GENERAL ELECTRICAL NOTES

G1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE 2020 NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL AND STATE CODES.

G2. ALL MATERIAL, EQUIPMENT AND APPLIANCES SHALL BE NEW, LABELED AND LISTED FOR ITS INTENDED USE BY A QUALIFIED THIRD-PARTY ELECTRICAL TESTING LABORATORY (I.E. UL, ETL, ETC.) AND THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION PER NEC ARTICLES 90.7, 110.2 AND 110.3. WHERE UNDERWRITER'S LABORATORIES LABELING IS AVAILABLE FOR THE CLASS OF MATERIAL INVOLVED, MATERIALS SHALL BE FURNISHED WITH A UL LABEL OR LISTING, OR THE ELECTRICAL CONTRACTOR SHALL PROVE IT IS NOT REQUIRED.

G3. ALL ELECTRICAL PERMITS AND INSPECTION FEES SHALL BE OBTAINED AND PAID FOR BY THE ELECTRICAL CONTRACTOR.

G4. ELECTRICAL CONTRACT DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF ELECTRICAL EQUIPMENT. DO NOT SCALE ELECTRICAL PLANS. OBTAIN ALL DIMENSIONS FROM THE ARCHITECTS DIMENSIONED DRAWINGS AND FIELD MEASUREMENTS. THE CONTRACTOR SHALL REVIEW ARCHITECTURAL PLANS FOR DOOR SWINGS AND BUILT-IN EQUIPMENT; CONDITIONS INDICATED ON THOSE PLANS SHALL GOVERN FOR THIS WORK.

G5. VERIFY ALL UTILITY REQUIREMENTS FOR ELECTRICAL SERVICE (PRIOR TO STARTING ANY WORK) SUCH AS VOLTAGE, PHASES, FAULT CURRENT, ETC., AND COORDINATE EXACT LOCATION OF INCOMING ELECTRICAL SERVICE WITH LOCAL POWER COMPANY PRIOR TO PROJECT START.ε NOTIFY ENGINEER OF ANY DIFFERENCES FROM WHAT IS SHOWN ON PLANS.

G6. ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR ONE YEAR EFFECTIVE FROM THE DATE OF SUBSTANTIAL COMPLETION.

G7. A COMPLETE GROUNDING SYSTEM SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH ARTICLE 250 OF THE NEC, AND AS SHOWN ON THE DRAWINGS.

G8. ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF ELECTRICAL EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. DO NOT CUT ANY MATERIAL THAT WILL WEAKEN THE STRUCTURE WITHOUT WRITTEN PERMISSION OF THE ARCHITECT. PATCHING SHALL BE ACCOMPLISHED TO MATCH ADJACENT SURFACES IN EVERY RESPECT. ENGAGE ORIGINAL INSTALLER FOR CUTTING/PATCHING OF ROOFS.

G9. PROVIDE A TYPED DIRECTORY IN ALL PANELBOARDS CLEARLY DESCRIBING THE LOCATION AND TYPE OF LOAD SERVED FOR ALL CIRCUITS.

G10. IF SELECTIVE BREAKER COORDINATION STUDY IS REQUIRED, THE ELECTRICAL CONTRACTOR SHALL REQUEST FROM THE ELECTRICAL GEAR MANUFACTURER PER NEC 700.32 REQUIREMENTS.

G11. PROVIDE ENGRAVED PHENOLIC NAMEPLATES FOR ALL PANELBOARDS AND DISCONNECT SWITCHES, WHITE LETTERS ON BLACK BACKGROUND. NAMEPLATE SHALL CONTAIN EQUIPMENT DESIGNATION, VOLTAGE, FEEDER SOURCE, AIC RATING & DATE INSTALLED.

G12. PROVIDE "FLASH HAZARD" LABELS FOR ALL PANELBOARDS IN ACCORDANCE WITH NEC REQUIREMENTS.

G13. ALL TERMINALS/LUGS SHALL BE 60 DEGREE/75 DEGREE RATED.

G14. FUSES 0-600 AMPS SHALL BE UL CLASS "RK-5" LOW PEAK DUAL ELEMENT TIME DELAY WITH 200,000 AMPERE INTERRUPTING RATING AS MANUFACTURED BY BUSSMAN UNLESS NOTED OTHERWISE.

G15. ALL WATER HEATERS SHALL HAVE DISCONNECT SIZED PER 422.11[E](3).

G16. ELECTRICAL CONTRACTOR SHALL MAKE ALL FINAL ELECTRICAL CONNECTIONS TO EQUIPMENT REGARDLESS OF WHO SUPPLIES THE EQUIPMENT. THIS INCLUDES ALL HVAC, PLUMBING AND OWNER FURNISHED EQUIPMENT CONNECTIONS OF 120V OR HIGHER.

G17. RACEWAYS SHALL BE INSTALLED CONCEALED IN NEW WALL CONSTRUCTION, ABOVE CEILINGS, BELOW FLOOR, AND IN OTHER CAVITIES TO THE GREATEST EXTENT POSSIBLE. WHERE EXPOSED RACEWAYS MUST BE USED, LAYOUT RACEWAYS TO MINIMIZE THE NUMBER OF VERTICAL RUNS.

G18. ALL EXPOSED RACEWAY SHALL BE RUN PARALLEL OR PERPENDICULAR TO THE BUILDING SURFACES AND SHALL BE PAINTED AS DIRECTED BY THE ARCHITECT. NO EXPOSED CONDUIT SHALL BE ALLOWED IN FINISHED SPACES EXCEPT AS PERMITTED BY OWNER OR ARCHITECT. EXPOSED RACEWAY IN FINISHED SPACES SHALL BE WIREMOLD TYPE.

G19. BEFORE COMMENCING WITH ANY ROUGH-IN, COORDINATE THE EXACT LOCATION AND MOUNTING HEIGHT OF ALL WALL MOUNTED DEVICES WITH THE ARCHITECTURAL INTERIOR ELEVATIONS, CASEWORK SHOP DRAWINGS, AND EXISTING CONDITIONS. IF ANY DISCREPANCIES ARE DISCOVERED, NOTIFY THE ARCHITECT FOR FURTHER DIRECTION. MINOR ADJUSTMENTS IN DEVICE LOCATION, I.E. 6"-0" IN ANY DIRECTION SHALL BE DONE AT NO ADDITIONAL COST TO THE CONTRACT.

G20. ALL WIRING SHALL BE INSTALLED IN IMC, RMC, EMT OR TYPES AC AND MC FLEXIBLE CABLES. RNC CONDUIT (PVC), SHALL ONLY BE USED UNDERGROUND AND OUTDOORS, WHERE NOT SUBJECT TO PHYSICAL DAMAGE. MINIMUM SIZE CONDUIT SHALL BE 3/4". AC AND MC FLEXIBLE CABLES SHALL BE USED ONLY IN AREAS PERMITTED BY CODE. INDOOR BRANCH CIRCUIT WIRING MAY BE TYPE NM, NMC, OR NMS FOR DWELLING UNITS OR OTHER BUILDINGS PERMITTED TO BE OF TYPES III, IV OR V CONSTRUCTION. DWELLING UNIT SERVICE FEEDERS MAY BE TYPE SE OR USE CABLES IN AREAS PERMITTED BY CODE. AMPACITY FOR SE AND USE CABLES SHOWN ON THE SER FEEDER SCHEDULE INCLUDED IN THESE DRAWINGS IS BASED ON THE 60± C AMPACITY OF TABLE 310.15(B)(16) FOR INSTALLATION IN INSULATION. SHOULD SER CABLE NOT BE IN CONTACT WITH INSULATION CONTACT ENGINEER FOR REVISED FEEDER SIZES (IN INSULATION SHALL BE AS DEFINED IN ARTICLE 310.15(A)(3) AND, AS DETERMINED BY THE LOCAL AHJ). ALL SER FEEDERS LOCATED WITHIN TYPE I AND/OR II BUILDING AREAS (NONCOMBUSTIBLE CONSTRUCTION) SHALL BE RUN IN EMT CONDUIT PER NEC. ONCE THE CONDUIT PENETRATES THE TRANSITION SLAB AND ENTER INTO THE TYPE III, IV OR V CONSTRUCTION THE SER CABLE MAY BE RUN FREELY AS ALLOWED PER NEC. ALL OTHER WIRING IN DWELLING UNITS EXCEEDING 50 AMPERES SHALL BE INSTALLED IN EMT INDOORS OR PVC OUTDOORS, WHERE NOT SUBJECT TO PHYSICAL DAMAGE.

G21. ALL FLEX SHALL BE LIQUID TIGHT FLEXIBLE METAL.

G22. PROVIDE A PULL WIRE OR FISH TAPE IN ALL EMPTY CONDUITS. PROVIDE A BLANK COVER PLATE OVER ALL UNUSED BOXES INCLUDING DATA/COMM BOXES.

G23. WHERE A SINGLE HOMERUN IS SHOWN THE CIRCUIT SHALL BE INSTALLED IN A DEDICATED CONDUIT, DO NOT COMBINE WITH OTHER CIRCUITS. WHERE A CIRCUIT HOMERUN IS NOT SHOWN THE CONTRACTOR SHALL COMBINE CIRCUITS AS FOLLOWS AND IN ACCORDANCE WITH THE NEC:

1. A MAXIMUM OF THREE 20A, 1 POLE BRANCH CIRCUITS MAY BE COMBINED IN COMMON HOMERUN SHARING A COMMON NEUTRAL OR WITH SEPARATE NEUTRALS, FOR A TOTAL OF SIX CURRENT CARRYING CONDUCTORS. ALL BRANCH CIRCUITS LARGER THAN 20A SHALL BE SEPARATELY HOMERUN TO PANEL.
2. EACH MULTIWIRE BRANCH CIRCUIT SHARING A COMMON NEUTRAL SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES.

G24. CONDUCTORS SHALL BE COPPER, RATED AT NOT LESS THAN 600 VOLTS. MINIMUM SIZE SHALL BE NO. 12 AWG UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL WIRE #8 AWG AND LARGER SHALL BE STRANDED, #10 THRU #12 AWG CONDUCTORS SHALL BE SOLID. ALL INSULATION TYPES SHALL BE THWN/THHN. FEEDER CIRCUIT CONDUCTORS MAY BE COPPER OR ALUMINUM.

G25. 20A/120V BRANCH CIRCUITS EXTENDING UP TO 56' IN LENGTH, FROM PANEL TO FARTHEST DEVICE, SHALL USE AT MINIMUM NO. 12 (CU) CONDUCTORS AND 3/4"C. FOR 20A/120V BRANCH CIRCUITS EXTENDING UP TO 93' IN LENGTH, FROM PANEL TO FARTHEST DEVICE, SHALL USE NO. 10 (CU) CONDUCTORS AND 3/4"C. ANY BRANCH CIRCUIT LENGTHS THAT EXCEED 93', THE ELECTRICAL CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY FOR UPDATED CONDUCTOR AND CONDUIT SIZES.

G26. TO PREVENT UNDER-VOLTAGE, THE FEEDERS SHOWN ON THE VOLTAGE DROP TABLE(S) HAVE BEEN SIZED TO COMPENSATE FOR WHEREVER A MAXIMUM TOTAL VOLTAGE DROP ON BOTH FEEDERS AND BRANCH CIRCUITS TO THE FARTHEST DEVICE DOES NOT EXCEED 5%. FOR FEEDER LENGTHS EXCEEDING THE ONE-WAY DISTANCES PROVIDED ON THE VOLTAGE DROP TABLE(S), THE ELECTRICAL CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER PRIOR TO BIDDING, PURCHASING AND ROUGHING-IN FOR UPDATED CONDUCTOR AND CONDUIT SIZES BASED ON UPDATED VOLTAGE DROP CALCULATIONS.

G27. FOR EVERY WIRING DEVICE MARK THE BRANCH CIRCUIT TO WHICH IT IS CONNECTED ON THE BACK OF EACH DEVICE PLATE, USING AN INDELIBLE MARKER PEN.

G28. COORDINATE ALL DEVICE AND DEVICE PLATE COLORS WITH OWNER/ARCHITECT. DEVICES AND DEVICE PLATES LOCATED IN CABINETRY SHALL BE A DARK COLOR TO MATCH CABINETRY FINISH.

G29. EXACT LOCATION OF ALL FLOOR-MOUNTED OUTLETS SHALL BE COORDINATED WITH THE OWNER/ARCHITECT BEFORE ROUGH-IN.

G30. TWO OR MORE ADJACENT POWER OR COMMUNICATION RECEPTACLES SHALL BE GANGED WITH A COMMON FACEPLATE - IF THEY CANNOT BE GANGED THEY SHALL BE INSTALLED WITH A MINIMUM DISTANCE BETWEEN UNITS.

G31. WALL RECEPTACLES SHOWN BACK TO BACK MAY BE OFFSET BUT SHALL BE INSTALLED DIRECTLY ADJACENT TO ONE ANOTHER.

G32. LIGHT SWITCHES SHALL BE NO MORE THAN 6" FROM EDGE OF DOOR FRAME.

G33. WHERE PENETRATIONS ARE MADE THROUGH A REQUIRED FIRE-RESISTIVE WALL, FLOOR, OR PARTITION FOR THE PURPOSE OF RUNNING RACEWAY CARRYING ELECTRICAL, TELEPHONE, TELEVISION, OR LOCAL COMMUNICATION AND/OR SIGNALING CIRCUITS, THE OPENING AROUND THE RACEWAY SHALL BE FIRE STOPPED PER THE STATE BUILDING CODE. COORDINATION WITH THE GENERAL CONTRACTOR SHALL BE MAINTAINED TO ENSURE THAT THIS FIRE STOPPING IS ACCOMPLISHED. USE APPROVED ASSEMBLIES SUCH AS THE FOLLOWING:

- CONDUIT PENETRATIONS OF 1, 2, 3 & 4 HOUR GYP BOARD WALLS - U.L.#WL1001
- CONDUIT PENETRATIONS OF 2, 3 & 4 HOUR CONCRETE OR BLOCK WALLS - U.L.#CAJ1001
- CONDUIT PENETRATIONS OF 2, 3 & 4 HOUR CONCRETE FLOORS - U.L.#CAJ1001
- CONDUIT PENETRATIONS OF 1 HOUR GYPBOARD CEILING ASSEMBLY - L526
- MULT. CONDUIT PENETRATIONS OF 2,3 & 4 HOUR CONCRETE OR BLOCK WALL OR FLOOR - CAJ1042

G34. IN REQUIRED FIRE RATED WALLS AND PARTITIONS, OPENINGS FOR INSTALLATION OF BOXES SHALL BE IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS INCLUDED WITH THE BOX LISTING. COORDINATE CLOSELY WITH THE GENERAL CONTRACTOR TO ENSURE THAT THE INTEGRITY OF THE U.L. RATING IS MAINTAINED.

G35. OUTLET BOXES FOR DEVICES MOUNTED ON OPPOSITE SIDES OF FIRE RATED PARTITIONS SHALL NOT BE MOUNTED IN THE SAME WALL CAVITY. SEPARATE WALL PENETRATIONS BY MOUNTING ON OPPOSITE SIDES OF WALL STUDS OR OTHER VERTICAL STRUCTURAL MEMBER IN THE WALL.

G36. PRIOR TO ORDERING ANY EQUIPMENT THE ELECTRICAL CONTRACTOR SHALL PROVIDE SHOP DRAWING SUBMITTALS TO THE OWNER, ARCHITECT AND ELECTRICAL ENGINEER FOR THE LIGHTING FIXTURES, ELECTRICAL GEAR, FIRE ALARM SYSTEM AND OTHER SIMILAR SYSTEMS. SHOP DRAWING SUBMITTALS SHALL BE PROVIDED REGARDLESS IF THE EQUIPMENT BEING SUPPLIED IS THE SAME AS WHAT IS SPECIFIED ON THE PLANS.

G37. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING RESTRAINTS TO RESIST THE EARTHQUAKE EFFECTS ON THE ELECTRICAL SYSTEM. THE REQUIREMENTS FOR THOSE RESTRAINTS ARE FOUND IN THE IBC, THE ANCHORING OF THE EQUIPMENT SHALL COMPLY WITH THE IBC SECTION 1613.

G38. IF DURING THE COURSE OF WORK THE ELECTRICAL CONTRACTOR DISCOVERS A PROBLEM WITH THE PERFORMANCE OF THE INSTALLATION RELATIVE TO THE PLANS AND SPECIFICATIONS OR NEC OR OTHER CODES, THE ELECTRICAL CONTRACTOR SHALL IMMEDIATELY BRING THE PROBLEM TO THE ATTENTION OF THE ARCHITECT AND ENGINEER FOR RESOLUTION PRIOR TO THE EXECUTION OF THE WORK.

G39. SEE PANEL SCHEDULES FOR BRANCH CIRCUIT CONDUCTOR SIZES. THE "WIRE SIZE" COLUMN INDICATES THE SIZE OF THE PHASE (IE HOT) AND NEUTRAL CONDUCTORS. THE EC SHALL SIZE THE EQUIPMENT GROUNDING CONDUCTORS PER NEC TABLE 250.122, THE EC SHALL SIZE THE CONDUIT (IF REQUIRED) PER NEC ANNEX C. THE QUANTITY OF CONDUCTORS IS BASED ON THE "POLE" COLUMN AND FOLLOWS THE PROCESS BELOW, PARALLEL SET QUANTITIES ARE MULTIPLIED BY THE NUMBER OF SETS:

120V/277V - 1 POLE
1 - PHASE (IE HOT) - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
1 - NEUTRAL - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
1 - GROUND - PER NEC TABLE 250.122
CONDUIT SIZED PER NEC ANNEX C (IF REQUIRED)

208V/240V/480V - 2 POLE
2 - PHASE (IE HOT) - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
1 - NEUTRAL (EC VERIFY IF REQUIRED FOR INSTALLED EQUIPMENT) - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
1 - GROUND - PER NEC TABLE 250.122
CONDUIT SIZED PER NEC ANNEX C (IF REQUIRED)

208V/240V/480V - 3 POLE
3 - PHASE (IE HOT) - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
1 - NEUTRAL (EC VERIFY IF REQUIRED FOR INSTALLED EQUIPMENT) - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
1 - GROUND - PER NEC TABLE 250.122
CONDUIT SIZED PER NEC ANNEX C (IF REQUIRED)

G40. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH GEAR MANUFACTURER WHERE THE HIGHEST CONTINUOUS TRIP SETTING FOR WHICH THE ACTUAL DEVICE INSTALLED IN A CIRCUIT BREAKER IS RATED OR CAN BE ADJUSTED IS 1200A OR HIGHER SHALL HAVE ARC ENERGY REDUCTION IN ACCORDANCE WITH NEC 240.87.

G41. ALL 120V BRANCH CIRCUITS WHICH SERVE OUTLETS LOCATED IN DWELLING UNITS SHALL HAVE CIRCUIT BREAKERS WITH ARC-FAULT CIRCUIT INTERRUPTER PROTECTION INTEGRAL TO THE BREAKER, AS PER NEC 210-12, WHETHER NOTED ELSEWHERE ON THESE PLANS OR NOT.

SITE LIGHTING FIXTURE SCHEDULE

SYMBOL OR TAG LETTER	MANUF.	CATALOG NUMBER	LAMP DATA NO.	LAMP DATA TYPE	WATTS	QTY.	MOUNTING	DESCRIPTION
A	VISIONAIRE LIGHTING	VLX-1 T4 160LC 5 3K UNV AM BK PCR-120	1	LED	266	55	POLE TOP 12' MOUNTING	TYPE IV LIGHT FIXTURE, 8,606 LUMENS. 12'-0" SQ. STEEL POLE.
B	VISIONAIRE LIGHTING	VLX-1 T4 160LC 5 3K UNV AM BK PCR-120 CLS	1	LED	266	23	POLE TOP 12' MOUNTING	TYPE IV LIGHT FIXTURE, 8,606 LUMENS. 12'-0" SQ. STEEL POLE. FIXTURE TO HAVE REAR SHIELD.
C	VISIONAIRE LIGHTING	MLB T3 48LC 5 3K UNV WM BK PCR-120	1	LED	53	46	WALL 10' MOUNTING	TYPE III LIGHT FIXTURE, 4,347 LUMENS.
D	VISIONAIRE LIGHTING	VLX-1 T3 192LC 7 3K UNV AM BK PCR-120	1	LED	421	10	POLE TOP 12' MOUNTING	TYPE III LIGHT FIXTURE, 8,606 LUMENS. 12'-0" SQ. STEEL POLE.

FIXTURE SCHEDULE NOTES:

LF1: LIGHTING FIXTURE CATALOG NUMBERS ARE INDICATIVE OF THE STYLE OF FIXTURE REQUIRED. CONTRACTOR SHALL COORDINATE WITH FIELD CONDITIONS & ARCHITECT'S FINISH SCHEDULE TO PROVIDE FIXTURES WITH THE PROPER TRIM, VOLTAGE AND OPTIONS NECESSARY FOR A COMPLETE INSTALLATION.

LF2: DOUBLE-FACED EXIT FIXTURES SHALL BE OF THE SAME MANUFACTURER AND SERIES AS THE CORRESPONDING SINGLE FACED FIXTURES SCHEDULED.

LF3: FLUORESCENT BATTERY PACKS SHALL BE CAPABLE OF PROVIDING AT LEAST 1100 LUMENS OUTPUT FROM ONE LAMP FOR A DURATION OF 1.5 HOURS. REGARDLESS OF CATALOG NUMBER INDICATED IN SCHEDULE, PROVIDE BATTERY PACKS FOR ALL FIXTURES INDICATED ON THE DRAWINGS TO BE EMERGENCY TYPE. BOTH LAMPS OF A (2) LAMP FIXTURE SHALL BE SERVED BY THE EMERGENCY BALLAST, OUTBOARD LAMPS OF (3) AND (4) LAMP FIXTURES SHALL BE SERVED BY THE EMERGENCY BALLAST. ALL BATTERY PACKS SHALL BE FACTORY INSTALLED.

LF4: THE BATTERY PACKS FOR ALL EXIT AND EMERGENCY LIGHT FIXTURES SHALL BE CAPABLE OF PROVIDING EMERGENCY POWER TO THE FIXTURES FOR A MINIMUM OF 90 MINUTES.

LF5: ALL FLUORESCENT FOUR FOOT LIGHT FIXTURES SHALL BE EQUIPPED WITH INSTANT START ELECTRONIC BALLASTS AND 3500K LAMPS, SEE SCHEDULE FOR ADDITIONAL INFORMATION.

LF6: ALL COMPACT FLUORESCENT LIGHT FIXTURES SHALL BE EQUIPPED WITH ELECTRONIC BALLASTS AND 3500K, 82 CRI LAMPS.

LF7: SUBMITTALS FOR ALL LIGHT FIXTURES SHALL BE REQUIRED, PROVIDE SUBMITTAL DATA TO INCLUDE COMPLETE PHOTOMETRIC DATA AS WELL AS DATA ON MATERIAL, FINISHES, SUPPORTS, REFLECTORS, LENSES, ETC.

LF8: PROVIDE BALLASTS AS REQUIRED FOR "INBOARD/OUTBOARD" SWITCHING WHERE INDICATED ON PLANS. IN ADDITION, ALL FIXTURES WIRED "INBOARD/OUTBOARD" SHALL BE TANDEM WIRED.

LF9: IN INDOOR LOCATIONS OTHER THAN DWELLING AND ASSOCIATED STRUCTURES, ALL FLUORESCENT LIGHT FIXTURES THAT UTILIZE DOUBLE ENDED LAMPS AND CONTAIN BALLAST(S) THAN CAN BE SERVICED IN PLACE SHALL HAVE A DISCONNECTING MEANS EITHER INTERNAL OR EXTERNAL TO EACH LUMINAIRE. THE LINE SIDE TERMINALS OF THE DISCONNECTING MEANS SHALL BE GUARDED.

LF10: FIXTURES SHALL BE INDEPENDENTLY SUPPORTED DIRECTLY FROM THE STRUCTURE WITH CODE GAUGE WIRE AT ALL FOUR CORNERS.

LF11: ALL RECESSED FIXTURES INSTALLED IN CEILINGS, INDICATED BY ARCHITECT AS HAVING INSULATION INSTALLED OVER CEILING AND FIXTURES, SHALL BE U.L. RATED FOR DIRECT CONTACT WITH INSULATION OR INSTALLED INSIDE AN APPROPRIATE AIR-TIGHT ASSEMBLY WITH A 0.5 INCH CLEARANCE FROM COMBUSTIBLE MATERIALS AND WITH 3 INCHES CLEARANCE FROM INSULATION MATERIAL. VERIFY WITH ARCHITECTURAL PLANS.

LF12: ALL RECESSED FIXTURES RECESSED IN FIRE RATED CEILINGS, SHALL BE INSTALLED WITH AN APPROVED TENT ENCLOSURE BY G.C. OR BE U.L. RATED FOR USE IN FIRE RATED CEILINGS. VERIFY WITH ARCHITECTURAL PLANS.

LF13: VERIFY ALL FIXTURE VOLTAGES PRIOR TO ORDERING.

LF14: REGARDLESS OF MODEL NUMBER, THE ELECTRICAL CONTRACTOR SHALL PROVIDE DIMMING BALLASTS FOR ALL FLUORESCENT LIGHT FIXTURES CONTROLLED WITH DIMMING SWITCHES.

ELECTRICAL DRAWING INDEX

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GENERATION VENICE
CITY OF VENICE, FL

DISCLAIMER

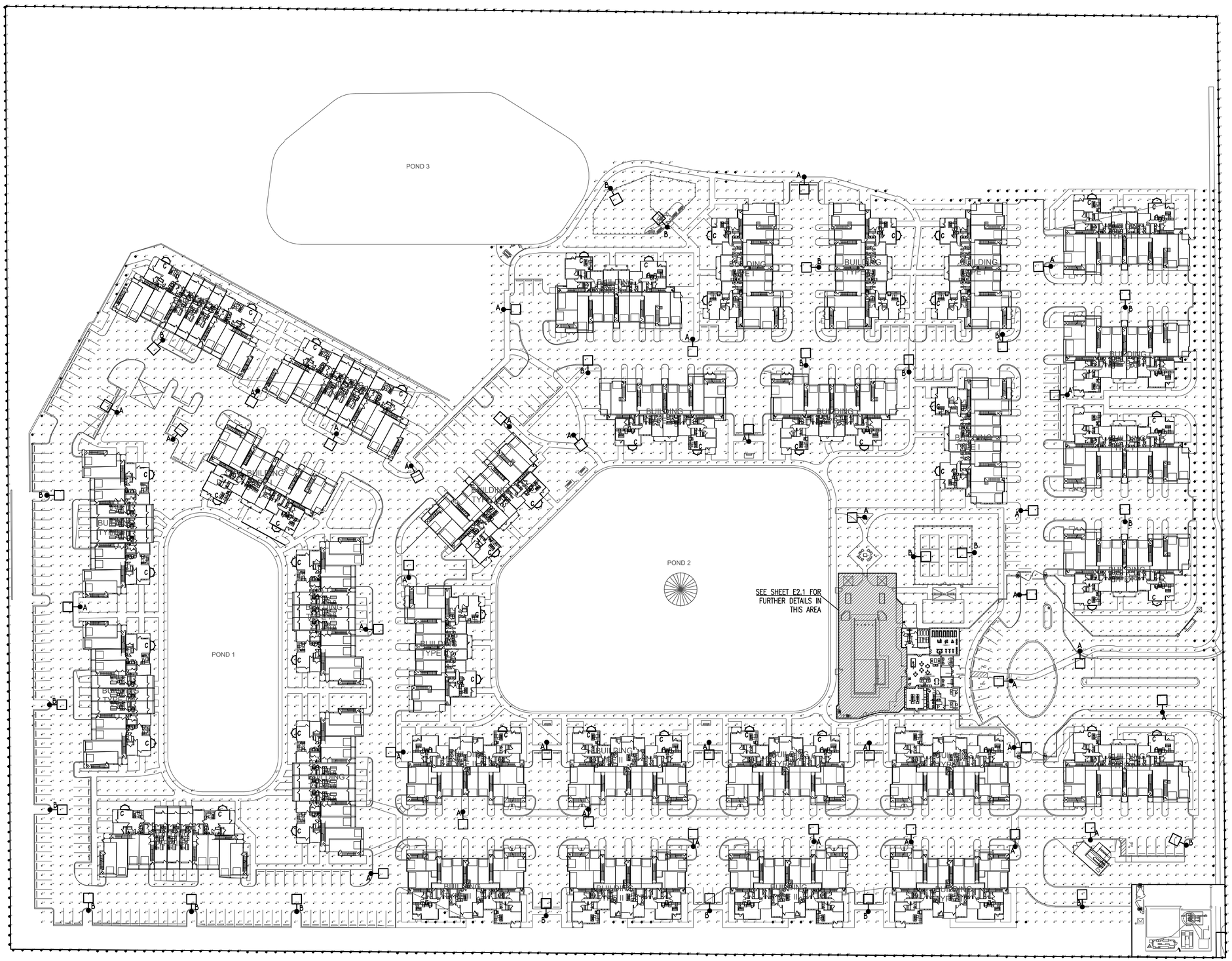
REVISION SCHEDULE

#	DESCRIPTION	DATE

PROJECT #: 5546
DATE: 04/01/2025
DRAWN BY: VNJ
CHECKED BY: DTM

ELECTRICAL NOTES & SCHEDULES

E1.0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POND 1
POND 2
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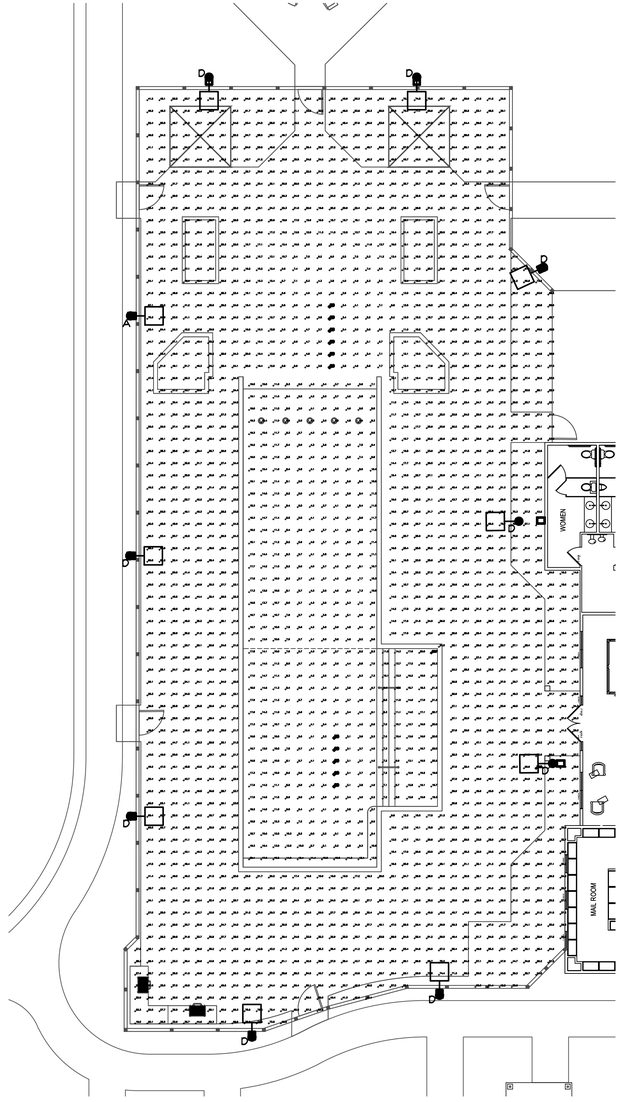
BUILDING TYPE



1 E2.1 ELECTRICAL POOL LIGHTING PLAN
1/8" = 1'-0"

STATISTICS						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
POOL WET DECK	+	35.4 fc	78.8 fc	3.3 fc	23.9:1 fc	10.7:1 fc
POOL SURFACE	+	12.8 fc	22.7 fc	3.0 fc	7.6:1 fc	3.0:1 fc

ALL VALUES SHOWN ARE HORIZONTAL MAINTAINED FOOTCANDLES AT GRADE. VALUES DO NOT INCLUDE CONTRIBUTION FROM ADJACENT BUILDING, STREET OR PROPERTY LIGHTING.

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GENERATION VENICE

CITY OF VENICE, FL

VRETTOS A. PAPPAS
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STATE OF FLORIDA
PROFESSIONAL ENGINEER
04/01/2025

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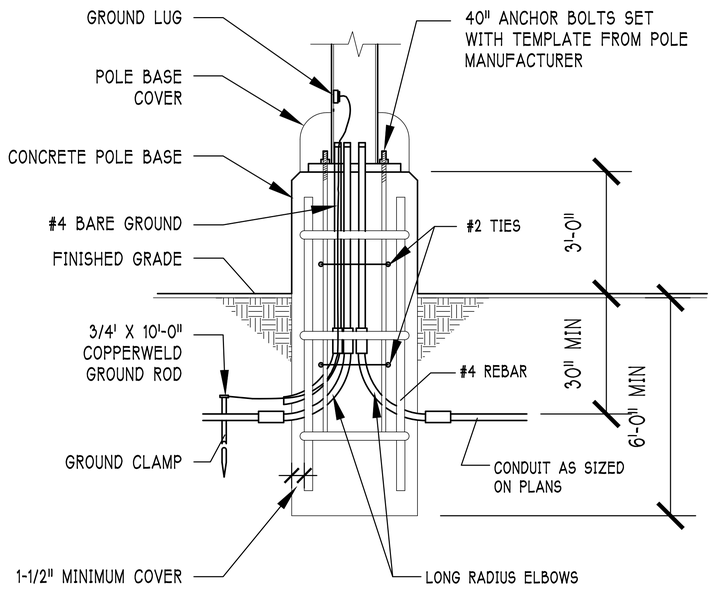
ELECTRICAL POOL LIGHTING PLAN

E2.1



1 E3.0 POLE BASE DETAIL N.T.S.

VOLTAGE DROP TABLE			
LOAD	VOLTAGE	WIRE SIZE	ONE-WAY DISTANCE FOR 5% DROP
16A ON 20A BRKR	120V L-N	10	169 FEET
16A ON 20A BRKR	120V L-N	8	257 FEET
16A ON 20A BRKR	120V L-N	6	403 FEET
16A ON 20A BRKR	208V L-L, 1Ø	10	293 FEET
16A ON 20A BRKR	208V L-L, 1Ø	8	446 FEET
16A ON 20A BRKR	208V L-L, 1Ø	6	699 FEET
16A ON 20A BRKR	277V L-N	10	391 FEET
16A ON 20A BRKR	277V L-N	8	594 FEET
16A ON 20A BRKR	277V L-N	6	931 FEET
16A ON 20A BRKR	480V L-L, 1Ø	10	677 FEET
16A ON 20A BRKR	480V L-L, 1Ø	8	1030 FEET
16A ON 20A BRKR	480V L-L, 1Ø	6	1614 FEET

* ALL VALUES ARE CALCULATED USING ELECTRONIC SOFTWARE

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CHECKED BY: DTM

ELECTRICAL DETAILS

E3.0

VLX LED Specifications

Project Name:

Catalog Number:

Type:

The new **VLX LED** Series offers clean, functional styling that is defined by its sleek low profile design and rugged construction. It combines LED performance and advanced LED thermal management technology and provides outdoor lighting that is both energy efficient and aesthetically pleasing.

The LED's performance and the driver's life are maximized by enclosing them in two separate die cast aluminum housings. Easy tool-less access for mounting and maintenance.

The LED light assemblies come with 96 to 192 LEDs. Eight optical distribution patterns are available. Choose between 3000, 4000 or 5000 Kelvin temperature of the LEDs.

A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.

The **VLX LED** series is an exceptional choice for commercial parking lots, office complexes, architectural projects, and other general lighting projects.

Ordering Information

MODEL	OPTICS	LEDS	CURRENT	KELVIN	VOLTAGE	MOUNTING	FINISH	OPTIONS	OPTIONS
VLX-1	**T1** Type 1 **T2** Type 2 **T3** Type 3 **T4** Type 4 **T4A** Type 4 Automotive **T5** Type 5 **T5W** Type 5 Wide **T5WR** Type 5 Wide Round	**96LC** **128LC** **160LC** **192LC**	**3** 350mA **5** 530mA **7** 700mA	**3K** 3000K **4K** 4000K **5K** 5000K	**UNV** 120-277V **8** 347V **5** 480V	**AM** Arm Mount Round Pole Plate Adaptors (RPP) are to be ordered separately. **WM** Wall Mount *Requires BAWP BAWP to be ordered separately.	**BZ** Bronze **BK** Black **SBK** Smooth Black **WH** White **SWH** Smooth White **GP** Graphite **GY** Grey **SL** Silver Metallic **CC** Custom Color	**PCR-120** **PCR-208** **PCR-240** **PCR-277** **PCR-347** **PCR-480** Photocell & Receptacle **PER** **5PINPER** **7PINPER** 3, 5, or 7 Pin Photo Receptacle w/shorting cap Requires Dimming Driver **DIM** 0-10v Dimming Driver **WSC-8** Motion Sensor 8' Mounting Height **WSC-20** Motion Sensor 9-20' Mounting Height **WSC-40** Motion Sensor 21-40' Mounting Height *The WSC options will require (1) FSIR 100 remote for programing	**RPP** Round Pole Plate Adaptor **UPMA-S** Universal Square Pole Mount Adaptor **UPMA-R** Universal Round Pole Mount Adaptor **BAWP** Cast Wall Plate **ROT-R** Rotated Optics Right Side **ROT-L** Rotated Optics Left Side **CLS** Back Side Cutoff Louver Shield **RCLS** Right Side Cutoff Louver Shield **LCLS** Left Side Cutoff Louver Shield **VWC** Visionaire Wireless Controls *Consult Factory

VISIONAIRE LIGHTING

Features & Specifications

VLX

Heatsink
Die cast aluminum heatsink with integral cooling fins for thermal management.

Mounting Arm/Driver Compartment
·Durable two-piece die cast aluminum driver compartment utilizes a tool-less push button latch for ease of maintenance and sealed with a one-piece silicone gasket.
· Meets ANSI C136.31-2010 1.5G Vibration Standards.

Thermal Management
· The VLX series provides excellent thermal management by mounting the LEDs to the substantial heat sink of the housing. This enables the Luminaire to withstand higher ambient temperatures and driver currents without degrading LED life.
· The L70 test determines the point in an LEDs life when it reaches 70 percent of its initial output. The VLX series LEDs have been determined to last 90,000+ hours in 25° C environments when driven at 350 mA.

Optical System
· The highest lumen output LEDs are utilized in the VLX series. IES distribution Types I, II, III, IV and V are available. The optical system qualifies as IES full cutoff to restrict light trespass, glare and light pollution. The correlated color temperature (CCT) is a specification of the color appearance of the light emitted by a LED, relating its color to the color of light from a reference source when heated to a particular temperature, measured in degrees Kelvin (K).
· CRI values are 70.

Quali-Guard® Finish
· The finish is a Quali-Guard® textured, chemically pretreated through a multiple-stage washer, electrostatically applied, thermoset polyester powder coat finish, with a minimum of 3-5 millimeter thickness. Finish is oven-baked at 400º F to promote maximum adherence and finish hardness. All finishes are available in standard and custom colors.
· Finish is guaranteed for five (5) years.

Electrical Assembly
· The VLX LED series is supplied with a choice of 350, 530 or 700 mA high-performance LED drivers that accept 120v thru 480v, 50 Hz to 60 Hz, input. Power factor of 90%. Rated for -40°C operations.
· 10 kV surge protector supplied as standard.
· Terminal block supplied as standard.

Warranty
Five (5) year Limited Warranty on entire system, including finish. For full warranty information, please visit visionairelighting.com.

Options
· Photocell & receptacle
· Photo receptacle
· Round pole plate adapter
· Cast Wall Plate
· 0-10v Dimming Driver
· Motion Sensor
· Visionaire Wireless Control
  - Enables high end trim
  - Based on Zigbee wireless communication protocol
· Universal Pole Mount Adaptor
· Cutoff Louver Shield

Listings
· The VLX is ETL listed
· IP65 Rated
· Powder Coated Tough.
· DLC Listed
· IDA Certification

POWDER COATED TOUGH™ ANSI Intertek IP65 RATED IDA DLC LISTED

DesignLights Consortium (DLC) qualified Product. Some configurations of this product family may not be DesignLights Consortium (DLC) listed, please refer to the DLC qualified products list to confirm listed configurations. http://www.designlights.org/
3000K must be selected for IDA certification. Fixed mount must be selected for IDA dark sky certification.

VLX - ELECTRICAL LOAD (A)							
Ordering Nomenclature	**System Watts**	**120**	**208**	**240**	**277**	**347**	**480**
VLX-1-T5-96LC-3	103	0.86	0.50	0.43	0.37	0.30	0.21
VLX-1-T5-96LC-5	159	1.33	0.76	0.66	0.57	0.46	0.33
VLX-1-T5-96LC-7	215	1.79	1.03	0.90	0.78	0.62	0.45
VLX-1-T5-128LC-3	136	1.13	0.65	0.57	0.49	0.39	0.28
VLX-1-T5-128LC-5	215	1.79	1.03	0.90	0.78	0.62	0.45
VLX-1-T5-128LC-7	285	2.38	1.37	1.19	1.03	0.82	0.59
VLX-1-T5-160LC-3	171	1.43	0.82	0.71	0.62	0.49	0.36
VLX-1-T5-160LC-5	266	2.22	1.28	1.11	0.96	0.77	0.55
VLX-1-T5-160LC-7	353	2.94	1.70	1.47	1.27	1.02	0.74
VLX-1-T5-192LC-3	206	1.72	0.99	0.86	0.74	0.59	0.43
VLX-1-T5-192LC-5	317	2.64	1.52	1.32	1.14	0.91	0.66
VLX-1-T5-192LC-7	421	3.51	2.02	1.75	1.52	1.21	0.88

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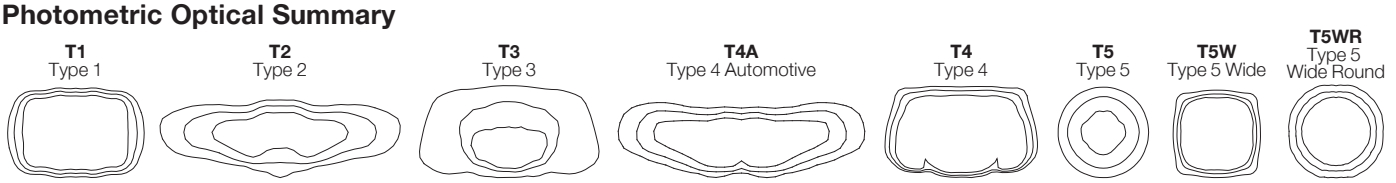
VLX LED Specifications

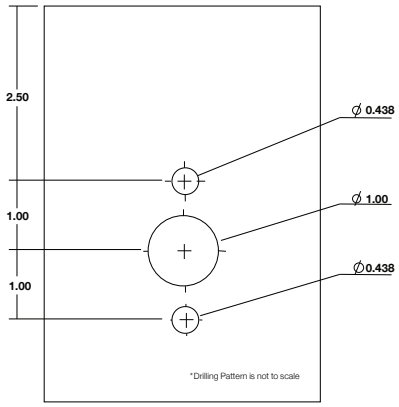
Photometric Optical Summary

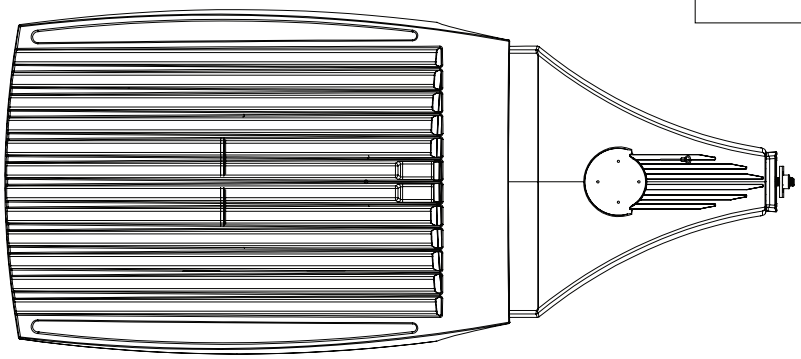


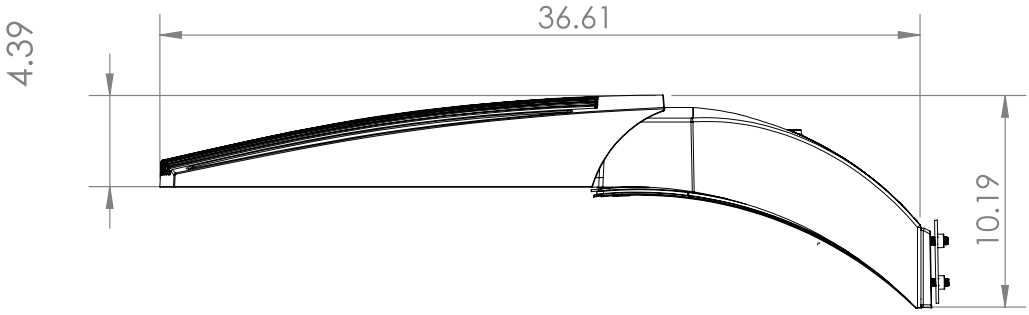
EPA Data	1.0	1.6	2.0	2.5	2.4	2.5

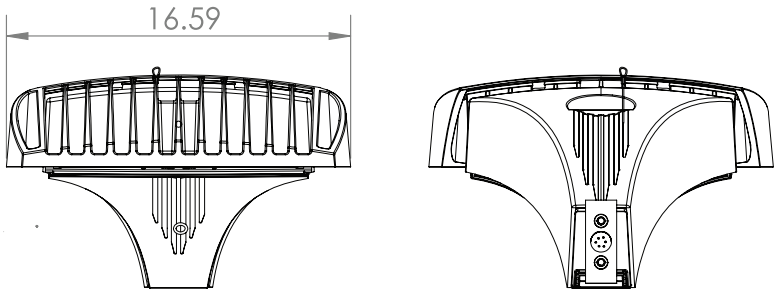
Dimensions

Width:	VLX-1	16.5”
Depth:	VLX-1	36.6”
Height:	VLX-1	4.39”
Overall Height:	VLX-1	10.19”
Weight:	58 LBS	









VISIONAIRE LIGHTING

VLX 3K Lumen Data										
#LED's	**mA**	**Type 1**	**Type 2**	**Type 3**	**Type 4**	**Type 4A**	**Type 5**	**Type 5W**	**Type 5WR**	**Watts**
96	**350**	13956	13031	13240	12480	13992	13569	13571	13578	103
	530	19790	18478	18774	17697	19841	19241	19243	19254	159
	700	24943	23290	23663	22305	25007	24252	24254	24268	215
128	**350**	18429	17207	17483	16480	18476	17918	17920	17930	136
	530	27514	25690	26102	24604	27585	26751	26754	26769	215
	700	34311	32037	32549	30682	34399	33360	33363	33382	285
160	**350**	23171	21635	21981	20720	23230	22528	22531	22543	171
	530	33547	31323	31824	29999	33633	32617	32620	32639	266
	700	42099	39308	39937	37646	42207	40932	40936	40959	353
192	**350**	27912	26062	26479	24960	27984	27138	27141	27157	206
	530	39580	36956	37547	35393	39681	38482	38486	38508	317
	700	49887	46580	47325	44610	50015	48503	48509	48536	421
VLX 4K Lumen Data										
#LED's	**mA**	**Type 1**	**Type 2**	**Type 3**	**Type 4**	**Type 4A**	**Type 5**	**Type 5W**	**Type 5WR**	**Watts**
96	**350**	14691	13717	13936	13137	14728	14283	14285	14115	103
	530	20831	19451	19762	18628	20885	20254	20256	20014	159
	700	26256	24516	24908	23479	26324	25528	25531	25227	215
128	**350**	19399	18113	18403	17347	19449	18861	18863	18638	136
	530	28962	27043	27475	25899	29037	28159	28162	27827	215
	700	36117	33723	34263	32297	36210	35116	35119	34701	285
160	**350**	24390	22773	23138	21810	24453	23714	23716	23434	171
	530	35313	32972	33499	31577	35403	34333	34337	33928	266
	700	44315	41377	42039	39627	44428	43086	43091	42577	353
192	**350**	29381	27434	27873	26274	29457	28567	28570	28229	206
	530	41663	38901	39524	37256	41770	40508	40512	40029	317
	700	52512	49031	49816	46958	52647	51056	51062	50453	421
VLX 5K Lumen Data										
#LED's	**mA**	**Type 1**	**Type 2**	**Type 3**	**Type 4**	**Type 4A**	**Type 5**	**Type 5W**	**Type 5WR**	**Watts**
96	**350**	14097	13163	13373	12606	14133	13706	13708	13443	103
	530	19990	18665	18963	17875	20041	19435	19438	19061	159
	700	25195	23525	23902	22530	25260	24497	24499	24025	215
128	**350**	18615	17381	17659	16646	18663	18099	18101	17751	136
	530	27792	25950	26365	24853	27863	27022	27025	26502	215
	700	34658	32360	32878	30992	34747	33697	33700	33048	285
160	**350**	23405	21853	22203	20929	23465	22756	22758	22318	171
	530	33886	31640	32146	30302	33973	32946	32950	32312	266
	700	42524	39705	40341	38026	42633	41345	41350	40549	353
192	**350**	28194	26325	26747	25212	28267	27413	27416	26885	206
	530	39980	37329	37927	35751	40082	38871	38875	38123	317
	700	50391	47050	47803	45061	50520	48993	48999	48051	421

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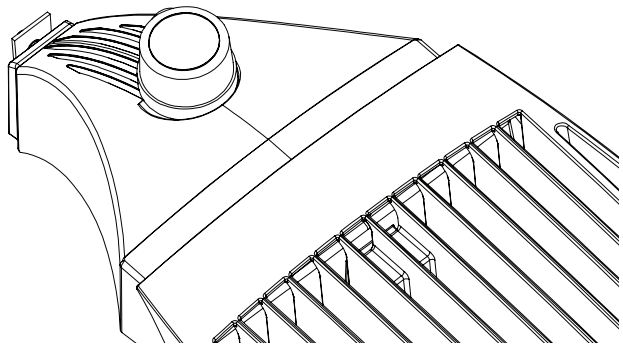
VLX LED Specifications

VLX 3K LPW Data									
#LED's	mA	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR
96	350	135	126	128	121	136	131	132	132
	530	124	116	118	111	125	121	121	121
	700	116	108	110	104	116	113	113	113
128	350	136	127	129	121	136	132	132	132
	530	128	119	121	114	128	124	124	124
	700	121	113	114	108	121	117	117	117
160	350	136	127	129	121	136	132	132	132
	530	126	118	120	113	126	123	123	123
	700	119	111	113	107	120	116	116	116
192	350	136	127	129	121	136	132	132	132
	530	125	116	118	112	125	121	121	121
	700	118	111	112	106	119	115	115	115
VLX 4K LPW Data									
#LED's	mA	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR
96	350	142	133	135	127	143	138	138	137
	530	131	122	124	117	131	127	127	126
	700	122	114	116	109	122	119	119	117
128	350	143	133	135	128	143	139	139	137
	530	134	126	128	120	135	131	131	129
	700	127	118	120	113	127	123	123	122
160	350	143	133	135	128	143	139	139	137
	530	133	124	126	119	133	129	129	128
	700	126	117	119	112	126	122	122	121
192	350	143	133	136	128	143	139	139	137
	530	131	123	125	117	132	128	128	126
	700	125	116	118	111	125	121	121	120
VLX 5K LPW Data									
#LED's	mA	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR
96	350	137	128	130	122	137	133	133	130
	530	126	117	119	112	126	122	122	120
	700	117	109	111	105	117	114	114	112
128	350	137	128	130	122	137	133	133	131
	530	129	120	122	115	129	125	125	123
	700	122	114	115	109	122	118	118	116
160	350	137	128	130	122	137	133	133	131
	530	127	119	121	114	128	124	124	121
	700	120	112	114	108	121	117	117	115
192	350	137	128	130	123	137	133	133	131
	530	126	118	120	113	126	123	123	120
	700	120	112	113	107	120	116	116	114

VLX 3K BUG Data																										
LED's	mA	Type 1			Type 2			Type 3			Type 4			Type 4A			Type 5			Type 5W			Type T5WR		
96	350	4	0	4	3	0	3	2	0	2	2	0	3	2	0	2	3	0	2	4	0	2	4	0	2
	530	4	0	4	3	0	4	3	0	3	3	0	3	3	0	2	4	0	2	4	0	3	5	0	3
	700	4	0	4	3	0	4	3	0	3	3	0	3	3	0	3	4	0	2	5	0	3	5	0	3
128	350	4	0	4	3	0	3	3	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
	530	4	0	4	3	0	4	3	0	4	3	0	4	3	0	3	4	0	2	5	0	3	5	0	3
	700	5	0	5	4	0	5	3	0	4	3	0	4	3	0	3	5	0	3	5	0	4	5	0	4
160	350	4	0	4	3	0	4	3	0	3	3	0	3	3	0	3	4	0	2	5	0	3	5	0	3
	530	5	0	5	4	0	5	3	0	4	3	0	4	3	0	3	5	0	3	5	0	4	5	0	4
	700	5	0	5	4	0	5	3	0	4	4	0	5	3	0	3	5	0	3	5	0	4	5	0	4
192	350	5	0	5	3	0	4	3	0	4	3	0	4	3	0	3	4	0	2	5	0	3	5	0	4
	530	5	0	5	4	0	5	3	0	4	4	0	4	3	0	3	5	0	3	5	0	4	5	0	4
	700	5	0	5	4	0	5	4	0	5	4	0	5	4	0	3	5	0	4	5	0	5	5	0	5
VLX 4K BUG Data																										
LED's	mA	Type 1			Type 2			Type 3			Type 4			Type 4A			Type 5			Type 5W			Type T5WR		
96	350	4	0	4	3	0	3	2	0	2	2	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	530	4	0	4	3	0	4	3	0	3	3	0	3	3	0	2	4	0	2	4	0	3	5	0	3
	700	4	0	4	3	0	4	3	0	3	3	0	3	3	0	3	4	0	2	5	0	3	5	0	3
128	350	4	0	4	3	0	4	3	0	3	3	0	3	3	0	2	4	0	2	4	0	2	5	0	3
	530	5	0	5	3	0	5	3	0	4	3	0	4	3	0	3	5	0	3	5	0	3	5	0	4
	700	5	0	5	4	0	5	3	0	4	3	0	4	3	0	3	5	0	3	5	0	4	5	0	4
160	350	4	0	4	3	0	4	3	0	3	3	0	3	3	0	3	4	0	2	5	0	3	5	0	3
	530	5	0	5	4	0	5	3	0	4	3	0	4	3	0	3	5	0	3	5	0	4	5	0	4
	700	5	0	5	4	0	5	3	0	5	4	0	5	4	0	3	5	0	4	5	0	4	5	0	4
192	350	5	0	5	3	0	5	3	0	4	3	0	4	3	0	3	5	0	3	5	0	3	5	0	4
	530	5	0	5	4	0	5	3	0	4	4	0	4	3	0	3	5	0	3	5	0	4	5	0	4
	700	5	0	5	4	0	5	4	0	5	4	0	5	4	0	3	5	0	4	5	0	5	5	0	5
VLX 5K BUG Data																										
LED's	mA	Type 1			Type 2			Type 3			Type 4			Type 4A			Type 5			Type 5W			Type T5WR		
96	350	4	0	4	3	0	3	2	0	2	2	0	3	2	0	2	3	0	2	4	0	2	4	0	2
	530	4	0	4	3	0	4	3	0	3	3	0	3	3	0	2	4	0	2	4	0	3	5	0	3
	700	4	0	4	3	0	4	3	0	3	3	0	3	3	0	3	4	0	2	5	0	3	5	0	3
128	350	4	0	4	3	0	3	3	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
	530	5	0	5	3	0	4	3	0	4	3	0	4	3	0	3	4	0	2	5	0	3	5	0	3
	700	5	0	5	4	0	5	3	0	4	3	0	4	3	0	3	5	0	3	5	0	4	5	0	4
160	350	4	0	4	3	0	4	3	0	3	3	0	3	3	0	3	4	0	2	5	0	3	5	0	3
	530	5	0	5	4	0	5	3	0	4	3	0	4	3	0	3	5	0	3	5	0	4	5	0	4
	700	5	0	5	4	0	5	3	0	4	4	0	5	3	0	3	5	0	4	5	0	4	5	0	4
192	350	5	0	5	3	0	5	3	0	4	3	0	4	3	0	3	4	0	2	5	0	3	5	0	3
	530	5	0	5	4	0	5	3	0	4	4	0	4	3	0	3	5	0	3	5	0	4	5	0	4
	700	5	0	5	4	0	5	4	0	5	4	0	5	4	0	3	5	0	4	5	0	5	5	0	5

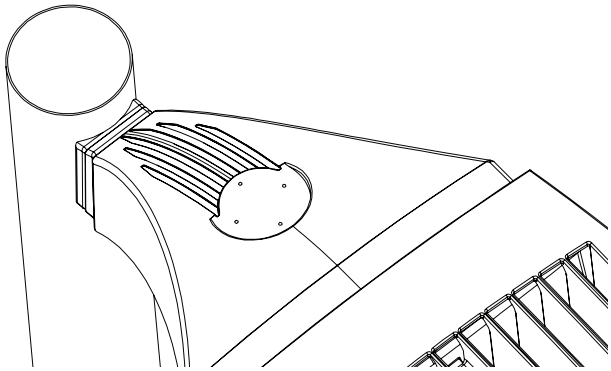
VLX LED Specifications

Twist lock Photocell & Receptacle



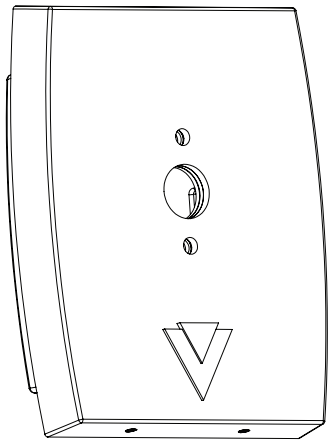
Dusk to dawn sensor.

Round Pole Plate Adaptor



Round Pole Plate Adaptor to be used with round pole.

Cast Wall Plate



Arm mount wall plate is needed to wall mount the VLX.

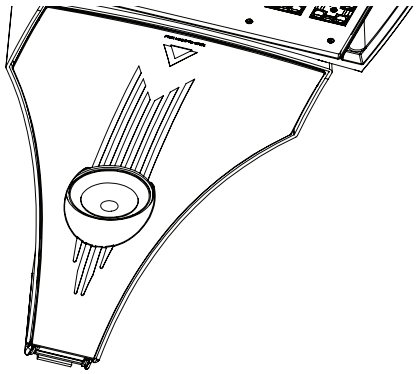
LED Specifications **VLX**

Motion Sensor

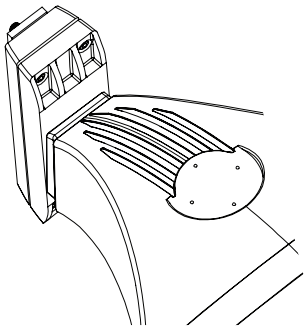
The FSP-211 by Legrand is integrated into the VLX housing and provides multi-level control based on motion and/or daylight contribution.
Lens Coverage Patterns:
WSC-8 - 360° lens, maximum coverage 48'; diameter from 8' height
WSC-20 - 360° lens, maximum coverage 48'; diameter from 20' height
WSC-40 -360° lens, maximum coverage 100'; diameter from 40' height

Default settings:

FACTORY DEFAULTS High Mode	0 Volts
Low Mode	1 Volts
Time Delay	5 Minutes
Cut Off	1 Hour
Sensitivity	Maximum
Hold Off Set point	4 Foot Candles
Ramp Up	None
Fade Down	None
Force Off Set point with Occupied	Disable

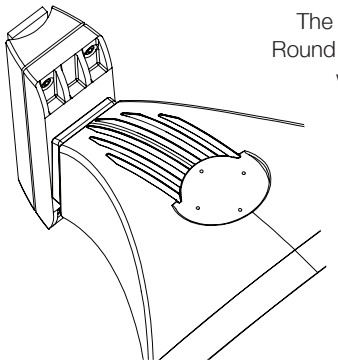


UPMA



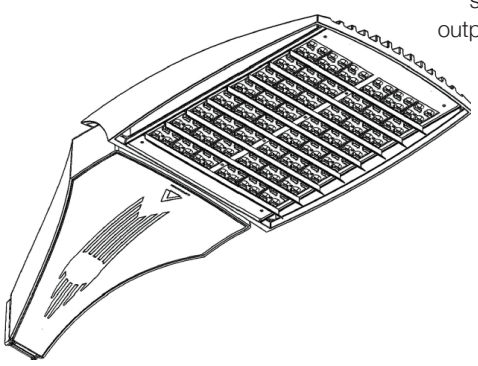
The Universal Pole Mount Adaptor is ideal for retrofit applications with existing square poles. This adaptor is slotted to fit any existing drilling pattern, up to 6 ½" bolt to bolt maximum.

UPMA-R



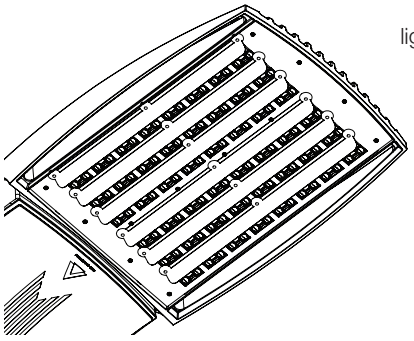
The Universal Pole Mount Adaptor Round is ideal for retrofit applications with existing round poles. This adaptor is slotted to fit any existing drilling pattern, up to 6 ½" bolt to bolt maximum.

CLS



The back side cutoff louver shield will reduce light output behind the fixture, all of the light will be focused in front of the VLX.

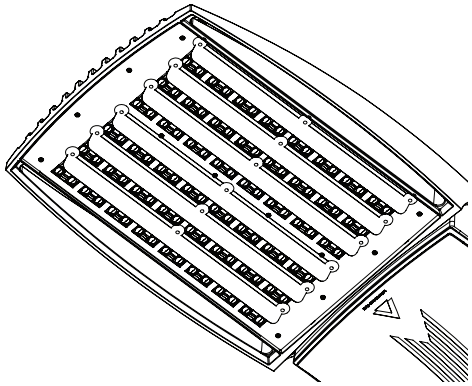
RCLS



The Right Side Cutoff Louver Shield will reduce light output on the left side of the fixture, all of the light be focused on the right side of the VLX.

LCLS

The Left Side Cutoff Louver Shield will reduce light output on the right side of the fixture, all of the light be focused on the left side of the VLX.



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Malibu LED Specifications

Project Name:

Catalog Number:

Type:

The **Malibu LED** wall sconce is a low-profile, designer luminaire that provides excellent, uniform illumination with Dark-Sky approved, fullcutoff optics.

Each LED is covered with an injection-molded acrylic lens that provides a unique Type 3 distribution pattern.

The trapezoidal Malibu is of one-piece, precision die cast aluminum, constructed in a pleasing architectural design with decorative reveals. It features a one-piece, die cast aluminum, hinged door frame.

The Malibu LED features a Durable Quali-Guard® textured thermoset polyester powder coat, oven-baked at a temperature of 400°F to promote maximum adherence and finish hardness. Finish is guaranteed for five (5) years.

High lumen output VisionBar™ LEDs are utilized, offering a minimum estimated life of 60,000 hours in the desirable light color temperature of 4,000 Kelvin.

Ordering Information

MODEL	OPTICS	SOURCE	CURRENT	KELVIN	VOLTAGE	MOUNTING	FINISH	OPTIONS
MLB-2	**T1** Type 1 **T2** Type 2 **T3** Type 3	**24LC** **48LC**	**3** 350mA **5** 530mA	**3K** 3000K **4K** 4000K **5K** 5000K	**UNV** 120-277V	**WM** Wall Mount	**BZ** Bronze **WH** White **SL** Silver Metallic	**PC120** Button Type Photocell **PC208** Button Type Photocell **PC240** Button Type Photocell **PC277** Button Type Photocell **VRH** Vandal Resistant Hardware Tamper Proof Latch Screw

Features & Specifications

Malibu

Housing
The trapezoidal Malibu is of one-piece, precision die cast aluminum, constructed in a pleasing architectural design with decorative reveals. It features a one-piece, heavy duty cast aluminum with internal heat sink for maximum heat dissipation, hinged door frame. A silicone gasket is used for weather tight operation.

Mounting
A Wall Mount bracket can be secured directly to a 4" recessed junction box.

Thermal Management
The Malibu series provides excellent thermal management by mounting the LEDs to the substantial heat sink within the housing. This enables the Luminaire to withstand higher ambient temperatures and driver currents without degrading LED life.

Optical System
- The highest lumen output LEDs are utilized. High-performance acrylic optics feature industry leading Type 1, 2, and 3 optical distributions. Acrylic optics are impact-resistant and rated to 94 percent translucence.
- L70 life of our LEDs is rated over 100,000 hours (for 530 mA).
- The optical system qualifies as IES full cutoff to restrict light trespass, glare and light pollution for neighborhood-friendly lighting.
- CRI values are 70.

Quali-Guard® Finish
- The finish is a Quali-Guard® textured, chemically pretreated through a multiple-stage washer, electrostatically applied, thermoset polyester powder coat finish, with a minimum of 3-5 millimeter thickness. Finish is oven-baked at 400º F to promote maximum adherence and finish hardness.
- All finishes are available in standard and custom colors.
- Finish is guaranteed for five (5) years.

Electrical Assembly
- The Malibu LED series is supplied with a choice of 350 or 530 mA high-performance LED drivers that accept 120v thru 480v, 50 Hz to 60 Hz, input.
- Power factor of 90%.
- Rated for -40°C operations.

Warranty
- Five (5) year Limited Warranty on electrical components.
- Five (5) year on finish.

For full warranty information, please visit visionairelighting.com.

Options
- Button Style Photocell
- Vandal Resistant Hardware

Listings
- Malibu is cUL listed, suitable for wet locations.
- IP65 Rated
- Powder Coated Tough™

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Malibu LED Specifications

Photometric Optical Summary

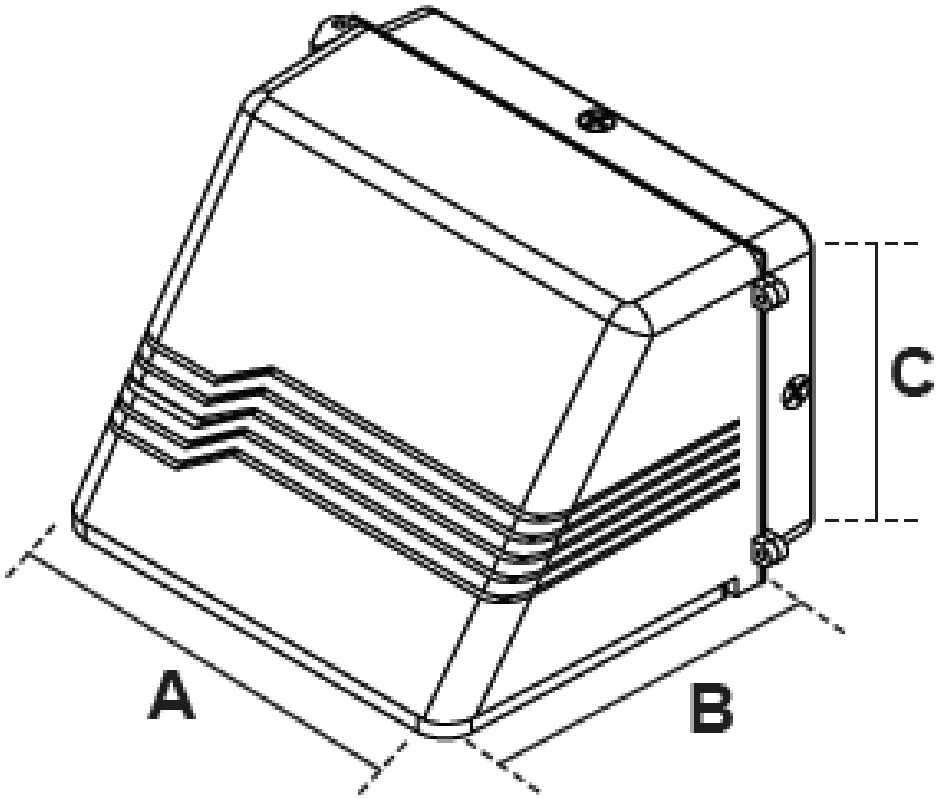
T1
Type 1

T2
Type 2

T3
Type 3

Dimensions

Width:	MLB-2	17”
Depth:	MLB-2	14”
Height:	MLB-2	9”
Weight:	MLB-2	29 lbs



Features & Specifications

3K LUMEN DATA					
# of LEDs	Currrent (mA)	T1	T2	T3	Watts
24	350	2693	2467	2197	26
	530	3844	3522	3135	39
48	350	5329	4882	4347	53
	530	7543	6910	6153	78
4K LUMEN DATA					
24	350	2722	2492	2219	26
	530	3883	3557	3167	39
48	350	5382	4931	4391	53
	530	7619	6980	6215	78
5K LUMEN DATA					
24	350	2827	2591	2307	26
	530	4036	3698	3293	39
48	350	5595	5126	4565	53
	530	7920	7255	6461	78

3K LPW DATA					
# of LEDs	Currrent (mA)	T1	T2	T3	Watts
24	350	102	94	84	26
	530	99	91	81	39
48	350	101	93	83	53
	530	97	89	79	78
4K LPW DATA					
24	350	104	95	84	26
	530	100	92	82	39
48	350	102	94	84	53
	530	98	90	80	78
5K LPW DATA					
24	350	108	99	88	26
	530	104	95	85	39
48	350	106	98	87	53
	530	102	93	83	78

3K BUG DATA											
# of LEDs	Currrent (mA)	T1			T2			T3			Watts
		B	U	G	B	U	G	B	U	G	
24	350	1	0	1	1	0	1	1	0	1	26
	530	2	0	2	1	0	2	1	0	1	39
48	350	2	0	2	1	0	2	1	0	1	53
	530	3	0	3	2	0	2	1	0	1	78
4K BUG DATA											
24	350	1	0	1	1	0	1	1	0	1	26
	530	2	0	2	1	0	2	1	0	1	39
48	350	2	0	2	1	0	2	1	0	1	53
	530	3	0	3	2	0	2	1	0	1	78
5K BUG DATA											
24	350	1	0	1	1	0	1	1	0	1	26
	530	2	0	2	1	0	2	1	0	1	39
48	350	2	0	2	1	0	2	1	0	1	53
	530	3	0	3	2	0	3	1	0	2	78

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