

**Construction Payments November 28, 2023** 

Total \$ 1,423.01

High School Athletics - Exterior					
Vendor Name	Invoice No.	<b>Funding Source</b>	Amount		
Qualite	Pay App 3	Bond Fund 2021	\$	1,423.01	

High School Athletics - Interior						
Vendor Name Invoice No. Funding Source Amount						
NONE	NONE	NONE				
	Invoice No.	Invoice No. Funding Source				

Primary School HVAC					
Vendor Name	Invoice No.	Funding Source	Amount		
NONE	NONE	NONE	NONE		

Primary School Roof					
Vendor Name	Invoice No.	Funding Source	Amount		
NONE	NONE	NONE	NONE		

# HIGH SCHOOL EXTERIOR ATHLETICS

Invoices for November 28, 2023 Consideration/Approval

#### APPLICATION AND CERTIFICATE FOR PAYMENT CONSTRUCTION MANAGER - ADVISER EDITION AIA DOCUMENT G702/CMa TO OWNER: PROJECT: DISTRIBUTION TO: APPLICATION NO: 3 Chartiers Valley School District CVHS Stadium Lighting **OWNER** 2030 Swallow Hill Rd Replacement PERIOD TO: 9/26/2023 CONSTRUCTION Pittsburgh, PA 15220 FROM CONTRACTOR: PROJECT NOS: 22122 MANAGER Qualite Sports Lighting 215 W Mechanic St ARCHITECT CONTRACT DATE: 11/30/2022 Hillsdale, MI 49242 CONTRACT FOR: CONTRACTOR VIA CONSTRUCTION MANAGER X VIA ARCHITECT CONTRACTOR'S APPLICATION FOR PAYMENT The undersigned Contractor certifies that to the best of the Contractor's knowledge. information & belief the Work covered by this Application for Payment has been Application is made for payment as shown below, in conjunction with the contract completed in accordance with the contract documents that all amounts have been Continuation sheet, AIA Document G703 is attached 242,301,00 paid by the Contractor for Work which previous Certificates for Payment were 1. ORIGINAL CONTRACT SUM assessed and payments received from the Owner, and that current payment shown 2. Net Change By Change Orders herein is now due. CONTRACTOR: Quailte Sports Lighting, LLC 3. CONTRACT SUM TO DATE (Line 1,2) 242,301.00 \$ Date: 9/26/2023 4. TOTAL COMPLETED AND STORED TO DATE 242,301.00 Acting in the County of 14:115 de 1-County of: Hillsdale (Column G on G703) Hillsdale My Commission Expires 10/1/2025 5. RETAINAGE: Subscribed and sworn to before State of Michigan, County of Hillsdale Amanda Fry. Notary Public a. 1 % of Completed Work \$0.00 me this September, 2023 (Columns D & E on G703) Notary Public b. % of Stored Materials My Commission Expires: Oct 1, 2025 (Columns F on G703) TOTAL RETAINAGE (Line 5a & 5b or CERTIFICATE FOR PAYMENT Total in Column 1 of G703 \$0.00 In accordance with the Contract Documents, based on on-site observations and the 6. TOTAL EARNED LESS RETAINAGE 242.301.00 data comprising this application, the Construction Manager and the Architect certify (Line 4 less Line 5 Total) to the Owner that to the best of their knowledge, information and belief the Work has 7. LESS PREVIOUS CERTIFICATES FOR PAYMENT 240,877.99 progressed as indicated, the quality of the work is in accordance with the Construction Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED. (Line 6 from prior Certificate) \$1.423.01 8. CURRENT PAYMENT DUE \$ 1,423.01 AMOUNT CERTIFIED..... 9. BALANCE TO FINISH, INCLUDING RETAINAGE (Attach explanation if amount certified differs from the amount applied for. Initial all figures on this (Line 3 less Line 6) Application and on the Continuation Sheet that changed & conform to the amount certified) CONSTRUCTION MANAGER 11/9/2023 Cade CHANGE ORDER SUMMARY **ADDITIONS DEDUCTIONS** Date: Total changes approved in **ARCHITECT** previous months by owner By: Date: Total approved this month **TOTALS** This certifiacte is non negotiable. The AMOUNT CERTIFIED is payable only to the Con-NET CHANGES by change order tractor named herein. Issuance, payment and acceptance of payment are without

prejudice to any rights of the Owner or Contractor under the Contract.

G702/Cma-1992

AIA Document G702, APPLICATION AND CERTIFICATE FOR PAYMENT, containing Contractor's signed Certification, is attached. In tabulations below, amounts are stated to the nearest dollar.

Use Column I on Contracts where variable retainage for line itmes may apply.

Qualite Sports Lighting, LLC 215 W. Mechanic St Hillsdale, MI 49242 APPLICATION NO.: 3
APPLICATION DATE: 9/26/2023
PERIOD TO: 9/26/2023

PROJECT NO.: 22122

#### **CVHS Stadium Lighting Replacement**

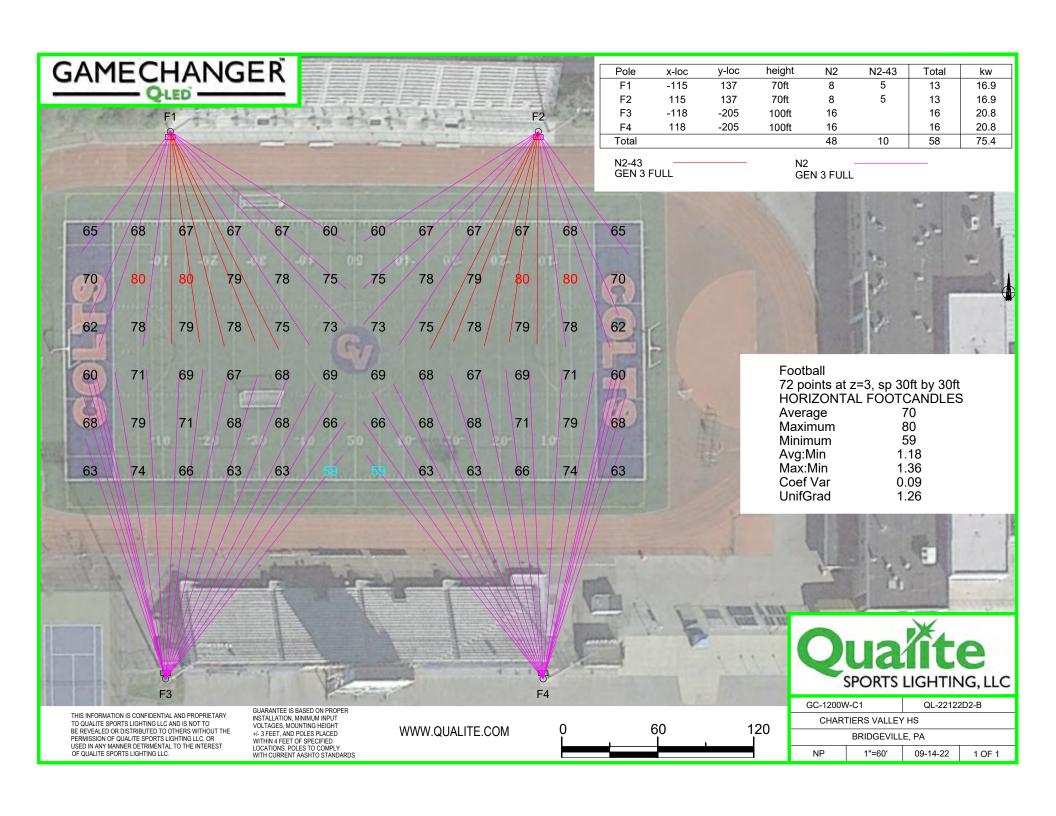
A	В	С	D	Е	F	G	Н	I
ITEM NO.	DESCRIPTION OF WORK	SCHEDULED VALUE	WORK COMI FROM PREVIOUS APPLICATION (D+E)	PLETED THIS PERIOD	MATERIALS PRESENTLY STORED (NOT IN D OR E)	TOTAL COMPLETED % AND STORED (G/C) TO DATE	BALANCE TO FINISH (C - G)	RETAINAGE
1	LED Lighting Equipment	\$ 191,741.00	\$ 191,741.00	\$ -	\$ -	\$ 191,741.00   100%	\$ -	\$ 1,917.41
2	Retrofit Installation	\$ 48,460.00	\$ 48,460.00	\$ -	\$ -	\$ 48,460.00   100%	\$ -	\$ 484.60
3	Posting Field Audit	\$ 2,100.00	\$ 2,100.00	\$ -	\$ -	\$ 2,100.00   100%	\$ -	\$ 21.00
4		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	TOTAL WORK	\$242,301.00	\$ 242,301.00	\$ -	\$ -	\$ 242,301.00 100%	\$ -	\$ 2,423.01

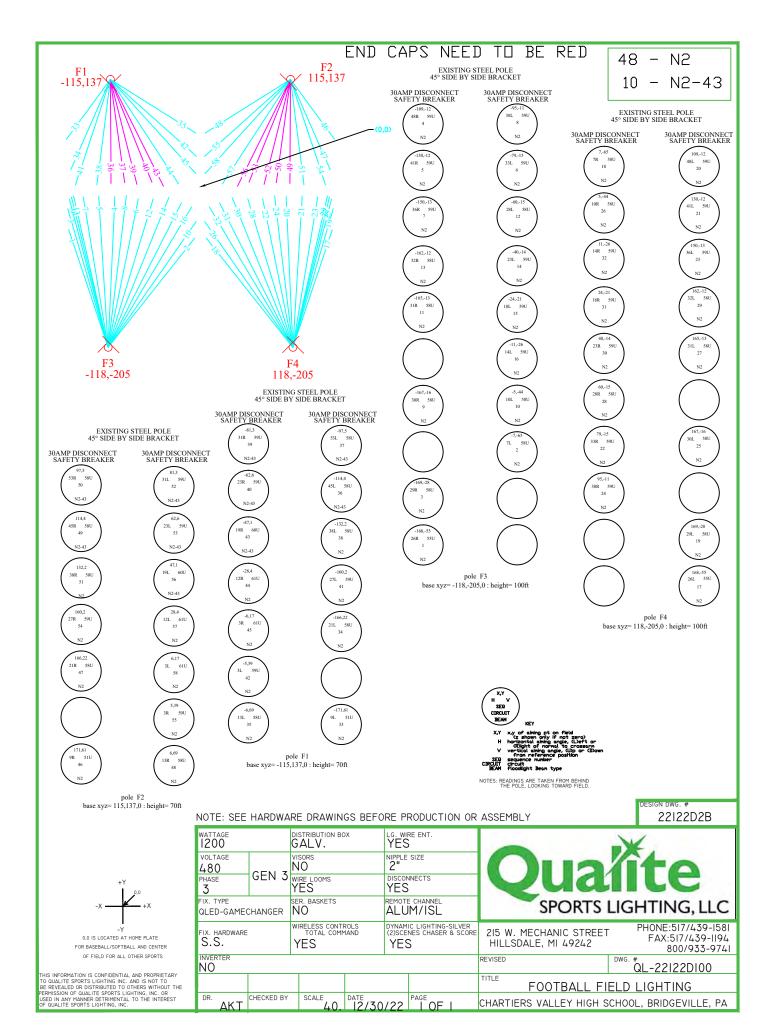


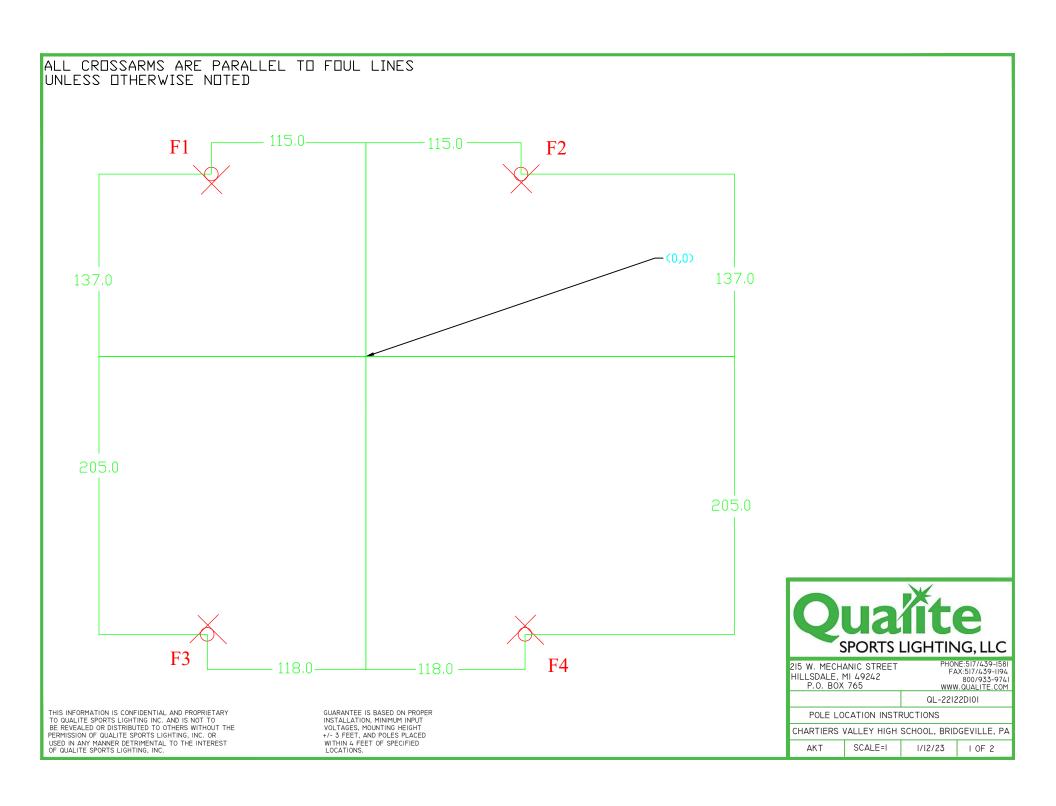
# CLOSEOUT DOCUMENTS NOVEMBER 17, 2023 CHARTIERS VALLEY HIGH SCHOOL BRIDGEVILLE, PA QL# 22122D2B



# **Prints**

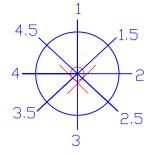




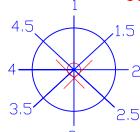


#### ALL CROSSARMS ARE PARALLEL TO FOUL LINES UNLESS OTHERWISE NOTED

F1



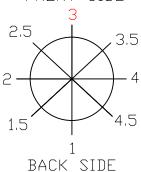






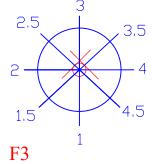
#### POLE ROTATION

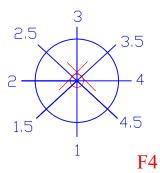
FRONT SIDE



GUARANTEE IS BASED ON PROPER INSTALLATION, MINIMUM INPUT VOLTAGES, MOUNTING HEIGHT +/- 3 FEET, AND POLES PLACED WITHIN 4 FEET OF SPECIFIED

THIS INFORMATION IS CONFIDENTIAL AND PROPRIETARY TO QUALITE SPORTS LIGHTING INC. AND IS NOT TO BE REVEALED OR DISTRIBUTED TO OTHERS WITHOUT THE PERMISSION OF QUALITE SPORTS LIGHTING, INC. OR USED IN ANY MANNER DETRIMENTAL TO THE INTEREST OF QUALITE SPORTS LIGHTING, INC.







215 W. MECHANIC STREET HILLSDALE, MI 49242 P.O. BOX 765

PHONE:517/439-1581 FAX:517/439-1194 800/933-974I WWW.QUALITE.COM

QL-22122D102

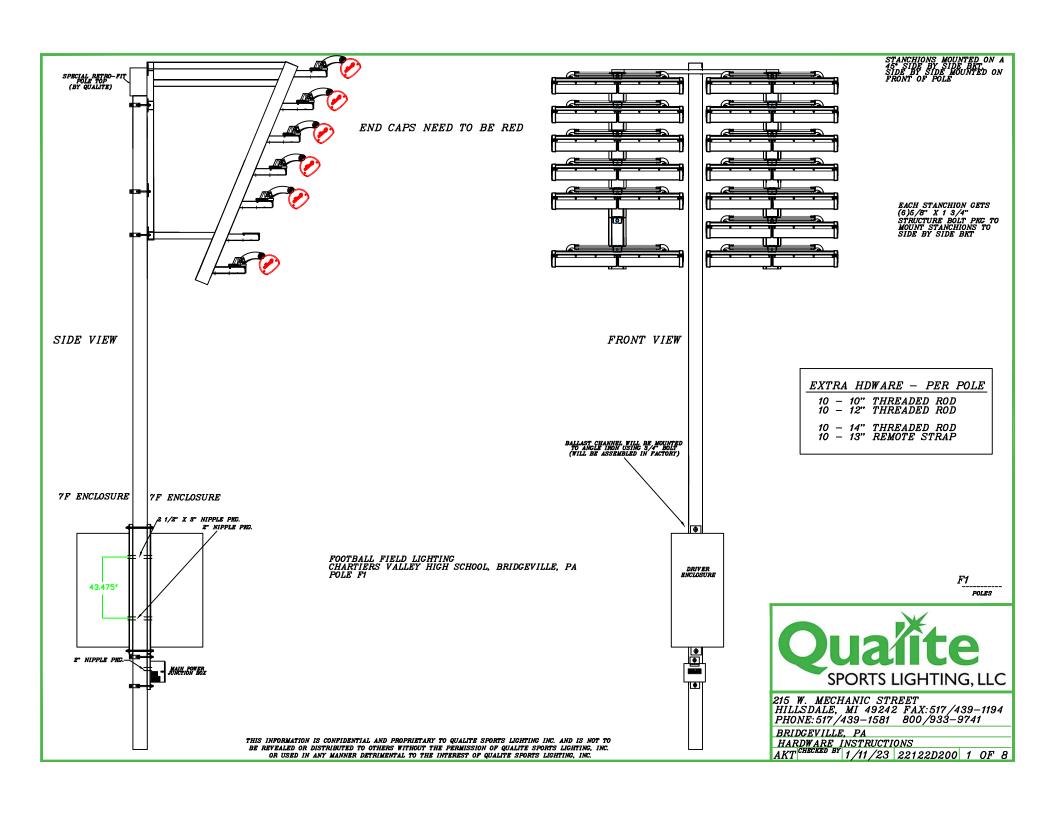
POLE LOCATION INSTRUCTIONS

CHARTIERS VALLEY HIGH SCHOOL, BRIDGEVILLE, PA

SCALE=I

1/12/23

2 OF 2



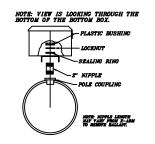
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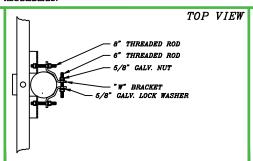
# HARDWARE LIST

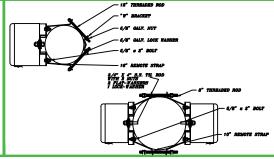
HARDWARE DESCRIPTION	HWD. $OTY.$		TOTAL
8" THREADED ROD	10	1	10
6" THREADED ROD	3	1	3
12" THREADED ROD	4	1	4
"W" BRACKET	8	1	8
5/8" CALV NIIT	34	1	<i>34</i>
5/8" ĆALV. L/WASHER	34	1	34
5/8" GALV. L/WASHER 3/4" BOLT	6	1	6
3/4" LOCK-WASHER	6	1	6
3/4" FLAT-WASHER	12	1	12
3/4" S.S. NUT	12	1	12
5/8" X 1 3/4" STRUCTURE BOLT PKG.	12	1	12
5/8" X 2" BOLT PKG.	12	1	12
10" REMOTE STRAP	8	1	8
16" REMOTE STRAP		1	4
2 1/2" X 3" NIPPLE PKG.	2	1	2
2" NIPPLE PKG.	3	1	3

FOOTBALL FIELD LIGHTING CHARTIERS VALLEY HIGH SCHOOL, BRIDGEVILLE, PA POLE FI

NOTE: USE THESE CONFIGURATIONS TO MOUNT ASSEMBLIES.



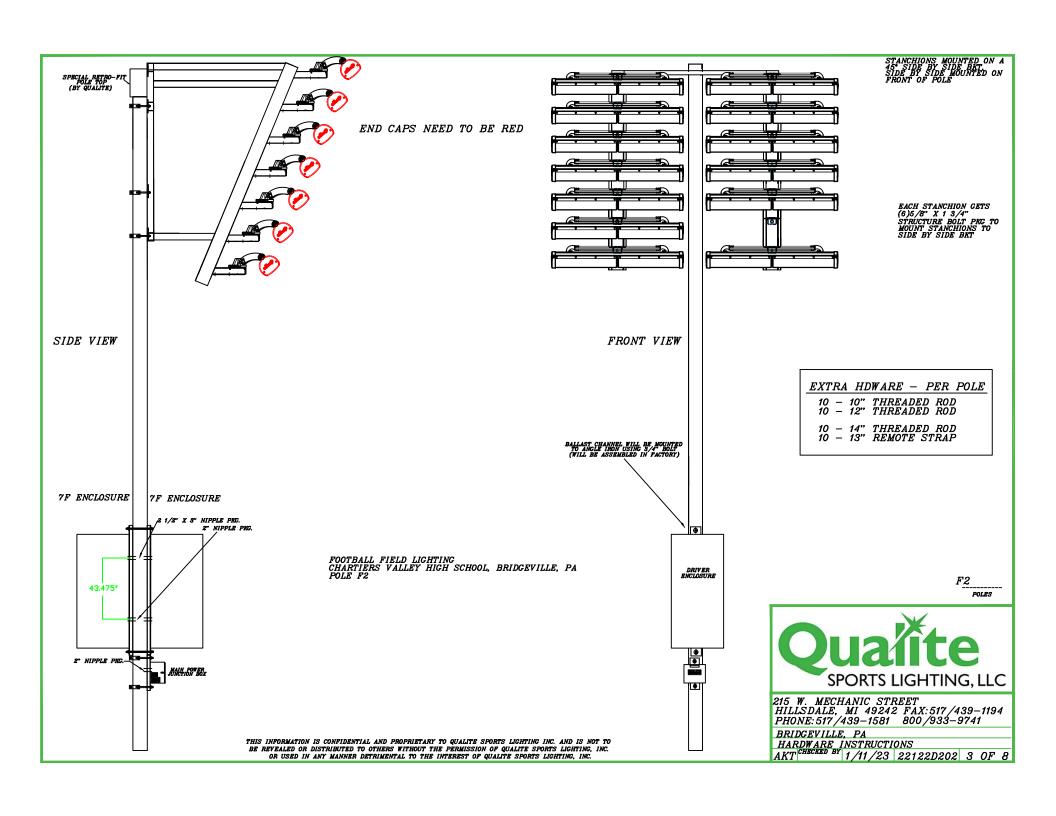






215 W. MECHANIC STREET HILLSDALE, MI 49242 FAX:517/439-1194 PHONE:517/439-1581 800/933-9741

BRIDGEVILLE, PA
HARDWARE INSTRUCTIONS
AKT CHECKED BY 1/11/23 | 22122D201 | 2 OF 8



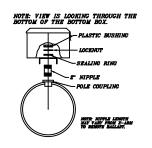
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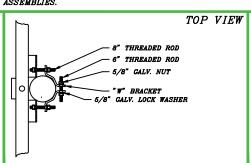
# HARDWARE LIST

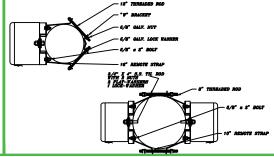
<i>HARDWARE</i> DESCRIPTION	HWD. $QTY.$		TOTAL
8" THREADED ROD	10	1	10
6" THREADED ROD	3	1	3
12" THREADED ROD	4	1	4
"W" BRACKET	8	1	8
5/8" GALV. NUT	34	1	<i>34</i>
5/8" <u>ĆALV. L/WASHER</u> 3/4" BOLT	34	1	<i>34</i>
3/4" B0LT	6	1	6
3/4" LOCK-WASHER	6	1	6
3/4" FLAT-WASHER	12	1	12
3/4" S.S. NUT	12	1	12
5/8" X 1 3/4" STRUCTURE BOLT PKG.	12	1	12
5/8" X 2" BOLT PKG. 10" REMOTE STRAP	12	1	12
		1	8
16" REMOTE STRAP	4	1	4
2 1/2" X 3" NIPPLE PKG.	2	1	2
2" NIPPLE PKG.	3	1	3

FOOTBALL FIELD LIGHTING CHARTIERS VALLEY HIGH SCHOOL, BRIDGEVILLE, PA POLE F2

NOTE: USE THESE CONFIGURATIONS TO MOUNT ASSEMBLIES.



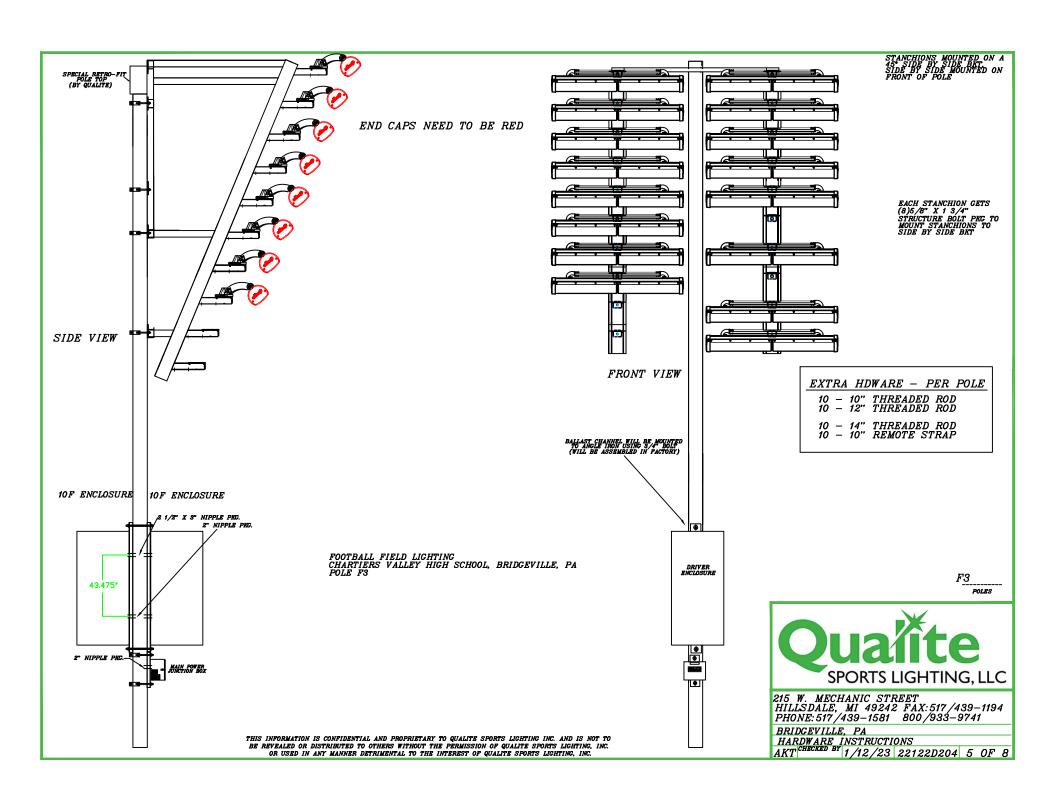






215 W. MECHANIC STREET HILLSDALE, MI 49242 FAX:517/439-1194 PHONE:517/439-1581 800/933-9741

BRIDGEVILLE, PA
HARDWARE INSTRUCTIONS
AKT CHECKED BY 1/11/23 22122D203 4 OF 8



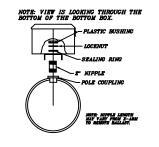
# HARDWARE LIST

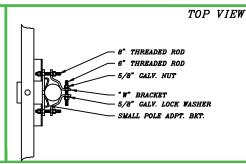
HARDWARE DESCRIPTION		POLE	TOTAL
	_	_	
8" THREADED ROD	8	1	8
6" THREADED ROD	4	1	4
12" THREADED ROD	6	1	6
10" THREADED ROD	4	1	4
"W" BRACKET	12	1	12
5/8" GALV. NUT	44	1	44
5/8" GALV. L/WASHER	44	1	44
3/4" BOLT	6	1	6
3/4" LOCK-WASHER	6	1	6
3/4" FLAT-WASHER	12	1	12
3/4" S.S. NUT	12	1	12
5/8" X 1 3/4" STRUCTURE BOLT PKG.	16	1	16
5/8" X 2" BOLT PKG. 13" REMOTE STRAP	12	1	12
13" REMOTE STRAP	4	1	4
10" REMOTE STRAP	8	1	8
SM. POLE ADPT. BKT.	4	1	4
2 1/2" X 3" NIPPLE PKG.	2	1	2
2" NIPPLE PKG.	3	1	3

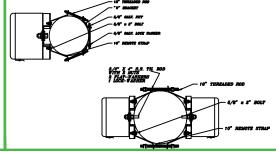
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FOOTBALL FIELD LIGHTING CHARTIERS VALLEY HIGH SCHOOL, BRIDGEVILLE, PA POLE F3

NOTE: USE THESE CONFIGURATIONS TO MOUNT ASSEMBLIES.



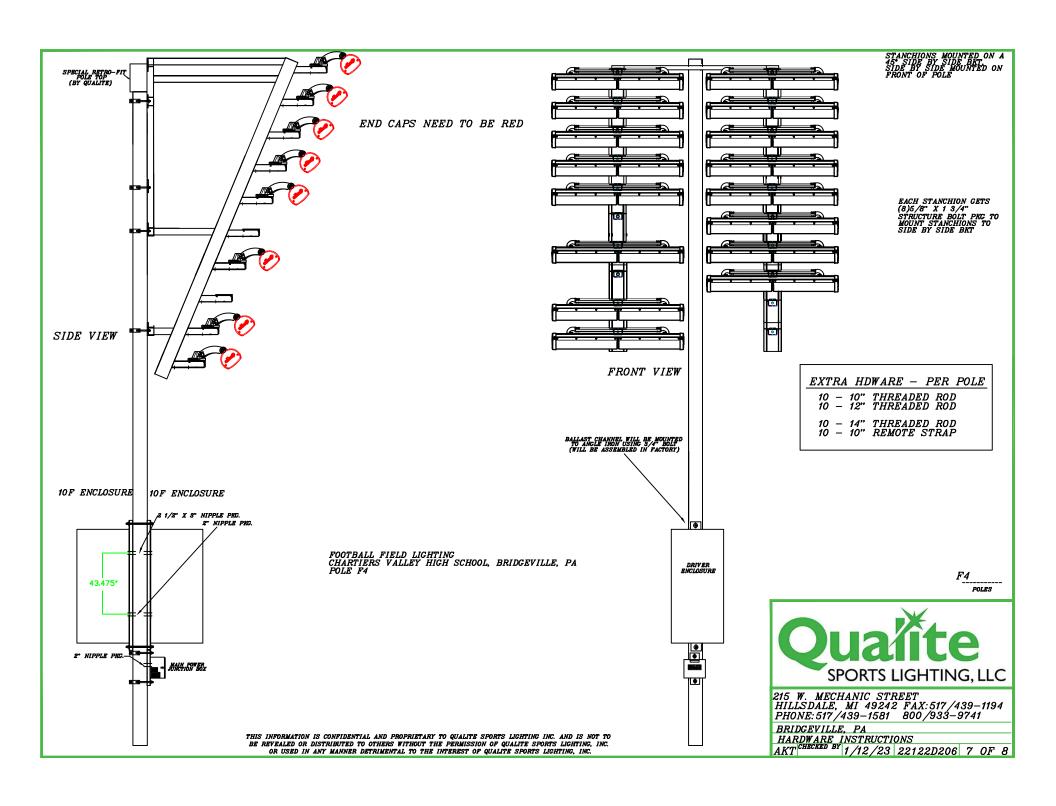






215 W. MECHANIC STREET HILLSDALE, MI 49242 FAX:517/439-1194 PHONE:517/439-1581 800/933-9741

BRIDGEVILLE, PA
HARDWARE INSTRUCTIONS
AKT CHECKED BY 1/12/23 22122D205 6 OF 8



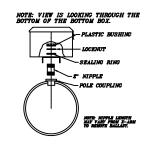
# HARDWARE LIST

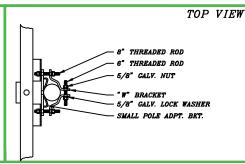
HARDWARE DESCRIPTION	HWD. $QTY.$		TOTAL
8" THREADED ROD	8	1	8
6" THREADED ROD	4	1	4
12" THREADED ROD	6	1	6
10" THREADED ROD	4	1	4
"W" BRACKET	12	1	12
5/8" GALV. NUT	44	1	44
5/8" GALV. L/WASHER	44	1	44
3/4" BOLT	6	1	6
3/4" LOCK-WASHER	6	1	6
3/4" FLAT-WASHER	12	1	12
3/4" S.S. NUT	12	1	12
5/8" X 1 3/4" STRUCTURE BOLT PKG.	16	1	16
5/8" X 2" BOLT PKG. 13" REMOTE STRAP	12	1	12
	4	1	4
10" REMOTE STRAP	8	1	8
SM. POLE ADPT. BKT.	4	1	4
2 1/2" X 3" NIPPLE PKG.	2	1	2
2" NIPPLE PKG.	3	1	3

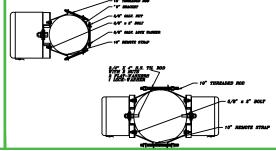
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FOOTBALL FIELD LIGHTING CHARTIERS VALLEY HIGH SCHOOL, BRIDGEVILLE, PA POLE F4

NOTE: USE THESE CONFIGURATIONS TO MOUNT ASSEMBLIES.









215 W. MECHANIC STREET HILLSDALE, MI 49242 FAX:517/439-1194 PHONE:517/439-1581 800/933-9741

BRIDGEVILLE, PA
HARDWARE INSTRUCTIONS
AKT CHECKED BY 1/12/23 22122D207 8 OF 8

#### MOUNTING HDWARE

<u>APPLICATION</u>	FASTENER	DIA	LENGTH	MATERIAL	GRADE	TORQUE _FT-lb	INSTALLED		<u>TZULUA</u>
Horizontal aiming hub to stanchion	Carriage Bolt	1/2"	6"	Stainless Steel	18-8	47	Factory	In Field	Lock washer & nut
Horizontal aiming hub to stanchion	Lock Bolt	3/8"	1-1/4"	Stainless Steel	18-8	20	Factory	In Field	Lock washer & nut
Stanchion to 90° bracket	Structural Bolt	5/8″	1-3/4"	Gal∨	A325	90	Field	N/A	Lock washer & nut
90° bracket to pole	Threaded Rod	5/8"	6 <b>"</b>	Galv	SAE J-429	90	Field	In Field	Lock washer & nut
90° bracket to pole	Threaded Rod	5/8″	8″	Galv	SAE J-429	90	Field	In Field	Lock washer & nut
90° bracket to pole	Threaded Rod	5/8"	10″	Galv	SAE J-429	90	Field	In Field	Lock washer & nut
90° bracket to pole	Threaded Rod	5/8″	12"	Galv	SAE J-429	90	Field	In Field	Lock washer & nut
W-bracket for wrap around to pole	Bar Galv	3/8 <b>″</b> ×2'	11"	A36/A529	G50		Field	In Field	Lock washer & nut
Pole to 90° bracket junction box	Nipple package	2-1/2"	3″	Pipe	SCH 40		Field	In Field	Lock nut, seal ring & plastic bushing
Pole to 90° bracket junction box	Nipple package	2″	3″	Pipe	SCH 40		Field	In Field	Lock nut, seal ring & plastic bushing
Driver cabinet to pole	Threaded Rod	3/4"	4"	Stainless Steel	18-8	120	Field	In Field	Lock nut, seal ring & plastic bushing

QUALITE SPORTS LIGHTING, LLC

215 W. MECHANIC STREET PHONE:517/439-1581 FAX:517/439-194 800/933-9741 P.O. BOX 765 WWW.QUALITE.COM

MOUNTING HDWARE

MJB SCALE=1 7/21/20 I OF I



# Warranty



# 25-YEAR TOTAL COVERAGE WARRANTY

# LED GameChanger™ Lighting System Sports Lighting Application

Qualite Sports Lighting provides a 25-year "total coverage warranty" to the owner for complete peace of mind at no out-of-pocket cost.

Qualite warrants the GameChanger™ LED Lighting System for 25 years from failure.

All fixtures and or components are covered under this warranty for the full 25 years. All necessary labor, parts, wiring, etc. will be replaced or corrected at Qualite's expense. The use and cost of equipment (cranes, lifts or other heavy construction equipment) is included in this warranty at Qualite's expense.

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# Field Audit



Project:	Chartier Valley
QL#:	22122
Date:	April 17, 2023

# Light Level Audit Report Football

Field Tech Rey

	F1								F2	
70	71	70	69	70	65	65	70	70	71	70
70	76	75	76	76	72	73	75	80	76	77
68	70	78	76	78	75	76	78	80	75	76
69	70	71	72	73	72	73	75	76	76	74
70	73	71	73	71	70	71	73	76	75	76
68	75	73	70	70	68	68	69	70	72	71

F3 Press Box F4

measured		
Soccer		
Points	72	
Average	73	
Maximum	80	
Minimum	65	
Max / Min	1.23	

Specified		
Soccer		
Points	72	
Average	70	
Maximum	na	
Minimum	na	
Max / Min	2.00	

**FIELD NOTES:** 



# **Controls**





# Lighting Control At Your Fingertips!





→ Customizable Scheduling

Plan your light schedule up to a year in advance

→ Control From Anywhere

Make Changes anywhere via your phone, ipad or laptop

→ No Experience Needed

**Controls are completely intuitive** 

→ Authentication

Use the login feature and only you can access your account



Compatible with existing in-house systems







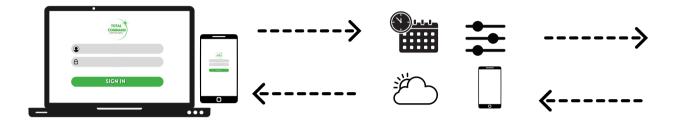




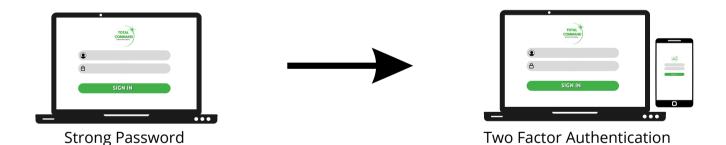




# Testing & Vulnerability Management Monitoring & Development



System functionality and design changes are verified in an isolated test "Sandbox" environment and subjected to functional and security testing prior to development to active production systems. By testing in an isolated environment without live site data, we ensure no data can be compromised while testing. Once security and functionality is verified, changes are rolled out in stages

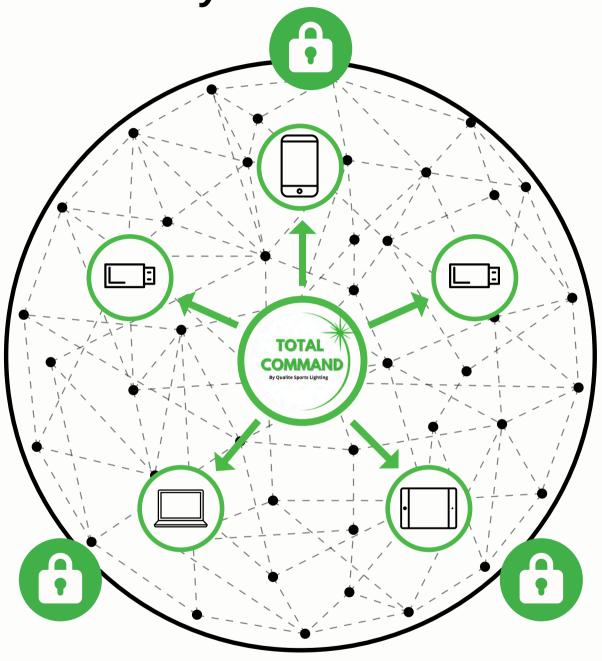


Industry-standard password management protocols are employed, including requirements for length and strength. Strong passwords are important and can be layered with two-factor authentication (2FA) for extra protection. This extra layer of protection can be especially important for administrative users such as systems management and support. Finally, user restrictions ensure access is granted for specific controls for each user. Whenever phones and computers are used to Control the app, each adjustment is logged by user, so if a users account is ever compromised, that user can immediately be removed or their password changed





# On-Site Security: Device Communication



Frequency hopping technology No third-party products on network

Data transmission is always encrypted





### Uplink: Private Cellular to Cloud







The Gateway communicates to the cloud-based services via dedicated, private 128-bit and 256-bit encrypted 3G cellular connections. Our secure connection operates completely independently from your IT infrastructure. The Gateway provides the communications between the 802.15.4 network and the 3G wireless network. In addition to standard 3G encryption, all data over the cell network travels on a private allocation of cellular addressing over an encrypted VPN (virtual private network) between the Gateways and our private data center.



TotalCommand™ operates on the Verizon 4g Network

### **Features**

#### → Plug and Play

With Skyus 160 you can easily connect to a 4G LTE network. The two SMA external cellular antennas extend your coverage to enhance your wireless connection

#### Backup Power

The 440mah keeps your business connected for up to 12 hours and charges quickly

#### Secure and Encrypted

Skyus 160 Safeguards your data with advanced encryption, hacker prevention, and password protection features





### GameChanger™ Dynamic Lighting System

Qualite Sports Lighting can help you create a memorable sports experience with our GameChanger™ Dynamic Lighting System. The system is controlled via the TotalCommand app or from any desktop computer.

Our Edison Award-winning QLED GameChanger™ Lighting System now comes standard with our **Silver Dynamic Lighting Package**. The two scenes, included in every Silver Package, are:

#### Chaser

Lights flash from one fixture to another and from pole to pole

#### Score

Random patterns of flashing lights from pole to pole

Upgrade to our **Gold Dynamic Lighting Package**, which includes four dynamic scenes:

#### Chaser

Lights flash from one fixture to another and from pole to pole

#### Score

Random patterns of flashing lights from pole to pole

#### Ladder Climb

Fills stanchions with lights going up and removes light from the stanchions as it goes down

#### **Firefly**

Random lights on each stanchion lighting up like fireflies

Upgrade to our **Platinum Dynamic Lighting Package**, which includes six dynamic scenes:

#### Chaser

Lights flash from one fixture to another and from pole to pole

#### Score

Random patterns of flashing lights from pole to pole

#### Ladder Climb

Fills stanchions with lights going up and removes light from the stanchions as it goes down

#### **Firefly**

Random lights on each stanchion lighting up like fireflies

#### **Applause**

Lights alternating between outside stations and outside stations, mimicking handclapping

#### Waterfall

Lights cascading down each stanchion like a waterfal





### QLED GameChanger™ RGBA Lighting Options

Qualite Sports Lighting's GameChanger™ RGBA Lighting System offers the players and fans, alike, an experience they won't forget! Scenes can be preprogrammed to fit any venue - professional to recreational!

Our Preset Scenes Include:

#### Corner to Corner

Two colors of lights going from corner to corner of the venue. This scene can be customized to school colors!

#### Scrolling Rainbow

A scrolling rainbow of the color palette alternating from home to visitor side of the venue

#### Follow the Leader

Alternating colors fading from one pole to another

#### **Spectrum**

Alternating colors fading from one pole to another

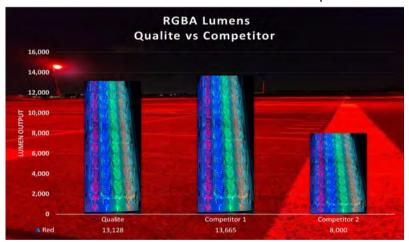
#### Color Chase

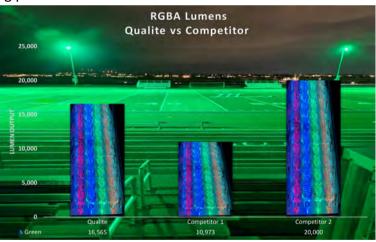
Vibrant colors chase around the venue

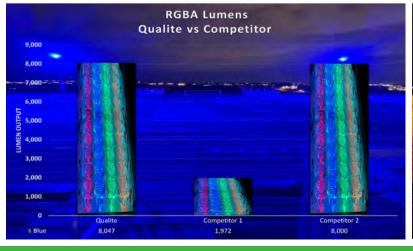
#### Color Carousel

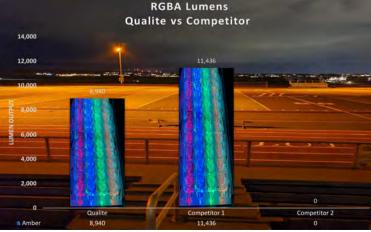
Clockwise rotation of the color palette

TotalCommand™ system includes preprogrammed "one-touch" lighting effects. If you already have a DMX system in place, Qualite's system will act as an extension of your already-in-place system. Custom light scenes are also available as an option. Including preset scenes with music.











# **Disconnect Info**



#### Data sheet

#### 3VA5130-4EC31-0AA0



circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA. @ 480V 3-pole, line protection TM230, FTAM, In=30A overload protection Ir=30A fixed short-circuit protection Ii=5...10 x In without connection

Product brand name	SENTRON	
Product designation	Molded-case circuit breaker	
Product designation / according to UL file	SEAS	
Product version	System protection	
Design of the load switch / acc: to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes	
Design of the overcurrent release	TM230	
Protective function of the overcurrent release	П	
Number of poles	3	

General/technical data	
Rated insulation voltage Ui	800 V
Max: rated operational voltage Ue with AC 50/60Hz	₩90 V
Max. rated operational voltage Ue with DC	500 V
Power loss [W] / maximum	9.3 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	3,1W
Mechanical service life (switching cycles) / typical	15 000



Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	4 000
Electrical endurance (switching cycles) / at 480 V / at 50/60 Hz	8 000
Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz	4 000
Neutral conductors / upgradeable/retrofittable	No
Ground fault monitoring version	Without
Product function	
communication function	No
other measurement function	No
current	100
Marking / acc. to UL 489 / 100%-rated breaker	No
Max. rated operational current of the frame size	125 A
Rated continuous current lu	30 A
Operating current	
• at 40 °C	30 A
• at 45 °C	29.4 A
• at 50 °C	28.8 A
• at 55 °C	28.3 A
• at 60 °C	27.7 A
• at 65 °C	27.2 A
• at 70 °C	26.7 A
witching capacity according to IEC 60947	
Switching capacity class of the circuit breaker	S
Maximum short-circuit current breaking capacity (Icu)	
• at 240 V	55 kA
• at 415 V	36 kA
• at 690 V	5 kA
Operational short-circuit current breaking capacity (Ics)	
• at 240 V	85 kA
• at 415 V	36 kA
• at 690 V	5 kA
Short-circuit current making capacity (Icm)	Chi and
• at 240 V	121 kA
• at 415 V	76 kA
• at 690 V	7.5 kA
Design of short-circuit protection	For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter



Breaking capacity current	
at 240 V	65 kA
• at 480 V	25 kA
	14 kA
• at 600 Y/347 V	14 KA
djustable parameters	
Adjustable response value current / lr min.	30 A
Adjustable response value current / Ir max.	30 A
Adjustable response value current / li min.	150 A
Adjustable response value current / li max.	300 A
Ground fault protection / tripping switchable / 2t=ON/OFF	No
echanical Design	222
Height [in]	5.5 in
Height	140 mm
Width [in]	3 in
Width	76.2 mm
Depth [in]	3 in
Depth	76.5 mm
connections	Total Control
Arrangement of electrical connectors / for main current circuit	Without connection
Type of electrical connection / for main current circuit	Without
uxillary circuit	
Number of CO contacts / for auxiliary contacts	0
ccessories	
Product extension / optional / motor drive	Yes
nvironmental conditions	100
Protection class IP / on the front	IP40
Ambient temperature	
<ul><li>during operation / minimum</li></ul>	-25 °C
• during operation / maximum	70 °C
during storage / minimum	-40 °C
during storage / maximum	80 °C
ertificates	
Reference code / acc. to DIN EN 81346-2	Q
Certificate of suitability / as approval for NAVAL (no	No



Data sheet 3VA9133-0JB11

wire connector 3 units accessory for: 3VA4/5 125



Nodel Product brand name	SENTRON
Product designation	accessories
Troduct designation	
Connections according IEC	
IEC-marking / of terminals	1.5-95 CU
	4.0-95 AL
The second secon	NNL
Connectable conductor cross-section	
<ul> <li>for copper cable / stranded / minimum</li> </ul>	10 mm²
<ul> <li>for copper cable / stranded / maximum</li> </ul>	95 mm²
<ul> <li>for aluminum cable / solid / minimum</li> </ul>	10 mm²
<ul> <li>for aluminum cable / solid / maximum</li> </ul>	16 mm²
• for aluminum cable / stranded / minimum	10 mm²
• for aluminum cable / stranded / maximum	95 mm²
Wire stripping length	12,2 mm

#### Commetions according UL

UL-marking / of terminals	TA1.1 CMC 14-3/0 CU7 12-3/0 AL7 UR CSA
Permissible temperature / of connectable conductor / according to UL 486A-486B	75 °C
Connectable conductor cross-section	
<ul> <li>for copper cable / stranded / maximu</li> </ul>	3/0 AWG
• for copper cable / finely stranded / maximu	3/0 AWG
• for aluminum cable / stranded / minimu	12 AWG
• for aluminum cable / stranded / maximu	3/0 AWG



# **Technical Sheets**

# GAMECHANGER QLED \_\_\_\_\_









#### INTRODUCING THE Q-LED GAMECHANGER SYSTEM

We didn't just set out to design a better LED light, we set out to design a system that would *revolutionize* the sports lighting world.

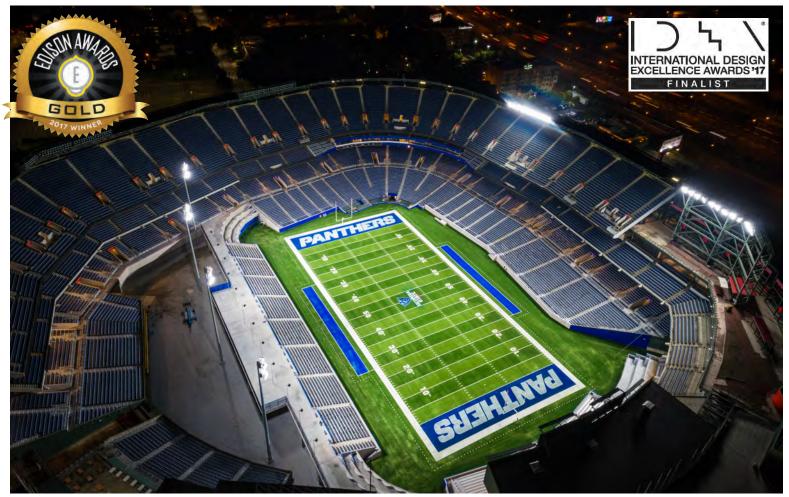
#### THE LATEST LED TECHNOLOGY

By combining over 30 years of focused sports lighting experience with the latest LED technology, we have developed a sports lighting system that is a true GameChanger™! Designed for HDTV broadcasting, digital photography and slow-motion recording of fast paced sports lighting venues from professional to recreational levels. With enhanced glare mitigation and specialized beam shapes we are able to paint the playing surface with smooth light and keep your neighbors dark and happy. Backed by the best warranty in sports lighting, guaranteed light levels and Qualite's life-long commitment to customer service.



Installation at Exeter Union High School, Exeter, CA.

### **Better Lighting, Better Game!**









# GAMECHANGER QLED









GAMECHANGER™ Electrical Detail	<b>GAMECHANGER™</b> Gen 3-4	<b>GAMECHANGER™</b> Gen 3-2
Kw Draw	1.295	0.647
*Lumen Output	125,560	62,780
ССТ	5,700	5,700
CRI	>80	>80
Weight	39 lbs.	27 lbs.
CURRENT	Amps	Amps
277v	4.67	2.33
240v	5.39	2.69
208v	6.23	3.12
480 1 Ø	2.7	1.35
480 3 Ø	2.34	1.17

<sup>\*</sup> The specifications listed were obtained under optimal testing conditions. Please note that changes in options, features and conditions may result in slightly different performance specifications among fixtures.

#### **APPLICATIONS**

Outdoor sports fields at all levels, general area lighting

#### **RATINGS**

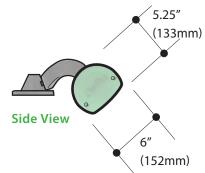
IP66, -40°C to 55°C

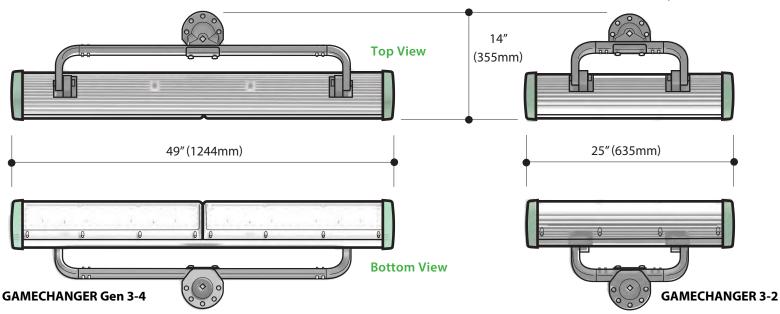
#### **INPUT POWER**

208v - 240v auto sensing 277v - 480v auto sensing

#### **OPTICS/LENS**

Various symmetrical and asymmetrical rectangular and round patterns with built in glare control utilizing TIR lens technology. PMMA outer lenses provide long life without yellowing.









# GAMECHANGER







#### **BASIC ASSEMBLY CONFIGURATION:**

Pre-wired, Pre-aimed, and Pre-assembled light stanchion

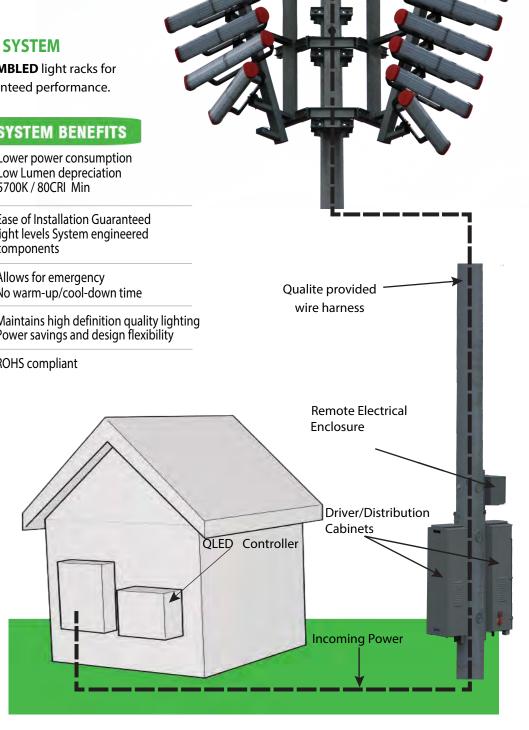
#### THE GAMECHANGER LIGHTING SYSTEM

Pre-aimed, pre-wired and FULLY ASSEMBLED light racks for unequaled ease of assembly with guaranteed performance.

FEATURES	SYSTEM BENEFITS		
High Efficiency LED	Lower power consumption		
High CCT & CRI	Low Lumen depreciation 5700K / 80CRI Min		
Pre-wired and Pre-aimed System	Ease of Installation Guaranteed light levels System engineered components		
Instant On/Off	Allows for emergency No warm-up/cool-down time		
Color Consistency Dimmable	Maintains high definition quality lighting Power savings and design flexibility		
Environmentally Safe	ROHS compliant		



GameChanger™ System being controlled from a smart phone via an app. GameChanger™ can be programmed remotely from any wireless device or laptop providing the ultimate connectivity and control. See the QLED controls brochure for more information.









# GAMECHANGER QLED \_\_\_\_\_

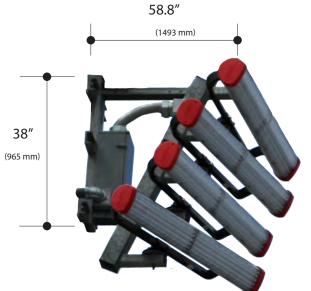






#### **4F** ASSEMBLY





Weight - approximately 296lbs 4F Side View



#### **7F** ASSEMBLY





Weight - approximately 430lbs













#### **10F** ASSEMBLY





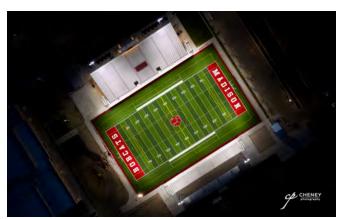
Weight - approximately 770lbs

#### **Stanchion Assembly Details:**

- Designed to meet AASHTO 150mph and Florida Building Code.
- Galvanized to ASTM A123/A123M standards.
- For use on new or retrofit.
- Fully Assembled and inspected prior to shipment.



Installation at Northwest High School, Jackson, MI.



Installation at Madison High School, Rexburg, ID.















#### **RELIABILITY**

Unlike legacy bulb-based systems, Q-LED™ System contains no parts to wear out or replace so you can be sure your lighting is maintenance-free for thousands of hours. Q-LED™ System is weather-proof and can handle the elements.

#### INTEGRATED CONTROLS

For the greatest control, Q-LED™ System interfaces with the Qualite wireless control system to offer the ultimate fan experience. With dimming, scheduling and many other functions, the customization possibilities are endless.

#### **BEST WARRANTY IN THE BUSINESS**

Qualite not only warranties our product, but we also guarantee the light levels, for the life of the system! We have the best standard warranty in the industry and can create a custom warranty to meet the customers needs.

#### **Patent Pending**

Shown with optional external visor for extreme spill and glare control.



#### **OPTIMIZED FOR HDTV**

Q-LED™ System's ability to match daylight color temperature while delivering precise, uniform light means broadcasters do not require supplemental lighting. Intensity and uniformity ensures shadows on the playing surface are eliminated, improving the appearance of moving objects and the ease with which camera operators can follow the action of the game. Our sophisticated circuitry means flicker is a thing of the past.

#### **EFFICIENCY**

A Qualite Sports Lighting installation can reduce fixture count by one-third to one-half, while doubling the amount of light reaching the playing surface. In one Q-LED™ System installation, fixture count was reduced by more than half, foot candles increased from 148 to 277 with energy savings of over 75%.



#### **ABOUT QUALITE**

Qualite has been the sports lighting partner for high schools, colleges, parks and recreation departments, and minor and major league sport franchises for over 30 years. In addition, Qualite has partnered with a leading LED fixture manufacturer to provide the highest quality LED technology to sports facilities, including the host stadium to the 2015 Super Bowl, The University of Phoenix in Glendale, AZ.















Phone: (800) 933-9741 Fax: (517) 439-1194 http://www.Qualite.com/





