



Report No. 12143
Date: 05/04/05

Fuel Reduction Pilot Program

CONDUCTED AT

QUINNIPIAC CLUB - NEW HAVEN, CT

FOR

NXEGEN

TEST RESULTS

FOR A

HOT-WATER BOILER

A Confidential Report

Prepared by

Intellidyne LLC



90 Pratt Oval
 Glen Cove, NY 11542
 Phone: 516-676-0777
 Fax: 516-676-2640

Test Report

Report No. 12143

Date: 05/04/05

Customer:

NXEGEN
 362 Industrial Park Rd
 Middletown, CT 06457

Test Site Location:

Quinnipiac Club
 221 Church St.
 New Haven, CT 06510

Test Type: HEATING AIR CONDITIONING REFRIGERATION OTHER: _____
 Product Tested: HW LCH LCS CHW CHS AC CAC RU OTHER: _____

Type of Equipment:

Manuf.: HB Smith / Burner is An Iron Fireman
 Model: 450 Mills / HP GO-4-4.5
 Fuel: Oil

 Application: Heating & DHW
 Area Served: Entire Building

Test Start Date: 03/18/05
 Test End Date: 04/16/05
 No. of Days in Test: 30

BURNER RUN-TIME: in HRS. in MIN.
 IntelliCon ON-DAYS: 73:48:47
 IntelliCon OFF-DAYS: 82:23:14 RUN-TIME was reduced by: 10.41%

BURNER USAGE FACTOR:
 IntelliCon On-Days: 21%
 IntelliCon Off-Days: 23%

HEATING DEGREE-DAYS (FOR TEST PERIOD)
 IntelliCon ON-DAYS: 296 It was 4.3% Colder on the On-Days.
 IntelliCon OFF-DAYS: 284
 Total Degree-Days: 580

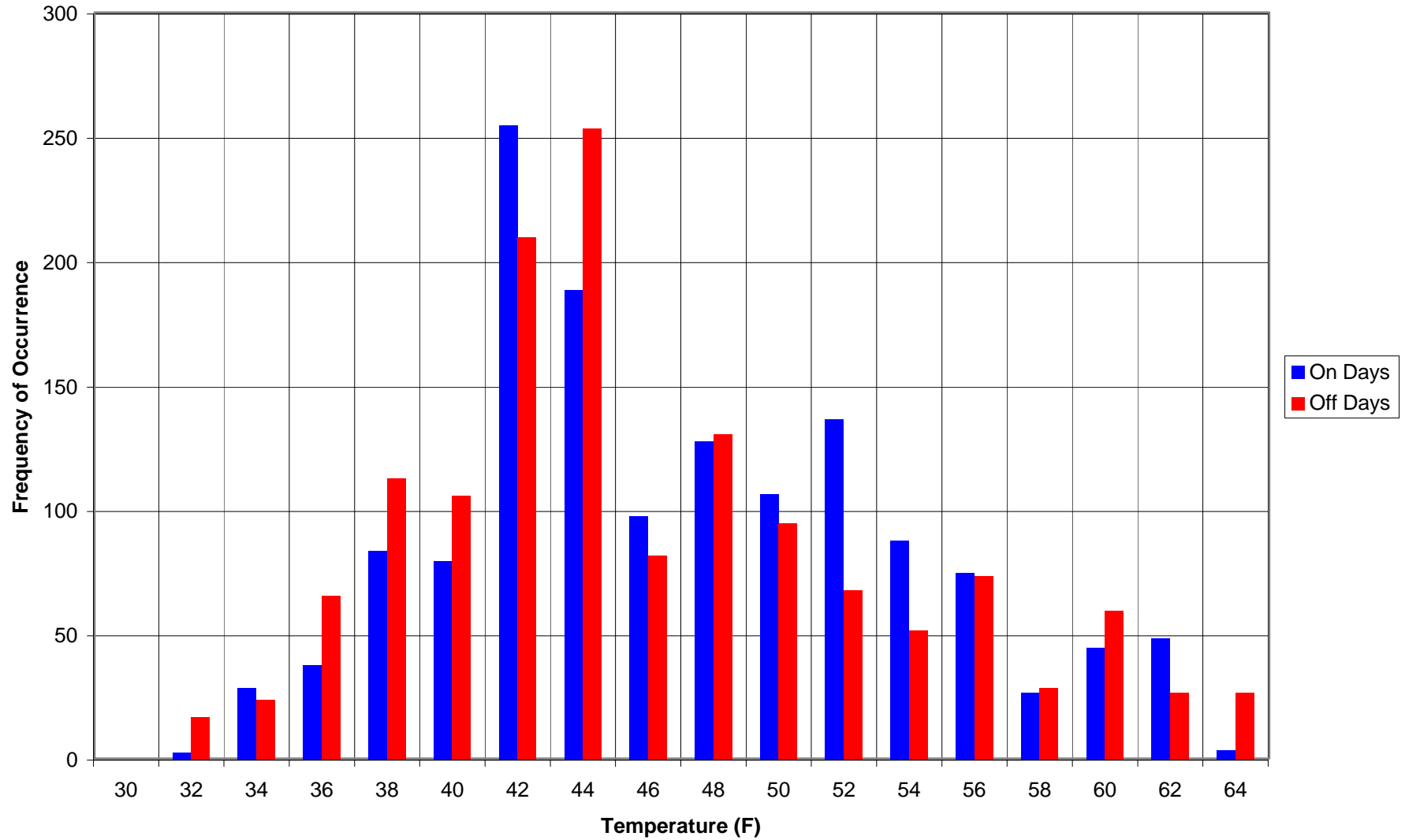
SOLAR LOAD COMPENSATION: (Lumens/Sq. Ft.)
 IntelliCon ON-DAYS: 173101
 IntelliCon OFF-DAYS: 171471 It was < 1% Sunnier on the On-Days.

BURNER CYCLING REDUCTION:
 IntelliCon ON-DAYS: 1617
 IntelliCon OFF-DAYS: 2066 Cycling was reduced by: 21.7%

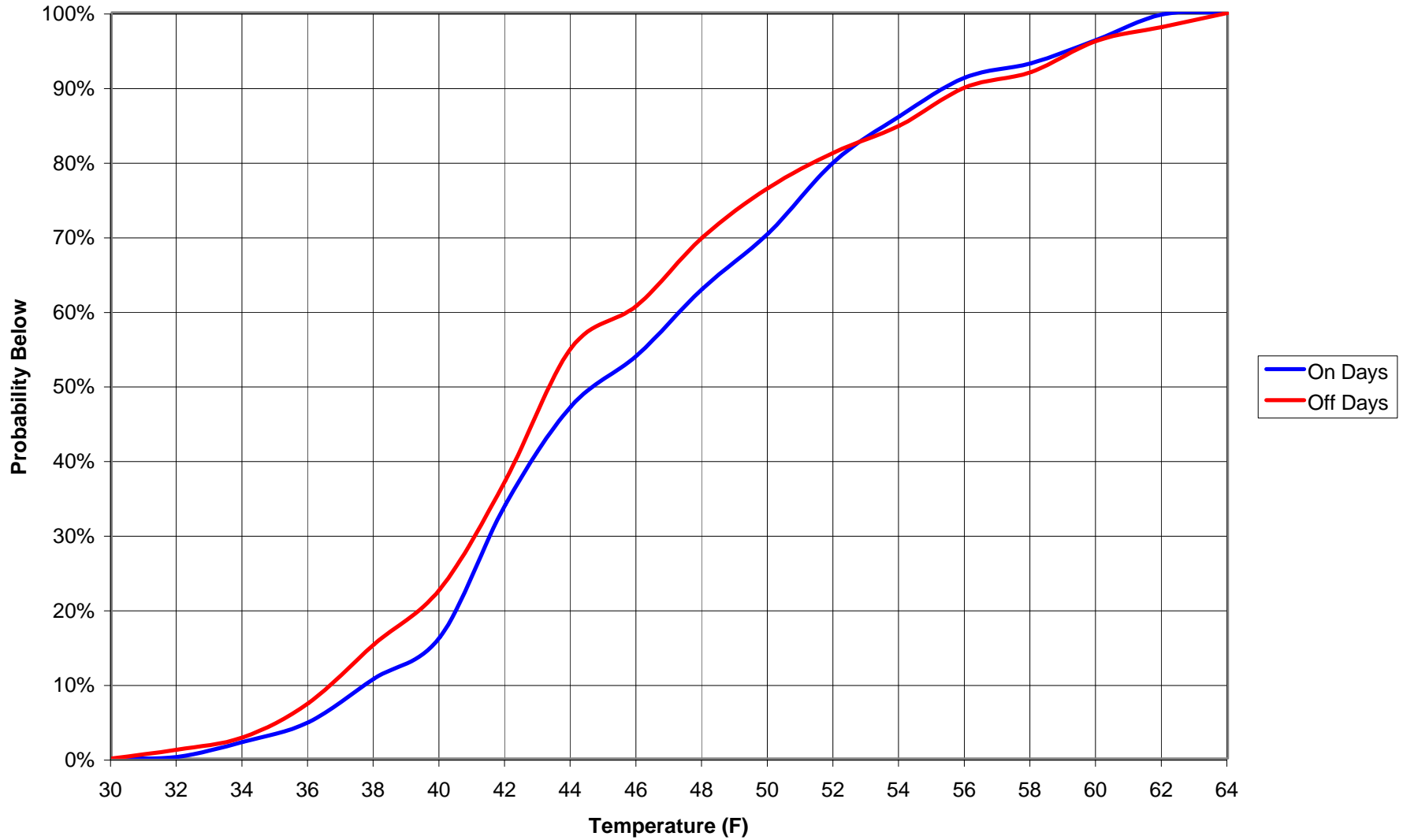
Savings = 11.36%

COMMENTS: Data analysis revealed that during the test period a 1% increase in heating degree-days caused a 0.25% increases in runtimes. As such, for the purpose of normalizing the data for calculation purposes, the On-Day runtimes were reduced by 1.1% to compensate for the difference in degree-days. Differences in solar load were less than 1%, thus the loading effect was negligible and was not compensated for. Usage factors are low which is indicative of either an oversized system or a system that is not under a normal load. Log data provided from the test site indicates that the system was not in the heating mode for approximately 50% of the time, due to elevated outdoor temperatures. Savings results would be higher under normal loading conditions (during winter months)... Further data analysis revealed that the IntelliCon control reduced fuel consumption for Domestic Hot generation water by approx. 18.5%, when the system was not in the heating mode. Boiler # 2 did not run at all during the test period.

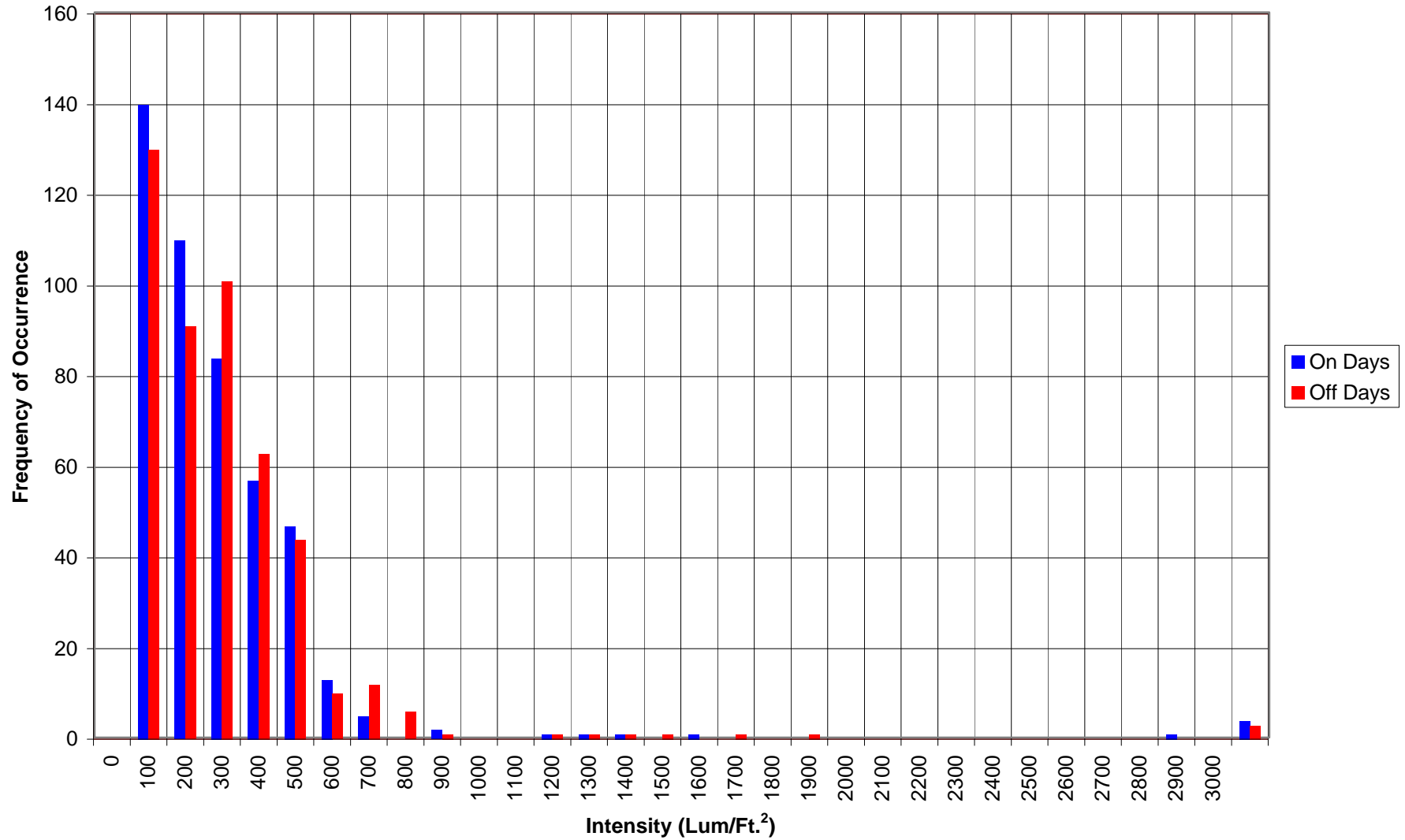
Outside Air Temperature Histogram (3/18/05 --4/16/05)



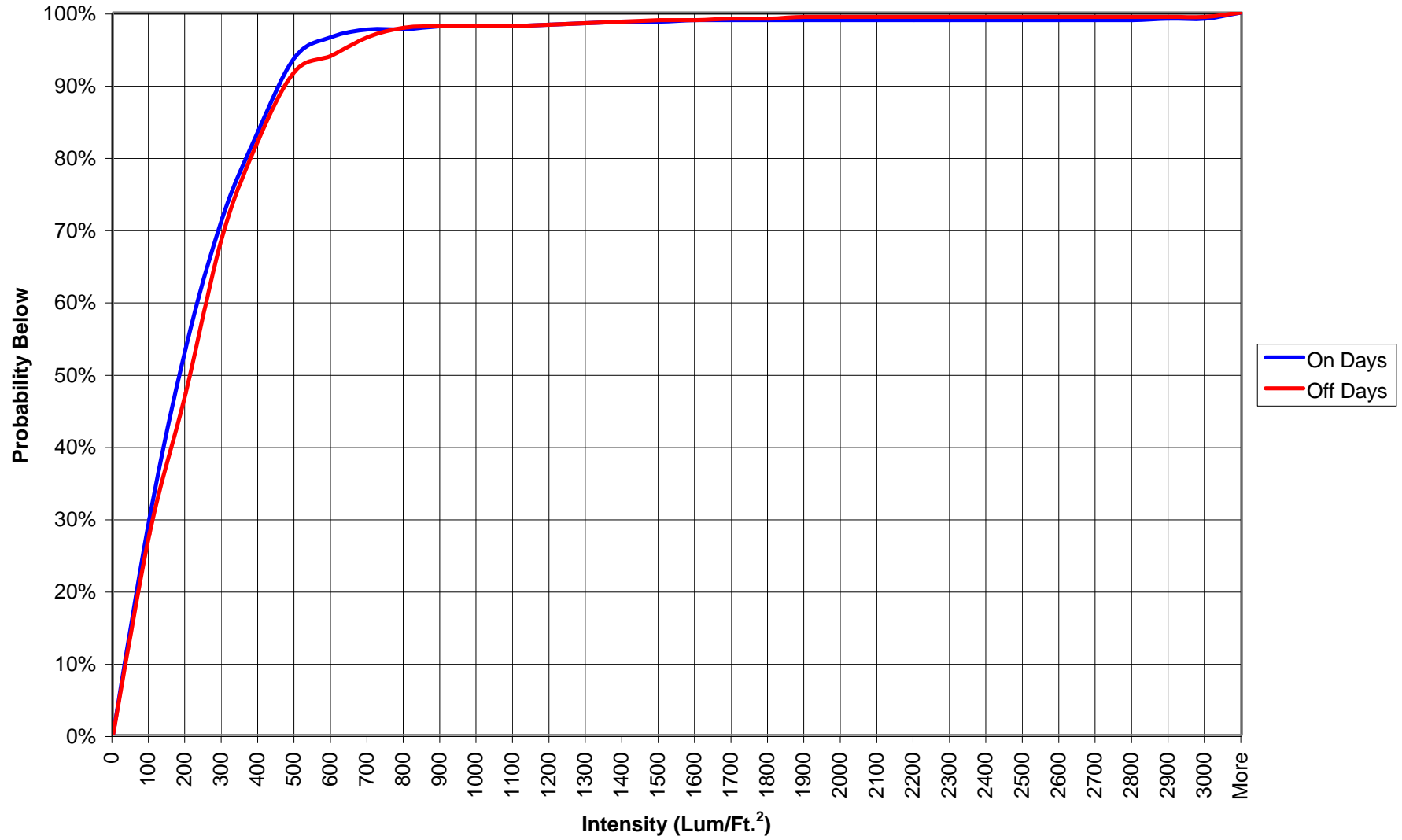
Outside-Air Temperature Probabilities (3/18/05 --4/16/05)



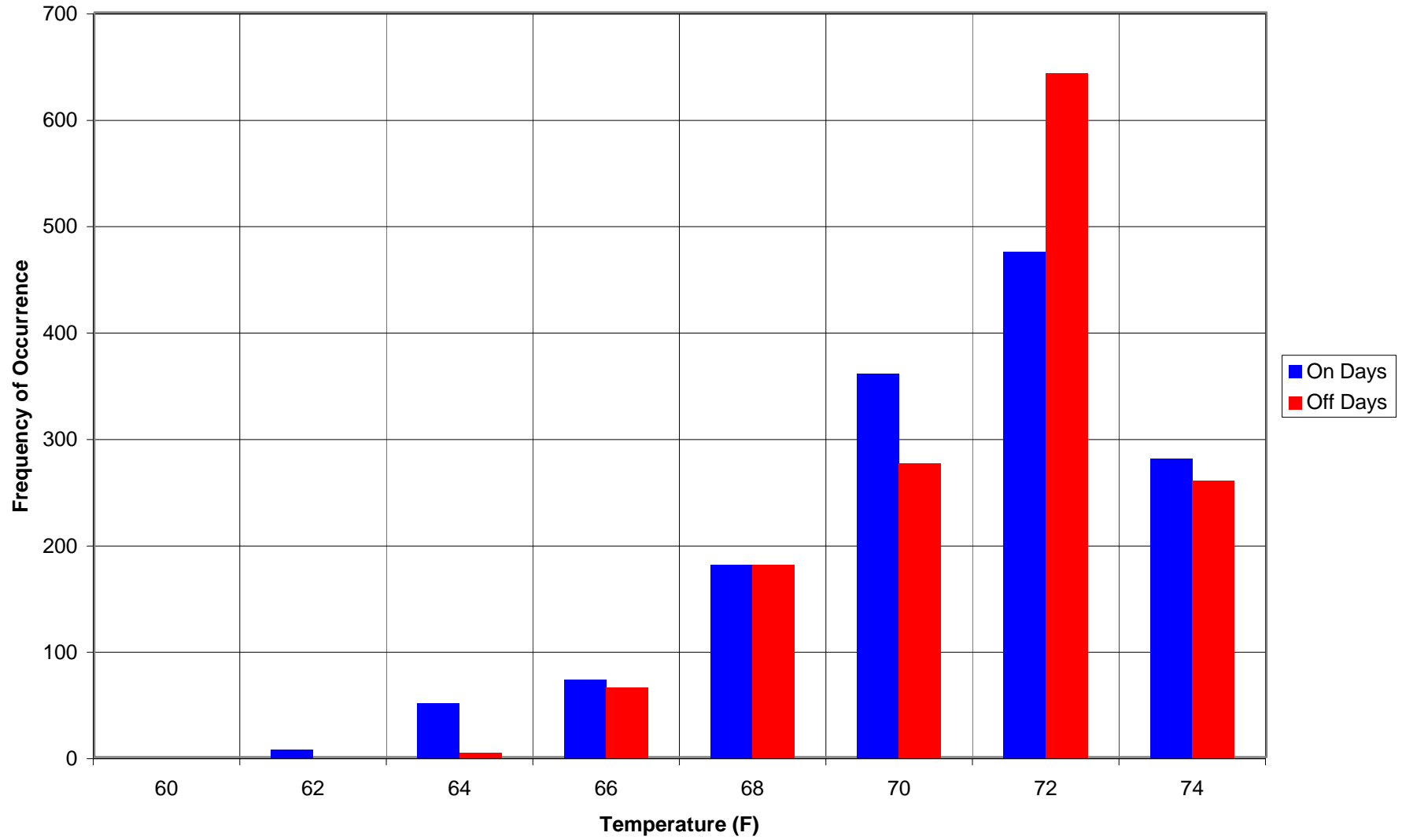
Solar Load Probabilities (3/18/05 --4/16/05)



Solar Load Probabilities (3/18/05 --4/16/05)



Space Temperature Histogram (3/18/05 --4/16/05)



Space Temperature Probabilities (3/18/05 --4/16/05)

