

# Food Service Technology Center Appliance Test Summary Report

The information in this report is based on data generated at the PG&E Food Service Technology Center.  
California consumers are not obligated to purchase any full service or other service not funded by the program.  
This program is funded by the California utility rate payers under the auspices of the California Public Utilities Commission.

<b>Manufacturer</b>	Moffat
<b>Model</b>	E32D4
<b>Appliance</b>	Full Size, 4 rack convection oven - Electric

<b>Report Number</b>	501310091
<b>Test Date</b>	November, 2010
<b>Tested By</b>	D.Livchak

## Purpose of Testing

This testing determined the energy input rate, preheat time and energy, idle energy rate, heavy-load cooking-energy efficiency, and browning uniformity of the oven by applying ASTM F1496.

## Cavity Volume

Internal Oven-Cavity Volume (CuFt)	6.36
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## Energy Input Rate

Test Voltage (V)	240
Rated Energy Input Rate (kW)	6.50
Measured Energy Input Rate (kW)	6.75*
Difference (%)	3.8

\*3 min peak power duration

## Preheat to 340°F

Duration (min)	6.67
Energy Consumption (kWh)	0.67
Preheat Rate (°F/min)	40.0

## Idle at 350°F

Idle Energy Rate (kW)	0.975
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## Heavy-Load Cooking Energy Efficiency <sup>a</sup>

Food Product	Russet Potatoes
Oven Temperature Set-point (°F)	350
Cook Time (min)	48.82
Cooking Energy Rate (kW)	6.11
Energy to Food (Btu/lb)	218
Energy to Appliance (Btu/lb)	289
Cooking-Energy Efficiency (%)	75.5 ± 0.4
Production Capacity (lb/hr)	72.1 ± 4.0

<sup>a</sup> based on a minimum of three test replicates.



## Moffat

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Phillipstown, Christchurch  
New Zealand  
<http://www.moffat.com/>

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### Heavy-Load Potato Test Data

	Test #1	Test #2	Test #3
<b>Measured Values</b>			
<b>Test Voltage (V)</b>	<b>240</b>	<b>240</b>	<b>240</b>
<b>Cook Time (min)</b>	<b>49.90</b>	<b>47.68</b>	<b>48.89</b>
<b>Electric Energy to Oven (kWh)</b>	<b>5.08</b>	<b>4.87</b>	<b>4.97</b>
Initial Weight of Potatoes (lb)	58.73	58.66	58.66
Final Weight of Potatoes (lb)	52.06	52.55	52.33
Initial Temperature of Potatoes (°F)	70.2	71.0	70.1
Final Temperature of Potatoes (°F)	205	20	205
<b>Calculated Values</b>			
Sensible Heat (Btu)	6,650	6,603	6,647
Latent - Heat of Vaporization (Btu)	6,470	5,927	6,140
Total Energy to Food (Btu)	13,120	12,529	12,787
<b>Energy to Food (Btu/lb)</b>	<b>223</b>	<b>214</b>	<b>218</b>
Total Energy to Oven (Btu)	17,338	16,621	16,963
<b>Energy per Pound of Food Cooked (Btu/lb)</b>	<b>295</b>	<b>283</b>	<b>289</b>
<b>Cooking-Energy Efficiency (%)</b>	<b>75.7</b>	<b>75.4</b>	<b>75.4</b>
<b>Cooking-Energy Rate (kW)</b>	<b>6.11</b>	<b>6.13</b>	<b>6.10</b>
<b>Production Capacity (lb/h)</b>	<b>70.6</b>	<b>73.8</b>	<b>72.0</b>

### Sheet Cake Uniformity

Food Product	White Cake Mix
Bake Time (min)	19.0

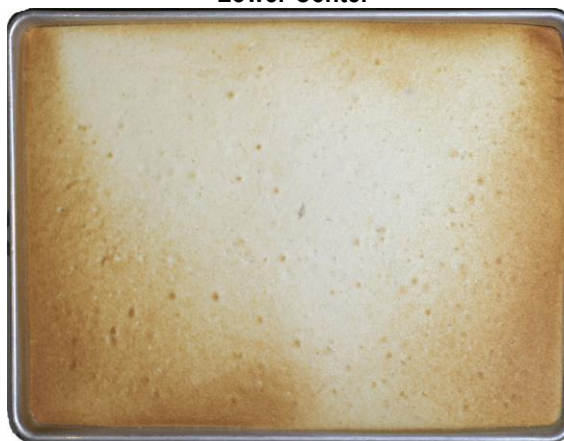
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**Top**



**Lower Center**



**Upper Center**



**Bottom**



**Fan located on the top side in all the pictures**

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