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Since 1984  
Lighting Analysts  
Lighting & Energy Solutions  
www.agi32.com

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Lighting Analysts, Inc.

Comments

Date

#

Revisions

Drawn By:

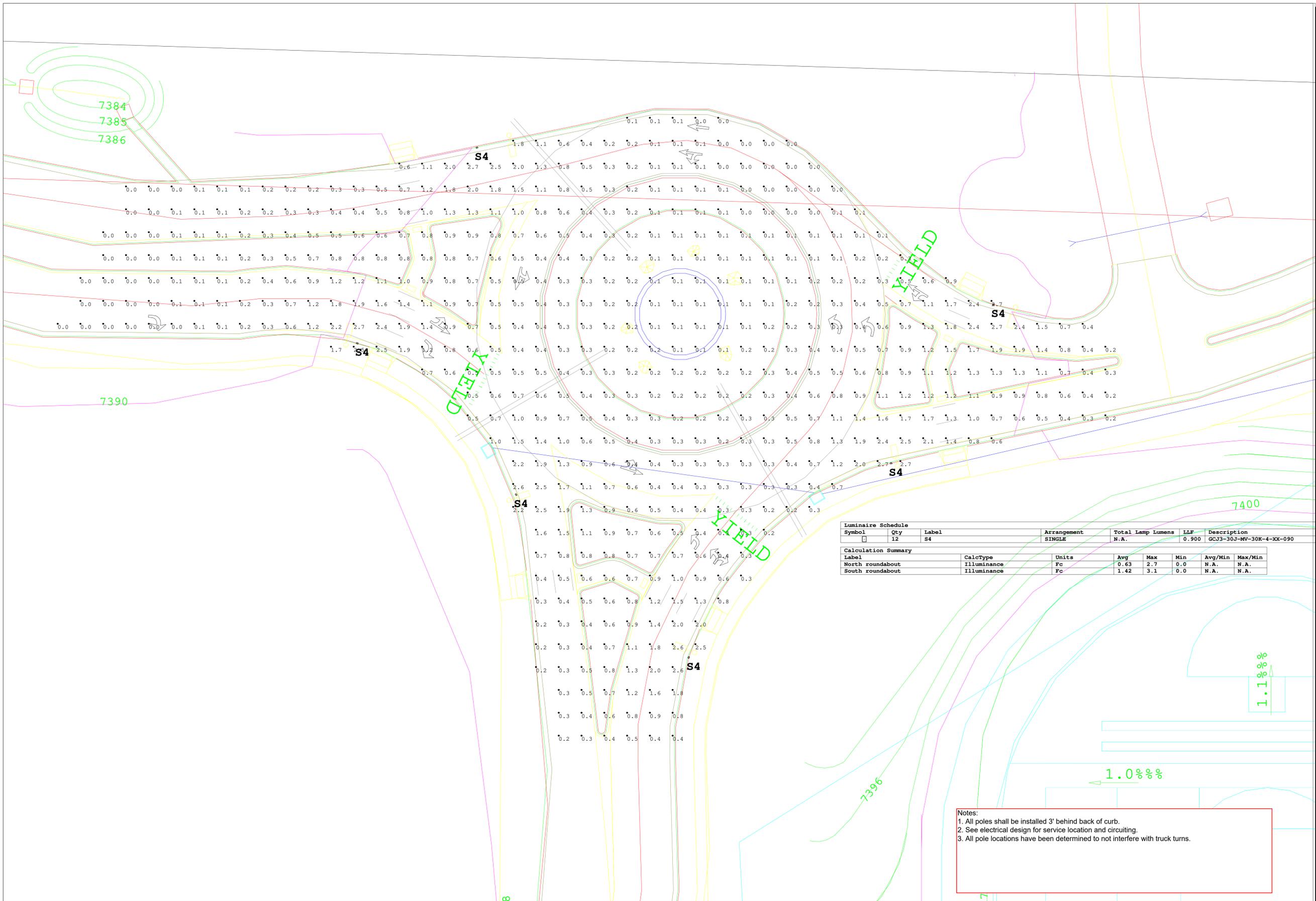
Checked By:

Date: 3/30/2022

Ross Electric-Ent, Inc.

Scale:

# Walker Roundabout North



Notes:  
 1. All poles shall be installed 3' behind back of curb.  
 2. See electrical design for service location and circuiting.  
 3. All pole locations have been determined to not interfere with truck turns.

1.0%%

1.1%%



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Comments

Date

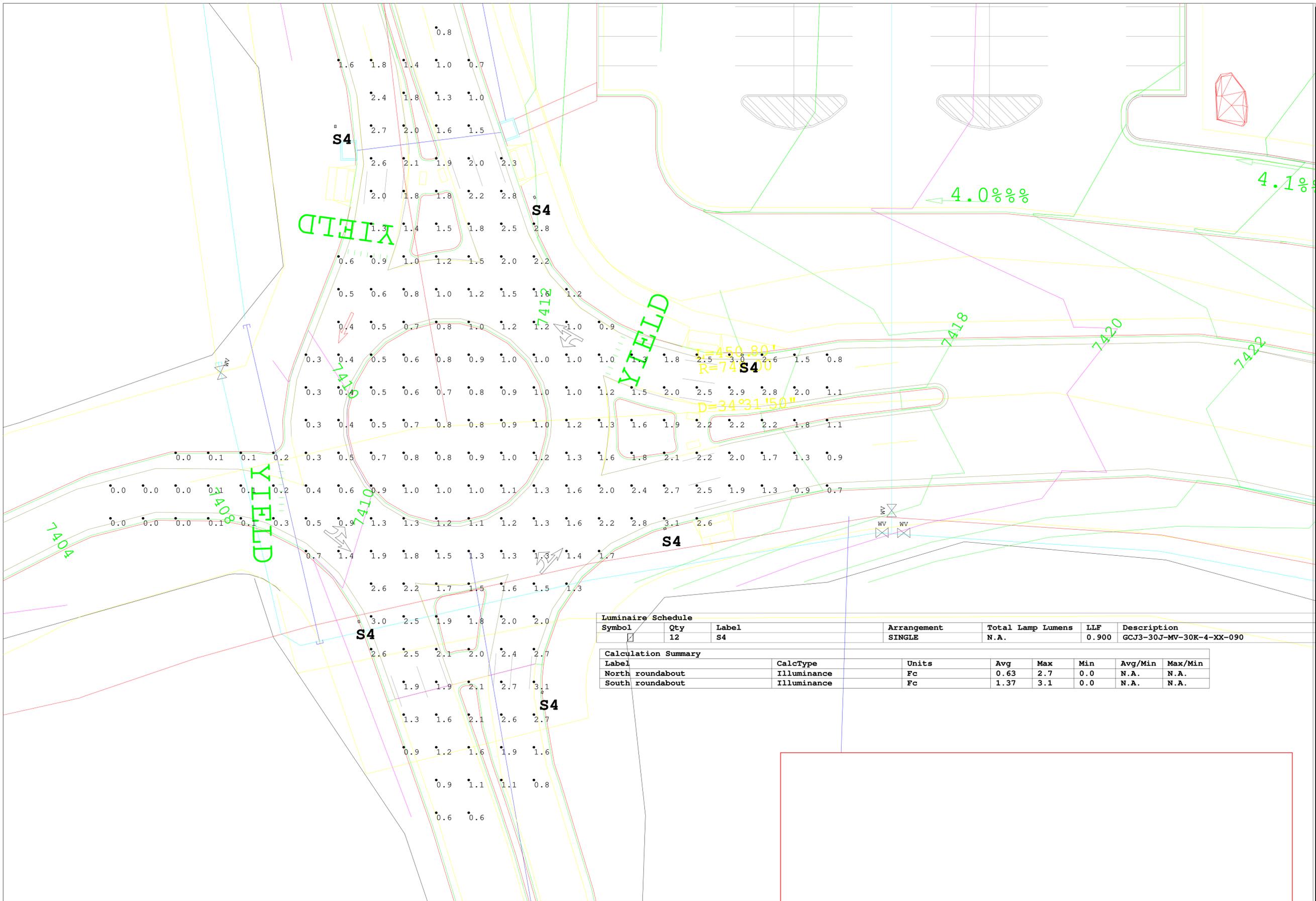
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Revisions

Drawn By:  
Checked By:  
Date: 9/20/2022

Scale:

# Walker Roundabout South



Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
S4	12	S4	SINGLE	N.A.	0.900	GCJ3-30J-MV-30K-4-XX-090

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
North roundabout	Illuminance	Fc	0.63	2.7	0.0	N.A.	N.A.
South roundabout	Illuminance	Fc	1.37	3.1	0.0	N.A.	N.A.



**Date: Mar 31, 2022**

The MH Companies  
1044 Speer Blvd  
Denver CO 80204  
Phone: (303) 573-0222  
Fax: (303) 573-0922

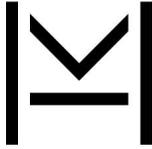
Job Name  
**Walker Roundabout**  
MHDN22-222400

Bid Date  
Mar 30, 2022

Submittal Date  
Mar 31, 2022

*Architect:*  
No Architect

*Controls:*  
No Controls



# Transmittal

The MH Companies  
1044 Speer Blvd  
Denver CO 80204  
Phone: (303) 573-0222  
**From: Dominick Rodriguez**

**Project** Walker Roundabout  
**Quote#** MHDN22-222400  
**Location**  
**To** Ross Electric  
PO Box 88274  
Colorado Springs CO 80808-8274  
Contact: Jared Wiens

ATTACHED WE ARE SENDING YOU 1 COPY OF THE FOLLOWING ITEM:

- |                                   |  |        |
|-----------------------------------|--|--------|
| <input type="checkbox"/> Drawings | <input type="checkbox"/> Specifications        | Other: |
| <input type="checkbox"/> Prints   | <input type="checkbox"/> Information           |        |
| <input type="checkbox"/> Plans    | <input checked="" type="checkbox"/> Submittals |        |

THESE ARE TRANSMITTED FOR:

- |  |   |                                 |
|--|---|---------------------------------|
| <input type="checkbox"/> Prior Approval        | <input type="checkbox"/> Resubmittal for Approval | <input type="checkbox"/> Record |
| <input checked="" type="checkbox"/> Approval   | <input type="checkbox"/> Corrections              | Bids due on:                    |
| <input type="checkbox"/> Approval as Submitted | <input type="checkbox"/> Your Use                 | Other:                          |
| <input type="checkbox"/> Approval as Noted     | <input type="checkbox"/> Review and Comment       |                                 |

Qty	Type	MFG	Part
12		Leotek Electronics USA LLC	GCJ3-30J-MV-30K-4-GY-090-PCR7-LLPCM/V FINISH=GRAY
12		Valmont	DS32-750A236-6S-GV-AB-NC-HH-PC FINISH=GALVANIZED
12		Valmont	TB2-17 / M104



Mar 31, 2022

Jared Wiens  
Ross Electric  
PO Box 88274  
Colorado Springs CO 80808-8274

**RE:** Walker Roundabout

Dear Jared

<b>Qty</b>	<b>Type</b>	<b>MFG</b>	<b>Part</b>
12		Leotek Electronics USA LLC	GCJ3-30J-MV-30K-4-GY-090-PCR7-LLPCM V FINISH=GRAY
12		Valmont	DS32-750A236-6S-GV-AB-NC-HH-PC FINISH=GALVANIZED
12		Valmont	TB2-17 / M104



**Job Name:**  
Walker Roundabout  
Architect: No Architect  
Controls: No Controls

**Catalog Number:**

GCJ3-30J-MV-30K-4-GY-090-PCR7-LLPCM V FINISH=GRAY

Notes:

**Type:**

MHDN22-222400



## GreenCobra™ Jr. LED Street Light GCJ J-Series Specification Data Sheet

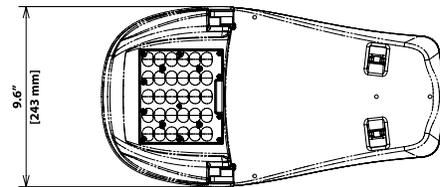
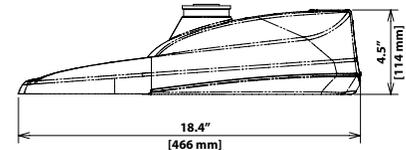
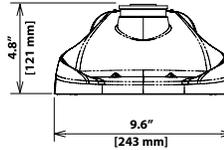
Project

Type

Catalog No.

**Luminaire Data**

**Weight** 7.7 lbs [3.5 kg]  
**EPA** 0.39 ft<sup>2</sup>

**Ordering Information**

Sample Catalog No. GCJ1-30J-MV-40K-2R-GY-055-PCR7-WL

Model*	LED Code	Voltage	Color Temperature	Distribution	Finish <sup>1</sup>	Output Code <sup>2</sup>	Options
						090	
GCJ1*	30J	MV 120-277V	27K 2700K	2R Type 2	GY Gray	Refer to Page 3 to select the performance code.	FOC <sup>3</sup> Fixed Output Code
GCJ2*		HV 347-480V	30K 3000K	3R Type 3R	DB Dark Bronze		LPCR Less Photocontrol Receptacle
GCJ3*			40K 4000K	3F Type 3F	BK Black		PCR7 <sup>4</sup> ANSI 7-wire Photocontrol Receptacle
			50K 5000K	4 Type 4			PCR7-CR <sup>5</sup> Control Ready 7-wire PC Receptacle
				5 Type 5			MSL3 Motion Sensor, L3 Lens
							MSL7 Motion Sensor, L7 Lens
							WL Utility Wattage Label
							4B 4-Bolt Mounting Bracket
							RWG Rubber Wildlife Guard
							SWTB Straight Wire Terminal Block
							BBL Bubble Level
							DSC Door Safety Cable
							CF <sup>6</sup> Coastal Paint Finish
							SP2 <sup>7</sup> Extreme Surge Protection, 20KV/10KA, Fail-to-on
							LSSP2 <sup>7</sup> Extreme Surge Protection, Fail-to-off, 20KV/10kA Rating

\* Refer to performance data table on page 3 for specific model with corresponding output code

**Notes:**

- Gray, Black, and Dark Bronze standard. Consult factory for other finishes. See page 2 for RAL codes of Standard finishes.
- Specified output code is the factory set lumen performance. Refer to performance data table on page 3 of this spec sheet. Field adjustable output selector enables fixture to be changed in the field to adjust light output for local conditions (not available with Fixed Output Code, FOC) or PCR7-CR option. Consult factory if wattage limits require a special drive current.
- Non-field adjustable, fixed output code. Specify required output code. Not available with PCR7-CR option.
- Includes output selector that enables field adjustability of light levels. Includes connectors to allow easy upgrade of wireless dimming via PCR7. Wireless node by others.
- Control-ready wired at factory for wireless node dimming (node by others). Output selector not included in the fixture. Not able to adjust above specified output code.
- Specify the CF Option for coastal installation. See warranty for details.
- Standard surge protection, 10kV/5kA, fail-to-on, meets enhanced surge protection based on ANSI 136.25-2015 3-part test.
- Flush mounted house side shield. Shield cuts light off at 1 mounting height behind luminaire. Gray frame with black louvres.
- Flush mounted cul-de-sac shield. Shield cuts light off at 1 mounting height behind luminaire and 2 times the mounting height on either side of luminaire. Gray frame with black louvres.
- Flush mounted front side shield cuts light off at approximately 1½ mounting height in front of luminaire (street side). Gray frame with black louvres.
- Specify Color (GY, DB, BK). Refer to Leotek web site for specific mounting details and drawings at <https://leotek.com/lighting-library/>
- Specify MV (120-277V) or HV (347-480V).

**Accessories\***

HSSJGC <sup>8</sup>	House Side Shield, Snap-On*
CSSJGC <sup>9</sup>	Cul-De-Sac Side Shield, Snap-On*
FSSJGC <sup>10</sup>	Front Side Shield, Snap-On*
SPB <sup>11</sup>	Square Pole Horizontal Arm Bracket
RPB <sup>11</sup>	Round Pole Horizontal Arm Bracket
PTB <sup>11</sup>	Pole Top Tenon Horizontal Arm Bracket
PTB2 <sup>11</sup>	Pole Top Tenon Horizontal Arm Bracket (2@180°)
WB <sup>11</sup>	Wall Horizontal Arm Bracket
BSK	Bird Deterrent Spider Kit
LLPC <sup>12</sup>	Long-Life Twist Lock Photocontrol
SC	Twist Lock Shorting Cap

\* Unless specified for field installation, Shields and Shorting Caps are shipped installed. All other options are shipped separately.





**Job Name:**  
Walker Roundabout  
Architect: No Architect  
Controls: No Controls

**Catalog Number:**

GCJ3-30J-MV-30K-4-GY-090-PCR7-LLPCMV FINISH=GRAY

Notes:

**Type:**

MHDN22-222400



## GreenCobra™ Jr. LED Street Light GCJ J-Series Specification Data Sheet

### Luminaire Specifications

#### Housing

Die cast aluminum housing with universal two-bolt slip fitter mounts to 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter mast arm. One-piece aluminum housing provides passive heat-sinking of the LEDs and has upper surfaces that shed precipitation. Four-bolt mounting bracket (4B option) is available. Mounting provisions meet 3G vibration per ANSI C136.31-2010 Normal Application, Bridge & Overpass by independent lab. Mounting has leveling adjustment from  $\pm 5^\circ$  in 2.5° steps. All hardware is stainless steel. Electrical components are accessed without tools via die cast aluminum door with stainless steel quick release latches. Provided standard with removable polycarbonate wild life guard. For additional protection, optional rubber wildlife guard (RWG) which conforms snugly to the mast arm is offered.

#### Light Emitting Diodes

LEDs produce minimum 90% of initial intensity at 60,000 hours of life per IES recommended lumen maintenance life projection based on 6 times the duration of the collected LM-80 data. For details on IESNA Position on LED Product Lifetime Prediction, PS-10-18. LEDs have correlated color temperature of 2700K (27K), 3000K (30K), 4000K (40K), or 5000K (50K) and 70 CRI minimum. LEDs are ROHS compliant, 100% mercury and lead free.

#### Field Adjustability

LED lumen output can be changed in the field to adjust light output for local conditions (not available with PCR7-CR option). The specified output code will be the factory set output. Field adjustments can be made with the output selector included in the fixture. Field adjustable range shown in performance data table.

#### Quality Control

Every luminaire is performance tested before and after a 2-hour burn-in period. Assembled in the USA.

#### Optical Systems

Micro-lens optical systems produce IESNA Type 2, Type 3, Type 4, or Type 5 distributions and are fully sealed to maintain an IP66 rating. Luminaire produces 0% total lumens above 90° (BUG Rating, U=0). Optional house side shield cuts light off at 1/2 mounting height behind luminaire. Front side shield cuts light off at approximately one mounting height in front of the luminaire (street side). Cul-de-sac shield provides back and side light control for end of cul-de-sac applications. All shields are field installable without tools.

#### Electrical

Rated life of electrical components is 100,000 hours. Uses isolated power supply that is 1-10V dimmable. Power supply is wired with quick-disconnect terminals. EMC meets or exceeds FCC CFR Part 15. Terminal block accommodates 6 to 14 gauge wire. Surge protection complies with IEEE/ANSI C62.41 Category C High, 10kV/5kA and ANSI C136.2-2015, 3-part test.

#### Power Supply

IP66 rated power power supply with high power factor of > 90%. Auto sensing universal AC input from 120 to 277VAC (MV model) and 347 to 480VAC (HV mode) rated for both line to line and line to neutral applications. Maximum THD rating of 20%. Class 1 or Class 2. Built-in overheating protection mechanism will reduce drive current to LEDs and electrical components if the driver experiences unusual internal overheating situation. Built-in short circuit, voltage overload, and current overload protection with automatic recovery after correction.

#### Controls

3-Wire photocontrol receptacle is standard. ANSI C136.41 7-wire (PCR7) photocontrol receptacles is available. All photocontrol receptacles have tool-less rotatable bases. Wireless control module is provided by others.

#### Finish

Housing receives a durable, fade-resistant polyester powder coat finish with 3.0 mil nominal thickness. Standard finish tested to withstand 5000 hours in salt spray exposure per ASTM B117 and Coastal Finish per ASTM G85. Finish meets scribe creepage rating 8 per ASTM D1654. Finish tested 500 hours in UV exposure per ASTM G154 and meets ASTM D523 gloss retention.

#### Listings/Ratings/Labels

Luminaires are UL listed for use in wet locations in the United States and Canada. DesignLights Consortium™ qualified product. Consult DLC QPL for Standard and Premium Classification Listings. All electronic components inside of the luminaire are NRTL damp location rated per ANSI 136.37-2011 Ingress Protection standard. International Dark Sky Association listed. Luminaire is qualified to operate at ambient temperatures of -40°C to 40°C. Assembled in the U.S.A.

#### Photometry

Luminaires photometrics are tested by certified independent testing laboratories in accordance with IES LM-79 testing procedures.

#### Warranty

10-year limited warranty is standard on luminaire and components. See Leotek.com for warranty details.

#### Vandal Resistance

Housing and optics rated to IK10

#### Certification and Compliance

Luminaire complies with:  
ANSI: C136.2, C136.3, C136.10, C136.13, C136.15, C136.22, C136.31, C136.35, C136.37, C136.41, C62.41, C78.377, C82.77  
Other: FCC 47 CFR, IEC 60598, ROHS II, UL 1449, UL 1598

### Color Specifications

Order Code	Color	RAL #	Pantone Equivalent
GY	Gray	7040	429C
BK	Black	9004	426C
DB	Dark Bronze	6022	BLACK 2C

### TM21 Lumen Maintenance per IES TM21-11 Calculation

Model Number	60,000 Hours*	80,000 Hours	100,000 Hours
All GCJ 30J	>98.9%	>98.7%	>98.5%

\*Calculation based on IES position statement on Lumen Maintenance Life Projections



**Job Name:**  
Walker Roundabout  
Architect: No Architect  
Controls: No Controls

**Catalog Number:**

GCJ3-30J-MV-30K-4-GY-090-PCR7-LLPCM V FINISH=GRAY

Notes:

**Type:**

MHDN22-222400



## GreenCobra™ Jr. LED Street Light GCJ J-Series Specification Data Sheet

**Performance Data: 2700K (27K)**

All data nominal. IES files for all CCTs available at leotek.com.

Product	LED Code	Output Code	System Wattage (W)	Delivered Lumens (Lm) <sup>1</sup>	Efficacy (Lm/W)	System Drive Current (mA) <sup>2</sup>	Field Adjustable Output Range
GCJ1	30J	025	17	2397	141	250	↑ ↓
		035	26	3692	142	420	
		040	30	4140	138	480	
		045	34	4742	139	530	
GCJ2	30J	050	37	5291	143	590	↑ ↓
		060	44	6229	141	700	
GCJ3	30J	065	49	6734	137	780	↑ ↓
		075	54	7398	137	860	
		080	58	7830	135	930	
		085	64	8448	132	990	
		090	67	8813	132	1050	

Notes:

- Nominal lumens. Normal tolerance  $\pm 10\%$  due to factors including distribution type, LED bin variance, and ambient temperatures.
- System drive current values (maximum LED drive current is 350mA).

**Performance Data: 3000K (30K)**

All data nominal. IES files for all CCTs available at leotek.com.

Product	LED Code	Output Code	System Wattage (W)	Delivered Lumens (Lm) <sup>1</sup>	Efficacy (Lm/W)	System Drive Current (mA) <sup>2</sup>	Field Adjustable Output Range
GCJ1	30J	025	17	2533	149	250	↑ ↓
		040	27	4058	152	420	
		045	30	4560	152	480	
		050	34	5223	154	530	
GCJ2	30J	055	37	5550	150	590	↑ ↓
		065	44	6425	146	700	
GCJ3	30J	070	49	7062	145	780	↑ ↓
		075	54	7722	143	860	
		080	58	8236	142	930	
		090	64	8960	140	990	
		095	67	9380	140	1050	

Notes:

- Nominal lumens. Normal tolerance  $\pm 10\%$  due to factors including distribution type, LED bin variance, and ambient temperatures.
- System drive current values (maximum LED drive current is 350mA).

**Performance Data: 4000K (40K) and 5000K (50K)**

All data nominal. IES files for all CCTs available at leotek.com.

Product	LED Code	Output Code	System Wattage (W)	Delivered Lumens (Lm) <sup>1</sup>	Efficacy (Lm/W)	System Drive Current (mA) <sup>2</sup>	Field Adjustable Output Range
GCJ1	30J	025	17	2669	157	250	↑ ↓
		045	27	4299	161	420	
		050	30	4830	161	480	
		055	34	5532	163	530	
GCJ2	30J	060	37	5883	159	590	↑ ↓
		070	44	6864	156	700	
GCJ3	30J	075	49	7256	149	780	↑ ↓
		080	54	7992	148	860	
		085	58	8468	146	930	
		090	64	9216	144	990	
		095	67	9648	144	1050	

Notes:

- Nominal lumens. Normal tolerance  $\pm 10\%$  due to factors including distribution type, LED bin variance, and ambient temperatures.
- System drive current values (maximum LED drive current is 350mA).



**Job Name:**  
Walker Roundabout  
Architect: No Architect  
Controls: No Controls

**Catalog Number:**

GCJ3-30J-MV-30K-4-GY-090-PCR7-LLPCM V FINISH=GRAY

Notes:

**Type:**

MHDN22-222400



## GreenCobra™ Jr. LED Street Light GCJ J-Series Specification Data Sheet

**BUG Ratings: 2700K (27K)**

All data nominal. IES files for all CCTs are available at leotek.com.

Product & LED Code	Output Code	Type 2R	Type 3R	Type 3F	Type 4	Type 5
		BUG Rating				
GCJ1 30J	025	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1
	035	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G1
	040	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G1
	045	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G1
GCJ2 30J	050	B2-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B3-U0-G1
	060	B2-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B3-U0-G3
GCJ3 30J	065	B2-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B3-U0-G1
	075	B2-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B3-U0-G1
	080	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G1
	085	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G1
	090	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3

**BUG Ratings: 3000K (30K)**

All data nominal. IES files for all CCTs are available at leotek.com.

Product & LED Code	Output Code	Type 2R	Type 3R	Type 3F	Type 4	Type 5
		BUG Rating				
GCJ1 30J	025	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G1
	040	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G1
	045	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G1
	050	B2-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B3-U0-G1
GCJ2 30J	055	B2-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B3-U0-G1
	065	B2-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B3-U0-G3
GCJ3 30J	070	B2-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B3-U0-G1
	075	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G1
	080	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G1
	090	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2
	095	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2

**BUG Ratings: 4000K (40K) and 5000K (50K)**

All data nominal. IES files for all CCTs are available at leotek.com.

Product & LED Code	Output Code	Type 2R	Type 3R	Type 3F	Type 4	Type 5
		BUG Rating				
GCJ1 30J	025	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G1
	045	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G1
	050	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G1
	055	B2-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B3-U0-G1
GCJ2 30J	060	B2-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G1	B3-U0-G1
	070	B2-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B3-U0-G1
GCJ3 30J	075	B2-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G1
	080	B2-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G1
	085	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G1
	090	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2
	095	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2



**Job Name:**  
Walker Roundabout  
Architect: No Architect  
Controls: No Controls

**Catalog Number:**  
GCJ3-30J-MV-30K-4-GY-090-PCR7-  
LLPCM V FINISH=GRAY  
Notes:

**Type:**

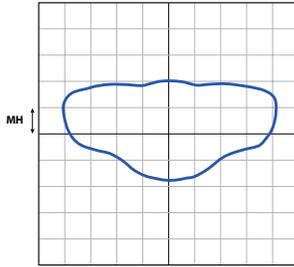
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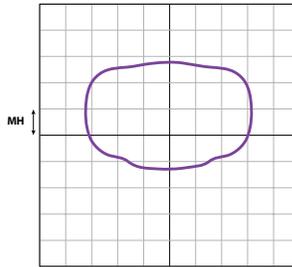
# GreenCobra™ Jr. LED Street Light GCJ J-Series Specification Data Sheet

## Optical Distribution

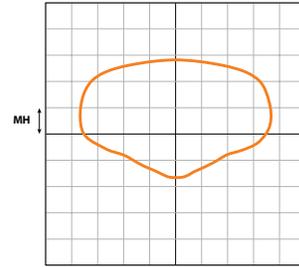
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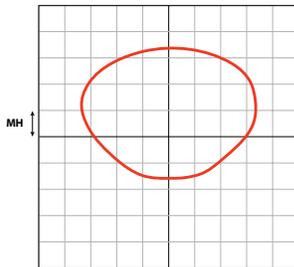
Type 2R



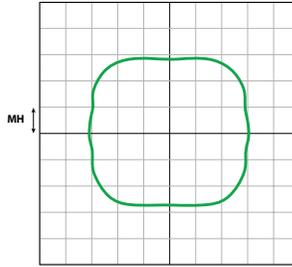
Type 3F



Type 3R



Type 4



Type 5



**Job Name:**  
Walker Roundabout  
Architect: No Architect  
Controls: No Controls

**Catalog Number:**  
DS32-750A236-6S-GV-AB-NC-HH-  
PC FINISH=GALVANIZED  
Notes:

**Type:**  
MHDN22-222400



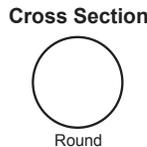
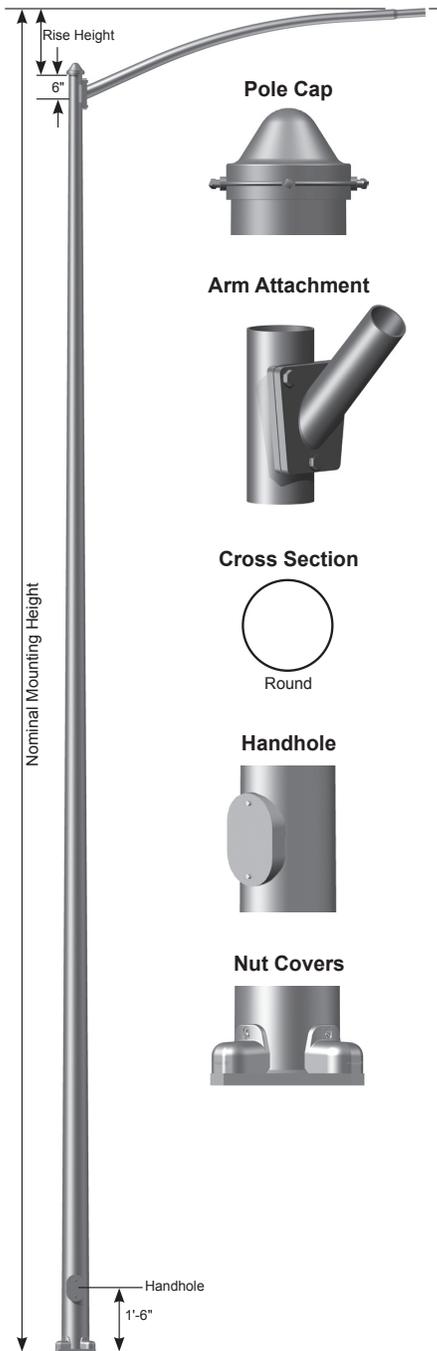
# ROUND TAPERED STEEL Smooth DS32

Pole Assembly - Steel

RTS / Smooth

DS32

Job Name: _____	Client Name: _____
Job Location - City: _____ State: _____	Created By: _____ Date: _____
Product: _____ Quote: _____	Customer Approval: _____ Date: _____



## SPECIFICATIONS

**Pole** - The pole shaft conforms to ASTM A595 Grade A with a constant linear taper of 0.14 in/ft.

**Pole Top** - A removable pole cap with hardware is provided.

**Luminaire Arm** - Luminaire arm shaft conforms to ASTM A595 Grade A with a constant linear taper of 0.14 in/ft. Double luminaire arms are oriented 180° apart. For other orientations please consult factory.

**Luminaire Arm Attachment** - The luminaire arm and pole connection plates conform to ASTM A36.

**Handhole** - A covered handhole and grounding provision with hardware is provided.

**Nut Covers** - Anchor bolt nut covers with hardware are provided.

**Full Base Cover** - Optional two-piece full base cover is fabricated from ABS plastic. Valmont reserves the right to provide an optional two-piece steel full base cover on some applications depending upon the finish requirement and/or pole base diameter.

**Anchor Base** - The anchor base (base plate) conforms to ASTM A36.

**Anchor Bolts** - Anchor bolts conform to ASTM F1554 Grade 55 and are provided with two hex nuts and two flat washers. Bolts have an "L" bend on one end and are galvanized a minimum of 12" on the threaded end.

**Hardware** - All structural fasteners are galvanized high strength carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

**Finish** - Standard finishes are galvanized, prime painted or any of Valmont's V-PRO™ Protection Systems. Additional finish options available upon request.

**Design Criteria** - Please reference Design Criteria Specification for appropriate design conditions.

## ARM DATA

ARM SPAN (FT)	RISE HEIGHT	BASE OD (IN)	END OD (IN)	WALL THK (IN)
4	0'-6"	3.00	2.40	11
6	1'-0"	3.30	2.40	11
8	1'-4"	3.60	2.40	11
10	1'-8"	3.80	2.40	11
12	2'-0"	4.10	2.40	11
15	2'-6"	4.60	2.40	11





**Job Name:**  
Walker Roundabout  
Architect: No Architect  
Controls: No Controls

**Catalog Number:**  
DS32-750A236-6S-GV-AB-NC-HH-  
PC FINISH=GALVANIZED  
Notes:

**Type:**

MHDN22-222400

Pole Assembly - Steel

RTS / Smooth

DS32

# ROUND TAPERED STEEL

## Smooth

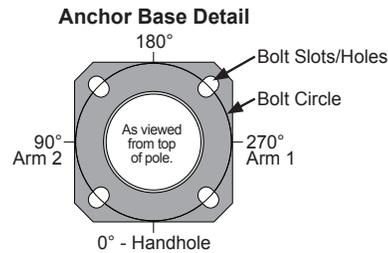
### DS32



<b>Job Name:</b> _____	<b>Client Name:</b> _____
<b>Job Location - City:</b> _____ <b>State:</b> _____	<b>Created By:</b> _____ <b>Date:</b> _____
<b>Product:</b> _____ <b>Quote:</b> _____	<b>Customer Approval:</b> _____ <b>Date:</b> _____

### ANCHORAGE DATA

POLE BASE OD (IN)	BASE PLATE				ANCHOR BOLTS		
	BOLT CIRCLE DIA (IN)	± (IN)	SQUARE (IN)	THK (IN)	DIA x LENGTH x HOOK (IN)	PROJECTION (IN)	± (IN)
7.50	10.50	0.50	11.25	0.875	1.00 x 36.00 x 4.00	4.13	0.25
8.00	11.00	0.50	11.50	0.875	1.00 x 36.00 x 4.00	4.13	0.25
8.50	11.50	0.50	12.00	1.000	1.00 x 36.00 x 4.00	4.25	0.25
9.00	12.50	0.50	12.38	1.000	1.00 x 36.00 x 4.00	4.25	0.25
9.50	13.00	0.50	13.00	1.000	1.00 x 36.00 x 4.00	4.25	0.25
10.00	13.50	0.50	14.00	1.000	1.00 x 36.00 x 4.00	4.25	0.25
10.50	14.00	0.50	14.50	1.250	1.25 x 42.00 x 6.00	5.00	0.25



### LOAD AND DIMENSIONAL DATA

NOMINAL MOUNTING HEIGHT	QUANTITY OF ARMS	MAX ARM LENGTH (FT)	DESIGN INFORMATION		POLE DIMENSIONS					MODEL NUMBER
			MAX LUMINAIRE EPA <sup>1</sup> (SQFT)	MAX LUMINAIRE WEIGHT <sup>2</sup> (LBS)	BASE OD (IN)	TOP OD (IN)	WALL THK (GA)	STRUCTURE WEIGHT <sup>2</sup> (LBS)		
25'-0"	Single	8	2.0	75	7.50	3.51	11	295	R750A286	<b>Pole factory cut to 25' mounting height</b>
30'-0"	Single	15	2.0	75	8.00	4.01	11	349	R800A286	
	Double	12	2.0	75	7.50	3.51	11	390	R750A286	
	Double	15	2.0	75	8.00	4.01	11	445	R800A286	
35'-0"	Single	8	2.0	75	8.00	3.31	11	340	R800A336	
	Single	12	2.0	75	8.50	3.81	11	395	R850A336	
	Single	15	2.0	75	9.00	4.31	11	425	R900A336	
	Double	8	2.0	75	8.00	3.31	11	395	R800A336	
	Double	12	2.0	75	8.50	3.81	11	470	R850A336	
	Double	15	2.0	75	9.00	4.31	11	515	R900A336	
40'-0"	Single	10	2.0	75	9.00	3.61	11	430	R900A386	
	Single	12	2.0	75	9.50	4.11	11	485	R950A386	
	Single	15	2.0	75	10.00	4.61	11	515	RT00A386	
	Double	10	2.0	75	9.00	3.61	11	490	R900A386	
	Double	12	2.0	75	9.50	4.11	11	560	R950A386	
45'-0"	Double	15	2.0	75	10.00	4.61	11	600	RT00A386	
	Single	10	2.0	75	9.50	3.41	11	500	R950A436	
	Single	12	2.0	75	10.00	3.91	11	560	RT00A436	
	Single	15	2.0	75	10.50	4.41	10	645	RT50B436	
	Double	10	2.0	75	9.50	3.41	11	585	R950A436	
	Double	12	2.0	75	10.00	3.91	11	645	RT00A436	
	Double	15	2.0	75	10.50	4.41	10	740	RT50B436	

- EPA represents the Effective Projected Area of each luminaire. Designs are limited to one luminaire per arm. Variations from sizes above are available upon inquiry at the factory. Satisfactory performance of poles is dependent upon the pole being properly attached to a supporting foundation of adequate design.
- Structure weight is a nominal value which includes the pole shaft, base plate and luminaire arm(s) only.
- Nominal luminaire mounting heights as charted are within ± 1'-0" depending upon the arm length selected and the respective rise height.

### PRODUCT ORDERING CODES

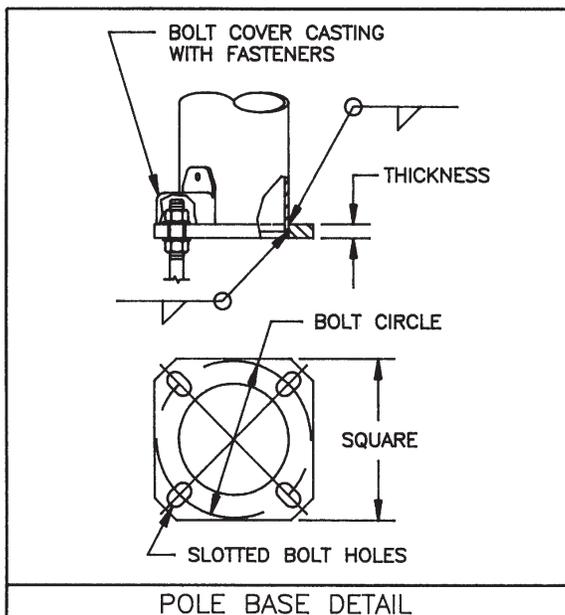
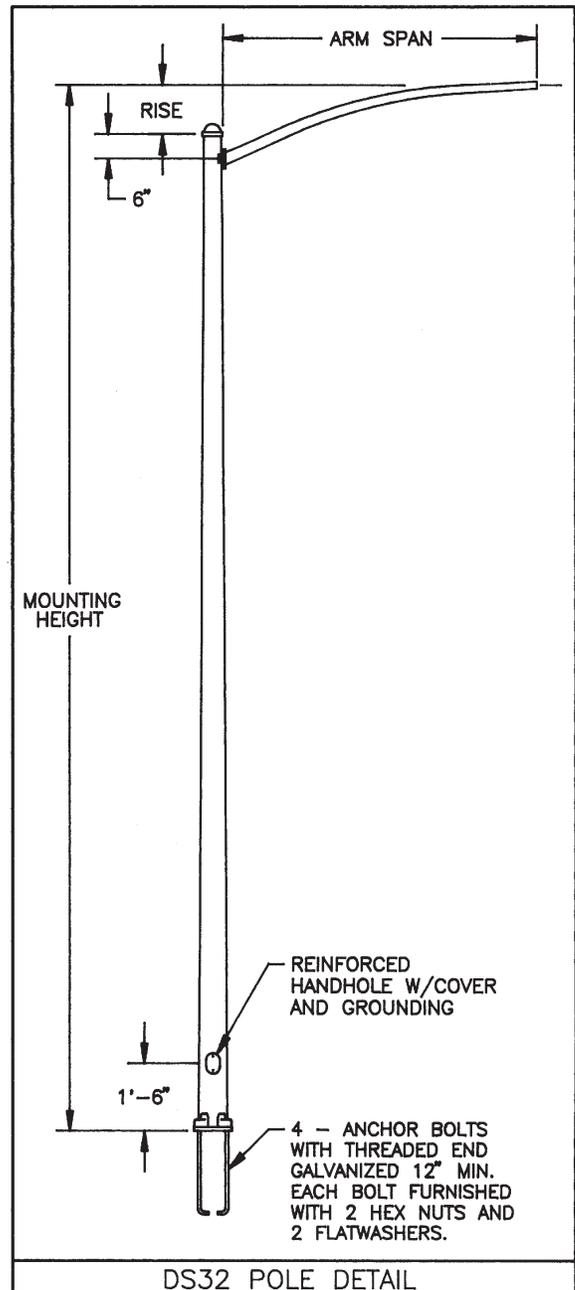
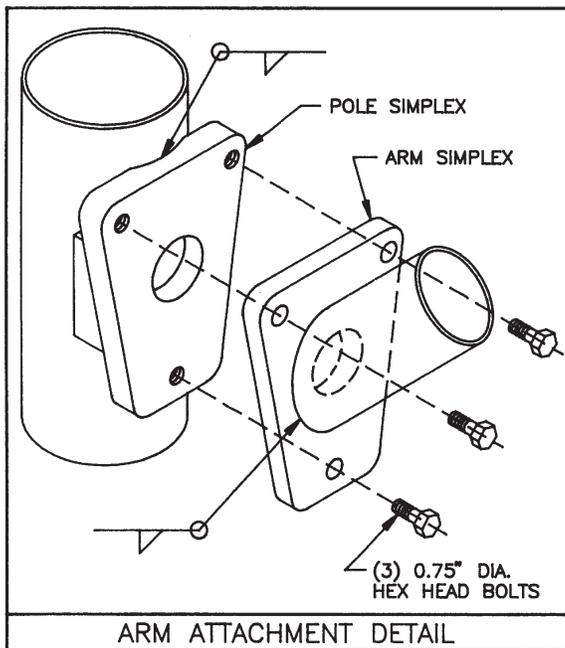
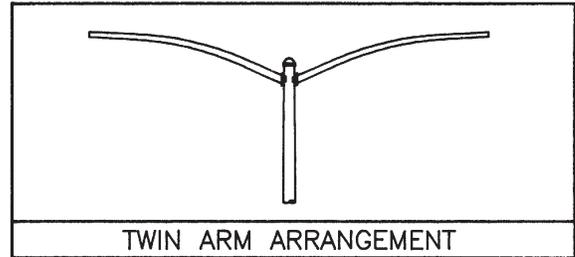
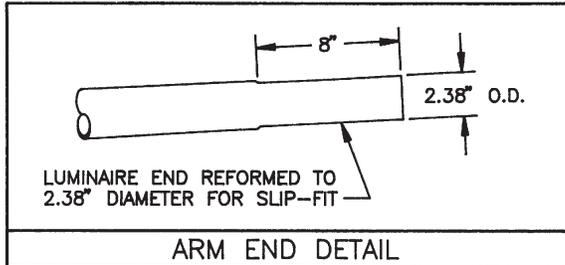
DESIGN SERIES	MODEL NUMBER	FIXTURE MOUNTING	FINISH	COLOR	V-PRO™ PROTECTION SYSTEM	OPTIONS
DS32	750A236					
	R750A286 R800A286 R800A336 R850A336 R900A336 R900A386 R950A386 RT00A386 R950A436 RT00A436 RT50B436	4S = 4' Single 4D = 4' Double <b>6S = 6' Single</b> 6D = 6' Double 8S = 8' Single 8D = 8' Double 10S = 10' Single 10D = 10' Double 12S = 12' Single 12D = 12' Double 15S = 15' Single 15D = 15' Double	<b>GV = Galvanize</b> PP = Prime Paint FP = Finish Paint GF = Galvanized + Finish Paint	-- = Galvanize -- = Prime Paint WH = White ST = Sandstone BK = Black SM = Silver Metallic SL = Silver LG = Light Gray SG = Slate Gray DT = Dark Tan MB = Medium Bronze CB = Bronze DB = Dark Bronze BN = Brown HG = Hunter Green DG = Dark Green RD = Red SC = Special Color (Contact Factory)	-- = Galvanize -- = Prime Paint V1 = V-PRO 1 Basic 1 Coat Powder. V2 = V-PRO 2 2 Coat Powder or Liquid. Includes epoxy primer & top coat. V3 = V-PRO 3 2 Coat Powder or Liquid. Includes zinc primer & top coat. V4 = V-PRO 4 2 Coat Powder or Liquid. Includes zinc primer & premium top coat.	See Accessories at <a href="http://valmontstructures.com">valmontstructures.com</a> (Please Specify) <b>AB = Anchor Bolts</b> <b>NC = Nut Covers</b> <b>HH = Hand Hole</b> <b>PC = Pole Top Cap</b>



**Job Name:**  
Walker Roundabout  
Architect: No Architect  
Controls: No Controls



DS32 Round Tapered with **Tapered Luminaire Arm**





**Job Name:**  
Walker Roundabout  
Architect: No Architect  
Controls: No Controls

**Catalog Number:**  
TB2-17 / M104

Notes:

**Type:**

MHDN22-222400



# TRANSFORMER BASE TB2-17/ M104 Aluminum

Job Name: _____	Client Name: _____
Job Location - City: _____ State: _____	Created By: _____ Date: _____
Product: _____ Quote: _____	Customer Approval: _____ Date: _____

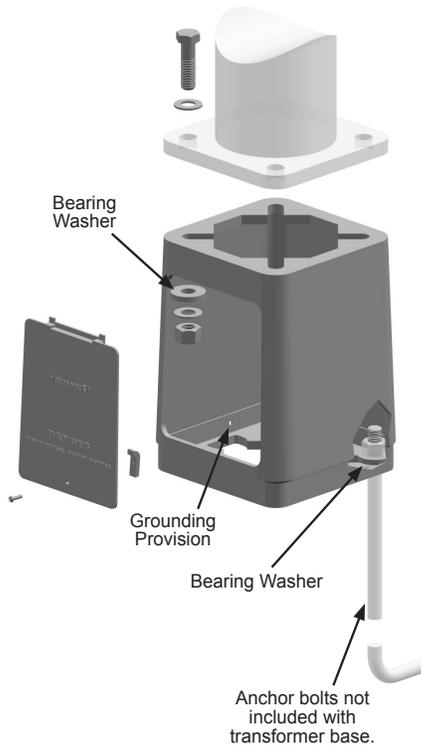
## SPECIFICATIONS

**Transformer Base** - The aluminum transformer base is accepted by the Federal Highway Administration (FHWA) as satisfying up to the LTS-6 edition of the American Association of State Highway and Transportation Officials' (AASHTO) breakaway requirements within the range of conditions tested. This base has specific loading restriction based on full scale testing performed by Valmont per the criteria set forth in the 2009 Fifth Edition of the AASHTO Standard Specification for the Supports for Highway Signs, Luminaries and Traffic Signals. Contact Valmont for loading restrictions.

**Access Door** - An aluminum access door and grounding provision is provided. The door opening is 11.00" tall, 8.50" wide at the top, and 9.00" wide at the bottom. A hinged or plastic door is available upon request.

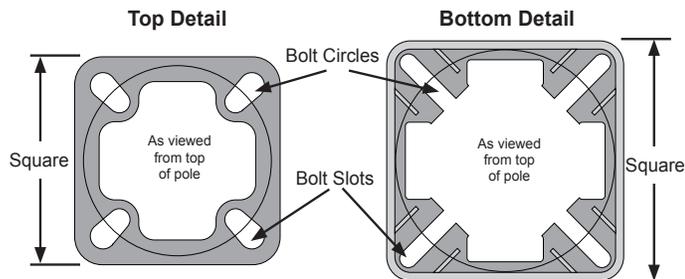
**Hardware** - Connecting bolts, flat washers, bearing washers and hex nuts are provided per base assembly. All structural fasteners are galvanized high strength carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

**Finish** - The satin finish is provided when ordering with an aluminum structure. A mill finish is provided when ordering with a steel structure. Additional finishes available upon request.



## DETAILS

TOP PLATE					BOTTOM PLATE					HEIGHT (IN)	QTY OF ACCESS DOORS	MODEL NUMBER
BOLT CIRCLE		MAX BOLT DIA (IN)	SQUARE (IN)	THK (IN)	BOLT CIRCLE		MAX BOLT DIA (IN)	SQUARE (IN)	THK (IN)			
DIA (IN)	± (IN)				DIA (IN)	± (IN)				DIA (IN)	± (IN)	
11.00	1.00	1.00	12.04	0.700	11.00	1.00	1.00	12.32	0.620	17.00	1	TB2-17



### INSTALLATION INSTRUCTIONS

1. Level transformer base with shims only. DO NOT USE LEVELING NUTS.
2. To approach optimum static loads, use the largest possible bolt circles and hardware supplied with the transformer base.

## PRODUCT ORDERING CODES

MODEL NUMBER	FINISH	COLOR	OPTIONS
TB2-17			
	-- = Satin / Mill FP = Finish Paint	-- = Satin / Mill WH = White BK = Black SM = Silver Metallic SL = Silver LG = Light Gray MB = Medium Bronze CB = Bronze DB = Dark Bronze SC = Special Color (Contact Factory)	