

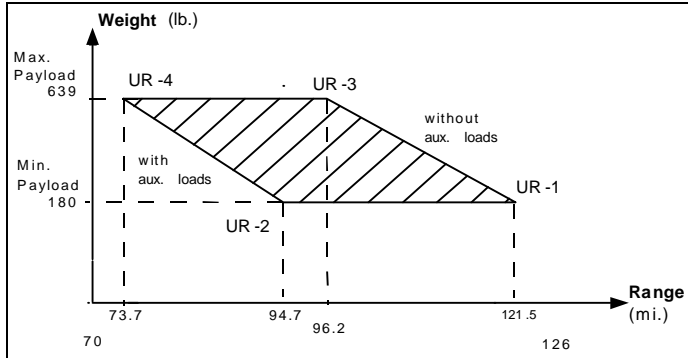
1999 NISSAN ALTRA EV (LITHIUM ION BATTERIES) PERFORMANCE CHARACTERIZATION SUMMARY

ELECTRIC TRANSPORTATION DIVISION



Urban Range

(On Urban Pomona Loop—see other side for map)

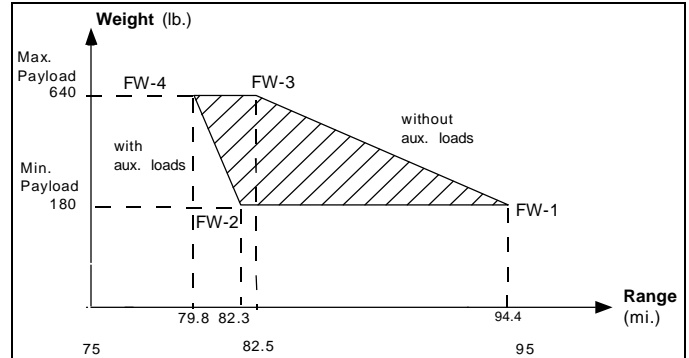


Test	UR1	UR2	UR3	UR4
Payload (lb.)	180	180	639	639
AC kWh Recharge	31.05	33.16	25.96	23.15
AC kWh/mi.	.255	.348	.269	.392
Range (mi.)	121.5	94.7	96.2	73.7
Avg. Ambient Temp.	78.20°F	78.60°F	97.40°F	91.50°F

UR1	Urban Range Test, Min Payload, No Auxiliary Loads
UR2	Urban Range Test, Min Payload, A/C on High, Headlights on Low, Radio On
UR3	Urban Range Test, Max Payload, No Auxiliary Loads
UR4	Urban Range Test, Max Payload, A/C on High, Headlights on Low, Radio On

Freeway Range

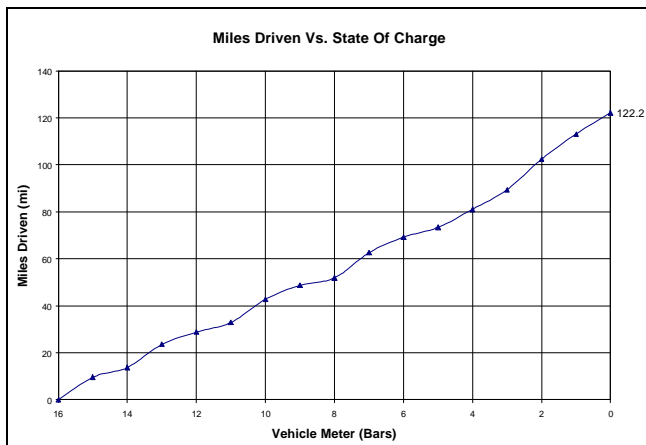
(On Freeway Pomona Loop—see other side for map)



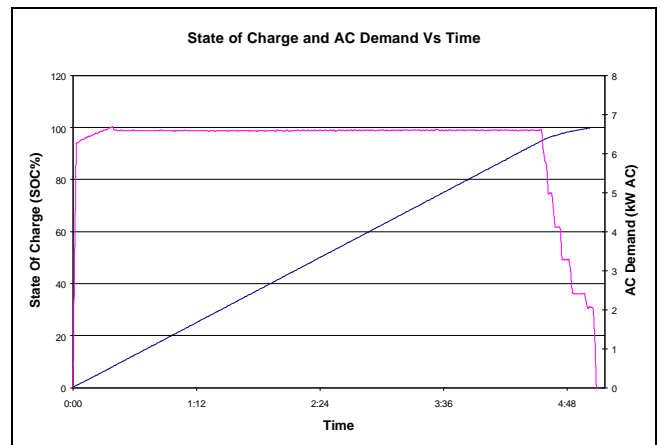
Test	FW1	FW2	FW3	FW4
Payload (lb.)	180	180	639	639
AC kWh Recharge	30.39	31.09	29.61	30.63
AC kWh/mi.	0.315	0.391	0.355	0.384
Range (mi.)	94.4	82.3	82.5	79.8
Avg. Ambient Temp.	70.10°F	83.10°F	59.30°F	84.20°F

FW1	Freeway Range Test, Min Payload, No Auxiliary Loads
FW2	Freeway Range Test, Min Payload, A/C on High, Headlights on Low, Radio On
FW3	Freeway Range Test, Max Payload, No Auxiliary Loads
FW4	Freeway Range Test, Max Payload, A/C on High, Headlights on Low, Radio On

State of Charge Meter (UR1)



Charger



MEASURED VALUE AT PEAK AC POWER	
Voltage	247.3
Current	25.69 A
Real Power	6.473 kW
Reactive Power	618.4 VAR
Apparent Power	6.582 kVA
Total Power Factor	0.99 PF
Displacement Power Factor	0.99 dPF
Voltage THD	1.10%
Current THD	3.20%