

SSL industry progress, market needs and cooperation initiatives

Association of the Brazilian Lighting Industry (Abilux)

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BRICS Solid State Lighting Collaboration
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Forum topics

- Abilux and Light Industry presence in Brazil
- Economy Overview
- SSL Lighting Industry Progress Data
- Market Needs
- Cooperation initiatives



Abilux Presence In Brazil

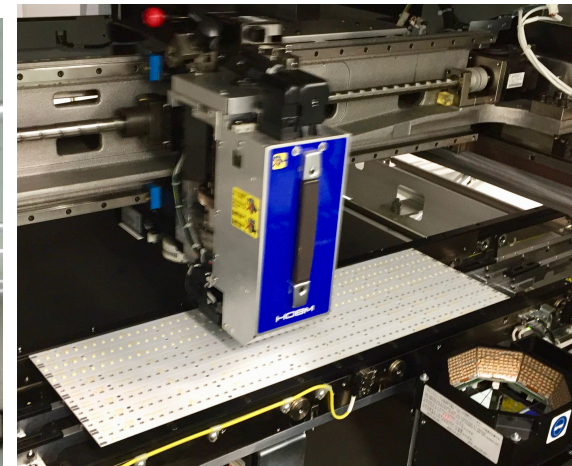
- Abilux is an association formed by the most important lighting industries, having today 95 members.
- Founded in 1985, has 32 years in Market helping to improve market regulations, develop standards and work with government to regulate lighting products.
- Lighting Industries : 570
 - Segments : Decorative Lighting, Commercial, Residencial, Projects
- Employes 31.000 workers
- Factories usually are vertically integrated

Most More than 20 Years Into Market.

Lighting Industries

Fully Vertialized supply chain in order to be cost effective:

SMT Lines, Painting Lines, Injection Machines, CNC Spinning, Metal Conformation, Assembly Lines, LED Workshops, R&D Team,....



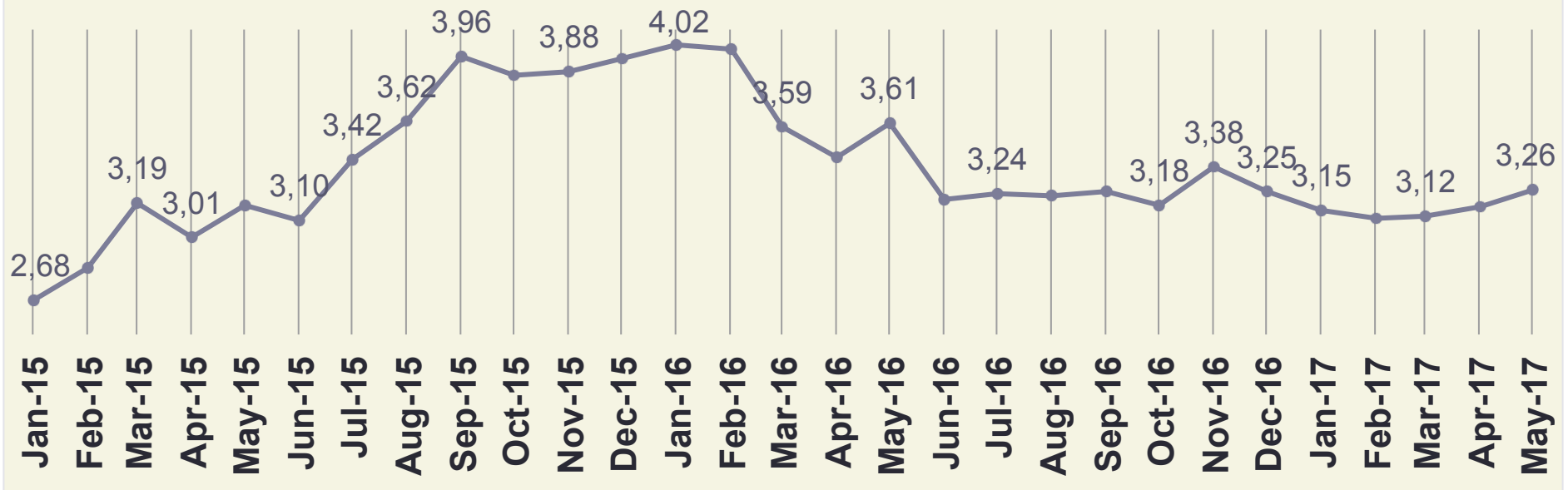
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BRASIL**



Gera empregos.
Gera segurança.
Gira a economia.

Economy Overview

Y15 to Y17 Exchange Rate 1USD@BRL



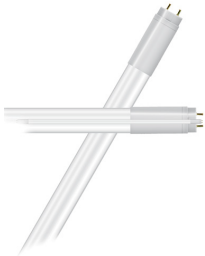
Brazil GDP

2015	-3,80%
2016	-3,60%
2017	0,49% Forecast



Inflation rate(IPCA)

2015	10,67%
2016	6,29%
2017	3,92% Forecast



SSL Lighting Industry Progress Data





HS CODE: 85437099 / 85395000 – LED LAMP				
Year Base	Imported pieces	Total FOB Value USD	FOB Price USD	Monthly QTD
2015	152.919.587	212.317.784	1,39	12.743.299
2016	112.933.175	135.439.403	1,20	9.411.098
2017(Apr)	39.894.989	47.777.495	1,20	9.973.747

HS CODE : 85044021/22/29/60 - DRIVER				
Year Base	Imported pieces	Total FOB Value USD	FOB Price USD	Monthly QTD
2015	23.390.625	118.557.899	5,07	1.949.219
2016	26.566.814	108.194.799	4,07	2.213.901
2017(Apr)	10.767.756	40.025.633	3,72	2.691.939

HS CODE 85414021/22/29 - LED COMPONENT				
Year Base	Imported pieces	Total FOB Value USD	FOB Price USD	Monthly QTD
2015	536.266.742	29.937.424	0,06	44.688.895
2016	599.132.892	30.742.072	0,05	49.927.741
2017(Apr)	262.585.228	10.149.683	0,04	65.646.307

*Source : Brazillian Federal Police Import by AliceWEb

Market Current SSL Industry Status

YEAR	UNITS
2016	116 MI
2017	90 MI

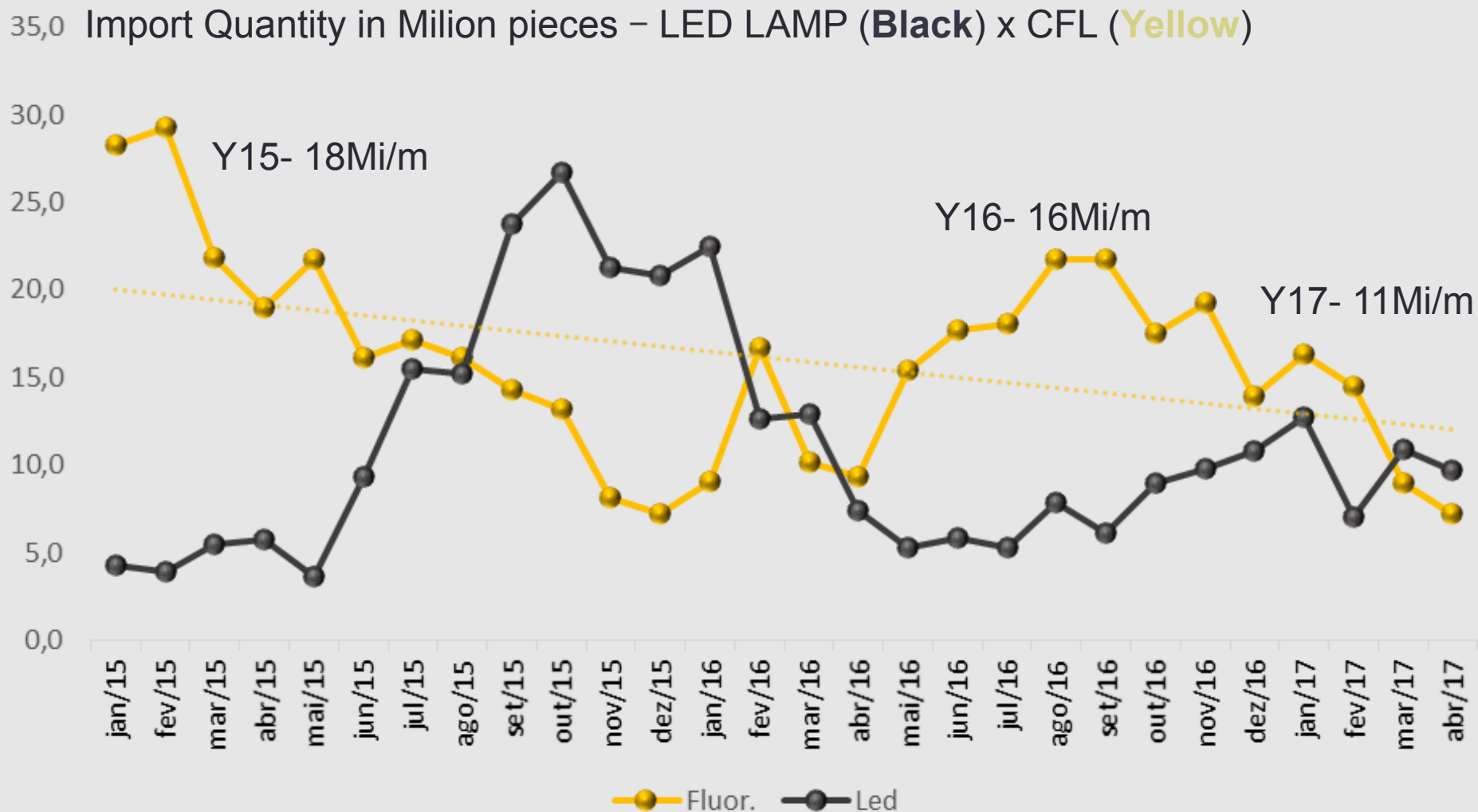


EXPECTED DECREASE OF 25% due to:

- Excess inventory
- Inmetro regulation enforcement
- Small players give up market
- Longer Life time @25k/hours



SSL Lighting Industry Progress Data



SSL Lighting Industry Progress Data

Lighting Sales Y2016 - US\$ 1.3 BI (Y15-Y16  -5%)
Expected Lighting Sales Y2017 – US\$ 1.0 BI (Y16-Y17  +2%)

Export in Y2015 – US\$ 36 MI
Export in Y2016 – US\$ 26 MI (Y15-Y16  -41%)
Expected Export Y2017 – US\$ 32 MI

Import Y2015 – US\$ 700 MI
Import Y2016 – US\$ 610 MI (Y15-Y16  -13%)
Expected Import Y2017 – US\$ 640 MI

(Includes : Fixtures, Ballasts, Drivers, Decorative)

1US\$@BRL=3,2

Market Needs

Inmetro released Public luminaires including LED street lighting and LED tunnel lighting. Municipalities, engineering companies started to comply with regulatory standard even before in compulsory

There are programs with INMETRO to expand certified products in the led family such as : pannels, floodlight, indor fixtures and others.. Following ENERGY STAR.

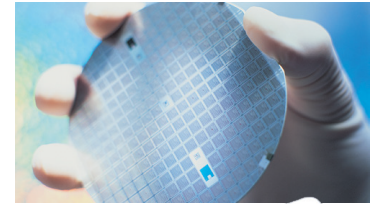
There is a program running with INMETRO to verify and survey the market in search for products that no no comply wity the standart and apply penalties.

Needs for more regulated products and support to local manufacturers.

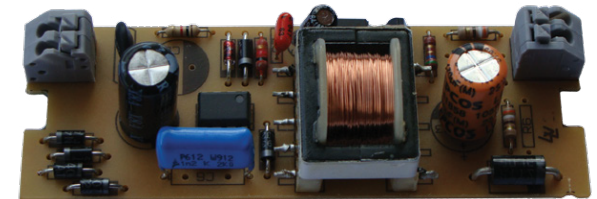
New Investments :
All LED Chips are Imported finished parts

Cooperation initiatives

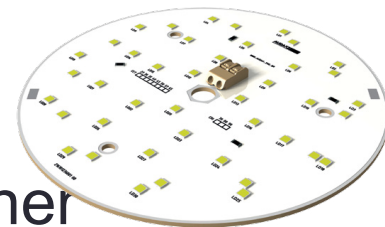
Front End production can still remain overseas but final encapsulation must be done into Brazil



Have more regulations and standards in order to product manufactured local and imported to need technical compliance and have fair trade



Increase local made share :
Development and Manufacture PCBA LED and more R&D
Investment to deploy LED circuits.



Development and Manufacture more drivers and further LED Lamps and so, import less parts. Government tax benefetis are needed.

Cooperation initiatives

Control of China Exported OEM Products to Brazil

Samples of lamps are sent for approval to INMETRO approved LAB as “golden samples” and later exported products into different specification with lower quality, lifetime, and so on..

Labs that don't perform 3.000hours testing as INMETRO request.

Actions MUST be taken by ISA INTERNATIONAL SSL ALLIANCE and also for Chinese Government.

Control of OEM Imported Product Landing Brazil

New actions are under way to control imported products by price, importer, exporter and so on. Federal Police program.

The Potential of Energy Saving is more than 10% from total country electricity usadge. But this will be only possible if new products are reliable for the end user and society.

THANK YOU!

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BRICS Solid State Lighting Collaboration Working Group

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