



Kidde Fire Systems - Flow Calculation Software v4.0.0 (Novac 1230)
UL: EX4674 / Component of FM Approved System

Eastern Fire Protection

170 Kittyhawk Ave
Auburn, ME 04210
Phone: 207-784-1507
File Name: One City Center.FC4

Consolidated Report

Customer Information

Company Name: Dirigo Management
Address: One City Center
Portland, ME 04101

Phone: 207-871-1080
Contact: Jim O Donnell
Title: President

Project Data

Project Name: Avangrid Server Room
Designer: CRM
Number:
Account:
Location: 5th Floor
Description:

Enclosure Report

Elevation: 0 ft (relative to sea level)
Atmospheric Correction Factor: 1

Enclosure 1 Server Room

Enclosure Temperature: Number of Nozzles: 1

Calculation Date/Time: Monday, March 20, 2017, 8:31:14 AM
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Key ID: 1803507359

Consolidated Report

Minimum: 70 F	Width: 0.0 ft
Maximum: 70 F	Length: 0.0 ft
Max. Concentration: 6.97 %	Height: 0.0 ft
Design Concentration:	Volume: 1350.0 ft ³
Adjusted: 6.97 %	Non-permeable: 193.0 ft ³
Minimum: 4.70 %	Total Volume: 1157.0 ft ³
Min. Agent Required: 49.4 lb	
Adjusted Agent Required: 75.0 lb	

Agent Source Report

Agent: Novec / Propellant N2
(Novec 1230 is a Trademark of 3M)
Cylinder Name: 125 lb Cylinder
Cylinder Part Number: 45-100125-001
Agent Per Cylinder: 75.0 lb
Fill Density: 41.9 lbs / cubic ft
Number of Main Cylinders: 1
Number of Reserve Cylinders: 0

Cylinder Empty Weight: 98.0 lb
Weight, All Cylinders + Agent: 173.0 lb
Floor Area Per Cylinder: 0.89 ft²
Floor Loading Per Cylinder: 194 lbs / ft²

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Consolidated Report

Parts Report

Total Agent Required: 75.0 lb

Cylinder Name: 125 lb Cylinder (Part: 45-100125-001)

Number of Cylinders: 1

Nozzle	Type	Nozzle Diameter	Drill Size	Nozzle Area	Part Number
E1-N1	180-SS	1 in	A	0.3441 in ²	45-194615-164

Pipe & Fittings	Type	Diameter	Length	Elbows (90)	Elbows (45)	Tees	Unions
	40T	3/4 in	0.25 ft	1	0	0	0
	40T	1 in	16.85 ft	2	0	0	0

Other Objects	Name	Quantity	Part Number
	1-1/2 in. Valve Outlet Adapter	1	283904

System Acceptance Report

*** WARNING - The data in this project may have been changed after the calculations were performed.**

System Discharge Time: 7.5 seconds
 Percent Agent In Pipe: 17.6%
 Percent Agent Before First Tee: 0.0%
 Dead Volume: 0.0% (0.0 lb)

Enclosure Number: 1
 Enclosure Name: Server Room

Minimum Design Concentration: 4.70%
 Adjusted Design Concentration: 6.97%
 Predicted Concentration: 6.97%

Consolidated Report

Maximum Expected Agent Concentration: 6.97% (At 70 F)

Nozzle	Minimum Agent Required	Adjusted Agent Required	Predicted Agent Delivered	Average Nozzle Pressure
E1-N1	49.4 lb	75.0 lb	75.0 lb	150 psig

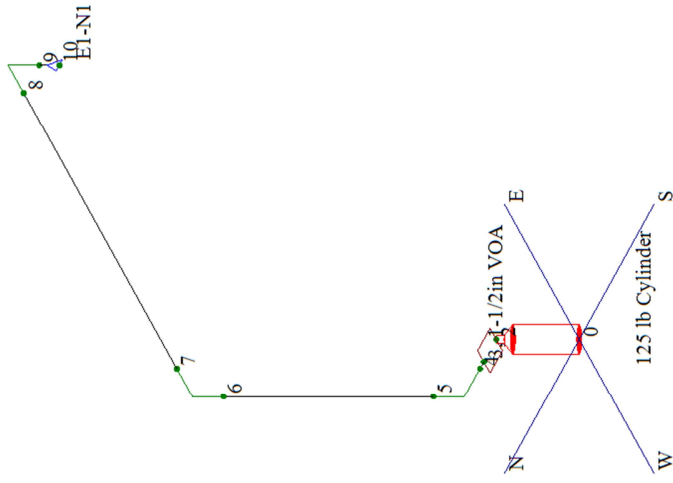
Consolidated Report

Pipe Network Report

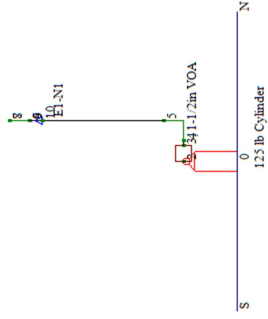
Description	Pipe Section	Start Node	End Node	Pipe Type	Pipe Diameter	Pipe Length	Union	Elevation Change	Total Equivalent Length	Nozzle Name	Nozzle Size	Nozzle Type	Nozzle Area
Adapter	System	2	3		1-1/2 in	2.67 ft	0	-----	11.80 ft				
Pipe	System	3	4	40T	3/4 in	0.25 ft	0	-----	0.30 ft				
Elbow (90)	System	4	5	40T	3/4 in	-----	0	-----	2.20 ft				
Pipe	System	5	6	40T	1 in	6.75 ft	0	6.75 ft	6.80 ft				
Elbow (90)	System	6	7	40T	1 in	-----	0	-----	2.80 ft				
Pipe	System	7	8	40T	1 in	9.85 ft	0	-----	9.90 ft				
Elbow (90)	System	8	9	40T	1 in	-----	0	-----	2.80 ft				
Pipe&Nozzle	System	9	10	40T	1 in	0.25 ft	0	-0.25 ft	0.30 ft	E1-N1	1 in	180-SS	0.3441 in ²

Consolidated Report

View #: 1 - Isometric View-Node



View #: 5 - Standard Elevation View



View #: 9 - Standard Plan View

