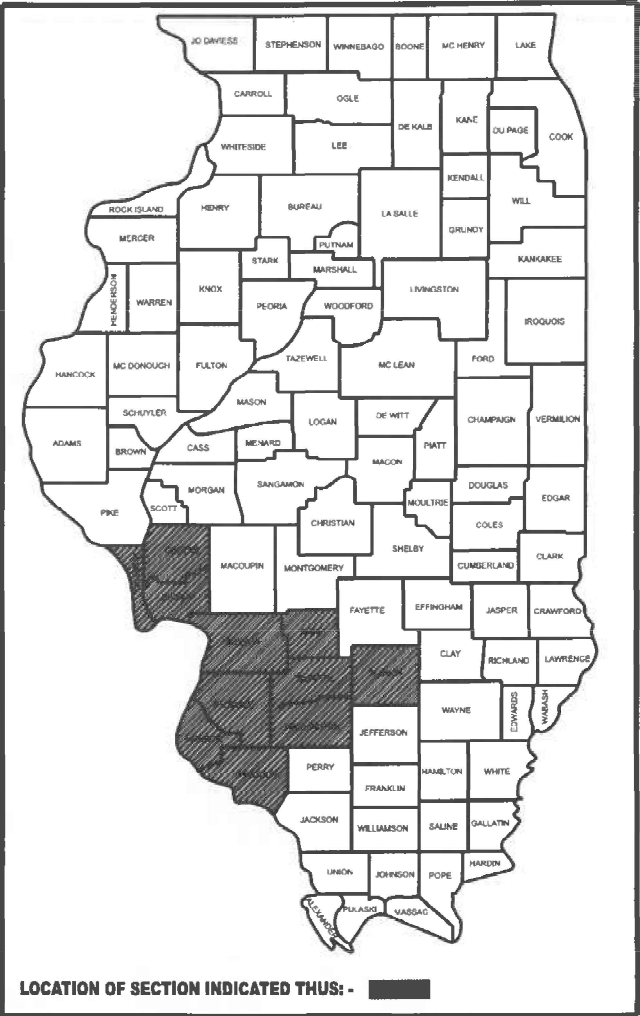


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	DIST 8 LTS 2026-1	VARIOUS	8	1
		ILLINOIS	CONTRACT NO. 76R28	

D-98-105-24



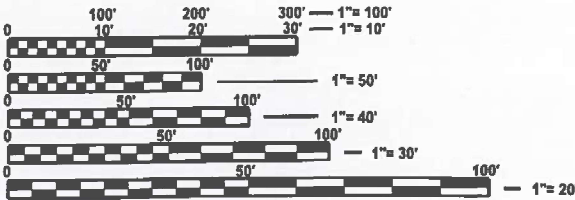
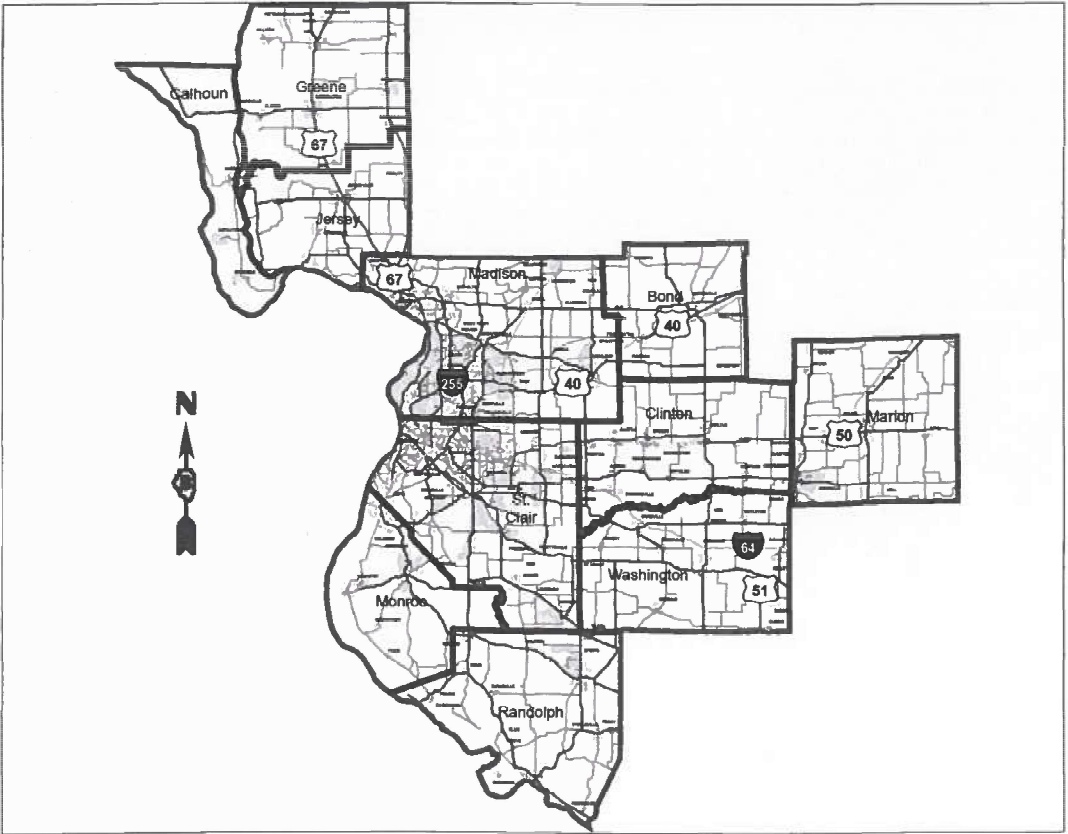
LOCATION OF SECTION INDICATED THUS: - [shaded area]

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED
HIGHWAY PLANS

VARIOUS ROUTES
SECTION: DIST 8 LTS 2026-1
HIGHWAY LIGHTING, TRAFFIC SIGNAL
REPAIR & MAINTENANCE
VARIOUS COUNTIES

C-98-193-24



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: CHERYL KEPLAR
PROJECT MANAGER: RICHARD BARBEE

CONTRACT NO. 76R28

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 18, 2025
Lora Rini, P.E. REGIONAL ENGINEER
June 27, 2025
Scott A. Etkin ENGINEER OF DESIGN AND ENVIRONMENT
June 27, 2025
Cheryl Keplar DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

MODEL: 76R28 Gen Notes [Sheet]
FILE NAME: c:\pwworking\tdaniel.hopkins@illinois.gov\1040324\0976528-shr-gen-note.dgn

INDEX OF SHEETS

- 1. COVER SHEET
- 2. INDEX SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, AND COMMITMENTS
- 3-6. SUMMARY OF QUANTITIES
- 7. LUMINAIRE PERFORMANCE TABLE
- 8. CONCRETE FOUNDATION TYPE A PED PUSH-BUTTON POST

GENERAL NOTES

- 1. THE LOCATION OF THE REPAIR AREAS SHALL BE DETERMINED BY THE ENGINEER / DEPARTMENT.
- 2. NO MATERIAL SHALL BE LEFT ON OR NEAR THE ROADWAY DURING NON-WORKING HOURS.
- 3. ANY NECESSARY TRAFFIC CONTROL WILL BE PROVIDED BY THE CONTRACTOR, APPROPRIATE STANDARDS ARE LISTED.
- 4. A FLAGGER SHALL BE REQUIRED AT ALL TIMES WHEN WORKERS OR EQUIPMENT ARE ENCROACHING ON THE LANE OF TRAFFIC.
- 5. 45 AND 55 MPH SIGNS ARE INCLUDED IN ALL INTERSTATE LANE CLOSURE TRAFFIC CONTROL AND PROTECTION. IF THE LANE CLOSURE DURATION IS LESS THAN 4 HOURS, THE 45 AND 55 MPH SIGNS ARE NOT REQUIRED.
- 6. ANY WORK ORDER MAY BE CANCELED AT THE ENGINEER'S / DEPARTMENT'S DISCRETION.
- 7. NO OVERNIGHT LANE CLOSURES WILL BE ALLOWED.

HIGHWAY STANDARDS

701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 M) AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 M) AWAY
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701206-05	LANE CLOSURE, 2L, 2W, NIGHT ONLY, FOR SPEEDS ≥ 45 MPH
701301-04	LANE CLOSURE, 2L, 2W SHORT TIME OPERATIONS
701400-12	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-13	LANE CLOSURE, FREEWAY/EXPRESSWAY
701406-13	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
701421-08	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 MPH TO 55 MPH
701422-10	LANE CLOSURE, MULTILANE, FOR SPEEDS ≥ 45 MPH TO 55 MPH
701446-11	TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
701451-05	RAMP CLOSURE FREEWAY/EXPRESSWAY
701456-05	PARTIAL EXIT RAMP CLOSURE FREEWAY/EXPRESSWAY
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701606-10	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-10	TRAFFIC CONTROL DEVICES
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUT FOR DETECTION LOOPS
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT

COMMITMENTS

NONE

REV - MS

	USER NAME = daniel.hopkins	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, AND COMMITMENTS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			VAR.	DIST 8 LTS 202 61	VARIOUS	8	2
		CHECKED -	REVISED -			CONTRACT NO. 76R28				
	PLOT DATE = 3/13/2025	DATE -	REVISED -			SCALE:	SHEET 1 OF 1 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT

MODEL: 76R28 SOC-1 (Sheet)
FILE NAME: c:\pwworking\tdaniel.hopkins@illinois.gov\1040324\0876R28-shr-SOC.dgn

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS 0021 URBAN
80300100	LOCATING UNDERGROUND CABLE	FOOT	1000	1000
82110005	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION E	EACH	5	5
82110007	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	EACH	20	20
82110008	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	40	40
82110032	LUMINAIRE, LED, SIGN LIGHTING, OUTPUT DESIGNATION E	EACH	5	5
87000240	ELECTRIC CABLE ASSEMBLY IN CONDUIT, 600V (XLP-TYPE TC) 2/C NO. 2 AND NO. 4	FOOT	500	500
87000405	ELECTRIC CABLE ASSEMBLY IN TRENCH, 600V (XLP-TYPE TC) 2/C NO. 2 AND NO. 4	FOOT	1000	1000
87000775	ELECTRIC CABLE ASSEMBLY IN CONDUIT, 600V (XLP-TYPE TC) 2/C NO. 4 AND NO. 6	FOOT	500	500
87000885	ELECTRIC CABLE ASSEMBLY IN CONDUIT, 600V (XLP-TYPE TC) 2/C NO. 6 AND NO. 8	FOOT	500	500
87005275	ELECTRIC CABLE ASSEMBLY IN TRENCH, 600V (XLP-TYPE TC) 2/C NO. 4 AND NO. 6	FOOT	1000	1000
87005385	ELECTRIC CABLE ASSEMBLY IN TRENCH, 600V (XLP-TYPE TC) 2/C NO. 6 AND NO. 8	FOOT	1000	1000
88102825	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNT DOWN TIMER	EACH	60	60
88200510	TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	30	30
88800100	PEDESTRIAN PUSH-BUTTON	EACH	100	100

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS 0021 URBAN
X0327495	JOURNEYMAN ELECTRICIAN	HOURL	1000	1000
X0327496	APPRENTICE ELECTRICIAN	HOURL	100	100
X0327497	PICK-UP TRUCK	HOURL	700	700
X0327500	ARROWBOARD (TRAILER MOUNTED)	HOURL	20	20
X0327501	ATTENUATOR, CRASH (TRUCK MOUNTED)	HOURL	500	500
X0327734	TRUCK CRANE	HOURL	500	500
X1400096	LED LAMP MODULE REPLACEMENT	EACH	300	300
X7010218	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	EACH	29	29
X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	100	100
X8760201	PEDESTRIAN PUSH-BUTTON POST	EACH	50	50
X8860400	DETECTOR LOOP (SPECIAL)	FOOT	5000	5000
XP000015	DIGGER DERRICK	HOURL	100	100
XP000028	LABOR	HOURL	100	100
XP000029	BUCKET TRUCK/VAN FOR TRAFFIC SIGNALS	HOURL	700	700

	USER NAME = daniel.hopkins	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -						VAR.	DIST 8 LTS 2026-1	VARIOUS	8	3
		CHECKED -	REVISED -						CONTRACT NO. 76R28				
	PLOT DATE = 11/21/2024	DATE -	REVISED -		SCALE:	SHEET 1	OF 4	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

MODEL: 76R28 SOC-2 (Sheet)
FILE NAME: c:\pwworking\tdaniel.hopkins@illinois.gov\1040324\B876R28-shr-SOC.dgn

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS 0021 URBAN
XP000030	BUCKET TRUCK FOR HIGHWAY LIGHTING	HOURL	700	700
XP000031	POLE TRAILER	HOURL	100	100
XP000032	FLATBED TRAILER	HOURL	100	100
XP000101	ATQ 5A FUSE 200	EACH	200	200
XP000102	FNQ 5A FUSE	EACH	200	200
XP000104	FNM 10A FUSE	EACH	5	5
XP000105	FRNR 60A FUSE	EACH	5	5
XP000106	BUCHANAN FUSEHOLDER KIT	EACH	50	50
XP000115	150W HPS LAMP	EACH	5	5
XP000116	250W HPS LAMP	EACH	100	100
XP000118	400W HPS LAMP	EACH	350	350
XP000119	150W 240/480V BALLAST KIT	EACH	5	5
XP000120	250W 240/480V BALLAST KIT	EACH	100	100
XP000122	400W 240/480V BALLAST KIT	EACH	150	150

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS 0021 URBAN
XP000123	SD-100 BU STARTER	EACH	5	5
XP000124	SURGE ARRESTOR (EDCO MODEL SHA-XXX3) X=20/240/480 VOLTS	EACH	20	20
XP000125	PHOTO CONTROL, 105V-285V (ALR-MODEL SSTPV-ON)	EACH	20	20
XP000126	#12 XLPE 1/C COPPER WIRE	FEET	500	500
XP000127	#8 XLP-TYPE USE 1/C COPPER WIRE	FEET	500	500
XP000128	#6 XLP-TYPE USE 1/C COPPER WIRE	FEET	10000	10000
XP000129	60A LIGHTING CONTACTOR	EACH	5	5
XP000130	100A LIGHTING CONTACTOR	EACH	5	5
XP000132	50A CIRCUIT BREAKER, 1P	EACH	5	5
XP000135	50A CIRCUIT BREAKER, 2P	EACH	5	5
XP000137	150A CIRCUIT BREAKER, 2P	EACH	5	5
XP000138	200A CIRCUIT BREAKER, 2P	EACH	5	5
XP000139	BREAKAWAY COUPLING, 1"	EACH	5	5
XP000140	1/4" X 1/4" STAINLESS STEEL MESH	SQ FT	10	10

USER NAME = daniel.hopkins	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 11/21/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET 2 OF 4 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	DIST 8 LTS 2026-1	VARIOUS	8	4
CONTRACT NO. 76R28				
ILLINOIS FED. AID PROJECT				

MODEL: 76R28 SOC-3 (Sheet)
FILE NAME: c:\pwworking\daniel.hopkins@illinois.gov\d1040324\0876R28-shr-SOC.dgn

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS
				0021 URBAN
XP000141	ALUMINUM SIGNAL BASE, SQUARE (PELCO)	EACH	100	100
XP000142	ALUMINUM SIGNAL POST, 13', SCH 80 (PELCO)	EACH	5	5
XP000145	MAST ARM BRACKET, 3 SECTION (PELCO AB 11 6)	EACH	5	5
XP000146	MAST ARM BRACKET, 4 SECTION (PELCO AB 11 6)	EACH	5	5
XP000147	MAST ARM BRACKET, 5 SECTION (PELCO AB 11 6)	EACH	5	5
XP000161	LAMP, QUARTZ HALOGEN, 43W @, 10.8V (GE OR EQUIVALENT)	EACH	50	50
XP000164	SIGNAL HEAD, POLYCARBONATE, LED, 1-SECTION, 12", R OR Y (ECONOLITE OR MCCAIN)	EACH	5	5
XP000165	SIGNAL HEAD, POLYCARBONATE, LED, 3-SECTION, 12", (ECONOLITE OR MCCAIN)	EACH	120	120
XP000166	SIGNAL HEAD, POLYCARBONATE, LED, 4-SECTION, 12", (ECONOLITE OR MCCAIN)	EACH	50	50
XP000167	SIGNAL HEAD, POLYCARBONATE, LED, 5-SECTION, 12", (ECONOLITE OR MCCAIN)	EACH	50	50
XP000168	PEDESTRIAN HEAD, POLYCARBONATE, LED, 2-SECTION, 12", (ECONOLITE OR MCCAIN)	EACH	40	40
XP000170	ELECTRIC CABLE, 2/C, #14, TW, SH	FEET	3000	3000
XP000171	ELECTRIC CABLE, 3 PR, #18, TW, SH	FEET	10	10
XP000172	ELECTRIC CABLE, 5 PR, #18, TW, SH	FEET	10	10

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS
				0021 URBAN
XP000173	ELECTRIC CABLE, 6 PR, #18, TW, SH	FEET	10	10
XP000174	ELECTRIC CABLE, 2/C, #14	FEET	3000	3000
XP000175	ELECTRIC CABLE, 3/C, #14	FEET	3000	3000
XP000176	ELECTRIC CABLE, 5/C, #14	FEET	3000	3000
XP000177	ELECTRIC CABLE, 7/C, #14	FEET	3000	3000
XP000179	GROUND ROD, 8', COPPER CLAD	EACH	5	5
XP000180	SPLICE KIT (3-M SCOTCHCAST #72-N1)	EACH	10	10
XP000181	LOOP SEALANT (BONDO P606)	GALLON	30	30
XP000186	J BOX NEMA, 4X SS, 6"X8"X4", W/ ALUMINUM BACKPLATE & LOCK KIT	EACH	5	5
XP000187	HANDHOLE, FRAME & COVER (NEENAH R-6660- JP)	EACH	5	5
XP000188	HANDHOLE, COVER ONLY (NEENAH R-6660-JP)	EACH	20	20
XP000191	SIGN, ILLUMINATED, FIBEROPTIC-TYPE, 24"X30" "NO LEFT/RIGHT TURN" OR "LT TURN YIELD"	EACH	5	5
XP000192	SIGN, ILLUMINATED, FIBEROPTIC-TYPE, 24"X30" SYMBOLIC "NO LEFT/RIGHT TURN"	EACH	5	5
XP000193	MONITOR, NEMA CONFLICT, 12 CHANNEL (EDI SSM-12E)	EACH	5	5

	USER NAME = daniel.hopkins	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
	PLOT DATE = 11/21/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	DIST 8 LTS 2026-1	VARIOUS	8	5
CONTRACT NO. 76R28				
ILLINOIS FED. AID PROJECT				

MODEL: 76R28 SOO-4 (Sheet)
FILE NAME: c:\pwworking\daniel.hopkins@illinois.gov\1040324\B876R28-shr-SOO.dgn

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS 0021 URBAN
XP000194	RELAY, FLASH TRANSFER, (MIDTEX 136-62T3A1)	EACH	5	5
XP000195	DETECTOR, NEMA DIGITAL, 1-CH, SHELF MOUNT (DETECTOR SYSTEMS OR RENO)	EACH	5	5
XP000196	DETECTOR, NEMA DIGITAL, 2-CH, RACK MOUNT (DETECTOR SYSTEMS OR RENO)	EACH	20	20
XP000197	DETECTOR, POWER SUPPLY, RACK MOUNT (DETECTOR SYSTEMS OR RENO)	EACH	5	5
XP000198	CABINET, SIGNAL CONTROLLER, ALUM., TYPE IV, W/MONITOR & ALL PLUG-INS, COMPLETE (ECONOLITE)	EACH	5	5
XP000199	FLASHER, NEMA	EACH	20	20
XP000200	LOAD SWITCH, NEMA	EACH	40	40
XP000203	COLD GALVANIZING, SPRAY CAN	EACH	5	5
XP000205	ALUMINUM LIGHT POLE MAST ARM, 15', TRUSS STYLE	EACH	40	40
XP000207	ALUMINUM LIGHT POLE, 45', COMPLETE, RD, W/ TENON TOP, W/T BASE, 17" B.C., DK. BRONZE POWDER COAT	EACH	5	5
XP000209	UPPER AND LOWER ARM ASSEMBLY, UNPAINTED ALUMINUM	EACH	120	120
XP000210	FLASHER CONTROLLER CABINET ASSEMBLY, NEMA (PELCO SE-1005 OR EQUIVALENT)	EACH	5	5
XP000300	TRAFFIC SIGNAL RELAMPING	EACH	5	5
XP000301	TRAFFIC SIGNAL LAMP REPLACEMENT	EACH	5	5

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS 0021 URBAN
XP000302	FLASHING BEACON INSPECTION	EACH	5	5
XP000303	LOWER LIGHTING INSPECTION	EACH	5	5
XP000304	REPLACE SERVICE INSTALLATION, COMPLETE	EACH	5	5
XP000307	REPAIR TRAFFIC SIGNAL KNOCKDOWN	EACH	120	120
XP000308	REPAIR FLASHING BEACON KNOCKDOWN	EACH	40	40
XP000309	REPAIR HIGHWAY LIGHT POLE KNOCKDOWN	EACH	100	100
XP000310	REPLACE HIGHWAY LIGHT POLE BREAKAWAY DEVICE, COUPLINGS	EACH	5	5
XP000311	REPLACE HIGHWAY LIGHT POLE BREAKAWAY DEVICE, TRANSFORMER BASE	EACH	40	40
XP000312	REPLACE TRAFFIC SIGNAL POST BASE ASSEMBLY	EACH	40	40

USER NAME = daniel.hopkins	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 11/21/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET 4 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	DIST 8 LTS 2026-1	VARIOUS	8	6
CONTRACT NO. 76R28				
ILLINOIS FED. AID PROJECT				



Luminaire Performance Table

Project

Date

Contract Number

Section Number

County

03/03/25

N/A

N/A

Marked Route Number

Municipality

Various

Various

Roadway

Lane Width (see note 4)

Number and Direction of lanes

Median Width

Surface Classification

Q-Zero Value

12

2 lanes in 1 Direction Only

N/A

R3

0.07

Structure

Mounting Height

Arm Length

Set-Back (see note 1)

Number of Luminaires

16 ft

0 ft

20 ft

N/A

Luminaire

Description

Transverse Distribution

Lateral Distribution

Replacement For 150W Underpass

Type III

Medium

Total Light Loss Factor (LLF)

B-U-G Rating

Shields

Dimming Protocol

Refer to Notes 6 and 7

U=0

N/A

0-10V

Layout

Spacing

Configuration

60 ft

Single Sided

Performance (see notes 5 and 6)

Average Illuminance, E_{avg} (fc)

Uniformity Ratio, E_{min}/E_{max}

N/A

N/A

Average Luminance, L_{avg} (cd/m²)

Uniformity Ratio, L_{min}/L_{max}

Uniformity Ratio, L_{low}/L_{high}

Veiling Luminance Ratio, L_v/L_{avg}

0.6 to 0.9

less than or equal to 3.5:1

less than or equal to 6.0:1

less than or equal to 0.3:1

Light Trespass (see notes 5 and 7)

Distance to ROW (behind pole)

Max. Horizontal Illuminance at ROW, E_H

Max. Vertical Illuminance at ROW, E_V

N/A

N/A

N/A

Printed 03/03/25

BDE 5630 (Rev. 06/06/24)



Luminaire Performance Table

Project

Date

Contract Number

Section Number

County

03/03/25

N/A

N/A

Marked Route Number

Municipality

Various

Various

Roadway

Lane Width (see note 4)

Number and Direction of lanes

Median Width

Surface Classification

Q-Zero Value

12

3

N/A

R3

0.07

Structure

Mounting Height

Arm Length

Set-Back (see note 1)

Number of Luminaires

45 ft

15 ft

15 ft

N/A

Luminaire

Description

Transverse Distribution

Lateral Distribution

Replacement for 250W Horizontal Mount

Type III

Medium

Total Light Loss Factor (LLF)

B-U-G Rating

Shields

Dimming Protocol

Refer to Notes 6 and 7

U=0

N/A

0-10V

Layout

Spacing

Configuration

160 ft

Single Sided

Performance (see notes 5 and 6)

Average Illuminance, E_{avg} (fc)

Uniformity Ratio, E_{min}/E_{max}

0.9 to 1.4

less than or equal to 3.0:1

Average Luminance, L_{avg} (cd/m²)

Uniformity Ratio, L_{min}/L_{max}

Uniformity Ratio, L_{low}/L_{high}

Veiling Luminance Ratio, L_v/L_{avg}

0.6 to 0.9

less than or equal to 3.5:1

less than or equal to 6.0:1

less than or equal to 0.3:1

Light Trespass (see notes 5 and 7)

Distance to ROW (behind pole)

Max. Horizontal Illuminance at ROW, E_H

Max. Vertical Illuminance at ROW, E_V

N/A

N/A

N/A

Printed 03/03/25

BDE 5630 (Rev. 06/06/24)



Luminaire Performance Table

Project

Date

Contract Number

Section Number

County

03/03/25

N/A

N/A

Marked Route Number

Municipality

Various

Various

Roadway

Lane Width (see note 4)

Number and Direction of lanes

Median Width

Surface Classification

Q-Zero Value

12

3

N/A

R3

0.07

Structure

Mounting Height

Arm Length

Set-Back (see note 1)

Number of Luminaires

45 ft

1 ft

30 ft

N/A

Luminaire

Description

Transverse Distribution

Lateral Distribution

Replacement for 250W Multi-Mount

Type III

Medium

Total Light Loss Factor (LLF)

B-U-G Rating

Shields

Dimming Protocol

Refer to Notes 6 and 7

U=0

N/A

0-10V

Layout

Spacing

Configuration

145 ft

Single Sided

Performance (see notes 5 and 6)

Average Illuminance, E_{avg} (fc)

Uniformity Ratio, E_{min}/E_{max}

0.9 to 1.4

less than or equal to 3.0:1

Average Luminance, L_{avg} (cd/m²)

Uniformity Ratio, L_{min}/L_{max}

Uniformity Ratio, L_{low}/L_{high}

Veiling Luminance Ratio, L_v/L_{avg}

0.6 to 0.9

less than or equal to 3.5:1

less than or equal to 6.0:1

less than or equal to 0.3:1

Light Trespass (see notes 5 and 7)

Distance to ROW (behind pole)

Max. Horizontal Illuminance at ROW, E_H

Max. Vertical Illuminance at ROW, E_V

N/A

N/A

N/A

Printed 03/03/25

BDE 5630 (Rev. 06/06/24)



Luminaire Performance Table

Project

Date

Contract Number

Section Number

County

03/03/25

N/A

N/A

Marked Route Number

Municipality

Various

Various

Roadway

Lane Width (see note 4)

Number and Direction of lanes

Median Width

Surface Classification

Q-Zero Value

12

4

N/A

R3

0.07

Structure

Mounting Height

Arm Length

Set-Back (see note 1)

Number of Luminaires

45 ft

15 ft

15 ft

N/A

Luminaire

Description

Transverse Distribution

Lateral Distribution

Replacement for 400W Horizontal Mount

Type III

Medium

Total Light Loss Factor (LLF)

B-U-G Rating

Shields

Dimming Protocol

Refer to Notes 6 and 7

U=0

N/A

0-10V

Layout

Spacing

Configuration

240 ft

Single Sided

Performance (see notes 5 and 6)

Average Illuminance, E_{avg} (fc)

Uniformity Ratio, E_{min}/E_{max}

0.9 to 1.4

less than or equal to 3.0:1

Average Luminance, L_{avg} (cd/m²)

Uniformity Ratio, L_{min}/L_{max}

Uniformity Ratio, L_{low}/L_{high}

Veiling Luminance Ratio, L_v/L_{avg}

0.6 to 0.9

less than or equal to 3.5

less than or equal to 6.0:1

less than or equal to 0.3:1

Light Trespass (see notes 5 and 7)

Distance to ROW (behind pole)

Max. Horizontal Illuminance at ROW, E_H

Max. Vertical Illuminance at ROW, E_V

N/A

N/A

N/A

- Notes
1. Set-Back is from Edge of Pavement (white line).

2. Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.

3. Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

4. Lane width is the width of each individual lane, not to be confused with total roadway width.

5. Compliance with performance criteria shall be held to one significant digit.

6. Photometric calculations for roadways shall be performed with a total light loss factor of 0.7

7. Light trespass calculations shall be performed with a total light loss factor of 1.0 and with horizontal calculations performed at grade and vertical calculations performed with calculation points located three feet above grade.

8. Luminaire performance table is intended to define the luminaire and does not necessarily match any specific roadway geometry, mounting height, setback, or arm length.

Printed 03/03/25

BDE 5630 (Rev. 06/06/24)



Luminaire Performance Table

Project

Date

Contract Number

Section Number

County

03/03/25

N/A

N/A

Marked Route Number

Municipality

Various

Various

Roadway

Lane Width (see note 4)

Number and Direction of lanes

Median Width

Surface Classification

Q-Zero Value

12

4

N/A

R3

0.07

Structure

Mounting Height

Arm Length

Set-Back (see note 1)

Number of Luminaires

45 ft

1 ft

30 ft

N/A

Luminaire

Description

Transverse Distribution

Lateral Distribution

Replacement for 400W Multi-Mount

Type III

Medium

Total Light Loss Factor (LLF)

B-U-G Rating

Shields

Dimming Protocol

Refer to Notes 6 and 7

U=0

N/A

0-10V

Layout

Spacing

Configuration

155 ft

Single Sided

Performance (see notes 5 and 6)

Average Illuminance, E_{avg} (fc)

Uniformity Ratio, E_{min}/E_{max}

0.9 to 1.4

less than or equal to 3.0:1

Average Luminance, L_{avg} (cd/m²)

Uniformity Ratio, L_{min}/L_{max}

Uniformity Ratio, L_{low}/L_{high}

Veiling Luminance Ratio, L_v/L_{avg}

0.6 to 0.9

less than or equal to 3.5:1

less than or equal to 6.0:1

less than or equal to 0.3:1

Light Trespass (see notes 5 and 7)

Distance to ROW (behind pole)

Max. Horizontal Illuminance at ROW, E_H

Max. Vertical Illuminance at ROW, E_V

N/A

N/A

N/A

- Notes
1. Set-Back is from Edge of Pavement (white line).

2. Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.

3. Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

4. Lane width is the width of each individual lane, not to be confused with total roadway width.

5. Compliance with performance criteria shall be held to one significant digit.

6. Photometric calculations for roadways shall be performed with a total light loss factor of 0.7

7. Light trespass calculations shall be performed with a total light loss factor of 1.0 and with horizontal calculations performed at grade and vertical calculations performed with calculation points located three feet above grade.

8. Luminaire performance table is intended to define the luminaire and does not necessarily match any specific roadway geometry, mounting height, setback, or arm length.

Printed 03/03/25

BDE 5630 (Rev. 06/06/24)

MODEL - LUMINAIRE PERFORMANCE TABLE (Sheet)
FILE NAME - c:\pwworking\daniel.hopkins\gov\1040324\0876R28-sh-electrical.dgn

	USER NAME = daniel.hopkins	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
PLOT DATE = 3/12/2025		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LUMINAIRE PERFORMANCE TABLE

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	DIST 8 LTS 2026-1	VARIOUS	8	7
CONTRACT NO. 76R28				
ILLINOIS FED. AID PROJECT				

