSI C136.41 7-pin receptacle included

### LED-C MODEL

American Electric Lighting (AEL)	ATB0-P453-MVOLT-R3-3K-NL-NR
American Electric Lighting (AEL)	ATB0-P453-MVOLT-R3-3K-NL-P7-SH**
Cooper	ARCH-M-PA2-160-730-U-T3-AP-10K-K
Cooper	ARCH-M-PA2-160-730-U-T3-AP-10K-K-PSC-PR7**
Cree	XSPLG-D-HT-3ME-24L-30K7-UL-SV-N-Q6*
GE	ERL2-0-21-C3-30-D-GRAY-G-R**
Holophane	MGLEDM-P2-30K-MVOLT-MR-VH-GRSD-NL
Holophane	MGLEDM-P2-30K-MVOLT-MR-VH-GRSD-NL-PR7-SH**
Lumec	RPM-130W60LED-730-G1-R3M-UNV-DMG-NRC-GY3
Lumec	RPM-130W60LED-730-G1-R3M-UNV-DMG-PH9-TLRD7-GY3**
Solar Max	SMX-166WiE-NV-LL5-00-3070-T302-P **

<sup>\*</sup> ANSI C136.41 7-pin receptacle included

### **BRACKET ARM MOUNT (480V)**

LED-A	MODEL
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American Electric Lighting (AEL)	ATB0-P203-480-R3-3K-NL-NR
American Electric Lighting (AEL)	ATB0-P203-480-R3-3K-NL-P7-SH**
Cree	XSPSM-D-HT-3ME-8L-30K7-UH-SV-N-Q7*
Cree	RSWM-A-HT-3ME-9L-30K7-UH-GY-N-Q3*
Cooper	ARCH-S-PA1-60-730-8-T3-AP-10K-K
Cooper	ARCH-S-PA1-60-730-8-T3-AP-10K-K-PSC-PR7**
Leotek	GCJ2-20H-HV-WW-3-GY-1A-WL-4B
Leotek	GCJ2-20H-HV-WW-3-GY-1A-PCR7-WL-4B-SC**

<sup>\*\*</sup> ANSI C136.41 7-pin receptacle with shorting cap included

<sup>\*\*</sup> ANSI C136.41 7-pin receptacle with shorting cap included

Lumec	RPN-65W20LED-730-G1-R3M-HVU-DMG-NRC-GY3
Lumec	RPN-65W20LED-730-G1-R3M-HVU-DMG-PH9-TLRD7-GY3**
Solar Max	SMX-68WiF-HV-LL5-00-3070-T302-P**

<sup>\*</sup> ANSI C136.41 7-pin receptacle included

### LED-B MODEL

American Electric Lighting (AEL)	ATB0-P303-480-R3-3K-NL-NR
American Electric Lighting (AEL)	ATB0-P303-480-R3-3K-NL-P7-SH**
American Electric Lighting (AEL)	ATB2-40BLEDE10-MVOLT-R3-3K-NL-HK-NR
American Electric Lighting (AEL)	ATB2-40BLEDE10-MVOLT-R3-3K-NL-HK-P7-SH**
Cooper	ARCH-S-PA2-110-730-8-T3-AP-10K-K
Cooper	ARCH-S-PA2-110-730-8-T3-AP-10K-K-PSC-PR7**
Cree	XSPLG-D-HT-3ME-18L-30K7-UH-SV-N-Q5*
Cree	RSWL-A-HT-3ME-14L-30K7-UH-GY-N-Q9*
GE	ERLH-5-15-C3-30-D-GRAY-G-R**
Lumec	RPM-105W40LED-730-G1-R3M-HVU-DMG-NRC-GY3
Lumec	RPM-105W40LED-730-G1-R3M-HVU-DMG-PH9-TLRD7-GY3**
Solar Max	SMX-105WiE-HV-LL5-00-3070-T302-P **

<sup>\*</sup> ANSI C136.41 7-pin receptacle included

### LED-C MODEL

American Electric Lighting (AEL)	ATB0-P453-480-R3-3K-NL-NR
American Electric Lighting (AEL)	ATB0-P453-480-R3-3K-NL-P7-SH**
Cooper	ARCH-M-PA2-160-730-8-T3-AP-10K-K
Cooper	ARCH-M-PA2-160-730-8-T3-AP-10K-K-PSC-PR7**
Cree	XSPLG-D-HT-3ME-24L-30K7-UH-SV-N-Q6*
GE	ERL2-5-21-C3-30-D-GRAY-G-R**
Holophane	MGLEDM-P2-30K-480-MR-VH-GRSD-NL
Holophane	MGLEDM-P2-30K-480-MR-VH-GRSD-NL-PR7-SH**
Lumec	RPM-130W60LED-730-G1-R3M-HVU-DMG-NRC-GY3
Lumec	RPM-130W60LED-730-G1-R3M-HVU-DMG-PH9-TLRD7-GY3**
Solar Max	SMX-166WiE-HV-LL5-00-3070-T302-P **

<sup>\*</sup> ANSI C136.41 7-pin receptacle included

### HIGH PRESSURE SODIUM LUMINAIRES

NOTE: Luminaires will not be furnished with photoelectric cells. Receptacles will have a shorting plug in place of cell. Multi-tap ballast for 120 Volt and 240 Volt fixtures is permissible.

BRACKET ARM MOUNT – 150 WATT	MODEL
American Electric Lighting	115 Series

<sup>\*\*</sup> ANSI C136.41 7-pin receptacle with shorting cap included

<sup>\*\*</sup> ANSI C136.41 7-pin receptacle with shorting cap included

<sup>\*\*</sup> ANSI C136.41 7-pin receptacle with shorting cap included

American Electric Lighting Holophane	
1 lolophane	Worlgoose Series
BRACKET ARM MOUNT - 250 WATT	MODEL
American Electric Lighting	115 Series
American Electric Lighting	
Holophane	
BRACKET ARM MOUNT - 400 WATT	MODEL
American Electric Lighting	125 Series
American Electric Lighting	Durastar 2000, Series 30
Holophane	Mongoose Series
HIGH MAST LIGHTING	MODEL
NOTE: High mast lighting is custom designed for the location. series are considered pre-approved.	Fixtures from the following manufacturer's
Cooper	HMC Series
General Electric (GE)	
Holophane	
Holophane	
Metrolux	
POLE TOP MOUNTING	MODEL
Holophane	HL2A Series
Holophane	Mongoose Series
SIGN LIGHTING - 250 WATT	MODEL
General Electric (GE)	V2FN Series
Guth	
Holophane	
Holophane	SNVW Series
SIGN LIGHTING - 400 WATT	MODEL
Holophane	PANL Series
Holophane	
UNDERPASS (WALLPACKS)	MODEL
American Electric Lighting	
Cooper	
General Electric (GE)	
Holophane	
HolophaneHubbell	

### **CONTROL EQUIPMENT**

CONTACTORS-ELECTROMECHANICAL	MODEL
Square D	Type S
Eaton	
CONTACTORS-MERCURY	MODEL
Dayton/Duracool	6A/6X Series
Magnecraft	
•	
BASE MOUNTED CONTROL CABINETS	
NOTE: Cabinets that meet MoDOT specifications from the folloother manufacturers must provide a model that meets specification month evaluation as described above to be added to the list.	
Cleveland Switchboard Coxline Hoffman	
Shallbetter Inland Technologies	
MOUNTING SOCKET FOR PHOTOELECTRIC CONTROL	MODEL
NOTE: Mounting sockets require a six-month evaluation.	
American Electric Lighting	DUR
Fischer-Pierce	
PHOTOELECTRIC CONTROL	MODEL
TE Connectivity	SST 120 (120 yelt)
TE Connectivity	
TE Connectivity	
American Electric Lighting	D120-1 0-ST I (Dark to Light) (120 volt)
American Electric Lighting	
American Electric Lighting	
American Electric Lighting	DF480-1 0-T.I (480 volt)
Fischer-Pierce	
Fischer-Pierce	,
Fischer-Pierce	
Fischer-Pierce	,
General Electric (GE)	
General Electric (GE)	
General Electric (GE)	
ITT	,
Tyco	
TYPE A CIRCUIT BREAKERS	MODEL
Square D	PDI Sorios
Square D	DDL OCHES
Westinghouse/Cutler-Hammer	

Westinghouse/Cutler-Hammer......FDB Series (2-Pole)

AII

### **MISCELLANEOUS**

AVIATION LIGHTING	MODEL
Hughey & Philips (hugheyandphillips.com) Hughey & Phillips Flight Light, Inc. (flightlight.com)	FlashGuard 3000B
NAVIGATION LIGHTING	MODEL
Tideland (orgasignal.com)	Nova-65 FA-143 LED LR
FUSED SLIP CONNECTORS	MODEL
NOTE: Slip connectors require a six-month evaluation.	
Bussmann	HEB-JW-RYC
METER SERVICE PEDESTAL (LIGHTING)	MODEL
METER SERVICE PEDESTAL (LIGHTING)  Milbank 4-Circuit 240V Lighting	CP3B51C1PBAOMO3 CP3B51D1PBAOMO1 CP3B51D1PBAOMOCS1 USP24-M2100-100-MODOT6 USP16-M2100-100-MODOT
Milbank 4-Circuit 240V Lighting	CP3B51C1PBAOMO3 CP3B51D1PBAOMO1 CP3B51D1PBAOMOCS1 USP24-M2100-100-MODOT6 USP16-M2100-100-MODOT
Milbank 4-Circuit 240V Lighting	CP3B51C1PBAOMO3CP3B51D1PBAOMO1CP3B51D1PBAOMOCS1USP24-M2100-100-MODOT6USP16-M2100-100-MODOTUSP24-M2100-100-MODOT6-480  MODEL82A1 (Single)82B1 (Three Way)82B2 (Three Way)
Milbank 4-Circuit 240V Lighting	CP3B51C1PBAOMO3CP3B51D1PBAOMO1CP3B51D1PBAOMOCS1USP24-M2100-100-MODOT6USP16-M2100-100-MODOTUSP24-M2100-100-MODOT6-480  MODEL82A1 (Single)82B1 (Three Way)82B2 (Three Way)

### IV. POWER SUPPLY EQUIPMENT AND PULL BOXES

All items require a six-month evaluation period.

MAIN SERVICE DISCONNECT ENCLOSURE WITH SAFETY SWITCH (NEMA 4)	MODEL
General Electric (GE)	TE 100 CS
Square D	
Westinghouse	
PREFORMED PULL BOX-CLASS 1 Straight	MODEL
Armorcast Products Company	A6001640TAPCX22 (Box & Lid)
CDR	A14-1730 series-22" (Box & Lid)
Composite Industries	Cl183024PB1P
Oldcastle	H1730-24 (Box)
Oldcastle	PHA173024HO1R
	H1730-PI (Lid)
Oldcastle	173022PC
Strongwell/Quazite	PG1730B532 (Box)
•	PG1730H511 (Lid)
	PG1730BA Series
Synertech	S1730B24AA (Box)
•	S1730HBB0A (Lid)
Flared	, ,
Armorcast Products Company	A6001640TAX24 (Box & Lid)
CDR	A12-1730 series-22" (Box & Lid)
Oldcastle	CHA173024HO1R
Oldcastle	1730/22 FRP
NewBasis	FCA173022CC4126-62 (Box & Lid)
NewBasis	FCA173022CC4749-61 (Box & Lid)
NewBasis	FCA173024T Series (Box & Lid)
Pencell Plastics	PEM-1830-PCX (Box & Lid)
PREFORMED PULL BOX-CLASS 2	MODEL
Straight	
Armorcast Products Company	A6001974TAPCX26 (Box & Lid)
Armorcast Products Company	
CDR	
Composite Industries	,
Oldcastle	
	,
Oldcastle	, ,
Oldcastle	
Strongwell/Quazite	
<b></b>	PG2436H508 (Lid)
	PG2436BA Series
Synertech	
- <i>y</i> ··	S2436HCB0A (Lid)

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PREFORMED PULL BOX-CLASS 2 Flared	MODEL
Armorcast Products Company	A6001974TAX26 (Box & Lid)
Armorcast Products Company	
CDR	
Oldcastle	
Oldcastle	
NewBasis	
NewBasis	,
NewBasis	,
Pencell Plastics	,
Pencell Plastics	
	, ,
Synertech	, ,
	S2436HCBUA (LIQ)
PREFORMED PULL BOX-CLASS 3 Straight	MODEL
Armorcast Products Company	A6001430TAPCX36 (Box & Lid)
CDR	A14-3048 series-36" (Box & Lid)
Composite Industries	Cl304836PB1P
Oldcastle	
	, ,
Oldcastle	` ,
Oldcastle	
Strongwell/Quazite	
Ottorigwell/ Quazite	PG3048H517 (Lid)
	PG3048BA Series
Synertech	
Syneriedi	S3048HCB0A (Lid)
Flared	33040110B0A (Eld)
Armorcast Products Company	A6001550TAX36 (Box & Lid)
CDR	,
Oldcastle	· · · · · · · · · · · · · · · · · · ·
Oldcastle	
NewBasis	
NewBasis	
	,
Pencell Plastics	PEW-3040-30-PCX-SPLIT (BOX & LIU)
PREFORMED PULL BOX-CLASS 5 Flared	MODEL
Armorcast Products Company	A6001466TA (Box & Lid)
Armorcast Products Company	
CDR	,
Oldcastle	,
Oldcastle	
NewBasis	
NewBasis	
NewBasis	· · · · · · · · · · · · · · · · · · ·
NewBasis	
Quazite	FR3944Z3U4

### **HIGHWAY SIGNING EQUIPMENT**

#### V. GENERAL

This Approved Products List (APL) for highway signing equipment contains current pre-approved products for highway signing. This list is applicable to department purchases and construction contracts. The list includes products that have been approved for use based on satisfactory performance during a specified test period. Products listed have undergone sufficient field testing to be considered acceptable for use at any time. All field tests of new products or pending products should be arranged with Central Office Traffic.

The department frequently tests new products and equipment for highway signing. These new products may be installed on a construction project or used for normal department installations and maintenance. Vendors may also submit items, at no cost to the department, for the test period. Only a limited number of units will be accepted for test statewide until the product is added to the Approved Products List. A vendor wishing to initiate a test on a new product shall submit a Product Evaluation Request Form. Copies of this form can be obtained from our website at <a href="https://www.modot.state.mo.us">www.modot.state.mo.us</a> or contact MoDOT Central Office Traffic. Minor model changes of previously approved products do not require a new evaluation period, although the vendor shall submit specification sheets and a sample of the product for the Department to inspect. Any modifications determined to potentially alter the performance of the product may require the product to undergo additional field testing and evaluation.

All product evaluations are coordinated through MoDOT Central Office Traffic. The vendor supplying the equipment shall provide equipment specifications and a certification that the equipment meets department specifications before the test is performed. The equipment is tested for the period specified by Central Office Traffic (typically one year). Products that are not performing satisfactorily will be left off of the list. Products that were previously approved that begin to perform unsatisfactorily will be removed or replaced with an approved product if the vendor cannot provide timely correction of the problem.

If a vendor is proposing a product that does not meet department specifications, an explanation of why the product meets or exceeds the current specifications must be provided by the vendor in writing to Central Office Traffic. If approved, the product may be tested for the specified period as described above. If the product is satisfactory, the Department will consider a revision to the applicable specifications. Products will not be added to the Approved Products List that does not meet department specifications.

Products on the APL shall continue to perform satisfactorily. In addition, the vendors shall support the products. Products not performing as required or not supported are subject to removal from the APL.

Grounds for removal of products include but are not limited to:

- Significant change in product specifications or design without notification to the department.
- Failure to correct or replace products that are defective in manufacturing or workmanship.
- Repeated patterns of malfunctions of a product not adequately corrected by the vendor.
- Unreasonable pricing of repair parts or repair work. Repair work not completed in a reasonable time frame.
- Excessive delivery times for new purchases or replacement parts.

Changes in standard specifications may also necessitate removal of specific products from the APL. If this occurs, there will be a grace period where the product will be retained on the list after the specifications are changed. However the product will eventually be removed from the list if it is not revised to meet specifications.

### **VI. HIGWAY SIGNING EQUIPMENT**

### **BREAKAWAY DEVICES**

MANUFACTURER	DESCRIPTION, MODEL
Ultimate Highway Products Xcessories Squared Xcessories Squared	Kleen Break 425 for 2" PSST, XKB42520-G
Xcessories Squared	Redi-Torque 280 for 2.5" PSST, SB8C-250A-G Redi-Torque 280 Pre-Assembled Slip Base for 2.5" PSST, RT8UX-25C25-G
Xcessories Squared	Redi-Torque Triangular Surface Mount Base, SMSB9-10-G
Xcessories Squared	Redi-Torque Bolt Kit RTSB-MPHDW
Northwest Pipe Company	
Designovations, Inc	
Designovations, Inc	
Dent Breakaway Industries, Inc	
Dent Breakaway Industries, Inc	
Dent Breakaway Industries, Inc	
Dent Breakaway Industries, Inc.	
Dent Breakeway Industries, Inc.	
Dent Breakaway Industries, Inc	3/4 IVIOUITIEU DETIL DOIL, #000Z

### 4 INCH SQUARE STEEL TUBE SIGNPOST - SINGLE POST INSTALLATION ONLY

This post is only used to support the following items:

- Exit Gore Signs
- Flat Sheet Signs 48" wide ranging in height from 60" to 96"
- Community Wayfinding Signs

### MANUFACTURER

Xcessories Squared	MASSH-400 Signpost System with 54" concrete anchor
Atkore Allied Tube and Conduit	SafeSign Signpost System with 54" concrete anchor

**DESCRIPTION, MODEL** 

### **SIGN HARDWARE**

MANUFACTURER	DESCRIPTION, MODEL
Xcessories Squared	
Xcessories Squared	Aluminum Post Clamp for 3" Pipe, XAPC350RD
Xcessories Squared	Aluminum Post Clamp for 4" Pipe, XAPC450RD
Xcessories Squared	Aluminum Post Clamp for Backer Bar, XAB750
Xcessories Squared	Aluminum Sign Backer Bar, ASB200P1
Xcessories Squared	Extruded Panel Clamp for 4" Square Post, EPPCS400SQ
Xcessories Squared	Extruded Panel Clamp for 2" PSST, EPPCS200SQ
Xcessories Squared	Extruded Panel Clamp for 2.5" PSST, EPPCS250SQ

Xcessories Squared	. Flat Sheet Post Clamp for 4" Square Post, SBPCS400SQ
(Used with aluminum sign backer bar ASB200P1)	
Xcessories Squared	. Extruded Panel Clamp for 2.5" Pipe, EPPCS250RD
Xcessories Squared	. Extruded Panel Clamp for 3" Pipe, EPPCS300RD
Xcessories Squared	. Extruded Panel Clamp for 4" Pipe, EPPCS400RD
Xcessories Squared	. Extruded Panel Clamp for 4x4 Wood, EPPCS44W
Xcessories Squared	. Extruded Panel Clamp for 4x6 Wood, EPPCS46W
Xcessories Squared	. Extruded Panel Clamp for 6x6 Wood, EPPCS66W

### **SIGNS**

MANUFACTURER	DESCRIPTION, MODEL

Tapco ...... Blinkersigns

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### **RECENTLY ADDED:**

#### II. TRAFFIC SIGNAL EQUIPMENT

### **CONTROLLERS**

NEMA TS1 CONTROLLERS MODEL

McCain ......ATC eX2 NEMA

(Added March 2021)

### **VIDEO DETECTION SYSTEMS**

VIDEO DETECTOR MODEL

(Added March 2022)

### **RADAR DETECTION SYSTEMS**

RADAR DETECTOR MODEL

Wavetronix SmartSensor Matrix

(Added March 2022)

### **SIGNAL HEADS**

SIGNAL HEADS - POLY CONVENTIONAL MODEL

North American Signal ...... PTXOOBB\_0CB

(Added May 2020)

### **MISCELLANEOUS**

LOOP SEALANTS MODEL

Pecora ......NR-201

(Added March 2021)

#### III. HIGHWAY LIGHTING

### **LED LUMINAIRES**

#### BRACKET ARM MOUNT (120/277V)

LED-A			MODEL	
_				 

American Electric Lighting (AEL) .......ATB0-P203-MVOLT-R3-3K-NL-NR American Electric Lighting (AEL) .......ATB0-P203-MVOLT-R3-3K-NL-P7-SH\*\*

Cree XSPSM-D-HT-3ME-8L-30K7-UL-SV-N-Q7\*

Cree ......RSWM-A-HT-3ME-9L-30K7-UL-GY-N-Q3\*

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Lumec	RPN-65W20LED-730-G1-R3M-UNV-DMG-NRC-GY3
Lumec	RPN-65W20LED-730-G1-R3M-UNV-DMG-PH9-TLRD7-GY3**
Cooper	ARCH-S-PA1-60-730-U-T3-AP-10K-K
Cooper	ARCH-S-PA1-60-730-U-T3-AP-10K-K-PSC-PR7**
GE	ERLH-0-10-C3-30-D-GRAY-G-R**
(Added July 2022)	

LED-B	MODEL
American Electric Lighting (AEL)	ATB0-P303-MVOLT-R3-3K-GRAY-NL-NR
American Electric Lighting (AEL)	ATB0-P303-MVOLT-R3-3K-GRAY-NL-P7-SH**
Cooper	ARCH-S-PA2-110-730-U-T3-AP-10K-K
Cooper	ARCH-S-PA2-110-730-U-T3-AP-10K-K-PSC-PR7**
Lumec	RPM-105W40LED-730-G1-R3M-UNV-DMG-NRC-GY3
Lumec	RPM-105W40LED-730-G1-R3M-UNV-DMG-PH9-TLRD7-GY3**
(Added July 2022)	

 LED-C
 MODEL

 American Electric Lighting (AEL)
 ATB0-P453-MVOLT-R3-3K-NL-NR

 American Electric Lighting (AEL)
 ATB0-P453-MVOLT-R3-3K-NL-P7-SH\*\*

 Cooper
 ARCH-M-PA2-160-730-U-T3-AP-10K-K

 Cooper
 ARCH-M-PA2-160-730-U-T3-AP-10K-K-PSC-PR7\*\*

 Cree
 XSPLG-D-HT-3ME-24L-30K7-UL-SV-N-Q6\*

 Lumec
 RPM-130W60LED-730-G1-R3M-UNV-DMG-NRC-GY3

 Lumec
 RPM-130W60LED-730-G1-R3M-UNV-DMG-PH9-TLRD7-GY3

 (Added July 2022)

### **BRACKET ARM MOUNT (480V)**

LED-A	MODEL
American Electric Lighting (AEL)	ATB0-P203-480-R3-3K-NL-NR
American Electric Lighting (AEL)	ATB0-P203-480-R3-3K-NL-P7-SH**
Cree	XSPSM-D-HT-3ME-8L-30K7-UH-SV-N-Q7*
Cree	RSWM-A-HT-3ME-9L-30K7-UH-GY-N-Q3*
Cooper	ARCH-S-PA1-60-730-8-T3-AP-10K-K
Cooper	ARCH-S-PA1-60-730-8-T3-AP-10K-K-PSC-PR7**
Leotek	GCJ2-20H-HV-WW-3-GY-1A-WL-4B
Leotek	GCJ2-20H-HV-WW-3-GY-1A-PCR7-WL-4B-SC**
Lumec	RPN-65W20LED-730-G1-R3M-HVU-DMG-NRC-GY3
Lumec	RPN-65W20LED-730-G1-R3M-HVU-DMG-PH9-TLRD7-GY3**
(Added July 2022)	

LED-B	MODEL
American Electric Lighting (AEL)	ATB0-P303-480-R3-3K-NL-NR
American Electric Lighting (AEL)	ATB0-P303-480-R3-3K-NL-P7-SH**
Cooper	ARCH-S-PA2-110-730-8-T3-AP-10K-K
Cooper	ARCH-S-PA2-110-730-8-T3-AP-10K-K-PSC-PR7**

Cree	XSPLG-D-HT-3ME-18L-30K7-UH-SV-N-Q5*
Cree	RSWL-A-HT-3ME-14L-30K7-UH-GY-N-Q9*
Lumec	RPM-105W40LED-730-G1-R3M-HVU-DMG-NRC-GY3
Lumec	RPM-105W40LED-730-G1-R3M-HVU-DMG-PH9-TLRD7-GY3**
(Added	July 2022)

 LED-C
 MODEL

 American Electric Lighting (AEL)
 ATB0-P453-480-R3-3K-NL-NR

 American Electric Lighting (AEL)
 ATB0-P453-480-R3-3K-NL-P7-SH\*\*

 Cooper
 ARCH-M-PA2-160-730-8-T3-AP-10K-K

 Cooper
 ARCH-M-PA2-160-730-8-T3-AP-10K-K-PSC-PR7\*\*

 Cree
 XSPLG-D-HT-3ME-24L-30K7-UH-SV-N-Q6\*

 Lumec
 RPM-130W60LED-730-G1-R3M-HVU-DMG-NRC-GY3

Lumec ......RPM-130W60LED-730-G1-R3M-HVU-DMG-PH9-TLRD7-GY3\*\*

(Added July 2022)

### AVIATION LIGHTING MODEL

Hughey & Philips (hugheyandphillips.com)	Horizon AC Series
Hughey & Phillips	FlashGuard 3000B
Flight Light, Inc. (flightlight.com)	
(All products for Aviation Lighting are new, added December 2021)	

### NAVIGATION LIGHTING MODEL

Tideland (orgasignal.com)	MaxiHALO-60 II
Tideland	Nova-65
Pharos Marine Automatic Power, Inc	FA-143 LED LR
Pharos Marine Automatic Power, Inc.	FA-249 RF-14-LED
(All products for Navigation Lighting are new, added December 2027	1)

### IV. POWER SUPPLY EQUIPMENT AND PULL BOXES No updates

#### **VI. HIGWAY SIGNING EQUIPMENT**

### 4 INCH SQUARE SIGNPOST - SINGLE POST INSTALLATION ONLY

This post is only used to support the following items:

- Exit Gore Signs
- Flat Sheet Signs 48" wide ranging in height from 60" to 96"
- Community Wayfinding Signs

MANUFACTURER	MODEL
Xcessories Squaredconcrete anchor	MASSH-400 Signpost System w/54"
Atkore Allied Tube and Conduitanchor	SafeSign Signpost System w/54" concrete
(This section, 4 Inch Square Signpost, is new to the APL a June 202	22)

### SIGN HARDWARE

MANUFACTURER	DESCRIPTION, MODEL
Xcessories SquaredEPPCS400SQ	Extruded Panel Clamp for 4" Square Post,
Xcessories Squared	Flat Sheet Post Clamp for 4" Square Post, acker bar ASB200P1)
(Added June 2022)	

### **RECENTLY REMOVED:**

### **II. TRAFFIC SIGNAL EQUIPMENT**

### **CONTROLLERS**

NEMA TS1 CONTROLLERS	MODEL
Siemens	EPAC M52
(Removed August 2021, item no longer manufactured) Econolite	ASC/3-2100
(Removed October 2021, item no longer manufactured) Trafficware	980
(Removed November 2021)	
NEMA ON-STREET MASTER CONTROLLER	MODEL
Siemens(Removed October 2021, item no longer manufactured)	EPAC M52 with SEMARC
SOLID STATE PRETIMED CONTROLLERS (ALL TYPES) No currently accepted models. (Removed October 2021, no available models)	MODEL
170 CONTROLLERS Phillips/Sisson Industries, Inc.	MODEL 170F
(Removed October 2021, item no longer manufactured)	
Safetran(Removed December 2021, item no longer manufactured)	170⊑

### CABINETS AND BACK PANELS (NEMA & S.S. PRETIMED)

### **NEMA CABINET AND BACK PANEL ASSEMBLIES**

IDC/Gibbons

(Removed October 2021, item no longer manufactured)

### SOLID STATE PRETIMED CABINET AND BACK PANEL ASSEMBLIES

Eagle

(Removed October 2021, category removed)

### CABINETS AND RACKS (TYPE 170 CONTROLLERS)

### 332 AND 336S CABINET AND RACK ASSEMBLIES

Phillips/Sisson Industries, Inc.

(Removed October 2021, item no longer manufactured)

### **CONFLICT MONITORS**

NEMA CONFLICT MONITORS Power Distribution & Control (PDC)	CM82-06 CM82-12 NM-6 NM-12 LCD-6P
CABINET ACCESSORIES	
AUXILIARY TIME CLOCK Eltec(Removed November 2021, item no longer manufactured)	MODEL NTC-17E
DETECTORS	
MICROLOOP, PROBE	MODEL
3M	Canoga 701
(Removed December 2021, item no longer manufactured)	
POWER SUPPLY FOR CARD RACK DETECTORS - NEMA	MODEL
ICC(Removed December 2021, item no longer manufactured)	PS24
SINGLE CHANNEL SHELF MOUNT DETECTORS, STANDARD	MODEL
Sarasota	108/535B
(Removed December 2021, item no longer manufactured)	
SINGLE CHANNEL SHELF MOUNT DETECTORS, TIME DELAY	MODEL
Sarasota(Removed December 2021, item no longer manufactured)	108/535T CHAS 535T
2-CHANNEL CARD RACK COUNTING DETECTORS, SINGLE OUTPUT PULSE MODE (NEMA)	MODEL
Eberle Design Incorporated (EDI)(Removed November 2021, item no longer manufactured)	LMD632
2-CHANNEL CARD RACK COUNTING DETECTORS, SINGLE OUTPUT PULSE MODE (NEMA)	MODEL
ICC(Removed December 2021, item no longer manufactured)	S27B

2-CHANNEL CARD RACK DETECTORS, STANDARD (NEMA)	MODEL
ICC(Removed December 2021, item no longer manufactured)	S27B
SIGNAL HEADS	
BACKPLATES	MODEL
Neodesia Plastics	BP Series
Intelight(Removed November 2021, item no longer manufactured)	BP INTLIT Series
SIGNAL HEADS - OPTICALLY LIMITED	MODEL
Intelight, Inc(Removed November 2021, item no longer manufactured)	ESB Series
CICNAL LIFADO DOLV CONVENTIONAL	MODEL
SIGNAL HEADS - POLY CONVENTIONAL	MODEL
IDC/Safetrans(Removed November 2021, item no longer manufactured)	
IDC/Safetrans	
IDC/Safetrans(Removed November 2021, item no longer manufactured)	
IDC/Safetrans	LT Series
IDC/Safetrans	LT Series

### **III. HIGHWAY LIGHTING**

### **LED LUMINAIRES**

### **BRACKET ARM MOUNT (120/277V)**

LED-A MODEL

American Electric Lighting (AEL) .......ATB0-20BLEDE10-MVOLT-R3-3K-NL-NR American Electric Lighting (AEL) .......ATB0-20BLEDE10-MVOLT-R3-3K-NL-P7-SH\*\* (Removed July 2022)

Cree (Removed July 2022, replaced by new Eaton Eaton (Removed July 2022, now under Coop Philips/Lumec	.ARCH-AF24-70-D-U-T3-7030-10K-K-AP .ARCH-AF24-70-D-U-T3-7030-4N7-10K-K-AP-OA/RA1013** per and new nomenclature) .RFM-72W32LED-3K-G2-R3M-UNV-DMG-SP1-API-GY3 .RFM-72W32LED-3K-G2-R3M-UNV-DMG-RCD7-PH9-SP1-API-GY3**		
LED-B	MODEL		
American Electric Lighting (AEL) (Removed July 2022) Cree	.ATBM-P30-MVOLT-R3-4 BOLT-3K-GRAY-NL-NR .ATBM-P30-MVOLT-R3-4 BOLT-3K-GRAY-NL-P7-SH** .BXSP2-HO-HT-3ME-165W-30K-UL-SV-UTL		
Cree(Removed July 2022, replaced by new	.BXSP2-HO-HT-3ME-165W-30K-UL-SV-R-UTL*		
Eaton Eaton (Removed July 2022, now under Coop	.ARCH-M-AF48-130-D-U-T3-7030-10K-K-AP .ARCH-M-AF48-130-D-U-T3-7030-4N7-10K-K-AP-OA/RA1013**		
•	.RFL-145W64LED-3K-G2-R3M-UNV-DMG-RCD7-PH9-SP1-API-GY3**		
American Electric Lighting (AEL)	MODEL .ATB2-60BLEDE10-MVOLT-R3-3K-NL-NR .ATB2-60BLEDE10-MVOLT-R3-3K-NL-P7-SH**		
•	.RFL-180W80LED-3K-G2-R3M-UNV-DMG-SP1-API-GY3 .RFL-180W80LED-3K-G2-R3M-UNV-DMG-RCD7-PH9-SP1-API-GY3** ver model)		
BRACKET ARM MOUNT (480V)			
LED-A	MODEL		
• • • •	.ATB0-20BLEDE10-480-R3-3K-NL-NR .ATB0-20BLEDE10-480-R3-3K-NL-P7-SH**		
	.BXSP1-HO-HT-3ME-100W-30K-UH-SV-UTL .BXSP1-HO-HT-3ME-100W-30K-UH-SV-R-UTL*		
(Removed July 2022, replaced by nev			
Philips/Lumec	.RFM-72W32LED-3K-G2-R3M-HVU-DMG-SP1-API-GY3		
Philips/Lumec(Removed July 2022, replaced by nev	.RFM-72W32LED-3K-G2-R3M-HVU-DMG-RCD7-PH9-SP1-API-GY3** ver model)		

Eaton ......ARCH-AF24-70-D-8-T3-7030-10K-K-AP

(Removed July 2022, replaced by new	ARCH-AF24-70-D-8-T3-7030-4N7-10K-K-AP-OA/RA1013** wer model)	
LED-B	MODEL	
American Electric Lighting (AEL)	ATBM-P30-480-R3-4 BOLT-3K-GRAY-NL-NR	
American Electric Lighting (AEL)	ATBM-P30-480-R3-4 BOLT-3K-GRAY-NL-P7-SH**	
(Removed July 2022)		
Cree	BXSP2-HO-HT-3ME-165W-30K-UH-SV-UTL	
Cree	BXSP2-HO-HT-3ME-165W-30K-UH-SV-R-UTL*	
(Removed July 2022, replaced by newer model)		
Eaton	ARCH-M-AF48-130-D-8-T3-7030-10K-K-AP	
Eaton	ARCH-M-AF48-130-D-8-T3-7030-4N7-10K-K-AP-OA/RA1013**	
(Removed July 2022)		
Philips/Lumec	RFL-145W64LED-3K-G2-R3M-HVU-DMG-SP1-API-GY3	

LED-C MODEL

(Removed July 2022, replaced by newer model)

Philips/Lumec......RFL-145W64LED-3K-G2-R3M-HVU-DMG-RCD7-PH9-SP1-API-GY3\*\*

### HIGH PRESSURE SODIUM LUMINAIRES

BRACKET ARM MOUNT - 150 WATT	MODEL
American Electric Lighting Crouse-Hinds/Cooper Crouse-Hinds/Cooper General Electric (GE) (Removed October 2021, items no longer manufactured)	OVZ Series OVX Series
BRACKET ARM MOUNT - 250 WATT	MODEL
Crouse-Hinds/Cooper	OVX Series
BRACKET ARM MOUNT - 400 WATT	MODEL
Crouse-Hinds/Cooper	Durastar 2000, Series 30hm

### **HIGH MAST LIGHTING**

Holophane(December 2021, item does not meet specifications)	HMS Series
SIGN LIGHTING - 250 WATT	MODEL
HolophaneHolophane(Removed October 2021, items no longer manufactured)	PANL Series SNVW Series
SIGN LIGHTING - 400 WATT	MODEL
HolophaneHolophane(Removed October 2021, items no longer manufactured)	

### **CONTROL EQUIPMENT**

MOUNTING SOCKET FOR PHOTOELECTRIC CONTROL	MODEL
General Electric(Removed December 2021, item no longer available)	MB-PECTL

### **MISCELLANEOUS**

(Removed August 2021)

AVIATION LIGHTING	MODEL
Hughey & Philips(Removed December 2021, item no longer manufactured)	KG114
NAVIGATION LIGHTING	MODEL
Tideland	ML-140 with TF-3AC Lamp Changer
(Removed December 2021, item no longer manufactured) Pharos Marine Automatic Power, Inc(Removed December 2021, item no longer manufactured)	FA-143
FUSED SLIP CONNECTORS	MODEL
IDEAL	30-S2212

### IV. POWER SUPPLY EQUIPMENT AND PULL BOXES No updates

VI. HIGWAY SIGNING EQUIPMENT
No updates

### **RECENTLY REVISED:**

#### II. TRAFFIC SIGNAL EQUIPMENT

### **CONTROLLERS**

170 CONTROLLERS	MODEL
Safetran	170E
Changed October 2021:	
Econolite	170E

### CABINETS AND BACK PANELS (NEMA & S.S. PRETIMED)

#### **NEMA CABINET AND BACK PANEL ASSEMBLIES**

Control Technology Changed October 2021: Control Technologies

Henke/Bison

Changed October 2021:

Bison

Eagle

Changed October 2021:

Mobotrex

### **CABINETS AND RACKS (TYPE 170 CONTROLLERS)**

### 332 AND 336S CABINET AND RACK ASSEMBLIES

Eagle

Changed October 2021:

Mobotrex

### **CABINET ACCESSORIES**

AUXILIARY TIME CLOCK	MODEL
Eltec	TC-14
Eltec	TC-18
RTCChanged October 2021, updated to current model:	AP41
RTC	AP22
EXTERNAL T.B.C. COORDINATORS	MODEL
Eltec	TC-14
Changed October 2021, updated to current model: Eltec	
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### **DETECTORS**

MICROWAVE DETECTORS	MODEL
Microwave Sensors	1C-26B
MS Sedco	
We deduce	
PEDESTRIAN PUSH BUTTONS	MODEL
Campbell	4 EVR 120
Changed October 2021, updated to current model:	
Campbell	4 EVR MOAB
ULTRASONIC DETECTORS	MODEL
Microwave Sensors	TC-30
Changed October 2021 to reflect current manufacturer:	
MS Sedco	TC-30
2-CHANNEL CARD RACK DETECTORS, STANDARD (170)	MODEL
Sarasota	222-GP5
Sarasota	
Changed October 2021 to reflect current manufacturer:	
Oriux	222-GP5
Oriux	222 GP6
SNAL HEADS	
BACKPLATES	MODEL
Chapel Hill	44xx Series
Changed October 2021 to reflect current manufacturer:	
Traffic Parts	44xx Series
POLYCARBONATE SIDE-MOUNT BRACKETS WITH RELATED HARDWARE	MODEL
Eagle	UKS1452AB
Changed October 2021 to reflect current manufacturer:	
Mobotrex	UKS1452AB
SIGNAL HEADS - POLY CONVENTIONAL	MODEL
Chapel Hill	SIG-TPB-305-CTN-NVN-0N (3 section)
Chapel Hill	SIG-TPB-586-CTN-NVN-0N (5 section)
Changed October 2021 to reflect current manufacturer:	
Traffic Parts	` ,
Traffic Parts	SIG-TPB-586-CTN-NVN-0N (5 section)
Eagle	SA Series
Changed October 2021 to reflect current manufacturer:	
Mobotrex	SA Series
Peek	PSS Series

Mobotrex ......SG7MZ1xC1BBF10-00

### **HARDWARE**

STRANDVISE	MODEL
Reliable 3/8" Strandvise	5202
Reliable 1/4" Strandvise	5200
Changed October 2021:	
MacLean Power Systems	5202 (Reliable 3/8" Strandvise)
MacLean Power Systems	5200 (Reliable 1/4" Strandvise)

### **MISCELLANEOUS**

**LOOP SEALANTS** 

(Loop sealants do not require material certification)	
Chemque	290S
Chemque	296-06
Changed October 2021:	
Traffic Control Corp	290S
Traffic Control Corp	296-06

### METER SERVICE PEDESTAL (SIGNALS/SIGNALS & LIGHTING) MODEL

Pacific Utility Products 120V Signal with 2-Circuit 240V Lighting .......USP24-M2100-100-MODOT6-TSL Changed 12/2/2021, USP24R reflects a ringless meter socket required by utilities:

Pacific Utility Products 120V Signal with 2-Circuit 240V Lighting .......USP24R-M2100-100-MODOT6-TSL

### **VIDEO DETECTION SYSTEMS**

**VIDEO DETECTOR** 

Peek Traffic CorpPeek Traffic Corp	VideoTrak IQ-ITS
Peek Traffic Corp	

### **III. HIGHWAY LIGHTING**

### **BRACKET ARM MOUNT (120/277V)**

LED-A MODEL

**MODEL** 

**MODEL** 

### **BRACKET ARM MOUNT (480V)**

### **CONTROL EQUIPMENT**

CONTACTORS-ELECTROMECHANICAL

Westinghouse/Cutler-Hammer(Changed October 2021: Eaton)	A202 Series
Eaton	A202 Series
PHOTOELECTRIC CONTROL	MODEL
Area Lighting Research	SST-120 (120 volt)
Area Lighting Research	
Area Lighting Research	
Changed March 2021, TE Connectivity purchased Area Lighting	
TE Connectivity	
TE Connectivity	
TE Connectivity	
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**MODEL** 

TYPE A CIRCUIT BREAKERS	MODEL	
Square D	FAL Series	
Changed March 2021, updated to current model: Square D	BDL Series	
IV. POWER SUPPLY EQUIPMENT AND PULL BOXES		
PREFORMED PULL BOX-CLASS 1	MODEL	
Straight Oldestle (Previously Carson Industries)	⊔1720 24 (Bov)	
Oldcastle (Previously Carson Industries) Oldcastle (Previously Highline)	PHA173024HO1R	
Oldcastle (Previously Martin Enterprises)		
Flared		
Oldcastle (Previously Highline)	CHA173024HO1R	
Oldcastle (Previously Martin Enterprises)	1730/22 FRP	
PREFORMED PULL BOX-CLASS 2 Straight	MODEL	
Oldcastle (Previously Carson Industries)	` ,	
Oldcastle (Previously Highline)		
Oldcastle ( <i>Previously Martin Enterprises</i> )		
Flared		
Oldcastle (Previously Highline)	CHA243624HO1R	
Oldcastle (Previously Martin Enterprises)	2436/24 FRP	
PREFORMED PULL BOX-CLASS 3 Straight	MODEL	
Oldcastle (Previously Carson Industries)		
Oldsoda (Dravious Librations)	,	
Oldcastle (Previously Highline)		
Flared		
Oldcastle (Previously Highline)	CHA304836HO1R	
Oldcastle (Previously Martin Enterprises)	3048/36 FRP	
PREFORMED PULL BOX-CLASS 5 Flared	MODEL	
Oldcastle (Previously Highline)	CRA3236H01	
Oldcastle (Previously Martin Enterprises)	320036 FRP	

### VI. HIGWAY SIGNING EQUIPMENT No updates

### III. HIGHWAY LIGHTING No updates

### IV. POWER SUPPLY EQUIPMENT AND PULL BOXES No updates

### **VI. HIGWAY SIGNING EQUIPMENT**

### **SIGN HARDWARE**

MANUFACTURER	DESCRIPTION, MODEL
Xcessories Squared(Previously: Aluminum Bar for Post Clamps, XAB75	
Xcessories Squared	Flat Sheet Post Clamp for 4" Square Post, SBPCS400SQ (Used with aluminum sign backer bar ASDZ00P???)

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