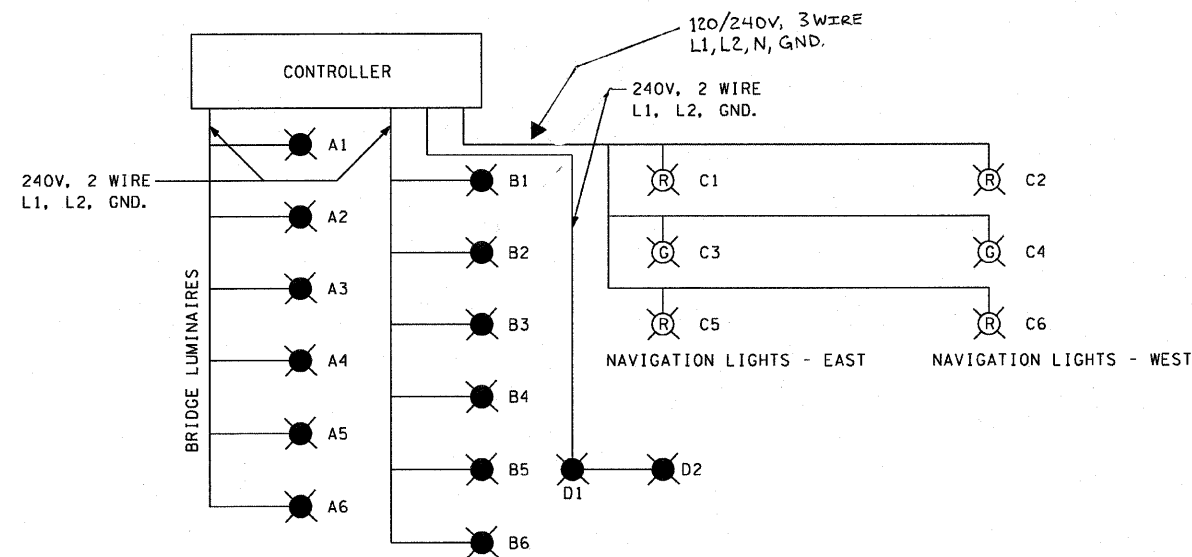


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	(109) BR	LASALLE	351	190
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



**POWER REQUIREMENTS**

CONTROLLER #1:  
 SERVICE - 120/240 V, 1 PHASE, 3W, 60A  
 CIRCUIT A 6x250W = 1500W  
 CIRCUIT B 6x250W = 1500W  
 CIRCUIT C 6x15W = 90W  
 CIRCUIT D 2x250W = 500W

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TOTAL LOAD 3590 WATTS

ILLINOIS DEPARTMENT OF TRANSPORTATION  
LUMINAIRE PERFORMANCE TABLE

GIVEN CONDITIONS	
ROADWAY DATA:	Pavement Width 12 FT
	Number Of Lanes 2
	Median Width n/a FT
	IES Surface Classification R3
	Q-Zero Value .07
LIGHT POLE DATA:	Mounting Height 33 FT
	Mast Arm Length 6 FT
	Pole Set-Back From Edge Of Pavement 5 FT
LUMINAIRE DATA:	Lamp Type HPS
	Lamp Lumens 28000
	IES Vertical Distribution N
	IES Control Of Distribution C
	IES Lateral Distribution 3
	Total Light Loss Factor 0.684
LAYOUT DATA:	Spacing 140 FT
	Configuration 1 side
	Luminaire Overhang Over Edge Of Pavement Lane 1 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.

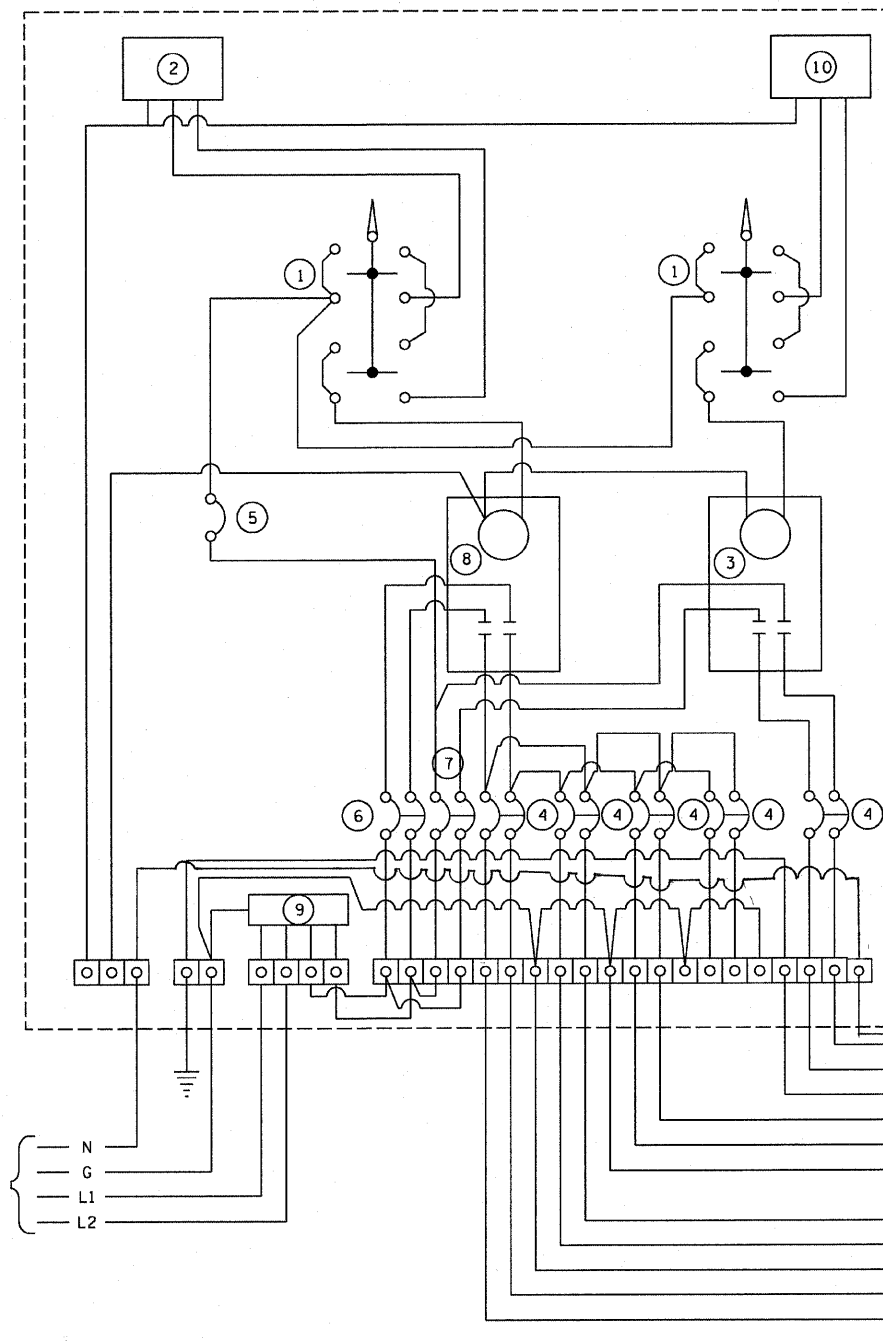
**PERFORMANCE REQUIREMENTS**

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 <sub>av</sub> ) 0.9 LUX
	Uniformity Ratio, (E <sub>min</sub> /E <sub>av</sub> ) 3.0
LUMINANCE:	Average Luminance, (L <sub>av</sub> ) 0.6 Cd/m <sup>2</sup>
	Uniformity Ratios: (L <sub>max</sub> /L <sub>av</sub> ) 3.5
	(L <sub>min</sub> /L <sub>av</sub> ) 6.0
	Maximum Veiling Luminance Ratio, (L <sub>v</sub> /L <sub>av</sub> ) 0.3

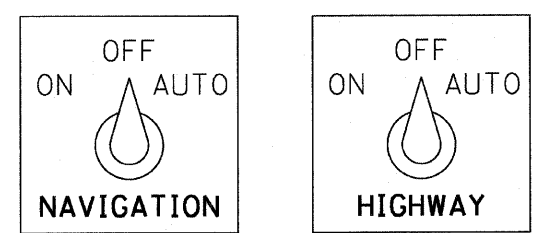
**NOTES:**

- ① H-O-A SWITCH WITH ENGRAVED NAMEPLATE AS DETAILED.
- ② PHOTOCELL WITH INTEGRAL SURGE SUPPRESSOR.
- ③ CONTACTOR, 30A, 2P, 120V COIL, ELECTRICALLY HELD.
- ④ CIRCUIT BREAKER 20A, 2P, 240V, INCLUDE 2 SPARE.
- ⑤ CIRCUIT BREAKER 20A, 1P, 120 V.
- ⑥ MAIN CIRCUIT BREAKER, 60A, 2P, 240V.
- ⑦ MAIN CIRCUIT BREAKER, 30A, 2P, 240V.
- ⑧ CONTACTOR, 100A, 2P, 120V COIL, ELECTRICALLY HELD.
- ⑨ SURGE ARRESTER.
- ⑩ NAVIGATION PHOTOCELL WITH U.S. COAST GUARD APPROVED SETTINGS.



**GENERAL NOTES:**

- WIRING SHALL BE PANEL BOARD FASHION. ALL BENDS SHALL BE RIGHT ANGLES. ALL RUNS SHALL BE VERTICAL OR PARALLEL TO PANEL BOARD. WIRES SHALL BE GROUPED OR LACED.
- ALL CONTROL INSTALLATION COMPONENTS SHALL BE U.L. LISTED.
- LABEL EQUIPMENT GROUND AND NEUTRAL.
- LOCATE SERVICE POLE AND CONTROL INSTALLATION ADJACENT TO R.O.W. LINE WITH A MINIMUM DISTANCE OF 30' FROM THE EDGE OF PAVEMENT. EXACT LOCATION SHALL BE ESTABLISHED BY THE ENGINEER.
- THE UNDERGROUND SERVICE ENTRANCE WIRING SHALL NO EXCEED 150'. TOTAL AERIAL AND UNDERGROUND SERVICE BETWEEN THE CONTROL INSTALLATION AND PRIMARY TRANSFORMER SHALL NOT EXCEED 250'.
- RACEWAYS SHALL TERMINATE 3" ABOVE TOP OF CONCRETE FOUNDATION.



SWITCH NAMEPLATES

WIRING DIAGRAM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SCHEMATICS**  
**IL 170 BRIDGE REPLACEMENT AT SENECA**

SCALE: 1" = 50'  
DATE: OCTOBER, 2007

DRAWN BY: CJO  
CHECKED BY: JCL

PLOT DATE = 10/11/2007  
 PLOT SCALE = 1/8" = 1'-0"  
 USER NAME = PROJECT