Flat Creek Wind Project

Montgomery County, New York

Substation and Point of Interconnection Switchyard plans

DRAWING INDEX			
Drawing Number	Drawing Title	Revision	Date
FLCK-700-01	COVER SHEET W/ DRAWING INDEX	A	07/19/2024
FLCK-720-01	STATION GENERAL ARRANGEMENT - COLLECTOR SUBSTATION	D	07/19/2024
FLCK-721-01	ELEVATION DETAILS - COLLECTOR SUBSTATION	D	07/19/2024
FLCK-721-02	ELEVATION DETAILS - COLLECTOR SUBSTATION	D	07/19/2024
FLCK-721-03	ELEVATION DETAILS - COLLECTOR SUBSTATION	C	07/19/2024
FLCK-721-04	ELEVATION DETAILS - COLLECTOR SUBSTATION	D	07/19/2024
FLCK-721-05	ELEVATION DETAILS - COLLECTOR SUBSTATION	D	07/19/2024
FLCK-721-06	ELEVATION DETAILS - COLLECTOR SUBSTATION	D	07/19/2024
FLCK-721-07	ELEVATION DETAILS - COLLECTOR SUBSTATION	B	07/19/2024
FLCK-720P-01	STATION GENERAL ARRANGEMENT - NYPA POI	D	07/19/2024
FLCK-721P-01	ELEVATION DETAILS - NYPA POI	C	07/19/2024
FLCK-721P-02	ELEVATION DETAILS - NYPA POI	C	07/19/2024
FLCK-721P-03	ELEVATION DETAILS - NYPA POI	C	07/19/2024
FLCK-721P-04	ELEVATION DETAILS - NYPA POI	C	07/19/2024
FLCK-721P-05	ELEVATION DETAILS - NYPA POI	D	07/19/2024
FLCK-721P-06	ELEVATION DETAILS - NYPA POI	C	07/19/2024
FLCK-721P-07	ELEVATION DETAILS - NYPA POI	C	07/19/2024
FLCK-731-01	STATION ILLUMINATION - PLAN	D	07/19/2024
FLCK-731-02	STATION ILLUMINATION - CUT SHEETS	A	07/19/2024
FLCK-762-01	STATION FENCE DETAILS	A	07/19/2024

NOT FOR CONSTRUCTION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
A	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR

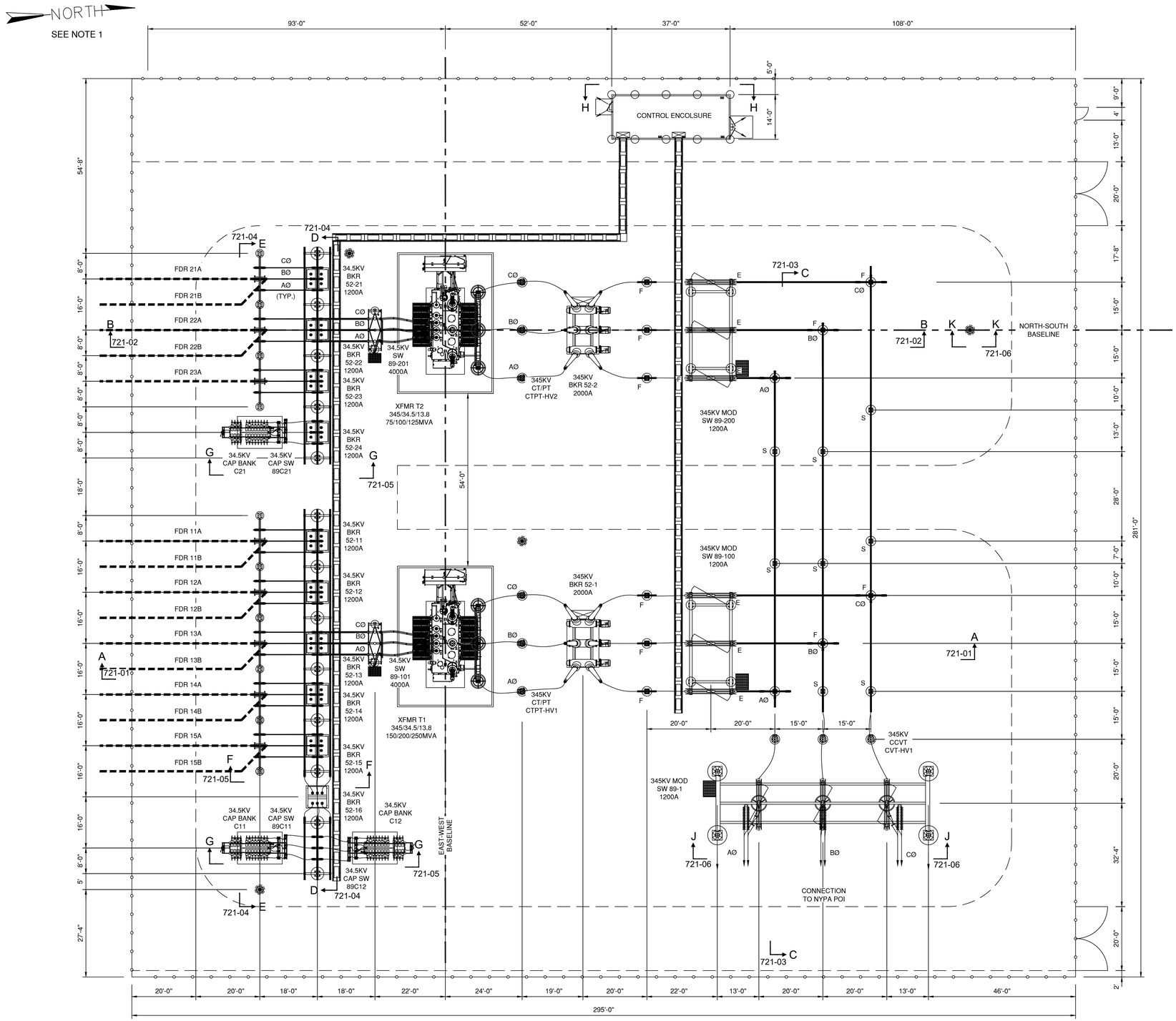
P.E. STAMP

DRAWING CREATED BY SCOTT REYNOLDS, P.E., NEW YORK STATE

REYNOLDS ARCHITECTURE ENGINEERING
40 TAMARACK LANE
NYSKAYUNA, NY 12309
(518) 225-9473

FLAT CREEK SOLAR – 200MWAC
CORDELIO POWER
RAPPA RD, ROOT, NY 12166
COVER SHEET w/ DRAWING INDEX

PROJ. NO.: CP–FLCK
DWG. NO.: FLCK–700
SH.: 1
REV.: A
SCALE: N/A



NOTES:

1. SEE 760 SITE PLAN FOR INDICATION OF TRUE NORTH.

LEGEND:

F	FIXED FITTING
S	SLIP FITTING
E	EXPANSION FITTING
A / 721-0	INDICATES SECTION VIEW "A-A" / DRAWING ON WHICH SECTION APPEARS
	DRIVEABLE TRENCH
	PEDESTRIAN TRENCH
	FENCE
	STATION LIGHT

PROPRIETARY INFORMATION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
D	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
C	04/19/2024	CAP BANK ADDITION	TB	SR	SR
B	03/25/2024	UPDATED PER CLIENT REVIEW	TB	SR	SR
A	03/07/2024	ISSUED FOR PERMIT	TB	SR	SR

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FLAT CREEK SOLAR - 200MWAC

CORDELIO POWER

RAPPA RD, ROOT, NY 12166

STATION GENERAL ARRANGEMENT

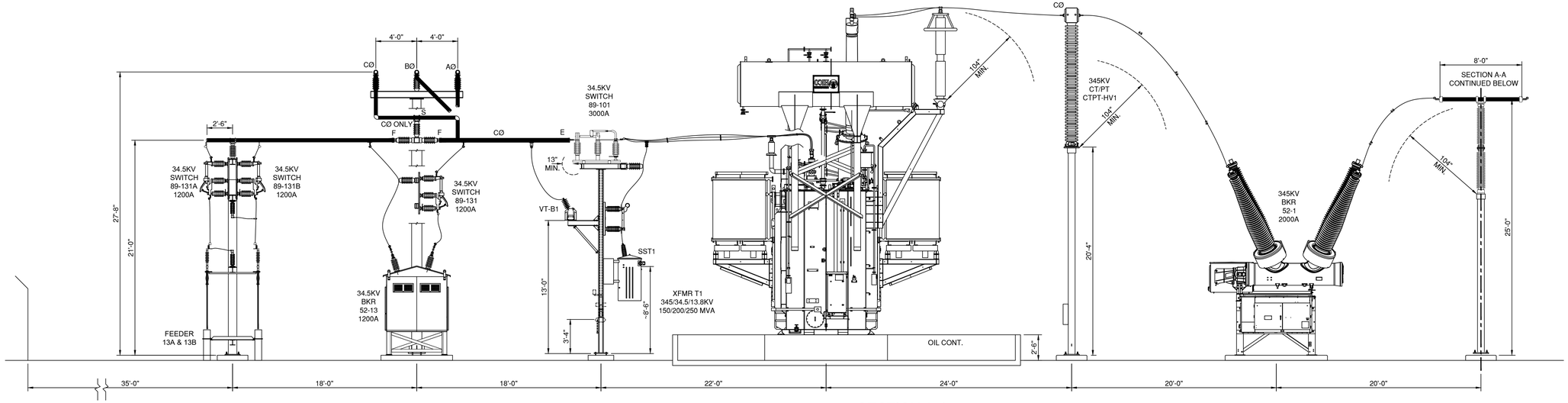
COLLECTOR SUBSTATION

PROJ. NO.: CP-FLCK

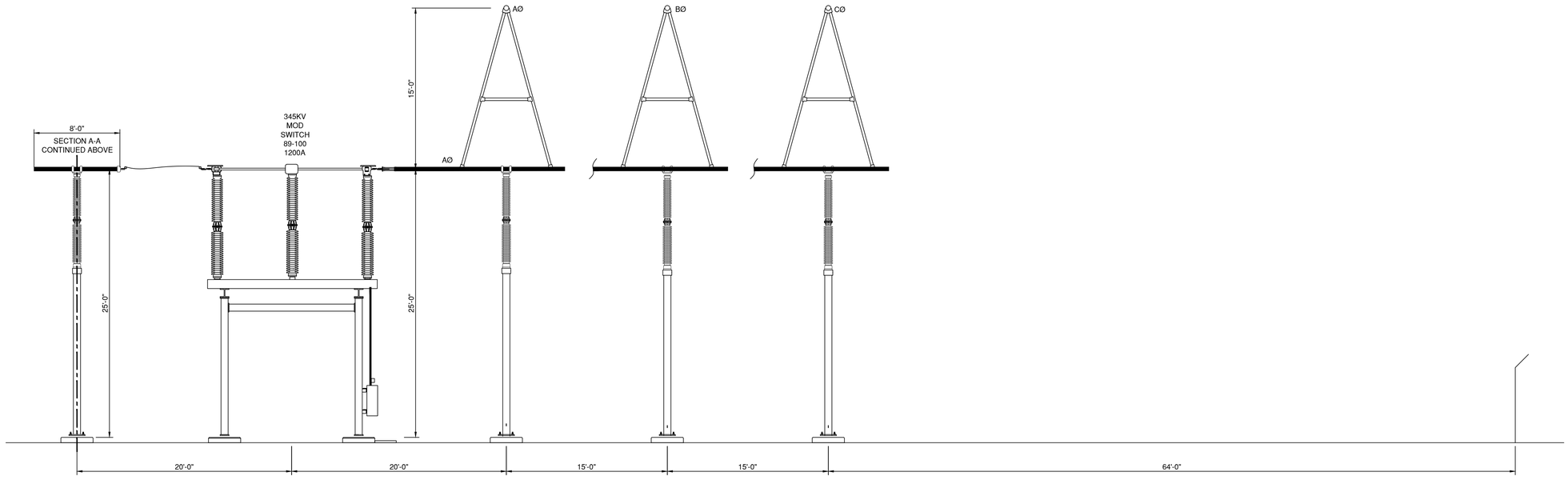
DWG. NO: FLCK-720

SH: 1 REV: D

SCALE: 1/16" = 1'-0"



SECTION A-A



SECTION A-A

LEGEND:

F	FIXED FITTING
S	SLIP FITTING
E	EXPANSION FITTING

NOT FOR CONSTRUCTION

PROPRIETARY INFORMATION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
D	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
C	04/17/2024	CAP BANK ADDITION	TB	SR	SR
B	03/25/2024	UPDATED PER CLIENT REVIEW	TB	SR	SR
A	03/07/2024	ISSUED FOR PERMIT	TB	SR	SR

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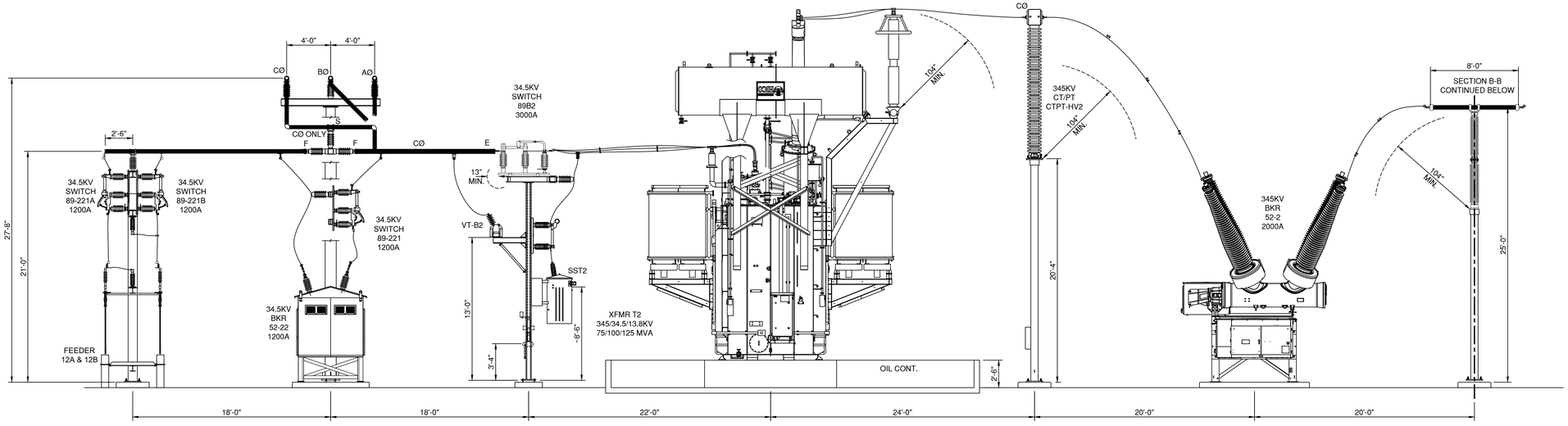
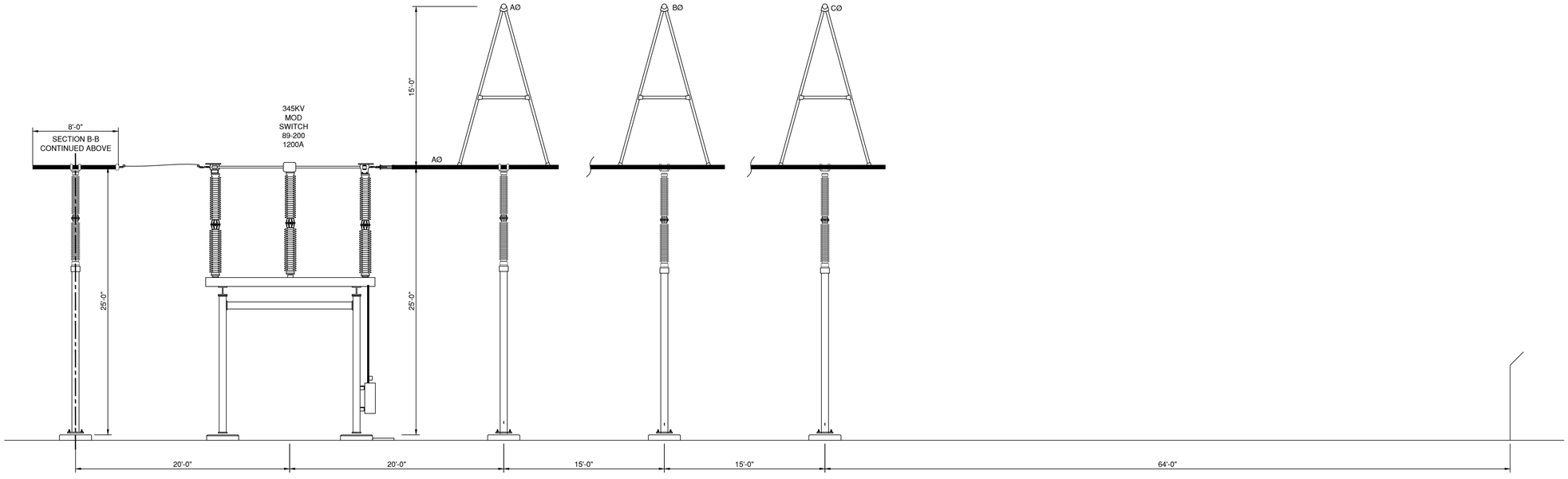
NYSKAYUNA, NY 12309
(518) 225-9473

FLAT CREEK SOLAR - 200MWAC
CORDELIO POWER
RAPPA RD, ROOT, NY 12166
ELEVATION DETAILS
COLLECTOR SUBSTATION

PROJ. NO.: CP-FLCK
DWG. NO.: FLCK-721
SH.: 1
REV.: D
SCALE: 1/16" = 1'-0"



SECTION B-B



SECTION B-B

LEGEND:

F	FIXED FITTING
S	SLIP FITTING
E	EXPANSION FITTING

NOT FOR CONSTRUCTION

PROPRIETARY INFORMATION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
D	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
C	04/17/2024	CAP BANK ADDITION	TB	SR	SR
B	03/25/2024	UPDATED PER CLIENT REVIEW	TB	SR	SR
A	03/07/2024	ISSUED FOR PERMIT	TB	SR	SR

P.E. STAMP

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NEW YORK STATE

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NYSKAYUNA, NY 12309
(518) 225-9473

FLAT CREEK SOLAR - 200MWAC

CORDELIO POWER

RAPPA RD, ROOT, NY 12166

ELEVATION DETAILS

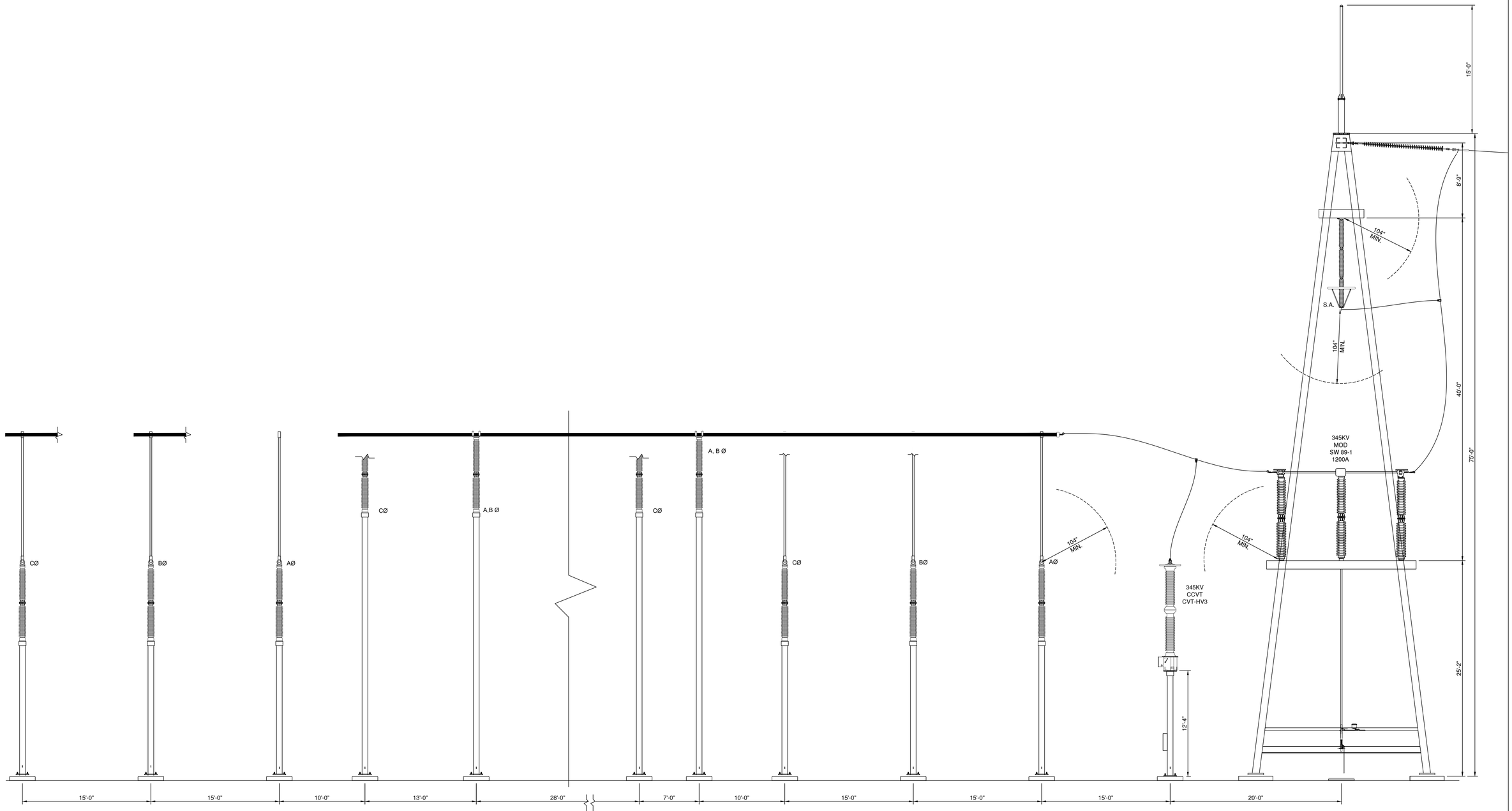
COLLECTOR SUBSTATION

PROJ. NO.: CP-FLCK

DWG. NO: FLCK-721

SH: 2 | REV: D

SCALE: 1/16" = 1'-0"



SECTION C-C

LEGEND:

F	FIXED FITTING
S	SLIP FITTING
E	EXPANSION FITTING

NOT FOR CONSTRUCTION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
C	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
B	03/25/2024	UPDATED PER CLIENT REVIEW	TB	SR	SR
A	03/07/2024	ISSUED FOR PERMIT	TB	SR	SR

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(518) 225-9473

FLAT CREEK SOLAR - 200MWAC

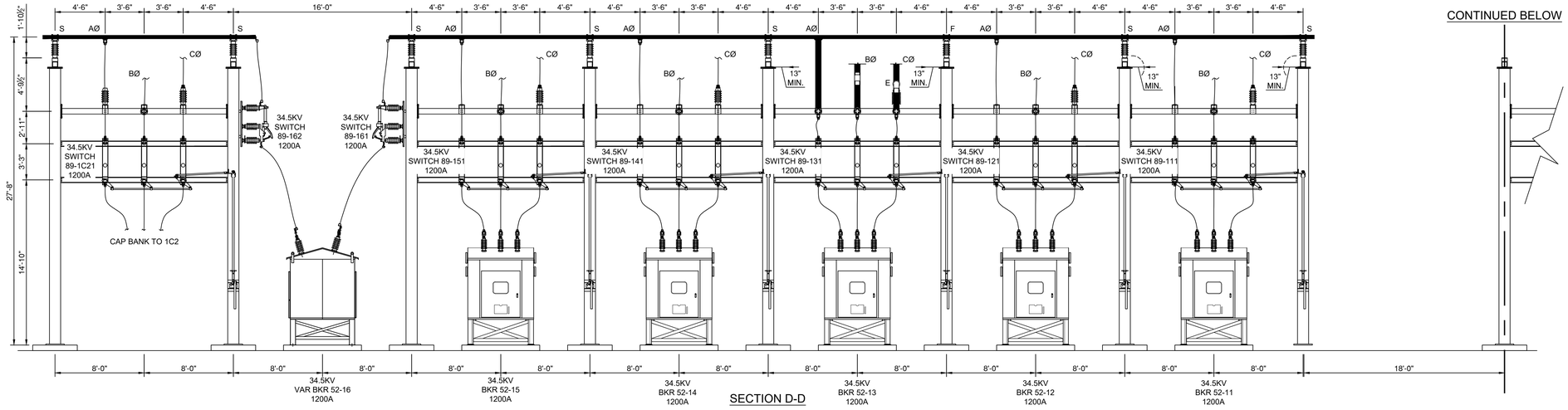
CORDELIO POWER

RAPPA RD, ROOT, NY 12166

ELEVATION DETAILS

COLLECTOR SUBSTATION

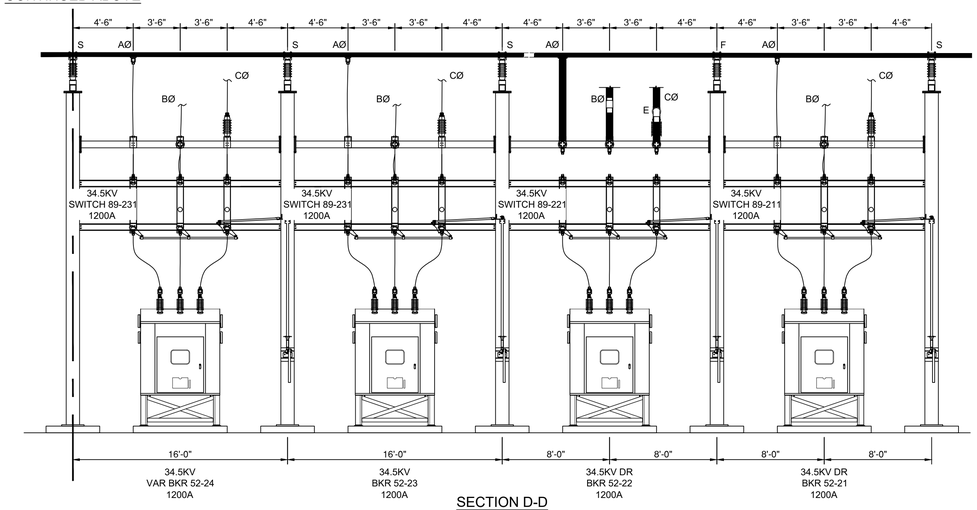
PROJ. NO.:	CP-FLCK
DWG. NO:	FLCK-721
SH: 3	REV: C
SCALE:	1/16" = 1'-0"



SECTION D-D

CONTINUED BELOW

CONTINUED ABOVE



SECTION D-D

LEGEND:

F	FIXED FITTING
S	SLIP FITTING
E	EXPANSION FITTING

NOT FOR CONSTRUCTION

PROPRIETARY INFORMATION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
D	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
C	04/19/2024	CAP BANK ADDITION	TB	SR	SR
B	03/25/2024	UPDATED PER CLIENT REVIEW	TB	SR	SR
A	03/07/2024	ISSUED FOR PERMIT	TB	SR	SR

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NYSKAYUNA, NY 12309
(518) 225-9473

FLAT CREEK SOLAR - 200MWAC

CORDELIO POWER

RAPPA RD, ROOT, NY 12166

ELEVATION DETAILS

COLLECTOR SUBSTATION

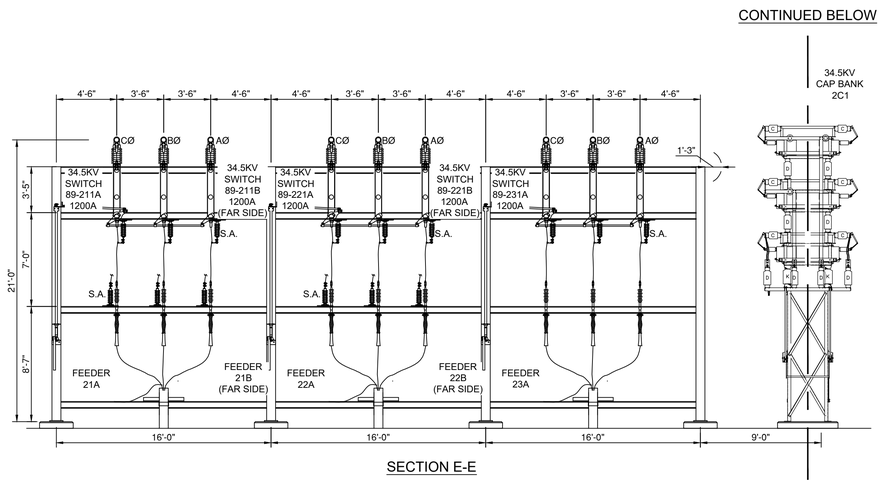
PROJ. NO.: CP-FLCK

DWG. NO.: FLCK-721

SH.: 4 REV.: D

SCALE: 1/16" = 1'-0"

CONTINUED BELOW



34.5KV CAP BANK 2C1

SECTION E-E

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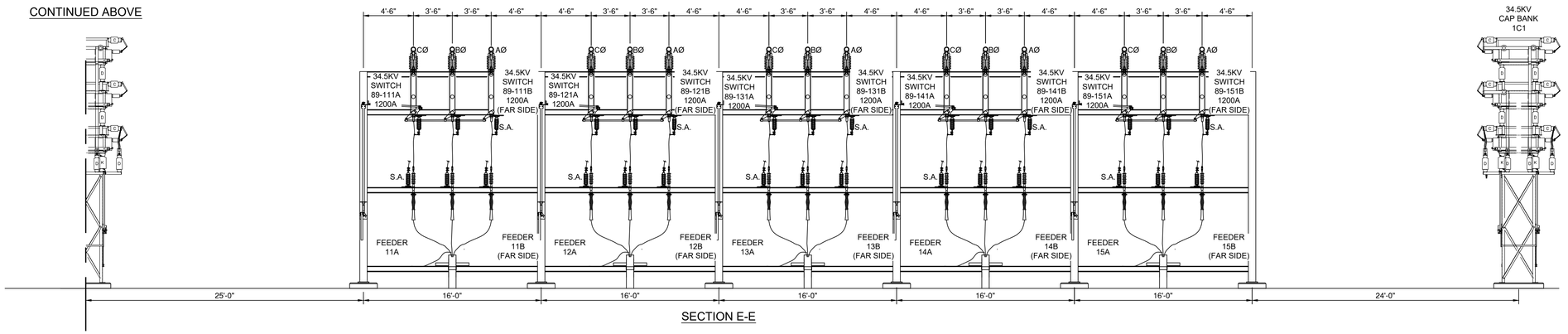
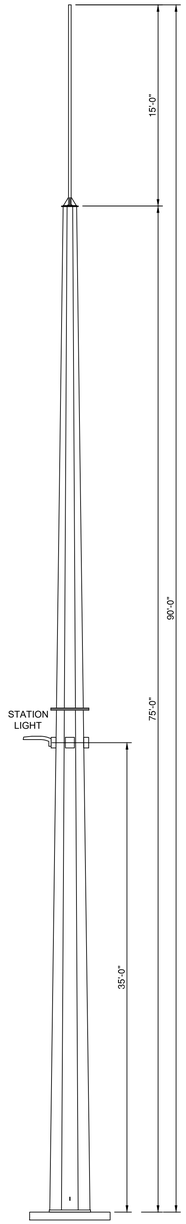


34.5KV CAP BANK 1C1

SECTION E-E



LEGEND:

F	FIXED FITTING
S	SLIP FITTING
E	EXPANSION FITTING

NOT FOR CONSTRUCTION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
D	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
C	04/19/2024	CAP BANK ADDITION - CONTENT MOVED TO SH 6	TB	SR	SR
B	03/25/2024	UPDATED PER CLIENT REVIEW	TB	SR	SR
A	03/07/2024	ISSUED FOR PERMIT	TB	SR	SR

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FLAT CREEK SOLAR - 200MWAC

CORDELIO POWER

RAPPA RD, ROOT, NY 12166

ELEVATION DETAILS

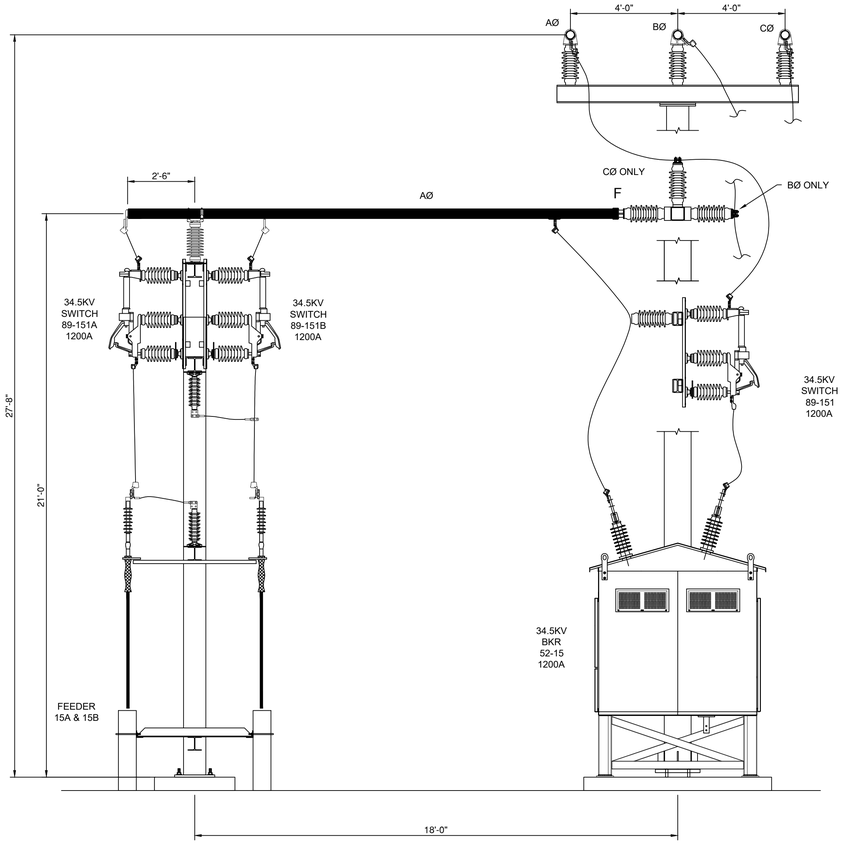
COLLECTOR SUBSTATION

PROJ. NO.: CP-FLCK

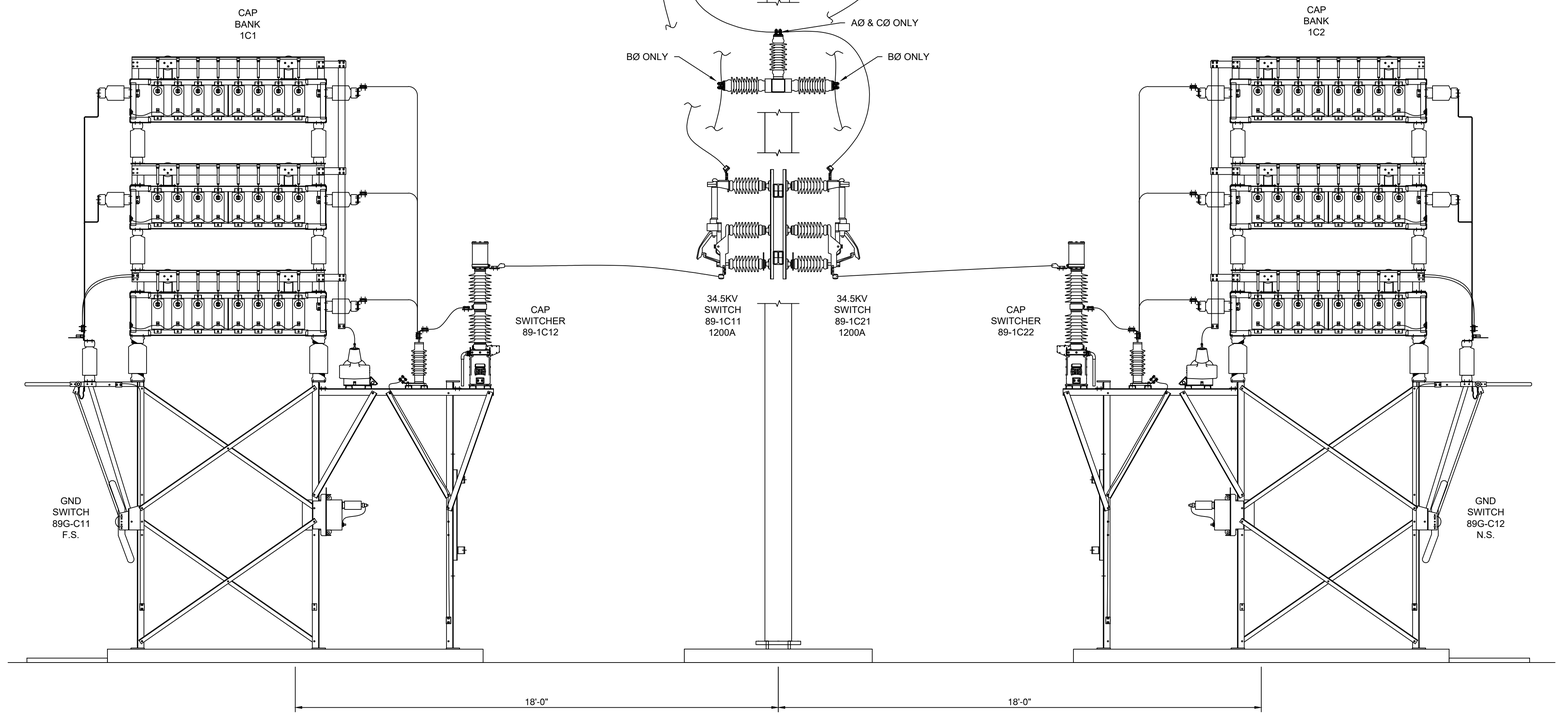
DWG. NO.: FLCK-721

SH: 5 | REV: D

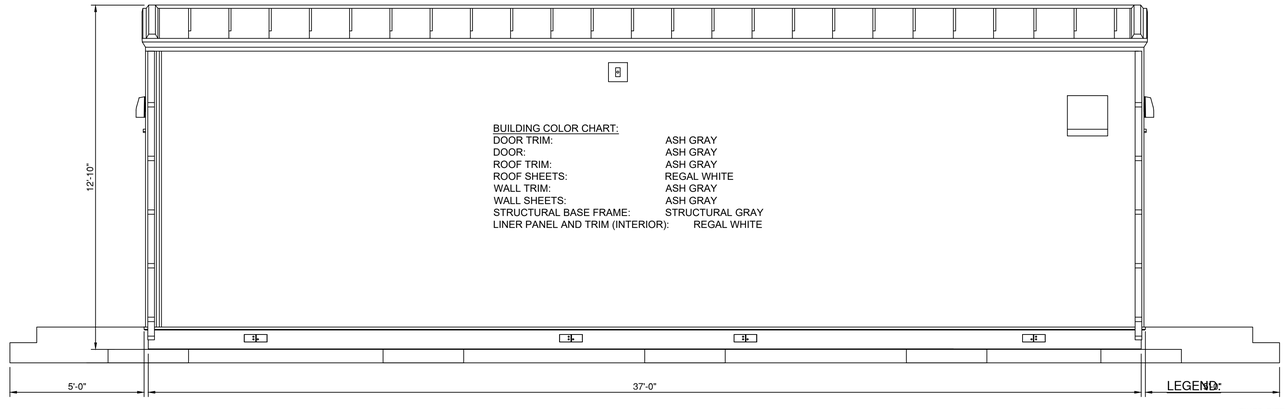
SCALE: 1/16" = 1'-0"



SECTION F-F



SECTION G-G



SECTION H-H

LEGEND:

F	FIXED FITTING
S	SLIP FITTING
E	EXPANSION FITTING

NOT FOR CONSTRUCTION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
D	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
C	04/19/2024	CAP BANK ADDITION - CONTENT MOVED TO SH 7			
B	03/25/2024	UPDATED PER CLIENT REVIEW	TB	SR	SR
A	03/07/2024	ISSUED FOR PERMIT	TB	SR	SR

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NYSKAYUNA, NY 12309
(518) 225-9473

FLAT CREEK SOLAR - 200MWAC

CORDELIO POWER

RAPPA RD, ROOT, NY 12166

ELEVATION DETAILS

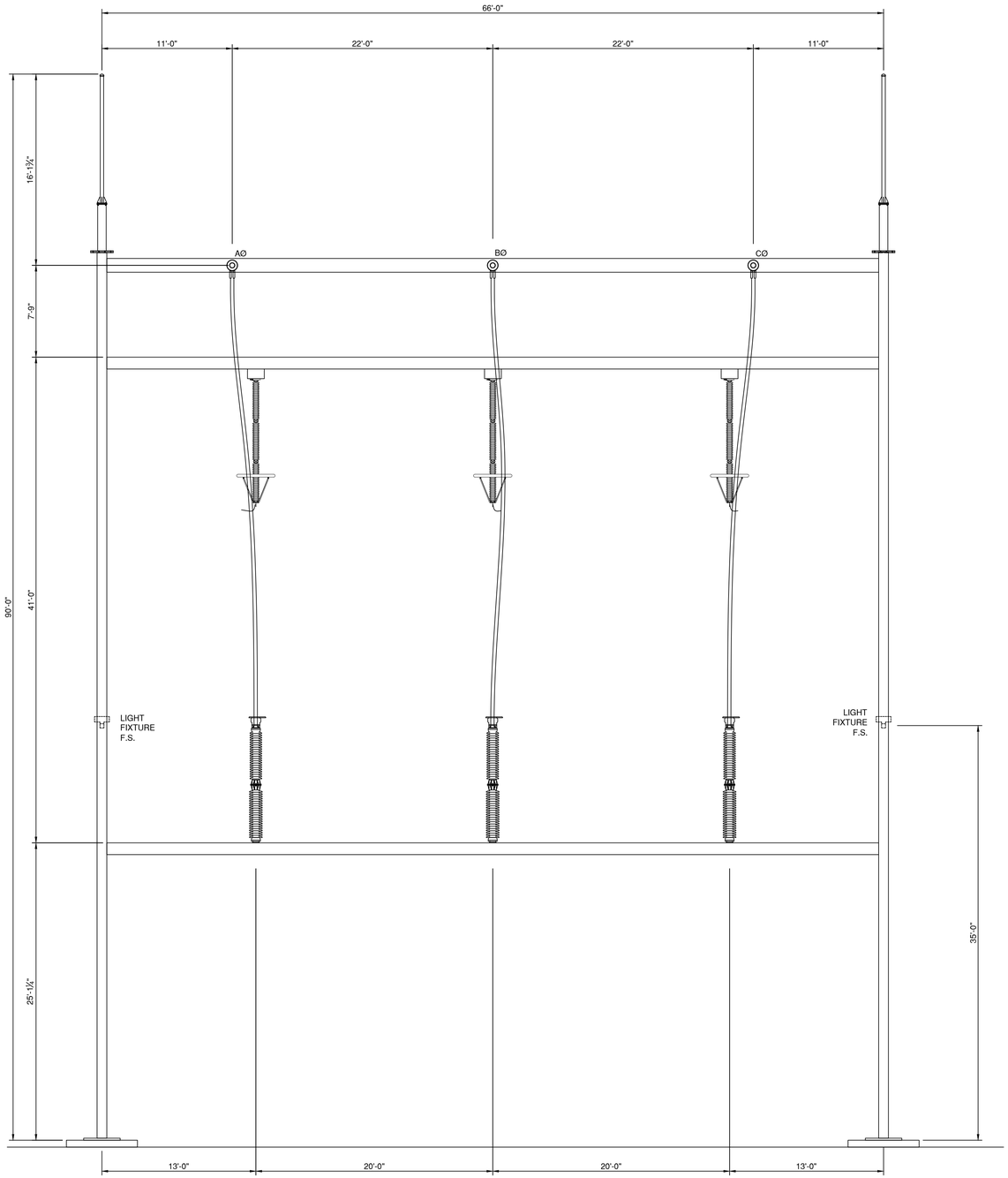
COLLECTOR SUBSTATION

PROJ. NO.: CP-FLCK

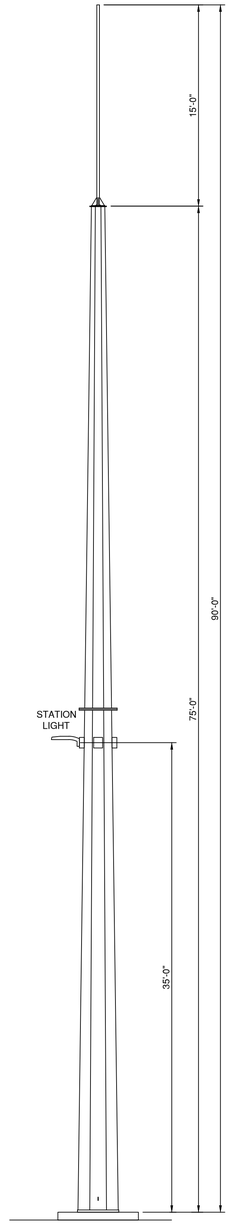
DWG. NO: FLCK-721

SH: 6 REV: D

SCALE: 1/16" = 1'-0"



SECTION J-J



SECTION K-K
TYPICAL SHIELDING MAST
(SEE 731 FOR LIGHT LOCATIONS)

LEGEND:

F	FIXED FITTING
S	SLIP FITTING
E	EXPANSION FITTING

NOT FOR CONSTRUCTION

PROPRIETARY INFORMATION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
B	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
A	04/19/2024	CAP BANK ADDITION - CONTENT MOVED FROM SH 6	TB	SR	SR

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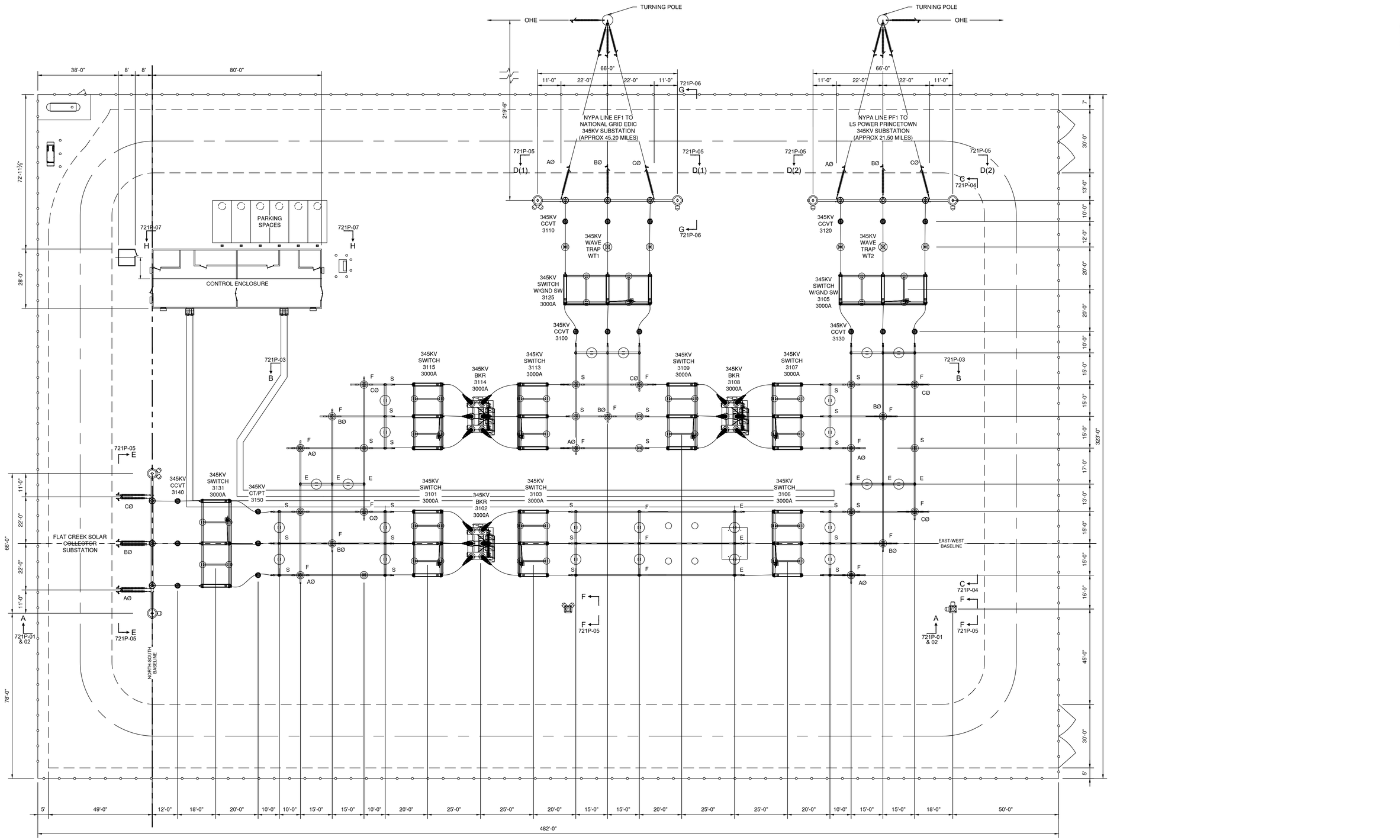
NYSKAYUNA, NY 12309
(518) 225-9473

FLAT CREEK SOLAR - 200MWAC
CORDELIO POWER
RAPPA RD, ROOT, NY 12166
ELEVATION DETAILS
COLLECTOR SUBSTATION

PROJ. NO.: CP-FLCK
DWG. NO.: FLCK-721
SH: 7
REV.: B
SCALE: 1/16" = 1'-0"



REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
D	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
C	04/19/2024	ILLUMINATION UPDATE	TB	SR	SR
B	03/25/2024	UPDATED PER CLIENT REVIEW	TB	SR	SR
A	03/07/2024	ISSUED FOR PERMIT	TB	SR	SR

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NEW YORK STATE

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ARCHITECTURE
ENGINEERING
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NYSKAYUNA, NY 12309
(518) 225-9473

FLAT CREEK SOLAR - 200MWAC

CORDELIO POWER

RAPPA RD, ROOT, NY 12166

STATION GENERAL ARRAGEMENT

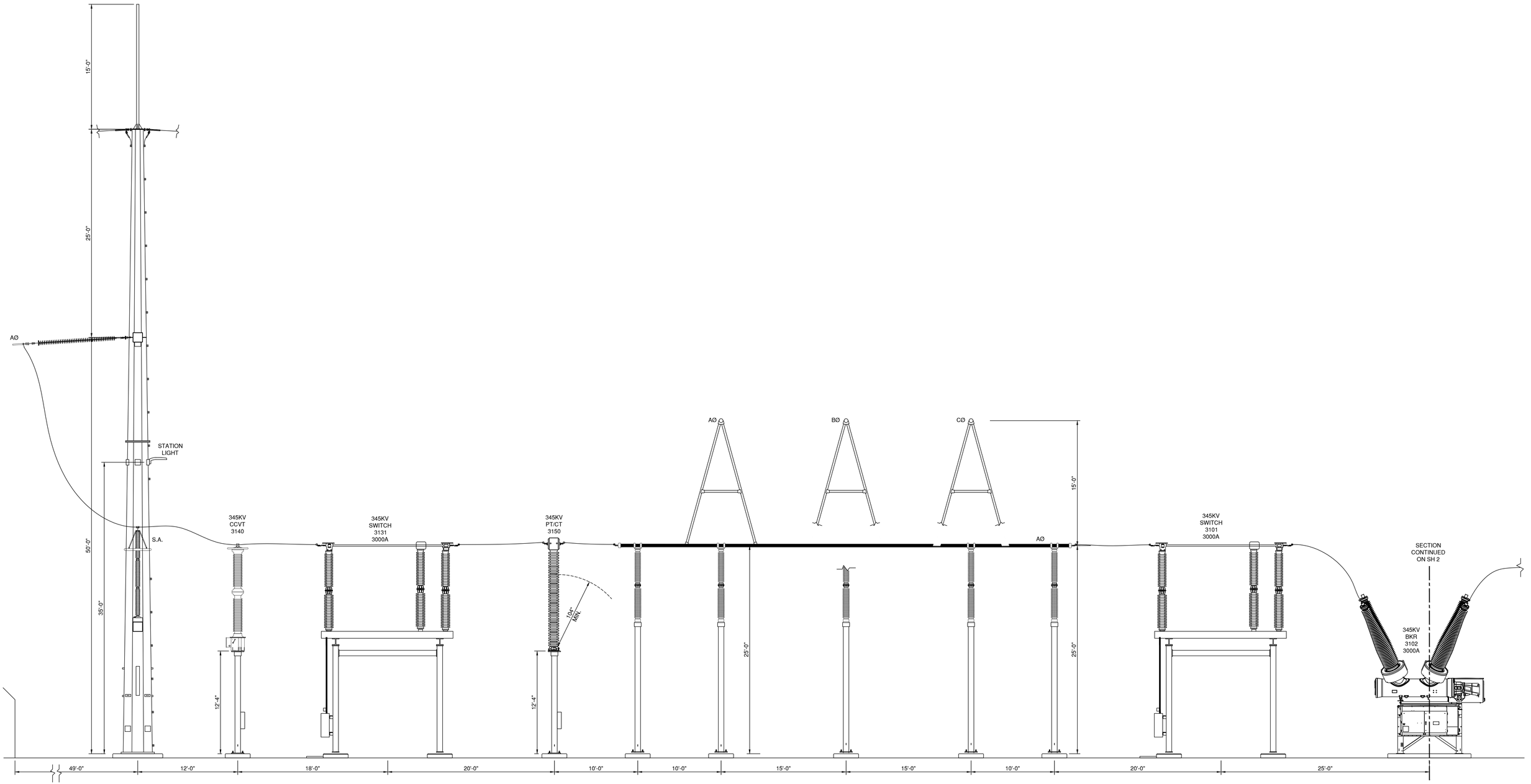
NYPA POI

PROJ. NO.: CP-FLCK

DWG. NO.: FLCK-720P

SH.: 1 REV.: D

SCALE: 1" = 20'-0"



SECTION A-A

LEGEND:

F	FIXED FITTING
S	SLIP FITTING
E	EXPANSION FITTING

NOT FOR CONSTRUCTION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
C	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
B	03/25/2024	UPDATED PER CLIENT REVIEW	TB	SR	SR
A	03/07/2024	ISSUED FOR PERMIT	TB	SR	SR

P.E. STAMP

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FLAT CREEK SOLAR - 200MWAC

CORDELIO POWER

RAPPA RD, ROOT, NY 12166

ELEVATION DETAILS

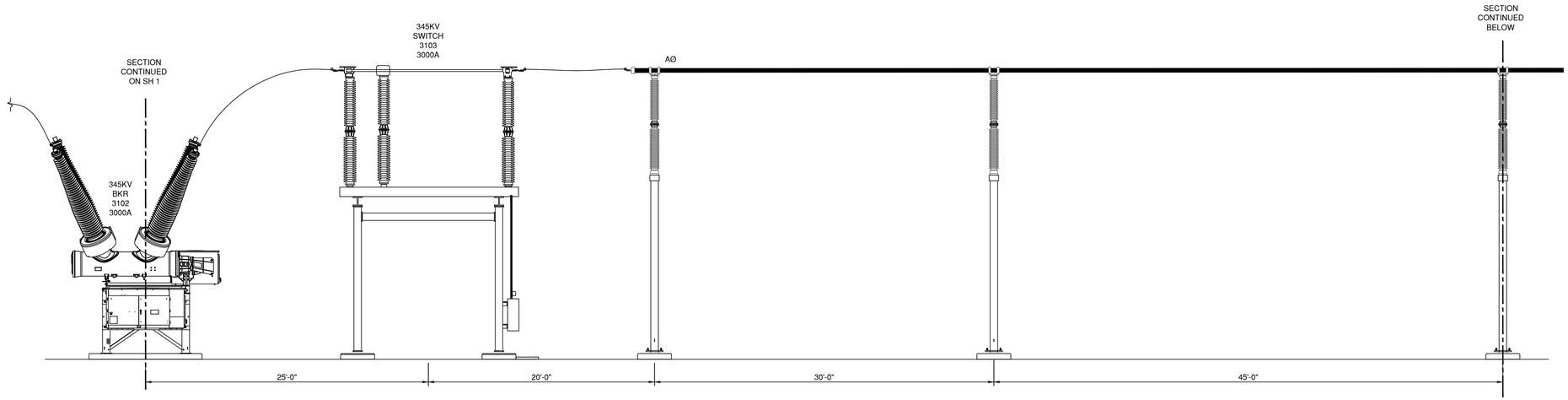
NYPA POI

PROJ. NO.: CP-FLCK

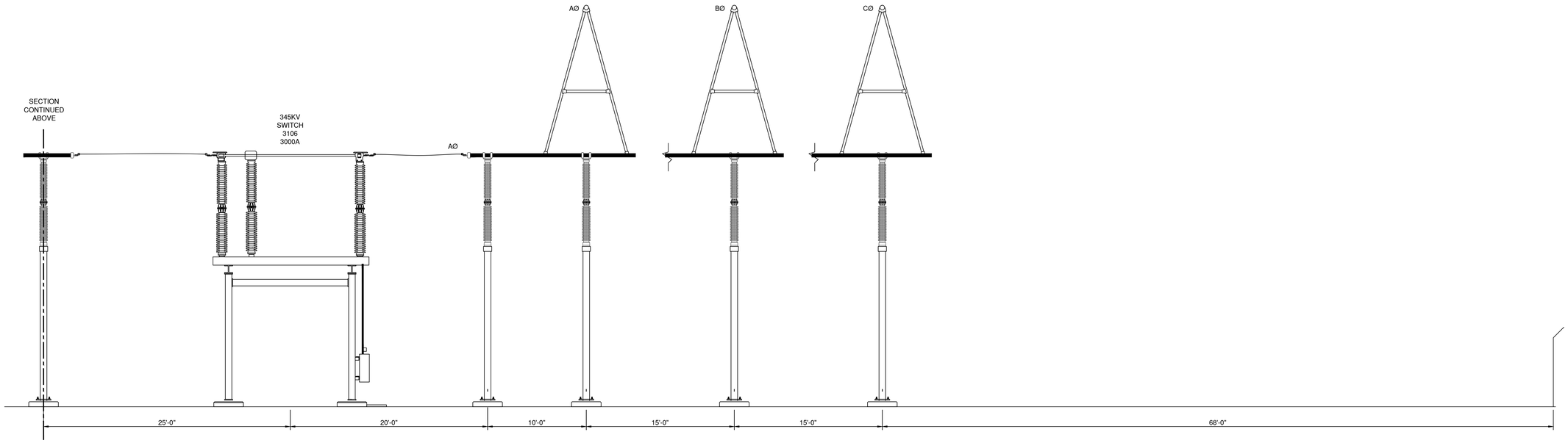
DWG. NO: FLCK-721P

SH: 1 REV: C

SCALE: 1" = 20'-0"



SECTION A-A



SECTION A-A

LEGEND:

F	FIXED FITTING
S	SLIP FITTING
E	EXPANSION FITTING

NOT FOR CONSTRUCTION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
C	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
B	03/25/2024	UPDATED PER CLIENT REVIEW	TB	SR	SR
A	03/07/2024	ISSUED FOR PERMIT	TB	SR	SR

P.E. STAMP

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FLAT CREEK SOLAR - 200MWAC

CORDELIO POWER

RAPPA RD, ROOT, NY 12166

ELEVATION DETAILS

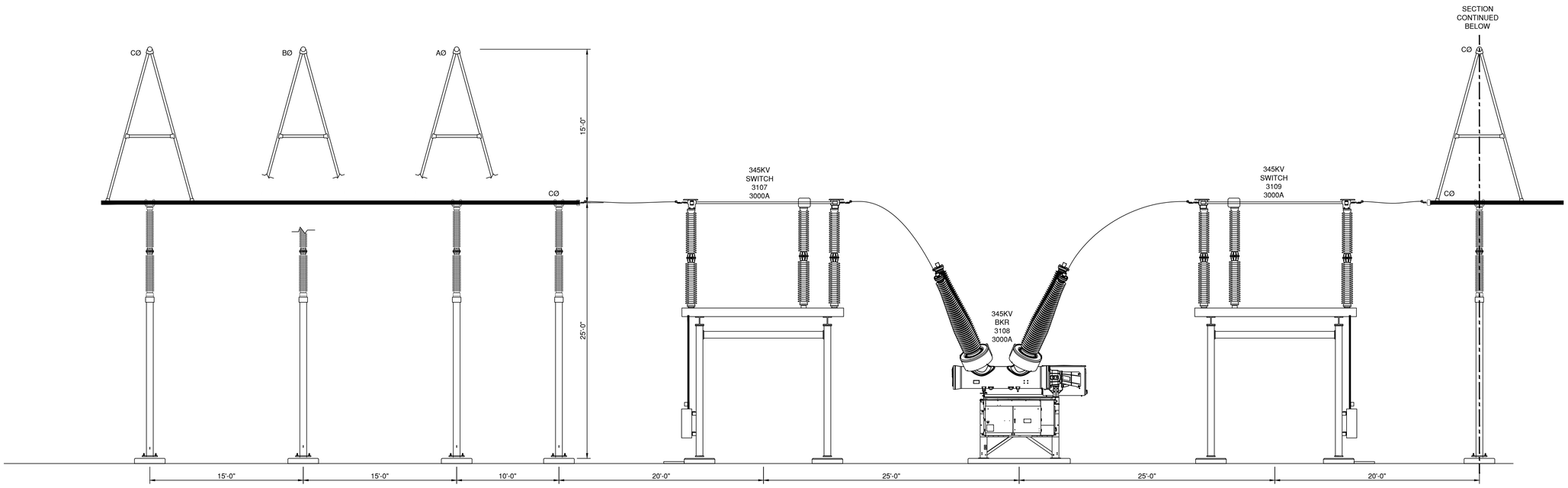
NYPA POI

PROJ. NO.: CP-FLCK

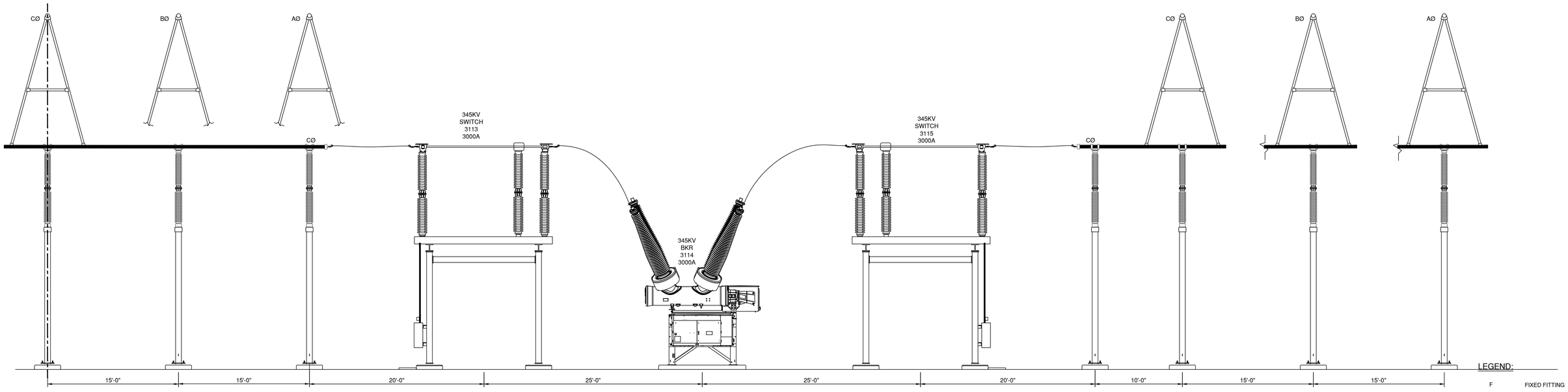
DWG. NO: FLCK-721P

SH: 2 | REV: C

SCALE: 1" = 20'-0"



SECTION B-B



SECTION B-B

LEGEND:

F	FIXED FITTING
S	SLIP FITTING
E	EXPANSION FITTING

NOT FOR CONSTRUCTION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
C	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
B	03/25/2024	UPDATED PER CLIENT REVIEW	TB	SR	SR
A	03/07/2024	ISSUED FOR PERMIT	TB	SR	SR

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FLAT CREEK SOLAR - 200MWAC

CORDELIO POWER

RAPPA RD, ROOT, NY 12166

ELEVATION DETAILS

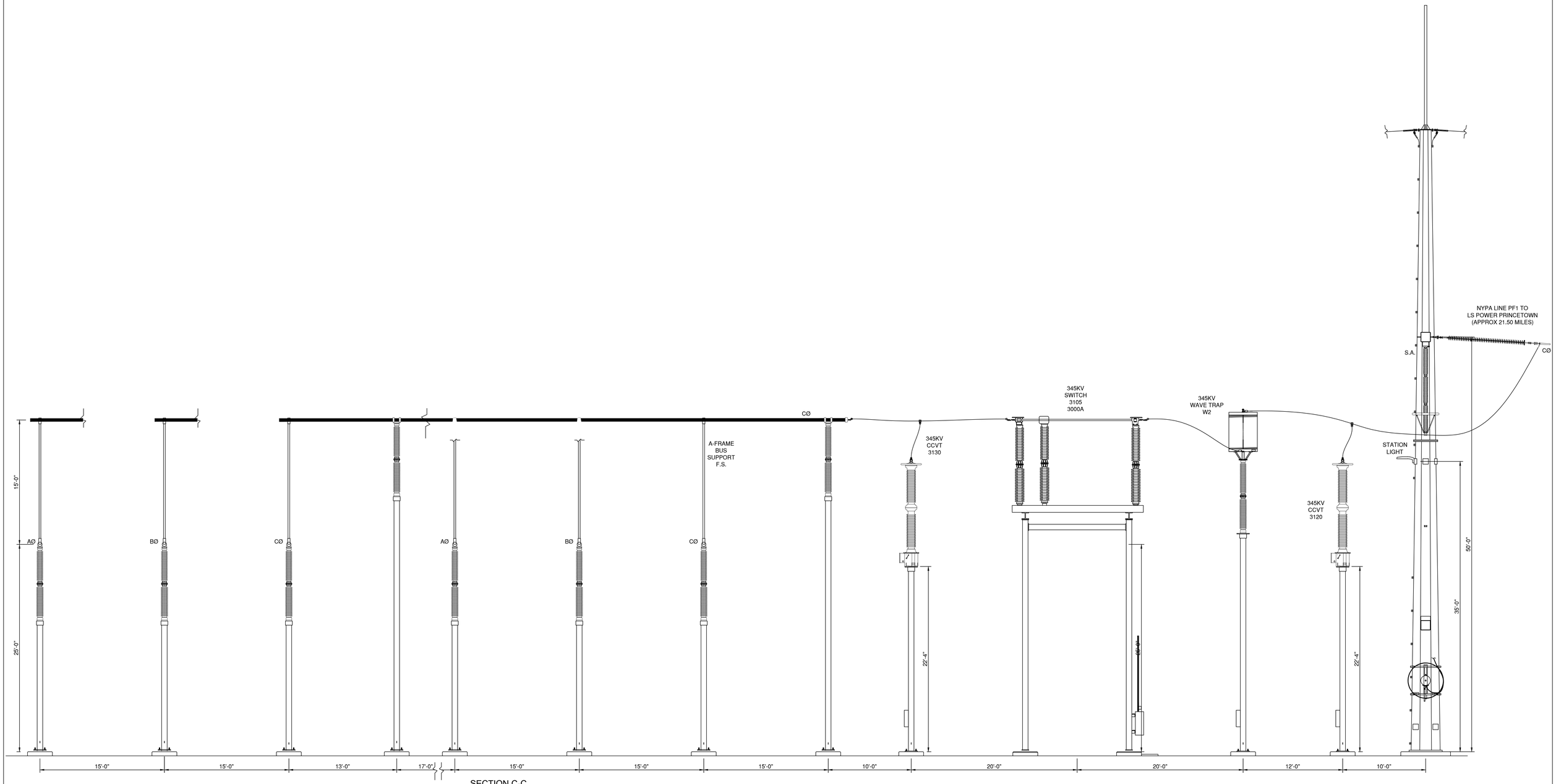
NYPA POI

PROJ. NO.: CP-FLCK

DWG. NO: FLCK-721P

SH: 3 | REV: C

SCALE: 1" = 20'-0"



SECTION C-C

LEGEND:

F	FIXED FITTING
S	SLIP FITTING
E	EXPANSION FITTING

NOT FOR CONSTRUCTION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRVD:
C	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
B	03/25/2024	UPDATED PER CLIENT REVIEW	TB	SR	SR
A	03/07/2024	ISSUED FOR PERMIT	TB	SR	SR

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DRAWING CREATED BY
SCOTT REYNOLDS, P.E.,
NEW YORK STATE

REYNOLDS ARCHITECTURE ENGINEERING
40 TAMARACK LANE
NYSKAYUNA, NY 12309
(518) 225-9473

FLAT CREEK SOLAR - 200MWAC

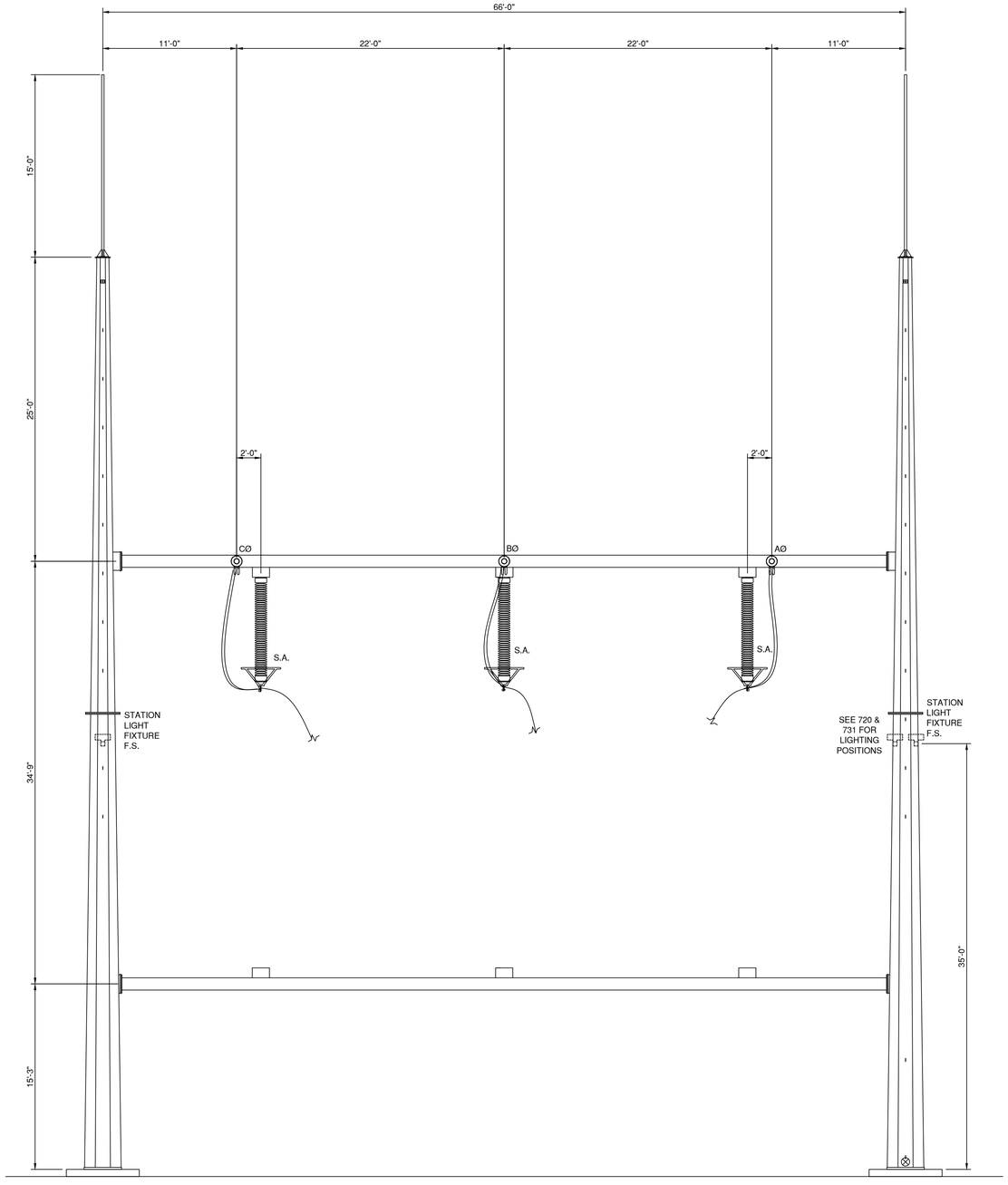
CORDELIO POWER

RAPPA RD, ROOT, NY 12166

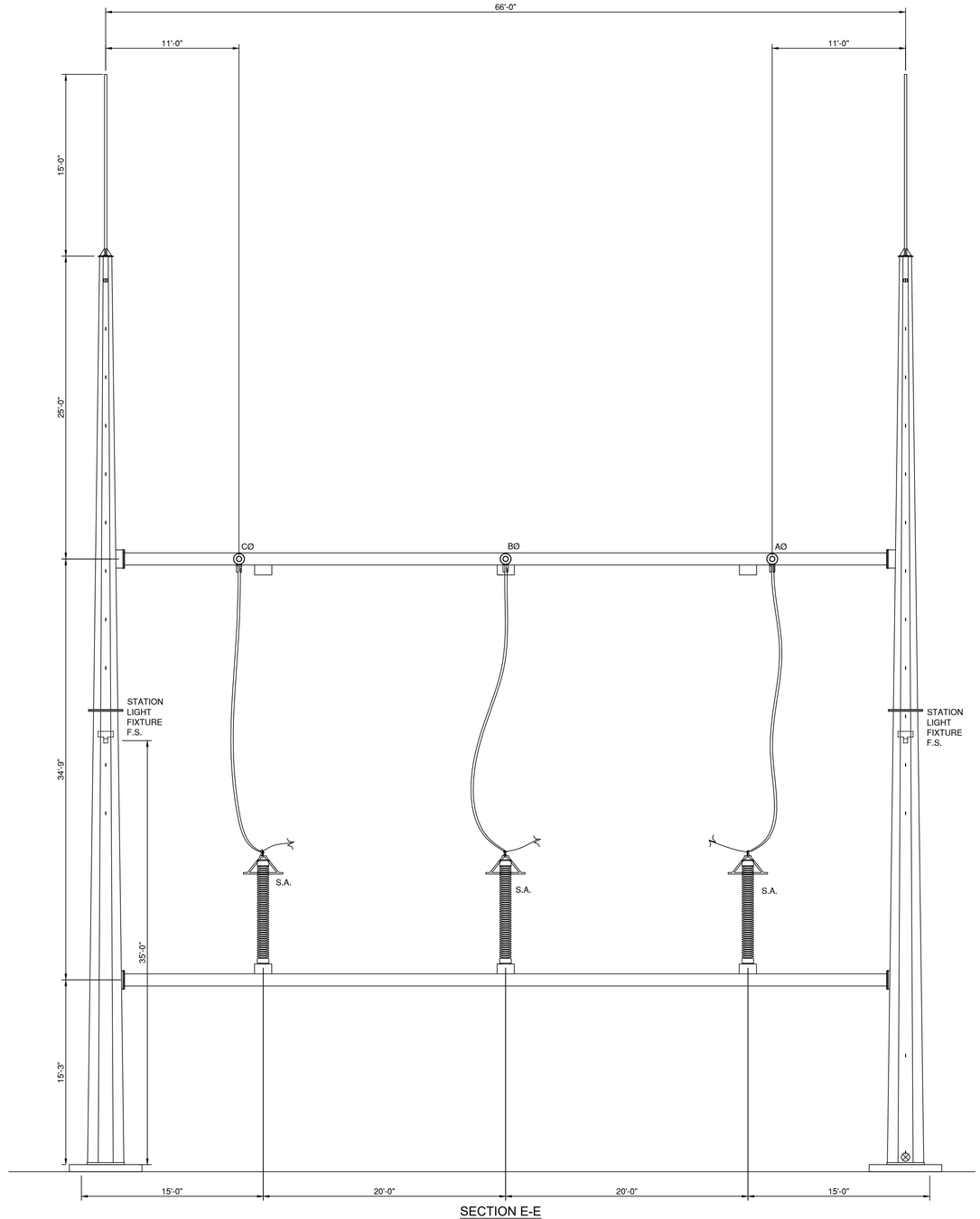
ELEVATION DETAILS

NYPA POI

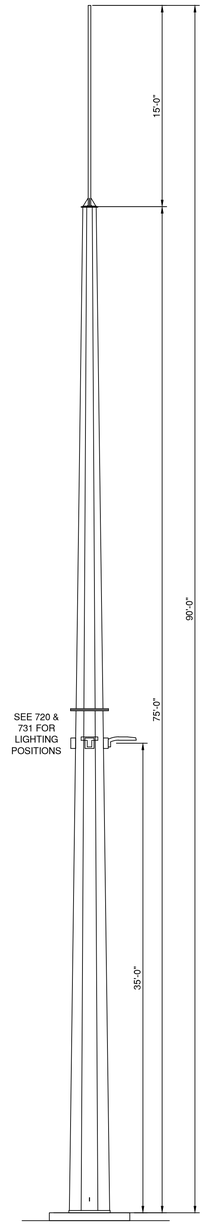
PROJ. NO.:	CP-FLCK
DWG. NO:	FLCK-721P
SH: 4	REV: C
SCALE:	1" = 20'-0"



SECTION D-D
(1 & 2)



SECTION E-E



SECTION F-F
TYP MAST

LEGEND:

F	FIXED FITTING
S	SLIP FITTING
E	EXPANSION FITTING

NOT FOR CONSTRUCTION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
D	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
C	04/19/2024	ILLUMINATION UPDATE	TB	SR	SR
B	03/25/2024	UPDATED PER CLIENT REVIEW	TB	SR	SR
A	03/07/2024	ISSUED FOR PERMIT	TB	SR	SR

P.E. STAMP

DRAWING CREATED BY SCOTT REYNOLDS, P.E., NEW YORK STATE

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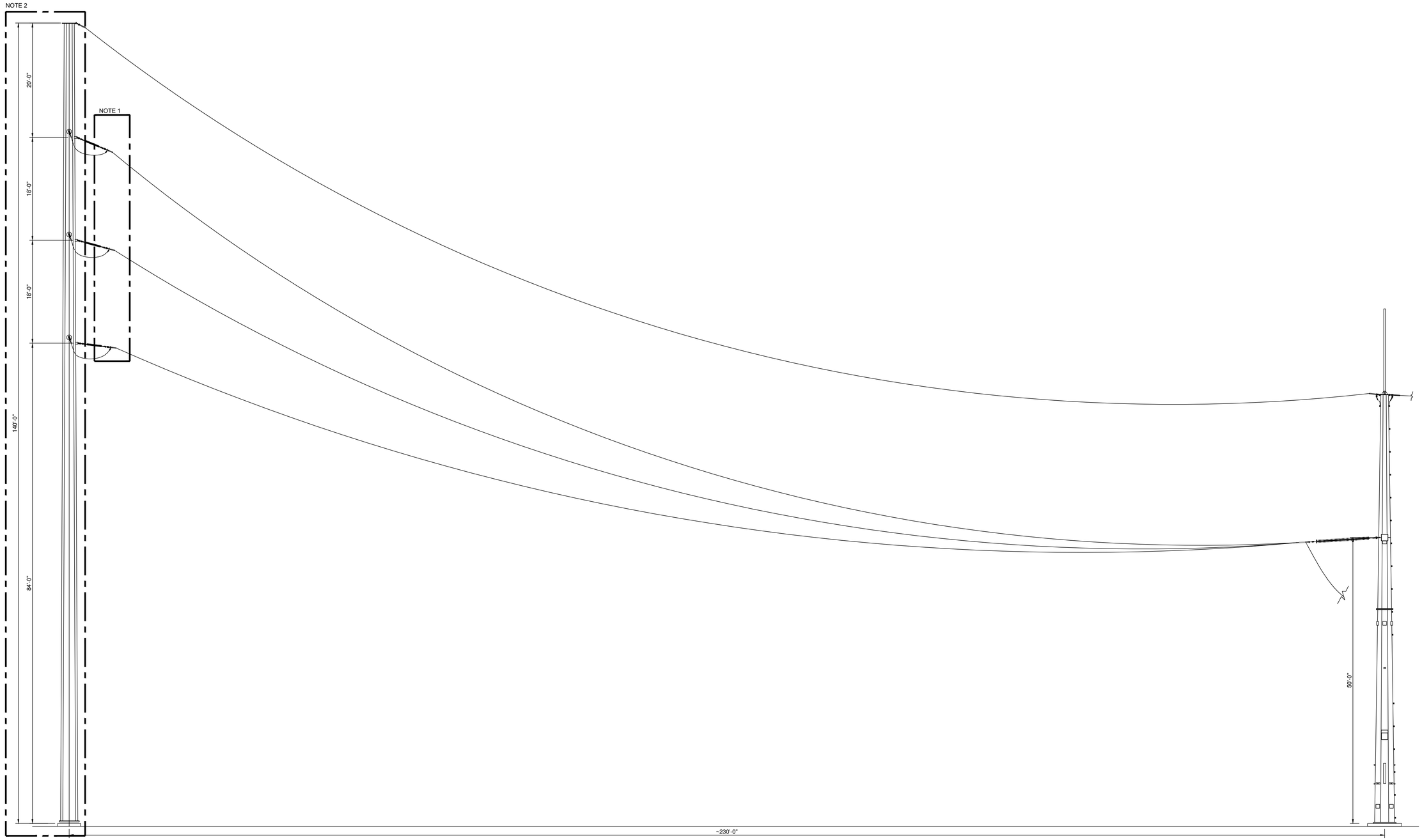
40 TAMARACK LANE
NYSKAYUNA, NY 12309
(518) 225-9473

FLAT CREEK SOLAR - 200MWAC
CORDELIO POWER
RAPPA RD, ROOT, NY 12166
ELEVATION DETAILS
NYPA POI

PROJ. NO.: CP-FLCK
DWG. NO: FLCK-721P
SH: 5
REV: D
SCALE: 1" = 20'-0"



SECTION G-G
(TYPICAL TURNING POLE
CONNECTION 2X)

NOTES:

1. PHASING ROTATION DETERMINED BY NYPA
2. TURNING POLE DEISGN BY NYPA CURRENT REPRESENTATION IS SUBJECT TO CHANGE BY NYPA DEPENDENT ON THE HEIGHTS OF THE NEW 345KV LINE FROM EDIC TO PRINCETOWN

LEGEND:

F	FIXED FITTING
S	SLIP FITTING
E	EXPANSION FITTING

NOT FOR CONSTRUCTION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
C	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
B	03/25/2024	UPDATED PER CLIENT REVIEW	TB	SR	SR
A	03/07/2024	ISSUED FOR PERMIT	TB	SR	SR

P.E. STAMP

DRAWING CREATED BY
SCOTT REYNOLDS, P.E.,
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40 TAMARACK LANE
NYSKAYUNA, NY 12309
(518) 225-9473

FLAT CREEK SOLAR - 200MWAC

CORDELIO POWER

RAPPA RD, ROOT, NY 12166

ELEVATION DETAILS

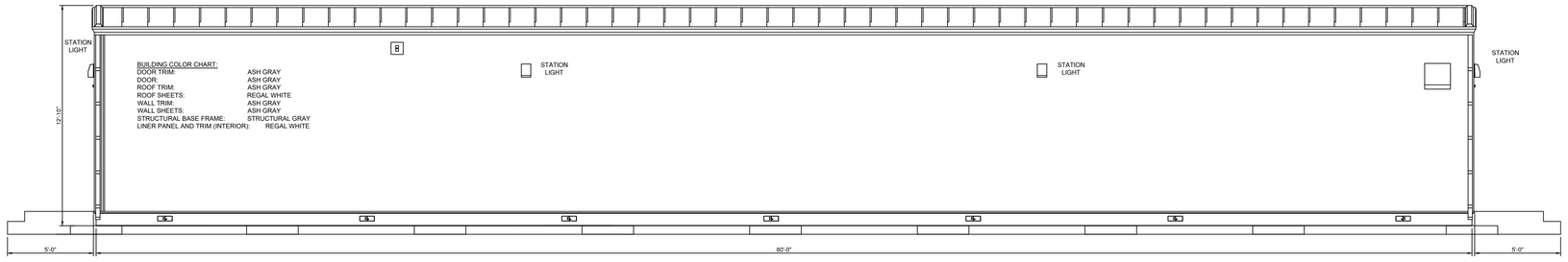
NYPA POI

PROJ. NO.: CP-FLCK

DWG. NO.: FLCK-721P

SH.: 6 REV.: C

SCALE: 1" = 20'-0"



SECTION H-H

LEGEND:

F	FIXED FITTING
S	SLIP FITTING
E	EXPANSION FITTING

NOT FOR CONSTRUCTION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
C	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
B	03/25/2024	UPDATED PER CLIENT REVIEW	TB	SR	SR
A	03/07/2024	ISSUED FOR PERMIT	TB	SR	SR

P.E. STAMP

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FLAT CREEK SOLAR - 200MWAC

CORDELIO POWER

RAPPA RD, ROOT, NY 12166

ELEVATION DETAILS

NYPA POI

PROJ. NO.: CP-FLCK

DWG. NO: FLCK-721P

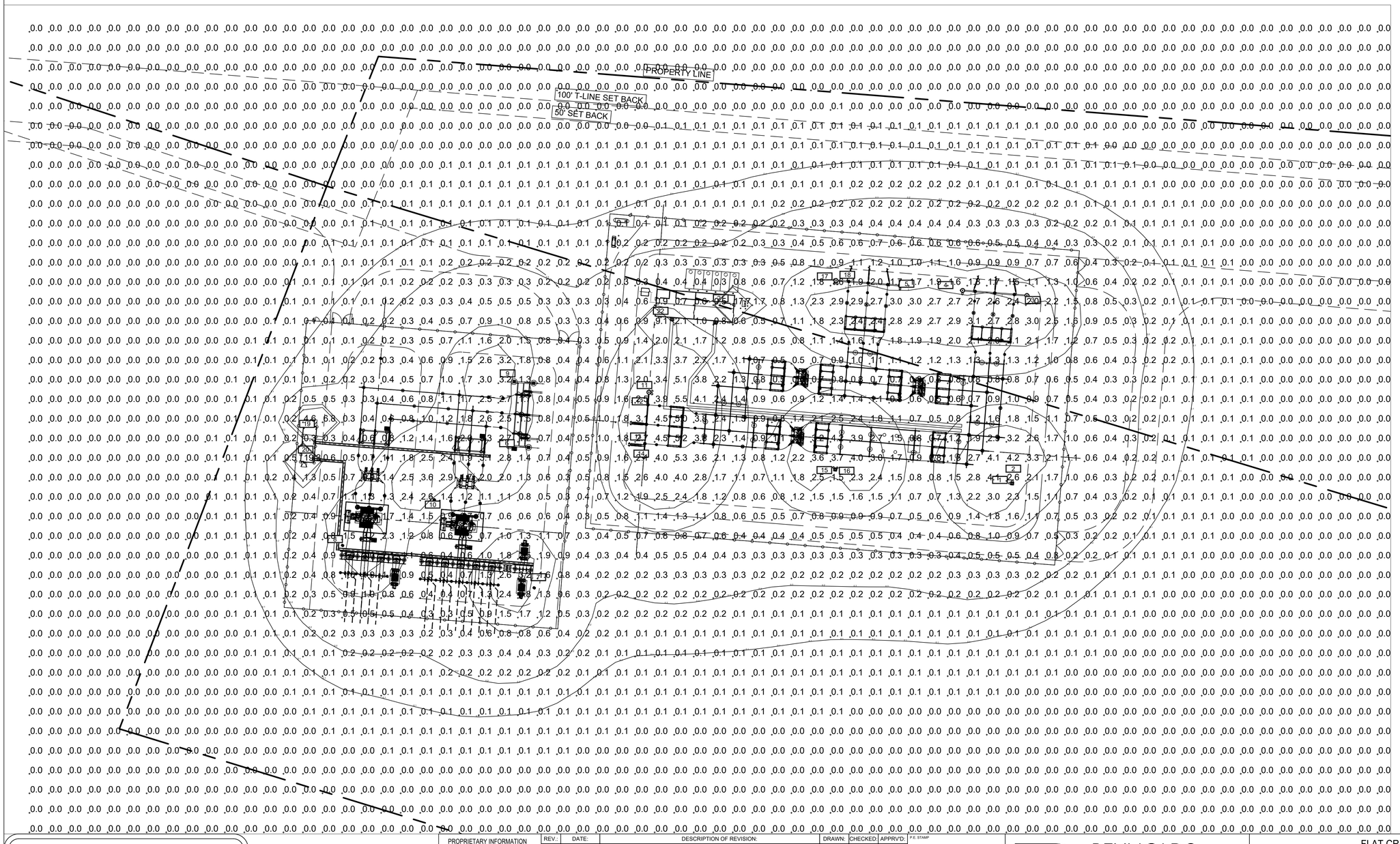
SH: 7 | REV: C

SCALE: 1" = 20'-0"

NORTH

0
270 90
180
ORIENTATION ANGLE REFERENCE

LUMINAIRE SCHEDULE						
LABEL	QTY	CATALOG NUMBER	DESCRIPTION	LAMP	LUMENS	WATTAGE
AREA LIGHT	13	IVAT4-130LSF730U	TYPE IV, 130 LUMENS, SLIPFITTER MOUNTING, 3000K COLOR TEMP., 0-10V DIMMING	LED	13,237	117,311
CONTROL ENCLOSURE LIGHT	4	SLIMFC37 (FULL CUT-OFF HOOD)	CAST BROWN PAINTED METAL HOUSING, EXTRUDED 2-PIECE DIFFUSE METAL HEAT SINK, 1 WHITE CIRCUIT BOARD WITH 16 LEDS, MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH, CLEAR FLAT PRISMATIC GLASS LENS IN CAST BROWN PAINTED METAL LENS FRAME WITH INTEGRAL VISOR. LENS PRISMS DOWN.	LED	4512	37



LUMINAIRE LOCATIONS				
LIGHT #	LABEL	MTG. HEIGHT	ORIENTATION	TILT ANGLE
1	AREA LIGHT	35'-0"	276	0
2	AREA LIGHT	35'-0"	0	0
3	AREA LIGHT	35'-0"	180	0
4	AREA LIGHT	35'-0"	180	0
5	AREA LIGHT	35'-0"	180	0
6	AREA LIGHT	31'-0"	270	0
7	AREA LIGHT	31'-0"	288	0
8	AREA LIGHT	31'-0"	94	0
9	AREA LIGHT	31'-0"	273	0
10	AREA LIGHT	31'-0"	328	0
11	AREA LIGHT	35'-0"	66	0
12	AREA LIGHT	35'-0"	132	0
13	AREA LIGHT	35'-0"	56	0
14	AREA LIGHT	35'-0"	125	0
15	AREA LIGHT	35'-0"	321	0
16	AREA LIGHT	35'-0"	49	0
17	AREA LIGHT	35'-0"	255	0
18	AREA LIGHT	35'-0"	135	35
19	CONTROL ENCLOSURE LIGHT	9'-0"	0	35
20	CONTROL ENCLOSURE LIGHT	9'-0"	180	35
21	CONTROL ENCLOSURE LIGHT	9'-0"	90	35
22	CONTROL ENCLOSURE LIGHT	9'-0"	180	35

STATION YARD LIGHTS SHALL BE NORMALLY OFF, AND TURNED ON MANUALLY ONLY AS NECESSARY FOR INTERMITTENT OPERATIONS, MAINTENANCE, OR EMERGENCY SITUATIONS.

ILLUMINATION NOTE:

THE ILLUMINATION LEVELS WITHIN THE SUBSTATION WERE ANALYZED TO MEET THE REQUIREMENTS SET FORTH IN THE LATEST EDITION OF THE NATIONAL ELECTRICAL SAFETY CODE (NESC) THE DESIGN WAS ANALYZED AND CONFIRMED TO MEET THE REQUIREMENTS DEFINED IN THE NESC. THE SWITCHES, WHICH WERE CALCULATED WITH INTERREFLECTIONS AND AT THE SWITCH HEIGHT, HAD A MINIMUM ILLUMINATION VALUE OF 2.1 FOOTCANDLES COMPARED TO THE REQUIREMENT OF 2.0 FOOTCANDLES.

NOT FOR CONSTRUCTION

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
D	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR
C	04/19/2024	CAP BANK ADDITION - ILLUMINATION UPDATE	TB	SR	SR
B	03/25/2024	UPDATED PER CLIENT REVIEW	TB	SR	SR
A	03/07/2024	ISSUED FOR PERMIT	TB	SR	SR

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FLAT CREEK SOLAR - 200MWAC

CORDELIO POWER

RAPPA RD, ROOT, NY 12166

STATION ILLUMINATION PLAN

NYPA POI

PROJ. NO.: CP-FLCK

DWG. NO.: FLCK-731

SH.: 1 REV.: D

SCALE: 1" = 50'-0"

IVAT4-130LPA730ZU

Low profile, low glare. Edge-lit technology unlike any other.

Color: Bronze

Weight: 18.6 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	1.00A
208V	0.58A
240V	0.50A
277V	0.43A
Input Watts	117.3W

LED Info

Watts	117W
Color Temp	3000K (Warm)
Color Accuracy	80 CRI
L70 Lifespan	100,000 Hours
Lumens	13,232 lm
Efficacy	112.8 lm/W

Technical Specifications

Compliance

UL Listed:
Suitable for wet locations

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80

Title 24 Compliant:
An IVELOT edge-lit area light can be used with a motion sensor or photocell control option to comply with 2016 Title 24 Part 6 Section 130.2 (a,b,v)

IP Rating:
Ingress protection rating of IP66 for dust and water

DLC Listed:
This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: S-EPBGIT

Electrical

Driver:
Class 2, 50/60Hz, 120-277V, 4kV standard, 10kV optional

Dimming Driver:
Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:
3.48% at 120V, 5.48% at 277V

Power Factor:
99.9% at 120V, 97% at 277V

Performance

Lifespan:
100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations at 25°C

Wattage Equivalency:
Equivalent to 450W Pulse Start Metal Halide

LED Characteristics

LEDs:
Long-life, high-efficacy, surface-mount LEDs

Color Stability:
LED color temperature is warrantied to shift no more than 200K in color temperature over a 5-year period

Mounting:
Universal pole adapter

Lens:
Diffused Polymethyl Methacrylate (PMMA)

Color Uniformity:
RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Construction

Cold Weather Starting:
The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:
Suitable for use in up to 40°C (104°F)

Housing:
Precision die-cast aluminum

IES Classification:
The Type IV distribution is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

IVAT4-130LPA730ZU

Technical Specifications (continued)

Effective Projected Area:
EPA = 0.61

Finish:
Formulated for high durability and long-lasting color

Green Technology:
Mercury and UV free. RoHS-compliant components.

Optical

BUG Rating:
B3 U0 G3

Other

Warranty:
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:
RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions

Features

0-10V Dimming, standard

100,000-Hour LED lifespan

IVAT4-130LPA730ZU

Ordering Matrix

Family	Distribution		Lumen Output	Mounting	CRI/Color Temp	Finish	Voltage/Driver	Sensor Options	Lightcloud Option
IVA	T4	–	130L	PA	730	Z	U		
	T2 = Type II [*] **T3** = Type III [*] **T4** = Type IV [*] **T5S** = Type V Square [*] **FT** = Forward Throw [*]		**45L** = 4,500lm (38W) **75L** = 7,500lm (67W) **100L** = 10,000lm (94W) **130L** = 13,000lm (117W) [*]	**PA** = Universal Pole Mount **WM** = Wall mount **SF** = Slipfitter	**750** = 70CRI 5000K **740** = 70CRI 4000K **730** = 70CRI 3000K	**Z** = Bronze **W** = White **G** = Roadway Gray **K** = Black	**U** = 120-277V 0-10V Dimming **H** = 347-480V, 0-10V Dimming	**Blank** = No Options **/WS** = 8ft lens Wattstopper **/WS2** = 20ft lens Wattstopper **/WS4** = 40ft lens Wattstopper **/7PR** = 7-Pin receptacle	**Blank** = No Lightcloud® **/LC** = Lightcloud® Controller [†]

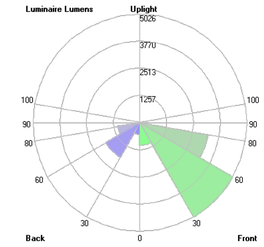
[†] *Applies to Type IV, V Square*
[‡] *Applies 120-277V*
[*] *All values are nominal with +/- 10% tolerance. See spec sheet for more details.*

Deliver

NVLAP TESTING NVLAP LAB CODE 201074-0

4.2 Goniophotometer Test

LCS/BUG



	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1042.0	N.A.	7.9
FM - Front-Medium (30-60)	5026.3	N.A.	38.0
FH - Front-High (60-80)	3244.7	N.A.	24.5
FVH - Front-Very High (80-90)	374.0	N.A.	2.8
BL - Back-Low (0-30)	542.8	N.A.	4.1
BM - Back-Medium (30-60)	1837.6	N.A.	13.9
BH - Back-High (60-80)	1056.6	N.A.	8.0
BVH - Back-Very High (80-90)	108.4	N.A.	0.8
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	13232.4	N.A.	100.0
BUG Rating	B3-U0-G3		

SLIMFC37

37, 57 and 62 Watt SLIM Wall packs are designed to cover the footprint of most traditional wall packs. They are suitable for mounting heights from 20' to 30', and replace HID Wattages from 200W MH to 320W MH. These ultra-high efficiency fixtures are available in cutoff or full cutoff models.

Color: Bronze

Weight: 8.5 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	0.34A
208V	0.20A
240V	0.17A
277V	0.15A
Input Watts	32.4W

LED Info

Watts	37W
Color Temp	5000K (Cool)
Color Accuracy	74 CRI
L70 Lifespan	100,000 Hours
Lumens	4,512 lm
Efficacy	139.3

Technical Specifications

Compliance

UL Listed:
Suitable for Wet Locations. Wall Mount Only.

IP Rating:
Ingress protection rating of IP66 for dust and water

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Trade Agreements Act Compliant:
This product is a product of Cambodia and a "designated country" end product that complies with the Trade Agreements Act

Construction

Footprint:
Designed to replace RAB HID WP1 wall packs, both in size and footprint template, so upgrading to LED is easy and seamless

Cold Weather Starting:
The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:
Suitable for use in up to 40°C (104°F)

Housing:
Precision die-cast aluminum housing and door frame

Mounting:
Die-cast back box with four (4) conduit entry points and knockout pattern for junction box or direct wall mounting. Hinged housing and bubble level for easy installation.

Full Cutoff:
Allows for conformance to the IDA's fully shielding requirement, emitting no light above 90 degrees.

Recommended Mounting Height:
Up to 20 ft

Lens:
Microprismatic diffusion glass lens reduces glare and has smooth and even light distribution

Reflector:
Specular thermoplastic

Gaskets:
The unique design of the tight-lock gasket ensures no water or environmental elements will ever get inside the SLIM

Finish:
Formulated for high durability and long-lasting color

Green Technology:
Mercury and UV free. RoHS-compliant components.

LED Characteristics

LED:
Long-life, high-efficiency, micro-power, surface mount LEDs; binned and mixed for uniform light output and color

Color Stability:
LED color temperature is warrantied to shift no more than 200K in color temperature over a 5-year period

Color Consistency:
7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Electrical

Driver:
Constant Current, Class 2, 120-277V, 50-60Hz, 120V: 0.34A, 208V: 0.17A, 240V: 0.17A, 277V: 0.15A

Dimming Driver:
Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:
2.84% at 120V, 4.91% at 277V

SLIMFC37

Technical Specifications (continued)

Power Factor:
99.7% at 120V, 94% at 277V

Performance

Lifespan:
100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Other

Accessories:
Available accessories include polyshield and wire guard. Click here to see all accessories.

Patents:
The design of the SLIM™ is protected by patents pending in US, Canada, China, Taiwan and Mexico

HID Replacement Range:
Replaces 200W Metal Halide

Warranty:
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

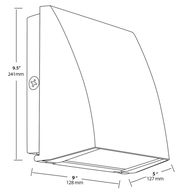
Buy American Act Compliance:
RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Optical

BUG Rating:
B1 U0 G0

SLIMFC37

Dimensions



Features

Covers footprint of most traditional wall packs

Easy installation with hinged access, bubble level and multiple conduit entries

Tight-lock gasket keeps elements out

100,000-hour LED lifespan

5-Year, No-Compromise Warranty

Ordering Matrix

Family	Cutoff	Wattage	Color Temp	Finish	Driver Options	Options
SLIM	FC	37				
	Blank = Cutoff (10 degrees) **FC** = Full Cutoff (0 degrees)	**37** = 37W **57** = 57W **62** = 62W	**Blank** = 5000K Cool **N** = 4000K Neutral **Y** = 3000K Warm	**Blank** = Bronze **W** = White	**Blank** = Standard (120-277V) **/BL** = Bi-Level **/D10** = Dimmable **/480** = 480V	**Blank** = No Option **/PC** = 120V Button Photocell **/PC2** = 277V Button Photocell **/PCS** = 120V Swivel Photocell **/PCS2** = 277V Swivel Photocell **/LC** = Lightcloud® Controller

NOT FOR CONSTRUCTION

PROPRIETARY INFORMATION

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REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
A	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR

P.E. STAMP

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FLAT CREEK SOLAR - 200MWAC

CORDELIO POWER

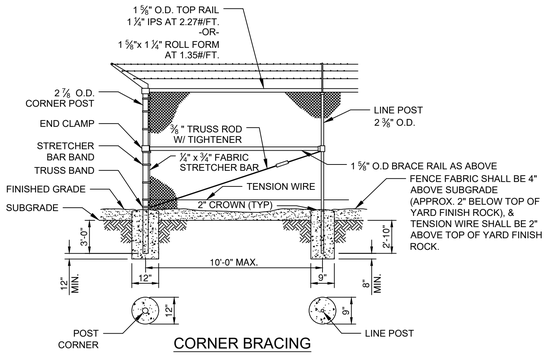
RAPPA RD, ROOT, NY 12166

STATION ILLUMINATION

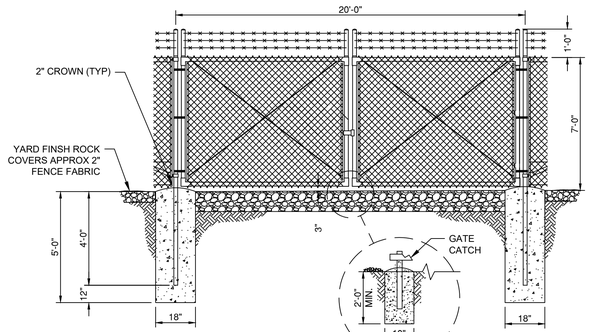
CUT SHEETS

PROJ. NO.:	CP-FLCK
DWG. NO:	FLCK-731
SH: 2	REV: A
SCALE:	1" = 50'-0"

TABLE A FENCE POSTS FOR 8ft FENCE		
USE	TYPE	MINIMUM SIZE
LINE POSTS	ROUND	2⅜" OD; t = .154in.
END, CORNER, PULL POSTS	ROUND	2⅞" OD; t = .203in.
GATE POSTS	ROUND	4" OD; t = .226 in.



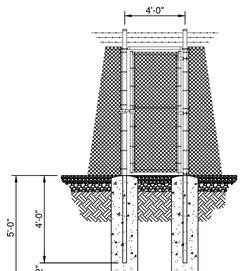
CORNER BRACING



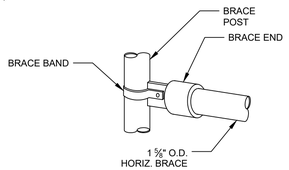
TYPICAL GATE

SECURITY SIGNS

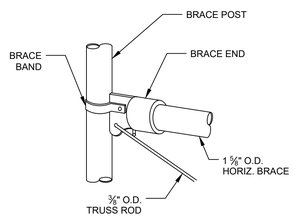
SEE CONSTRUCTION SPECIFICATION FOR COMPLETE LIST OF SECURITY SIGNS.



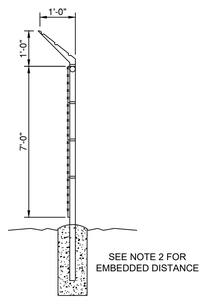
WALK GATE



BRACE ATTACHMENT



BRACE AND TRUSS ATTACHMENT



LINE POST

FENCE MATERIALS AND ERECTION MATERIAL

1. FABRIC

THE FENCE SHALL BE A MINIMUM OF 7 FT. HIGH. IT SHALL CONSIST OF A MINIMUM NO. 9 USWG STEEL WIRE, WOVEN INTO A 2 IN. DIAMOND MESH. THE MINIMUM BREAKING STRENGTH OF WIRE SHALL BE 1200 LBS. THE SIDES OF THE MESH PATTERN SHALL BE APPROXIMATELY 45° TO A VERTICAL LINE.

THE FABRIC SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A392, CLASS II.

2. LINE, END, CORNER, PULL AND GATE POSTS

ALL POST SHALL BE STEEL AND CONFORM TO THE SIZES AS LISTED IN TABLE A, (ABOVE), FOR THE SPECIFIC TYPE OF APPLICATION. STRENGTH AND PROTECTIVE COATINGS OF ALL FENCE FRAMEWORK SHALL CONFORM TO ASTM F1043.

TUBULAR MATERIAL SHOULD CONFORM TO ASTM A53 GRADE B, FOR ROUND SHAPES AND ASTM A500 GRADE B OR ASTM A501 FOR SQUARE SHAPES. ROLL-FORMED SECTIONS SHALL MEET THE YIELD STRESS REQUIREMENTS OF ASTM A36 AS A MINIMUM.

LINE POSTS SHALL BE OF SUFFICIENT HEIGHT TO; (A) ACCOMMODATE A 7 FT FABRIC; (B) ACCOMMODATE EXTENSION ARMS, AND (C) BE EMBEDDED 34 IN INTO THE CONCRETE FOOTING.

END, CORNER AND PULL POST SHALL BE OF SUFFICIENT HEIGHT TO (A) ACCOMMODATE A 7 FT FABRIC; (B) ACCOMMODATE EXTENSION ARMS OR EXTEND 1 FT EXTRA, AND (C) BE EMBEDDED 36 IN INTO THE CONCRETE FOOTING.

GATE POSTS SHALL BE OF SUFFICIENT HEIGHT TO; (A) ACCOMMODATE A 7 FT FABRIC; (B) ACCOMMODATE EXTENSION ARMS, AND (C) BE EMBEDDED 48 IN INTO THE CONCRETE FOOTING.

ALL TUBULAR POSTS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123. ROLL FORMED SECTIONS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.

3. TOP RAIL

TOP RAILS SHALL BE ROUND STEEL PIPE OR TUBING. THE MINIMUM SIZE SHALL NOT BE LESS THAN 1 ⅝" OD NOR HAVE A MINIMUM WALL THICKNESS LESS THAN .138 IN. COUPLINGS SHALL BE THE OUTSIDE SLEEVE TYPE, SPACED ABOUT 20 FT APART AND AT LEAST 6 IN LONG, WITH PROVISIONS FOR EXPANSION AND CONTRACTION. THE TOP RAIL SHALL PASS THROUGH THE BASE OF THE EXTENSION ARM AND BE SECURELY FASTENED TO THE END, GATE AND PULL POSTS.

TOP RAILS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123/A153.

4. BARBED WIRE

BARBED WIRE SHALL CONSIST OF TWO STRANDS OF 12 ½" USWG STEEL WIRE WITH 4-POINT BARBS AT A MAXIMUM SPACING OF 5 IN APART. THE WIRE SHALL BE GALVANIZED AFTER WEAVING IN ACCORDANCE WITH ASTM A121, CLASS 3, OR ALUMINUM COATED PER ASTM A-585, CLASS 2.

THREE LINES OF BARBED WIRE SHALL BE PROVIDED.

5. EXTENSION ARMS

THE EXTENSION ARMS SHALL EXTEND UPWARD AND OUTWARD FROM THE FENCE AT AN ANGLE OF 45°. THERE SHALL BE PROVISIONS FOR THREE EQUALLY SPACED LINES OF BARBED WIRE ON THE EXTENDED ARMS. THE UPPERMOST WIRE SHALL BE APPROXIMATELY 1 FT VERTICALLY ABOVE THE FABRIC AND 1 FT HORIZONTALLY OUTSIDE THE FENCE LINE.

THE EXTENSION ARM SHALL BE MADE OF PRESSED STEEL OR MALLEABLE IRON AND SHOULD BE DESIGNED FOR A 300 LBS MINIMUM PULL DOWN LOAD BEING APPLIED AT ARMS TIP.

THE EXTENSION ARM SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123/A153, CLASS B1.

6. STRETCHER BAR

STRETCHER BARS SHALL BE GALVANIZED STEEL BARS NOT LESS THAN ¼"x ¾". THEY SHALL BE APPROXIMATELY 1 IN LESS THAN THE FABRIC HEIGHT.

THE STRETCHER BAR SHALL BE USED FOR SECURING THE FABRIC TO ALL TERMINAL POSTS. ONE BAR IS REQUIRED FOR EACH GATE AND END POST. TWO ARE REQUIRED FOR EACH CORNER AND PULL POST.

7. POST BRACES

POST BRACES ARE REQUIRED AT EACH GATE, CORNER, PULL AND END POST. IT SHALL CONSIST OF A STRUT, WHICH SHALL NOT BE LESS IN SIZE THAN THE TOP RAIL, AND A TRUSS ROD WITH TURNBUCKLE. THE ROD SHALL BE STEEL AND HAVE A MINIMUM DIAMETER OF ⅜".

THE TRUSS SHALL BE SECURED NEAR THE BASE OF THE CORNER GATE, PULL OR END POST. THE SECOND END SHALL BE SECURED AT APPROXIMATELY MID-HEIGHT ON THE ADJACENT LINE POST.

BRACING MEMBERS SHALL ALL BE HOT-DIP GALVANIZED PER ASTM 153.

8. TENSION WIRE

TENSION WIRE SHALL BE NO. 6 GAUGE COIL SPRING STEEL WIRE. ONE TENSION WIRE SHALL BE LOCATED AT THE BOTTOM OF THE FABRIC AND ATTACHED WITH HOG RINGS TO THE FABRIC ON 24" CENTERS.

9. GATE FRAMES

GATE FRAMES SHALL BE CONSTRUCTED OF TUBULAR STEEL MEMBERS WHICH SHALL BE WELDED AT THE JOINTS. ADDITIONAL HORIZONTAL AND VERTICAL STRUTS MAY BE REQUIRED TO PROVIDE FOR A RIGID GATE PANEL ALLOWING FOR NO VISIBLE SAG OR TWIST. GATE FRAMES SHALL BE MADE TO HAVE APPROXIMATELY 3" CLEARANCE ABOVE THE ROAD.

FABRIC FOR THE GATE PANELS SHALL BE THE SAME AS THE FENCE.

GATE FRAME AND BRACING MEMBERS SHALL NOT BE LESS THAN THE STRUCTURAL EQUIVALENT OF 2 ⅜" OD STANDARD PIPE. STEEL TENSION RODS AND TURNBUCKLES MAY ALSO BE UTILIZED. GATE FRAME SHALL HAVE PROVISIONS FOR THREE LINES OF BARBED WIRE ABOVE FABRIC. ALL GATE FRAME MATERIAL SHALL BE HOT-DIP GALVANIZED PER ASTM A-120.

10. HARDWARE

HINGES SHALL BE HEAVY DUTY AND ALLOW 180° SWING OF ALL GATE LEAVES. THE HINGES SHALL NOT TWIST OR TURN UNDER THE ACTION OF THE GATE AND SHALL PROVIDE EASE OF OPERATION.

LATCHES, STOPS AND KEEPERS SHALL ALL BE HEAVY DUTY CONSTRUCTION OF GALVANIZED STEEL OR MALLEABLE IRON AND SHALL CONFORM TO ASTM A-48 SPECS FOR GRAY IRON CASTING, ASTM 1-47 SPECS FOR MALLEABLE IRON CASTING AND 2SAE-1025 SPECS FOR ROLLED PRESSED AND FOR STEEL. FORK LATCHES SHALL HAVE A HEAVY DUTY DROP BAR. THE CENTER STOP SHALL BE A SPRING OPERATED LATCHING TYPE MADE TO BE CAST IN CONCRETE AND ENGAGE THE DROP BAR. A KEEPER SHALL BE PROVIDED WHICH WILL SECURE THE FREE END OF THE GATE IN THE OPEN POSITION.

HARDWARE SHALL ALLOW FOR GATE OPERATION FROM EITHER SIDE WITH PROVISIONS FOR SECURING WITH PADLOCK.

ALUMINUM TIES AND BANDS SHALL BE OF ALUMINUM WIRE PER ASTM B-211, OR ALUMINUM STRIP PER ASTM B-209. STEEL TIES AND BANDS SHALL BE OF STEEL WIRE WITH 0.8 OZ. OF ZINC COATING PER SQUARE FT OF SURFACE, NO. 6 GAUGE WIRE FOR FASTENING FABRIC TO LINE POST, NO. 9 GAUGE WIRE FOR FASTENING TO TOP RAIL, ⅛" x 1" FOR BANDS, AND ¼" x ¾" STEEL FOR STRETCHER BARS. THE SPACING SHALL BE EVERY 24" ON THE TOP RAIL FOR THE TIES AND EVERY 14" ON THE POSTS FOR THE BAND.

11. ERECTION

THE FABRIC SHALL BE PLACED ON THE OUTSIDE OF THE POSTS, STRETCHED TAUT AND SECURED TO THE POSTS, TOP RAIL AND TENSION WIRE. THE FABRIC SHALL BE SECURED TO THE LINE POSTS WITH WIRE TIES OR METAL BANDS AT MAXIMUM INTERVALS OF 14". THE TOP AND BOTTOM EDGES SHALL BE SECURED, RESPECTIVELY, TO THE TOP RAIL AND TENSION WIRE WITH TIE WIRES NOT EXCEEDING INTERVALS OF 24". THE FABRIC SHALL BE SECURED TO TERMINAL POSTS BY MEANS OF THE STRETCHER BAR WHICH IS PASSED THROUGH THE END LOOPS OF FABRIC AND IS SECURED TO THE TERMINAL POSTS BY METAL BANDS SPACED AT A MAXIMUM INTERVAL OF 14".

FABRIC FOR FENCING SHALL ALL BE EITHER A LEFT-HAND OR RIGHT-HAND WEAVE. ROLLS OF FABRIC SHALL BE JOINED TOGETHER BY WEAVING A SINGLE STRAND INTO THE END OF THE ROLL TO FORM A CONTINUOUS PIECE.

THE SPACING OF LINE POSTS (10' MAX) SHALL IN GENERAL BE MEASURED PARALLEL TO THE GROUND. ALL POSTS SHALL BE PLACED IN A VERTICAL POSITION EXCEPT AS MAY BE SPECIFICALLY DESIGNATED OTHERWISE, WITH THE STRONG AXIS PARALLEL TO THE FABRIC. ALL POSTS SHALL BE SET IN HOLES AND BACKFILLED WITH CONCRETE. CONCRETE SHALL HAVE A MAXIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS WITH A MAXIMUM SIZE OF AGGREGATE OF ¾". THE CONCRETE SHALL BE WELL WORKED (RODDED) IN THE HOLE. THE TOP OF THE FOOTING SHALL BE CROWNED TO SHED WATER.

THE MINIMUM DIAMETER OF HOLES FOR LINE POSTS SHALL BE 9" AND 12" FOR TERMINAL POSTS.

THE MINIMUM DEPTH OF THE FOOTING HOLES SHALL BE 42".

REV.:	DATE:	DESCRIPTION OF REVISION:	DRAWN:	CHECKED:	APPRV'D:
A	07/19/2024	ISSUED FOR 94C PERMITTING	TB	SR	SR

P.E. STAMP

DRAWING CREATED BY SCOTT REYNOLDS, P.E., NEW YORK STATE

REYNOLDS ARCHITECTURE ENGINEERING
40 TAMARACK LANE
NYSKAYUNA, NY 12309
(518) 225-9473

FLAT CREEK SOLAR - 200MWAC

CORDELIO POWER

RAPPA RD, ROOT, NY 12166

STATION FENCE DETAILS

PROJ. NO.: CP-FLCK

DWG. NO: FLCK-762

SH: 1 REV: A

SCALE: N/A

IVAT4-130LPA730ZU

Low profile, low glare. Edge-lit technology unlike any other.

Color: Bronze

Weight: 18.6 lbs

Project:	Type:
Prepared By:	**Date:**

Driver Info

Type	Constant Current
120V	1.00A
208V	0.58A
240V	0.50A
277V	0.43A
Input Watts	117.3W

LED Info

Watts	117W
Color Temp	3000K (Warm)
Color Accuracy	80 CRI
L70 Lifespan	100,000 Hours
Lumens	13,232 lm
Efficacy	112.8 lm/W

Technical Specifications

Compliance

UL Listed:
Suitable for wet locations

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80

Title 24 Compliant:
An IVELOT edge-lit area light can be used with a motion sensor or photocell control option to comply with 2016 Title 24 Part 6 Section 130.2 (a,b,v)

IP Rating:
Ingress protection rating of IP66 for dust and water

DLC Listed:
This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: S-EPBGIT

Electrical

Driver:
Class 2, 50/60Hz, 120-277V, 4kV standard, 10kV optional

Dimming Driver:
Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:
3.48% at 120V, 5.48% at 277V

Power Factor:
99.9% at 120V, 97% at 277V

Performance

Lifespan:
100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations at 25°C

Wattage Equivalency:
Equivalent to 450W Pulse Start Metal Halide

LED Characteristics

LEDs:
Long-life, high-efficacy, surface-mount LEDs

Color Stability:
LED color temperature is warrantied to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:
RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Construction

Cold Weather Starting:
The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:
Suitable for use in up to 40°C (104°F)

Housing:
Precision die-cast aluminum

IES Classification:
The Type IV distribution is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Mounting:
Universal pole adapter

Lens:
Diffused Polymethyl Methacrylate (PMMA)

Technical Specifications (continued)

Effective Projected Area:
EPA = 0.61

Finish:
Formulated for high durability and long-lasting color

Green Technology:
Mercury and UV free. RoHS-compliant components.

Optical

BUG Rating:
B3 U0 G3

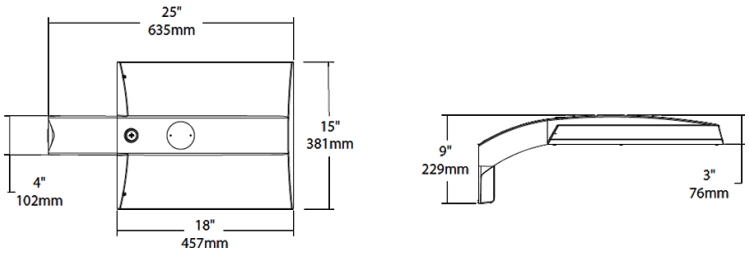
Other

Warranty:
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:
RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Page 13 of theis PDF “IVAT4-130LSF730U_spec_sheet” shows that the fixture meets the criteria for full cutoff.
Criteria:
1. 0% light above 90 degrees (0 upplight).
2. Lless than 5% between 80 and 90 degrees.

Dimensions



Features

0-10V Dimming, standard

100,000-Hour LED lifespan

IVAT4-130LPA730ZU

Ordering Matrix

Family	Distribution		Lumen Output	Mounting	CRI/Color Temp	Finish	Voltage/Driver	Sensor Options	Lightcloud Option
IVA	T4	–	130L	PA	730	Z	U		
	T2 = Type II * **T3 =** Type III * **T4 =** Type IV * **T5S =** Type V Square * **FT =** Forward Throw *		**45L =** 4,500lm (38W) **75L =** 7,500lm (67W) **100L =** 10,000lm (94W) **130L =** 13,000lm (117W) [1]	**PA =** Universal Pole Mount **WM =** Wall mount **SF =** Slipfitter	**750 =** 70CRI 5000K **740 =** 70CRI 4000K **730 =** 70CRI 3000K	**Z =** Bronze **W =** White **G =** Roadway Gray **K =** Black	**U =** 120-277V 0-10V Dimming **H =** 347-480V, 0-10V Dimming	**Blank =** No Options **/WS =** 8ft lens Wattstopper **/WS2 =** 20ft lens Wattstopper **/WS4 =** 40ft lens Wattstopper **/7PR =** 7-Pin receptacle	**Blank =** No Lightcloud® **/LC =** Lightcloud® Controller [2]

[1] *Applies to Type IV, V Square*

[2] *Applies 120-277V*

* *All values are nominal with +/- 10% tolerance. See spec sheet for more details.*

Photometric Test Report

Relevant Standards

☑IES LM-79-2008

☑ANSI C82.77:2017

Prepared For

RAB Lighting Inc.

Room 6A33, No.1388, Wuzhong road,Shanghai ,China

Xiao Xiang,15921313292,Gary.Xiao@rabweb.com

Prepared By

Deliver Co.， Ltd.

Block 11, 78 Keling Road, SSTP, Suzhou, China

0512-66801950,kevin.jia@szdeliver.com

Project Number

DLF1810114

Report Number

DLF1810114-22a

Test Date

2018/10/24

Issue Date

2018/10/25

Prepared By	**Approved By**
Wangzun Zhu	Kevin Jia

1.0 Test Summary

DLC Technical Requirements v5.1

Outdoor - Pole/Arm-Mounted Area and Roadway Luminaires				
Requirement Category	**Test Method**	**Requirements**		**Test value**
Luminaire Output (lm) (Goniophotometer - Section 4.2)	IES LM-79-2008	1000		13232
Minimum Luminaire Efficacy (lm/W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Standard 105	Premium 120	112.8
Power (Input Wattage) (W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		117.3
Total Harmonic Distortion (A%) (THD & PF - section 4.3)	ANSI C82.77:2014	20.00%	120V	3.48%
		20.00%	277V	5.48%
Power Factor (THD & PF - section 4.3)	ANSI C82.77:2014	0.9	120V	0.999
		0.9	277V	0.970
Allowable CCTs* (K) (Integrating Sphere - Section 4.1)	IES LM-79-2008	7 step	3045±175	2999
		4 step	3045±100	
Minimum CRI (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	⩾70		80
Minimum R9 (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	-		-3
Minimum Rf (Integrating Sphere - Section 4.1)	ANSI/IES TM-30-18	⩾70		83
Minimum Rg (Integrating Sphere - Section 4.1)	ANSI/IES TM-30-18	⩾89		96
Minimum IES Rcs,h1 (Integrating Sphere - Section 4.1)	ANSI/IES TM-30-18	-18%⩽IES Rcs,h1⩽+23%		-12%
Zonal Lumen Requirement (0°-90°) (Goniophotometer - Section 4.2)	IES LM-79-2008	100%		100.00%
Zonal Lumen Requirement (80°-90°) (Goniophotometer - Section 4.2)	IES LM-79-2008	⩽10%		3.65%
Input Voltage (V)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		120
(Goniophotometer - Section 4.2)		Non-Worst Case		277
Input Current (A)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		0.980
(Goniophotometer - Section 4.2)		Non-Worst Case		0.423
Power (Input Wattage - W)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		117.3
(Goniophotometer - Section 4.2)		Non-Worst Case		113.6

2.0 Test List

Test Item	Test	Test Date	Model Number	Sample No.
1	Integrating Sphere Test	2018/10/24	IVAT4-130L730U	V1
2	Goniophotometer Test	2018/10/24	IVAT4-130L730U	V1
3	THD and PF Test	2018/10/24	IVAT4-130L730U	V1

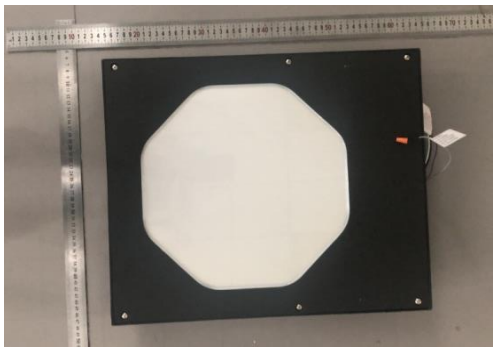
Remark(If any)
1、This report shall not be used by the client to claim product endorsement by NVLAP, NIST or any agency of the US government.
2、The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products. This report does not imply that the product(s) has met the criteria for certification.

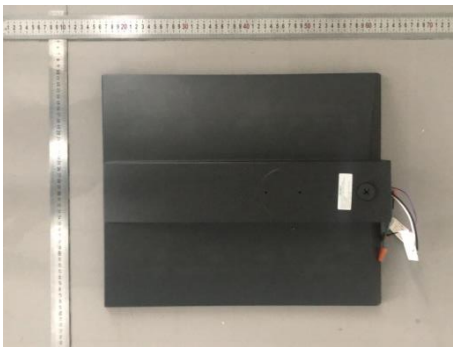
3.0 Production Description

Luminaire Description: IVAT4-130L730U

Electrical Specification: 120V-277V,50/60HZ

Photos of Luminaire Characteristics





4.0 LM-79 Measurement and Test Results

4.1 Integrating Sphere Test

Model No.	IVAT4-130L730U	Sample ID.	V1
Opreate time (Min.)	90	Stabilization time (Min.)	45
Temperature (°C)	25.3	Humidity (%RH)	56.0

Test Method
The samples were tested according to the IES LM-79-2008.
Photometric paramters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25º C ± 1º C.
The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere.
The voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ±0.2 percent under load.
The sample was measured using 4π geometry and operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm.

Test Result

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
119.99	60	0.994	119.1	0.999
277.01	60	0.429	115.4	0.970

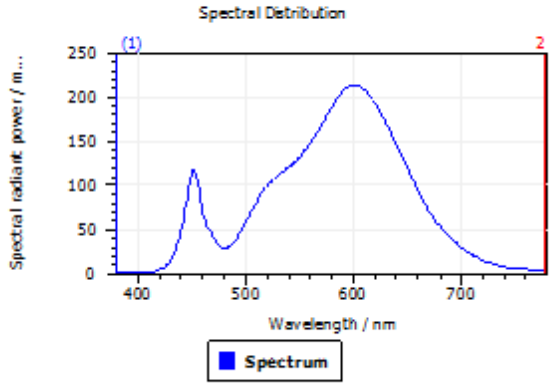
Test Result

CCT (K)	CRI	R9	Duv
2999	80	-3	0.0013

Rf	Rg	IES Rcs,h1
83	96	-12%

4.1 Integrating Sphere Test

Results



Spectral values

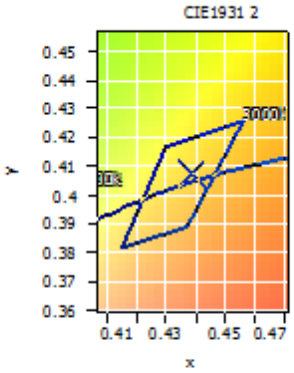
DominantWavelength	582.37 nm
Purity	0.542
PeakWavelength	600.96 nm
Radiant Power	31.06 W
Width50%:	128.80 nm

Color Coordinates

Correlated Color Temperatu 2999 K

x:	0.4389	u:	0.2501	u':	0.2501
y:	0.4081	v:	0.3488	v':	0.5232

ResultsCRICRI01	77.6	ResultsCRICRI09	-2.7
ResultsCRICRI02	87.7	ResultsCRICRI10	71.8
ResultsCRICRI03	96.3	ResultsCRICRI11	77.0
ResultsCRICRI04	78.4	ResultsCRICRI12	62.5
ResultsCRICRI05	77.5	ResultsCRICRI13	79.7
ResultsCRICRI06	84.5	ResultsCRICRI14	98.0
ResultsCRICRI07	82.4	ResultsCRICRI15	69.7
ResultsCRICRI08	55.8	ResultsCRICRI16	67.8
ResultsCRI	80.0		

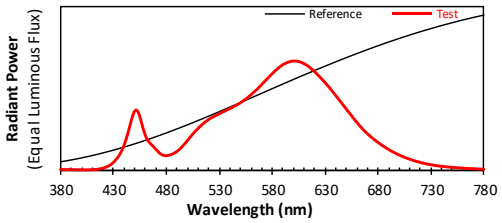


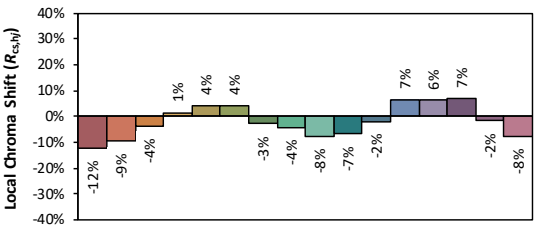
PlanckDistance 1.3E-003

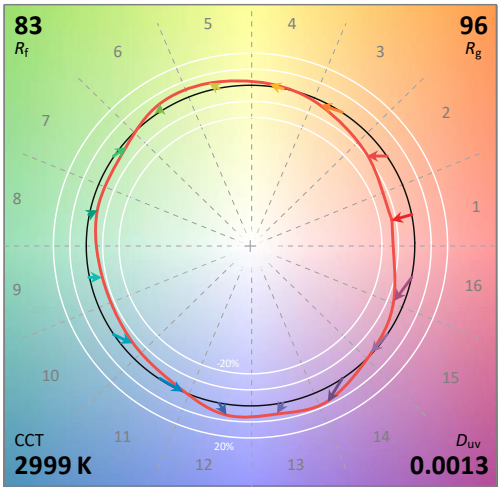
4.1 Integrating Sphere Test

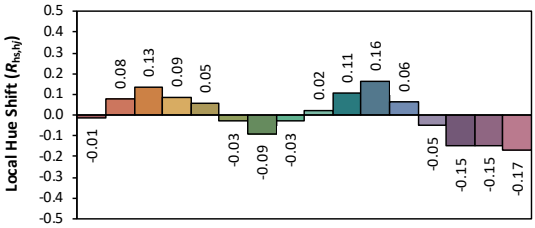
IES TM-30-18 Color Rendition Report

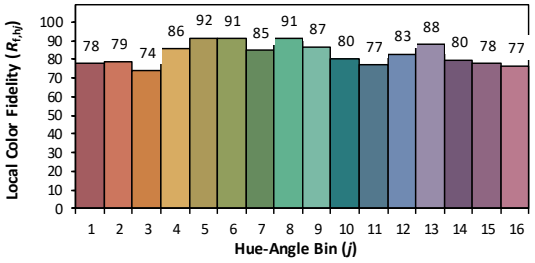
Source:	DLF1810114-22a	Manufacturer:	RAB Lighting Inc.
Date:	2018/10/24	Model:	IVAT4-130L730U

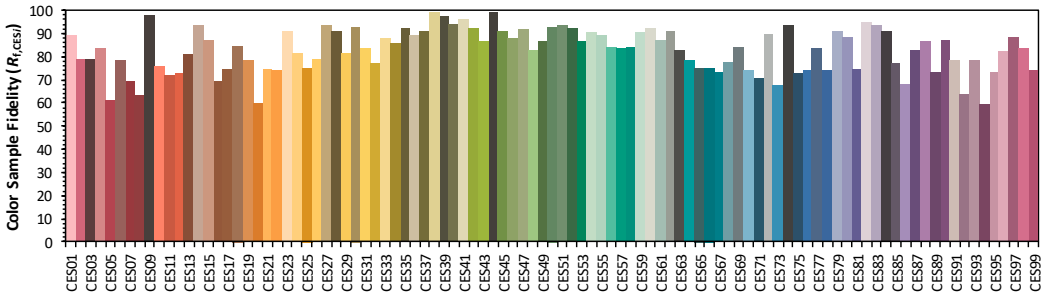












Notes: This is a recommended method for displaying IES TM-30-18 information.

x	0.4389
y	0.4081
u'	0.2501
v'	0.5232

CIE 13.3-1995 (CRI)

R_a	81
R_9	2

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	IVAT4-130L730U	Sample ID.	V1
Opreate time (Min.)	90	Stabilization time (Min.)	45
Temperature (°C)	25.3	Humidity (%RH)	54.0

Test Method
The samples were tested according to the IES LM-79-2008.
Photometric paramters were measured using a type C goniophotometer and software.
The ambient temperature shall be maintained at 25° C ± 1° C, measured at a point not more than 1 m from the sample and at the same height as the sample.
The voltage of an AC power supply (RMS voltage)or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ±0.2 percent under load.
The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 0.5^{o} vertical intervals and 10^{o} horizontal intervals.

Test Conditions

Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
WORST CASE	119.99	60	0.980	117.3	0.998
NON-WROST CASE	277.01	60	0.423	113.6	0.969

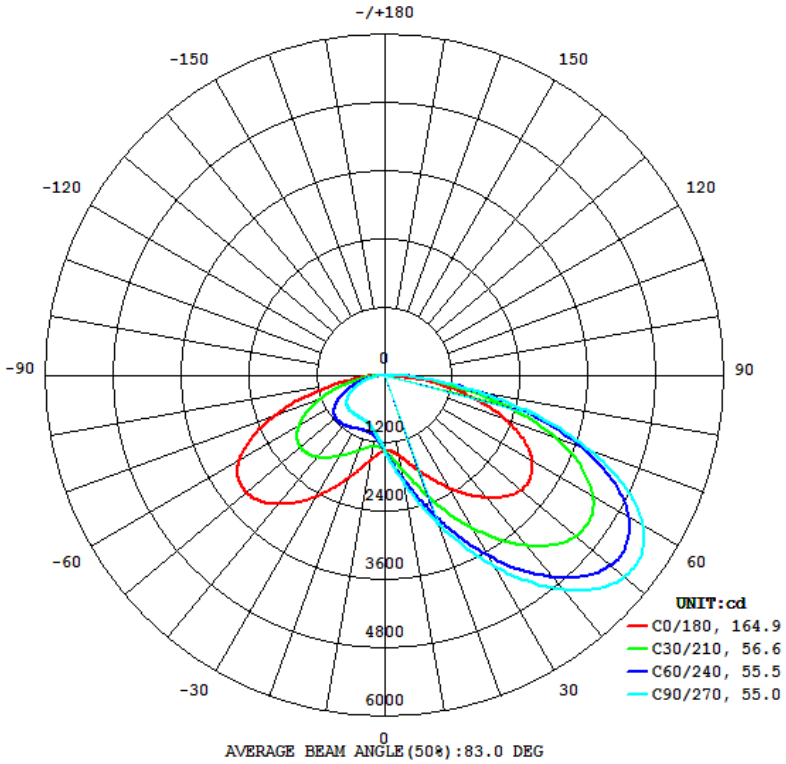
Test Result

Flux (lm)	Field Angle(10%)		Beam Angle(50%)		Luminous Efficacy (lm/W)
	C0-180	C90-270	C0-180	C90-270	
13232	178.2	155.3	164.9	55	112.8

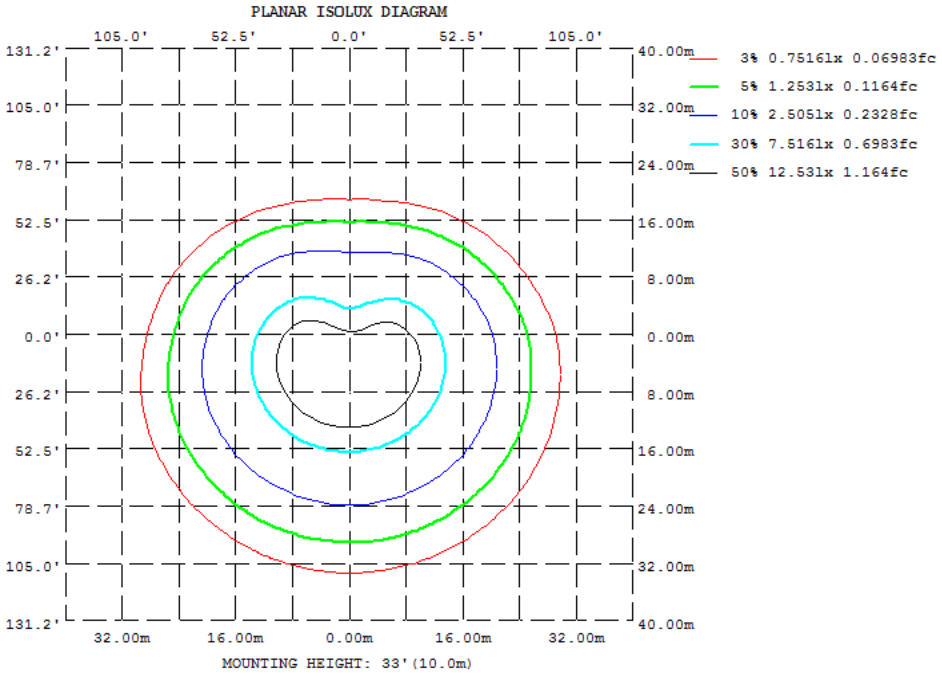
Zonal Lumen Requirement (0°-90°)	Zonal Lumen Requirement (80°-90°)	BUG rating
100.00%	3.65%	B3-U0-G3

4.2 Goniophotometer Test

Light Distrubtion Curve



Isolux Plot



4.2 Goniophotometer Test

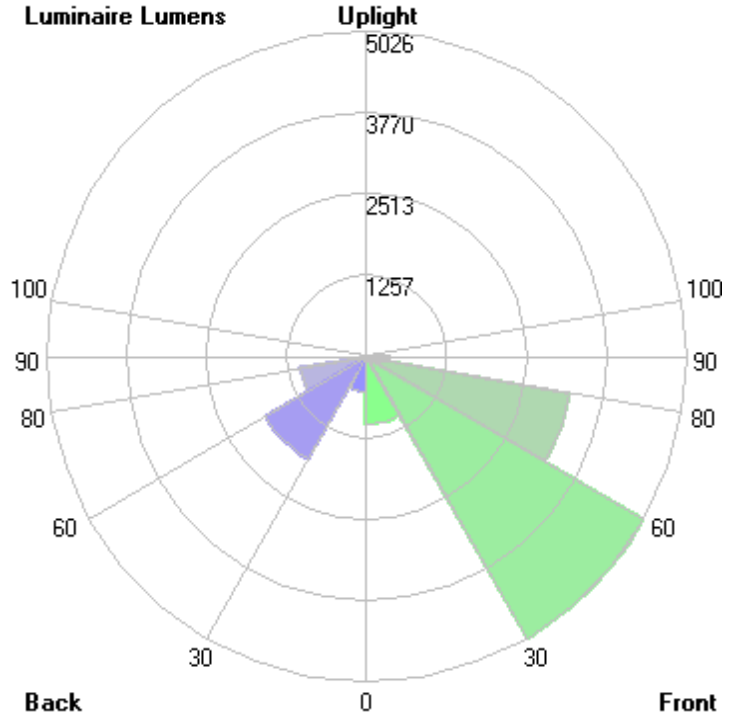
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315
10	1435	1749	1888	1784	1511	1175	1034	1155
20	1793	2478	2772	2536	1921	1202	909.6	1170
30	2299	3425	3876	3485	2462	1322	876.3	1275
40	2821	4341	4920	4418	2968	1457	884.5	1400
50	3143	4882	5519	4974	3208	1490	870.2	1446
60	3023	4708	5271	4778	2973	1317	764.4	1301
70	2278	3529	3858	3485	2092	919.3	531.9	923.9
80	1059	1593	1680	1507	856.6	380.1	198.3	346.5
90	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0
DEG	LUMINOUS INTENSITY:cd							

	Zonal (lm)		Total (lm)	Percent
0-10	133.26	0 - 10	133.26	1.01%
10-20	470.34	0 - 20	603.60	4.56%
20-30	981.19	0 - 30	1584.79	11.98%
30-40	1666.90	0 - 40	3251.69	24.57%
40-50	2380.18	0 - 50	5631.87	42.56%
50-60	2816.84	0 - 60	8448.71	63.85%
60-70	2624.01	0 - 70	11072.72	83.68%
70-80	1677.29	0 - 80	12750.01	96.35%
80-90	482.45	0 - 90	13232.46	100.00%
90-100	0.00	0 - 100	13232.46	100.00%
100-110	0.00	0 - 110	13232.46	100.00%
110-120	0.00	0 - 120	13232.46	100.00%
120-130	0.00	0 - 130	13232.46	100.00%
130-140	0.00	0 - 140	13232.46	100.00%
140-150	0.00	0 - 150	13232.46	100.00%
150-160	0.00	0 - 160	13232.46	100.00%
160-170	0.00	0 - 170	13232.46	100.00%
170-180	0.00	0 - 180	13232.46	100.00%

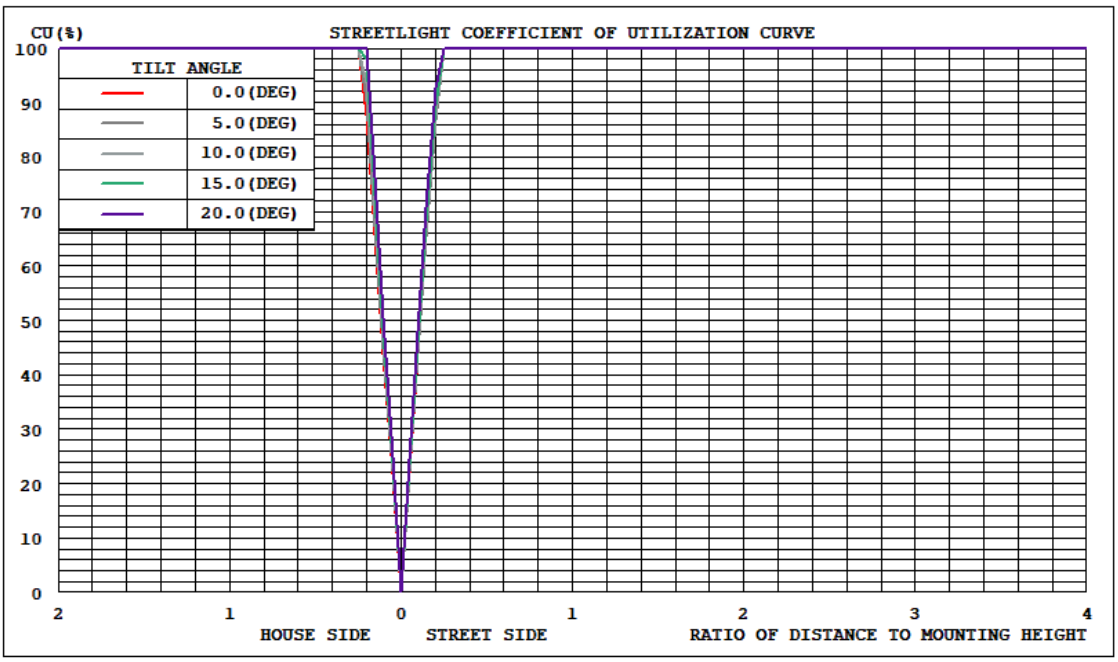
4.2 Goniophotometer Test

LCS/BUG

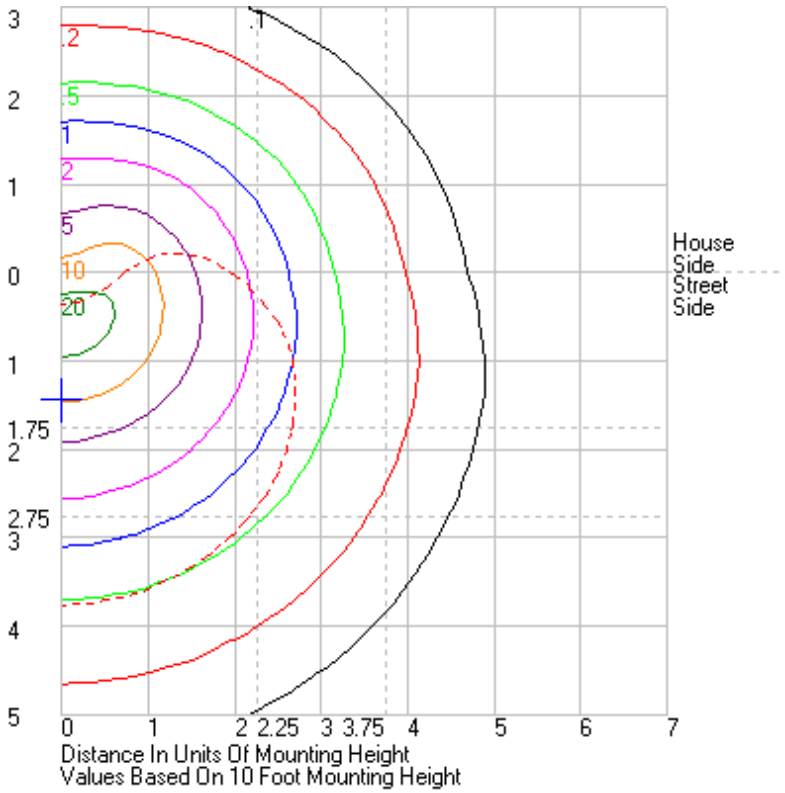


	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1042.0	N.A.	7.9
FM - Front-Medium (30-60)	5026.3	N.A.	38.0
FH - Front-High (60-80)	3244.7	N.A.	24.5
FVH - Front-Very High (80-90)	374.0	N.A.	2.8
BL - Back-Low (0-30)	542.8	N.A.	4.1
BM - Back-Medium (30-60)	1837.6	N.A.	13.9
BH - Back-High (60-80)	1056.6	N.A.	8.0
BVH - Back-Very High (80-90)	108.4	N.A.	0.8
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	13232.4	N.A.	100.0
BUG Rating	B3-U0-G3		

Coefficients of Utilization



Isolines



4.2 Goniophotometer Test

	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270	285	300	315	330	345	360
0	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66	1319.66
5	1566.09	1561.4	1543.37	1515.09	1472.46	1422.76	1386.76	1327.52	1271.91	1222.43	1189.11	1164.56	1155	1160.12	1181.44	1210.86	1255.5	1308.45	1347.81	1402.15	1454.35	1499.07	1531.72	1555.58	1566.09
10	1888.04	1879.86	1843.15	1783.75	1696.07	1590.75	1510.61	1389.06	1274.73	1175.19	1101.81	1052.58	1033.87	1046.19	1089.27	1154.82	1246.32	1353.95	1435.38	1548.63	1655.69	1748.93	1817.36	1867.87	1888.04
15	2292.5	2279.33	2221.5	2126.42	1989.52	1825.17	1692.28	1503.58	1324.98	1171.89	1058.08	983.72	956.09	976.02	1042.24	1145.68	1287.48	1454.92	1587.83	1765.12	1932.62	2077.02	2183.5	2258.99	2292.5
20	2772.02	2752.52	2670.42	2536.07	2346.04	2115.24	1920.87	1657.95	1412.34	1201.92	1045.86	946.33	909.62	937.06	1026.81	1169.86	1365.78	1599.55	1793.44	2043.35	2278.42	2478.2	2628.21	2730.78	2772.02
25	3314.39	3283.76	3175.13	2997.03	2751.22	2449.7	2183.4	1841.56	1523.33	1254.89	1057.03	931.58	885.14	919.55	1032.32	1215.74	1468.61	1771.79	2035.95	2366.42	2676.13	2938.61	3129.08	3259.2	3314.39
30	3875.56	3834.96	3700.74	3484.89	3179.61	2807.59	2462.27	2040.56	1648.52	1322.29	1083.56	932.29	876.31	916.95	1051.48	1274.61	1585.55	1958.65	2299.16	2714.37	3099.66	3425.36	3659.53	3815.32	3875.56
35	4425.08	4383.32	4226.96	3968.54	3605.45	3161.08	2732.08	2235.61	1775.99	1394.5	1117.45	943.06	878.4	924.02	1078.68	1339.08	1705.48	2148.76	2567.98	3063.05	3525.92	3906.67	4175.94	4352.7	4425.08
40	4919.59	4879.89	4709.97	4418.14	4000.5	3484.75	2967.61	2402.23	1884.93	1456.79	1148.46	955.91	884.47	934.55	1106.08	1400.41	1814.29	2323.05	2820.79	3388.9	3915.47	4340.89	4635.73	4833.21	4919.59
45	5309.43	5269.96	5089.4	4777.96	4314.41	3739.73	3138.47	2518.2	1953.65	1493.97	1164.91	960.5	884.94	938.69	1124.28	1441.32	1893.61	2453.36	3022.49	3649.22	4221.78	4680.87	4994.22	5209.43	5309.43
50	5519.25	5473.63	5294.5	4973.64	4493.8	3882.58	3208.23	2557.31	1964.1	1489.6	1154.15	946.24	870.17	926.13	1118.43	1445.81	1919.72	2513.05	3143.35	3805.82	4405.3	4881.63	5207.41	5430.39	5519.25
55	5540.49	5492.29	5311.44	5008.41	4511.76	3892.85	3166.38	2497	1903.23	1432.39	1106.36	905.1	832.32	888.71	1079.04	1402.42	1874.65	2477.26	3148.51	3825.69	4432.28	4904.25	5214.76	5426.77	5540.49
60	5271	5207.41	5043.85	4777.53	4316.35	3705.14	2973.49	2336.18	1758.24	1316.52	1014.51	830.19	764.39	818.06	997.03	1300.94	1748.35	2331.64	3023.08	3676.82	4263.17	4708.32	4992.75	5196.14	5271
65	4709.13	4636.55	4497.56	4261.9	3853.36	3302.38	2609.95	2055.16	1532.76	1147.85	878.27	719.44	663.76	711.68	869.11	1143.52	1536.73	2069.3	2731.93	3322.68	3848.51	4256.65	4482.59	4645.64	4709.13
70	3857.5	3801.84	3672.22	3485.32	3150.6	2706.02	2091.81	1659.74	1243.29	919.32	702.06	574.21	531.88	571.85	700.13	923.91	1253.86	1689.98	2278.4	2755.91	3207.55	3529.38	3704.12	3821.42	3857.5
75	2800.34	2757.93	2665.09	2525.45	2287.75	1971.88	1479.89	1193.46	890.59	654.59	492.5	400.54	368.69	395.19	492.91	646.48	908.88	1228.65	1697.49	2044.93	2373.38	2600.18	2719.64	2792.07	2800.34
80	1680.16	1655.24	1590.6	1506.96	1371.09	1192.45	856.58	692.7	522.42	380.08	272.64	206.01	198.32	201.84	282.04	346.51	539.09	729.01	1058.87	1265.95	1463.92	1592.79	1655.12	1684.76	1680.16
85	710.36	701.91	679.07	643.86	598.94	530.43	346.89	284.56	213.79	151.08	80.28	64.65	61.66	62.56	106.67	146.19	222.63	301.67	492.17	581.92	657.54	706.22	725.33	725.67	710.36
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	IVAT4-130L730U	Sample ID.	V1
Temperature (°C)	25.3	Humidity (%RH)	56.0

Test Method
The samples were tested according to the ANSI C82.77:2002. The total harmonic distortion shall be measured to the 40th order. The ambient temperature condition was maintained at 25º C ± 1º C. The sample measurements were made using a digital power meter and power supply. The sample was operated at rated voltage and was stabilized before measurement. The total harmonic distortion were calculated.

Test Results					
Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD
119.99	60	0.994	119.1	0.999	3.48%
277.01	60	0.429	115.4	0.970	5.48%

5.0 Equipment Information

Test Equipment			
Equipment ID	Equipment Name	Last Calibration Date	Calibration Due Date
DLF107	Integrating Sphere System	2017/12/28	2018/12/27
DLF108	Auxiliary Lamp	2017/12/28	2018/12/27
DLF122	Measurement Standard Lamp Standard Lamp Type: 220 V, 0.4720 A, Tungsten, Omni-derectional	2017/12/28	2018/12/27
DLF116	AC Power Source	2017/12/28	2018/12/27
DLF113	Power Meter	2017/12/28	2018/12/27
DLF112	Temperature Recorder	2017/12/28	2018/12/27
DLF114	Temperature & Humidity Datalogger	2017/12/28	2018/12/27
DLF101	Goniophotometer	2017/12/28	2018/12/27
DLF125	Standard Lamp Standard Lamp Type: 76.58 V, 6.7875 A, Tungsten, Omni-derectional	2017/12/28	2018/12/27
DLF104	AC Power Source	2017/12/28	2018/12/27
DLF507	DC Power Source	2017/12/28	2018/12/27
DLF102	Power Meter	2017/12/28	2018/12/27
DLF111	Temperature & Humidity Datalogger	2017/12/28	2018/12/27
DLF119	Power Meter	2017/12/28	2018/12/27
DLF031	Temperature data logger	2017/12/28	2018/12/27
DLF022	Digital power meter	2017/12/28	2018/12/27
DLF003	Temperature & Humidity Datalogger	2017/12/28	2018/12/27

********** End of Test Report**********

SLIMFC37

37, 57 and 62 Watt SLIM Wall packs are designed to cover the footprint of most traditional wall packs. They are suitable for mounting heights from 20' to 30', and replace HID Wattages from 200W MH to 320W MH. These ultra-high efficiency fixtures are available in cutoff or full cutoff models.

Color: Bronze

Weight: 8.5 lbs

Project:	**Type:**
Prepared By:	**Date:**

Driver Info

Type	Constant Current
120V	0.34A
208V	0.20A
240V	0.17A
277V	0.15A
Input Watts	32.4W

LED Info

Watts	37W
Color Temp	5000K (Cool)
Color Accuracy	74 CRI
L70 Lifespan	100,000 Hours
Lumens	4,512 lm
Efficacy	139.3

Technical Specifications

Compliance

UL Listed:
Suitable for Wet Locations. Wall Mount Only.

IP Rating:
Ingress protection rating of IP66 for dust and water

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Trade Agreements Act Compliant:
This product is a product of Cambodia and a "designated country" end product that complies with the Trade Agreements Act

Construction

Footprint:
Designed to replace RAB HID WP1 wall packs, both in size and footprint template, so upgrading to LED is easy and seamless

Cold Weather Starting:
The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:
Suitable for use in up to 40°C (104°F)

Housing:
Precision die-cast aluminum housing and door frame

Mounting:
Die-cast back box with four (4) conduit entry points and knockout pattern for junction box or direct wall mounting. Hinged housing and bubble level for easy installation.

Full Cutoff:
Allows for conformance to the IDA's fully shielding requirement, emitting no light above 90 degrees.

Recommended Mounting Height:
Up to 20 ft

Lens:
Microprismatic diffusion glass lens reduces glare and has smooth and even light distribution

Reflector:
Specular thermoplastic

Gaskets:
The unique design of the tight-lock gasket ensures no water or environmental elements will ever get inside the SLIM

Finish:
Formulated for high durability and long-lasting color

Green Technology:
Mercury and UV free. RoHS-compliant components.

LED Characteristics

LED:
Long-life, high-efficiency, micro-power, surface mount LEDs; binned and mixed for uniform light output and color

Color Stability:
LED color temperature is warrantied to shift no more than 200K in color temperature over a 5-year period

Color Consistency:
7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Electrical

Driver:
Constant Current, Class 2, 120-277V, 50-60Hz, 120V: 0.34A, 208V: 0.17A, 240V: 0.17A, 277V: 0.15A

Dimming Driver:
Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:
2.84% at 120V, 4.91% at 277V

Technical Specifications (continued)

Power Factor:
99.7% at 120V, 94% at 277V

Performance

Lifespan:
100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Other

Accessories:
Available accessories include polyshield and wire guard. Click here to see all accessories.

Patents:
The design of the SLIM™ is protected by patents pending in US, Canada, China, Taiwan and Mexico

HID Replacement Range:
Replaces 200W Metal Halide

Warranty:
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

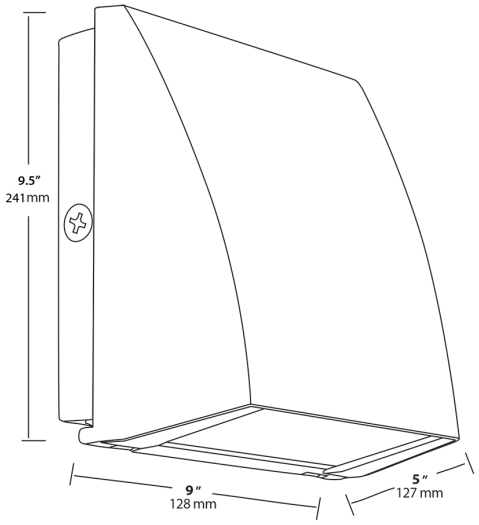
Buy American Act Compliance:
RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Optical

BUG Rating:
B1 U0 G0

SLIMFC37

Dimensions



Features

- Covers footprint of most traditional wall packs
- Easy installation with hinged access, bubble level and multiple conduit entries
- Tight-lock gasket keeps elements out
- 100,000-hour LED lifespan
- 5-Year, No-Compromise Warranty

Ordering Matrix

Family	Cutoff	Wattage	Color Temp	Finish	Driver Options	Options
SLIM	FC	37				
	Blank = Cutoff (10 degrees) **FC =** Full Cutoff (0 degrees)	**37 =** 37W **57 =** 57W **62 =** 62W	**Blank =** 5000K Cool **N =** 4000K Neutral **Y =** 3000K Warm	**Blank =** Bronze **W =** White	**Blank =** Standard (120-277V) **/BL =** Bi-Level **/D10 =** Dimmable **/480 =** 480V	**Blank =** No Option **/PC =** 120V Button Photocell **/PC2 =** 277V Button Photocell **/PCS =** 120V Swivel Photocell **/PCS2 =** 277V Swivel Photocell **/LC =** Lightcloud® Controller