

120

04-24-2020 LETTING ITEM 120

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A. RATE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 L TS 2021-1	VARIOUS	7	1
		ILLINOIS	CONTRACT NO. 76M60	

* 7 + 1 = 8 TOTAL SHEETS

D-98-074-19

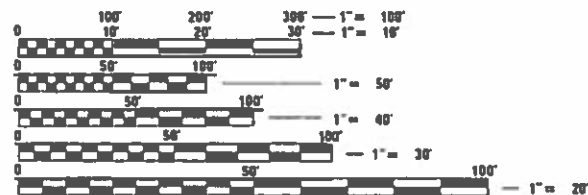
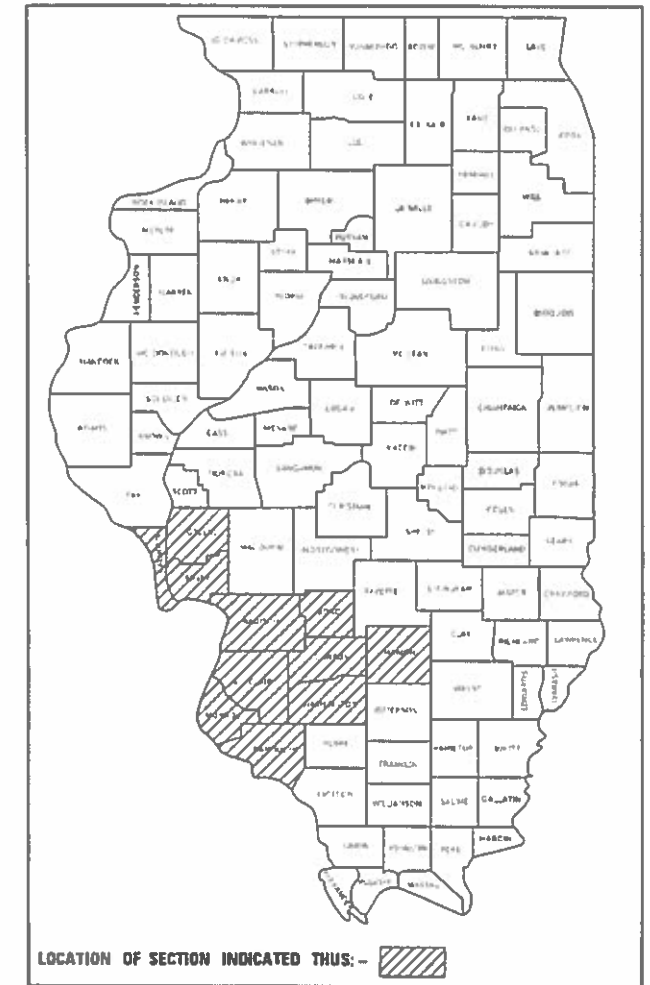
INDEX OF SHEETS:

- 1 COVER SHEET
- 2 HIGHWAY STANDARDS AND GENERAL NOTES
- 3-7 SUMMARY OF QUANTITIES
- 7A LUMINAIRE PERFORMANCE TABLES

PROPOSED HIGHWAY PLANS

VARIOUS ROUTES
SECTION DIST 8 L TS 2021-1
HIGHWAY LIGHTING, TRAFFIC SIGNAL
REPAIR & MAINTENANCE
VARIOUS COUNTIES

C-98-093-19



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 EXCAVATORS
1-800-892-0123
OR 811

PROJECT ENGINEER: HERVE GELIN (618)346-3175
PROJECT MANAGER: MICHAEL PRESTON (618)346-3143

CONTRACT NO. 76M60

NOTE: WORK CAN BE LOCATED WITHIN ANY OF THE ABOVE NOTED COUNTIES WITHIN DISTRICT 8/REGION 5.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED *Jan 14 20 20*
[Signature]
REGIONAL ENGINEER

March 20 20 20
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

March 20 20 20
[Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION 13

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

HIGHWAY STANDARDS

701001-02	701400-09	701456-05
701006-05	701401-12	701601-09
701101-05	701406-12	701606-10
701106-02	701421-08	701701-10
701201-05	701422-10	701901-08
701206-05	701446-10	886001-01
701301-04	701451-05	886006-01
		821101-02
		838001-01

1. THE LOCATIONS 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. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE TO BE GIVEN TO UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. (PHONE 800 892-0123 OR 811) OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY.
5. A FLAGGER SHALL BE REQUIRED AT ALL TIMES WHEN WORKERS OR EQUIPMENT ARE ENCROACHING ON THE LANE OF TRAFFIC.
6. 45 AND 55 MPH SIGNS ARE INCLUDED IN ALL INTERSTATE LANE CLOSURES. IF THE LANE CLOSURE DURATION IS LESS THAN 4 HOURS, THE 45 AND 55 MPH SIGNS ARE NOT REQUIRED.
7. ANY WORK ORDER MAY BE CANCELED AT THE ENGINEER'S/DEPARTMENT'S DISCRETION.
8. NO OVERNIGHT LANE CLOSURES WILL BE ALLOWED.

REV. - MS

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	DRAWN -	REVISED -			VAR	DIST 8 L TS 2021-1	VARIOUS	7	2	
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -			CONTRACT NO. 76M60					
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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 100% STATE 0021
* X0327495	JOURNEYMAN ELECTRICIAN	HOUR	4905	4905
* X0327496	APPRENTICE ELECTRICIAN	HOUR	11	11
* X0327497	PICK-UP TRUCK	HOUR	195	195
* X0327500	ARROWBOARD (TRAILER MOUNTED)	HOUR	62	62
* X0327501	ATTENUATOR, CRASH (TRUCK MOUNTED)	HOUR	1100	1100
* X0327734	TRUCK CRANE	HOUR	5	5
* X1400096	LED LAMP MODULE REPLACEMENT	EACH	300	300
* X7010218	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	EACH	28	28
* X8860400	DETECTOR LOOP, SPECIAL	FOOT	5040	5040
XP000015	DIGGER DERRICK	HOUR	130	130
XP000028	LABOR	HOUR	94	94
XP000029	BUCKET TRUCK/VAN FOR TRAFFIC SIGNALS	HOUR	644	644
XP000030	BUCKET TRUCK FOR HIGHWAY LIGHTING	HOUR	1246	1246
XP000031	POLE TRAILER	HOUR	60	60

* REQUIRES SPECIAL PROVISION

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 100% STATE 0021
XP000032	FLATBED TRAILER	HOUR	16	16
XP000034	GENERATOR SET	HOUR	44	44
XP000035	PUMP, ELECTRIC, SUBMERSIBLE	HOUR	5	5
XP000036	PUMP, GAS, 2" OR LESS	HOUR	5	5
XP000101	ATQ 5A FUSE 200	EACH	1	1
XP000102	FNQ 5A FUSE	EACH	654	654
XP000103	KTQ 5A FUSE	EACH	1	1
XP000104	FNM 10A FUSE	EACH	1	1
XP000105	FRNR 60A FUSE	EACH	2	2
XP000106	BUCHANAN FUSEHOLDER KIT	EACH	53	53
82110005	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION E	EACH	1	1
82110007	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	EACH	11	11
82110015	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	28	28

REV. - MS

USER NAME = prestonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DRAWN -	REVISD -			VAR	DIST 8 L TS 2021-1	VARIOUS	7	3				
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -						CONTRACT NO. 76M60				
PLOT DATE = 1/13/2020	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				100% STATE 0021
XPO00139	BREAKAWAY COUPLING, 1"	EACH	25	25
XPO00140	1/4" X 1/4" STAINLESS STEEL MESH	SQ FT	2	2
XPO00141	ALUMINUM SIGNAL BASE, SQUARE (PELCO)	EACH	80	80
XPO00142	ALUMINUM SIGNAL POST, 13', SCH 80 (PELCO)	EACH	3	3
XPO00143	LOUVER, 12", 5 VANE, 0 DEGREE CUT-OFF	EACH	1	1
XPO00144	LOUVER, GEOMETRICALLY PROGRAMMABLE, 12" (PELCO)	EACH	2	2
XPO00145	MAST ARM BRACKET, 3 SECTION (PELCO AB 11 6)	EACH	7	7
XPO00146	MAST ARM BRACKET, 4 SECTION (PELCO AB 116)	EACH	2	2
XPO00147	MAST ARM BRACKET, 5 SECTION (PELCO AB 116)	EACH	8	8
XPO00148	HORIZONTAL TERMINAL, ALUMINUM (PELCO)	EACH	1	1
XPO00161	LAMP, QUARTZ HALOGEN, 43W @, 10.8V (GE OR EQUIVALENT)	EACH	41	41
XPO00164	SIGNAL HEAD, POLYCARBONATE, LED, 1-SECTION, 12", R OR Y (ECONOLITE OR MCCAIN)	EACH	6	6
XPO00165	SIGNAL HEAD, POLYCARBONATE, LED, 3-SECTION, 12", (ECONOLITE OR MCCAIN)	EACH	70	70
XPO00166	SIGNAL HEAD, POLYCARBONATE, LED, 4-SECTION, 12", (ECONOLITE OR MCCAIN)	EACH	3	3

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				100% STATE 0021
XPO00167	SIGNAL HEAD, POLYCARBONATE, LED, 5-SECTION, 12", (ECONOLITE OR MCCAIN)	EACH	12	12
XPO00168	PEDESTRIAN HEAD, POLYCARBONATE, LED, 2-SECTION, 12", (ECONOLITE OR MCCAIN)	EACH	17	17
XPO00169	LAMP, LED LAMP	EACH	400	400
XPO00170	ELECTRIC CABLE, 2/C, #14, TW, SH	FEET	3221	3221
XPO00171	ELECTRIC CABLE, 3 PR, #18, TW, SH	FEET	10	10
XPO00172	ELECTRIC CABLE, 5 PR, #18, TW, SH	FEET	10	10
XPO00173	ELECTRIC CABLE, 6 PR, #18, TW, SH	FEET	2191	2191
XPO00174	ELECTRIC CABLE, 2/C, #14	FEET	1242	1242
XPO00175	ELECTRIC CABLE, 3/C, #14	FEET	988	988
XPO00176	ELECTRIC CABLE, 5/C, #14	FEET	4515	4515
XPO00177	ELECTRIC CABLE, 7/C, #14	FEET	1964	1964
XPO00178	GROUND WIRE, #10	FEET	10	10
XPO00179	GROUND ROD, 8', COPPER CLAD	EACH	1	1
XPO00180	SPLICE KIT (3-M SCOTCHCAST #72-N1)	EACH	10	10

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PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 1/13/2020	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DIST 8 L TS 2021-1	VARIOUS	7	5
			CONTRACT NO. 76M60	
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				100% STATE 0021
XP000181	LOOP SEALANT (BONDO P606)	GALLON	1	1
XP000183	BACKPLATE, ABS PLASTIC, 3-SECTION (PELCO)	EACH	50	50
XP000184	BACKPLATE, ABS PLASTIC, 4-SECTION (PELCO)	EACH	10	10
XP000185	BACKPLATE, ABS PLASTIC, 5-SECTION (PELCO)	EACH	18	18
XP000186	J BOX, NEMA, 4X, SS, 6"X8"X4", W/ ALUMINUM BACKPLATE & LOC	EACH	1	1
XP000187	HANDHOLE, FRAME & COVER (NEENAH R-6660-JP)	EACH	1	1
XP000188	HANDHOLE, COVER ONLY (NEENAH R-6660-JP)	EACH	10	10
XP000189	GULFBOX, JUNCTION	EACH	1	1
XP000190	TERMINAL FACILITY, COMPLETE	EACH	1	1
XP000191	SIGN, ILLUMINATED, FIBEROPTIC-TYPE, 24"X30" "NO LEFT/RIGHT TURN" OR "LT TURN YIELD"	EACH	1	1
XP000192	SIGN, ILLUMINATED, FIBEROPTIC-TYPE, 24"X30" "NO LEFT/RIGHT TURN" OR "LT TURN YIELD"	EACH	1	1
XP000193	MONITOR, NEMA CONFLICT, 12 CHANNEL (EDI SSM-12E)	EACH	1	1
XP000194	RELAY, FLASH TRANSFER, (MIDTEX 136-62T3A1)	EACH	1	1
XP000195	DETECTOR, NEMA DIGITAL, 1-CH, SHELF MOUNT (DETECTOR SYSTEMS OR RENO)	EACH	1	1

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				100% STATE 0021
XP000196	DETECTOR, NEMA DIGITAL, 2-CH, RACK MOUNT (DETECTOR SYSTEMS OR RENO)	EACH	1	1
XP000197	DETECTOR, POWER SUPPLY, RACK MOUNT (DETECTOR SYSTEMS OR RENO)	EACH	1	1
XP000198	CABINET, SIGNAL CONTROLLER, ALUM., TYPE IV, W/MONITOR & ALL PLUG-INS, COMPLETE (ECONOLITE)	EACH	1	1
XP000199	FLASHER, NEMA	EACH	5	5
XP000200	LOAD SWITCH, NEMA	EACH	22	22
XP000201	CONTROLLER, SIGNAL, (ECONOLITE ASC/2S-2100)	EACH	1	1
XP000202	MONITOR INTERSECTION (ECONOLITE MONITOR II)	EACH	1	1
XP000203	COLD GALVANIZING, SPRAY CAN	EACH	1	1
XP000204	ALUMINUM LIGHT POLE, 45', COMPLETE, ROUND, W 15' TRUSS STYLE ARM, W/TRANSFORMER BASE, 17" B.C.	EACH	1	1
XP000205	ALUMINUM LIGHT POLE MAST ARM, 15', TRUSS STYLE	EACH	8	8
XP000206	ALUMINUM TRANSFORMER BASE, 13" UPPER BOLT CIRCLE 17" LOWER BOLT CIRCLE	EACH	1	1
XP000207	ALUMINUM LIGHT POLE, 45', COMPLETE, RD, W/ TENON TOP, W/T BASE, 17" B.C., DK. BRONZE POWDER COAT	EACH	1	1
XP000208	ALUMINUM TRANSFORMER BASE, 15" UPPER BOLT CIRCLE 17" LOWER BOLT CIRCLE, DK. BRONZE POWDER COAT	EACH	22	22
XP000209	UPPER AND LOWER ARM ASSEMBLY, UNPAINTED ALUMINUM	EACH	103	103

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PLOT DATE = 1/13/2020	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
SCALE:	SHEET	OF	SHEETS
	STA.		TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DIST 8 L TS 2021-1	VARIOUS	7	6
			CONTRACT NO. 76M60	
ILLINOIS FED. AID PROJECT				

				CONSTRUCTION CODE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	100% STATE 0021
XP000210	FLASHER CONTROLLER CABINET ASSEMBLY, NEMA (PELCO SE-1005 OR EQUIVALENT)	EACH	1	1
XP000300	TRAFFIC SIGNAL RELAMPING	EACH	1	1
XP000301	TRAFFIC SIGNAL LAMP REPLACEMENT	EACH	325	325
XP000302	FLASHING BEACON INSPECTION	EACH	1	1
XP000303	TOWER LIGHTING INSPECTION	EACH	1	1
XP000304	REPLACE SERVICE INSTALLATION, COMPLETE	EACH	1	1
XP000307	REPAIR TRAFFIC SIGNAL KNOCKDOWN	EACH	67	67
XP000308	REPAIR FLASHING BEACON KNOCKDOWN	EACH	6	6
XP000309	REPAIR HIGHWAY LIGHT POLE KNOCKDOWN	EACH	31	31
XP000310	REPLACE HIGHWAY LIGHT POLE BREAKAWAY DEVICE, COUPLING	EACH	1	1
XP000311	REPLACE HIGHWAY LIGHT POLE BREAKAWAYDEVICE, TRANSFORMER BASE	EACH	1	1
XP000312	REPLACE TRAFFIC SIGNAL POST BASE ASSEMBLY	EACH	3	3

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PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 1/13/2020	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 L TS 2021-1	VARIOUS	7	7
			CONTRACT NO. 76M60	
		ILLINOIS	FED. AID PROJECT	

ILLINOIS DEPARTMENT OF TRANSPORTATION
LUMINAIRE PERFORMANCE TABLE
LED replacement for 250W HPS Horizontal Mount luminaire

GIVEN CONDITIONS		
ROADWAY DATA	Lane Width	12 ft
	Number of Lanes (in One Direction Only)	3
	Median Width	0 ft
	I.E.S. Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA	Mounting Height	45 ft
	Luminaire Overhang From Edge of Pavement (White Line)	0 ft
	Luminaire Type	LED
LUMINAIRE DATA	I.E.S. Vertical Distribution	Medium
	BUG Rating	U = 0
	I.E.S. Lateral Distribution	Type II or III
	Total Light Loss Factor	0.684
LAYOUT DATA	Spacing	160 ft
	Configuration	One Sided

NOTES:
1. Total light loss factor is the product of "Lumen Depreciation" (LLD) = 0.90, "Dirt Depreciation" (LDF) = 0.80, and "Equipment factors" (EF) = 0.95.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINANCE	Average Illuminance, E_{AVE}	0.9 fc to 1.4 fc
	Uniformity Ratio, E_{AVE}/E_{MIN}	$\leq 3.0:1$
LUMINANCE	Average Luminance, L_{AVE}	0.6 cd/m ² to 0.9 cd/m ²
	Uniformity Ratio, L_{AVE}/L_{MIN}	$\leq 3.5:1$
	Uniformity Ratio, L_{MAX}/L_{MIN}	$\leq 6.0:1$
	Max. Veiling Luminance Ratio, L_v/L_{AVE}	$\leq 0.3:1$

ILLINOIS DEPARTMENT OF TRANSPORTATION
LUMINAIRE PERFORMANCE TABLE
LED replacement for 400W HPS Horizontal Mount luminaire

GIVEN CONDITIONS		
ROADWAY DATA	Lane Width	12 ft
	Number of Lanes (in One direction Only)	4
	Median Width	0 ft
	I.E.S. Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA	Mounting Height	45 ft
	Luminaire Overhang From Edge of Pavement (White Line)	0 ft
	Luminaire Type	LED
LUMINAIRE DATA	I.E.S. Vertical Distribution	Medium
	BUG Rating	U = 0
	I.E.S. Lateral Distribution	Type II or III
	Total Light Loss Factor	0.684
LAYOUT DATA	Spacing	240 ft
	Configuration	One Sided

NOTES:
1. Total light loss factor is the product of "Lumen Depreciation" (LLD) = 0.90, "Dirt Depreciation" (LDF) = 0.80, and "Equipment factors" (EF) = 0.95.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINANCE	Average Illuminance, E_{AVE}	0.9 fc to 1.4 fc
	Uniformity Ratio, E_{AVE}/E_{MIN}	$\leq 3.0:1$
LUMINANCE	Average Luminance, L_{AVE}	0.6 cd/m ² to 0.9 cd/m ²
	Uniformity Ratio, L_{AVE}/L_{MIN}	$\leq 3.5:1$
	Uniformity Ratio, L_{MAX}/L_{MIN}	$\leq 6.0:1$
	Max. Veiling Luminance Ratio, L_v/L_{AVE}	$\leq 0.3:1$

ILLINOIS DEPARTMENT OF TRANSPORTATION
LUMINAIRE PERFORMANCE TABLE
LED Replacement for 250W HPS Multi-Mount Luminaire (replacement luminaire shall be mounted horizontally)

GIVEN CONDITIONS		
ROADWAY DATA	Lane Width	12 ft
	Number of Lanes (One Direction Only)	3
	Median Width	0 ft
	I.E.S. Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA	Mounting Height	45 ft
	Luminaire Overhang From Edge of Pavement (White Line)	-30 ft
	Luminaire Type	LED
LUMINAIRE DATA	I.E.S. Vertical Distribution	Medium
	BUG Rating	U = 0
	I.E.S. Lateral Distribution	Type III or IV
	Total Light Loss Factor	0.684
LAYOUT DATA	Spacing	145 ft
	Configuration	One Sided

NOTES:
1. Total light loss factor is the product of "Lumen Depreciation" (LLD) = 0.90, "Dirt Depreciation" (LDF) = 0.80, and "Equipment factors" (EF) = 0.95.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINANCE	Average Illuminance, E_{AVE}	0.9 fc to 1.4 fc
	Uniformity Ratio, E_{AVE}/E_{MIN}	$\leq 3.0:1$
LUMINANCE	Average Luminance, L_{AVE}	0.6 cd/m ² to 0.9 cd/m ²
	Uniformity Ratio, L_{AVE}/L_{MIN}	$\leq 3.5:1$
	Uniformity Ratio, L_{MAX}/L_{MIN}	$\leq 6.0:1$
	Max. Veiling Luminance Ratio, L_v/L_{AVE}	$\leq 0.3:1$

ILLINOIS DEPARTMENT OF TRANSPORTATION
LUMINAIRE PERFORMANCE TABLE
LED Replacement for 400W HPS Multi-Mount Luminaire (replacement luminaire shall be mounted horizontally)

GIVEN CONDITIONS		
ROADWAY DATA	Lane Width	12 ft
	Number of Lanes (in One Direction Only)	4
	Median Width	0 ft
	I.E.S. Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA	Mounting Height	45 ft
	Luminaire Overhang From Edge of Pavement (White Line)	-30 ft
	Luminaire Type	LED
LUMINAIRE DATA	I.E.S. Vertical Distribution	Medium
	BUG Rating	U = 0
	I.E.S. Lateral Distribution	Type III or IV
	Total Light Loss Factor	0.684
LAYOUT DATA	Spacing	155 ft
	Configuration	One Sided

NOTES:
1. Total light loss factor is the product of "Lumen Depreciation" (LLD) = 0.90, "Dirt Depreciation" (LDF) = 0.80, and "Equipment factors" (EF) = 0.95.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINANCE	Average Illuminance, E_{AVE}	0.9 fc to 1.4 fc
	Uniformity Ratio, E_{AVE}/E_{MIN}	$\leq 3.0:1$
LUMINANCE	Average Luminance, L_{AVE}	0.6 cd/m ² to 0.9 cd/m ²
	Uniformity Ratio, L_{AVE}/L_{MIN}	$\leq 3.5:1$
	Uniformity Ratio, L_{MAX}/L_{MIN}	$\leq 6.0:1$
	Max. Veiling Luminance Ratio, L_v/L_{AVE}	$\leq 0.3:1$

ILLINOIS DEPARTMENT OF TRANSPORTATION
LUMINAIRE PERFORMANCE TABLE
LED Replacement for 150W HPS Underpass Luminaire

GIVEN CONDITIONS		
ROADWAY DATA	Lane Width	12 ft
	Number of Lanes (in One Direction Only)	2
	Median Width	0 ft
	I.E.S. Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA	Mounting Height	16 ft
	Luminaire Overhang From Edge of Pavement (White Line)	-20 ft
	Luminaire Type	LED
LUMINAIRE DATA	I.E.S. Vertical Distribution	Medium
	BUG Rating	U = 0
	I.E.S. Lateral Distribution	Type III or IV
	Total Light Loss Factor	0.684
LAYOUT DATA	Spacing	60 ft
	Configuration	One Sided

NOTES:
1. Total light loss factor is the product of "Lumen Depreciation" (LLD) = 0.90, "Dirt Depreciation" (LDF) = 0.80, and "Equipment factors" (EF) = 0.95.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

LUMINANCE	Average Luminance, L_{AVE}	0.6 cd/m ² to 0.9 cd/m ²
	Uniformity Ratio, L_{AVE}/L_{MIN}	$\leq 3.5:1$
LUMINANCE	Uniformity Ratio, L_{MAX}/L_{MIN}	$\leq 6.0:1$
	Max. Veiling Luminance Ratio, L_v/L_{AVE}	$\leq 0.3:1$

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USER NAME = prestonme	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/13/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LUMINAIRE PERFORMANCE
TABLES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DIST 8 L TS 2021-1	VARIOUS	7	7A
			CONTRACT NO. 76M60	
ILLINOIS FED. AID PROJECT				

REV. - MS