



OPTIMAX RADIANT FIELD RETROFIT INSTRUCTIONS



99-24283-I001

Table of Contents

- 1. 24V LED Approved Drivers.....5
 - 1.1. 24V LED Driver (60-19910-0002)5
- 2. Optimax Radiant 24V LED Lighting.....6
 - 2.1. OP30.....6
 - 2.2. OP457
 - 2.3. OP55.....8
- 3. Optimax Pro 24 Replacement Guide9
- 4. Removing Existing Lighting System9
- 5. Mounting the LED Power Supplies9
- 6. Wiring Diagrams.....13
 - 6.1. OP30 and OP4513
 - 6.2. OP5517
- 7. Revision History Page.....20

Warnings and Important Notes

All work performed must be done by a qualified electrician. Local and national electrical codes must be followed in the refurbishment of the lighting system.

Part numbers referenced in the following instructions can be purchased from the Anthony Parts Department if they are not available at your location.



WARNING – Risk of fire or electric shock. Luminaires, wiring, or other electrical parts may be damaged when drilling for installation hardware. Check for enclosed wiring and components.



Only those open holes indicated in the photographs and/or drawings may be made or altered because of kit installation. Do not leave any other open holes in an enclosure of wiring or electrical components.



WARNING – Risk of fire or electric shock. Install this kit only in luminaires that have the construction features shown in the photographs and/or drawings.



WARNING – To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.



INSTALLATION OF THIS RETROFIT ASSEMBLY REQUIRES A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF ELECTRICAL SYSTEMS AND THE HAZARDS INVOLVED.



BEFORE YOU BEGIN

Read instructions completely and carefully.



WARNING: TO REDUCE THE RISK OF FIRE, ELECTRICAL SHOCK OR INJURY, OBSERVE THE FOLLOWING:

- 1) Use this unit in the manner intended by the manufacturer.
- 2) Turn power off before removing existing lighting system and follow appropriate lock out/tag out safety procedures.



For use inside a commercial refrigeration case with packaged foods only.

NOTE: Remove and dispose of existing ballasts per any local or Federal guidelines.

Safety

Proper safety equipment includes:



Safety Glasses



Work Gloves



Work Shoes



TURN OFF ALL ELECTRICAL POWER PRIOR TO BEGINNING WORK ON THE DOOR OR ON ANY ELECTRICAL COMPONENT. USE EXTRA CAUTION WHEN WORKING WITH OR AROUND THE DOOR GLASS PACKAGE.

Tools

Tools required for this procedure include:

TOOLS

#2 Phillips-head screw driver	Rubber or plastic mallet
Cordless drill w/attachments	Flat-head screwdriver
Needle-nose pliers	Wire stripper and cutter
1/8" Drill Bit	3/8" Drill Bit



Prior to drilling, make sure there are no existing components inside the mullion in the areas marked off for the designated holes.

NOTE: Drilling is not required for an Anthony model frame. Pre-existing holes are used.

Tips

- Complete replacement of wire assemblies is recommended whenever required. Splice wires only if necessary, using proper materials such as electrical tape, wire nuts, flux core solder and heat shrink.
- Apply liquid soap to rail plastic covers and gaskets upon installation, to facilitate insertion into mounting grooves.
- Keep doors and frames clean for product efficiency. This can also help reduce energy consumption and potential health hazards.
- Whenever binding gasket or plastic parts, use food grade silicone.
- Always use the correct tool for the job to be performed. This ensures proper installation and minimizes safety risks.

1. Anthony Approved 24V LED Driver

- 24V LED Driver (60-19910-0002)



- Max. Output Power: 100W
- **Input Voltage: 100V – 277VAC**
- Output Current: 4.10A
- Output Voltage: 24VDC
- Min. Power Factor: 0.9
- IP rating: IP64
- Operating Temperature: -40° to 60°C max
- Isolation: Class 2

2. Optimax Radiant 24V LED Lighting:

- OP30



Center Fixture (60-22943-30XXX)



Left End Fixture (60-22944-30XXX)

Right End Fixture (60-22945-30XXX)

OP30 Part numbers:

Nominal Length	CENTER: 60-22943		LEFT END: 60-22944		RIGHT END: 60-22945	
	3500K	4000K	3500K	4000K	3500K	4000K
48"	-30348	-30448	-30348	-30448	-30348	-30448
54"	-30354	-30454	-30354	-30454	-30354	-30454
60"	-30360	-30460	-30360	-30460	-30360	-30460
72"	-30372	-30472	-30372	-30472	-30372	-30472

- **OP45**



Center Fixture (60-22943-49XXX)



Left End Fixture (60-22944-49XXX)

Right End Fixture (60-22945-49XXX)

OP45 Part numbers:

	CENTER: 60-22943		LEFT END: 60-22944		RIGHT END: 60-22945	
Nominal Length	3500K	4000K	3500K	4000K	3500K	4000K
18"	-49318	-49418	-49318	-49418	-49318	-49418
24"	-49324	-49424	-49324	-49424	-49324	-49424
30"	-49330	-49430	-49330	-49430	-49330	-49430
36"	-49336	-49436	-49336	-49436	-49336	-49436
48"	-49348	-49448	-49348	-49448	-49348	-49448
54"	-49354	-49454	-49354	-49454	-49354	-49454
60"	-49360	-49460	-49360	-49460	-49360	-49460
72"	-49372	-49472	-49372	-49472	-49372	-49472

- **OP55**



Center Fixture (60-22943-59XXX)



Left End Fixture (60-22944-59XXX)

Right End Fixture (60-22945-59XXX)

OP55 Part numbers:

	CENTER: 60-22943		LEFT END: 60-22944		RIGHT END: 60-22945	
18"	-59318	-59418	-59318	-59418	-59318	-59418
24"	-59324	-59424	-59324	-59424	-59324	-59424
30"	-59330	-59430	-59330	-59430	-59330	-59430
36"	-59336	-59436	-59336	-59436	-59336	-59436
48"	-59348	-59448	-59348	-59448	-59348	-59448
54"	-59354	-59454	-59354	-59454	-59354	-59454
60"	-59360	-59460	-59360	-59460	-59360	-59460
62"	-59362	-59462	-59362	-59462	-59362	-59462
72"	-59372	-59472	-59372	-59472	-59372	-59472

3. Optimax Pro 24 Replacement Guide

- OP* Low Power → OP30
- OP* High Power → OP45
- OPP (French) → OP55
- No change to the Driver

4. Removing Existing Lighting System

1. Remove the following items:
 - a. Lens
 - b. Fluorescent lamps
 - c. Lamp holder
 - d. Mounting clips
 - e. Ballasts from existing lighting system
2. Anthony Door Model 401D, 1KDR and ELS only:
 - a. Remove Mullion cover using a flat screwdriver.
 - b. Remove the raceway cover by inserting a flat screwdriver into the seam between the metal raceway and the plastic cover and prying it open.

NOTE: Refer to case manufacturer's instructions for any questions on removing the fluorescent system and ballast.

3. Seal any open holes on Mullion using neutral cure silicone sealant (not provided).
4. Make sure you save the two #8 tapping screws used to hold the ballast in place.

4. Mounting the LED Power Supplies

1. Install the LED power supply in the same location where the ballast was fitted or in the general location for ease of wire connection.
2. Mount the LED power supply using two #8 tapping screws saved when the ballast was removed.

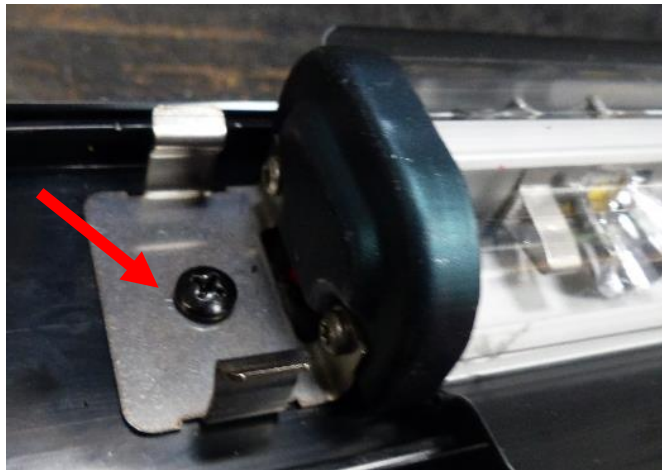
NOTE: Installer may have to drill two holes in raceway to accommodate LED power supply if the door is not an Anthony model.

NOTE: The LED power supply case is grounded. Attach the LED power supply to a ground point in the refrigerated directly with a screw.

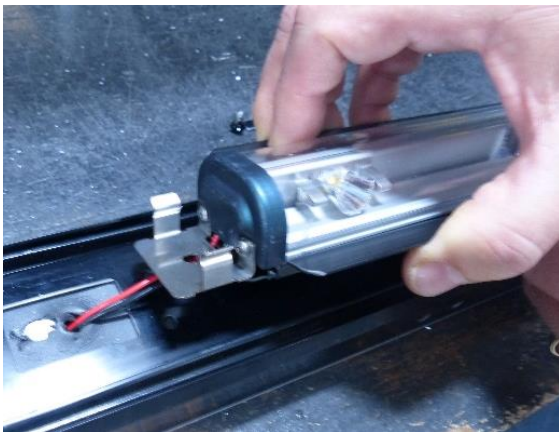
3. Reinstall raceway cover(s).

5. Replacing Optimax Pro 24 Led with Optimax Radiant LED

1. Locate the Mullion with Optimax Pro 24 LED and check for the orientation of wiring.
2. Remove the Zipper strips and contact plates to reach the wiring of the existing light.
3. Remove the Led fixture wiring from the wiring connectors in the back of the mullion.
4. Using Philips head or power drill, remove the mounting screws on the both top and bottom of the existing light.



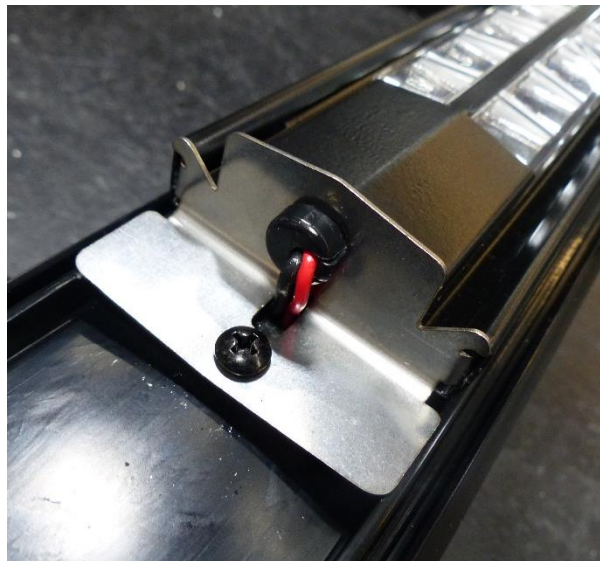
5. Gently remove the Led Fixture and remove the plastic shield from the mullions by removing the screw from the center of the mullion.



6. Take the new Optimax Radiant Light and feed the red and black wires through the slot on the mounting bracket and then through the same egress on the Mullion as before as shown. (Note that the plastic shield is not required for Optimax Radiant Fixtures)



7. Mount the fixture using 8 X 5/8 Philips screw. Note that no additional holes are needed in the mullion. Pre-existing holes from the Optimax Pro 24 installation can be used on the new Optimax Radiant Fixtures.



8. Connect the red and black wires of the Light fixture to the existing Led Power supply wiring using the same connectors from before (step 5.3)
9. Test the lights by turning on the light switch to make sure the connections are secure.
10. Place the contact plates back and secure using the zipper strips. (use new zipper strips if necessary)

11. Repeat the same process for remaining Mullions and the ends. Note that Mullions uses Center Fixtures: 60-22943-XXXXX and Ends use Left: 60-22944-XXXXX and Right: 60-22945-XXXXX.

NOTE: Optimax Radiant fixtures are polarity sensitive. Pay close attention when wiring the red (+) wires of the fixture to red wires of the driver, and the blue (-) wires of the driver to the black (-) wires of the fixture.

12. Turn the power on and verify all the LED fixture(s) are working.

6. Wiring Diagrams

6.1. OP30, OP45 Wiring

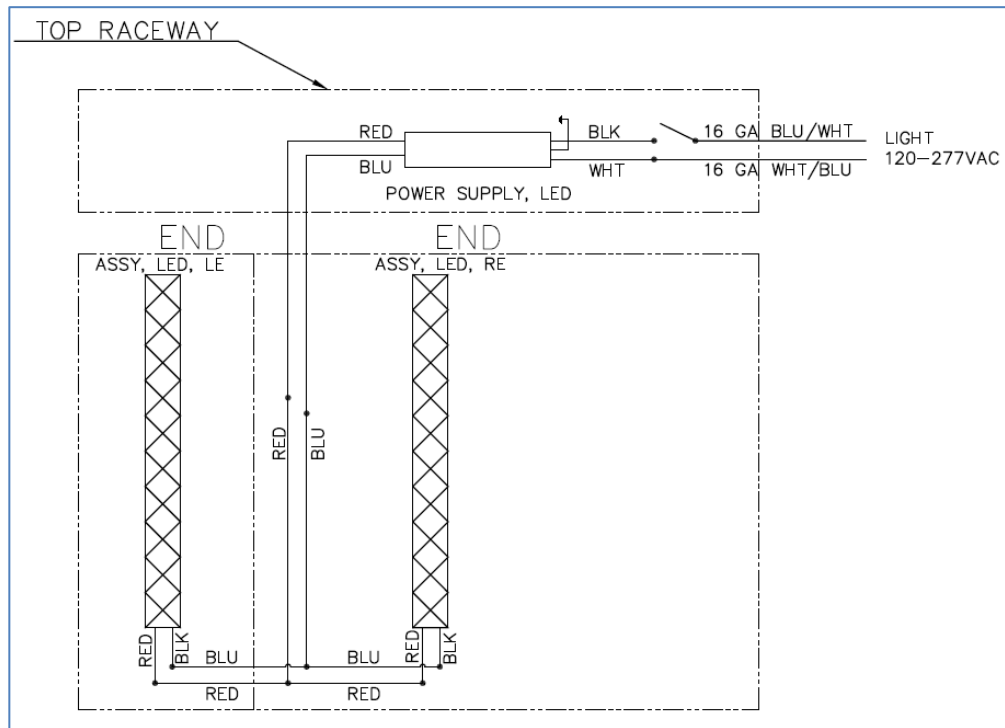


Figure: Wiring Diagram (07-24097-0000), OP30, OP45, (1 Door)

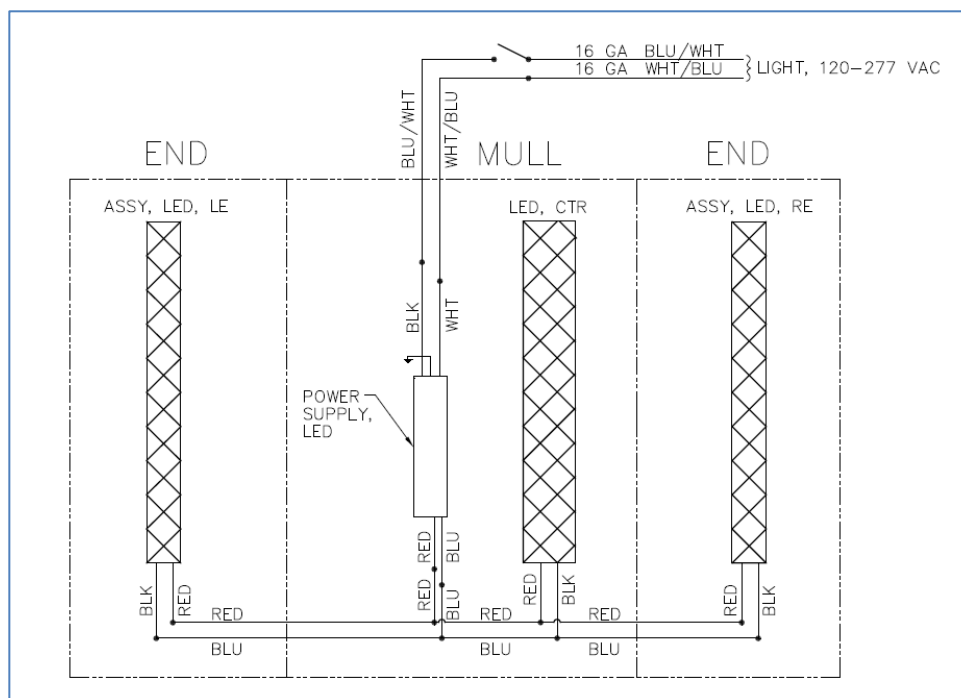


Figure: Wiring Diagram (07-24097-0000), OP30, OP45, (2 Door)

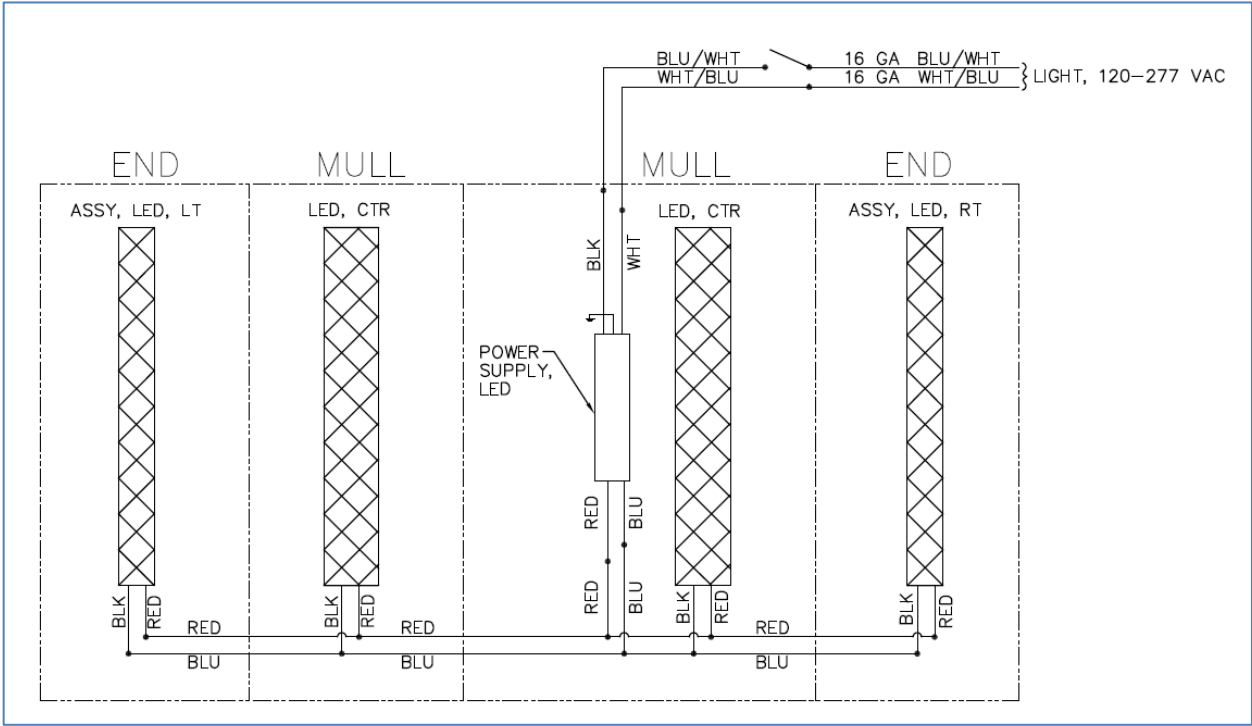


Figure: Wiring Diagram (07-24097-0000), OP30, OP45, (3 Door)

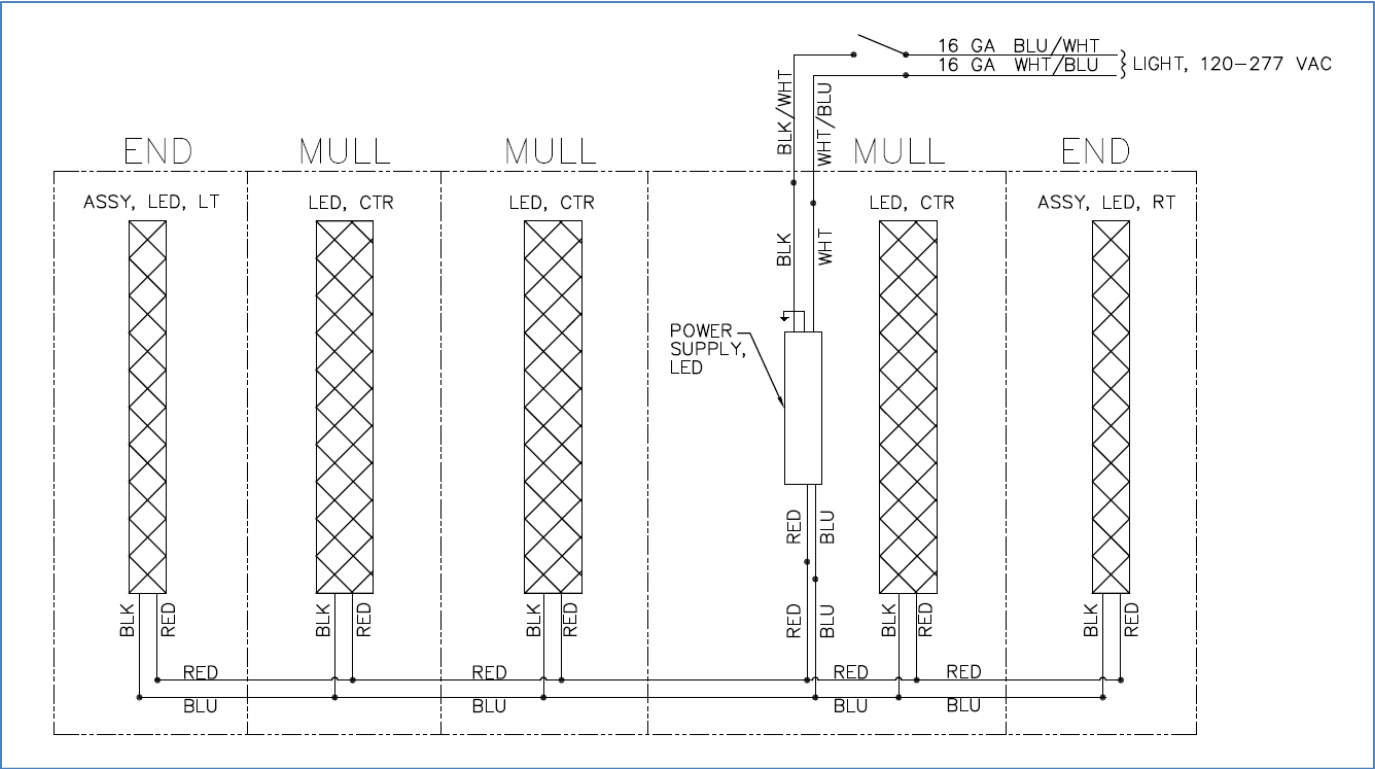


Figure: Wiring Diagram (07-24097-0000), OP30, OP45, (4 Door)

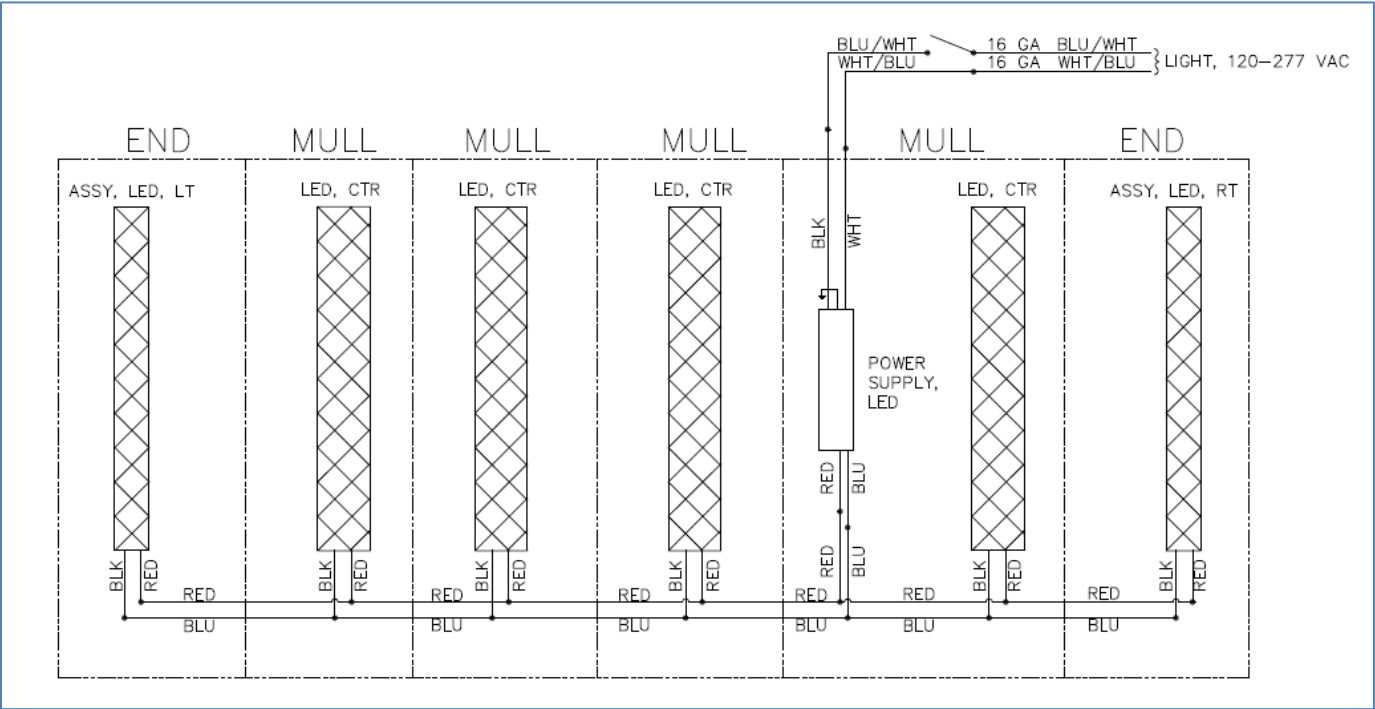


Figure: Wiring Diagram (07-24097-0000), OP30, (5 Door)

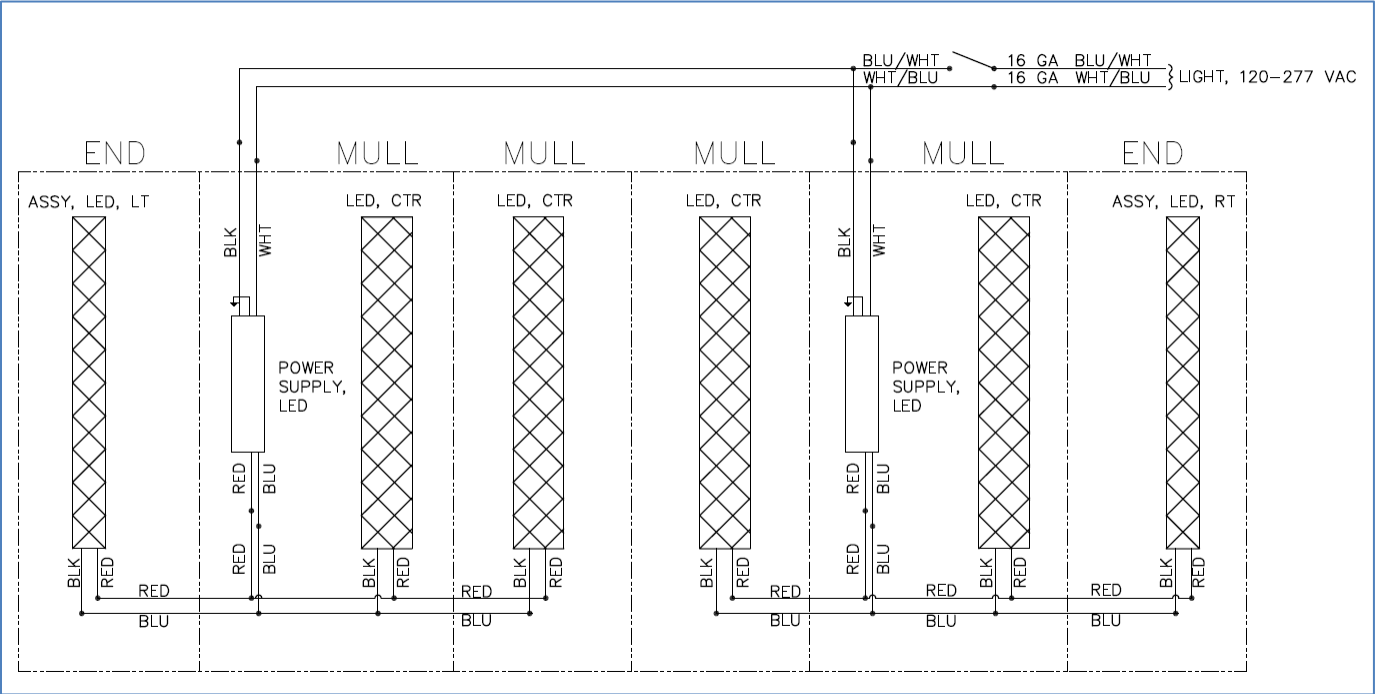


Figure: Wiring Diagram (07-24097-0000), OP45, (5 Door)

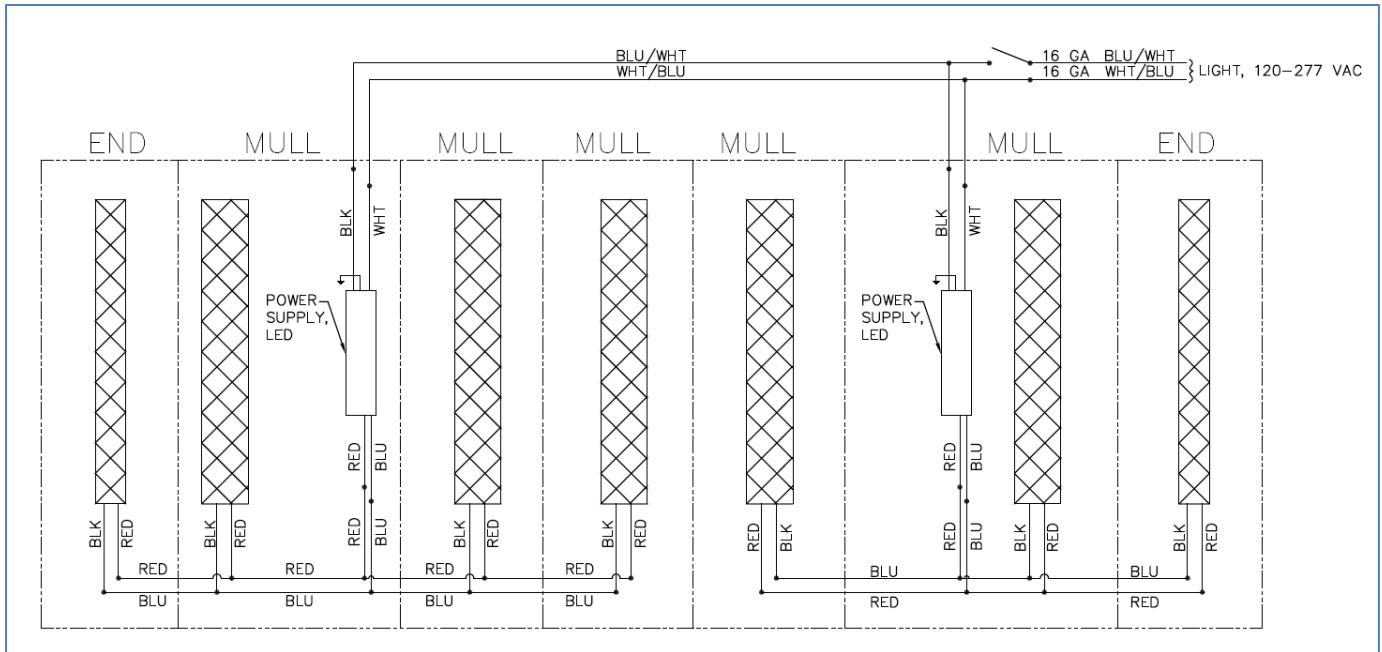


Figure: Wiring Diagram (07-24097-0000), OP30, OP45, (6 Door)

6.2. OP55 Wiring

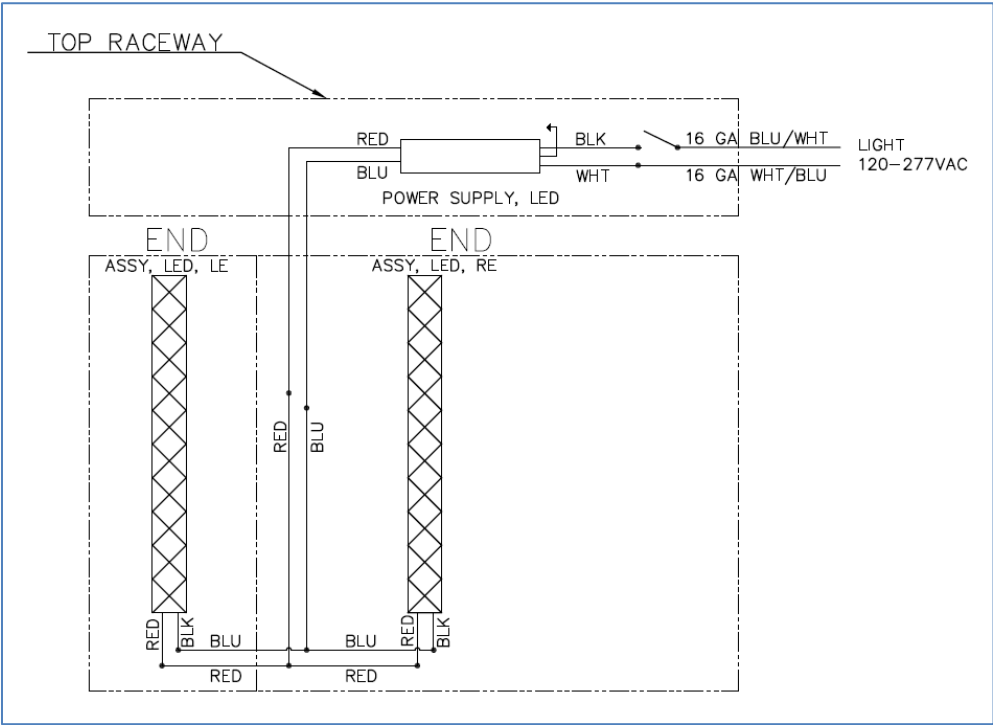


Figure: Wiring Diagram (07-24098-0000), OP55, (1 Door)

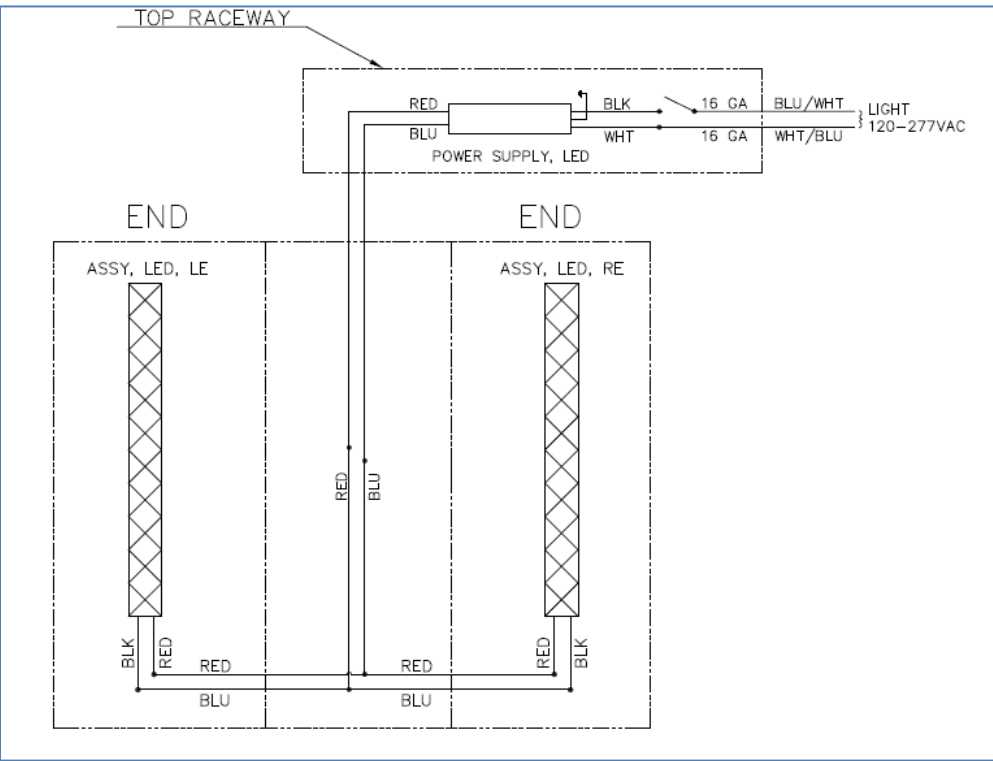


Figure: Wiring Diagram (07-24098-0000), OP55, (2 Door)

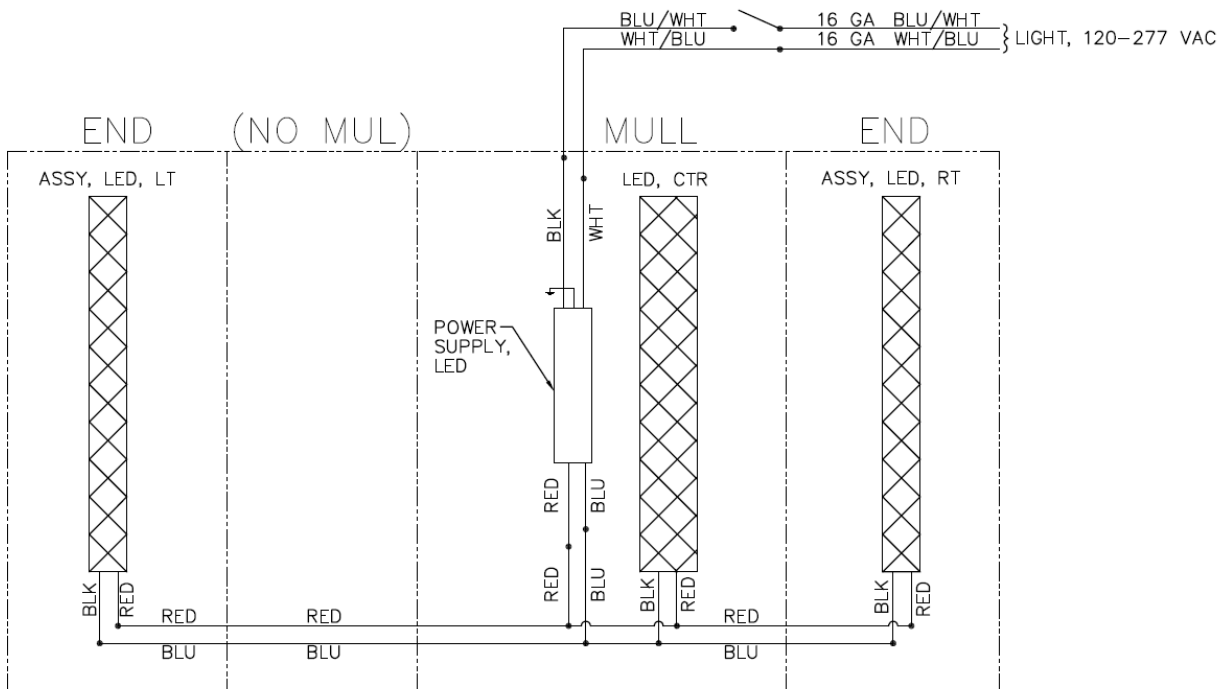


Figure: Wiring Diagram (07-24098-0000), OP55, (3 Door)

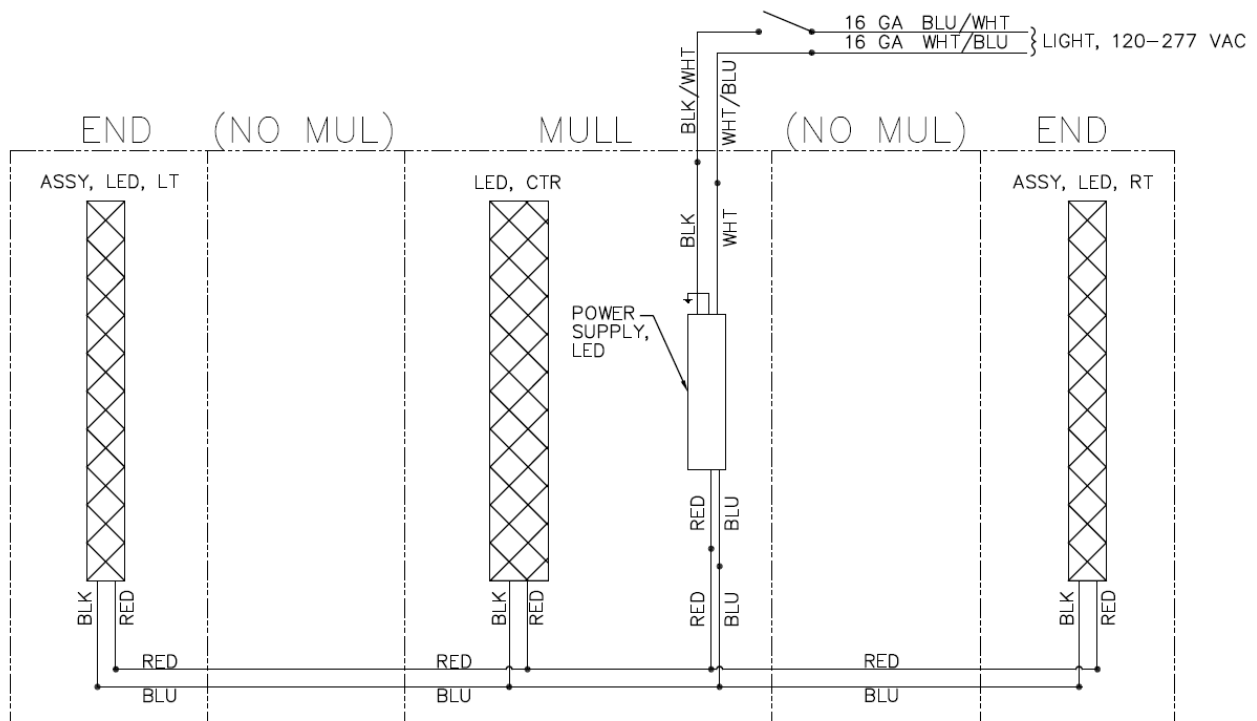


Figure: Wiring Diagram (07-24098-0000), OP55, (4 Door)

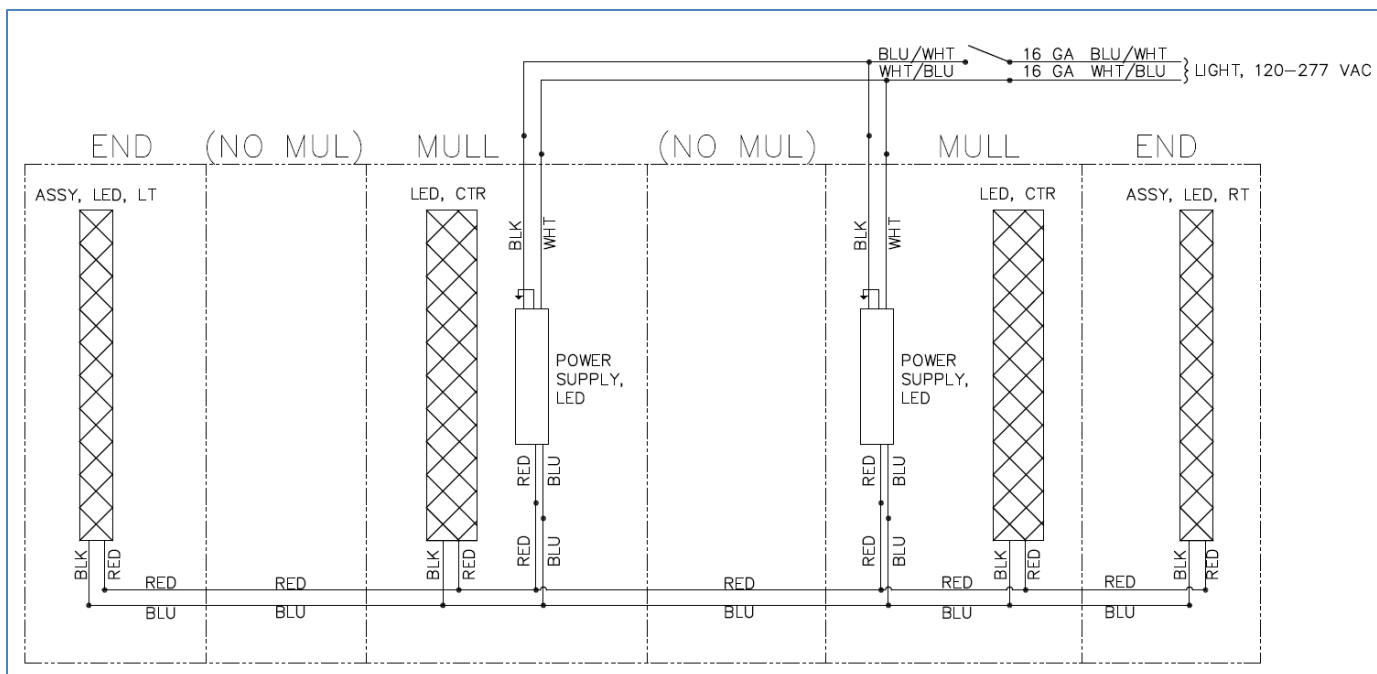


Figure: Wiring Diagram (07-24098-0000), OP55, (5 Door- 60", 72")

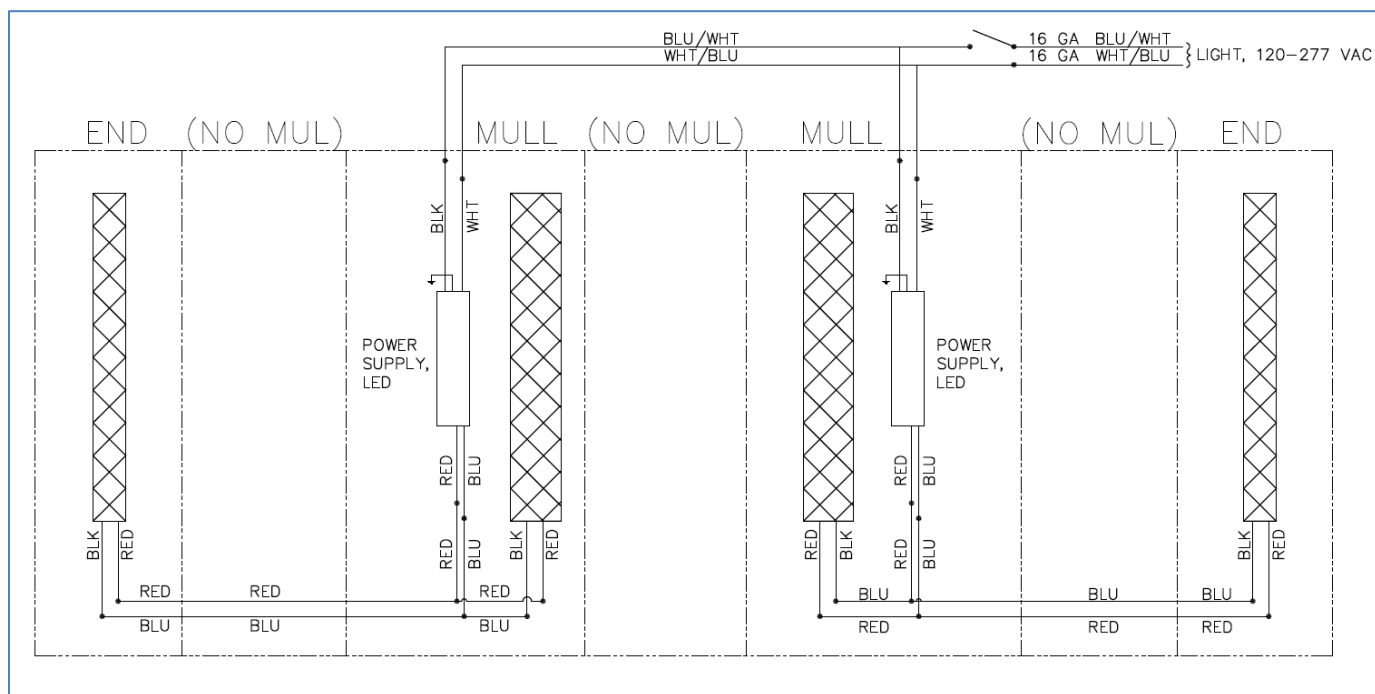


Figure: Wiring Diagram (07-24098-0000), OP55, (6 Door- 60", 72")

Note: For 5 door and 6 door openings, with 48" and 54" OP55 Lights only one driver is required.

7. Revision History Page

REV	DATE	ORIGINATOR	DESCRIPTION OF CHANGE	ECN
X1	05/30/18	Sai Putti	Engineering Release	-----