

LIGHTING DETAILS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	I29 K	WINNEBAGO	585	168
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• FAI 90/IL 173				

TABULATION OF QUANTITIES

PAY CODE	ITEM	UNIT	TOTAL
LIGHTING SUMMARY OF QUANTITIES IL 173 @ 1-90			
81600315	UNIT DUCT, 2" 6 XLP, 1" 6 XLP GROUND 1" POLYETHYLENE	FOOT	15360
81020500	CONDUIT PUSHED, 2" DIA INTERMEDIATE METAL	FOOT	875
81020700	CONDUIT PUSHED, 3" DIA INTERMEDIATE METAL	FOOT	115
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	13750
83600357	LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8" X 8"	EACH	50
82102400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	50
83004600	LIGHT POLE, ALUMINUM, 50 FT M.H., 15 FT. DAVIT ARM	EACH	50
83800650	BREAKAWAY DEVICE, COUPLING, STAINLESS STEEL SCREEN	EACH	200
81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA, GALVANIZED STEEL	FOOT	20
81300800	JUNCTION BOX, STAIN STEEL, ATTACHED TO STRUCTURE 18" X 12" X 6"	EACH	2
82107300	UNDERPASS LIGHTING UNIT, 150 WATT HIGH PRESSURE SODIUM	EACH	8
82500540	LIGHTING CONTROLLER CB-RCS-100 AMP - 480 VOLT	EACH	1
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1

NOTES:
 1. UNDERPASS LUMINAIRE SHALL INCLUDE ALL WORK FROM THE STAINLESS STEEL JUNCTION BOX TO THE UNDERPASS LUMINAIRE, THEREFORE THE CONDUIT ATTACHED TO THE STRUCTURE AFTER THE JUNCTION BOX, CONDUIT, CONDUCTOR ETC SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED WITH THE UNDERPASS LUMINAIRE.
 2. ALL LUMINARIES ON COMBINATION TRAFFIC SIGNAL POLES ARE TO BE POWERED ON THEIR OWN CIRCUIT(S) OUT OF THE TRAFFIC SIGNAL CONTROLLER.
 3. A 5" STUDS SHALL BE REQUIRED FOR THE PLACEMENT OF POLES TO HELIX FOUNDATIONS, IN ADDITION A NUT SHALL BE SNUGGLY PLACED ON THE BOTTOM OF THE BASE PLATE OF THE FOUNDATION

ILLINOIS DEPARTMENT OF TRANSPORTATION UNDERPASS LUMINAIRE PERFORMANCE TABLE		
ROADWAY DATA:	PAVEMENT WIDTH	96 FT
	NUMBER OF LANES	8
	MEDIAN WIDTH	N/A FT
	IES SURFACE CLASSIFICATION	R3
		0.07
LIGHT POLE DATA:	MOUNTING HEIGHT	N/A FT
	MAST ARM LENGTH	N/A FT
	POLE SET-BACK FROM EDGE OF PAVEMENT	N/A FT
LUMINAIRE DATA:	LAMP TYPE	HPS
	LAMP LUMENS	16000
	IES VERTICAL DISTRIBUTION	WALL MNT @ 14'
	IES CONTROL OF DISTRIBUTION	FC
	IES LATERAL DISTRIBUTION	FWD THRU
	TOTAL LIGHT LOSS FACTOR	0.69
LAYOUT DATA:	SPACING	70 FT
	CONFIGURATION	2 / PIER
	LUMINAIRE OVERHANG OVER EDGE OF PAVEMENT LANE	-20 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.		
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.		
ILLUMINATION:	AVERAGE HORIZONTAL ILLUMINATION, (E _{AVE})	9.0 LUX
	UNIFORMITY RATIO, (E _{AVE} /E _{MIN})	3
LUMINANCE:	AVERAGE LUMINANCE (L _{AVE})	0.6 Cd/m ²
	UNIFORMITY RATIOS: (L _{AVE} /L _{MIN})	3.5
	(H ₁ /L _{MIN})	6
	MAXIMUM VEILING LUMINANCE RATIO: (L _v /L _{AVE})	0.3

ILLINOIS DEPARTMENT OF TRANSPORTATION LUMINAIRE PERFORMANCE TABLE		
ROADWAY DATA:	PAVEMENT WIDTH	96 FT
	NUMBER OF LANES	8
	MEDIAN WIDTH	N/A FT
	IES SURFACE CLASSIFICATION	R3
		0.07
LIGHT POLE DATA:	MOUNTING HEIGHT	50 FT
	MAST ARM LENGTH	15 FT
	POLE SET-BACK FROM EDGE OF PAVEMENT	17 FT
LUMINAIRE DATA:	LAMP TYPE	HPS
	LAMP LUMENS	51000
	IES VERTICAL DISTRIBUTION	M
	IES CONTROL OF DISTRIBUTION	FC
	IES LATERAL DISTRIBUTION	3
	TOTAL LIGHT LOSS FACTOR	0.69
LAYOUT DATA:	SPACING	285 FT
	CONFIGURATION	STGG
	LUMINAIRE OVERHANG OVER EDGE OF PAVEMENT LANE	-2 FT
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