BUY CREE @ $25

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Reversing the Glut of LED

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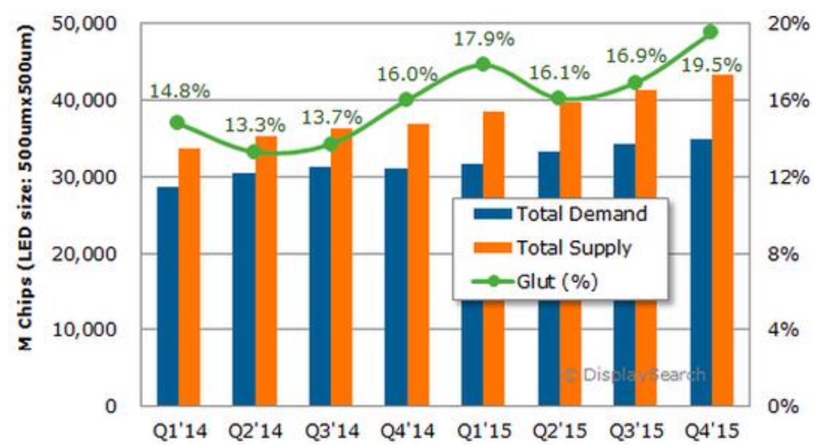
Reversing the Glut of LED

Target Buy Price:	$25
Valuation:	10 x FY 2018 (Jun) Non GAAP EPS / $2.51 (see model.)
Target Sell Price:	$50
Valuation:	20 x FY 2018 (Jun) Non GAAP EPS / $2.51 (see model.)
Time Frame:	2 years
Thesis:	CREE will uniquely benefit from the recent curb to Chinese MOVCD subsidies as industry consolidation will reduce the intense pricing pressure placed by the glut of substandard LED.

Reversing the Glut of LED:
There are no LED standards enforced in China. As a result, state subsidized MOVCD machines have been flooding the market with bad LED, destroying profitability for most of the industry worldwide. 27% of CREE's sales come from China where the never ending glut has driven their sales of LED Products straight down (please note modeled segmented revenue.) This condition will end.

The LED glut will peak this year as the supply side subsidies curtail. The policy change was announced in December right after *Sanan Opto* purchased another 100 MOVCD machines with State money.

> *China's State Council (central government) has ordered its subordinate agencies and local governments to stop offering subsidies and tax incentives for China-based LED epitaxial wafer and chip makers because such offering has disrupted market mechanisms and may violate WTO rules.* 12.23.2014



China will account for 73% of MOVCD shipments in 2015 and has accumulated almost 1,000 machines in 5 years. Out of 2,937 total installations, China has 1,019 of them.

As the subsidies end the consolidation begins.

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Industry Consolidation Will Accelerate:
CREE is one of the few LED companies that has a profitable plan. *Philips* had to give up *Lumileds* last June. *Samsung* retreated from LED right after. TSMC found a buyer…and subsidies are about to end. Consolidation has already started and will accelerate, allowing producers to close the supply side glut.

Quote from TSMC in 2010: "The LED operation will become one of the most important segments of the TSMC in 5–10 years," Dr. Morris Chang, CEO & Chairmain.

Quote from TSMC in 2015: *Epistar* will be purchasing 94% of TSMC SSL shares at a price of NT$ 1.46 **(US $0.05)** per share.

The Special Situation With *Lumileds*:
If CREE merges with *Lumileds* the stock will double into the adoption curve. *Lumileds* would instantly recapture the low & mid power market back for CREE. It would also add automotive customers. Evidence suggests this will happen. CREE just opened up a $500M line of credit when they have $1.1B in cash. With *Lumileds* open to alternative financing some sort of business venture would revitalize both franchises.

Conclusions:
When analysts first looked at the LED industry they thought it would follow a semiconductor path. Instead, wafer sizes never matured and subsidies without standards created a never ending glut. LED will end up following the path of Chinese solar, where overcapacity consolidated into a few large profitable players. CREE will benefit from the ecosystem as shareholder value accelerates next year.

Buy CREE **@ $25.**
@ $25 the Value Manager will buy at book.
@ $25 the GARP Manager will buy a name with 20% growth at 10x.
@ $25 the Growth Manager will see trough quarter with inflection next year.

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	FY2013.Jun	FY2014.Jun	Q1.Sep(a)	Q2.Dec	Q3.Mar	Q4.June	FY2015.Jun	Q1.Sep	Q2.Dec	Q3.Mar	Q4.Jun	FY2016.Jun	FY2017.Jun	FY2018.Jun
LED Products	801,483	833,684	173,590	147,552	140,174	154,191	615,507	161,901	165,139	161,836	186,112	674,987	877,484	1,140,729
Lighting Products	495,089	706,425	223,086	234,240	245,952	258,250	961,529	271,162	284,721	298,957	313,904	1,168,744	1,460,930	1,826,162
RF & Power Products	89,410	107,532	30,996	32,546	34,173	35,882	133,597	37,676	39,560	41,538	43,614	162,388	194,865	233,838
Total Revenue	1,385,982	1,647,641	427,672	414,338	420,299	448,323	1,710,632	470,739	494,276	518,990	544,939	2,028,945	2,533,279	3,200,729
LED Costs	456,834	452,681	105,966	91,482	85,506	94,057	377,011	97,141	99,083	95,483	109,806	401,513	517,715	661,623
Lighting Costs	346,142	509,121	167,494	173,338	182,005	191,105	713,941	197,949	207,846	215,249	226,011	847,054	1,051,870	1,296,575
RF & Power Costs	41,283	46,809	13,139	13,995	14,694	15,429	57,257	16,201	17,011	17,861	18,754	69,827	83,792	100,550
Totals COGS	844,259	1,008,611	286,599	278,814	282,205	300,591	1,148,209	311,290	323,940	328,593	354,571	1,318,394	1,653,377	2,058,748
Unallocated Costs	18,463	20,235	5,253	5,000	5,000	5,000	20,253	5,000	5,000	5,000	5,000	20,000	20,000	20,000
Consoliddated Costs	862,722	1,028,846	291,852	283,814	287,205	305,591	1,168,462	316,290	328,940	333,593	359,571	1,338,394	1,673,377	2,078,748
Gross Profit	523,260	618,795	135,820	130,523	133,094	142,732	542,169	154,449	165,336	185,397	185,368	690,550	859,902	1,121,981
R/D	155,889	181,382	46,725	45,577	46,233	49,316	187,851	49,428	51,899	54,494	57,219	213,039	265,994	336,077
S/G/A	236,581	268,460	69,692	66,294	67,248	71,732	274,966	70,611	74,141	77,848	81,741	304,342	379,992	480,109
Amortization	30,823	31,988	6,499	7,000	7,000	7,000	27,499	7,000	7,000	7,000	7,000	28,000	28,000	28,000
Loss on Assets	3,473	2,690	1,447	1,000	1,000	1,000	4,447	1,000	1,000	1,000	1,000	4,000	4,000	4,000
Totals Expenses	426,766	484,520	124,363	119,871	121,481	129,047	494,762	128,038	134,040	140,342	146,960	549,381	677,986	848,186
Operating Income	96,494	134,275	11,457	10,652	11,613	13,685	47,407	26,411	31,296	45,054	38,409	141,170	181,916	273,795
Non Operating Income	11,063	13,295	2,904	3,000	3,000	3,000	11,904	3,000	3,000	3,000	3,000	12,000	12,000	12,000
EBT	107,557	147,570	14,361	13,652	14,613	16,685	59,311	29,411	34,296	48,054	41,409	153,170	193,916	285,795
Taxes	20,632	23,379	3,231	3,072	3,288	3,754	13,345	6,617	7,717	10,812	9,317	34,463	43,631	64,304
Net Income	86,925	124,191	11,130	10,580	11,325	12,931	45,966	22,793	26,579	37,242	32,092	118,706	150,285	221,491
EPS	0.74	1.01	0.09	0.09	0.09	0.11	0.38	0.19	0.22	0.32	0.27	1.00	1.28	1.91
Non GAAP EPS			**0.24**	**0.24**	**0.24**	**0.26**	**0.98**	**0.34**	**0.37**	**0.47**	**0.42**	**1.60**	**1.88**	**2.51**
Diluted Share Count	117,979	122,914	121,143	120,500	120,000	119,500	120,286	119,000	118,500	118,000	117,500	118,250	117,000	116,000
Non GAAP Additions			0.15	0.15	0.15	0.15	0.60	0.15	0.15	0.15	0.15	0.60	0.60	0.60

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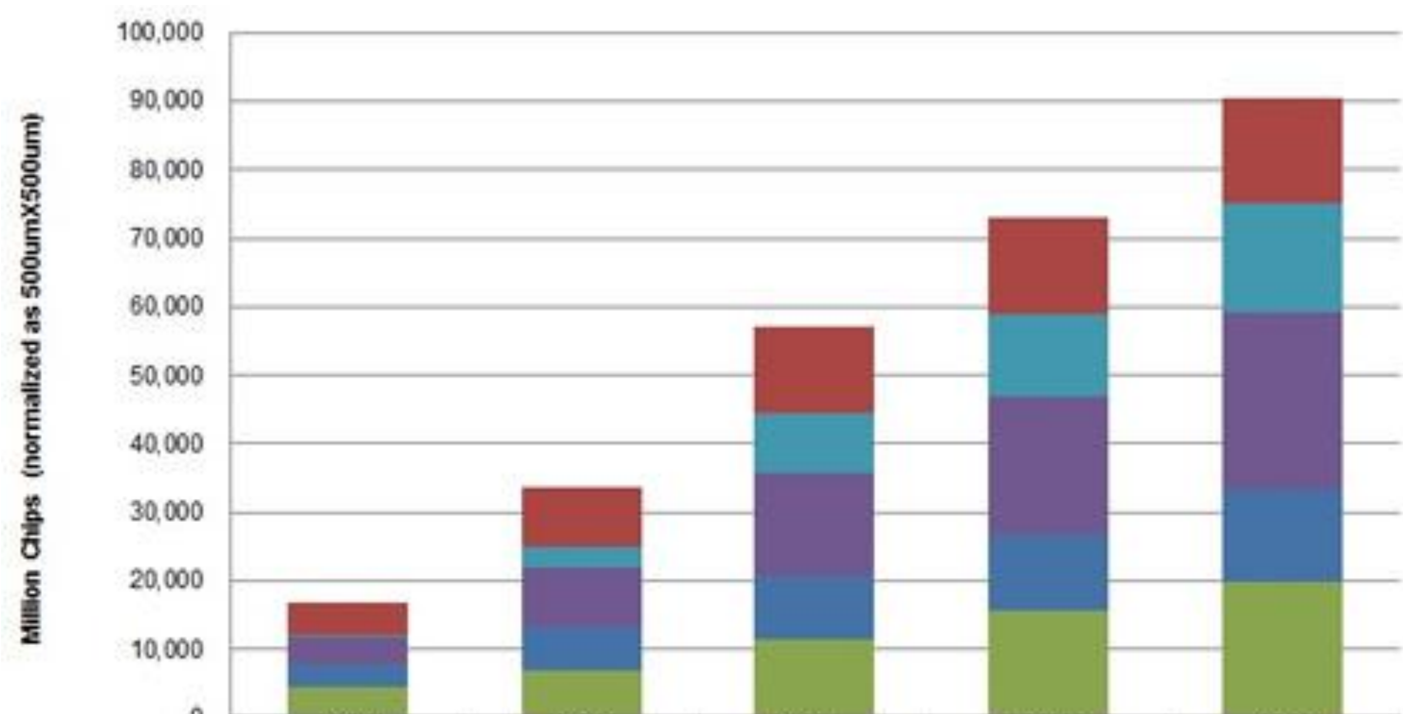
Appendix (taken from *DisplaySearch*):



	2012	2013	2014	2015	2016
Spot Light	4,824	8,920	12,407	14,054	15,435
LED Luminaires	109	2,819	8,771	12,004	15,716
Street Light	3,957	8,664	15,023	20,203	26,010
Bulbs	3,446	6,317	9,274	11,285	13,526
FL Tube	4,390	7,011	11,476	15,497	19,785
Total	16,726	33,731	56,951	73,043	90,471

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