

**Circuit Calculations Panel: P2 Card: 01 Circuit:SIG4**

CircuitName: SIG4  
 Circuit Type: Notification Terminal Voltage: 24V:DC Amperage: 3.0000A  
 Cable: Power, Limited, Multiple Conductor #14  
 Calculations based on Running Total Length.  
 Design Criteria: Ambient temperature: 167°F Max. operating voltage drop: 10%  
 Job number: 1 Job name: Drawing2

Device	Part No	Appliance Desc	Distance	Current	Voltage	Voltage Drop
	5495	Panel			24V	
N:001	GES3-24WR	Strobe, 75CD	126'-0	80.0000mA	22.9839V	(1.0161V)
N:002	GES3-24WR	Strobe, 75CD	105'-0	80.0000mA	22.1907V	(0.7932V)
:004	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	101'-0	108.0000mA	21.4793V	(0.7114V)
N:003	GE3 24	Horn	33'-0	28.0000mA	21.2696V	(0.2097V)
:006	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	70'-0	108.0000mA	20.8373V	(0.4323V)
N:005	GES3-24WR	Strobe, 75CD	31'-0	80.0000mA	20.6672V	(0.1701V)
N:007	GES3-24WR	Strobe, 75CD	67'-0	80.0000mA	20.3338V	(0.3334V)
:008	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	48'-0	108.0000mA	20.1195V	(0.2144V)
N:009	GES3-24WR	Strobe, 75CD	66'-0	80.0000mA	19.8702V	(0.2493V)
N:010	GES3-24WR	Strobe, 75CD	154'-0	80.0000mA	19.3671V	(0.5031V)
:011	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	43'-0	108.0000mA	19.2486V	(0.1185V)
:012	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	67'-0	108.0000mA	19.1101V	(0.1385V)
:013	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	76'-0	108.0000mA	19.0054V	(0.1047V)
:014	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	49'-0	108.0000mA	18.9716V	(0.0338V)
A:-01	R1	Resistor Kit; Includes (10) Resistors, 5.1K ohm, 1	5'-0	0.0000mA	18.9716V	(0V)
			1041'-0	1264.0000mA		

Total Current: 1264.0000mA  
 (Total VDrop Percent:20.95%) Total Voltage Drop : 5.0284V

**Circuit Calculations Panel: P2 Card: 01 Circuit:SIG5**

CircuitName: SIG5  
 Circuit Type: Notification Terminal Voltage: 24V:DC Amperage: 3.0000A  
 Cable: Power, Limited, Multiple Conductor #14  
 Calculations based on Running Total Length.  
 Design Criteria: Ambient temperature: 167°F Max. operating voltage drop: 10%  
 Job number: 1 Job name: Drawing2

Device	Part No	Appliance Desc	Distance	Current	Voltage	Voltage Drop
	5495	Panel			24V	
N:004	GES3-24WR	Strobe, 75CD	59'-0	80.0000mA	23.202V	(0.798V)
N:005	GES3-24WR	Strobe, 75CD	29'-0	80.0000mA	22.8245V	(0.3774V)
:006	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	19'-0	180.0000mA	22.587V	(0.2376V)
N:007	GES3-24WR	Strobe, 75CD	32'-0	80.0000mA	22.2236V	(0.3634V)
:001	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	114'-0	180.0000mA	20.9871V	(1.2364V)
N:002	GES3-24WR	Strobe, 75CD	55'-0	80.0000mA	20.4537V	(0.5334V)
:003	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	84'-0	180.0000mA	19.682V	(0.7717V)
:008	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	57'-0	180.0000mA	19.2238V	(0.4582V)
N:009	GES3-24WR	Strobe, 75CD	8'-0	80.0000mA	19.1687V	(0.0551V)
N:010	GES3-24WR	Strobe, 75CD	15'-0	80.0000mA	19.073V	(0.0957V)
N:011	GES3-24WR	Strobe, 75CD	15'-0	80.0000mA	18.9849V	(0.088V)
N:012	GES3-24WR	Strobe, 75CD	99'-0	80.0000mA	18.4544V	(0.5306V)
:013	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	176'-0	180.0000mA	17.601V	(0.8534V)
N:014	GES3-24WR	Strobe, 75CD	16'-0	80.0000mA	17.5418V	(0.0592V)
N:016	GES3-24WR	Strobe, 75CD	56'-0	80.0000mA	17.3631V	(0.1786V)
N:015	GES3-24WR	Strobe, 75CD	37'-0	80.0000mA	17.264V	(0.0991V)
N:017	GES3-24WR	Strobe, 75CD	24'-0	80.0000mA	17.2119V	(0.0521V)
N:018	GES3-24WR	Strobe, 75CD	21'-0	80.0000mA	17.1771V	(0.0348V)
:019	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	16'-0	180.0000mA	17.1587V	(0.0184V)
A:-01	R1	Resistor Kit; Includes (10) Resistors, 5.1K ohm, 1	3'-0	0.0000mA	17.1587V	(0V)
			935'-0	2120.0000mA		

Total Current: 2120.0000mA  
 (Total VDrop Percent:28.51%) Total Voltage Drop : 6.8413V

**Circuit Calculations Panel: P1 Card: 00 Circuit:SIG1**

CircuitName: SIG1  
 Circuit Type: Notification Terminal Voltage: 24V:DC Amperage: 1.0000A  
 Cable: Power, Limited, Multiple Conductor #14  
 Calculations based on Running Total Length.  
 Design Criteria: Ambient temperature: 167°F Max. operating voltage drop: 10%  
 Job number: 1 Job name: Drawing2

Device	Part No	Appliance Desc	Distance	Current	Voltage	Voltage Drop
	5820 XL	Panel			24V	
N:001	GE3 24	Horn	30'-0	28.0000mA	23.9602V	(0.0398V)
:002	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	44'-0	180.0000mA	23.9097V	(0.0505V)
A:-01	R1	Resistor Kit; Includes (10) Resistors, 5.1K ohm, 1	5'-0	0.0000mA	23.9097V	(0V)
			79'-0	208.0000mA		

Total Current: 208.0000mA  
 (Total VDrop Percent:0.38%) Total Voltage Drop : 0.0903V

**Circuit Calculations Panel: P1 Card: 00 Circuit:SIG2**

CircuitName: SIG2  
 Circuit Type: Notification Terminal Voltage: 24V:DC Amperage: 1.0000A  
 Cable: Power, Limited, Multiple Conductor #14  
 Calculations based on Running Total Length.  
 Design Criteria: Ambient temperature: 167°F Max. operating voltage drop: 10%  
 Job number: 1 Job name: Drawing2

Device	Part No	Appliance Desc	Distance	Current	Voltage	Voltage Drop
	5820 XL	Panel			24V	
:001	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	22'-0	108.0000mA	23.8787V	(0.1213V)
:002	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	32'-0	108.0000mA	23.7244V	(0.1543V)
:003	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	104'-0	108.0000mA	23.2944V	(0.43V)
:004	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	96'-0	108.0000mA	22.9637V	(0.3307V)
:005	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	79'-0	108.0000mA	22.7459V	(0.2177V)
:006	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	36'-0	108.0000mA	22.6715V	(0.0744V)
:007	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	91'-0	108.0000mA	22.5461V	(0.1254V)
:008	GEC3-24WR	GEC3 Multi-Candela Horn/Strobe, 75CD	15'-0	108.0000mA	22.5358V	(0.0103V)
A:-01	R1	Resistor Kit; Includes (10) Resistors, 5.1K ohm, 1	2'-0	0.0000mA	22.5358V	(0V)
			477'-0	864.0000mA		

Total Current: 864.0000mA  
 (Total VDrop Percent:6.10%) Total Voltage Drop : 1.4642V

**Circuit Calculations Panel: P1 Card: 00 Circuit:SIG3**

CircuitName: SIG3  
 Circuit Type: Notification Terminal Voltage: 24V:DC Amperage: 1.0000A  
 Cable: Power, Limited, Multiple Conductor #14  
 Calculations based on Running Total Length.  
 Design Criteria: Ambient temperature: 167°F Max. operating voltage drop: 10%  
 Job number: 1 Job name: Drawing2

Device	Part No	Appliance Desc	Distance	Current	Voltage	Voltage Drop
	5820 XL	Panel			24V	
M:002	5495	5495 NAC Power Extender Panel	2'-0	350.0000mA	23.9955V	(0.0045V)
			2'-0	350.0000mA		

Total Current: 350.0000mA  
 (Total VDrop Percent:0.02%) Total Voltage Drop : 0.0045V

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Project Name  
 Project Address  
 City, State Zip Code  
 Fire Alarm Voltage Drop

DRAWN:  
 Daniel Conte  
 CHECKED:  
 xx/xx/xxxx  
 DATE:  
 xx/xx/xxxx  
 SCALE:  
 NTS  
 JOB NUMBER:  
 xxxxxx