

GENERAL NOTES

- ALL LIGHTING UNITS SHALL BE LABELED ACCORDING TO THE STANDARD SPECIFICATIONS, WITH POLE NUMBERS ATTACHED WITH STAINLESS STEEL BANDING. LIGHTING UNIT NUMBERING SHALL BE AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
- CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ELECTRICAL WORK WITH OTHER TRADES.
- THE PROPOSED LIGHT POLES SHALL BE GALVANIZED STEEL TENON TOP POLES AND SHALL BE INSTALLED 25 FEET FROM EDGE OF PAVEMENT 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 CONTRACTOR SHALL REMOVE AND SALVAGE THE EXISTING LIGHTING UNITS AT TERMINAL DRIVE DURING CONSTRUCTION AS IDENTIFIED ON THE PLANS AND AS DIRECTED BY THE ENGINEER. THE SALVAGED LIGHT POLES AND LUMINAIRES SHALL BE DELIVERED TO THE IDOT MAINTENANCE FACILITY IN CARBONDALE IN ACCORDANCE WITH SECTION 842 OF THE STANDARD SPECIFICATIONS UNLESS DIRECTED OTHERWISE. LUMINAIRES SHALL BE CRATED IN CONTAINERS ACCEPTABLE TO THE ENGINEER.
- NEW SPLICES, FUSES, FUSEHOLDERS, AND SURGE PROTECTORS SHALL BE PROVIDED AND INSTALLED FOR ALL LUMINAIRES.
- THE EXISTING LIGHT POLES AT TERMINAL DRIVE ARE POWERED FROM A CIRCUIT BREAKER IN THE AIRPORT SIGN LIGHTING PANEL WITH A SMALL RELAY AND PHOTOCELL CONTROL. REMOVAL OF THE EXISTING IDOT LIGHTING CONTROLS, WIRING, CONDUIT, AND ACCESSORIES SHALL BE PAID FOR UNDER "REMOVAL OF LIGHTING CONTROLLER".
- THE EXISTING LIGHTING CONTROLLER, LIGHTING FOUNDATIONS, AND ASSOCIATED HARDWARE TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF SITE AT THE CONTRACTOR'S EXPENSE.

ILLINOIS DEPARTMENT OF TRANSPORTATION
400W LUMINAIRE PERFORMANCE TABLE

1/1/03

GIVEN CONDITIONS

| | | |
|-------------------------|---|---------------------|
| ROADWAY DATA: | Pavement Width | 36 FT |
| | Number Of Lanes | 3 |
| | Median Width | 40 FT |
| | IES Surface Classification | R3 |
| | Q-Zero Value | .07 |
| LIGHT POLE DATA: | Mounting Height | 50 FT |
| | Mast Arm Length | 0 FT |
| | Pole Set-Back From Edge of Pavement | 25 FT |
| LUMINAIRE DATA: | Lamp Type | HPS |
| | Lamp Lumens | 50,000 |
| | IES Vertical Distribution | L |
| | IES Control of Distribution | N |
| | IES Lateral Distribution | 4 |
| | Total Light Loss Factor | 0.684 |
| LAYOUT DATA: | Spacing | 315 FT |
| | Configuration | Staggered w/ Median |
| | Luminaire Overhang Over Edge of Pavement Lane | -25 FT |

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.

LIGHTING BILL OF MATERIALS

| CODE NO. | ITEM | UNIT | TOTAL QUANTITIES |
|----------|--|------|------------------|
| X8440102 | RELOCATE EXISTING LUMINAIRE | EACH | 8 |
| 80400100 | ELECTRIC SERVICE INSTALLATION | EACH | 1 |
| 81020600 | CONDUIT PUSHED, 2 1/2" DIA., INTERMEDIATE METAL | FOOT | 213 |
| 81020900 | CONDUIT PUSHED, 4" DIA., INTERMEDIATE METAL | FOOT | 142 |
| 81603000 | UNIT DUCT, 600V, 2-1C NO. 8 GROUND, 1/C (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE | FOOT | 6839 |
| 81700315 | ELECTRIC CABLE IN CONDUIT, 600V (EPR- TYPE RHW) 3-1/C NO. 10 | FOOT | 1191 |
| 81900200 | TRENCH AND BACKFILL FOR ELECTRICAL WORK | FOOT | 6190 |
| 82104000 | LUMINAIRE, SODIUM VAPOR, MULTIMOUNT, 400 WATT | EACH | 24 |
| 82500520 | LIGHTING CONTROLLER TYPE CB-RCS 60AMP - 480VOLT | EACH | 1 |
| 82500605 | LIGHTING CONTROLLER PHOTOCELL RELAY | EACH | 3 |
| 83060840 | LIGHT POLE, GALVANIZED STEEL, 50 FT. M. H., TENON MOUNT | EACH | 22 |
| 83600357 | LIGHT POLE FOUNDATION METAL, 15" BOLT CIRCLE, 8" X 8" | EACH | 22 |
| 83800650 | BREAKWAY DEVICE, COUPLING, WITH STAINLESS STEEL SCREEN | EACH | 88 |
| 84200500 | REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE | EACH | 5 |
| 84200700 | LIGHTING FOUNDATION REMOVAL | EACH | 5 |
| 84500110 | REMOVAL OF LIGHTING CONTROLLER | EACH | 1 |

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.

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| ILLUMINATION: | Average Horizontal Illumination: (E _{Ave}) | 0.90 fc |
| | Uniformity Ratio: (E _{Ave} /E _{Min}) | 3.0 |
| LUMINANCE: | Average Luminance: (L _{Ave}) | 0.60 Cd/m ² |
| | Uniformity Ratios: (L _{Ave} /L _{Min}) | 3.5 |
| | (L _{Max} /L _{Min}) | 6.0 |
| | Maximum Veiling Luminance Ratio: (L _v /L _{Ave}) | 0.3 |