



CCO #004

ICS
 1331 Tyler Street NE, Suite 101
 Minneapolis, Minnesota 55413
 Phone: (763) 354-2670
 Fax: (763) 780-2866

Project: S23075 - Duluth Public Schools, ISD #709 - DNT Building
 Renovation
 424 West First Street
 Duluth, Minnesota 55802

Contract Change Order #004: A.G. O'Brien CCO #004

CONTRACT COMPANY:	A.G. O'Brien Plumbing and Heating Co. 4907 Lightning Drive Duluth, Minnesota 55811	CONTRACT FOR:	SC-S23075-012:WS 12 - Mechanical
DATE CREATED:	3/27/2026	CREATED BY:	Jason Filipek (ICS - Duluth, MN)
CONTRACT STATUS:	Pending - Proceeding	REVISION:	0
REQUEST RECEIVED FROM:		LOCATION	
DESIGNATED REVIEWER:		REVIEWED BY:	
DUE DATE:		REVIEW DATE:	
INVOICED DATE:		PAID DATE:	
REFERENCE:		CHANGE REASON:	Allowance
PAID IN FULL:	No	EXECUTED:	No
ACCOUNTING METHOD:	Amount Based	SCHEDULE IMPACT:	
FIELD CHANGE:	No	TOTAL AMOUNT:	\$9,865.38

DESCRIPTION:
 CE #044 - PR #7 Finishes and Mail Room: \$2,710.75
 PR #7 Finishes and Mail Room
 CE #046 - PR #8- Modifications to the Fin Tube Radiation: \$6,057.38
 CE #059 - #54: PR 6 Steam Relief Insulation: \$1,097.25

ATTACHMENTS:
[PR_STEAM INSULATION \(1\).pdf](#) [PR08_REV1 \(1\).pdf](#) [PR07 REV 1.pdf](#)

CHANGE ORDER LINE ITEMS:
CCO #004

#	Cost Code	Description	Type	Amount
1	05-5.12 - WS 12 - A.G. O'Brien	PR 7	Other	\$ 2,710.75
2	05-5.12 - WS 12 - A.G. O'Brien	PR 8	Other	\$ 6,057.38
3	05-5.12 - WS 12 - A.G. O'Brien	Steam Relief Insulation	Other	\$ 1,097.25
Subtotal:				\$9,865.38
Grand Total:				\$9,865.38

The original (Contract Sum)	\$ 3,772,468.00
Net change by previously authorized Change Orders	\$ 44,355.32
The contract sum prior to this Change Order was	\$ 3,816,823.32
The contract sum would be changed by this Change Order in the amount of	\$ 9,865.38
The new contract sum including this Change Order will be	\$ 3,826,688.70
The contract time will not be changed by this Change Order by	



CCO #004

A.G. O'Brien Plumbing and Heating Co.
4907 Lightning Drive
Duluth Minnesota 55811

Signed by:

Brady Berkhof

SIGNATURE DATE

3/31/2026

ICS

ICS - Duluth, MN
525 Lake Ave S, Suite 222
Duluth Minnesota 55802

Signed by:

Jason Filipek

SIGNATURE DATE

3/30/2026

page 2 of 2

DS
BB

Duluth Public Schools ISD #709
709 Portia Johnson Drive
Duluth Minnesota 55811

Signed by:

Simone Bunick

SIGNATURE DATE

4/7/2026

Printed On: 3/30/2026 07:25 AM



CHANGE ORDER TRACKING

PROJECT: ISD 709 DNT Renovation; Insulation Steam Relief Add

DATE 12/8/2025

FLOOR _____

LABOR				
CRAFT	HOURS	NAME	RATE	TOTAL
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
Labor Total				\$ -

MATERIALS			
QUANTITY	PRODUCT	COST	TOTAL
			\$ -
			\$ -
			\$ -
			\$ -
			\$ -
			\$ -
			\$ -
Materials Total			\$ -

Total			\$ -
Sales tax (Materials Only)	8.875%		\$ -
Subtotal			\$ -
Markup (Overhead & Profit) on subtotal	10%		\$ -
Total contractor costs with markup			\$ -
Subcontractor costs	LSI STEAM INSULATION		\$ 1,045.00
Subcontractor markup	5.0%		\$ 52.25
Total Subcontractor cost with markup			\$ 1,097.25
Bond/Permit	0%		
Total Change Order			\$ 1,097.25

TASK DESCRIPTION

A.G. O'BRIEN REPRESENTATIVE: _____ 12/8/2025

Signature Date

Brady Berkhof

Printed Name | Title

CUSTOMER REPRESENTATIVE: _____

Signature Date

Printed Name | Title



CHANGE ORDER TRACKING

DATE 2/19/2026

PROJECT: ISD 709 DNT Renovation; PR-08 Changes

FLOOR _____

LABOR				
CRAFT	HOURS	NAME	RATE	TOTAL
PL	32.00	ADDITIONAL PIPE, FITTINGS HANGER INSTALL	\$ 110.23	\$ 3,527.36
PL	6.00	CORNER BRACKETS	\$ 110.23	\$ 661.38
PL	10.00	34' FTR INSTALL DEDUCT	\$ (110.23)	\$ (1,102.30)
			\$ -	\$ -
			\$ -	\$ -
		Labor Total		\$ 3,086.44

MATERIALS			
QUANTITY	PRODUCT	COST	TOTAL
1.00	COPPER PIPE, 90S, TEES	\$ 1,110.90	\$ 1,110.90
1.00	FTR BRACKET, CORNER, & COVER ADDS	\$ 1,640.00	\$ 1,640.00
1.00	34' FTR DEDUCT	\$ (1,580.00)	\$ (1,580.00)
		\$ -	\$ -
	Materials Total		\$ 1,170.90

	Total		\$ 4,257.34
Sales tax (Materials Only)	8.875%		\$ 103.92
Subtotal			\$ 4,361.26
Markup (Overhead & Profit) on subtotal	10.0%		\$ 436.13
Total contractor costs with markup			\$ 4,797.38
Subcontractor costs	Additional insulation		\$ 1,200.00
Subcontractor markup	5.0%		\$ 60.00
Total Subcontractor cost with markup			\$ 1,260.00
Bond/Permit	0%		
	Total Change Order		\$ 6,057.38

TASK DESCRIPTION

A.G. O'BRIEN REPRESENTATIVE:

 Signature 2/5/2026
 Date
 Paul Konkler
 Printed Name | Title

CUSTOMER REPRESENTATIVE:

 Signature Date
 Date
 Printed Name | Title



CHANGE ORDER TRACKING

DATE 2/5/2026

PROJECT: ISD 709 DNT Renovation; PR-07 Changes

FLOOR _____

LABOR				
CRAFT	HOURS	NAME	RATE	TOTAL
SM	8.00	Duct install changes	\$ 110.23	\$ 881.84
SM	4.00	Duct fabrication changes	\$ 110.23	\$ 440.92
Plumb	0.00	Refrigeration route changes	\$ 110.23	\$ -
SM	1.50	Added GRD install	\$ 110.23	\$ 165.35
				\$ -
Labor Total				\$ 1,488.11

MATERIALS				
QUANTITY	PRODUCT	COST	TOTAL	
3.00	Added GRDs	\$ 68.75	\$	206.25
0.00	Extra refrigeration pipe and fittings	\$ 428.65	\$	-
1.00	Extra duct fabrication material	\$ 252.02	\$	252.02
				\$ -
Materials Total				\$ 458.27

Total			\$	1,946.38
Sales tax (Materials Only)	8.875%		\$	40.67
Subtotal			\$	1,987.05
Markup (Overhead & Profit) on subtotal	10.00%		\$	198.70
Total contractor costs with markup			\$	2,185.75
Subcontractor costs		Insulation	\$	500.00
Subcontractor markup	5.00%		\$	25.00
Total Subcontractor cost with markup			\$	525.00
Bond/Permit	0%			
Total Change Order			\$	2,710.75

TASK DESCRIPTION
Changes to duct runs, extra GRDs, and moving one of the minisplit units in the basement.

A.G. O'BRIEN REPRESENTATIVE:

2/5/2026

Signature Date

Brady Berkhof
Printed Name | Title

CUSTOMER REPRESENTATIVE:

Signature Date

Printed Name | Title



CCO #005

ICS
 1331 Tyler Street NE, Suite 101
 Minneapolis, Minnesota 55413
 Phone: (763) 354-2670
 Fax: (763) 780-2866

Project: S23075 - Duluth Public Schools, ISD #709 - DNT Building
 Renovation
 424 West First Street
 Duluth, Minnesota 55802

Contract Change Order #005: Belknap Electric CCO #005

CONTRACT COMPANY:	Belknap Electric 1513 Belknap St Superior, Wisconsin 54880	CONTRACT FOR:	SC-S23075-013:WS 13 - Electrical
DATE CREATED:	3/27/2026	CREATED BY:	Jason Filipek (ICS - Duluth, MN)
CONTRACT STATUS:	Pending - Proceeding	REVISION:	0
REQUEST RECEIVED FROM:		LOCATION	
DESIGNATED REVIEWER:		REVIEWED BY:	
DUE DATE:		REVIEW DATE:	
INVOICED DATE:		PAID DATE:	
REFERENCE:		CHANGE REASON:	Allowance
PAID IN FULL:	No	EXECUTED:	No
ACCOUNTING METHOD:	Amount Based	SCHEDULE IMPACT:	
FIELD CHANGE:	No	TOTAL AMOUNT:	\$24,236.19
DESCRIPTION: CE #066 - PR 9 electrical changes: \$24,236.19			

ATTACHMENTS:
[2026-0223 - ISD 709-DNT Building Renovation PR No. 9 Belknap Electric.pdf](#)

CHANGE ORDER LINE ITEMS:

CCO #005

#	Cost Code	Description	Type	Amount
1	05-5.13 - WS 13 - Belknap Electric	PR 9 Electrical Changes	Other	\$ 24,236.19
Subtotal:				\$24,236.19
Grand Total:				\$24,236.19

The original (Contract Sum)	\$ 2,668,386.00
Net change by previously authorized Change Orders	\$ 201,177.59
The contract sum prior to this Change Order was	\$ 2,869,563.59
The contract sum would be changed by this Change Order in the amount of	\$ 24,236.19
The new contract sum including this Change Order will be	\$ 2,893,799.78
The contract time will not be changed by this Change Order by	

Belknap Electric
 1513 Belknap St
 Superior Wisconsin 54880

Signed by:

 SIGNATURE DATE
 3/27/2026

ICS - Duluth, MN
 525 Lake Ave S, Suite 222
 Duluth Minnesota 55802

Signed by:

 SIGNATURE DATE
 3/27/2026

DS

Duluth Public Schools ISD #709
 709 Portia Johnson Drive
 Duluth Minnesota 55811

Signed by:

 SIGNATURE DATE
 4/7/2026



1513 Belknap Street | Superior | WI | 54880
 715.394.7769 | www.belknapelectric.com

SUBCONTRACTOR CHANGE REQUEST
CHANGE REQUEST # 9

DATE: Thursday, March 19, 2026
PROJECT: ISD 709 - DNT Building Renovations
PROJECT NO: 33231

TO: Jason Filipek - jason.filipek@ics-builds.com

FROM: Chris Krook - chriskrook@belknapelectric.com

CC: Jacob Majerle - jacob.majerle@ics-builds.com

Description of Work

Additional wall packs, flag pole lights and circuits. Additional security and door release.

Proposal Breakdown

Labor Hours:	105.15
Labor Rate:	\$ 54.65
Burden on Labor:	\$ 53.45
Labor OH&P/Hour:	\$ 10.81

(Profit = 10% of actual cost plus overhead)

Total Labor Rate Per Hour:	\$ 118.91
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Total Cost of Labor: \$ 12,503.39

Materials Cost:	\$ 7,373.00
Materials OH&P:	\$ 737.30

(Profit = 10% of actual cost plus overhead)

Total Cost of Materials: \$ 8,110.30

Subcontractor Cost:	\$ 3,450.00
Subcontractor Profit = 5%:	\$ 172.50

Total Cost for Subcontractor: \$ 3,622.50

Total Change Request: \$ 24,236.19



Job Name: ISD 709
Job Number: ISD 709 - DNT Building Renovation - PR#09
Job Path: P:\BidWinner\2025
Job Category: PR #09
Bid Due Date: 3/19/2026 6:06 AM
Estimator: Chris Krook
Telephone: 715-394-7769
Cell: 218-591-3267
Fax: 715-394-7887
Email: chriskrook@belknapelectric.com

Starting date:
Completion date:
Duration: Weeks

Job address:

Client address:

	Description	Quantity	Total Material	Total Hours
1	3/4" EMT CONDUIT	614	493.59	30.70
2	1" EMT CONDUIT	60	83.75	4.20
3	3/4" EMT DC SS CONN	4	2.80	0.40
4	3/4" EMT DC SS CPLG	4	2.91	0.20
5	3/4" EMT STL SS CONN	36	10.58	3.60
6	1" EMT STL SS CONN	12	6.36	1.44
7	3/4" EMT STL SS CPLG	58	16.23	2.90
8	1" EMT 90 DEG ELBOW	6	20.10	1.32
9	3/4" EMT 1-H STEEL STRAP	10	1.35	0.54

	Description	Quantity	Total Material	Total Hours
10	1" EMT 1-H STEEL STRAP	18	3.15	1.06
11	#12 THHN BLACK	328	66.38	1.69
12	#10 THHN BLACK	1,848	572.01	12.01
13	B2-1 RED WIRE CONN	32	6.74	1.92
14	4x1 1/2" SQ BOX COMB KO	12	14.64	2.76
15	4x2 1/8" SQ BOX COMB KO	14	18.05	3.22
16	4" SQ BLANK COVER	10	4.50	0.25
17	4" SQ 1G PLSTR RING 5/8" RISE	8	6.09	0.20
18	1G DUPLEX REC PLATE - 302 S/S	2	2.50	0.05
19	20A 125V DUPLEX REC - IVY (SG)	2	5.84	0.40
20	#8x 1/2 WAFER HEAD SELF-TAP STUD SCREW - 12G	20	0.79	0.48
21	#12 CEILING WIRE	386	96.50	7.72
22	K-12 KON CLIP (3/4")	55	29.38	2.81
23	EC311 WIRE/ROD SECURE CLIP	65	116.91	3.25
24	812MB18 BOX/CONDUIT 1/4" ROD SUPPORT	10	51.32	0.82
25	4H24 HAMMER-ON 1/4" FLANGE CLIP	65	50.93	3.90
26	20A 1P BRKR BOLT-ON GFI 5mA	2	79.44	0.50
27	ARLINGTON #GP26B LIGHT POSE BASE	2	92.00	1.00
28	MISC WORK ON EXISTING 100A PANEL	1	100.00	4.00
29	TYPE X	6	0.00	5.10
30	FLAG POLE LIGHT - RAB EZLED ESXF LED SERIES	2	0.00	1.70
	Totals	3,692	1,954.85	100.14

	Labor Type	Crew	Hours	Rate \$	Total
2	Foreman	1.00	100.14	108.10	10,825.13
	Totals	1.00	100.14	108.10	10,825.13

	Indirect Labor	Lab %	Hours	Rate \$	SubTotal	Total	Full Rate
1	Additional Management Time	5.000	5.01	#####	541.58	541.58	108.10
	Totals		5.01	#####	541.58	541.58	108.10

	Subcontractors	Alarm	Cost	Tax(%)	Overhead %	Markup %	Total	Vendor
1	Division 27 - Communications	Off	3,450.00			5.000	3,622.50	Dell-Co
	Totals		3,450.00			172.50	3,622.50	

	Subcontractors	Notes
1	Division 27 - Communications	
	Totals	

	General Expenses	Quantity	Duration	Cost/Unit	Total
1	Inspection Permit	1.00		605.00	605.00
2	Travel Expenses - Parking Pass	8.00	13.00	10.35	1,076.40
	Totals				1,681.40

	Quoted Materials	Cost	Vendor	Notes
1	Fixtures & Lamps	3,080.00	Border States	
2	Distribution	192.00	Viking Electric	
	Totals	3,272.00		

Key Indicators	Value	%
Database Material	1,954.85	8.066
Quoted Material	3,272.00	13.500
Material Tax	463.88	1.914
Material Total	5,690.73	23.480
Direct Labor	10,825.13	44.665
Indirect Labor	541.58	2.235
Labor Total	11,366.71	46.900
Subcontractors	3,450.00	14.235
General Expenses	1,681.40	6.938
Prime Cost	22,188.84	91.553
Net Cost	22,188.84	91.553
Total Profit	2,047.35	8.447
Selling Price	24,236.19	100.000
Final Price	24,236.19	100.000
Labor Risk Ratio %	18.0118	
Total Labor Hours	105.15	
Average Labor Cost Per Hour	108.10	
General Expenses Per Hour	15.9905	



Dell-Comm, Inc.
4179 Thunderchief Lane
Duluth, MN 55811-1425
Telephone (218) 623-2666
Fax (218) 623-2667

Change Order Proposal

Project: ISD 709 DNT Building Reno Customer: Belknap Electric

Job Number: 250227 Customer Project No. 25-0012-900

This Change Proposal Covers The Following: Date of Change: 3/9/2026

PR #9

Item No 05: E600 – BASEMENT LEVEL TECHNOLOGY PLAN

a) Added security to parking ramp exterior door.

Item No 06: E601 – FIRST LEVEL TECHNOLOGY PLAN

a) Revise door release.

Item No 07: E602 – SECOND LEVEL TECHNOLOGY PLAN

a) a) Revise door release

We Propose hereby to furnish material and labor – complete in accordance with above specifications, for the sum of: Three Thousand four hundred and fifty dollars Dollars, \$ \$3,450.00

Terms: Net 15 days, 1.5% per month, 18% annual will be charged on balance 30 days past due.

All material is guaranteed to be as specified. All work to be completed in a workman like manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance. NOTE: Will not work or be responsible for any cost involving asbestos.

Acceptance of Proposal – The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Dell-Comm, Inc.

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

(After acceptance of proposal, complete contact status below)

Change Order #: _____

Original Contract Amount: \$ _____

Previous Approved Change Order #'s: \$ _____

Amount of This Change Order: \$ _____

Revised Contract Amount: \$ _____



Job Name : Duluth Public Schools - ISD709 DNT Building Renovation

Quote Number : 520423-840918-1

Bid Date : Mar 19, 2026

Expiration Date : Mar 29, 2026



PREPARED BY

Jake Thibedeau - Area 14 - Albertville
JThibedeau@borderstates.com
11927 53rd St NE
Albertville, MN 55301, USA

All prices are subject to Manufacturer ' s tariff increases. Tariff adders will be passed on to Buyer.

PRICING AND LEAD TIME ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTICE.

PLEASE ADVISE OF ANY COUNT CHANGES FOR AN UPDATED BILL OF MATERIAL AND QUOTE

New Section				
Qty	Type	Mfg	Model Number & Notes	Lead Time
6	X	BEACON PRODUCTS	RWL2-160-45-4K7-3-U-DBT	-
2	NOTE 2	EXO	SGF2-120-LSCS-UNVC-PC	-
New Section Subtotal				\$3,080.00

Grand Total	\$3,080.00
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Job Name : Duluth Public Schools - ISD709 DNT Building Renovation

Quote Number : 520423-840918-1

Bid Date : Mar 19, 2026

Expiration Date : Mar 29, 2026

General Terms & Conditions

This quotation and all orders tendered pursuant hereto shall be subject to Border States' terms of sale that can be found at <https://solutions.borderstates.com/terms-of-sale/>.

All clerical errors contained herein are subject to correction. In the event of any cost or price increases from manufacturers or other suppliers, caused by, but not limited to, currency fluctuations, raw material or labor prices, fuel or transportation cost increases, and any import tariffs, taxes, fees, or surcharges, Border States reserves the exclusive right to change its pricing at the time of shipping and will provide notice of any such change to its customers prior to costs being incurred.



DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

SLING FLOOD

SGF1/SGF2/SGF3 - SWITCHABLE FLOOD

tradeSELECT®

FEATURES

- Commercial grade LED flood luminaire for use in outdoor application; commercial buildings, retail, government and educational facilities.
- Low profile housing with knuckle installed and trunnion also included for optional field installment (SGF2 and SGF3 only)
- Available in twelve wattages ranging from 20W to 320W
- Three housing sizes for scalability in the field
- 7x7 wide flood distribution



SPECIFICATIONS

CONSTRUCTION

- Die-cast aluminum die-cast housing
- Built in visor on all fixture sizes
- Tempered glass lens secured with sealant. Individual components are not field replaceable
- All units have dark bronze matte textured powder coat finish (matches Current DBT finish)
- Operating Temp -40C to 40C
- Powder paint finish provides durability in outdoor environments. Tested to meet 1000 hour salt spray rating.

OPTICS

- Matte white reflector produces wide 7x7 distribution
- Beam Angle: 115°x108°
- Field Angle: 155°x156°
- Lumen Switchable (3K, 4K, 5K) at 70 CRI

INSTALLATION

- SGF1 includes knuckle mounting only
- SGF2 and SGF3 have a slipfitter installed that fits over 2 3/8" tenon. A trunnion mount is included in the box and can be field installed.

ELECTRICAL

- All configurations are 120-347V
- SJTW Cord rated for 105C and 600V. Cord is 36 inches long with 18AWG conductors.

CONTROLS

- Built in 6kV surge protector
- Optional integral button photocontrol with cover for dusk-to-dawn operation

CERTIFICATIONS

- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40°C ambient temperatures
- Wet listed
- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Not all product variations listed in this document are DLC® qualified. Refer to <http://www.designlights.org> for the most up-to-date list
- IP66 rated housing

WARRANTY

- 5 year warranty

KEY DATA	
Lumen Range	3,049-46,759
Wattage Range	20-320W
Efficacy Range (LPW)	125-163
Weights lbs. (kg)	2.6-18.4 (1.2-8.3)

Stock SKU	Fixture Size	Wattage	Lumen Output	Color Temp	CRI	Voltage	Controls	Mounting
SGF1-60-LSCS-UNVC-PC	SGF1 Small	20W, 40W, 60W	3049-8214	3K, 4K, 5K	70 CRI	120-347V	Photocell	Knuckle
SGF2-120-LSCS-UNVC-PC	SGF2 Medium	80W, 100W, 120W	10813 - 16488	3K, 4K, 5K	70 CRI	120-347V	Photocell	Knuckle & Trunnion
SGF3-200-LSCS-UNVC	SGF3 Large	130W, 160W, 200W	17811 - 30953	3K, 4K, 5K	70 CRI	120-347V	None	Knuckle & Trunnion
SGF3-200-LSCS-UNVC-PC							Photocell	
SGF3-320-LSCS-UNVC		200W, 280W, 300W	25156 - 46759	3K, 4K, 5K	70 CRI	120-347V	None	Knuckle & Trunnion
SGF3-320-LSCS-UNVC-PC							Photocell	



ORDERING GUIDE
STOCK ORDERING INFORMATION

Fixture Size	Color Temp	Wattage	Lumen Output	Lumens Per Watt	Mounting
SGF1-60	3000	20	3049	152	Knuckle
	4000		3485	174	
	5000		3257	163	
	3000	40	5411	138	
	4000		6184	157	
	5000		5779	147	
	3000	60	7187	123	
	4000		8214	141	
	5000		7676	132	
SGF2-120	3000	80	10813	135	Knuckle & Trunnion
	4000		11677	146	
	5000		11513	144	
	3000	100	13516	132	
	4000		14596	143	
	5000		14391	141	
	3000	120	15268	125	
	4000		16488	135	
	5000		16256	133	
SGF3-200	3000	130	17811	137	Knuckle & Trunnion
	4000		19404	149	
	5000		16541	127	
	3000	160	20801	130	
	4000		23897	149	
	5000		22401	140	
	3000	200	25808	129	
	4000		30953	155	
	5000		27702	139	
SGF3-320	3000	200	25156	126	Knuckle & Trunnion
	4000		29225	146	
	5000		27201	136	
	3000	280	35219	126	
	4000		39824	142	
	5000		37103	133	
	3000	320	40250	127	
	4000		46759	135	
	5000		43521	135	



SLING FLOOD

SGF1/SGF2/SGF3 - SWITCHABLE FLOOD

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

ELECTRICAL DATA

Fixture	Input Voltage (Volts)	Oper. Current (Amps)	System Power (Watts)	Fixture	Input Voltage (Volts)	Oper. Current (Amps)	System Power (Watts)
SGF1-20	120	0.17	20	SGF3-130	120	1.08	130
	277	0.07			277	0.47	
	347	0.06			347	0.37	
SGF1-40	120	0.33	40	SGF3-160	120	1.33	160
	277	0.14			277	0.58	
	347	0.12			347	0.46	
SGF1-60	120	0.50	60	SGF2-200	120	1.67	200
	277	0.22			277	0.72	
	347	0.17			347	0.58	
SGF2-80	120	0.67	80	SGF3-200	120	1.67	200
	277	0.29			277	0.72	
	347	0.23			347	0.58	
SGF2-100	120	0.83	100	SGF3-280	120	2.33	280
	277	0.36			277	1.01	
	347	0.29			347	0.81	
SGF2-120	120	1.00	120	SGF3-320	120	2.67	320
	277	0.43			277	1.16	
	347	0.35			347	0.92	

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98

EPA

EPA (Front/Side)	
SGF1	0.46ft ² /0.16ft ²
SGF2	1.25ft ² /0.45ft ²
SGF3	2.45ft ² /0.60ft ²

PROJECTED LUMEN MAINTENANCE

Calculation Method	Ambient Temp	25,000 hrs	50,000 hrs	60,000 hrs *	100,000 hrs **	Calculated L70 ** (hrs)
TM-21-11	25C/77F	0.94	0.88	0.87	0.78	>54,000
	40C/104F	0.93	0.87	0.86	0.76	>54,000
TM-21-21	25C/77F	0.95	0.88	0.87	n/a	n/a
	40C/104F	0.94	0.87	0.86	n/a	n/a

* Lumen maintenance values calculated per TM-21 using six times the LM-80 test time for the LED and in-situ thermal testing of the luminaire.

** Lumen maintenance values calculated per TM-21-11.

SLING FLOOD

SGF1/SGF2/SGF3 - SWITCHABLE FLOOD

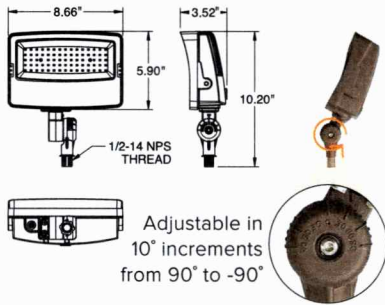
DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

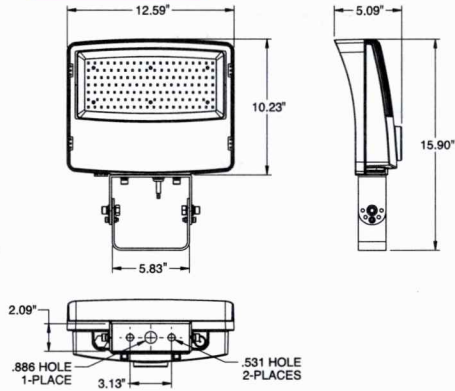
CATALOG #: _____

DIMENSIONS

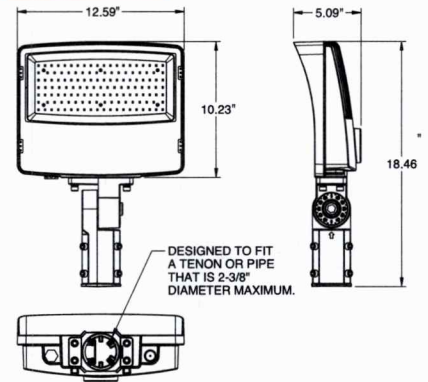
SGF1



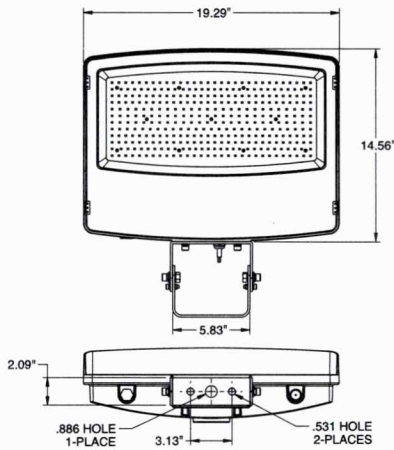
SGF2 (TRUNNION)



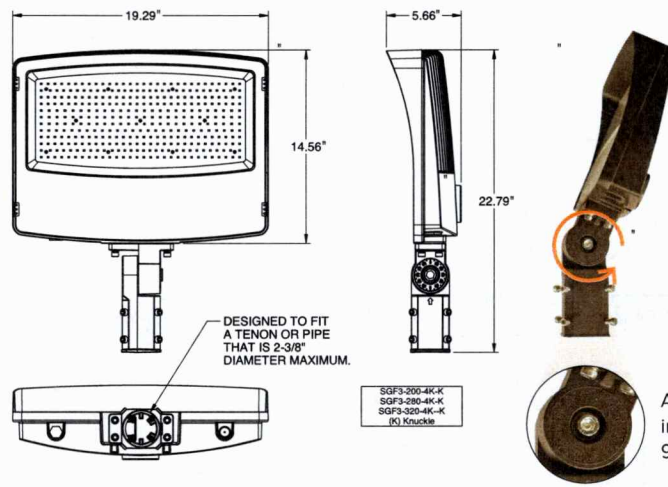
SGF2 (KNUCKLE)



SGF3 (TRUNNION)



SGF3 (KNUCKLE)



WEIGHT AND DIMENSION CHART

Configuration	Carton Size			Product Weight (lbs)
	L	W	H	Fixture Only
SGF1	12.20"	10.83"	5.71"	3.9 lbs.
SGF2	21.06"	14.76"	7.09"	13.6 lbs.
SGF3	25.00"	21.45"	7.68"	23.8 lbs.

PHOTOCONTROL

Optional integral button photocontrol with cover for dusk-to-dawn operation



SLING FLOOD

SGF1/SGF2/SGF3 - SWITCHABLE FLOOD

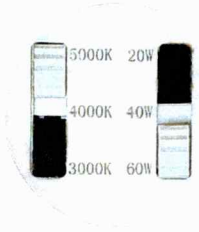
DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

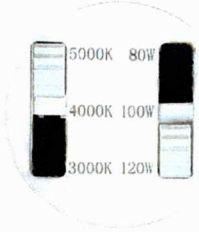
CATALOG #: _____

PHOTOMETRY

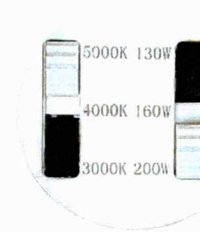
SGF1



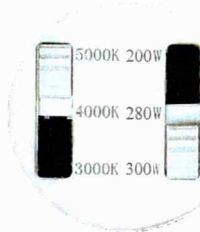
SGF2



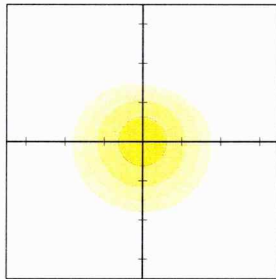
SGF3-200



SGF3-320

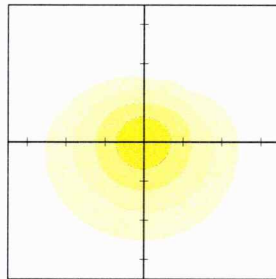


SGF1-20-4K



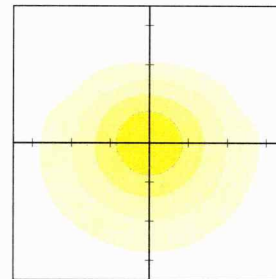
Scale: 20'
Mounting Height: 15'

SGF2-80-4K



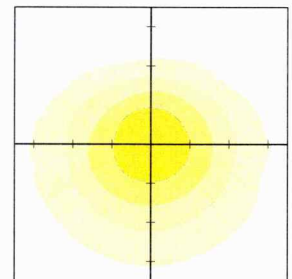
Scale: 20'
Mounting Height: 15'

SGF3-200-130-4K



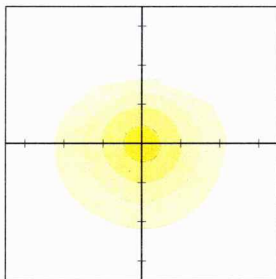
Scale: 20'
Mounting Height: 15'

SGF3-320-200-4K



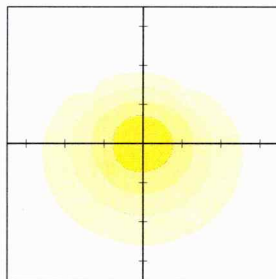
Scale: 20'
Mounting Height: 15'

SGF1-40-4K



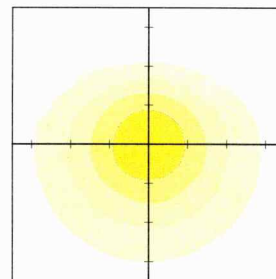
Scale: 20'
Mounting Height: 15'

SGF2-100-4K



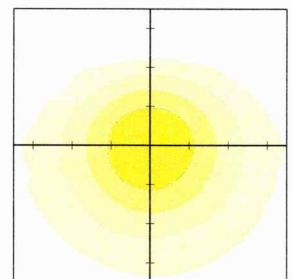
Scale: 20'
Mounting Height: 15'

SGF3-200-160-4K



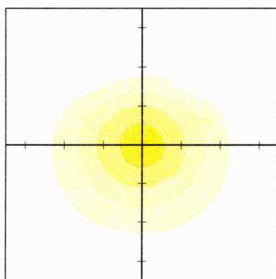
Scale: 20'
Mounting Height: 15'

SGF3-320-280-4K



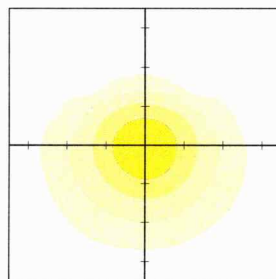
Scale: 20'
Mounting Height: 15'

SGF1-60-4K



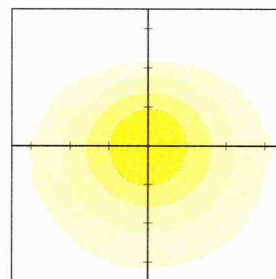
Scale: 20'
Mounting Height: 15'

SGF2-120-4K



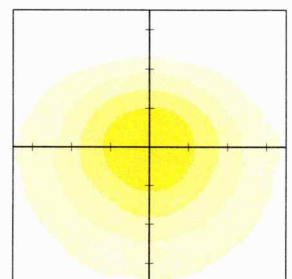
Scale: 20'
Mounting Height: 15'

SGF3-200-200-4K



Scale: 20'
Mounting Height: 15'

SGF3-320-320-4K



Scale: 20'
Mounting Height: 15'

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