



Taiwan Leh-Yeh Technology Co., Ltd.

• • • *Well Established and Reliable*

LED Dispensing Result Analysis Report

3528 / 3535/ 5050 LEDs

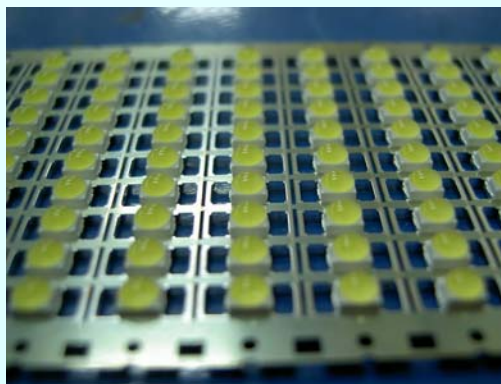
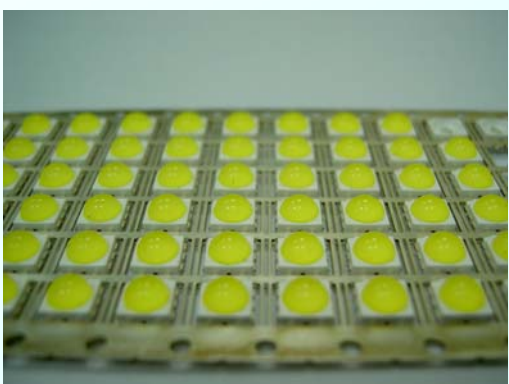
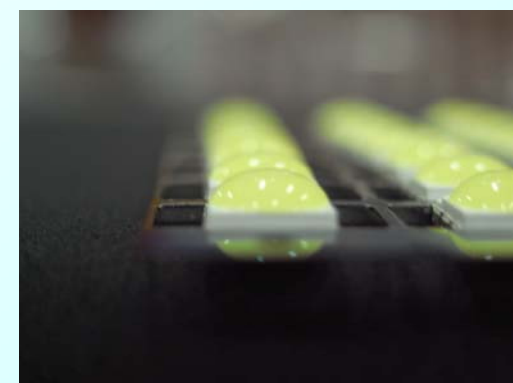
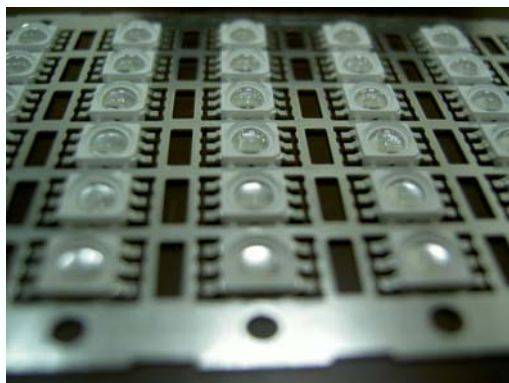
(for New Dispensing Process)

ETD-1000 Configuration

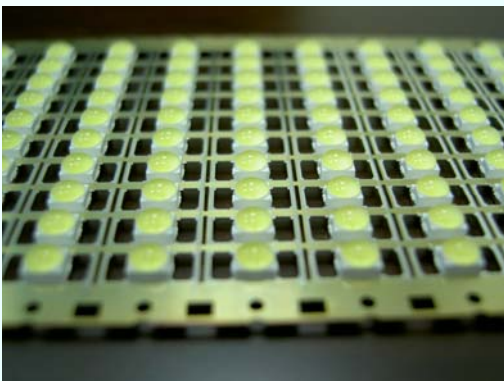
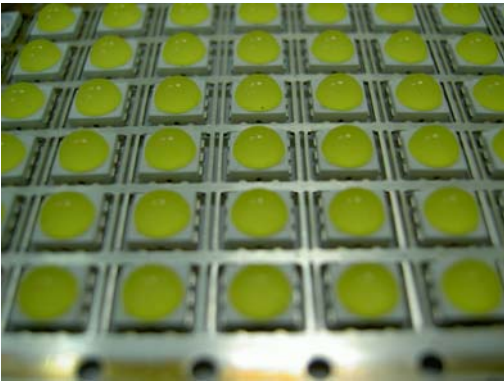
Bob Lai / 賴建坤
Taiwan Leh-Yeh Sales Dept.
2011 / Jun. / 22

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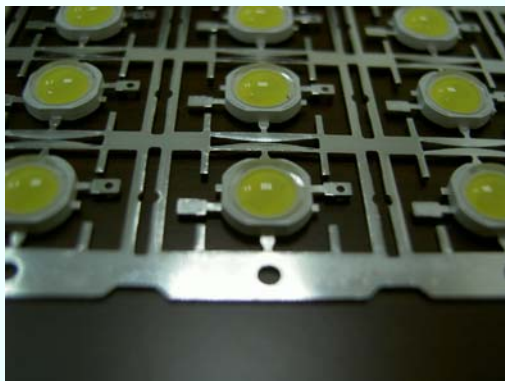
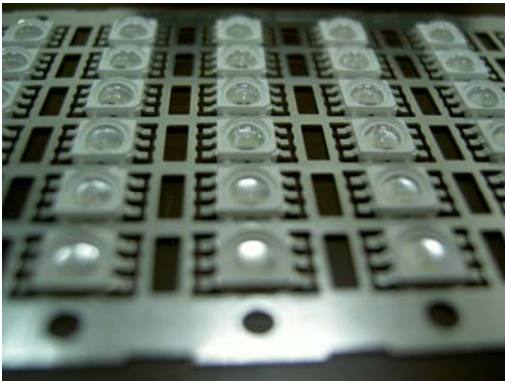
3528 / 3535 / 5050 LED Samples



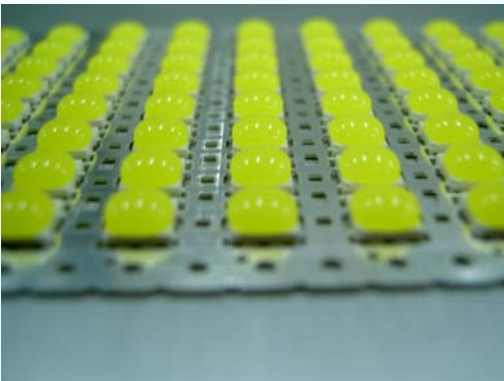
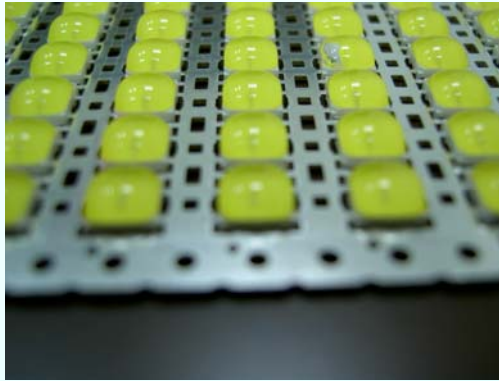
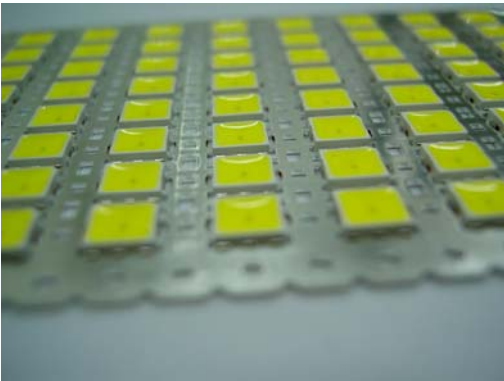
3528 / 3535 / 5050 LED Samples



3528 / 3535 / 5050 LED Samples



3528 / 3535 / 5050 LED Samples



以新製程方式加Lens後測試結果

加Lens前量測數據

NO.	$\Phi_v(\text{lm})$	$\Phi_e(\text{W})$	CRI	Wd(nm)	Wp(nm)	Hw(nm)	x	y	CCT(°K)	Purity	Vf	IR	If
1	51.50201	0.161576	74.49883	585.9593	605.9482	123.9169	0.462973	0.401985	2590.043	0.596207	3.42976	0.350062	0.350062
2	51.04838	0.157129	72.90776	585.0068	608.5159	120.5224	0.485921	0.420674	2445.56	0.721471	3.42976	0.350062	0.350062
3	52.14983	0.160929	73.14055	585.1652	605.4331	121.8275	0.478601	0.415434	2493.541	0.683684	3.398575	0.350067	0.350067

加Lens後量測數據

NO.	$\Phi_v(\text{lm})$	$\Phi_e(\text{W})$	CRI	Wd(nm)	Wp(nm)	Hw(nm)	x	y	CCT(°K)	Purity	Vf
1	56.118627	0.17075883	73.7274132	584.063765	602.169801	128.121021	0.45903162	0.41100168	2714.68198	0.61158291	3.376595
2	57.7155709	0.17493354	73.9825866	583.889818	602.478293	129.454305	0.45749404	0.41113893	2737.59213	0.60738045	3.377534
3	58.7747765	0.17719279	73.4963621	583.615271	601.798726	128.571153	0.46417105	0.41716928	2691.0105	0.64560686	3.483861

結論：

一般測試結果的一致性良好，未加Lens前的亮度約52 LM，加Lens(140度)後的亮度提升至約57LM左右。

以新製程方式直接將螢光粉膠拉高點凸杯後測試結果

實測點膠樣品分析數據

下表為使用同等芯片及支架等條件下常規樣品的比對數據。

序号	IF (mA)	VF (V)	Φ (lm)	光效 (lm/W)	x	y	Tc (K)	峰值波长 (nm)	Ra	50%发光角度
乐业点凸杯	60	2.99	21.65	120.63	0.4143	0.4934	3964	552.8	61.4	140.8
	60	2.97	22.16	124.28	0.4170	0.4978	3939	554.4	61.1	145.9
	60	2.97	21.45	120.65	0.4129	0.4901	3970	552.0	61.4	147.5
	60	2.99	21.67	120.87	0.4167	0.4974	3942	551.6	61.2	143.2
	60	3.03	21.64	119.05	0.4137	0.4912	3962	551.2	61.4	141.7
	60	2.99	22.21	123.86	0.4100	0.4874	4007	549.2	61.9	144.0
平均值	60	2.99	21.80	121.56	0.4141	0.4929	3964	551.9	61.4	143.8
常规点胶	60	2.98	19.75	110.44	0.3925	0.4806	4292	548.0	61.5	120.0
	60	3.19	19.96	104.34	0.3918	0.4801	4302	544.5	61.4	120.0
	60	3.22	19.28	99.85	0.3904	0.4764	4315	545.6	61.9	120.0
平均值	60	3.13	19.66	104.88	0.3916	0.4790	4303	546.0	61.6	120.0

結論：

由以上測試數據，可明顯看出新製程凸杯樣品的亮度比常規樣品提升約10%左右，發光角度則提升約20度左右。

(常規樣品發光角度額定為120度，新製程凸杯樣品發光角度約143度)



LED Packaging Dispenser ETD-1000

LED 封裝注膠機 ETD-1000 Configuration



Specification 規格	ETD-1000
Working Area 工作範圍 (PCB/Frame Dimension 基板/支架尺寸)	Max.: 170 mm x 100 mm Min.: 40 mm x 40 mm (PCB Thickness 0.3~4.0 mm)
Max. Speed 點膠速度	0.14 sec/shot
PCB Loading Time 基板交換時間	6.0 sec
Positioning Accuracy 定位精度	± 0.02 mm
Repeat Accuracy 重複精度	± 0.02 mm
Controller 控制主機	Compatible PC/AT、Pentium CPU
Motor X-Y-Z 馬達	X-axis 750W; Y-axis 750W; Z-axis 400W
Air Source 氣壓源	4~5 Kg/cm ²
Power Supply 電源	3φ, 200~220V
Consumption Power 消耗功率	3000 VA (Max. 8.0 KVA; inc. Bottom Heater Module)
Weight 總重量	1050 Kg

