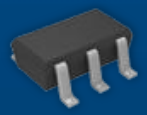
Non-isolated LED Lighting Driver IC Performance Test Report



High Efficiency Boundary Mode Constant Current LED Driver Controller for Offline Applications Requiring High Power Factor

RT8487

High Efficiency Boundary Mode Constant Current LED Driver with Build-in 620V/1.8A Power MOSFET for Offline Applications Requiring High Power Factor

RT8497

http://www.richtek.com/LED

RICHTEK
your power partner.

RT8487 Performance Test Result

High Efficiency Boundary Mode Constant Current LED Driver Controller for Offline Applications Requiring High Power Factor

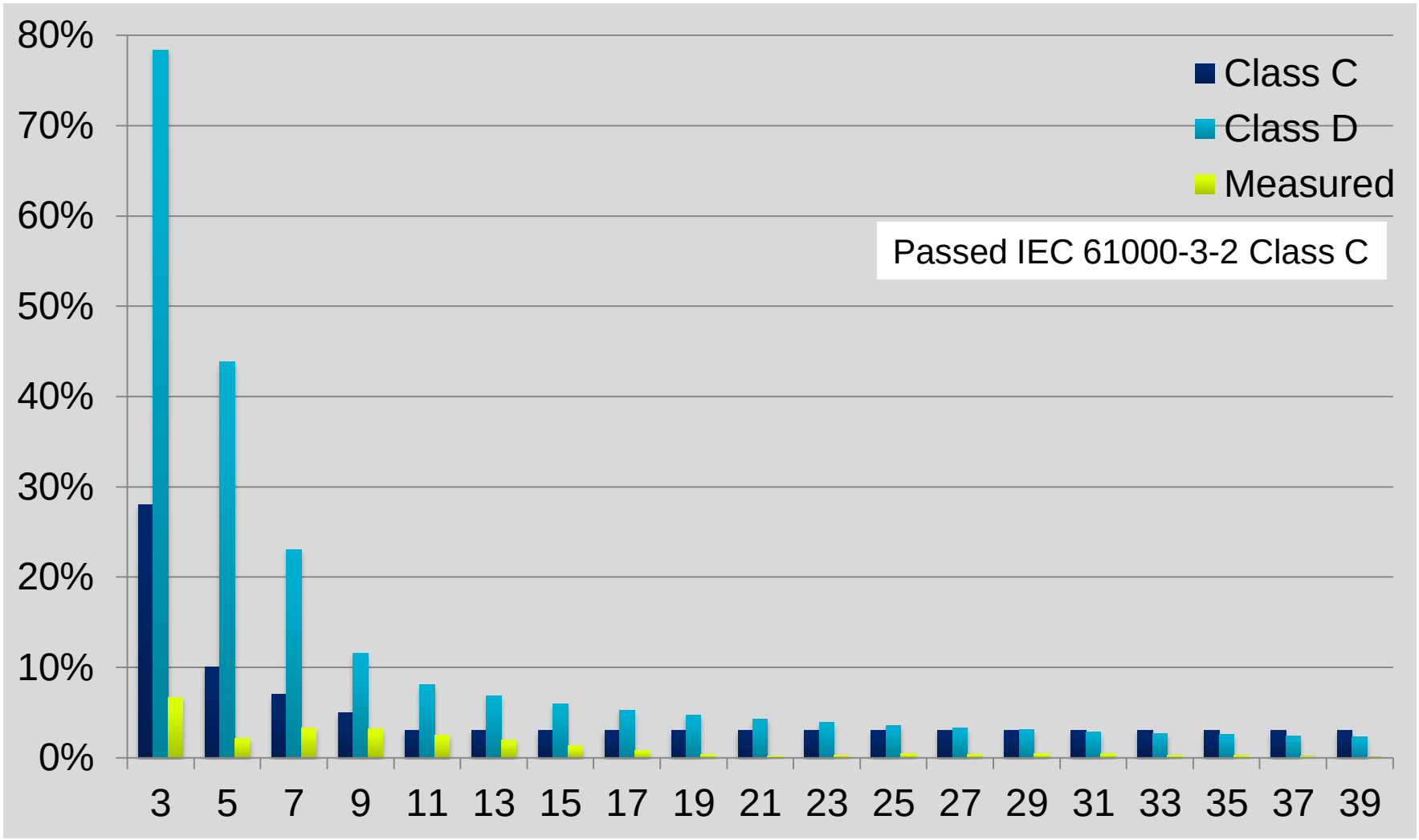
34W **E>90.2%** **PF>0.96**

V_{AC} [V]	P_{IN} [watt]	V_{OUT} [V]	I_{OUT}[mA]	Eff. [%]	PFC
180	34.42	41.31	756	90.73%	0.986
200	34.35	41.19	757	90.77%	0.983
220	34.41	41.12	758	90.58%	0.979
240	34.47	41.09	759	90.46%	0.974
264	34.64	41.07	761	90.20%	0.967

16W **E>88.5%** **PF>0.97**

V_{AC} [V]	P_{IN} [watt]	V_{OUT} [V]	I_{OUT} [mA]	Eff. [%]	PFC
90	16.30	42.13	344.5	89.04%	0.973
132	16.30	42.22	346.5	89.75%	0.988
220	16.46	42.28	346.8	89.08%	0.989
264	16.61	42.41	346.9	88.57%	0.981

RT8487 THD Test Result – Passed IEC 61000-3-2 Class C Standard



RT8497 Performance Test Result

High Efficiency Boundary Mode Constant Current LED Driver with Build-in 620V/1.8A Power MOSFET for Offline Applications Requiring High Power Factor

10W E>90.2% PF>0.96 THD<15

V_{AC} [V]	P_{IN} [Watt]	V_{OUT} [V]	I_{OUT} [mA]	Eff. [%]	PFC	THD [%]
198	9.94	71.52	126.4	90.95%	0.979	14.13
220	9.95	71.52	126.2	90.71%	0.978	12.58
230	9.97	71.55	126.3	90.64%	0.977	12.01
240	9.98	71.55	126.3	90.55%	0.975	11.59
264	10.00	71.54	126.2	90.28%	0.969	10.86

8W E>88.8% PF>0.95 THD<15

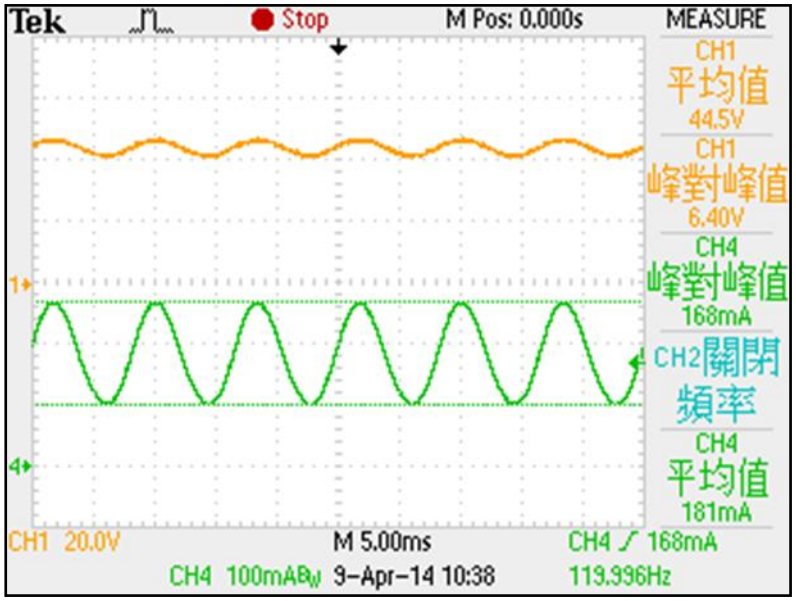
V_{AC} [V]	P_{IN} [Watt]	V_{OUT} [V]	I_{OUT} [mA]	Eff. [%]	PFC	THD [%]
180	7.94	47.15	151.2	89.79%	0.985	9.05
220	7.96	47.06	151	89.27%	0.976	9.9
264	8.02	47.01	151.5	88.80%	0.957	12.89

RT8487 Current Ripple Removal (CRR) Test Result

I_{LED} Ripple drops from ±46.41% to ±6.62%

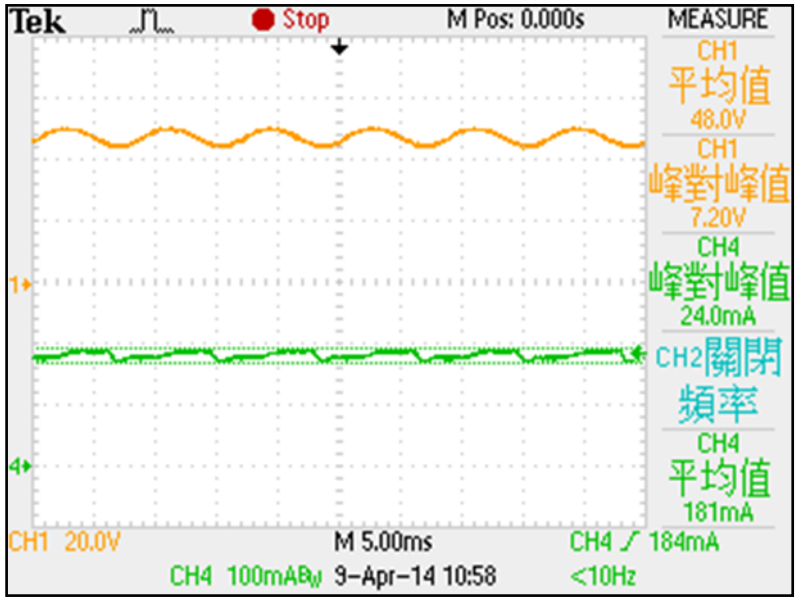
Without CRR

I_{LED} Ripple = ±46.41%



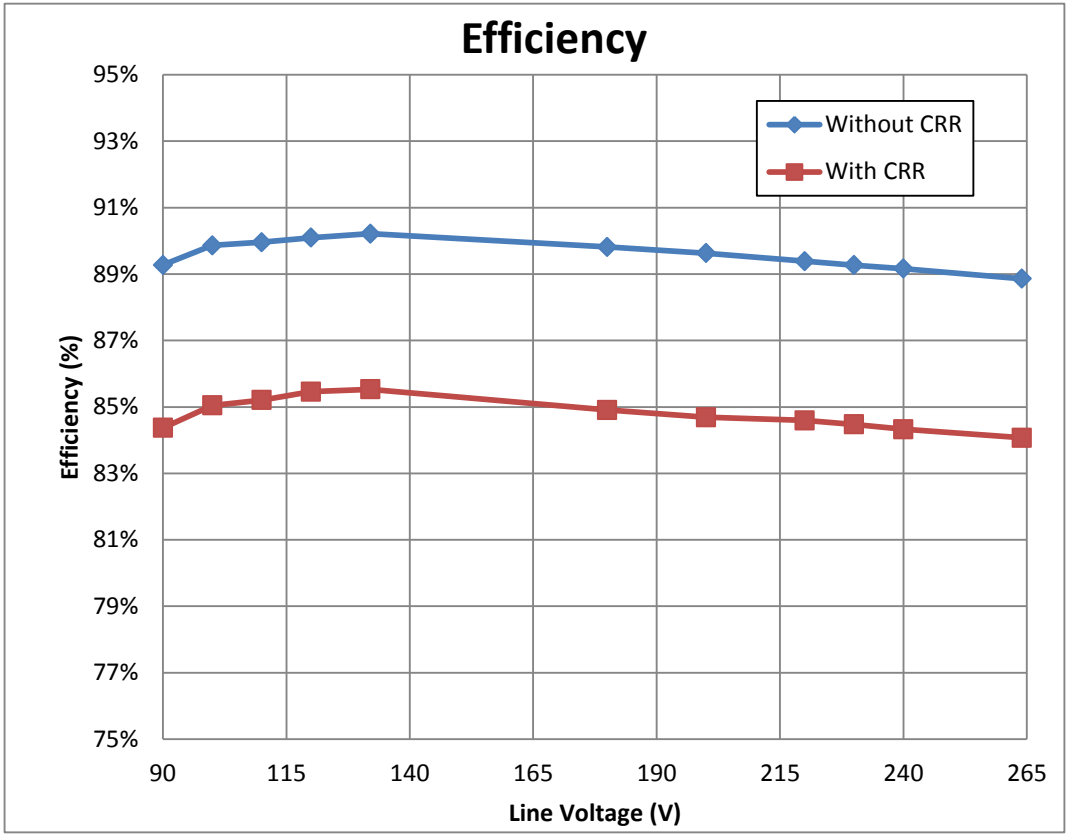
With CRR

I_{LED} Ripple = ±6.62%



RT8487 Current Ripple Removal (CRR) Test Result
- tiny drop in efficiency gains excellent current ripple improvement

- **Only 4~5 % decrease in efficiency in CRR mode;**
- **PF value, current regulation & THD keep the same performance.**



8W / V_{OUT} = 43V / I_{OUT} = 180mA)