

Module	Qty	Description	Standby Current	Total Standby	Alarm Current	Total Alarm	
<b>UNUM NAC PANEL #3 - FIRST FLOOR (2.1.W.916) 4009 NAC</b>							
Panel Equipment	4009-9201	1	4009 IDNET NAC EXTENDER, 120 VAC	0.0850	0.0850	0.1850	0.1850
Panel Totals				0.0850	0.0850	0.1850	0.1850
<b>Notification Appliances</b>							
Setting							
4906-9104	15	V/O MC NON-ADDRESS, WHF, CEILING	15	0.0000	0.0000	0.0750	1.1250
4906-9104	3	V/O MC NON-ADDRESS, WHF, CEILING	30	0.0000	0.0000	0.1250	0.3750
4906-9104	3	V/O MC NON-ADDRESS, WHF, CEILING	75	0.0000	0.0000	0.2330	0.6990
4906-9130	4	A/V MC NON-ADDRESS, WHF, CEILING	110	0.0000	0.0000	0.3200	1.2800
4906-9130	1	A/V MC NON-ADDRESS, WHF, CEILING	15	0.0000	0.0000	0.0860	0.0860
4906-9130	2	A/V MC NON-ADDRESS, WHF, CEILING	30	0.0000	0.0000	0.1320	0.2640
Peripheral Totals				0.0000	0.0000	4.3290	
Added Current for EPS Conversion of 24 to 29 Volt IDNet Devices				0.0000		0.0000	
RUI Totals				0	0.0000	0.0000	0.0000
Address Totals				0	0.0000	0.0000	0.0000
System Totals*				Standby	0.0850	Alarm	4.5140

Battery Set #1 (Cabinet/Charger #1)	Standby Current	Standby Total	Alarm Current	Alarm Total
4009	0.0850	0.0850	4.5140	4.5140
Sub Total				4.5140
Total				4.5140
Standby Time = 24 Hrs x 0.0850 = 2.0400 Standby Ah				
Alarm Time = 5 Min 0.08333 x 4.514 = 0.3762 Alarm Ah				
Additional Spare Battery Capacity = 0%				
Battery Discharge Factor = 20%				
Minimum Battery Required 2081-9272 6.2AH (2x)				
Battery Supplied 2081-9272 6.2AH (2x)				

\* System Totals represent total system current requirements. Those currents may be distributed between multiple battery sets or power supplies as shown above.

Plan	Description	Load	% Drop
V1	FL1 EAST CENTER A/V's	SIG1 1.417A	17.79%
V2	FL1 SOUTHEAST A/V's	SIG2 1.397A	18.08%
V3	FL1 NORTHEAST A/V's	SIG3 1.263A	19.03%
V4	GND FL A/V's	SIG4 0.250A	1.88%
Totals			4.329A

POINTS SHOWN IN ITALIC TEXT REFER TO EXISTING DEVICES.

Distributed Load Voltage Drop

Allowable % Drop: 21.6%  
Wire Gauge: 14ga  
Starting Voltage: 20.4vdc  
Ckt Capacity: 2A

Wire Res. Per Ft.: 0.003070 @ 75° Celsius  
Min. Device Voltage: 16 vdc  
% Voltage Drop: 17.79%

Device #	PID	Setting	Distance (feet)	Device Current	Voltage Drop	Voltage At Device
V1-1	4906-9104	75cd	293	0.233	2.549	17.85
V1-2	4906-9104	75cd	29	0.075	2.260	17.84
V1-3	4906-9130	15cd	40	0.086	3.032	17.37
V1-4	4906-9104	75cd	33	0.233	3.240	17.16
V1-5	4906-9104	75cd	27	0.233	3.371	17.03
V1-6	4906-9130	30cd	23	0.132	3.449	16.95
V1-7	4906-9104	30cd	21	0.125	3.504	16.90
V1-8	4906-9104	15cd	30	0.075	3.559	16.84
V1-9	4906-9104	15cd	19	0.075	3.586	16.81
V1-10	4906-9104	15cd	37	0.075	3.620	16.78
V1-11	4906-9104	15cd	19	0.075	3.628	16.77
Totals:			571 Ft.	1.417A		

Distributed Load Voltage Drop

Allowable % Drop: 21.6%  
Wire Gauge: 14ga  
Starting Voltage: 20.4vdc  
Ckt Capacity: 2A

Wire Res. Per Ft.: 0.003070 @ 75° Celsius  
Min. Device Voltage: 16 vdc  
% Voltage Drop: 18.08%

Device #	PID	Setting	Distance (feet)	Device Current	Voltage Drop	Voltage At Device
V2-1	4906-9130	110cd	317	0.320	2.719	17.68
V2-2	4906-9130	110cd	45	0.320	3.057	17.26
V2-3	4906-9130	30cd	41	0.132	3.227	17.17
V2-4	4906-9104	15cd	35	0.075	3.361	17.04
V2-5	4906-9104	15cd	21	0.075	3.432	16.97
V2-6	4906-9104	15cd	23	0.075	3.499	16.90
V2-7	4906-9104	15cd	34	0.075	3.583	16.82
V2-8	4906-9104	30cd	32	0.125	3.647	16.75
V2-9	4906-9104	30cd	23	0.125	3.675	16.73
V2-10	4906-9104	15cd	31	0.075	3.689	16.71
Totals:			605 Ft.	1.397A		

Distributed Load Voltage Drop

Allowable % Drop: 21.6%  
Wire Gauge: 14ga  
Starting Voltage: 20.4vdc  
Ckt Capacity: 2A

Wire Res. Per Ft.: 0.003070 @ 75° Celsius  
Min. Device Voltage: 16 vdc  
% Voltage Drop: 19.03%

Device #	PID	Setting	Distance (feet)	Device Current	Voltage Drop	Voltage At Device
V3-1	4906-9130	110cd	405	0.320	3.146	17.25
V3-2	4906-9130	110cd	44	0.320	3.401	17.00
V3-3	4906-9104	15cd	52	0.075	3.601	16.80
V3-4	4906-9104	15cd	22	0.075	3.675	16.73
V3-5	4906-9104	15cd	24	0.075	3.745	16.66
V3-6	4906-9104	15cd	23	0.075	3.801	16.60
V3-7	4906-9104	15cd	23	0.075	3.847	16.55
V3-8	4906-9130	75cd	25	0.260	3.886	16.51
Totals:			618 Ft.	1.263A		

Distributed Load Voltage Drop

Allowable % Drop: 21.6%  
Wire Gauge: 14ga  
Starting Voltage: 20.4vdc  
Ckt Capacity: 2A

Wire Res. Per Ft.: 0.003070 @ 75° Celsius  
Min. Device Voltage: 16 vdc  
% Voltage Drop: 1.88%

Device #	PID	Setting	Distance (feet)	Device Current	Voltage Drop	Voltage At Device
V4-1	4906-9130	75cd	250	0.250	0.384	20.02
Totals:			250 Ft.	0.250A		

Module	Qty	Description	Standby Current	Total Standby	Alarm Current	Total Alarm	
<b>UNUM NAC PANEL #4 - SECOND FLOOR (2.2.W.909) 4009 NAC</b>							
Panel Equipment	4009-9201	1	4009 IDNET NAC EXTENDER, 120 VAC	0.0850	0.0850	0.1850	0.1850
Panel Totals				0.0850	0.0850	0.1850	0.1850
<b>Notification Appliances</b>							
Setting							
4906-9104	21	V/O MC NON-ADDRESS, WHF, CEILING	15	0.0000	0.0000	0.0750	1.5750
4906-9104	6	V/O MC NON-ADDRESS, WHF, CEILING	30	0.0000	0.0000	0.1250	0.7500
4906-9130	10	A/V MC NON-ADDRESS, WHF, CEILING	110	0.0000	0.0000	0.3200	3.2000
4906-9130	5	A/V MC NON-ADDRESS, WHF, CEILING	15	0.0000	0.0000	0.0860	0.4300
4906-9130	2	A/V MC NON-ADDRESS, WHF, CEILING	30	0.0000	0.0000	0.1320	0.2640
4906-9130	4	A/V MC NON-ADDRESS, WHF, CEILING	75	0.0000	0.0000	0.2500	1.0000
Peripheral Totals				0.0000	0.0000	7.2190	
Added Current for EPS Conversion of 24 to 29 Volt IDNet Devices				0.0000		0.0000	
RUI Totals				0	0.0000	0.0000	0.0000
Address Totals				0	0.0000	0.0000	0.0000
System Totals*				Standby	0.0850	Alarm	7.4040

POINTS SHOWN IN ITALIC TEXT REFER TO EXISTING DEVICES.

Distributed Load Voltage Drop

Allowable % Drop: 21.6%  
Wire Gauge: 14ga  
Starting Voltage: 20.4vdc  
Ckt Capacity: 2A

Wire Res. Per Ft.: 0.003070 @ 75° Celsius  
Min. Device Voltage: 16 vdc  
% Voltage Drop: 17.79%

Device #	PID	Setting	Distance (feet)	Device Current	Voltage Drop	Voltage At Device
V1-1	4906-9130	30cd	46	0.132	0.539	19.86
V1-2	4906-9130	75cd	39	0.250	0.994	19.44
V1-3	4906-9104	15cd	26	0.075	1.208	19.19
V1-4	4906-9104	15cd	15	0.075	1.341	19.06
V1-5	4906-9104	30cd	28	0.125	1.578	18.82
V1-6	4906-9104	30cd	22	0.125	1.747	18.65
V1-7	4906-9130	15cd	22	0.086	1.899	18.50
V1-8	4906-9104	15cd	28	0.075	2.078	18.32
V1-9	4906-9104	15cd	18	0.075	2.185	18.22
V1-10	4906-9130	110cd	29	0.320	2.343	18.06
V1-11	4906-9130	110cd	40	0.320	2.485	17.92
V1-12	4906-9130	75cd	56	0.250	2.569	17.83
Totals:			473 Ft.	1.908A		

Battery Set #1 (Cabinet/Charger #1)

Select ALL Power Supplies on this battery set:

4009

Standby Current	Standby Total	Alarm Current	Alarm Total	
0.0850	0.0850	7.4040	7.4040	
Sub Total				
Total				
Standby Time = 24 Hrs x 0.0850 = 2.0400 Standby Ah				
Alarm Time = 5 Min 0.08333 x 7.404 = 0.6170 Alarm Ah				
Additional Spare Battery Capacity = 0%				
Battery Discharge Factor = 20%				
Minimum Battery Required 2081-9272 6.2AH (2x)				
Battery Supplied 2081-9272 6.2AH (2x)				

\* System Totals represent total system current requirements. Those currents may be distributed between multiple battery sets or power supplies as shown above.

Distributed Load Voltage Drop

Allowable % Drop: 21.6%  
Wire Gauge: 14ga  
Starting Voltage: 20.4vdc  
Ckt Capacity: 2A

Wire Res. Per Ft.: 0.003070 @ 75° Celsius  
Min. Device Voltage: 16 vdc  
% Voltage Drop: 11.92%

Device #	PID	Setting	Distance (feet)	Device Current	Voltage Drop	Voltage At Device
V2-1	4906-9130	15cd	24	0.086	0.271	20.13
V2-2	4906-9104	15cd	30	0.075	0.593	19.81
V2-3	4906-9130	15cd	24	0.086	0.840	19.56
V2-4	4906-9104	30cd	22	0.125	1.055	19.35
V2-5	4906-9104	30cd	25	0.125	1.280	19.12
V2-6	4906-9104	15cd	22	0.075	1.491	18.91
V2-7	4906-9130	110cd	40	0.320	1.942	18.46
V2-8	4906-9130	75cd	38	0.250	2.105	18.29
V2-9	4906-9104	15cd	64	0.075	2.282	18.12
V2-10	4906-9104	15cd	20	0.075	2.328	18.07
V2-11	4906-9104	15cd	22	0.075	2.368	18.03
V2-12	4906-9104	15cd	22	0.075	2.399	18.00
V2-13	4906-9104	15cd	22	0.075	2.419	17.98
V2-14	4906-9104	15cd	26	0.075	2.431	17.97
Totals:			429 Ft.	1.837A		

Distributed Load Voltage Drop

Allowable % Drop: 21.6%  
Wire Gauge: 14ga  
Starting Voltage: 20.4vdc  
Ckt Capacity: 2A

Wire Res. Per Ft.: 0.003070 @ 75° Celsius  
Min. Device Voltage: 16 vdc  
% Voltage Drop: 14.18%

Device #	PID	Setting	Distance (feet)	Device Current	Voltage Drop	Voltage At Device
V3-1	4906-9104	15cd	64	0.075	0.713	19.69
V3-2	4906-9104	15cd	17	0.075	0.894	19.51
V3-3	4906-9104	15cd	28	0.075	1.180	19.22
V3-4	4906-9104	15cd	25	0.075	1.424	18.98
V3-5	4906-9130	110cd	26	0.320	1.666	18.73
V3-6	4906-9130	15cd	47	0.086	2.011	18.39
V3-7	4906-9130	15cd	34	0.086	2.242	18.16
V3-8	4906-9130	110cd	48	0.320	2.543	17.86
V3-9	4906-9130	110cd	46	0.320	2.741	17.66
V3-10	4906-9130	75cd	52	0.250	2.963	17.54
V3-11	4906-9130	30cd	36	0.132	2.893	17.51
Totals:			423 Ft.	1.814A		

Distributed Load Voltage Drop

Allowable % Drop: 21.6%  
Wire Gauge: 14ga  
Starting Voltage: 20.4vdc  
Ckt Capacity: 2A

Wire Res. Per Ft.: 0.003070 @ 75° Celsius  
Min. Device Voltage: 16 vdc  
% Voltage Drop: 13.22%

Device #	PID	Setting	Distance (feet)	Device Current	Voltage Drop	Voltage At Device
V4-1	4906-9104	15cd	143	0.075	1.458	18.94
V4-2	4906-9104	15cd	20	0.075	1.652	18.75
V4-3	4906-9104	15cd	22	0.075	1.856	18.54
V4-4	4906-9104	15cd	22	0.075	2.050	18.35
V4-5	4906-9130	110cd	38	0.320	2.367	18.03
V4-6	4906-9130	110cd	50	0.320	2.667	17.71
V4-7	4906-9130	110cd	48	0.320	2.899	17.50
V4-8	4906-9104	30cd	47	0.125	3.014	17.39
V4-9	4906-9104	15cd	30	0.075	3.065	17.34
V4-10	4906-9104	30cd	23	0.125	3.093	