06-13-2025 LETTING ITEM 085

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D5 LIGHTING REPAIRS 2026-1	VARIOUS	7	1
	ILLINOIS	CONTRACT NO. 70H64		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

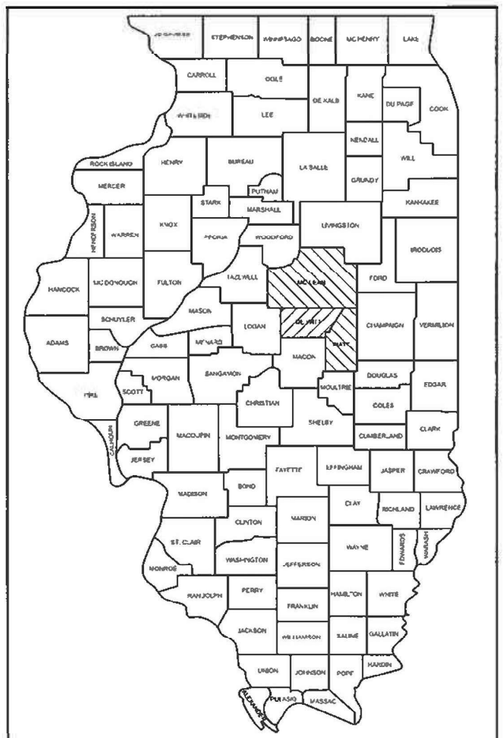
VARIOUS ROUTES
SECTION D5 LIGHTING REPAIRS 2026-1
LIGHTING
VARIOUS COUNTIES

C-95-007-26

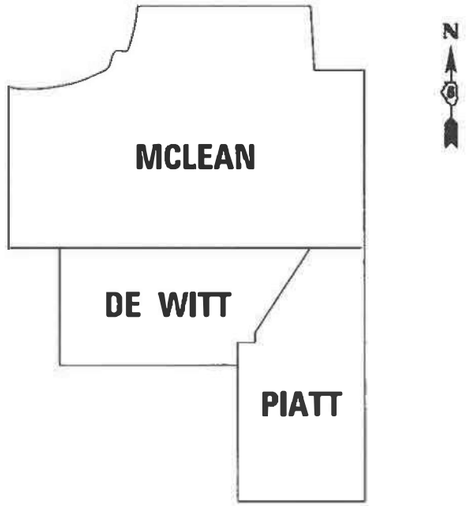
WEST FIELD AREA LIGHTING REPAIRS

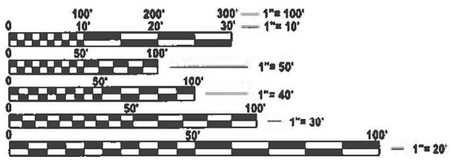
FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3-4

D-95-017-25



LOCATION OF SECTION INDICATED THUS: ▪ ▬





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: RYAN CARROLL
SQUAD LEADER: CLARE DIETZ
DESIGNER: TIANYI SUN, JERRY YOUNG
PHONE NUMBER: (217)465-4181

CONTRACT NO. 70H64

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED 3/14 20 25
Kevin A Burnett PE
REGIONAL ENGINEER
May 9 20 25
ENGINEER OF DESIGN AND ENVIRONMENT
May 9 20 25
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REV. 4/23/25

INDEX OF SHEETS

GENERAL NOTES

G.N.-100A

ELECTRONIC FILES AND/OR ELECTRONIC SURVEY INFORMATION INCLUDING CADD FILES WILL NOT BE AVAILABLE TO THE CONTRACTOR.

COMMITMENTS

THERE ARE NO COMMITMENTS FOR THIS PROJECT.

HIGHWAY STANDARDS

STANDARD NO	DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
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-RD OPERATIONS, MULTILANE, 15' (4.5m) TO 24" (600 mm) FROM PAVEMENT EDGE
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701400-12	APPROACH TO 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
701428-01	TRAFFIC CONTROL, SETUP AND REMOVAL, FREEWAY/EXPRESSWAY
701456-05	PARTIAL EXIT RAMP CLOSURE FREEWAY/EXPRESSWAY
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701502-09	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701602-10	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE URBAN
701606-10	SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-10	TRAFFIC CONTROL DEVICES
821101-03	LUMINAIRE WIRING IN POLE
830006-05	LIGHT POLE ALUMINUM DAVIT ARM
830021-04	LIGHT POLE STEEL TENON TOP
836001-05	LIGHT POLE FOUNDATION
838001-01	BREAKAWAY DEVICES
701206-05	LANE CLOSURE, 2L, 2W, NIGHT ONLY, FOR SPEEDS >/= 45 MPH
701306-04	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS >/= 45 MPH
701401-13	LANE CLOSURE, FREEWAY/EXPRESSWAY
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS >/= 45 MPH
701422-10	LANE CLOSURE, MULTILANE, FOR SPEEDS >/= 45 MPH TO 55 MPH
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS >/= 45 MPH
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS </= 40 MPH

MODEL: Gennote [Sheet]
FILE NAME: c:\pw_work\pwidot\illinois_gov_tianyi.sun@illinois.gov\d1088328\D5\70H64_GENNOTE.dgn

USER NAME = Tianyi.Sun	DESIGNED -	REVISED -	
	DRAWN - Tianyi Sun	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/12/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, HIGHWAY STANDARDS & GENERAL NOTES

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

F.A. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
VAR.	D5 LIGHTING REPAIRS 2026-1	VARIOUS	5	2
		CONTRACT NO. 70H64		
	ILLINOIS FED. AID PROJECT			

REV. 5/28/25 REV. 4/23/25 REV. 4/17/25

SUMMARY OF QUANTITIES

LOCATION OF WORK:	VARIOUS ROUTES	VARIOUS ROUTES	VARIOUS ROUTES
FUNDING BREAKOUT:	VARIOUS COUNTIES 100% MCHD	VARIOUS COUNTIES 100% STATE CM	VARIOUS COUNTIES 100% STATE ITS
CONSTRUCTION TYPE CODE:	0021	0021	0021

	CODE NO.		ITEM	UNIT	TOTAL QUANTITY	ROADWAY QUANTITY	ROADWAY QUANTITY	CITY QUANTITY
	82110005		LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION E	EACH	5.00	1.00	3.00	1.00
	82110007		LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	EACH	11.00	3.00	7.00	1.00
	82110008		LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	10.00	3.00	6.00	1.00
	82110015		LUMINAIRE, LED, HIGHMAST, OUTPUT DESIGNATION H	EACH	70.00	20.00	44.00	6.00
	83003600		LIGHT POLE, ALUMINUM, 45 FT. M.H., 15 FT. DAVIT ARM	EACH	9.00	1.00	7.00	1.00
	83060830		LIGHT POLE, GALVANIZED STEEL, 45 FT. M.H., TENON MOUNT	EACH	4.00	1.00	3.00	
	X1400365		ELECTRICIAN HELPER	HOUR	750.00	227.00	457.00	66.00
	XP000001		JOURNEYMAN ELECTRICIAN	HOUR	850.00	260.00	505.00	85.00
	XP000009		PICK-UP TRUCK	HOUR	750.00	227.00	457.00	66.00
	XP000012		ARROWBOARD (TRAILER MOUNTED)	HOUR	16.00	5.00	10.00	1.00
	XP000013		ATTENUATOR, CRASH (TRUCK MOUNTED)	HOUR	300.00	97.00	168.00	35.00
	XP000015		DIGGER DERRICK	HOUR	10.00	3.00	6.00	1.00
	XP000029		BUCKET TRUCK/VAN FOR TRAFFIC SIGNALS	HOUR	55.00	17.00	32.00	6.00

* DENOTES SPECIALTY ITEM

MODEL: SOQ [Sheet]
FILE NAME: c:\pw_work\pwidot\illinois.gov_tianyi.sun@illinois.gov\d1088328\D570H64_SOQ.dgn

USER NAME = Tianyi.Sun	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - Tianyi Sun	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/13/2025	DATE -	REVISED -	

SUMMARY OF QUANTITIES

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 LIGHTING REPAIRS 2026-1	VARIOUS	5	3
		CONTRACT NO. 70H64		
	ILLINOIS FED. AID PROJECT			

REV. 4/23/25

SUMMARY OF QUANTITIES

LOCATION OF WORK:	VARIOUS ROUTES	VARIOUS ROUTES	VARIOUS ROUTES
	VARIOUS COUNTIES	VARIOUS COUNTIES	VARIOUS COUNTIES
FUNDING BREAKOUT:	100% MCHD	100% STATE CM	100% STATE ITS
CONSTRUCTION TYPE CODE:	0021	0021	0021

	CODE NO.		ITEM	UNIT	TOTAL QUANTITY	ROADWAY QUANTITY	ROADWAY QUANTITY	CITY QUANTITY
	XP000030		BUCKET TRUCK FOR HIGHWAY LIGHTING	HOUR	165.00	50.00	95.00	20.00
	XP000310		REPLACE HIGHWAY LIGHT POLE BREAKAWAY DEVICE, COUPLINGS	EACH	11.00	3.00	6.00	2.00
	XP000311		REPLACE HIGHWAY LIGHT POLE BREAKAWAY DEVICE, TRANSFORMER BASE	EACH	11.00	3.00	6.00	2.00

* DENOTES SPECIALTY ITEM

MODEL: SOQ-1 [Sheet]
FILE NAME: c:\pw_work\pwidot\illinois.gov_tianyi.sun@illinois.gov\d1088328\D570H64_SOQ.dgn

USER NAME = Tianyi.Sun	DESIGNED -	REVISED -	
	DRAWN - Tianyi Sun	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/13/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 LIGHTING REPAIRS 2026-1	VARIOUS	5	4
		CONTRACT NO. 70H64		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation

Luminaire Performance Table

Project

Date	Contract Number	Section Numbe	County
03/03/25	N/A	N/A	Various

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 ft	2 lanes in 1 Direction Only	N/A	R3	0.07

Structure

Mounting Height	Arm Length	Set-Back (see note 1)	Number of Luminaries
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_{AVG}/E_{MIN}
N/A	N/A

Average Luminance, L_{AVG} (cd/m²)	Uniformity Ratio, L_{AVG}/L_{MIN}	Uniformity Ratio, L_{MAX}/L_{MIN}	Veiling Luminance Ratio, L_v/L_{AVG}
0.6 to 0.9	≤ 3.5:1	≤ 6.0:1	≤ 0.3:1

Light Tresspass (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 04/22/25

BDE 5630 (Rev. 06/06/24)

DATE	REVISIONS
1/16/21	NEW DETAIL
6/8/23	REMOVED TYPE II OPTION
3/3/25	UPDATED TABLES

LUMINAIRE REPLACEMENT TABLE - 150W UNDERPASS

MODEL: LUMINAIRE PERFORMANCE TABLE [Sheet]
FILE NAME: pw://dot-pw.bentley.com:PWIDOT/Documents/IDOT Offices/District 8/ORD Projects/D876852/CADData/CADsheets/D876852 details.dgn

USER NAME = Tianyi,Sun	DESIGNED -	REVISED -	
	DRAWN - Tianyi Sun	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/4/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LUMINAIRE PERFORMANCE TABLE

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D5 LIGHTING REPAIRS 2026-1	VARIOUS	7	5
		CONTRACT NO. 70H64		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation

Luminaire Performance Table

Project

Date	Contract Number	Section Number	County
03/03/25	N/A	N/A	Various

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 ft	3 lanes in 1 direction only	N/A	R3	0.07

Structure

Mounting Height	Arm Length	Set-Back (see note 1)	Number of Luminaries
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_{AVG}/E_{MIN}
0.9 to 1.4	≤ 3.0:1

Average Luminance, L_{AVG} (cd/m²)	Uniformity Ratio, L_{AVG}/L_{MIN}	Uniformity Ratio, L_{MAX}/L_{MIN}	Veiling Luminance Ratio, L_v/L_{AVG}
0.6 to 0.9	≤ 3.5:1	≤ 6.0:1	≤ 0.3:1

Light Tresspass (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 04/22/25

BDE 5630 (Rev. 06/06/24)

Illinois Department of Transportation

Luminaire Performance Table

Project

Date	Contract Number	Section Number	County
03/03/25	N/A	N/A	Various

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 ft	3 lanes in 1 direction only	N/A	R3	0.07

Structure

Mounting Height	Arm Length	Set-Back (see note 1)	Number of Luminaries
45 ft	1 ft	30 ft	N/A

Luminaire

Description	Transverse Distribution	Lateral Distribution
Replacement for 250W Multi-Mount	Type III	Medium

Total Ligh 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_{AVG}/E_{MIN}
0.9 to 1.4	≤ 3.0:1

Average Luminance, L_{AVG} (cd/m²)	Uniformity Ratio, L_{AVG}/L_{MIN}	Uniformity Ratio, L_{MAX}/L_{MIN}	Veiling Luminance Ratio, L_v/L_{AVG}
0.6 to 0.9	≤ 3.5:1	≤ 6.0:1	≤ 0.3:1

Light Tresspass (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 0.1.
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.

All luminaires shall be permanently mounted horizontally, knuckle slip fitters that can be tilted are not permitted.

Printed 04/12/25

BDE 5630 (Rev. 06/06/24)

DATE	REVISIONS
1/16/21	NEW DETAIL
6/8/23	REMOVED TYPE II OPTION
3/3/25	UPDATED TABLES

LUMINAIRE REPLACEMENT TABLE - 250W

MODEL: LUMINAIRE PERFORMANCE TABLE [Sheet]
FILE NAME: pw://ildot-pw.bentley.com:PWIDOT/Documents/IDOT Offices/District 8/ORD Projects/D876R52/CADData/CADSheets/D876R52 details.dgn

USER NAME = Tianyi,Sun	DESIGNED -	REVISED -	
	DRAWN - Tianyi Sun	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/4/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LUMINAIRE PERFORMANCE TABLE

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D5 LIGHTING REPAIRS 2026-1	VARIOUS	7	5 A
		CONTRACT NO. 70H64		
	ILLINOIS FED. AID PROJECT			

REV. 4/23/25

Illinois Department of Transportation — Luminaire Performance Table

Project

Date	Contract Number	Section Number	County
03/03/25	N/A	N/A	Various

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 ft	4 lanes in 1 direction only	N/A	R3	0.07

Structure

Mounting Height	Arm Length	Set-Back (see note 1)	Number of Luminaries
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_{AVG}/E_{MIN}
0.9 to 1.4	≤ 3.0:1

Average Luminance, L_{AVG} (cd/m²)	Uniformity Ratio, L_{AVG}/L_{MIN}	Uniformity Ratio, L_{MAX}/L_{MIN}	Veiling Luminance Ratio, L_V/L_{AVG}
0.6 to 0.9	≤ 3.5:1	≤ 6.0:1	≤ 0.3:1

Light Tresspass (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 calcuation 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 04/22/25 — BDE 5630 (Rev. 06/06/24)

Illinois Department of Transportation — Luminaire Performance Table

Project

Date	Contract Number	Section Number	County
03/03/25	N/A	N/A	Various

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 ft	4 lanes in 1 direction only	N/A	R3	0.07

Structure

Mounting Height	Arm Length	Set-Back (see note 1)	Number of Luminaries
45 ft	1 ft	30 ft	N/A

Luminaire

Description	Transverse Distribution	Lateral Distribution
Replacement for 400W Multi-Mount	Type III	Medium

Total Ligh 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_{AVG}/E_{MIN}
0.9 to 1.4	≤ 3.0:1

Average Luminance, L_{AVG} (cd/m²)	Uniformity Ratio, L_{AVG}/L_{MIN}	Uniformity Ratio, L_{MAX}/L_{MIN}	Veiling Luminance Ratio, L_V/L_{AVG}
0.6 to 0.9	≤ 3.5:1	≤ 6.0:1	≤ 0.3:1

Light Tresspass (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.

All luminaires shall be permanently mounted horizontally, knuckle slip fitters that can be tilted are not permitted.

Printed 04/22/25 — BDE 5630 (Rev. 06/06/24)

DATE	REVISIONS
1/16/21	NEW DETAIL
6/8/23	REMOVED TYPE II OPTION
3/3/25	UPDATED TABLES

LUMINAIRE REPLACEMENT TABLE - 400W

USER NAME = Tianyi,Sun	DESIGNED -	REVISED -	
	DRAWN - Tianyi Sun	REVISED -	
	CHECKED -	REVISED -	
PLOT DATE = 3/4/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LUMINAIRE PERFORMANCE TABLE

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D5 LIGHTING REPAIRS 2026-1	VARIOUS	7	5B
		CONTRACT NO. 70H64		
	ILLINOIS FED. AID PROJECT			

MODEL: LUMINAIRE PERFORMANCE TABLE [Sheet]
FILE NAME: pw://idot-pw.bentley.com:PWIDOT/Documents/IDOT Offices/District 8/ORD Projects/D876H52/CADData/CADsheets/D876H52 details.dgn

REV. 4/23/25