

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	••	SANGAMON	363	186
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 72088				

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 400W LUMINAIRE PERFORMANCE TABLE (STAGGERED)

1/1/03

GIVEN CONDITIONS

<b>ROADWAY DATA:</b>	Pavement Width	<u>24</u>
	Number Of Lanes	<u>2</u>
	Median Width	<u>41</u>
	IES Surface Classification	<u>R3</u>
	Q-Zero Value	<u>.07</u>
<b>LIGHT POLE DATA:</b>	Mounting Height	<u>50</u>
	Mast Arm Length	<u>15</u>
	Pole Set-Back From Edge Of Pavement	<u>7</u>
<b>LUMINAIRE DATA:</b>	Lamp Type	<u>HPS</u>
	Lamp Lumens	<u>50,000</u>
	IES Vertical Distribution	<u>M</u>
	IES Control Of Distribution	<u>FC</u>
	IES Lateral Distribution	<u>3</u>
	Total Light Loss Factor	<u>0.684</u>
<b>LAYOUT DATA:</b>	Spacing	<u>240</u>
	Configuration	<u>Staggered</u>
	Luminaire Overhang Over Edge Of Pavement Lane	<u>8</u>

NOTE: Variations from the above specified IES distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

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

<b>ILLUMINATION:</b>	Average Horizontal Illumination, ( $E_{Ave}$ )	<u>1.3 fc</u>
	Uniformity Ratio, ( $E_{Ave}/E_{Min}$ )	<u>3.0</u>
<b>LUMINANCE:</b>	Average Luminance: ( $L_{Ave}$ )	<u>0.9 cd/m<sup>2</sup></u>
	Uniformity Ratios: ( $L_{Ave}/L_{Min}$ )	<u>3.0</u>
	( $L_{Max}/L_{Min}$ )	<u>5.0</u>
	Maximum Veiling Luminance Ratio: ( $L_v/L_{Ave}$ )	<u>0.30</u>

LIGHTING GENERAL NOTES

- ALL PROPOSED LIGHTING UNITS SHALL BE LABELED ACCORDING TO THE STANDARD SPECIFICATIONS, WITH POLE NUMBERS ATTACHED WITH STAINLESS STEEL BANDING. LIGHTING UNIT NUMBERING SHALL BE AS DIRECTED BY THE ENGINEER.
- CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ELECTRICAL WORK WITH OTHER TRADES.
- THE PROPOSED LIGHT POLES SHALL BE INSTALLED, AS NOTED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. LIGHT POLE FOUNDATIONS SHALL BE INSTALLED PLUMB AND FLUSH WITH THE PROPOSED GRADE AND SHALL MEET THE HEIGHT REQUIREMENTS OF ARTICLE 836.03 OF THE STANDARD SPECIFICATIONS. AFTER UNIT DUCT IS INSTALLED, FOUNDATIONS SHALL BE FILLED WITH FINE AGGREGATE ACCORDING TO ARTICLE 836.03. A STAINLESS STEEL SCREEN SHALL BE INSTALLED TO SEAL THE OPENING BELOW THE POLE BASE FROM RODENT ENTRY.
- THE PROPOSED LIGHT POLES SHALL BE POWDER COAT PAINTED BLACK.
- CONTRACTOR SHALL INSTALL LIGHT POLES AT THE LOCATIONS INDICATED ON THE PLANS, MAINTAINING ADEQUATE CLEARANCE FROM OVERHEAD UTILITY LINES. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY CLEARANCES PER THE NATIONAL ELECTRICAL SAFETY CODE AND/OR THE REQUIREMENTS OF THE UTILITY COMPANIES. THE LOCATION OF BURIED AND ABOVE GROUND UTILITIES SHOWN ARE APPROXIMATE AND ARE SHOWN FOR INFORMATION ONLY. REROUTING, DISCONNECTION, RELOCATION, PROTECTION ETC., OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THE COST OF THIS WORK IS TO BE INCLUDED WITH THE "TRENCH AND BACKFILL FOR ELECTRICAL WORK" PAY ITEM.
- ALL EXISTING LIGHT POLES SHALL OPERATE FROM DUSK TO DAWN DAILY FOR THE DURATION OF THIS PROJECT. SPECIFIC LIGHT POLES SHALL BE REMOVED OR RELOCATED PER THE PLANS BY THE CITY OF SPRINGFIELD (CWL) DURING SPECIFIC STAGES OF CONSTRUCTION AS DIRECTED BY THE ENGINEER.
- NO LIGHTING CIRCUIT OR PORTION THEREOF SHALL BE REMOVED FROM NIGHTTIME OPERATION WITHOUT APPROVAL OF THE ENGINEER.

SUMMARY OF QUANTITIES

PAY CODE NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY TOTAL
8040000	ELECTRIC SERVICE INSTALLATION	EACH	1
81020800	CONDUIT PUSHED, 2 1/2" DIA. INTERMEDIATE METAL	FOOT	1065
81024900	CONDUIT PUSHED, 4" DIA. INTERMEDIATE METAL	FOOT	126
81605000	UNIT DUCT, 600V, 2-IC NO. 8, 1/2" NO. 8 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	4574
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	3198
82004400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	15
82500350	LIGHTING CONTROLLER, BASE MOUNTED, 100AMP, 240VOLT	EACH	1
83004800	LIGHT POLE, ALUMINUM, 50 FT. M.H., 15 FT. DAVIT ARM	EACH	15
83600357	LIGHT POLE FOUNDATION METAL, 15" BOLT CIRCLE, 8"X8"	EACH	15
83800650	BREAKAWAY DEVICE, COUPLING, WITH STAINLESS STEEL SCREEN	EACH	60
82106700	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT (MATERIAL ONLY)	EACH	2
	LIGHT POLE, ALUMINUM, 50 FT. M.H., 15 DAVIT ARM (MATERIAL ONLY)	EACH	1