NOTIFIER by Honeywell

Standby Battery Calculation
NFS2-640 Fire Alarm Control Panel

Protected Premises: Harnett County Government Services Center **Date:** 6/12/2020

Address: 302 W Cornelius Harnett Blvd.

City: Lillington **State:** NC **Zip:** 27546

Prepared By: Patterson Group Services **Phone:** (919) 776-2403

City: Sanford **State:** NC

Panel ID: FACP **Location:** Electrical 135

System Device	Qty	Standby Current Draw		Alarm Current Draw	
		Draw	Standby	Draw	Alarm
CPU2-640 Main Board	1	0.250000	0.250000	0.250000	0.250000
# NACs in use	1	0.035000	0.035000	0.035000	0.035000
KDM-R2 Display (Backlight on)	1	0.100000	0.100000	0.100000	0.100000
ACM-24AT Panel Switches	1	0.016000	0.016000	0.070000	0.070000
FDU-80 LCD Remote Annunciator	3	0.064300	0.192900	0.064300	0.192900
UDACT-2 Communicator	1	0.052000	0.052000	0.087000	0.087000
SLE-CDMA-Fire Starlink Cellular Comm.	1	0.071000	0.071000	0.200000	0.200000
FSP-951 Photoelectric Detector	26	0.000200	0.005200	0.004500	0.117000
FST-951R Thermal Detector-135 w/ ROR	4	0.000200	0.000800	0.004500	0.018000
DNR Duct Detector w/FSP-951R	14	0.000200	0.002800	0.004500	0.063000
RTS151KEY	14	0.000000	0.000000	0.012000	0.168000
FMM-1 Monitor Module	13	0.000375	0.004875	0.005000	0.065000
FRM-1 Relay Module	12	0.000255	0.003060	0.006500	0.078000
NBG-12LX Manual Pull Station	8	0.000375	0.003000	0.005000	0.040000
ISO-X Isolator Module	8	0.000450	0.003600	0.001700	0.013600
NAC #4 Current Draw-Trigger FCPS-24S8	4	0.000000	0.000000	0.020000	0.080000
		Total Standby:	**0.740**	**Total Alarm:**	**1.578**

Secondary Load Requirements **21.48** **Amp Hours**

Total Secondary Load from the calculation table below.

Current Draw (Amps)		Time (Hours)	Total (AH)
Secondary Standby Load		Required Standby Time	
0.740		24	17.77
Secondary Alarm Load		Required Alarm Time	
1.578		0.084	0.13
		Total Secondary Load	17.90
		Derating Factor	1.2
		Secondary Load Requirements	**21.48**

Battery Selection **26** **Amp Hours**

NOTIFIER® by Honeywell

Standby Battery Calculation
FCPS-24S8 NAC Power Supply

Protected Premises: Harnett County Government Services Center **Date:** 6/12/2020

Address: 302 W Cornelius Harnett Blvd.

City: Lillington **State:** NC **Zip:** 27546

Prepared By: Patterson Group Services **Phone:** (919) 776-2403

City: Sanford **State:** NC

Panel ID: PS1 **Location:** Electrical 135

System Device	Qty	Standby Current Draw		Alarm Current Draw	
		Draw	Standby	Draw	Alarm
FCPS-24S8 Main Board	1	0.065000	0.065000	0.145000	0.145000
HWL	6	0.000000	0.000000	0.044000	0.264000
P2WL15	3	0.000000	0.000000	0.054000	0.162000
P2WL30	4	0.000000	0.000000	0.074000	0.296000
P2WL75	2	0.000000	0.000000	0.121000	0.242000
P2WL110	8	0.000000	0.000000	0.162000	1.296000
PC2WL15	1	0.000000	0.000000	0.071000	0.071000
PC2WL30	1	0.000000	0.000000	0.090000	0.090000
PC2WL75	3	0.000000	0.000000	0.143000	0.429000
PC2WL115	5	0.000000	0.000000	0.187000	0.935000
			Total Standby:	**0.065**	**Total Alarm:** **3.930**

Secondary Load Requirements **2.27** **Amp Hours**

Total Secondary Load from the calculation table below.

Current Draw (Amps)		Time (Hours)	Total (AH)
Secondary Standby Load		Required Standby Time	
0.065		24	1.56
Secondary Alarm Load		Required Alarm Time	
3.930		0.084	0.33
		Total Secondary Load	1.89
		Derating Factor	1.2
		Secondary Load Requirements	**2.27**

Battery Selection **7** **Amp Hours**

Point to Point Voltage Drop Analysis
FCPS-24S8 NAC Power Supply
Source Voltage: 20.4 Nominal System Voltage

Project Name: Harnett County Gov't. Services Center
Date: 6/12/2020
Circuit No: PS1-1
Minimum Voltage: 16
Area Covered: 1st Floor
Wire Gauge: 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet)		Voltage at Device
			Between	Total	
1	P2WL75	0.121	30	30	20.16
2	HWL	0.044	50	80	19.81
3	P2WL15	0.054	40	120	19.53
4	P2WL110	0.162	30	150	19.34
5	P2WL75	0.121	35	185	19.14
6	HWL	0.044	55	240	18.88
7	P2WL110	0.162	45	285	18.68
8	HWL	0.044	50	335	18.51
9	P2WL15	0.054	25	360	18.43
10	PC2WL75	0.143	50	410	18.29
11	PC2WL15	0.071	50	460	18.19
12	P2WL30	0.074	35	495	18.14
13	PC2WL30	0.090	30	525	18.11
14	P2WL30	0.074	35	560	18.09
END				560	18.09
END				560	18.09
END				560	18.09
END				560	18.09
END				560	18.09
END				560	18.09
END				560	18.09
END				560	18.09
END				560	18.09
END				560	18.09
END				560	18.09
		Total Power:	**1.258**	**% Voltage Drop:**	**-11.32%**

NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.

Go

Point to Point Voltage Drop Analysis
FCPS-24S8 NAC Power Supply
Source Voltage: 20.4 Nominal System Voltage

Project Name: Harnett County Gov't. Services Center
Date: 6/12/2020
Circuit No: PS1-2
Minimum Voltage: 16
Area Covered: 1st Floor
Wire Gauge: 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet)		Voltage at Device
			Between	Total	
1	PC2WL115	0.187	140	140	19.24
2	P2WL110	0.162	55	195	18.85
3	PC2WL115	0.187	50	245	18.55
4	PC2WL115	0.187	45	290	18.33
5	PC2WL115	0.187	55	345	18.12
6	HWL	0.044	50	395	17.99
7	P2WL110	0.162	55	450	17.87
8	P2WL15	0.054	25	475	17.83
9	P2WL30	0.074	55	530	17.78
10	P2WL30	0.074	20	550	17.77
END				550	17.77
END				550	17.77
END				550	17.77
END				550	17.77
END				550	17.77
END				550	17.77
END				550	17.77
END				550	17.77
END				550	17.77
END				550	17.77
END				550	17.77
END				550	17.77
END				550	17.77
END				550	17.77
END				550	17.77
	Total Power:	**1.318**		**% Voltage Drop:**	**-12.87%**

NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.

Go

Point to Point Voltage Drop Analysis
FCPS-24S8 NAC Power Supply
Source Voltage: 20.4 Nominal System Voltage

Project Name: Harnett County Gov't. Services Center
Date: 6/12/2020
Circuit No: PS1-3
Minimum Voltage: 16
Area Covered: 1st Floor
Wire Gauge: 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet)		Voltage at Device
			Between	Total	
1	PC2WL75	0.143	60	60	19.94
2	P2WL110	0.162	50	110	19.61
3	PC2WL115	0.187	40	150	19.38
4	HWL	0.044	60	210	19.11
5	P2WL110	0.162	65	275	18.84
6	P2WL110	0.162	40	315	18.71
7	HWL	0.044	65	380	18.57
8	PC2WL75	0.143	50	430	18.47
9	P2WL110	0.162	50	480	18.42
END				480	18.42
END				480	18.42
END				480	18.42
END				480	18.42
END				480	18.42
END				480	18.42
END				480	18.42
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END				480	18.42
END				480	18.42
END				480	18.42
END				480	18.42
END				480	18.42
END				480	18.42
END				480	18.42
		Total Power:	**1.209**	**% Voltage Drop:**	**-9.70%**

NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.

Go

NOTIFIER® by Honeywell

Standby Battery Calculation
FCPS-24S8 NAC Power Supply

Protected Premises: Harnett County Government Services Center **Date:** 6/12/2020

Address: 302 W Cornelius Harnett Blvd.

City: Lillington **State:** NC **Zip:** 27546

Prepared By: Patterson Group Services **Phone:** (919) 776-2403

City: Sanford **State:** NC

Panel ID: PS2 **Location:** Jan. 147

System Device	Qty	Standby Current Draw		Alarm Current Draw	
		Draw	Standby	Draw	Alarm
FCPS-24S8 Main Board	1	0.065000	0.065000	0.145000	0.145000
HWL	3	0.000000	0.000000	0.044000	0.132000
P2WL15	5	0.000000	0.000000	0.054000	0.270000
P2WL30	4	0.000000	0.000000	0.074000	0.296000
P2WL110	5	0.000000	0.000000	0.162000	0.810000
PC2WL15	2	0.000000	0.000000	0.071000	0.142000
PC2WL30	5	0.000000	0.000000	0.090000	0.450000
PC2WL75	1	0.000000	0.000000	0.143000	0.143000
PC2WL115	2	0.000000	0.000000	0.187000	0.374000
SWL15	6	0.000000	0.000000	0.043000	0.258000
		Total Standby:	**0.065**	**Total Alarm:**	**3.020**

Secondary Load Requirements **2.18** **Amp Hours**

Total Secondary Load from the calculation table below.

Current Draw (Amps)		Time (Hours)	Total (AH)
Secondary Standby Load		Required Standby Time	
0.065		24	1.56
Secondary Alarm Load		Required Alarm Time	
3.020		0.084	0.25
		Total Secondary Load	1.81
		Derating Factor	1.2
		Secondary Load Requirements	**2.18**

Battery Selection **7** **Amp Hours**

Point to Point Voltage Drop Analysis
FCPS-24S8 NAC Power Supply
Source Voltage: 20.4 Nominal System Voltage

Project Name: Harnett County Gov't. Services Center
Date: 6/12/2020
Circuit No: PS2-1
Minimum Voltage: 16
Area Covered: 1st Floor
Wire Gauge: 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet)		Voltage at Device
			Between	Total	
1	PC2WL15	0.071	150	150	19.55
2	PC2WL30	0.090	20	170	19.44
3	P2WL30	0.074	35	205	19.28
4	P2WL30	0.074	20	225	19.19
5	PC2WL15	0.071	30	255	19.08
6	P2WL30	0.074	25	280	19.00
7	P2WL30	0.074	30	310	18.91
8	P2WL15	0.054	65	375	18.76
9	P2WL110	0.162	25	400	18.71
10	P2WL110	0.162	65	465	18.64
END				465	18.64
END				465	18.64
END				465	18.64
END				465	18.64
END				465	18.64
END				465	18.64
END				465	18.64
END				465	18.64
END				465	18.64
END				465	18.64
END				465	18.64
END				465	18.64
END				465	18.64
END				465	18.64
END				465	18.64
		Total Power:	**0.906**	**% Voltage Drop:**	**-8.62%**

NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.

Go

Point to Point Voltage Drop Analysis
FCPS-24S8 NAC Power Supply
Source Voltage: 20.4 Nominal System Voltage

Project Name: Harnett County Gov't. Services Center
Date: 6/12/2020
Circuit No: PS2-2
Minimum Voltage: 16
Area Covered: 1st Floor
Wire Gauge: 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet)		Voltage at Device
			Between	Total	
1	SWL15	0.043	25	25	20.25
2	PC2WL30	0.090	30	55	20.07
3	P2WL15	0.054	45	100	19.83
4	SWL15	0.043	25	125	19.70
5	SWL15	0.043	20	145	19.61
6	PC2WL30	0.090	30	175	19.47
7	P2WL15	0.054	115	290	19.02
8	HWL	0.044	25	315	18.93
9	SWL15	0.043	50	365	18.77
10	P2WL15	0.054	20	385	18.71
11	SWL15	0.043	35	420	18.61
12	P2WL110	0.162	30	450	18.54
13	PC2WL30	0.090	30	480	18.50
14	SWL15	0.043	55	535	18.45
15	PC2WL30	0.090	30	565	18.44
END				565	18.44
END				565	18.44
END				565	18.44
END				565	18.44
END				565	18.44
END				565	18.44
END				565	18.44
END				565	18.44
END				565	18.44
END				565	18.44
		Total Power:	**0.986**	**% Voltage Drop:**	**-9.63%**

NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.

Go

Point to Point Voltage Drop Analysis
FCPS-24S8 NAC Power Supply
Source Voltage: 20.4 Nominal System Voltage

Project Name: Harnett County Gov't. Services Center
Date: 6/12/2020
Circuit No: PS2-3
Minimum Voltage: 16
Area Covered: 1st Floor
Wire Gauge: 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet)		Voltage at Device
			Between	Total	
1	PC2WL75	0.143	45	45	20.12
2	HWL	0.044	55	100	19.83
3	P2WL15	0.054	55	155	19.56
4	HWL	0.044	35	190	19.39
5	PC2WL115	0.187	50	240	19.17
6	P2WL110	0.162	55	295	19.00
7	P2WL110	0.162	50	345	18.89
8	PC2WL115	0.187	50	395	18.83
END				395	18.83
END				395	18.83
END				395	18.83
END				395	18.83
END				395	18.83
END				395	18.83
END				395	18.83
END				395	18.83
END				395	18.83
END				395	18.83
END				395	18.83
END				395	18.83
END				395	18.83
END				395	18.83
END				395	18.83
END				395	18.83
END				395	18.83
		Total Power:	**0.983**	**% Voltage Drop:**	**-7.70%**

NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.

Go

NOTIFIER® by Honeywell

Standby Battery Calculation
FCPS-24S8 NAC Power Supply

Protected Premises: Harnett County Government Services Center **Date:** 6/12/2020

Address: 302 W Cornelius Harnett Blvd.

City: Lillington **State:** NC **Zip:** 27546

Prepared By: Patterson Group Services **Phone:** (919) 776-2403

City: Sanford **State:** NC

Panel ID: PS3 **Location:** Jan. 276

System Device	Qty	Standby Current Draw		Alarm Current Draw	
		Draw	Standby	Draw	Alarm
FCPS-24S8 Main Board	1	0.065000	0.065000	0.145000	0.145000
HWL	1	0.000000	0.000000	0.044000	0.044000
P2WL15	5	0.000000	0.000000	0.054000	0.270000
P2WL30	4	0.000000	0.000000	0.074000	0.296000
P2WL110	5	0.000000	0.000000	0.162000	0.810000
PC2WL15	2	0.000000	0.000000	0.071000	0.142000
PC2WL30	6	0.000000	0.000000	0.090000	0.540000
PC2WL75	3	0.000000	0.000000	0.143000	0.429000
SWL15	6	0.000000	0.000000	0.043000	0.258000
		Total Standby:	**0.065**	**Total Alarm:**	**2.934**

Secondary Load Requirements **2.17** **Amp Hours**

Total Secondary Load from the calculation table below.

Current Draw (Amps)		Time (Hours)	Total (AH)
Secondary Standby Load		Required Standby Time	
0.065		24	1.56
Secondary Alarm Load		Required Alarm Time	
2.934		0.084	0.25
		Total Secondary Load	1.81
		Derating Factor	1.2
		Secondary Load Requirements	**2.17**

Battery Selection **7** **Amp Hours**

Point to Point Voltage Drop Analysis
FCPS-24S8 NAC Power Supply
Source Voltage: 20.4 Nominal System Voltage

Project Name: Harnett County Gov't. Services Center
Date: 6/12/2020
Circuit No: PS3-1
Minimum Voltage: 16
Area Covered: 2nd Floor
Wire Gauge: 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet)		Voltage at Device
			Between	Total	
1	P2WL110	0.162	90	90	20.08
2	HWL	0.044	80	170	19.87
3	P2WL15	0.054	80	250	19.69
4	SWL15	0.043	15	265	19.66
5	SWL15	0.043	30	295	19.61
6	PC2WL30	0.090	35	330	19.56
7	SWL15	0.043	50	380	19.52
8	PC2WL30	0.090	35	415	19.50
END				415	19.50
END				415	19.50
END				415	19.50
END				415	19.50
END				415	19.50
END				415	19.50
END				415	19.50
END				415	19.50
END				415	19.50
END				415	19.50
END				415	19.50
END				415	19.50
END				415	19.50
END				415	19.50
END				415	19.50
END				415	19.50
END				415	19.50
		Total Power:	**0.569**	**% Voltage Drop:**	**-4.40%**

NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.

Go

Point to Point Voltage Drop Analysis
FCPS-24S8 NAC Power Supply
Source Voltage: 20.4 Nominal System Voltage

Project Name: Harnett County Gov't. Services Center
Date: 6/12/2020
Circuit No: PS3-2
Minimum Voltage: 16
Area Covered: 2nd Floor
Wire Gauge: 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet)		Voltage at Device
			Between	Total	
1	P2WL15	0.054	15	15	20.33
2	P2WL110	0.162	35	50	20.17
3	PC2WL30	0.090	30	80	20.07
4	PC2WL30	0.090	65	145	19.89
5	PC2WL15	0.071	55	200	19.76
6	P2WL30	0.074	35	235	19.70
7	P2WL30	0.074	35	270	19.65
8	PC2WL15	0.071	20	290	19.63
9	P2WL30	0.074	25	315	19.62
END				315	19.62
END				315	19.62
END				315	19.62
END				315	19.62
END				315	19.62
END				315	19.62
END				315	19.62
END				315	19.62
END				315	19.62
END				315	19.62
END				315	19.62
END				315	19.62
END				315	19.62
END				315	19.62
END				315	19.62
END				315	19.62
	Total Power:	**0.760**	**% Voltage Drop:**		**-3.84%**

NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.

Go

Point to Point Voltage Drop Analysis
FCPS-24S8 NAC Power Supply
Source Voltage: 20.4 Nominal System Voltage

Project Name: Harnett County Gov't. Services Center
Date: 6/12/2020
Circuit No: PS3-3
Minimum Voltage: 16
Area Covered: 2nd Floor
Wire Gauge: 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet)		Voltage at Device
			Between	Total	
1	P2WL15	0.054	30	30	20.32
2	SWL15	0.043	25	55	20.25
3	SWL15	0.043	25	80	20.20
4	PC2WL30	0.090	30	110	20.14
5	P2WL15	0.054	60	170	20.06
6	P2WL110	0.162	35	205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
END				205	20.02
		Total Power:	**0.446**	**% Voltage Drop:**	**-1.84%**

NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.

Go

Point to Point Voltage Drop Analysis
FCPS-24S8 NAC Power Supply
Source Voltage: 20.4 Nominal System Voltage

Project Name: Harnett County Gov't. Services Center
Date: 6/12/2020
Circuit No: PS3-4
Minimum Voltage: 16
Area Covered: 2nd Floor
Wire Gauge: 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet)		Voltage at Device
			Between	Total	
1	SWL15	0.043	25	25	20.24
2	PC2WL30	0.090	30	55	20.06
3	PC2WL75	0.143	40	95	19.84
4	P2WL30	0.074	55	150	19.58
5	P2WL110	0.162	45	195	19.39
6	P2WL110	0.162	40	235	19.27
7	P2WL15	0.054	30	265	19.20
8	PC2WL75	0.143	70	335	19.08
9	PC2WL75	0.143	30	365	19.05
END				365	19.05
END				365	19.05
END				365	19.05
END				365	19.05
END				365	19.05
END				365	19.05
END				365	19.05
END				365	19.05
END				365	19.05
END				365	19.05
END				365	19.05
END				365	19.05
END				365	19.05
END				365	19.05
END				365	19.05
END				365	19.05
	Total Power:	**1.014**		**% Voltage Drop:**	**-6.61%**

NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.

Go

NOTIFIER® by Honeywell

Standby Battery Calculation
FCPS-24S8 NAC Power Supply

Protected Premises: Harnett County Government Services Center **Date:** 6/12/2020

Address: 302 W Cornelius Harnett Blvd.

City: Lillington **State:** NC **Zip:** 27546

Prepared By: Patterson Group Services **Phone:** (919) 776-2403

City: Sanford **State:** NC

Panel ID: PS4 **Location:** Mech./Elec. 257

System Device	Qty	Standby Current Draw		Alarm Current Draw	
		Draw	Standby	Draw	Alarm
FCPS-24S8 Main Board	1	0.065000	0.065000	0.145000	0.145000
HWL	2	0.000000	0.000000	0.044000	0.088000
P2WL15	5	0.000000	0.000000	0.054000	0.270000
P2WL30	11	0.000000	0.000000	0.074000	0.814000
P2WL110	8	0.000000	0.000000	0.162000	1.296000
PC2WL15	8	0.000000	0.000000	0.071000	0.568000
PC2WL75	2	0.000000	0.000000	0.143000	0.286000
SWL15	1	0.000000	0.000000	0.043000	0.043000
		Total Standby:	**0.065**	**Total Alarm:**	**3.510**

Secondary Load Requirements **2.23** **Amp Hours**

Total Secondary Load from the calculation table below.

Current Draw (Amps)		Time (Hours)	Total (AH)
Secondary Standby Load		Required Standby Time	
0.065		24	1.56
Secondary Alarm Load		Required Alarm Time	
3.510		0.084	0.29
		Total Secondary Load	1.85
		Derating Factor	1.2
		Secondary Load Requirements	**2.23**

Battery Selection **7** **Amp Hours**

Point to Point Voltage Drop Analysis
FCPS-24S8 NAC Power Supply
Source Voltage: 20.4 Nominal System Voltage

Project Name: Harnett County Gov't. Services Center
Date: 6/12/2020
Circuit No: PS4-1
Minimum Voltage: 16
Area Covered: 2nd Floor
Wire Gauge: 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet)		Voltage at Device
			Between	Total	
1	P2WL15	0.054	45	45	20.05
2	P2WL110	0.162	40	85	19.75
3	P2WL110	0.162	60	145	19.36
4	PC2WL15	0.071	50	195	19.09
5	P2WL110	0.162	60	255	18.79
6	P2WL15	0.054	35	290	18.66
7	P2WL15	0.054	35	325	18.53
8	P2WL110	0.162	50	375	18.36
9	PC2WL15	0.071	35	410	18.28
10	PC2WL15	0.071	50	460	18.19
11	P2WL30	0.074	40	500	18.14
12	PC2WL15	0.071	45	545	18.10
13	P2WL30	0.074	30	575	18.08
END				575	18.08
END				575	18.08
END				575	18.08
END				575	18.08
END				575	18.08
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END				575	18.08
END				575	18.08
END				575	18.08
END				575	18.08
		Total Power:	**1.242**	**% Voltage Drop:**	**-11.35%**

NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.

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Point to Point Voltage Drop Analysis
FCPS-24S8 NAC Power Supply
Source Voltage: 20.4 Nominal System Voltage

Project Name: Harnett County Gov't. Services Center
Date: 6/12/2020
Circuit No: PS4-2
Minimum Voltage: 16
Area Covered: 2nd Floor
Wire Gauge: 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet)		Voltage at Device
			Between	Total	
1	PC2WL15	0.071	205	205	19.19
2	PC2WL15	0.071	35	240	19.00
3	HWL	0.044	40	280	18.81
4	P2WL30	0.074	50	330	18.57
5	P2WL30	0.074	30	360	18.44
6	PC2WL15	0.071	25	385	18.35
7	P2WL30	0.074	30	415	18.25
8	P2WL15	0.054	45	460	18.12
9	PC2WL15	0.071	30	490	18.04
10	P2WL30	0.074	45	535	17.95
11	PC2WL15	0.071	30	565	17.90
12	PC2WL75	0.143	35	600	17.86
13	HWL	0.044	45	645	17.85
END				645	17.85
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END				645	17.85
END				645	17.85
END				645	17.85
		Total Power:	**0.936**	**% Voltage Drop:**	**-12.51%**

NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.

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Point to Point Voltage Drop Analysis
FCPS-24S8 NAC Power Supply
Source Voltage: 20.4 Nominal System Voltage

Project Name: Harnett County Gov't. Services Center
Date: 6/12/2020
Circuit No: PS4-3
Minimum Voltage: 16
Area Covered: 2nd Floor
Wire Gauge: 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet)		Voltage at Device
			Between	Total	
1	P2WL110	0.162	50	50	20.02
2	P2WL30	0.074	60	110	19.63
3	P2WL30	0.074	35	145	19.42
4	P2WL110	0.162	25	170	19.28
5	P2WL110	0.162	25	195	19.16
6	P2WL30	0.074	40	235	19.02
7	SWL15	0.043	30	265	18.92
8	P2WL30	0.074	25	290	18.85
9	PC2WL75	0.143	40	330	18.76
10	P2WL30	0.074	25	355	18.72
11	P2WL110	0.162	35	390	18.69
END				390	18.69
END				390	18.69
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END				390	18.69
END				390	18.69
END				390	18.69
END				390	18.69
		Total Power:	**1.204**	**% Voltage Drop:**	**-8.40%**

NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.

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