

### POWER & COMMUNICATION LEGEND

⊕	120V DUPLEX OUTLET	⊕	MOTOR EQUIPMENT CONNECTION
⊕	120V QUAD OUTLET	⊕	ELECTRICAL DISCONNECT
⊕	208 OR 240 VOLT RECEPTACLE	⊕	ELECTRICAL CONNECTION W/DISCONNECT
⊕	120V CEILING RECEPTACLE	⊕	ELECTRICAL CONNECTION W/WEATHER PROOF DISCONNECT
▽	DATA/COMMUNICATION OUTLET	⊕	ELECTRICAL PANEL
▽	TELEPHONE OUTLET	⊕	THERMOSTAT MOUNTED AT 48" A.F.F.
▽	TV OUTLET	⊕	SMOKE/CO ALARM
▽	DATA/TV COMBO OUTLET	⊕	SMOKE ALARM
⊕	FLOOR BOX	⊕	NITROGEN DIOXIDE DETECTOR
⊕	JUNCTION BOX	⊕	CARBON MONOXIDE DETECTOR
⊕	E-STOP FOR GRILL OR FIRE PIT	⊕	SMOKE DAMPER
⊕	TIMER FOR FRILL OR FIRE PIT		
BC	BELOW COUNTER OUTLET		
AC	ABOVE COUNTER OUTLET		
D	DEDICATED RECEPTACLE		
GFI	GROUND FAULT CIRCUIT INTERRUPTER		
WP/GFI	WEATHER PROOF COVER WITH GFI		
⊕	FIRE/SMOKE DAMPER		

### LIGHTING LEGEND

⊕	RECESSED 2X4 FIXTURE	⊕	SINGLE POLE SWITCH
⊕	RECESSED 2X2 FIXTURE	⊕	THREE WAY SWITCH
⊕	SURFACE MOUNT 1X4 FIXTURE	⊕	FOUR WAY SWITCH
⊕	SURFACE MOUNT 2X4 FIXTURE	⊕	OCCUPANCY SENSORS
⊕	WALL MOUNTED FIXTURE	⊕	VACANCY SENSORS
⊕	CEILING MOUNTED STRIP FIXTURE	⊕	CEILING OCCUPANCY SENSORS
⊕	RECESSED OR DISC FIXTURE	⊕	LIGHTING CONTROL TIME CLOCK
⊕	WALL MOUNTED FIXTURE	NL	INDICATES NIGHT LIGHT FIXTURE
⊕	SURFACE CEILING MOUNTED FIXTURE	o.b	INDICATES LIGHT FIXTURE SWITCH LEG
⊕	PENDANT MOUNTED FIXTURE	P-X	INDICATES PANEL AND CIRCUIT NUMBER
⊕	EXTERIOR POLE MOUNTED FIXTURE	1	INDICATES LIGHT FIXTURE TYPE
⊕	BOLLARD OR GROUND MOUNTED FIXTURE	EX	INDICATES EXISTING FIXTURE
⊕	EMERGENCY LIGHTING FIXTURE	RL	INDICATES RELOCATED FIXTURE
⊕	EMERGENCY EXIT SIGN	TC	INDICATES TIME CLOCK CONTROLLED FIXTURE
⊕	EMERGENCY EXIT SIGN WITH EMERGENCY HEADS	EM	INDICATES FIXTURE EMERGENCY OR STANDBY POWER
⊕	EXTERIOR EMERGENCY EGRESS LIGHT		

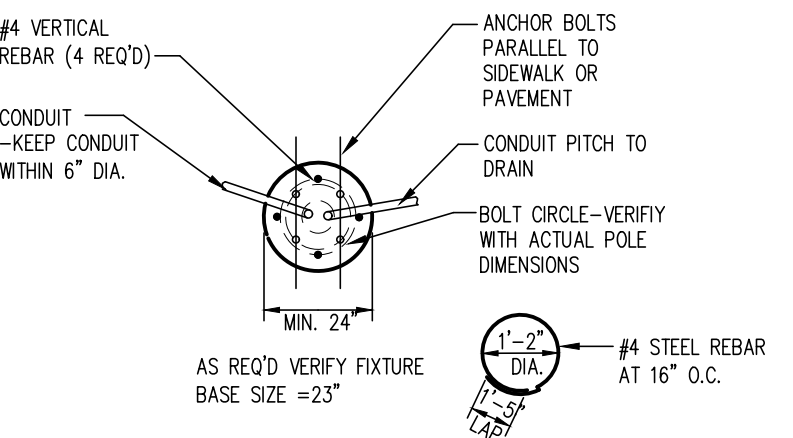
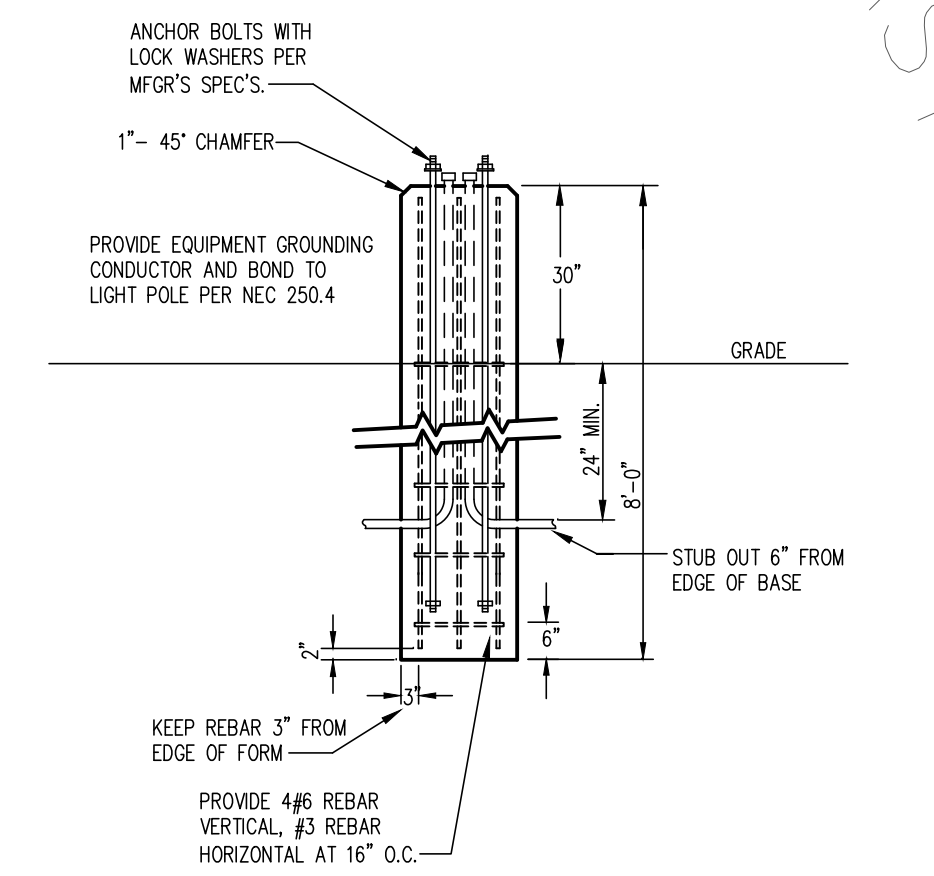
- ### SITE NOTES
- PRIOR TO ANY DIGGING, TRENCHING, ETC. CONTACT ALL LOCAL UTILITY COMPANIES AND MUNICIPALITIES AND CONFIRM EXACT LOCATIONS OF ALL EXISTING UTILITIES.
  - MATERIALS AND EQUIPMENT SHALL BE LISTED AND/OR LABELED BY UL OR ANOTHER NATIONALLY RECOGNIZED TESTING LABORATORY.
  - ALL MATERIAL, EQUIPMENT, WIRING DEVICES, ETC SHALL BE NEW, UNLESS SPECIFICALLY NOTED AS EXISTING TO BE REUSED.
  - ALL MATERIALS AND EQUIPMENT SHALL BE STORED, HANDLED, ERECTED, INSTALLED, CONNECTED, CLEANED, ADJUSTED, TESTED, CONDITIONED AND PLACED IN SERVICE IN ACCORDANCE WITH THE MANUFACTURERS' DIRECTIONS AND RECOMMENDATIONS.
  - ALL POLE FIXTURES TO BE LOCATED 4' AWAY FROM EDGE OF CURB.
  - ALL EXTERIOR LIGHT FIXTURES TO BE CONNECTED TO A COMMON EQUIPMENT GROUND. USE #8, TYPE THWN.
  - THE CONTROLLING LIGHTING CONTACTORS SHALL BE MOUNTED INSIDE THE BUILDING WITH TIME-CLOCK CONTROL & REMOTE PHOTOCELLS LOCATED ON THE EXTERIOR SIDE OF THE BUILDING WALL. INSTALL PHOTOCELLS AT LOCATIONS WHERE BUILDING OR OTHER OBSTRUCTIONS WILL NOT INTERFERE WITH THEIR PROPER OPERATION. FINAL BRANCH CIRCUIT SUPPLY CONNECTIONS WILL BE PROVIDED BY THE BUILDING ELECTRICAL CONTRACTORS.
  - MIN. BURIAL DEPTH FOR THE LIGHTING CIRCUIT SHALL BE 24". A SLIGHT DECREASE IN DEPTH IS ALLOWED WITHIN 10' OF THE POLES.
  - VERIFY CONSTRUCTION AREAS ON OTHER SITE PLANS FOR POTENTIAL OBSTACLES AND CONSTRUCTION LIMITS.

- ### ELECTRICAL GENERAL NOTES
- THIS PLAN WAS ENGINEERED BY BERD ELECTRIC AND FOR THE USE BY BERD ELECTRIC ONLY. THE ENGINEER OF RECORD DOES NOT CERTIFY THESE DRAWINGS IF USED BY OTHER PARTIES.
  - ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH NATIONAL, STATE AND LOCAL ELECTRICAL & BUILDING CODES.
  - COORDINATE WORK WITH ALL OTHER TRADES.
  - EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
  - ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED AT ALL LOCATIONS.
  - ALL MEASUREMENTS TO TOP OF BOX.
  - GFI PROTECT ALL RECEPTACLES WITHIN 6' OF EVERY SINK.
  - DRAWINGS ONLY REPRESENT AN APPROXIMATE LOCATION OF ALL RECEPTACLES, SWITCHES, LIGHTS, TV/DATA JACKS, ELECTRICAL EQUIPMENT, ETC. FINAL LOCATIONS WILL BE DETERMINED IN THE FIELD AND MAY VARY FROM DRAWINGS DUE TO UNFORESEEN CIRCUMSTANCES.
  - PROVIDE GFCI PROTECTION FOR ALL AREAS LISTED UNDER NEC 210.8.
  - PROVIDE TAMPER RESISTANT RECEPTACLES IN ALL AREAS LISTED UNDER NEC 406.12.

### LIGHTING FIXTURE SCHEDULE - EXTERIOR

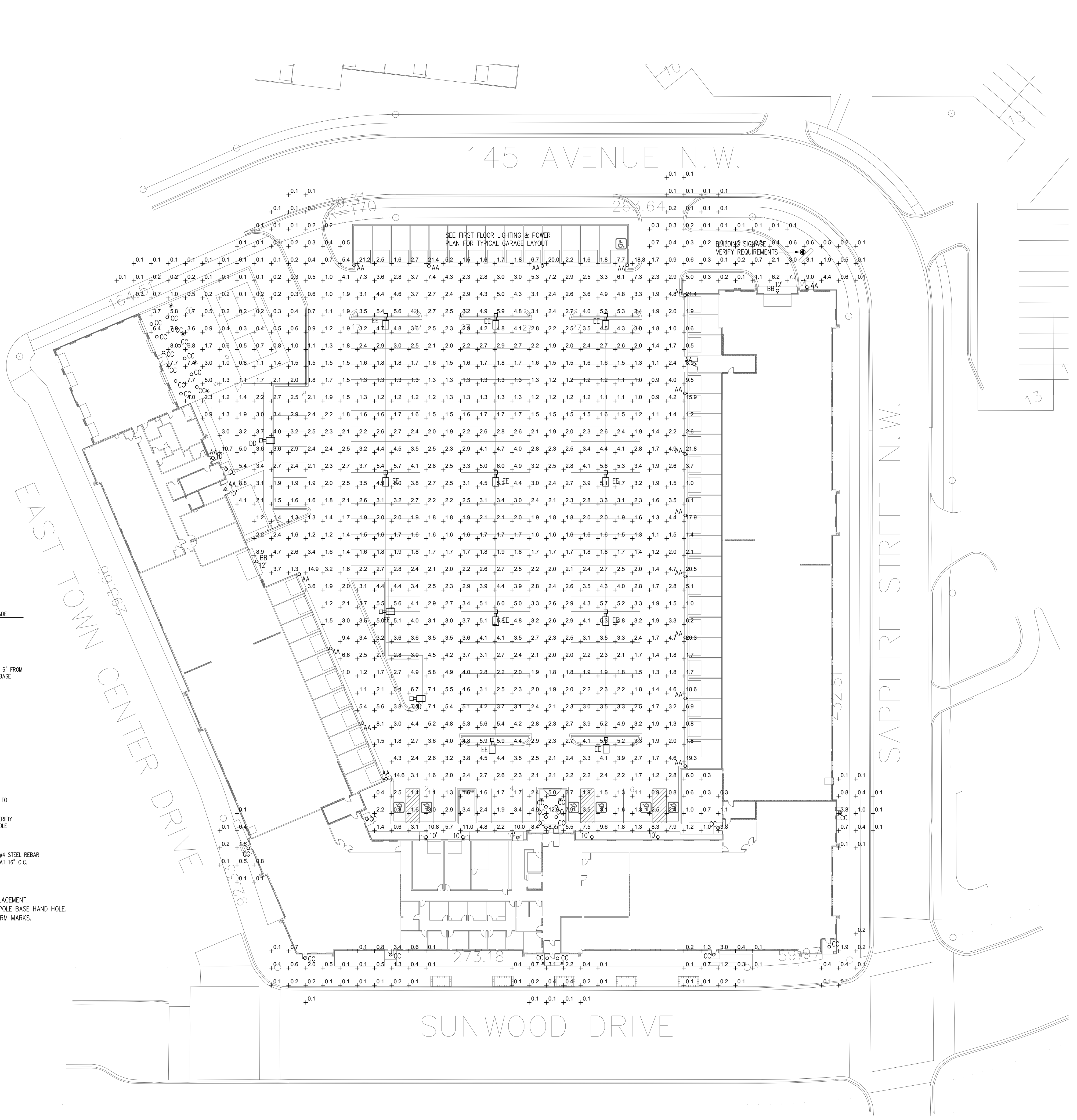
TYPE	LAMPS	WATTAGE	DESCRIPTION	NOTES
AA	LED	27	SMALL EXTERIOR WALL PACK	MWP10
BB	LED	27	MEDIUM EXTERIOR WALL PACK	MWP10
CC	LED	15	EXTERIOR RECESSED DOWNLIGHT	-
DD	LED	100	POLE MOUNT FIXTURE, TYPE III OPTICS, 20' MOUNTING HEIGHT	MAL05
EE	LED	100	POLE MOUNT FIXTURE, TYPE V OPTICS, 20' MOUNTING HEIGHT	MAL05

NOTES:

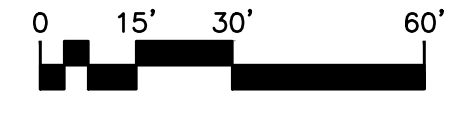


NOTE:  
 1) USE MFG'S DIMENSIONS FOR EXACT ANCHOR BOLT AND COVER PLACEMENT.  
 2) INSTALL IN-LINE FUSES IN EACH UNGROUNDED CONDUCTOR WITHIN POLE BASE HAND HOLE.  
 3) TROWEL FINISH EXPOSED PORTION OF BASE TO REMOVE/COVER FORM MARKS.

2 POLE BASE DETAIL  
 NOT TO SCALE



1 SITE PHOTOMETRIC PLAN  
 SCALE: 1" = 30'-0"



PRELIMINARY SET

SKYLINE ON SUNWOOD  
 RAMSEY, MN  
 SITE PHOTOMETRIC PLAN

DRAWING NO.  
 E1.2

DATE	REVISION	DESCRIPTION	BY
5/8/24 <td>A <td>AS SHOWN <td></td> </td></td>	A <td>AS SHOWN <td></td> </td>	AS SHOWN <td></td>	
	B <td>D/K <td></td> </td>	D/K <td></td>	
	C <td>D/K <td></td> </td>	D/K <td></td>	
	D <td>D/K <td></td> </td>	D/K <td></td>	

DATE: 5/8/24  
 SCALE: AS SHOWN  
 DRAWN BY: D/K  
 CHECKED BY: D/K  
 JOB NO. 774

**BERD!**  
**ELECTRIC LLC**  
 Professional Electrical Engineering  
 10000 Birchwood Drive, Suite 100  
 Minneapolis, MN 55426  
 Phone: 612-555-1111  
 Fax: 320-658-0372





# Skyline on Sunwood - Ramsey, MN

## Light Fixture Package - SITE

Date:	6/12/2024
Job #:	24-0774

### SITE LIGHTING

Fixture Type	Vendor / Brand	Part #	Description
AA		mwp10 27w 27v 50k d	wall pack
BB		mwp10 27w 27v 50k d	wall pack
CC	sunco	dl-dk56-15w-3k	led disk
DD		mal05100w27v50kdsqt3/msss41120d	pole light
EE		mal05100w27v50kdsqt5/msss41120d	pole light

# WALL PACK (MWP10)



TYPE AA, BB  
MWP10 27W 27V 50K D

## DESCRIPTION

Slim wall pack is available in two sizes for a variety of applications including building perimeter, entrances, stairways and security lighting. MWP10 series of luminaires provides a low-profile architectural style with the power of bright, energy efficient LEDs. It has a rugged aluminum construction with multi-mount capabilities. 0° to +90° tilt adjustments. For a building that has a modern or futuristic look.

## SPECIFICATION FEATURES

### Construction

- Sealed die-casting profile for outdoor applications.
- Suitable for applications requiring 3G testing prescribed by ANSI C136.31.

### Optics

- Light engines are available in standard 3000K/4000 K and 5000 K (70 CRI) configurations.
- Scalable Lumen Packages from 3,500 to 10,500 Lumens.
- UV coated lens provide outstanding performance, uniformity and glare control.

### Electrical

- Standard drivers feature electronic universal voltage (120-277V 50/60Hz) operation.
- Greater than 0.9 power factor, less than 20% harmonic distortion, and is suitable for operation in -40°C to 40°C ambient environments.

### Lifespan

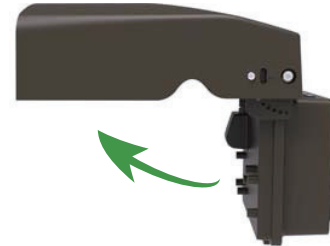
- Estimated 50,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

### Warranty

- Five-year warranty.

### Applications

- Security, pathway and perimeter lighting, Building entryways and walkways.

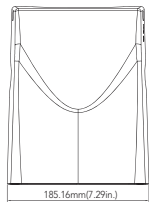


Head tilts to 90degree

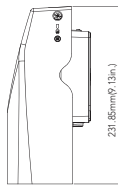
## DIMENSIONS

unit: mm/inch

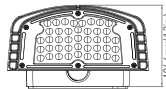
Small size: 27W/40W



185.16mm(7.29in.)



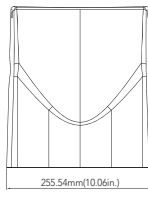
231.86mm(9.13in.)



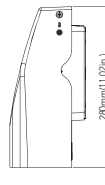
106.6mm(4.2in.)

Net Weight:  
27W: 3.351lb  
40W: 3.968lb

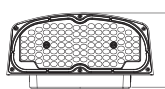
Medium size: 67W/80W



255.54mm(10.06in.)

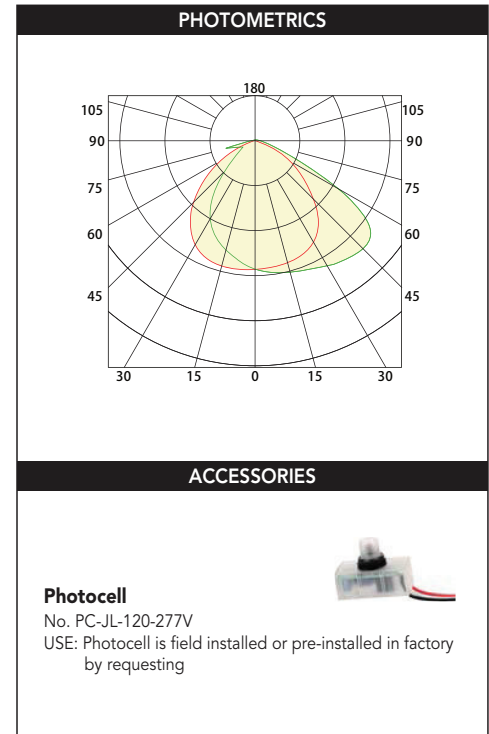


280mm(11.02in.)



129.3mm(5.09in.)

Net Weight:  
67W: 7.319lb  
80W: 7.804lb



**Mounting**  
0° to +90° tilt adjustments. To meet the needs of customers with different lighting angles.

**Housing**  
Suitable for both indoor and outdoor application, also suitable for J-BOX mounting and surface mounting.

**Photocell**  
Optional for photocell, and allows for security and energy saving.

**Lens**  
Polycarbonate optical lens with UV stabilizers do not exhibit yellowing and deformation.

## PERFORMANCE DATA

SYSTEM WATTS	VOLTAGE	CRI	LUMENS (3000K)	LPW (3000K)	LUMENS (4000K)	LPW (4000K)	LUMENS (5000K)	LPW (5000K)
27W	120-277VAC	70	3500lm	130 lm/W	3600lm	133 lm/W	3600lm	133 lm/W
40W	120-277VAC/347-480V	70	5000lm	125 lm/W	5200lm	130 lm/W	5200lm	130 lm/W
67W	120-277VAC/347-480V	70	8600lm	128 lm/W	8800lm	131 lm/W	8800lm	131 lm/W
80W	120-277VAC	70	10000lm	125 lm/W	10500lm	131 lm/W	10500lm	131 lm/W

## ELECTRICAL DATA

Number Of Drivers	Driver Current (mA)	Nominal Power (W)	INPUT VOLTAGE (V)	CURRENT (Amps)
1	430	27	120	0.23
		27	208	0.13
		27	240	0.11
		27	277	0.10
1	640	40	120	0.33
		40	208	0.19
		40	240	0.17
		40	277	0.14
1	1110	67	120	0.56
		67	208	0.32
		67	240	0.28
		67	277	0.24
1	2120	80	120	0.67
		80	208	0.38
		80	240	0.33
		80	277	0.29

## ORDERING GUIDE

Example: MWP10 40W 27V 50K Y Y Y Y

Fixture Type	Wattage	Voltage	CCT	Finish	Photocell (Option)	Dimmable	Internal Code
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>MWP10</b> Wall Pack Series	<b>27</b> 27W <b>40</b> 40W <b>67</b> 67W <b>80</b> 80W	<b>27V</b> 120-277V	<b>30K</b> 3000K <b>40K</b> 4000K <b>50K</b> 5000K	<b>D</b> Dark Bronze <b>B</b> Black <b>W</b> White	<b>P0</b> With Photocell <b>Blank</b> Without Photocell	<b>D</b> 1-10 Dimmable <b>Blank</b> NON Dimmable	<b>Blank</b> <b>Alphanumeric</b>

Note: The 80W is limited to dimmable.

DLC Model NO.

SYSTEM WATTS	VOLTAGE	CCT	DLC NO.	DLC Classification
27W	120-277V	3000K	MWP1027W27V30K[D,B,W][P0,Blank]D[X,Blank]	Premium
		3500K	MWP1027W27V35K[D,B,W][P0,Blank]D[X,Blank]	Premium
		4000K	MWP1027W27V40K[D,B,W][P0,Blank]D[X,Blank]	Premium
		5000K	MWP1027W27V50K[D,B,W][P0,Blank]D[X,Blank]	Premium
		3000K	MWP1027W27V30K[D,B,W][P0,Blank][X,Blank]	Standard
		3500K	MWP1027W27V35K[D,B,W][P0,Blank][X,Blank]	Standard
		4000K	MWP1027W27V40K[D,B,W][P0,Blank][X,Blank]	Standard
		5000K	MWP1027W27V50K[D,B,W][P0,Blank][X,Blank]	Standard
40W	120-277V	3000K	MWP1040W27V30K[D,B,W][P0,Blank]D[X,Blank]	Premium
		3500K	MWP1040W27V35K[D,B,W][P0,Blank]D[X,Blank]	Premium
		4000K	MWP1040W27V40K[D,B,W][P0,Blank]D[X,Blank]	Premium
		5000K	MWP1040W27V50K[D,B,W][P0,Blank]D[X,Blank]	Premium
		3000K	MWP1040W27V30K[D,B,W][P0,Blank][X,Blank]	Standard
		3500K	MWP1040W27V35K[D,B,W][P0,Blank][X,Blank]	Standard
		4000K	MWP1040W27V40K[D,B,W][P0,Blank][X,Blank]	Standard
		5000K	MWP1040W27V50K[D,B,W][P0,Blank][X,Blank]	Standard
67W	120-277V	3000K	MWP1067W27V30K[D,B,W][P0,Blank]D[X,Blank]	Premium
		3500K	MWP1067W27V35K[D,B,W][P0,Blank]D[X,Blank]	Premium
		4000K	MWP1067W27V40K[D,B,W][P0,Blank]D[X,Blank]	Premium
		5000K	MWP1067W27V50K[D,B,W][P0,Blank]D[X,Blank]	Premium
		3000K	MWP1067W27V30K[D,B,W][P0,Blank][X,Blank]	Standard
		3500K	MWP1067W27V35K[D,B,W][P0,Blank][X,Blank]	Standard
		4000K	MWP1067W27V40K[D,B,W][P0,Blank][X,Blank]	Standard
		5000K	MWP1067W27V50K[D,B,W][P0,Blank][X,Blank]	Standard
80W	120-277V	3000K	MWP1080W27V30K[D,B,W][P0,Blank]D[X,Blank]	Premium
		3500K	MWP1080W27V35K[D,B,W][P0,Blank]D[X,Blank]	Premium
		4000K	MWP1080W27V40K[D,B,W][P0,Blank]D[X,Blank]	Premium
		5000K	MWP1080W27V50K[D,B,W][P0,Blank]D[X,Blank]	Premium

## DISK 15W LED DOWNLIGHT

Direct wire this IC rated Disk 5/6" LED Downlight to your junction box and install into your ceiling without a can. Provides instant on, bright light (1050 lm) with a sleek, modern look and a high CRI of 90+ and a 90° beam angle for a wide flood light. Suitable for narrow ceiling space. Features a 15W power consumption with 100W equivalency.

### MODELS

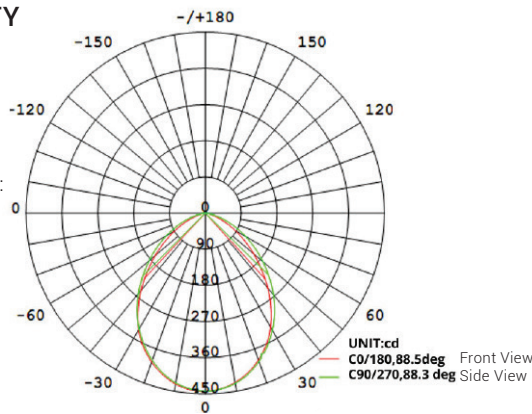
DL\_DK56-15W-27K-#  
**DL\_DK56-15W-3K-#**

DL\_DK56-15W-4K-#  
DL\_DK56-15W-5K-#

### LIGHT DISTRIBUTION ANGLE

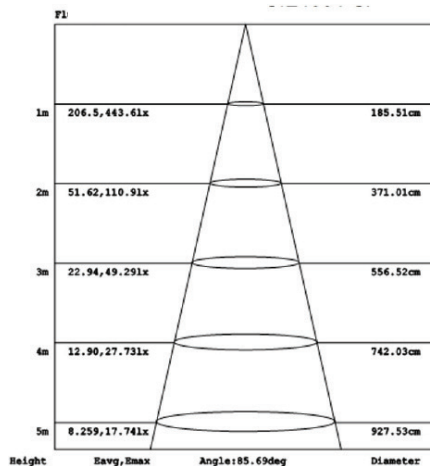
#### LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

Average Beam Angle (50%):  
88.3°F

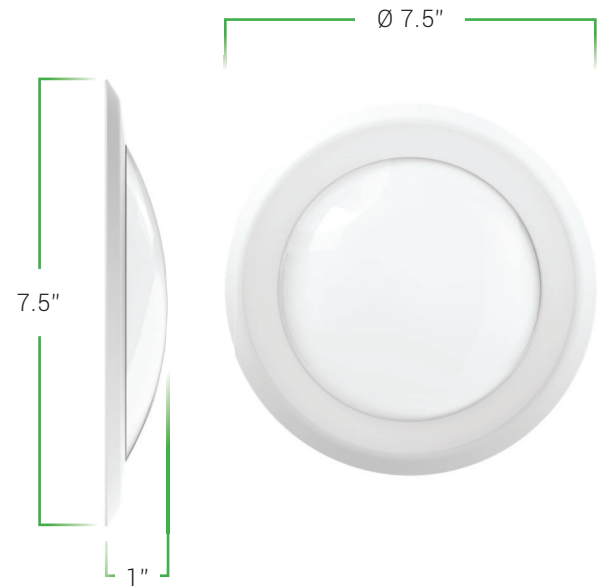


#### NOTE:

The Curves indicate the illuminated area and the average illumination when the luminaire is at different distances.



### CERTIFICATIONS



### SPECIFICATIONS

Voltage	120V
Wattage	15W
Current	0.119A
Power Factor	0.70

#### LIGHTING PERFORMANCE

Lumens	1050
Equivalency	100W
Color Temperature	2700K-6000K
Color Rendering Index (CRI)	90
Beam Angle	90°
Dimmable	Yes, 10-100%
Efficiency (lm/w)	60
Frequency	60Hz

#### ENVIRONMENT

Operating Temperature	4°F to 104°F
Suitable for Damp Locations Ingress	Yes

#### CONSTRUCTION

Housing	Aluminum+PC
Weight	0.39lbs
Wiring	Copper

#### LIFESPAN

Average Life (Hours)	50,000+
Warranty	7 years
Switching Time	>30,000

TYPE DD  
MAL05100W27V50KDSQT3

TYPE EE  
MAL05100W27V50KDSQT5

# AREA LIGHT(MAL05)

## Specifications

### Construction:

- Rugged one-piece, die-cast aluminum housing secures the thermally conductive LED panel and electrical chamber
- Low profile, 3G vibration rated compact design minimizes wind load requirements.
- Housing is completely sealed against moisture and environmental contaminants.

### Optics:

- Available in IES Type III, IV, V distributions
- Light engines are available in standard 4000 K and 5000 K (70 CRI) configurations.
- Scalable Lumen Packages from 13,900 to 42,000 Lumens replaces up to 1000W Metal Halide.
- Optics is precisely designed to shape the distribution, maximizing efficiency and application spacing.
- The optics can conform to dark sky requirement.

### Electrical:

- Universal 120-277 VAC or 347-480 VAC input voltage
- Standard with 0-10V dimming driver for 10% to 100% dimming capabilities.
- Power adjustable: 100%, 80%, 60%, 40%.
- THD:  $\leq 20\%$
- Power Factor:  $\geq 90\%$

### Controls:

- Optional Occupancy sensor or Microwave sensor or daylight sensor.
- Optional Bluetooth sensor or Bluetooth controller.
- Silvair Luminaire Level Lighting Control (LLLC) optional.
- Sharkward Luminaire Level Lighting Control (LLLC) optional.
- Also compatible with 3rd party smart network control system.
- Optional NEMA 3-pin photocell or 7-pin photocell.

### Ambient Temperature:

- Ambient operating temperature  $-40^{\circ}\text{C}$  to  $40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $104^{\circ}\text{F}$ ).

### Installation:

- Suitable for mounting heights ranging from 26-50' in area lighting applications
- Round pole, Square pole, slipfitter, wall mount and yoke are available.
- The design can be operated by one person to install the whole lamp

### Lifespan:

- Estimated 100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

### Finish:

- It's available in black or optional dark bronze, silvery gray or white.



Black



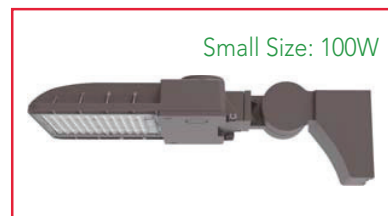
Dark Bronze



Silver Gray



White



Small Size: 100W



Medium Size: 150W/180W



Large Size: 250W/300W



### Certifications:

- DesignLights Consortium™ Qualified.
- UL cUL wet location listed.

Note: DesignLights Consortium™ Qualified and classified for DLC Premium (all lumen packages), refer to [www.designlights.org](http://www.designlights.org) for details.

### Note:

Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at  $25^{\circ}\text{C}$  ( $\pm 5^{\circ}\text{C}$ ) specifications subject to change without notice.

## Applications:

Auto dealerships, parking lots, walkways, roadways, campuses, facade lighting, grocery stores and other public areas.










# PERFORMANCE DATA

SYSTEM WATTS	VOLTAGE	DIST.TYPE	4000K(70CRI)		5000K(70CRI)	
			LUMENS	LPW	LUMENS	LPW
100W	120-277V/347-480V	3	14100lm	141 lm/W	14100lm	141 lm/W
	120-277V/347-480V	4	14000lm	140 lm/W	13900lm	139 lm/W
	120-277V/347-480V	5	14200lm	142 lm/W	14200lm	142 lm/W
150W	120-277V/347-480V	3	21000lm	140 lm/W	21000lm	140 lm/W
	120-277V/347-480V	4	20500lm	137 lm/W	20500lm	137 lm/W
	120-277V/347-480V	5	21000lm	140 lm/W	21000lm	140 lm/W
180W	120-277V/347-480V	3	25000lm	139 lm/W	25000lm	139 lm/W
	120-277V/347-480V	4	25000lm	139 lm/W	25000lm	139 lm/W
	120-277V/347-480V	5	26000lm	144 lm/W	26000lm	144 lm/W
250W	120-277V/347-480V	3	35000lm	140 lm/W	35000lm	140 lm/W
	120-277V/347-480V	4	35000lm	140 lm/W	35000lm	140 lm/W
	120-277V/347-480V	5	36000lm	144 lm/W	35000lm	140 lm/W
300W	120-277V/347-480V	3	42000lm	140 lm/W	42000lm	140 lm/W
	120-277V/347-480V	4	41000lm	137 lm/W	41000lm	137 lm/W
	120-277V/347-480V	5	42000lm	140 lm/W	42000lm	140 lm/W

# ELECTRICAL DATA

Number Of Drivers	Driver Current (mA)	Nominal Power (W)	INPUT VOLTAGE (V)	CURRENT (Amps)
1	850	100	120	0.83
		100	208	0.48
		100	240	0.42
		100	277	0.36
		100	347	0.29
		100	480	0.21
1	1200	150	120	1.25
		150	208	0.72
		150	240	0.63
		150	277	0.54
		150	347	0.43
		150	480	0.31
1	960	180	120	1.50
		180	208	0.87
		180	240	0.75
		180	277	0.65
		180	347	0.52
		180	480	0.38
1	1200	250	120	2.08
		250	208	1.20
		250	240	1.04
		250	277	0.90
		250	347	0.72
		250	480	0.52
1	1500	300	120	2.50
		300	208	1.44
		300	240	1.25
		300	277	1.08
		300	347	0.86
		300	480	0.63

# EPA OF AREA LIGHT

Item							
	1	2 @90°	2 @120°	2@180°	3 @90°	3 @120°	4 @90°
100W	0.2751	0.5267	0.7321	0.6164	0.9577	0.9837	0.9577
150W/180W	0.3111	0.6343	0.6464	0.6222	0.9335	0.9696	0.9335
250W/300W	0.4097	0.7227	0.9919	0.8856	1.1986	1.3049	1.1986

# BUG

SYSTEM WATTS	VOLTAGE	DIST.TYPE	B	U	G
100W	120-277V/347-480V	3	2	0	2
		4	3	0	3
		5	4	0	2
150W	120-277V/347-480V	3	3	0	3
		4	3	0	3
		5	4	0	2
180W	120-277V/347-480V	3	3	0	3
		4	3	0	3
		5	4	0	2
250W	120-277V/347-480V	3	4	0	4
		4	4	0	4
		5	5	0	3
300W	120-277V/347-480V	3	4	0	4
		4	4	0	5
		5	5	0	3

## MOUNTING

- Standard versatile mounting arm accommodates multiple drilling patterns as well as square and round poles
- Optional for cast aluminum slipfitter mounting adapter (Compatible with more MESTER mounting adaptors such as Tenon, suits for various application)

### Mounting Options



**Arm Mount**  
(4" and 5" Square and Round poles)  
Standard versatile mounting arm is simple to install and can be used with existing poles for retrofit installations.



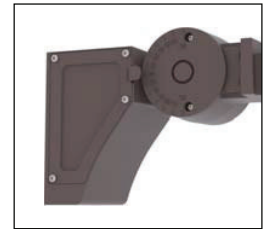
**Slipfitter Mount**  
An optional cast aluminum mast arm adapter secures fixture head to nominal 2-3/8" O.D. horizontal steel tenon arm.



**Wall Mount**  
Wall Mount is easy to install for direct wall mounting with 1/2" conduit wiring or standard J-box mounting

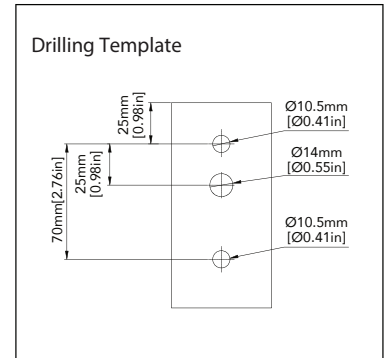
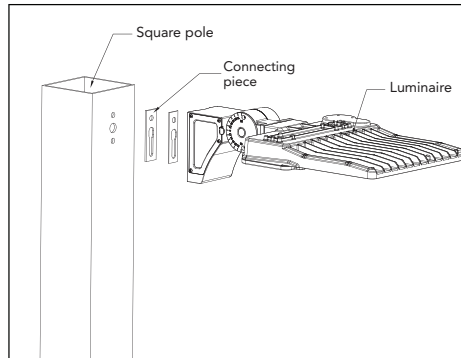
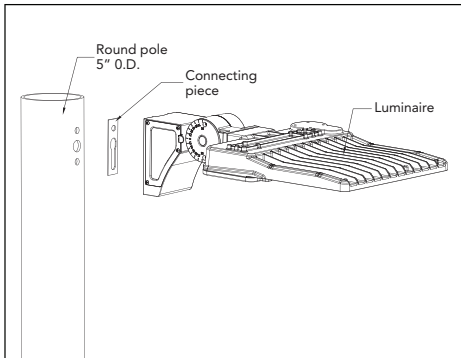


**Yoke Mount**  
Die-cast aluminum trunnion is easily adapted to many surfaces and allows easy fixture aiming angles.



**Adjustable Arm Mount**  
Standard versatile mounting arm is simple to install and can be used with existing poles for retrofit installations.

### Mounting Dimensions



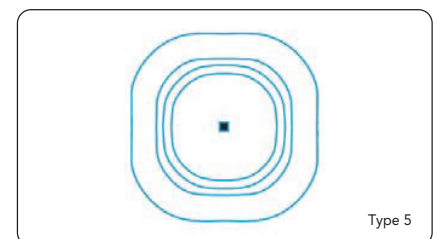
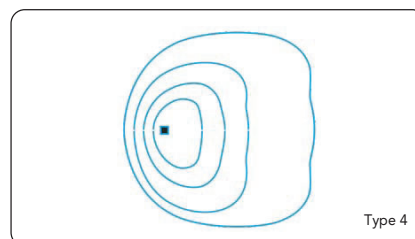
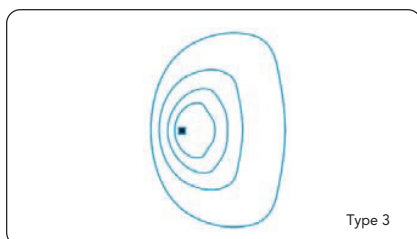
## PHOTOMETRICS

Mester offers a complete set of optical systems to meet every site lighting requirement. These systems provide remarkable flexibility in precisely matching light distribution patterns to specific site requirements.

Type 3 optics produce an asymmetrical pattern that directs the majority of the light forward and equally on both sides of the luminaire. In a back-to-back configuration, it creates a rectangular pattern which can extend pole spacings.

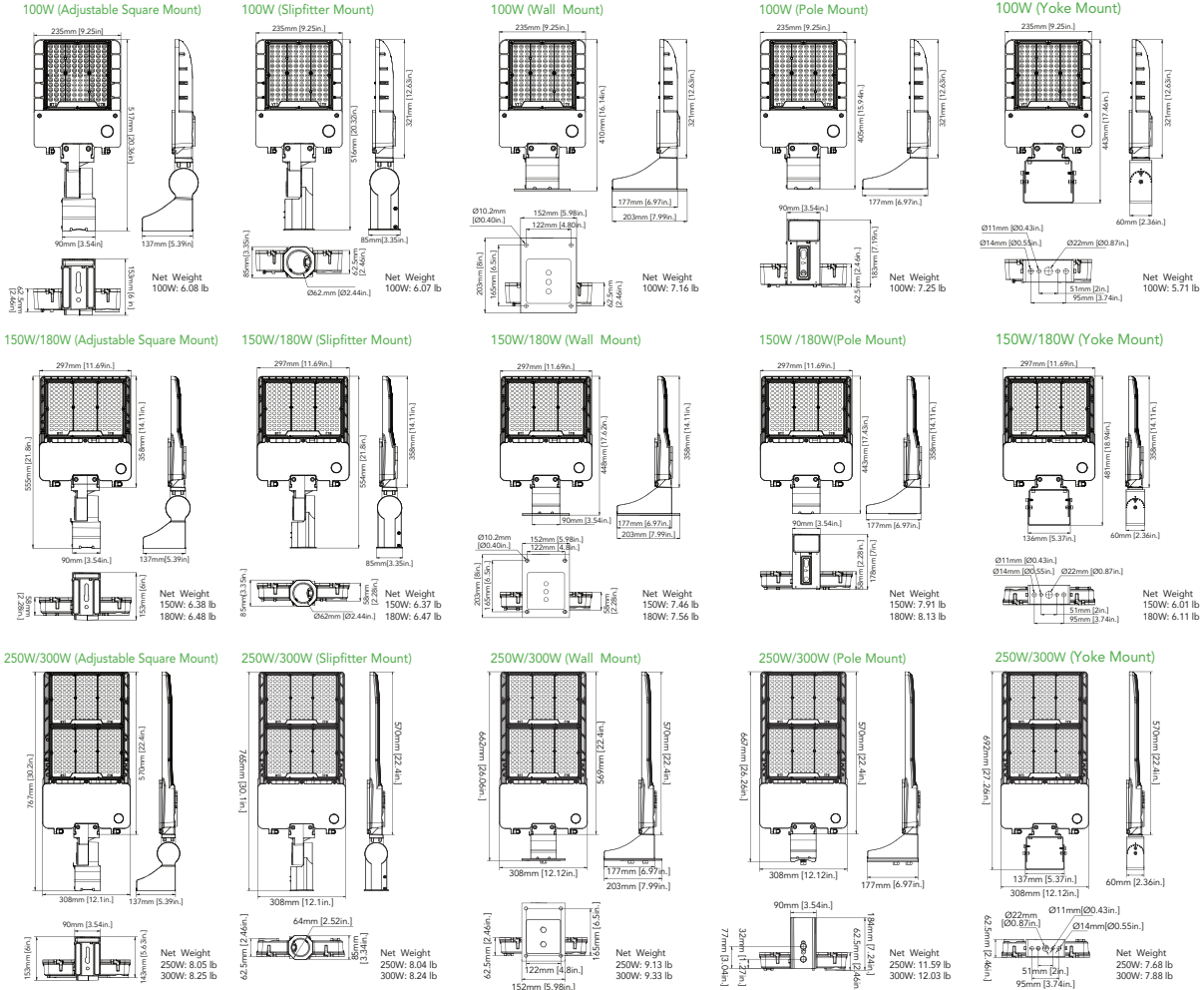
Type 4 is suitable for applications where light is primarily required forward with minimal backlight. Typical installations include perimeter poles.

Type 5 optics produce a symmetrical square distribution pattern that distributes light equally on all sides of the luminaire. Type 5 luminaires is universal for most area lighting applications



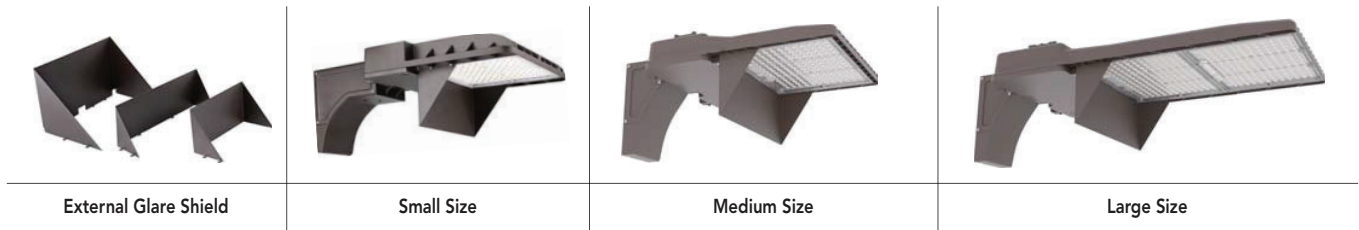
# DIMENSION

unit: inch/mm



## EXTERNAL SHIELDS

MAL05 series features a backlight control which provides reduced pixilation and increased visual comfort without compromising performance. External Glare Shield: sold separately or as an accessory.



## ORDERING GUIDE

Example: MAL05100W 27V XXK Y Y Y Y Y

Fixture Type	Wattage	Voltage	CCT	Finish	Photocell (Option)	Sensor (Option)	Mounting	Photometry	Surge Protection (Option)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>MAL05</b> Area Light Series	<b>100</b> 100W	<b>27V</b> 120-277V <b>48V</b> 347-480V	<b>40K</b> 4000K <b>50K</b> 5000K	<b>D</b> Dark Bronze <b>B</b> Black <b>W</b> White <b>SG</b> Silver Gray	<b>P0</b> 120-277V Photocell <b>P3</b> 347V Photocell <b>P4</b> 480V Photocell <b>Blank</b> Without Photocell	<b>M</b> With Sensor <b>Blank</b> Without Sensor	<b>SQ</b> Square Pole Mount <b>SP</b> Slipfitter Mount <b>WM</b> Wall Mount <b>YK</b> Yoke Mount <b>SQA</b> Adjustable Square Mount	<b>T3</b> TYPE III Photometry <b>T4</b> TYPE IV Photometry <b>T5</b> TYPE V Photometry	<b>S</b> Surge protection <b>(Blank)</b> No Surge protection

Example: MAL05 150W 27V XXK Y Y Y Y Y

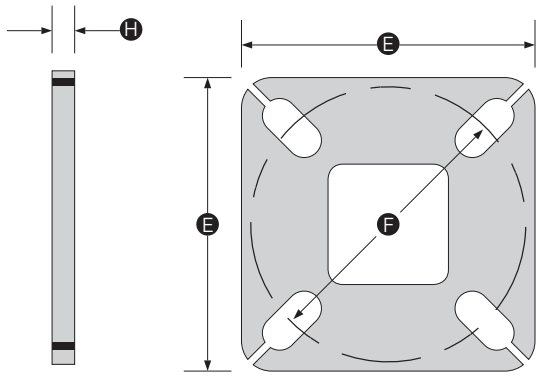
Fixture Type	Wattage	Voltage	CCT	Finish	Photocell (Option)	Sensor (Option)	Mounting	Photometry
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>MAL05</b> Area Light Series	<b>150</b> 150W <b>180</b> 180W <b>250</b> 250W <b>300</b> 300W	<b>27V</b> 120-277V <b>48V</b> 347-480V	<b>40K</b> 4000K <b>50K</b> 5000K	<b>D</b> Dark Bronze <b>B</b> Black <b>W</b> White <b>SG</b> Silver Gray	<b>P0</b> 120-277V Photocell <b>P3</b> 347V Photocell <b>P4</b> 480V Photocell <b>Blank</b> Without Photocell	<b>M</b> With Sensor <b>Blank</b> Without Sensor	<b>SQ</b> Square Pole Mount <b>SP</b> Slipfitter Mount <b>WM</b> Wall Mount <b>YK</b> Yoke Mount <b>SQA</b> Adjustable Square Mount	<b>T3</b> TYPE III Photometry <b>T4</b> TYPE IV Photometry <b>T5</b> TYPE V Photometry

# ADDITIONAL MOUNTING ACCESSORIES

POLE BRACKET • For mounting one fixture on an existing pole			
 <p>O.D: 60mm(2-3/8in.) 102mm(4in.) 184mm(7.23in.) 76mm(3in.) 91mm(3.56in.)</p>	<p><b>4\" Square Pole Mount with 2-3/8\" O.D. Tenon</b> No. 4SQ-SP-D Finish: Dark Bronze USE: For use with square, non-tapered steel and aluminum poles. Furnished with four 5/16\" hex head stainless-steel bolts. Vertical tenon measures 2-3/8\" O.D., and is made of steel tubing. Fixtures mounted to this bracket can be adjusted both vertically and horizontally.</p>	 <p>O.D: 60mm(2-3/8in.) 219mm(8.62in.) 108mm(4.24in.) I.D: 106mm(4.2in.)</p>	<p><b>4\" Round Pole Mount with 2-3/8\" O.D. Tenon</b> NO. 4SQR-SP-D Finish:Dark Bronze USE: For use with Round, non-tapered steel and aluminum poles. Furnished with three 3/8\" hex head stainless-steel bolts. Vertical tenon measures 2-3/8\" O.D., and is made of steel tubing. Fixtures mounted to this bracket can be adjusted both vertically and horizontally.</p>
 <p>O.D: 60mm(2-3/8in.) 127mm(5in.) 184mm(7.23in.) 76mm(3in.) 116mm(4.57in.)</p>	<p><b>5\" Square Pole Mount with 2-3/8\" O.D. Tenon</b> No. 5SQ-SP-D Finish: Dark Bronze USE: For use with square, non-tapered steel and aluminum poles. Furnished with four 5/16\" hex head stainless-steel bolts. Vertical tenon measures 2-3/8\" O.D., and is made of steel tubing. Fixtures mounted to this bracket can be adjusted both vertically and horizontally.</p>	 <p>O.D: 60mm(2-3/8in.) 219mm(8.62in.) 108mm(4.24in.) I.D: 132mm(5.2in.)</p>	<p><b>5\" Round Pole Mount with 2-3/8\" O.D. Tenon</b> NO. 5SQR-SP-D Finish:Dark Bronze USE: For use with Round, non-tapered steel and aluminum poles. Furnished with three 3/8\" hex head stainless-steel bolts. Vertical tenon measures 2-3/8\" O.D., and is made of steel tubing. Fixtures mounted to this bracket can be adjusted both vertically and horizontally.</p>
	<p><b>Pole Bracket Accessories -Angle-Adjustment Adapter</b> NO. SQA-ALDA Finish: Dark Bronze USE: Durable brackets are engineered to provide versatile mounting options. These arms are made from rugged die-cast aluminum. They allow optimal positioning of the light fixture to maximize the lighting effectiveness vertically and horizontally.</p>	 <p>154.5mm(6.1 in.) 102mm(4 in.) I.D: 64mm(2.52in.)</p>	<p><b>Pole Bracket accessories-Tenon &amp; Yoke Adaptor</b> NO. SP-TR-D Finish: Dark Bronze USE: The 2-3/8\" OD Tenon Mount Adaptor for Yoke Fixtures is designed to mount MESTER light fixtures that are equipped with a yoke mount onto a 2-3/8\" OD tenon. It may be utilized with the Mester Flood Light Series of light fixtures.</p>
 <p>101mm(3.96in.) 115mm(4.53in.) 95mm(3.72in.) O.D: 60mm(2-3/8in.)</p>	<p><b>Horizontal Wall or Square or Round pole mount with 2-3/8\" Tenon Bracket</b> NO. SQ/R-SP-D Finish: Dark Bronze USE: This tenon bracket can be installed onto a wall, square pole, round pole. Provides wiring access and abuilt-in 2-3/8\" O.D. tenon to mount a fixture with our adjustable slipfitter. Suggested 3/8\" diameter bolts for mounting.</p>		
WALL BRACKET • Attaches to any flat surface • Provides wiring access		Mid-Pole tenon Bracket	
 <p>O.D: 60mm(2-3/8in.) 102mm(4in.) 227mm(8.95 in.) 142mm(5.59in.)</p>	<p><b>90\" Wall Mount Bracket with 2-3/8\" O.D. Tenon</b> NO. WM-SP-D Finish: Dark Bronze USE: The 90\" wall mount bracket with 2-3/8\" tenon attaches an MESTER floodlight to almost any surface: wall, roof, or wood pole. Provides wiring access and abuilt-in 2-3/8\" O.D. tenon to mount a fixture with our adjustable slipfitter. Suggested 3/8\" diameter bolts for mounting. Mounting holes are spaced 3-1/4\" apart.</p>	 <p>185mm(7.28in.) 180mm(7.1 in.) 100mm(3.94 in.) O.D: 60mm(2-3/8in.)</p>	<p><b>2-3/8\" OD Horizontal Tenon Mid-Pole Bracket</b> NO. SQ-SP-D Finish:Dark Bronze USE:2-3/8\" OD Horizontal Tenon Mid-Pole Bracket is designed to mount light fixture that is equipped with a adjustable slipfitter onto a 2-3/8\" OD horizontal tenon</p>
Round External Mount Horizontal Tenon • To mount 2/3/4 fixtures on a existing pole			
 <p>184mm(7.25in.) 102mm(4in.) O.D: 60mm(2-3/8in.) I.D: 64mm(2.52in.)</p>	<p><b>Double 90\" Horizontal Tenon Adaptor</b> NO. R60-SP2-90-D Finish:Dark Bronze USE:The Bracket is designed to mount over 2-3/8\" (60mm) O.D. vertical tenon. Two fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally</p>	 <p>184mm(7.25in.) 102mm(4in.) O.D: 60mm(2-3/8in.) I.D: 64mm(2.52in.)</p>	<p><b>Triple 120\" Horizontal Tenon Adaptor</b> NO. R60-SP3-120-D Finish:Dark Bronze USE:The Bracket is designed to mount over 2-3/8\" (60mm) O.D. vertical tenon. Three fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally</p>
 <p>184mm(7.25in.) 102mm(4in.) O.D: 60mm(2-3/8in.) I.D: 64mm(2.52in.)</p>	<p><b>Double 180\" Horizontal Tenon Adaptor</b> NO. R60-SP2-180-D Finish:Dark Bronze USE:The Bracket is designed to mount over 2-3/8\" (60mm) O.D. vertical tenon. Two fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally</p>	 <p>184mm(7.25in.) 102mm(4in.) O.D: 60mm(2-3/8in.) I.D: 64mm(2.52in.)</p>	<p><b>Quad 90\" Horizontal Tenon Adaptor</b> NO. R60-SP4-90-D Finish:Dark Bronze USE:The Bracket is designed to mount over 2-3/8\" (60mm) O.D. vertical tenon. Four fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally</p>
 <p>184mm(7.25in.) 102mm(4in.) O.D: 60mm(2-3/8in.) I.D: 64mm(2.52in.)</p>	<p><b>Triple 90\" Horizontal Tenon Adaptor</b> NO. R60-SP3-90-D Finish:Dark Bronze USE:The Bracket is designed to mount over 2-3/8\" (60mm) O.D. vertical tenon. Three fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally</p>		



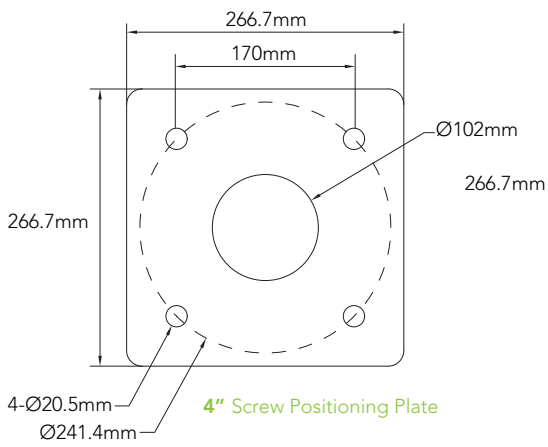
# ANCHORAGE DETAIL



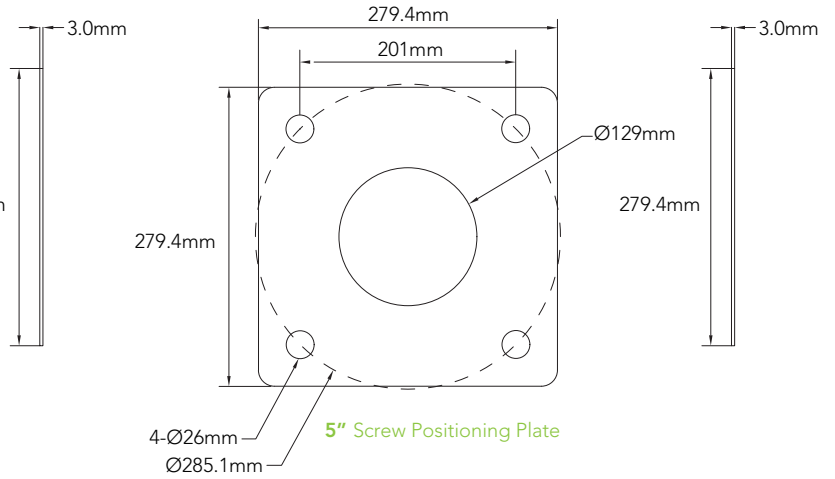
Base Plate with Slots or Holes

Anchor Base size	Wall thick H	Base Plate Square E	Bolt Circle Range (in)	Bolt Circle F	Bolt Projection
4"	0.75"	10.5"	8-11	9.5"	3.75"
5"	1"	11"	10.6-12	11.3"	4.875"

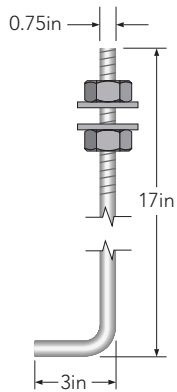
# DIMENSIONS



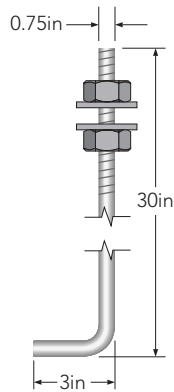
4" Screw Positioning Plate



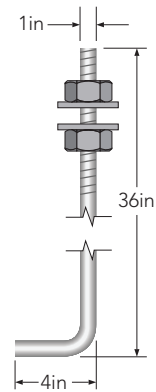
5" Screw Positioning Plate



A1 Anchor Bolt  
Suit for 10ft, 15ft, 20ft



A2 Anchor Bolt  
Suit for 25ft



A3 Anchor Bolt  
Suit for 30ft