

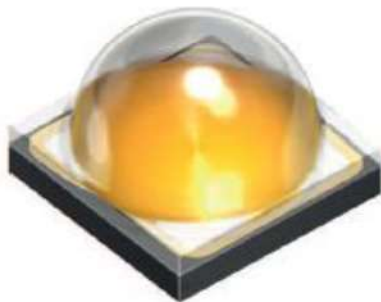
Light is OSRAM

**OSRAM**  
Opto Semiconductors

# OSLON® Square White (CCT 2700 K – 6500 K)

IES LM-80-15 Test Report

Test Documentation No.: 190146W10 (Document No.: OSRM027-2-E3-300) – 5<sup>th</sup> May 2021





## LM-80 25000 Hour Interval Test Report

### IES LM-80-15 Approved Method for Measuring Lumen Maintenance of LED Light Sources

**CSA Group Report: OSRM027-2-E3-300**

April 16, 2021

Manufacturer: **OSRAM**  
Models tested: **GW CSSRM2.EM**  
**OSLON Square**  
Test conditions: 24 devices @ 55.0 C, 1.050 A  
24 devices @ 85.0 C, 1.050 A  
24 devices @ 105.0 C, 1.050 A

Prepared for:  
OSRAM Opto Semiconductors (Malaysia) Sdn.  
Bayan Lepas Free Industrial Zone Phase 1,  
11900 Bayan Lepas, Penang, Malaysia

Attn:

Testing performed by:  
CSA Group Seattle  
14833 NE 87th St  
Redmond, WA 98052  
425-605-8500  
[www.csagroupseattle.org](http://www.csagroupseattle.org)

Test report prepared by:

*Gabriel Trippel*

Project Engineer,  
Test and Measurement Services

Test report approved by:

*KC Fletcher*

Project Manager,  
Test and Measurement Services

## 1.0 Statement of test conditions, summary of results, and reporting requirements:

Part number: GW CSSRM2.EM						
Life test conditions				Summary of results		
Test condition	Drive current (A)	Case temperature (°C)	Elapsed life test time (hrs)	Avg. PPF maint. (%)	Average lumen maint. (%)	Avg. chromatic. shift ( $\Delta u'v'$ )
TC1	1.050	55	25000	99.6	100.0	0.0014
TC2	1.050	85	25000	99.0	99.6	0.0016
TC3	1.050	105	25000	97.3	98.1	0.0021
LM-80-15 Reporting requirements						
1. Number of samples tested:			24 per test condition			
2. Description of LED light sources			LED Package <sup>1</sup>			
3. Description of auxiliary equipment			see section 6.1 below			
4. Operating cycle			LED packages are driven at constant current for life test and are pulsed for photometric test.			
5. Ambient conditions, airflow, relative humidity			LED's are operated on controlled thermal plates in an environment that complies with the requirements given in Section 4.4 of LM-80-15. Case temperature (Ts): controlled to within -2°C, Surrounding air temp: controlled to within -5°C of Ts, Humidity: < 65 RH, No forced air flow			
6. Case temperature (test point temperature)			See summary table above for test conditions. The temperature measurement point is shown in Sec. 6.3.			
7. Drive current during life test			see summary table above			
8. Initial luminous flux and forward voltage			see data tables for individual test conditions			
9. Lumen maintenance data for each individual LED light source			see data tables for individual test conditions			
10. Observation of LED light source failures			see data tables for individual test conditions			
11. LED light source monitoring intervals			see data tables for individual test conditions			
12. Photometric measurement uncertainty			k=2 expanded measurement uncertainty for relative luminous flux measurements is $\pm 2.0\%$			
13. Chromaticity shift reported over the measurement time			see data tables for individual test conditions			
14. Test start date			November 10, 2017			
15. ANSI target and calculated CCT values			see data tables			

### Notes:

- per ANSI/IESNA RP-16-05 Addendum b, *Nomenclature and Definitions for Illuminating Engineering*



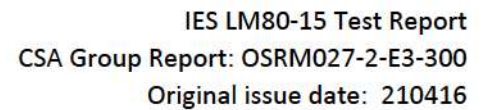
**TABLE 1.1 - Initial ANSI Target & Calculated CCT Results**

**GW CSSRM2.EM**

Load board ID	Device number	Zero hour measurements	
		ANSI Target* CCT (K)	Initial Calculated CCT (K)
18000010849B031C	D1	3465±245	3388
	D2	3465±245	3486
	D3	3465±245	3475
	D4	3465±245	3427
	D5	3465±245	3448
	D6	3465±245	3425
	D7	3465±245	3490
	D8	3465±245	3498
	D9	3465±245	3416
	D10	3465±245	3471
	D11	3465±245	3471
	D12	3465±245	3415
5900001077DC031C	D1	3465±245	3467
	D2	3465±245	3446
	D3	3465±245	3407
	D4	3465±245	3393
	D5	3465±245	3450
	D6	3465±245	3446
	D7	3465±245	3441
	D8	3465±245	3428
	D9	3465±245	3430
	D10	3465±245	3484
	D11	3465±245	3458
	D12	3465±245	3459
5800001073C7031C	D1	3465±245	3461
	D2	3465±245	3429
	D3	3465±245	3369
	D4	3465±245	3400
	D5	3465±245	3451
	D6	3465±245	3407
	D7	3465±245	3495
	D8	3465±245	3440
	D9	3465±245	3477
	D10	3465±245	3458
	D11	3465±245	3478
	D12	3465±245	3482
960000108055031C	D1	3465±245	3504
	D2	3465±245	3464
	D3	3465±245	3379
	D4	3465±245	3446
	D5	3465±245	3461
	D6	3465±245	3513
	D7	3465±245	3476
	D8	3465±245	3448
	D9	3465±245	3452
	D10	3465±245	3490
	D11	3465±245	3460
	D12	3465±245	3403
1300001078A6031C	D1	3465±245	3413
	D2	3465±245	3459
	D3	3465±245	3454
	D4	3465±245	3478
	D5	3465±245	3430
	D6	3465±245	3427
	D7	3465±245	3389
	D8	3465±245	3479
	D9	3465±245	3479
	D10	3465±245	3421
	D11	3465±245	3392
	D12	3465±245	3496
DE00001081CE031C	D1	3465±245	3604
	D2	3465±245	3458
	D3	3465±245	3408
	D4	3465±245	3400
	D5	3465±245	3437
	D6	3465±245	3498
	D7	3465±245	3408
	D8	3465±245	3467
	D9	3465±245	3535
	D10	3465±245	3528
	D11	3465±245	3580
	D12	3465±245	3438

\* target CCT as defined in ANSI C78.377-2008





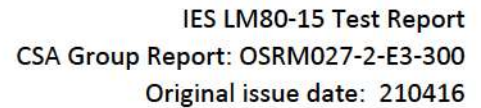
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Test Condition 1				55 °C		1.050 A										
TABLE 2.0 - LUMEN MAINTENANCE RESULTS															GW CSSRM2.EM	
Test Condition 1				55 °C		1.050 A										
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none												
		Flux (lm)	Vf (V)	Lumen Maintenance (%)												
				12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000		
18000010849B031C	D1	382.55	3.51	101.4	101.4	101.5	101.5	101.4	101.5	101.6	101.3	101.2	101.1	101.2		
	D2	394.59	3.44	99.6	99.6	99.6	99.7	99.6	99.6	99.7	99.5	99.4	99.4	99.3		
	D3	393.31	3.52	100.1	100.1	100.2	100.2	100.1	100.1	100.2	100.0	99.9	99.8	99.8		
	D4	389.11	3.51	101.0	101.1	101.1	101.1	101.1	101.2	101.3	101.0	101.0	100.9	100.9		
	D5	388.77	3.63	100.8	100.8	100.8	100.8	100.7	100.8	100.9	100.7	100.6	100.5	100.6		
	D6	390.51	3.55	99.1	99.1	99.1	99.1	99.0	99.0	99.2	98.9	98.8	98.7	98.7		
	D7	394.50	3.53	99.9	99.9	100.0	100.0	99.9	99.9	100.1	99.8	99.7	99.6	99.6		
	D8	391.57	3.51	99.0	99.0	99.0	99.0	98.8	98.9	99.0	98.7	98.6	98.6	98.6		
	D9	391.72	3.63	101.0	100.9	101.1	101.0	100.9	101.0	101.2	100.9	100.8	100.7	100.8		
	D10	391.91	3.66	100.0	100.1	100.1	100.1	100.0	100.1	100.1	99.9	99.8	99.8	99.8		
	D11	394.32	3.56	99.5	99.6	99.6	99.6	99.5	99.6	99.7	99.4	99.3	99.2	99.3		
	D12	388.79	3.61	101.1	101.2	101.2	101.2	101.1	101.2	101.4	101.1	101.0	100.9	100.9		
5900001077DC031C	D1	390.00	3.42	101.0	101.0	101.1	101.1	101.0	101.1	101.2	101.0	100.9	100.9	101.0		
	D2	396.48	3.41	100.0	100.0	100.0	100.0	99.9	100.0	100.2	99.9	99.8	99.7	99.7		
	D3	381.95	3.55	101.2	101.2	101.2	101.1	101.1	101.2	101.4	101.1	101.0	100.9	100.9		
	D4	379.67	3.56	101.5	101.5	101.6	101.6	101.5	101.6	101.7	101.4	101.3	101.3	101.2		
	D5	390.88	3.55	100.1	100.1	100.1	100.1	100.1	100.1	100.3	100.0	99.9	99.9	99.9		
	D6	389.40	3.64	100.1	100.0	100.1	100.0	99.9	100.0	100.2	99.8	99.8	99.7	99.7		
	D7	390.30	3.51	100.4	100.3	100.4	100.3	100.3	100.4	100.5	100.3	100.2	100.1	100.1		
	D8	385.75	3.59	101.0	101.1	101.1	101.1	101.0	101.2	101.3	101.0	100.9	100.8	100.9		
	D9	392.72	3.61	100.5	100.5	100.6	100.6	100.5	100.6	100.7	100.4	100.4	100.3	100.3		
	D10	393.11	3.56	100.6	100.6	100.7	100.6	100.5	100.6	100.8	100.5	100.4	100.4	100.4		
	D11	392.90	3.58	100.5	100.4	100.5	100.5	100.4	100.5	100.7	100.4	100.3	100.2	100.3		
	D12	387.55	3.50	100.0	100.0	100.0	100.0	99.9	100.0	100.1	99.8	99.7	99.6	99.6		
n mean median std. dev. min max				24	24	24	24	24	24	24	24	24	24	24		
				100.4	100.4	100.4	100.4	100.3	100.4	100.6	100.3	100.2	100.1	100.1		
				100.4	100.4	100.5	100.4	100.4	100.5	100.6	100.3	100.2	100.2	100.2		
				0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8		
				99.0	99.0	99.0	99.0	98.8	98.9	99.0	98.7	98.6	98.6	98.6		
				101.5	101.5	101.6	101.6	101.5	101.6	101.7	101.4	101.3	101.3	101.2		



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Test Condition 1      55 °C      1.050 A														
TABLE 2.1 - RADIANT FLUX MAINTENANCE RESULTS														
Test Condition 1      55 °C      1.050 A														
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none										
		Flux (W)	VF (V)	Radiant Flux Maintenance (%)										
				1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000
18000010849B031C	D1	1.1597	3.51	101.1	100.9	100.9	100.9	100.7	100.7	100.7	100.7	100.7	100.8	100.8
	D2	1.1948	3.44	99.7	99.5	99.4	99.4	99.3	99.2	99.3	99.2	99.3	99.4	99.4
	D3	1.1921	3.52	100.4	100.1	100.1	100.0	99.8	99.8	99.8	99.8	99.9	100.0	99.9
	D4	1.1784	3.51	100.8	100.7	100.7	100.7	100.5	100.5	100.6	100.6	100.7	100.8	100.7
	D5	1.1789	3.63	100.7	100.5	100.5	100.5	100.3	100.3	100.3	100.3	100.3	100.5	100.4
	D6	1.1791	3.55	99.3	99.1	99.1	99.0	98.9	98.8	98.8	98.7	98.8	99.0	98.9
	D7	1.1914	3.53	99.8	99.7	99.6	99.6	99.5	99.4	99.4	99.4	99.5	99.7	99.6
	D8	1.1827	3.51	99.4	99.2	99.1	99.0	98.9	98.8	98.8	98.7	98.8	98.9	98.8
	D9	1.1820	3.63	100.8	100.7	100.7	100.7	100.6	100.5	100.5	100.5	100.6	100.7	100.6
	D10	1.1847	3.66	100.3	100.1	100.0	99.9	99.7	99.6	99.7	99.6	99.7	99.8	99.7
	D11	1.1914	3.56	99.9	99.6	99.5	99.5	99.3	99.2	99.2	99.3	99.3	99.4	99.3
	D12	1.1829	3.61	100.8	100.7	100.7	100.7	100.6	100.6	100.6	100.6	100.7	100.8	100.8
5900001077DC031C	D1	1.1786	3.42	100.7	100.7	100.7	100.8	100.6	100.5	100.6	100.6	100.7	100.7	100.7
	D2	1.1978	3.41	99.9	99.8	99.8	99.8	99.6	99.5	99.6	99.6	99.7	99.8	99.8
	D3	1.1583	3.55	101.0	101.0	101.0	100.9	100.8	100.7	100.8	100.8	100.9	101.0	101.0
	D4	1.1476	3.56	101.1	101.1	101.0	101.0	100.9	100.9	100.9	101.0	101.0	101.2	101.2
	D5	1.1853	3.55	100.0	99.8	99.8	99.8	99.7	99.6	99.7	99.6	99.8	99.8	99.8
	D6	1.1842	3.64	100.3	100.0	99.9	99.8	99.6	99.6	99.6	99.6	99.7	99.8	99.7
	D7	1.1780	3.51	100.2	100.2	100.1	100.1	100.0	99.9	100.0	100.0	100.1	100.2	100.1
	D8	1.1698	3.59	100.7	100.7	100.6	100.7	100.6	100.5	100.6	100.6	100.7	100.8	100.8
	D9	1.1894	3.61	100.2	100.2	100.2	100.2	100.1	100.0	100.1	100.1	100.2	100.2	100.2
	D10	1.1897	3.56	100.4	100.4	100.4	100.4	100.3	100.2	100.2	100.2	100.4	100.4	100.4
	D11	1.1907	3.58	100.2	100.2	100.2	100.2	100.0	100.0	100.0	100.0	100.1	100.2	100.2
	D12	1.1733	3.50	99.9	99.9	99.9	99.8	99.7	99.6	99.6	99.6	99.7	99.8	99.8
n mean median std. dev. min max				24	24	24	24	24	24	24	24	24	24	24
				100.3	100.2	100.2	100.1	100.0	99.9	100.0	100.0	100.1	100.2	100.1
				100.3	100.2	100.1	100.1	100.0	99.9	100.0	100.0	100.1	100.2	100.2
				0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7
				99.3	99.1	99.1	99.0	98.9	98.8	98.8	98.7	98.8	98.9	98.8
				101.1	101.1	101.0	101.0	100.9	100.9	100.9	101.0	101.0	101.2	101.2



Test Condition 1				55 °C		1.050 A									
TABLE 2.1 - RADIANT FLUX MAINTENANCE RESULTS															
Test Condition 1				55 °C		1.050 A									
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none											
		Flux (W)	VF (V)	Radiant Flux Maintenance (%)											
				12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000	
18000010849B031C	D1	1.1597	3.51	100.7	100.7	100.8	100.8	100.7	100.8	100.8	100.6	100.5	100.4	100.4	
	D2	1.1948	3.44	99.3	99.3	99.3	99.4	99.3	99.4	99.4	99.2	99.1	99.1	99.0	
	D3	1.1921	3.52	99.8	99.8	99.9	99.9	99.8	99.9	99.9	99.8	99.6	99.6	99.6	
	D4	1.1784	3.51	100.7	100.7	100.8	100.8	100.8	100.9	100.9	100.7	100.6	100.6	100.6	
	D5	1.1789	3.63	100.4	100.4	100.4	100.4	100.3	100.4	100.5	100.3	100.1	100.1	100.1	
	D6	1.1791	3.55	98.8	98.8	98.8	98.8	98.7	98.7	98.8	98.6	98.4	98.4	98.4	
	D7	1.1914	3.53	99.6	99.6	99.7	99.7	99.6	99.7	99.8	99.5	99.4	99.3	99.3	
	D8	1.1827	3.51	98.8	98.7	98.7	98.7	98.6	98.7	98.7	98.5	98.4	98.3	98.3	
	D9	1.1820	3.63	100.6	100.6	100.7	100.7	100.6	100.7	100.8	100.5	100.4	100.4	100.4	
	D10	1.1847	3.66	99.7	99.7	99.7	99.7	99.7	99.7	99.8	99.6	99.4	99.4	99.5	
	D11	1.1914	3.56	99.3	99.3	99.3	99.3	99.3	99.4	99.4	99.2	99.1	99.0	99.0	
	D12	1.1829	3.61	100.8	100.8	100.9	100.8	100.8	100.9	101.0	100.7	100.6	100.5	100.5	
5900001077DC031C	D1	1.1786	3.42	100.7	100.6	100.7	100.7	100.6	100.7	100.8	100.5	100.5	100.6	100.6	
	D2	1.1978	3.41	99.8	99.7	99.8	99.8	99.7	99.8	99.9	99.6	99.5	99.4	99.5	
	D3	1.1583	3.55	101.0	100.9	101.0	100.9	100.9	101.0	101.1	100.8	100.7	100.7	100.6	
	D4	1.1476	3.56	101.2	101.2	101.2	101.2	101.1	101.2	101.3	101.1	101.0	101.0	100.9	
	D5	1.1853	3.55	99.8	99.8	99.9	99.8	99.8	99.8	100.0	99.7	99.6	99.6	99.6	
	D6	1.1842	3.64	99.7	99.7	99.7	99.7	99.6	99.7	99.8	99.5	99.4	99.3	99.3	
	D7	1.1780	3.51	100.1	100.1	100.2	100.1	100.1	100.1	100.3	100.0	99.9	99.9	99.9	
	D8	1.1698	3.59	100.8	100.8	100.9	100.8	100.8	100.9	101.0	100.7	100.6	100.6	100.6	
	D9	1.1894	3.61	100.2	100.2	100.3	100.3	100.2	100.3	100.4	100.1	100.1	100.0	100.0	
	D10	1.1897	3.56	100.4	100.3	100.4	100.4	100.2	100.3	100.4	100.2	100.1	100.1	100.1	
	D11	1.1907	3.58	100.2	100.2	100.2	100.2	100.1	100.2	100.3	100.1	100.0	99.9	99.9	
	D12	1.1733	3.50	99.7	99.7	99.7	99.7	99.6	99.7	99.8	99.5	99.4	99.3	99.3	
n				24	24	24	24	24	24	24	24	24	24	24	
mean				100.1	100.1	100.1	100.1	100.0	100.1	100.2	100.0	99.9	99.8	99.8	
median				100.2	100.1	100.2	100.2	100.1	100.2	100.3	100.0	100.0	99.9	99.9	
std. dev.				0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	
min				98.8	98.7	98.7	98.7	98.6	98.7	98.7	98.5	98.4	98.3	98.3	
max				101.2	101.2	101.2	101.2	101.1	101.2	101.3	101.1	101.0	101.0	100.9	

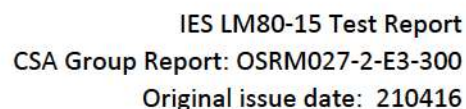
Test Condition 1      55 °C      1.050 A													
TABLE 2.1 - RADIANT FLUX MAINTENANCE RESULTS													
Test Condition 1      55 °C      1.050 A													
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none									
		Flux (W)	VF (V)	Radiant Flux Maintenance (%)									
				23000	24000	25000							
18000010849B031C	D1	1.1597	3.51	100.3	100.2	100.2							
	D2	1.1948	3.44	99.0	98.9	98.9							
	D3	1.1921	3.52	99.4	99.4	99.4							
	D4	1.1784	3.51	100.5	100.4	100.5							
	D5	1.1789	3.63	100.1	99.9	100.0							
	D6	1.1791	3.55	98.3	98.2	98.2							
	D7	1.1914	3.53	99.3	99.2	99.2							
	D8	1.1827	3.51	98.2	98.1	98.1							
	D9	1.1820	3.63	100.3	100.2	100.3							
	D10	1.1847	3.66	99.3	99.2	99.3							
	D11	1.1914	3.56	98.9	98.8	98.8							
	D12	1.1829	3.61	100.5	100.4	100.4							
5900001077DC031C	D1	1.1786	3.42	100.4	100.4	100.5							
	D2	1.1978	3.41	99.4	99.3	99.3							
	D3	1.1583	3.55	100.6	100.5	100.5							
	D4	1.1476	3.56	100.8	100.7	100.8							
	D5	1.1853	3.55	99.5	99.4	99.5							
	D6	1.1842	3.64	99.2	99.2	99.2							
	D7	1.1780	3.51	99.8	99.7	99.8							
	D8	1.1698	3.59	100.5	100.4	100.5							
	D9	1.1894	3.61	100.0	99.9	99.9							
	D10	1.1897	3.56	100.0	99.9	100.0							
	D11	1.1907	3.58	99.8	99.7	99.8							
	D12	1.1733	3.50	99.2	99.1	99.1							
n				24	24	24							
mean				99.7	99.6	99.7							
median				99.8	99.7	99.8							
std. dev.				0.7	0.7	0.7							
min				98.2	98.1	98.1							
max				100.8	100.7	100.8							



Test Condition 1				55 °C		1.050 A										
TABLE 2.2 - PHOTOSYNTHETIC PHOTON FLUX MAINTENANCE RESULTS															GW CSSRM2.EM	
Test Condition 1				55 °C		1.050 A										
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none												
		PPF (μmol/s)	VF (V)	Photosynthetic Photon Flux Maintenance (%)												
				1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000		
18000010849B031C	D1	5.3603	3.51	101.1	100.9	100.9	100.9	100.8	100.7	100.7	100.7	100.8	100.9	100.8		
	D2	5.5142	3.44	99.6	99.4	99.3	99.3	99.2	99.1	99.2	99.2	99.2	99.3	99.3		
	D3	5.5008	3.52	100.3	100.0	100.0	99.9	99.7	99.7	99.7	99.7	99.8	99.9	99.8		
	D4	5.4452	3.51	100.7	100.6	100.6	100.6	100.5	100.5	100.5	100.5	100.6	100.7	100.7		
	D5	5.4450	3.63	100.6	100.5	100.4	100.4	100.3	100.3	100.3	100.2	100.3	100.4	100.3		
	D6	5.4500	3.55	99.2	99.1	99.0	98.9	98.8	98.7	98.8	98.7	98.7	98.9	98.8		
	D7	5.5004	3.53	99.7	99.6	99.6	99.5	99.4	99.3	99.4	99.4	99.4	99.6	99.5		
	D8	5.4585	3.51	99.3	99.1	99.0	99.0	98.8	98.7	98.7	98.7	98.7	98.8	98.7		
	D9	5.4647	3.63	100.8	100.6	100.6	100.6	100.5	100.4	100.5	100.5	100.5	100.7	100.6		
	D10	5.4709	3.66	100.2	100.0	99.9	99.8	99.6	99.5	99.6	99.5	99.6	99.7	99.7		
	D11	5.5014	3.56	99.8	99.6	99.5	99.4	99.3	99.2	99.2	99.2	99.2	99.4	99.3		
	D12	5.4662	3.61	100.8	100.7	100.7	100.7	100.5	100.5	100.6	100.5	100.7	100.8	100.7		
5900001077DC031C	D1	5.4434	3.42	100.7	100.7	100.7	100.7	100.5	100.5	100.5	100.5	100.6	100.7	100.6		
	D2	5.5342	3.41	99.8	99.7	99.7	99.7	99.5	99.4	99.5	99.5	99.6	99.7	99.7		
	D3	5.3552	3.55	101.0	100.9	100.9	100.9	100.8	100.7	100.7	100.7	100.8	100.9	100.9		
	D4	5.3080	3.56	101.0	101.0	101.0	101.0	100.9	100.8	100.9	100.9	101.0	101.2	101.1		
	D5	5.4738	3.55	99.9	99.7	99.7	99.7	99.6	99.6	99.6	99.5	99.7	99.8	99.7		
	D6	5.4666	3.64	100.2	100.0	99.9	99.8	99.6	99.5	99.6	99.6	99.6	99.8	99.7		
	D7	5.4447	3.51	100.1	100.0	100.0	100.0	99.9	99.8	99.8	99.8	100.0	100.1	100.0		
	D8	5.4072	3.59	100.6	100.6	100.6	100.6	100.5	100.4	100.5	100.5	100.6	100.7	100.7		
	D9	5.4966	3.61	100.2	100.1	100.1	100.1	100.0	100.0	100.0	100.0	100.1	100.2	100.2		
	D10	5.4890	3.56	100.3	100.3	100.4	100.3	100.2	100.1	100.2	100.2	100.3	100.4	100.3		
	D11	5.4994	3.58	100.2	100.1	100.1	100.1	100.0	99.9	99.9	99.9	100.0	100.2	100.1		
	D12	5.4176	3.50	99.9	99.8	99.8	99.8	99.6	99.5	99.6	99.6	99.7	99.8	99.7		
n mean median std. dev. min max				24	24	24	24	24	24	24	24	24	24	24		
				100.2	100.1	100.1	100.1	99.9	99.9	99.9	99.9	100.0	100.1	100.0		
				100.2	100.1	100.0	100.0	99.9	99.8	99.9	99.9	100.0	100.1	100.1		
				0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7		
				99.2	99.1	99.0	98.9	98.8	98.7	98.7	98.7	98.7	98.8	98.7		
				101.1	101.0	101.0	101.0	100.9	100.8	100.9	100.9	101.0	101.2	101.1		



Test Condition 1				55 °C		1.050 A									
TABLE 2.2 - PHOTOSYNTHETIC PHOTON FLUX MAINTENANCE RESULTS															
Test Condition 1				55 °C		1.050 A									
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none											
		PPF (μmol/s)	VF (V)	Photosynthetic Photon Flux Maintenance (%)											
				12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000	
18000010849B031C	D1	5.3603	3.51	100.8	100.8	100.9	100.8	100.7	100.8	100.9	100.6	100.5	100.5	100.5	
	D2	5.5142	3.44	99.3	99.3	99.3	99.3	99.2	99.3	99.3	99.1	99.0	99.0	99.0	
	D3	5.5008	3.52	99.8	99.8	99.9	99.8	99.7	99.8	99.9	99.7	99.5	99.5	99.5	
	D4	5.4452	3.51	100.7	100.7	100.7	100.7	100.7	100.8	100.8	100.7	100.6	100.5	100.5	
	D5	5.4450	3.63	100.4	100.4	100.4	100.4	100.3	100.4	100.4	100.2	100.1	100.1	100.1	
	D6	5.4500	3.55	98.8	98.7	98.7	98.7	98.6	98.7	98.8	98.5	98.4	98.3	98.3	
	D7	5.5004	3.53	99.5	99.5	99.6	99.6	99.5	99.5	99.7	99.4	99.3	99.2	99.2	
	D8	5.4585	3.51	98.7	98.7	98.7	98.6	98.5	98.6	98.6	98.4	98.3	98.2	98.2	
	D9	5.4647	3.63	100.6	100.6	100.7	100.6	100.5	100.6	100.7	100.4	100.4	100.3	100.4	
	D10	5.4709	3.66	99.6	99.7	99.7	99.6	99.6	99.6	99.7	99.5	99.4	99.3	99.4	
	D11	5.5014	3.56	99.3	99.3	99.3	99.3	99.2	99.3	99.4	99.2	99.0	98.9	99.0	
	D12	5.4662	3.61	100.7	100.7	100.8	100.8	100.7	100.8	100.9	100.6	100.5	100.4	100.5	
5900001077DC031C	D1	5.4434	3.42	100.6	100.6	100.7	100.6	100.5	100.7	100.7	100.5	100.5	100.5	100.5	
	D2	5.5342	3.41	99.7	99.7	99.7	99.7	99.6	99.7	99.8	99.5	99.5	99.4	99.4	
	D3	5.3552	3.55	100.9	100.8	100.9	100.8	100.8	100.9	101.0	100.7	100.6	100.6	100.5	
	D4	5.3080	3.56	101.1	101.1	101.2	101.2	101.1	101.2	101.3	101.0	100.9	100.8	100.8	
	D5	5.4738	3.55	99.7	99.7	99.8	99.8	99.7	99.8	99.9	99.6	99.5	99.5	99.5	
	D6	5.4666	3.64	99.7	99.6	99.7	99.6	99.5	99.6	99.7	99.5	99.4	99.3	99.3	
	D7	5.4447	3.51	100.0	100.0	100.1	100.0	100.0	100.0	100.1	99.9	99.8	99.7	99.8	
	D8	5.4072	3.59	100.7	100.7	100.8	100.7	100.7	100.8	100.9	100.6	100.5	100.5	100.5	
	D9	5.4966	3.61	100.2	100.2	100.2	100.2	100.1	100.2	100.3	100.1	100.0	99.9	100.0	
	D10	5.4890	3.56	100.3	100.3	100.3	100.3	100.2	100.2	100.4	100.1	100.0	100.0	100.0	
	D11	5.4994	3.58	100.1	100.1	100.1	100.1	100.1	100.1	100.2	100.0	99.9	99.8	99.9	
	D12	5.4176	3.50	99.6	99.7	99.6	99.6	99.6	99.6	99.7	99.4	99.3	99.2	99.2	
n mean median std. dev. min max				24	24	24	24	24	24	24	24	24	24	24	
				100.0	100.0	100.1	100.0	100.0	100.0	100.1	99.9	99.8	99.7	99.7	
				100.1	100.1	100.1	100.1	100.0	100.1	100.2	100.0	99.9	99.8	99.8	
				0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	
				98.7	98.7	98.7	98.6	98.5	98.6	98.6	98.4	98.3	98.2	98.2	
				101.1	101.1	101.2	101.2	101.1	101.2	101.3	101.0	100.9	100.8	100.8	



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Test Condition 1				55 °C		1.050 A									
TABLE 2.3 - CHROMATICITY COORDINATE U' RESULTS															
Test Condition 1				55 °C		1.050 A									
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none											
		u'		Chromaticity Coordinate u'											
				1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	
18000010849B031C	D1		0.2363	0.2356	0.2357	0.2356	0.2355	0.2356	0.2355	0.2355	0.2355	0.2354	0.2355	0.2355	
	D2		0.2335	0.2326	0.2325	0.2325	0.2324	0.2324	0.2323	0.2323	0.2323	0.2322	0.2323	0.2322	
	D3		0.2338	0.2330	0.2330	0.2330	0.2329	0.2329	0.2328	0.2328	0.2328	0.2327	0.2327	0.2327	
	D4		0.2352	0.2344	0.2343	0.2343	0.2341	0.2341	0.2341	0.2341	0.2340	0.2340	0.2340	0.2339	
	D5		0.2346	0.2338	0.2337	0.2337	0.2336	0.2336	0.2335	0.2335	0.2335	0.2334	0.2335	0.2334	
	D6		0.2350	0.2341	0.2340	0.2340	0.2339	0.2339	0.2338	0.2338	0.2338	0.2337	0.2338	0.2337	
	D7		0.2331	0.2322	0.2321	0.2321	0.2320	0.2320	0.2319	0.2319	0.2319	0.2318	0.2319	0.2318	
	D8		0.2329	0.2321	0.2321	0.2320	0.2319	0.2319	0.2319	0.2318	0.2318	0.2318	0.2318	0.2318	
	D9		0.2352	0.2343	0.2342	0.2342	0.2341	0.2341	0.2340	0.2340	0.2340	0.2339	0.2340	0.2339	
	D10		0.2337	0.2328	0.2327	0.2327	0.2326	0.2326	0.2325	0.2325	0.2324	0.2324	0.2324	0.2324	
	D11		0.2338	0.2329	0.2329	0.2328	0.2327	0.2327	0.2327	0.2327	0.2326	0.2326	0.2326	0.2326	
	D12		0.2359	0.2349	0.2348	0.2348	0.2347	0.2347	0.2346	0.2346	0.2346	0.2345	0.2345	0.2345	
5900001077DC031C	D1		0.2339	0.2331	0.2329	0.2329	0.2328	0.2328	0.2327	0.2327	0.2327	0.2327	0.2326	0.2326	
	D2		0.2344	0.2335	0.2334	0.2334	0.2333	0.2333	0.2332	0.2332	0.2332	0.2331	0.2331	0.2331	
	D3		0.2358	0.2349	0.2348	0.2348	0.2347	0.2346	0.2346	0.2346	0.2346	0.2346	0.2345	0.2345	
	D4		0.2359	0.2350	0.2349	0.2349	0.2348	0.2348	0.2347	0.2347	0.2347	0.2346	0.2346	0.2346	
	D5		0.2346	0.2337	0.2336	0.2336	0.2335	0.2335	0.2334	0.2334	0.2334	0.2333	0.2334	0.2333	
	D6		0.2349	0.2341	0.2340	0.2341	0.2339	0.2339	0.2339	0.2339	0.2339	0.2338	0.2338	0.2338	
	D7		0.2345	0.2335	0.2334	0.2333	0.2333	0.2332	0.2332	0.2332	0.2331	0.2331	0.2331	0.2330	
	D8		0.2353	0.2343	0.2342	0.2342	0.2341	0.2341	0.2340	0.2340	0.2340	0.2339	0.2339	0.2339	
	D9		0.2351	0.2341	0.2341	0.2341	0.2340	0.2340	0.2339	0.2339	0.2339	0.2339	0.2338	0.2338	
	D10		0.2334	0.2325	0.2324	0.2324	0.2323	0.2323	0.2322	0.2323	0.2322	0.2322	0.2322	0.2322	
	D11		0.2343	0.2334	0.2334	0.2333	0.2333	0.2332	0.2332	0.2332	0.2331	0.2331	0.2331	0.2331	
	D12		0.2342	0.2333	0.2331	0.2332	0.2331	0.2330	0.2330	0.2331	0.2330	0.2330	0.2330	0.2329	
n				24	24	24	24	24	24	24	24	24	24	24	
mean				0.2337	0.2336	0.2336	0.2335	0.2335	0.2334	0.2334	0.2334	0.2333	0.2333	0.2333	
median				0.2336	0.2335	0.2335	0.2334	0.2334	0.2333	0.2333	0.2333	0.2332	0.2332	0.2332	
std. dev.				0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0010	0.0009	0.0009	0.0009	
min				0.2321	0.2321	0.2320	0.2319	0.2319	0.2319	0.2318	0.2318	0.2318	0.2318	0.2318	
max				0.2356	0.2357	0.2356	0.2355	0.2356	0.2355	0.2355	0.2355	0.2354	0.2355	0.2355	



Test Condition 1				55 °C		1.050 A											
TABLE 2.3 - CHROMATICITY COORDINATE U' RESULTS																GW CSSRM2.EM	
Test Condition 1				55 °C		1.050 A											
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none													
		u'		Chromaticity Coordinate u'													
				12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000			
18000010849B031C	D1		0.2363	0.2355	0.2354	0.2354	0.2354	0.2354	0.2354	0.2354	0.2354	0.2354	0.2354	0.2354			
	D2		0.2335	0.2322	0.2321	0.2322	0.2321	0.2321	0.2321	0.2321	0.2321	0.2321	0.2321	0.2321			
	D3		0.2338	0.2327	0.2327	0.2327	0.2326	0.2326	0.2326	0.2326	0.2326	0.2326	0.2326	0.2326			
	D4		0.2352	0.2339	0.2339	0.2339	0.2339	0.2339	0.2339	0.2338	0.2338	0.2338	0.2338	0.2338			
	D5		0.2346	0.2333	0.2334	0.2334	0.2334	0.2334	0.2333	0.2333	0.2333	0.2333	0.2333	0.2333			
	D6		0.2350	0.2337	0.2337	0.2337	0.2337	0.2337	0.2337	0.2336	0.2337	0.2336	0.2336	0.2336			
	D7		0.2331	0.2318	0.2318	0.2318	0.2318	0.2317	0.2317	0.2317	0.2317	0.2317	0.2317	0.2317			
	D8		0.2329	0.2317	0.2317	0.2317	0.2317	0.2317	0.2316	0.2316	0.2317	0.2316	0.2316	0.2316			
	D9		0.2352	0.2339	0.2339	0.2339	0.2338	0.2339	0.2338	0.2337	0.2338	0.2338	0.2338	0.2338			
	D10		0.2337	0.2323	0.2324	0.2323	0.2323	0.2323	0.2323	0.2322	0.2323	0.2323	0.2322	0.2322			
	D11		0.2338	0.2326	0.2325	0.2325	0.2325	0.2325	0.2325	0.2324	0.2325	0.2325	0.2325	0.2325			
	D12		0.2359	0.2344	0.2345	0.2344	0.2344	0.2344	0.2344	0.2343	0.2344	0.2344	0.2344	0.2344			
5900001077DC031C	D1		0.2339	0.2326	0.2326	0.2326	0.2326	0.2326	0.2326	0.2325	0.2326	0.2325	0.2325	0.2325			
	D2		0.2344	0.2330	0.2330	0.2330	0.2331	0.2330	0.2330	0.2329	0.2330	0.2330	0.2330	0.2330			
	D3		0.2358	0.2345	0.2345	0.2345	0.2345	0.2345	0.2345	0.2344	0.2345	0.2344	0.2345	0.2345			
	D4		0.2359	0.2346	0.2346	0.2346	0.2345	0.2346	0.2345	0.2345	0.2345	0.2345	0.2345	0.2345			
	D5		0.2346	0.2333	0.2333	0.2333	0.2333	0.2333	0.2333	0.2332	0.2332	0.2332	0.2332	0.2332			
	D6		0.2349	0.2338	0.2338	0.2337	0.2338	0.2337	0.2337	0.2337	0.2337	0.2337	0.2337	0.2337			
	D7		0.2345	0.2330	0.2330	0.2330	0.2330	0.2330	0.2330	0.2329	0.2330	0.2329	0.2329	0.2329			
	D8		0.2353	0.2339	0.2339	0.2338	0.2338	0.2338	0.2338	0.2337	0.2338	0.2338	0.2338	0.2338			
	D9		0.2351	0.2338	0.2338	0.2337	0.2337	0.2337	0.2337	0.2337	0.2337	0.2337	0.2337	0.2337			
	D10		0.2334	0.2322	0.2322	0.2321	0.2321	0.2321	0.2321	0.2320	0.2321	0.2321	0.2320	0.2320			
	D11		0.2343	0.2331	0.2331	0.2330	0.2330	0.2330	0.2330	0.2330	0.2330	0.2330	0.2330	0.2330			
	D12		0.2342	0.2329	0.2329	0.2329	0.2329	0.2329	0.2329	0.2328	0.2329	0.2329	0.2329	0.2329			
n				24	24	24	24	24	24	24	24	24	24	24			
mean				0.2333	0.2333	0.2332	0.2333	0.2332	0.2332	0.2332	0.2332	0.2332	0.2332	0.2332			
median				0.2332	0.2332	0.2331	0.2332	0.2331	0.2332	0.2331	0.2331	0.2331	0.2331	0.2331			
std. dev.				0.0009	0.0009	0.0009	0.0009	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010			
min				0.2317	0.2317	0.2317	0.2317	0.2317	0.2316	0.2316	0.2317	0.2316	0.2316	0.2316			
max				0.2355	0.2354	0.2354	0.2354	0.2354	0.2354	0.2354	0.2354	0.2354	0.2354	0.2354			

Test Condition 1      55 °C      1.050 A													
TABLE 2.3 - CHROMATICITY COORDINATE U' RESULTS													
Test Condition 1      55 °C      1.050 A													
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none									
		u'		Chromaticity Coordinate u'									
				23000	24000	25000							
18000010849B031C	D1		0.2363	0.2353	0.2354	0.2354							
	D2		0.2335	0.2320	0.2321	0.2321							
	D3		0.2338	0.2325	0.2326	0.2326							
	D4		0.2352	0.2338	0.2338	0.2338							
	D5		0.2346	0.2332	0.2333	0.2333							
	D6		0.2350	0.2336	0.2336	0.2337							
	D7		0.2331	0.2317	0.2317	0.2317							
	D8		0.2329	0.2316	0.2316	0.2316							
	D9		0.2352	0.2338	0.2338	0.2338							
	D10		0.2337	0.2322	0.2322	0.2322							
	D11		0.2338	0.2324	0.2325	0.2325							
	D12		0.2359	0.2343	0.2344	0.2344							
5900001077DC031C	D1		0.2339	0.2324	0.2325	0.2325							
	D2		0.2344	0.2329	0.2329	0.2330							
	D3		0.2358	0.2343	0.2345	0.2345							
	D4		0.2359	0.2344	0.2345	0.2345							
	D5		0.2346	0.2331	0.2332	0.2332							
	D6		0.2349	0.2336	0.2337	0.2337							
	D7		0.2345	0.2328	0.2329	0.2330							
	D8		0.2353	0.2337	0.2337	0.2338							
	D9		0.2351	0.2336	0.2336	0.2337							
	D10		0.2334	0.2319	0.2320	0.2320							
	D11		0.2343	0.2329	0.2330	0.2330							
	D12		0.2342	0.2328	0.2328	0.2329							
n				24	24	24							
mean				0.2331	0.2332	0.2332							
median				0.2330	0.2331	0.2331							
std. dev.				0.0010	0.0010	0.0010							
min				0.2316	0.2316	0.2316							
max				0.2353	0.2354	0.2354							



Test Condition 1				55 °C		1.050 A									
TABLE 2.4 - CHROMATICITY COORDINATE V' RESULTS															
Test Condition 1				55 °C		1.050 A									
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none											
		v'		Chromaticity Coordinate v'											
				1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	
18000010849B031C	D1		0.5203	0.5207	0.5208	0.5209	0.5210	0.5211	0.5212	0.5212	0.5212	0.5213	0.5213	0.5213	
	D2		0.5189	0.5186	0.5185	0.5186	0.5186	0.5187	0.5187	0.5187	0.5187	0.5187	0.5187	0.5187	
	D3		0.5188	0.5185	0.5184	0.5185	0.5185	0.5186	0.5186	0.5186	0.5186	0.5187	0.5187	0.5186	
	D4		0.5198	0.5195	0.5195	0.5195	0.5196	0.5196	0.5196	0.5196	0.5196	0.5197	0.5197	0.5197	
	D5		0.5192	0.5189	0.5189	0.5189	0.5190	0.5191	0.5191	0.5191	0.5191	0.5192	0.5191	0.5191	
	D6		0.5206	0.5202	0.5202	0.5202	0.5203	0.5204	0.5203	0.5204	0.5204	0.5204	0.5204	0.5204	
	D7		0.5194	0.5191	0.5191	0.5191	0.5191	0.5192	0.5192	0.5192	0.5192	0.5193	0.5192	0.5193	
	D8		0.5192	0.5189	0.5189	0.5189	0.5190	0.5190	0.5191	0.5191	0.5191	0.5191	0.5191	0.5191	
	D9		0.5208	0.5205	0.5206	0.5206	0.5206	0.5207	0.5207	0.5208	0.5207	0.5208	0.5208	0.5208	
	D10		0.5195	0.5192	0.5192	0.5192	0.5193	0.5194	0.5193	0.5194	0.5194	0.5194	0.5194	0.5194	
	D11		0.5194	0.5190	0.5189	0.5190	0.5190	0.5190	0.5190	0.5190	0.5190	0.5191	0.5191	0.5191	
	D12		0.5190	0.5187	0.5186	0.5187	0.5187	0.5188	0.5188	0.5188	0.5188	0.5189	0.5188	0.5189	
5900001077DC031C	D1		0.5195	0.5193	0.5193	0.5193	0.5194	0.5194	0.5194	0.5195	0.5195	0.5195	0.5196	0.5196	
	D2		0.5199	0.5195	0.5195	0.5195	0.5195	0.5195	0.5196	0.5196	0.5196	0.5196	0.5196	0.5197	
	D3		0.5199	0.5194	0.5194	0.5194	0.5194	0.5194	0.5195	0.5194	0.5195	0.5195	0.5195	0.5195	
	D4		0.5209	0.5206	0.5206	0.5206	0.5206	0.5206	0.5207	0.5207	0.5208	0.5208	0.5208	0.5208	
	D5		0.5191	0.5188	0.5188	0.5189	0.5189	0.5189	0.5189	0.5189	0.5190	0.5190	0.5190	0.5190	
	D6		0.5185	0.5183	0.5183	0.5183	0.5184	0.5184	0.5185	0.5184	0.5185	0.5185	0.5185	0.5186	
	D7		0.5203	0.5199	0.5199	0.5198	0.5198	0.5198	0.5199	0.5199	0.5199	0.5199	0.5199	0.5199	
	D8		0.5193	0.5188	0.5189	0.5189	0.5189	0.5189	0.5189	0.5189	0.5190	0.5190	0.5190	0.5190	
	D9		0.5196	0.5191	0.5192	0.5192	0.5192	0.5193	0.5193	0.5193	0.5193	0.5194	0.5194	0.5194	
	D10		0.5192	0.5189	0.5189	0.5189	0.5190	0.5189	0.5190	0.5190	0.5190	0.5191	0.5190	0.5191	
	D11		0.5191	0.5187	0.5187	0.5187	0.5188	0.5188	0.5188	0.5188	0.5189	0.5189	0.5189	0.5189	
	D12		0.5192	0.5186	0.5187	0.5187	0.5188	0.5188	0.5189	0.5188	0.5189	0.5189	0.5189	0.5189	
n				24	24	24	24	24	24	24	24	24	24	24	
mean				0.5192	0.5192	0.5193	0.5193	0.5193	0.5194	0.5194	0.5194	0.5194	0.5194	0.5195	
median				0.5190	0.5190	0.5190	0.5191	0.5191	0.5191	0.5191	0.5191	0.5192	0.5192	0.5192	
std. dev.				0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	
min				0.5183	0.5183	0.5183	0.5184	0.5184	0.5185	0.5184	0.5185	0.5185	0.5185	0.5186	
max				0.5207	0.5208	0.5209	0.5210	0.5211	0.5212	0.5212	0.5212	0.5213	0.5213	0.5213	



Test Condition 1				55 °C		1.050 A											
TABLE 2.4 - CHROMATICITY COORDINATE V' RESULTS																GW CSSRM2.EM	
Test Condition 1				55 °C		1.050 A											
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none													
		v'		Chromaticity Coordinate v'													
				12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000			
18000010849B031C	D1		0.5203	0.5213	0.5214	0.5214	0.5215	0.5214	0.5215	0.5215	0.5215	0.5216	0.5216	0.5216			
	D2		0.5189	0.5187	0.5188	0.5188	0.5188	0.5188	0.5189	0.5188	0.5188	0.5189	0.5189	0.5188			
	D3		0.5188	0.5186	0.5187	0.5187	0.5188	0.5187	0.5188	0.5188	0.5188	0.5188	0.5188	0.5188			
	D4		0.5198	0.5197	0.5197	0.5197	0.5198	0.5197	0.5198	0.5198	0.5198	0.5198	0.5198	0.5198			
	D5		0.5192	0.5192	0.5192	0.5192	0.5193	0.5192	0.5193	0.5193	0.5193	0.5193	0.5193	0.5193			
	D6		0.5206	0.5204	0.5205	0.5205	0.5205	0.5205	0.5205	0.5206	0.5205	0.5206	0.5206	0.5206			
	D7		0.5194	0.5193	0.5193	0.5193	0.5193	0.5193	0.5194	0.5193	0.5193	0.5194	0.5194	0.5194			
	D8		0.5192	0.5191	0.5192	0.5191	0.5192	0.5191	0.5192	0.5192	0.5192	0.5192	0.5192	0.5192			
	D9		0.5208	0.5208	0.5208	0.5208	0.5209	0.5209	0.5209	0.5209	0.5209	0.5210	0.5210	0.5210			
	D10		0.5195	0.5194	0.5195	0.5195	0.5195	0.5195	0.5195	0.5195	0.5195	0.5196	0.5195	0.5195			
	D11		0.5194	0.5191	0.5191	0.5191	0.5191	0.5191	0.5191	0.5191	0.5191	0.5192	0.5192	0.5192			
	D12		0.5190	0.5188	0.5189	0.5188	0.5189	0.5189	0.5189	0.5190	0.5189	0.5190	0.5190	0.5190			
5900001077DC031C	D1		0.5195	0.5196	0.5197	0.5197	0.5197	0.5197	0.5197	0.5197	0.5197	0.5197	0.5197	0.5197			
	D2		0.5199	0.5197	0.5197	0.5197	0.5197	0.5197	0.5197	0.5198	0.5197	0.5198	0.5198	0.5198			
	D3		0.5199	0.5195	0.5196	0.5196	0.5195	0.5196	0.5196	0.5196	0.5196	0.5197	0.5197	0.5197			
	D4		0.5209	0.5208	0.5209	0.5209	0.5209	0.5209	0.5209	0.5209	0.5209	0.5210	0.5210	0.5210			
	D5		0.5191	0.5190	0.5191	0.5190	0.5191	0.5191	0.5191	0.5191	0.5191	0.5192	0.5192	0.5191			
	D6		0.5185	0.5186	0.5187	0.5186	0.5187	0.5186	0.5187	0.5187	0.5187	0.5188	0.5187	0.5187			
	D7		0.5203	0.5200	0.5200	0.5200	0.5200	0.5200	0.5200	0.5200	0.5200	0.5200	0.5200	0.5200			
	D8		0.5193	0.5190	0.5191	0.5191	0.5191	0.5191	0.5191	0.5191	0.5191	0.5192	0.5192	0.5192			
	D9		0.5196	0.5194	0.5194	0.5194	0.5195	0.5195	0.5195	0.5195	0.5195	0.5196	0.5196	0.5196			
	D10		0.5192	0.5191	0.5191	0.5191	0.5191	0.5192	0.5192	0.5192	0.5192	0.5192	0.5191	0.5191			
	D11		0.5191	0.5190	0.5190	0.5190	0.5190	0.5190	0.5191	0.5191	0.5191	0.5191	0.5191	0.5191			
	D12		0.5192	0.5190	0.5190	0.5190	0.5190	0.5190	0.5190	0.5190	0.5191	0.5191	0.5191	0.5191			
n				24	24	24	24	24	24	24	24	24	24	24			
mean				0.5195	0.5195	0.5195	0.5195	0.5195	0.5196	0.5196	0.5196	0.5196	0.5196	0.5196			
median				0.5192	0.5193	0.5192	0.5193	0.5193	0.5193	0.5193	0.5193	0.5194	0.5194	0.5194			
std. dev.				0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0008			
min				0.5186	0.5187	0.5186	0.5187	0.5186	0.5187	0.5187	0.5187	0.5188	0.5187	0.5187			
max				0.5213	0.5214	0.5214	0.5215	0.5214	0.5215	0.5215	0.5215	0.5216	0.5216	0.5216			



Test Condition 1      55 °C      1.050 A													
TABLE 2.4 - CHROMATICITY COORDINATE V' RESULTS													
Test Condition 1      55 °C      1.050 A													
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none									
		v'		Chromaticity Coordinate v'									
				23000	24000	25000							
18000010849B031C	D1		0.5203	0.5217	0.5217	0.5217							
	D2		0.5189	0.5189	0.5189	0.5189							
	D3		0.5188	0.5189	0.5188	0.5189							
	D4		0.5198	0.5198	0.5199	0.5198							
	D5		0.5192	0.5194	0.5194	0.5194							
	D6		0.5206	0.5206	0.5206	0.5206							
	D7		0.5194	0.5194	0.5194	0.5194							
	D8		0.5192	0.5192	0.5192	0.5192							
	D9		0.5208	0.5210	0.5210	0.5210							
	D10		0.5195	0.5196	0.5196	0.5195							
	D11		0.5194	0.5192	0.5192	0.5192							
	D12		0.5190	0.5190	0.5190	0.5190							
5900001077DC031C	D1		0.5195	0.5198	0.5198	0.5197							
	D2		0.5199	0.5198	0.5199	0.5198							
	D3		0.5199	0.5196	0.5197	0.5196							
	D4		0.5209	0.5210	0.5210	0.5209							
	D5		0.5191	0.5192	0.5192	0.5191							
	D6		0.5185	0.5188	0.5188	0.5187							
	D7		0.5203	0.5200	0.5201	0.5200							
	D8		0.5193	0.5192	0.5192	0.5191							
	D9		0.5196	0.5196	0.5196	0.5196							
	D10		0.5192	0.5191	0.5192	0.5191							
	D11		0.5191	0.5191	0.5192	0.5191							
	D12		0.5192	0.5192	0.5192	0.5191							
n				24	24	24							
mean				0.5196	0.5197	0.5196							
median				0.5194	0.5194	0.5194							
std. dev.				0.0008	0.0008	0.0008							
min				0.5188	0.5188	0.5187							
max				0.5217	0.5217	0.5217							

Test Condition 1      55 °C      1.050 A														
TABLE 2.5 - CHROMATICITY SHIFT RESULTS														
Test Condition 1      55 °C      1.050 A														
Load board ID	Device number	Zero hour measurements			Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none									
		u'	v'		Chromaticity shift ( $\Delta u'v'$ )									
					1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
18000010849B031C	D1	0.2363	0.5203		0.0008	0.0008	0.0009	0.0010	0.0011	0.0012	0.0012	0.0012	0.0013	0.0013
	D2	0.2335	0.5189		0.0009	0.0010	0.0010	0.0011	0.0011	0.0012	0.0012	0.0012	0.0013	0.0012
	D3	0.2338	0.5188		0.0009	0.0009	0.0009	0.0010	0.0010	0.0011	0.0011	0.0011	0.0011	0.0011
	D4	0.2352	0.5198		0.0009	0.0009	0.0010	0.0010	0.0010	0.0011	0.0011	0.0012	0.0012	0.0012
	D5	0.2346	0.5192		0.0009	0.0010	0.0010	0.0011	0.0011	0.0012	0.0011	0.0012	0.0012	0.0012
	D6	0.2350	0.5206		0.0010	0.0010	0.0011	0.0011	0.0011	0.0012	0.0012	0.0012	0.0012	0.0012
	D7	0.2331	0.5194		0.0010	0.0011	0.0011	0.0012	0.0012	0.0013	0.0012	0.0013	0.0013	0.0013
	D8	0.2329	0.5192		0.0009	0.0009	0.0009	0.0010	0.0011	0.0011	0.0011	0.0011	0.0012	0.0011
	D9	0.2352	0.5208		0.0009	0.0010	0.0010	0.0011	0.0011	0.0012	0.0012	0.0012	0.0012	0.0012
	D10	0.2337	0.5195		0.0010	0.0011	0.0011	0.0012	0.0012	0.0012	0.0012	0.0013	0.0013	0.0013
	D11	0.2338	0.5194		0.0010	0.0010	0.0010	0.0011	0.0012	0.0012	0.0011	0.0012	0.0013	0.0012
	D12	0.2359	0.5190		0.0010	0.0011	0.0011	0.0011	0.0012	0.0013	0.0013	0.0013	0.0014	0.0013
5900001077DC031C	D1	0.2339	0.5195		0.0008	0.0010	0.0010	0.0011	0.0011	0.0012	0.0012	0.0012	0.0012	0.0012
	D2	0.2344	0.5199		0.0010	0.0011	0.0011	0.0012	0.0013	0.0013	0.0013	0.0013	0.0013	0.0014
	D3	0.2358	0.5199		0.0011	0.0012	0.0012	0.0012	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013
	D4	0.2359	0.5209		0.0010	0.0011	0.0011	0.0012	0.0012	0.0012	0.0013	0.0013	0.0013	0.0013
	D5	0.2346	0.5191		0.0009	0.0010	0.0010	0.0011	0.0012	0.0012	0.0012	0.0012	0.0013	0.0012
	D6	0.2349	0.5185		0.0009	0.0009	0.0009	0.0010	0.0010	0.0011	0.0010	0.0011	0.0011	0.0011
	D7	0.2345	0.5203		0.0011	0.0012	0.0013	0.0013	0.0014	0.0014	0.0014	0.0015	0.0014	0.0015
	D8	0.2353	0.5193		0.0011	0.0011	0.0012	0.0013	0.0013	0.0013	0.0013	0.0014	0.0014	0.0014
	D9	0.2351	0.5196		0.0011	0.0011	0.0011	0.0012	0.0012	0.0013	0.0012	0.0013	0.0013	0.0013
	D10	0.2334	0.5192		0.0009	0.0010	0.0010	0.0011	0.0011	0.0012	0.0011	0.0012	0.0012	0.0012
	D11	0.2343	0.5191		0.0010	0.0010	0.0011	0.0011	0.0011	0.0012	0.0012	0.0012	0.0012	0.0012
	D12	0.2342	0.5192		0.0012	0.0012	0.0012	0.0012	0.0013	0.0013	0.0012	0.0013	0.0013	0.0013
n					24	24	24	24	24	24	24	24	24	24
mean					0.0010	0.0010	0.0011	0.0011	0.0012	0.0012	0.0012	0.0012	0.0013	0.0013
median					0.0010	0.0010	0.0010	0.0011	0.0011	0.0012	0.0012	0.0012	0.0013	0.0012
std. dev.					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
min					0.0008	0.0008	0.0009	0.0010	0.0010	0.0011	0.0010	0.0011	0.0011	0.0011
max					0.0012	0.0012	0.0013	0.0013	0.0014	0.0014	0.0014	0.0015	0.0014	0.0015



Test Condition 1					55 °C	1.050 A									
TABLE 2.5 - CHROMATICITY SHIFT RESULTS															
Test Condition 1					55 °C	1.050 A									
Load board ID	Device number	Zero hour measurements			Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none										
		u'	v'		Chromaticity shift (Δu'v')										
					12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000
18000010849B031C	D1	0.2363	0.5203		0.0014	0.0014	0.0014	0.0015	0.0015	0.0015	0.0016	0.0015	0.0016	0.0016	0.0016
	D2	0.2335	0.5189		0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0014	0.0014	0.0013	0.0014	0.0014
	D3	0.2338	0.5188		0.0012	0.0011	0.0012	0.0012	0.0012	0.0012	0.0013	0.0012	0.0012	0.0012	0.0013
	D4	0.2352	0.5198		0.0012	0.0012	0.0012	0.0012	0.0013	0.0013	0.0013	0.0013	0.0013	0.0014	0.0014
	D5	0.2346	0.5192		0.0013	0.0012	0.0013	0.0013	0.0013	0.0013	0.0014	0.0013	0.0014	0.0014	0.0014
	D6	0.2350	0.5206		0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0014	0.0013	0.0013	0.0013	0.0013
	D7	0.2331	0.5194		0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0015	0.0014	0.0014	0.0014	0.0014
	D8	0.2329	0.5192		0.0012	0.0012	0.0012	0.0013	0.0012	0.0013	0.0013	0.0012	0.0013	0.0014	0.0014
	D9	0.2352	0.5208		0.0013	0.0013	0.0013	0.0013	0.0013	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014
	D10	0.2337	0.5195		0.0014	0.0013	0.0014	0.0014	0.0014	0.0014	0.0015	0.0014	0.0014	0.0015	0.0015
	D11	0.2338	0.5194		0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0014	0.0013	0.0013	0.0013	0.0013
	D12	0.2359	0.5190		0.0014	0.0014	0.0015	0.0014	0.0015	0.0015	0.0015	0.0015	0.0014	0.0015	0.0015
5900001077DC031C	D1	0.2339	0.5195		0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0014	0.0013	0.0014	0.0014	0.0014
	D2	0.2344	0.5199		0.0014	0.0014	0.0015	0.0014	0.0014	0.0014	0.0015	0.0014	0.0015	0.0014	0.0015
	D3	0.2358	0.5199		0.0014	0.0014	0.0014	0.0013	0.0014	0.0014	0.0015	0.0014	0.0014	0.0014	0.0014
	D4	0.2359	0.5209		0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0015	0.0014	0.0014	0.0014	0.0014
	D5	0.2346	0.5191		0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0014	0.0014	0.0014	0.0014	0.0014
	D6	0.2349	0.5185		0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0013	0.0012	0.0013	0.0012	0.0013
	D7	0.2345	0.5203		0.0015	0.0015	0.0016	0.0015	0.0016	0.0015	0.0016	0.0016	0.0016	0.0016	0.0016
	D8	0.2353	0.5193		0.0014	0.0014	0.0015	0.0015	0.0015	0.0015	0.0016	0.0015	0.0015	0.0015	0.0015
	D9	0.2351	0.5196		0.0013	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0015	0.0015	0.0014	0.0014
	D10	0.2334	0.5192		0.0012	0.0012	0.0013	0.0013	0.0013	0.0013	0.0014	0.0013	0.0013	0.0014	0.0014
	D11	0.2343	0.5191		0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013
	D12	0.2342	0.5192		0.0013	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0013	0.0014	0.0014
n					24	24	24	24	24	24	24	24	24	24	
mean					0.0013	0.0013	0.0013	0.0013	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	
median					0.0013	0.0013	0.0013	0.0013	0.0013	0.0014	0.0014	0.0014	0.0014	0.0014	
std. dev.					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	
min					0.0012	0.0011	0.0012	0.0012	0.0012	0.0012	0.0013	0.0012	0.0012	0.0012	
max					0.0015	0.0015	0.0016	0.0015	0.0016	0.0015	0.0016	0.0016	0.0016	0.0016	

Test Condition 1					55 °C	1.050 A										
TABLE 2.5 - CHROMATICITY SHIFT RESULTS															GW CSSRM2.EM	
Test Condition 1					55 °C	1.050 A										
Load board ID	Device number	Zero hour measurements			Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none											
		u'	v'		Chromaticity shift (Δu'v')											
					23000	24000	25000									
18000010849B031C	D1	0.2363	0.5203		0.0017	0.0017	0.0017									
	D2	0.2335	0.5189		0.0015	0.0014	0.0013									
	D3	0.2338	0.5188		0.0013	0.0012	0.0012									
	D4	0.2352	0.5198		0.0014	0.0013	0.0013									
	D5	0.2346	0.5192		0.0014	0.0014	0.0013									
	D6	0.2350	0.5206		0.0014	0.0013	0.0013									
	D7	0.2331	0.5194		0.0015	0.0015	0.0014									
	D8	0.2329	0.5192		0.0014	0.0014	0.0013									
	D9	0.2352	0.5208		0.0014	0.0014	0.0014									
	D10	0.2337	0.5195		0.0016	0.0015	0.0015									
	D11	0.2338	0.5194		0.0014	0.0013	0.0013									
	D12	0.2359	0.5190		0.0015	0.0015	0.0015									
5900001077DC031C	D1	0.2339	0.5195		0.0016	0.0015	0.0014									
	D2	0.2344	0.5199		0.0015	0.0015	0.0014									
	D3	0.2358	0.5199		0.0015	0.0014	0.0014									
	D4	0.2359	0.5209		0.0015	0.0014	0.0014									
	D5	0.2346	0.5191		0.0015	0.0015	0.0014									
	D6	0.2349	0.5185		0.0013	0.0013	0.0012									
	D7	0.2345	0.5203		0.0017	0.0016	0.0016									
	D8	0.2353	0.5193		0.0016	0.0015	0.0015									
	D9	0.2351	0.5196		0.0015	0.0015	0.0014									
	D10	0.2334	0.5192		0.0015	0.0014	0.0014									
	D11	0.2343	0.5191		0.0014	0.0013	0.0013									
	D12	0.2342	0.5192		0.0015	0.0014	0.0013									
n					24	24	24									
mean					0.0015	0.0014	0.0014									
median					0.0015	0.0014	0.0014									
std. dev.					0.0001	0.0001	0.0001									
min					0.0013	0.0012	0.0012									
max					0.0017	0.0017	0.0017									

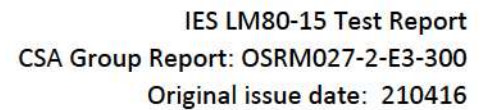


Test Condition 1      55 °C      1.050 A													
TABLE 2.6 - FORWARD VOLTAGE MAINTENANCE RESULTS													
Test Condition 1      55 °C      1.050 A													
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none									
		Vf (V)		Forward Voltage Maintenance (%)									
				1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
18000010849B031C	D1		3.51	95.95	95.30	95.00	94.86	94.72	94.67	94.97	94.77	94.79	94.60
	D2		3.44	97.85	97.81	97.67	97.55	97.44	97.71	97.94	97.54	97.76	97.55
	D3		3.52	97.33	97.13	97.04	96.88	96.97	97.01	97.12	96.87	96.97	96.82
	D4		3.51	97.20	96.86	96.77	96.67	96.71	96.49	96.81	96.58	96.56	96.52
	D5		3.63	96.38	95.87	95.93	95.65	95.54	95.62	95.64	95.56	95.34	95.39
	D6		3.55	97.79	97.38	97.51	97.22	97.25	97.33	97.32	97.49	97.07	97.48
	D7		3.53	96.77	96.56	96.45	96.43	96.72	96.41	96.53	96.63	96.40	96.81
	D8		3.51	97.74	97.52	97.42	97.45	97.65	97.48	97.46	97.40	97.33	97.39
	D9		3.63	96.84	96.41	96.36	96.29	96.07	96.12	96.18	96.10	95.92	95.90
	D10		3.66	96.45	96.06	95.93	95.91	95.70	95.64	95.76	95.76	95.53	95.52
	D11		3.56	97.78	97.61	97.46	97.49	97.56	97.43	97.63	97.37	97.44	97.28
	D12		3.61	96.21	95.83	95.72	95.56	95.75	95.45	95.74	95.34	95.76	95.26
5900001077DC031C	D1		3.42	97.22	96.59	96.35	96.41	96.18	96.10	96.22	96.05	96.25	96.39
	D2		3.41	98.70	98.42	98.29	98.50	98.36	98.21	98.49	98.25	98.30	98.30
	D3		3.55	96.53	96.25	96.07	96.11	95.93	95.82	95.96	96.04	95.83	95.72
	D4		3.56	96.54	96.17	96.05	96.10	95.91	95.80	95.81	96.02	95.81	95.68
	D5		3.55	97.74	97.47	97.48	97.38	97.43	97.30	97.38	97.38	97.09	97.14
	D6		3.64	96.05	95.63	95.58	95.42	95.42	95.43	95.43	95.22	95.11	95.21
	D7		3.51	97.07	96.90	96.99	96.88	97.01	97.01	97.02	97.48	96.81	96.86
	D8		3.59	96.27	95.92	95.90	95.78	95.80	95.70	95.78	96.34	95.68	95.64
	D9		3.61	97.13	96.76	96.73	96.74	96.76	96.73	96.90	96.81	96.83	97.26
	D10		3.56	97.50	97.37	97.37	97.40	97.46	97.56	97.71	97.53	97.51	98.04
	D11		3.58	97.47	97.26	97.15	97.17	97.05	97.14	97.16	97.07	97.02	97.10
	D12		3.50	98.31	98.12	98.04	98.06	98.02	97.98	97.95	98.05	97.90	97.93
n				24	24	24	24	24	24	24	24	24	24
mean				97.1	96.8	96.7	96.7	96.6	96.6	96.7	96.7	96.5	96.6
median				97.2	96.8	96.7	96.7	96.7	96.6	96.9	96.7	96.7	96.6
std. dev.				0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	1.0
min				95.9	95.3	95.0	94.9	94.7	94.7	95.0	94.8	94.8	94.6
max				98.7	98.4	98.3	98.5	98.4	98.2	98.5	98.3	98.3	98.1



Test Condition 1				55 °C		1.050 A											
TABLE 2.6 - FORWARD VOLTAGE MAINTENANCE RESULTS																GW CSSRM2.EM	
Test Condition 1				55 °C		1.050 A											
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none													
		Vf (V)		Forward Voltage Maintainence (%)													
				12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000			
18000010849B031C	D1		3.51	94.92	94.93	95.01	94.95	94.82	95.12	94.59	94.66	94.58	94.22	94.55			
	D2		3.44	97.71	97.70	98.07	98.16	97.83	97.70	97.61	98.07	97.70	97.49	97.80			
	D3		3.52	96.85	96.80	96.74	97.17	96.71	96.78	96.65	97.13	97.04	96.81	97.12			
	D4		3.51	96.41	96.41	96.38	97.55	96.36	96.48	96.34	96.43	96.57	96.38	96.59			
	D5		3.63	95.38	95.35	95.17	96.81	95.53	95.34	95.30	95.32	95.66	95.68	95.82			
	D6		3.55	98.10	97.23	97.12	98.09	97.87	97.32	97.21	97.77	97.60	98.16	97.68			
	D7		3.53	97.28	96.35	96.46	97.92	96.80	96.82	96.48	97.01	96.54	96.85	96.27			
	D8		3.51	97.33	97.22	97.28	98.45	97.27	97.64	97.33	97.43	97.43	97.13	97.11			
	D9		3.63	95.93	95.96	95.88	95.90	95.90	96.28	96.04	95.88	95.89	95.83	95.75			
	D10		3.66	95.57	95.76	95.51	95.55	95.62	96.20	95.70	95.52	95.50	95.50	95.40			
	D11		3.56	97.72	97.57	97.38	98.16	97.45	97.54	97.24	97.40	97.39	97.25	97.53			
	D12		3.61	95.80	95.45	95.30	95.99	95.32	95.14	95.25	95.42	95.39	95.02	95.46			
5900001077DC031C	D1		3.42	96.22	96.39	95.81	96.65	96.20	96.13	96.43	96.30	96.24	95.99	96.28			
	D2		3.41	98.32	98.41	97.92	99.40	98.30	98.33	98.70	98.85	98.63	98.23	98.51			
	D3		3.55	95.81	96.05	95.46	96.66	95.61	95.81	96.37	95.98	95.79	95.55	95.82			
	D4		3.56	95.86	96.00	95.43	96.89	95.52	95.79	96.09	95.62	95.67	95.49	95.45			
	D5		3.55	97.37	97.33	96.97	98.41	97.16	97.24	97.39	97.23	97.35	97.14	97.10			
	D6		3.64	95.47	95.20	94.90	96.37	95.20	95.12	95.44	95.41	95.13	95.09	95.34			
	D7		3.51	97.07	96.80	96.56	98.56	97.02	96.84	97.05	96.95	97.11	96.69	97.31			
	D8		3.59	95.60	95.80	95.40	96.45	95.81	95.71	95.74	95.53	96.04	95.46	95.78			
	D9		3.61	96.74	96.98	96.46	96.63	96.75	97.01	96.86	97.05	97.04	96.80	96.64			
	D10		3.56	97.53	97.45	97.15	97.34	97.37	97.65	97.51	97.79	97.72	97.46	97.43			
	D11		3.58	97.02	96.93	96.72	96.97	96.89	96.94	96.99	97.08	97.12	96.82	97.00			
	D12		3.50	97.93	97.94	97.70	98.09	97.88	97.89	97.85	97.98	98.21	97.82	97.81			
n				24	24	24	24	24	24	24	24	24	24	24			
mean				96.7	96.6	96.4	97.2	96.6	96.6	96.6	96.7	96.6	96.5	96.6			
median				96.8	96.6	96.5	97.1	96.7	96.8	96.6	97.0	96.8	96.7	96.6			
std. dev.				1.0	0.9	1.0	1.1	1.0	1.0	1.0	1.1	1.0	1.1	1.0			
min				94.9	94.9	94.9	94.9	94.8	95.1	94.6	94.7	94.6	94.2	94.6			
max				98.3	98.4	98.1	99.4	98.3	98.3	98.7	98.9	98.6	98.2	98.5			

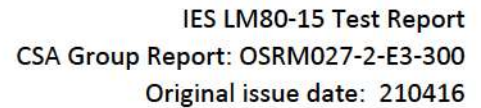




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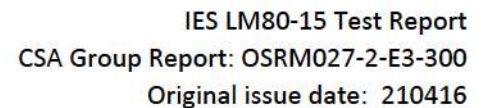


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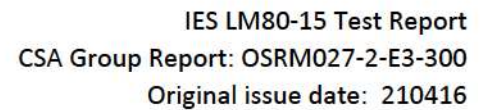
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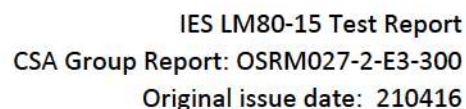


Test Condition 2      85 °C      1.050 A														
TABLE 3.1 - RADIANT FLUX MAINTENANCE RESULTS														
Test Condition 2      85 °C      1.050 A														
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none										
		Flux (W)	VF (V)	Radiant Flux Maintenance (%)										
				1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000
5800001073C7031C	D1	1.1963	3.36	99.8	99.6	99.5	99.6	99.4	99.3	99.4	99.4	99.4	99.5	99.4
	D2	1.1799	3.49	100.4	100.3	100.3	100.4	100.2	100.2	100.3	100.2	100.3	100.5	100.4
	D3	1.1631	3.46	100.4	100.4	100.4	100.5	100.4	100.3	100.4	100.4	100.6	100.7	100.6
	D4	1.1701	3.48	100.0	100.0	100.0	100.1	100.0	99.8	99.9	99.9	100.0	100.2	100.1
	D5	1.1819	3.68	100.0	99.7	99.8	99.8	99.7	99.6	99.6	99.6	99.7	99.8	99.7
	D6	1.1876	3.56	99.9	99.8	99.8	99.9	99.8	99.7	99.8	99.7	99.8	100.0	99.9
	D7	1.2035	3.49	99.7	99.5	99.4	99.4	99.3	99.2	99.2	99.2	99.3	99.4	99.3
	D8	1.1882	3.58	99.9	99.8	99.7	99.8	99.7	99.6	99.7	99.7	99.9	100.0	100.0
	D9	1.1881	3.60	99.7	99.7	99.7	99.9	99.8	99.7	99.8	99.7	99.9	100.0	99.9
	D10	1.1869	3.62	100.4	100.4	100.5	100.6	100.5	100.4	100.5	100.5	100.6	100.8	100.7
	D11	1.1777	3.61	99.8	99.7	99.6	99.7	99.5	99.4	99.4	99.4	99.4	99.5	99.4
	D12	1.1926	3.52	99.8	99.7	99.7	99.8	99.7	99.6	99.7	99.6	99.7	99.9	99.8
960000108055031C	D1	1.1827	3.52	100.2	100.0	100.0	100.0	99.8	99.8	99.8	99.8	99.9	100.0	99.9
	D2	1.1903	3.45	99.4	99.2	99.3	99.3	99.2	99.1	99.1	99.2	99.2	99.4	99.3
	D3	1.1721	3.43	99.1	98.8	98.7	98.7	98.4	98.3	98.3	98.2	98.2	98.3	98.2
	D4	1.1858	3.50	100.5	100.3	100.4	100.5	100.3	100.3	100.4	100.4	100.5	100.7	100.6
	D5	1.1780	3.53	99.5	99.3	99.4	99.4	99.1	99.1	99.1	99.0	99.0	99.2	99.0
	D6	1.2000	3.64	99.6	99.3	99.3	99.3	99.1	99.0	99.1	99.1	99.1	99.3	99.2
	D7	1.1756	3.51	100.1	100.0	100.1	100.2	100.0	100.0	100.1	100.0	100.2	100.3	100.2
	D8	1.1779	3.53	100.7	100.6	100.7	100.8	100.7	100.7	100.7	100.8	100.9	101.1	100.9
	D9	1.1847	3.59	100.2	100.0	100.1	100.2	100.0	100.0	100.1	100.0	100.1	100.3	100.2
	D10	1.1941	3.60	100.1	100.0	100.0	100.0	99.8	99.8	99.9	99.9	99.9	100.1	100.0
	D11	1.1953	3.58	100.2	100.0	100.0	100.1	99.9	99.9	99.9	100.0	100.1	100.2	100.1
	D12	1.1714	3.52	99.8	99.6	99.7	99.7	99.4	99.4	99.4	99.4	99.5	99.6	99.4
n mean median std. dev. min max				24	24	24	24	24	24	24	24	24	24	24
				100.0	99.8	99.8	99.9	99.7	99.7	99.7	99.7	99.8	99.9	99.9
				100.0	99.8	99.8	99.9	99.8	99.7	99.8	99.7	99.9	100.0	99.9
				0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
				99.1	98.8	98.7	98.7	98.4	98.3	98.3	98.2	98.2	98.3	98.2
				100.7	100.6	100.7	100.8	100.7	100.7	100.7	100.8	100.9	101.1	100.9



Test Condition 2      85 °C      1.050 A														
TABLE 3.1 - RADIANT FLUX MAINTENANCE RESULTS														
Test Condition 2      85 °C      1.050 A														
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none										
		Flux (W)	VF (V)	Radiant Flux Maintenance (%)										
				12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000
5800001073C7031C	D1	1.1963	3.36	99.4	99.4	99.4	99.5	99.3	99.4	99.4	99.2	99.1	98.9	99.0
	D2	1.1799	3.49	100.4	100.4	100.4	100.4	100.3	100.4	100.4	100.3	100.0	100.0	100.0
	D3	1.1631	3.46	100.6	100.6	100.6	100.6	100.5	100.6	100.7	100.5	100.3	100.3	100.3
	D4	1.1701	3.48	100.1	100.1	100.1	100.1	100.1	100.1	100.2	100.0	99.8	99.8	99.8
	D5	1.1819	3.68	99.7	99.7	99.8	99.7	99.6	99.7	99.7	99.6	99.4	99.4	99.4
	D6	1.1876	3.56	99.9	99.9	99.8	99.9	99.8	99.8	99.9	99.7	99.5	99.5	99.5
	D7	1.2035	3.49	99.3	99.3	99.3	99.3	99.2	99.3	99.3	99.1	98.9	98.9	98.9
	D8	1.1882	3.58	99.9	99.9	99.9	99.9	99.9	99.9	100.0	99.8	99.6	99.6	99.6
	D9	1.1881	3.60	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.8	99.6	99.6	99.6
	D10	1.1869	3.62	100.6	100.6	100.6	100.6	100.6	100.7	100.7	100.5	100.4	100.4	100.4
	D11	1.1777	3.61	99.3	99.3	99.3	99.3	99.2	99.3	99.2	99.0	98.8	98.8	98.7
	D12	1.1926	3.52	99.7	99.8	99.7	99.8	99.7	99.8	99.8	99.6	99.4	99.3	99.4
960000108055031C	D1	1.1827	3.52	100.0	100.0	99.9	100.0	99.9	99.9	99.9	99.8	99.6	99.5	99.5
	D2	1.1903	3.45	99.3	99.3	99.3	99.3	99.2	99.2	99.3	99.1	99.0	98.8	98.9
	D3	1.1721	3.43	98.1	98.1	98.0	98.0	97.8	97.8	97.8	97.6	97.4	97.3	97.3
	D4	1.1858	3.50	100.6	100.6	100.6	100.6	100.5	100.5	100.6	100.4	100.3	100.2	100.2
	D5	1.1780	3.53	99.0	99.0	98.9	99.0	98.7	98.8	98.8	98.6	98.4	98.3	98.2
	D6	1.2000	3.64	99.2	99.2	99.2	99.2	99.1	99.1	99.2	99.0	98.8	98.7	98.7
	D7	1.1756	3.51	100.2	100.2	100.1	100.1	100.0	100.0	100.1	100.0	99.7	99.7	99.7
	D8	1.1779	3.53	101.0	101.0	101.0	101.0	100.9	100.9	101.0	100.8	100.6	100.6	100.6
	D9	1.1847	3.59	100.2	100.2	100.2	100.2	100.1	100.1	100.2	100.0	99.8	99.8	99.8
	D10	1.1941	3.60	100.0	100.0	100.0	100.0	99.9	99.9	100.0	99.8	99.6	99.6	99.5
	D11	1.1953	3.58	100.1	100.1	100.1	100.1	99.9	100.0	100.1	99.9	99.7	99.6	99.6
	D12	1.1714	3.52	99.4	99.4	99.4	99.3	99.2	99.1	99.2	99.0	98.8	98.7	98.7
n mean median std. dev. min max				24	24	24	24	24	24	24	24	24	24	24
				99.8	99.8	99.8	99.8	99.7	99.8	99.8	99.6	99.4	99.4	99.4
				99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.8	99.6	99.5	99.5
				0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
				98.1	98.1	98.0	98.0	97.8	97.8	97.8	97.6	97.4	97.3	97.3
				101.0	101.0	101.0	101.0	100.9	100.9	101.0	100.8	100.6	100.6	100.6





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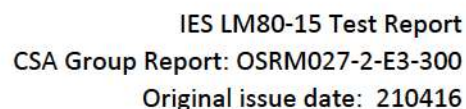
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Test Condition 2      85 °C      1.050 A														
TABLE 3.2 - PHOTOSYNTHETIC PHOTON FLUX MAINTENANCE RESULTS														
Test Condition 2      85 °C      1.050 A														
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none										
		PPF (μmol/s)	VF (V)	Photosynthetic Photon Flux Maintenance (%)										
				1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000
5800001073C7031C	D1	5.5239	3.36	99.7	99.5	99.4	99.5	99.4	99.3	99.4	99.3	99.4	99.5	99.4
	D2	5.4533	3.49	100.4	100.2	100.3	100.3	100.2	100.1	100.2	100.2	100.3	100.5	100.4
	D3	5.3829	3.46	100.3	100.3	100.3	100.4	100.3	100.2	100.3	100.3	100.5	100.6	100.5
	D4	5.4109	3.48	100.0	99.9	99.9	100.0	99.9	99.8	99.8	99.9	100.0	100.1	100.0
	D5	5.4620	3.68	99.9	99.7	99.7	99.7	99.6	99.5	99.6	99.5	99.6	99.8	99.7
	D6	5.4944	3.56	99.8	99.7	99.8	99.8	99.7	99.6	99.7	99.7	99.8	99.9	99.8
	D7	5.5539	3.49	99.6	99.4	99.4	99.4	99.2	99.1	99.2	99.1	99.2	99.4	99.3
	D8	5.4887	3.58	99.9	99.7	99.7	99.8	99.6	99.5	99.7	99.6	99.8	99.9	99.9
	D9	5.4865	3.60	99.7	99.6	99.7	99.8	99.7	99.6	99.7	99.7	99.8	100.0	99.9
	D10	5.4812	3.62	100.4	100.3	100.4	100.5	100.4	100.3	100.4	100.4	100.5	100.7	100.6
	D11	5.4354	3.61	99.8	99.7	99.7	99.7	99.5	99.4	99.4	99.4	99.4	99.6	99.5
	D12	5.5041	3.52	99.8	99.7	99.7	99.7	99.6	99.5	99.6	99.6	99.7	99.8	99.7
960000108055031C	D1	5.4561	3.52	100.2	100.0	99.9	100.0	99.8	99.7	99.8	99.8	99.9	100.0	99.9
	D2	5.4952	3.45	99.4	99.2	99.3	99.3	99.1	99.0	99.1	99.1	99.2	99.3	99.3
	D3	5.4204	3.43	99.1	98.8	98.7	98.7	98.4	98.3	98.2	98.2	98.2	98.2	98.2
	D4	5.4778	3.50	100.4	100.3	100.4	100.4	100.3	100.3	100.3	100.4	100.5	100.6	100.6
	D5	5.4421	3.53	99.5	99.3	99.4	99.4	99.1	99.1	99.1	99.0	99.1	99.2	99.0
	D6	5.5347	3.64	99.5	99.3	99.2	99.2	99.0	99.0	99.1	99.1	99.1	99.3	99.2
	D7	5.4267	3.51	100.1	100.0	100.1	100.2	100.1	100.0	100.1	100.1	100.2	100.3	100.3
	D8	5.4409	3.53	100.7	100.6	100.7	100.8	100.6	100.6	100.7	100.7	100.9	101.0	100.9
	D9	5.4740	3.59	100.1	100.0	100.1	100.2	100.0	100.0	100.1	100.0	100.1	100.3	100.2
	D10	5.5093	3.60	100.1	100.0	100.0	100.0	99.8	99.8	99.9	99.9	99.9	100.1	100.0
	D11	5.5185	3.58	100.1	100.0	100.0	100.1	99.9	99.9	99.9	99.9	100.0	100.2	100.1
	D12	5.4147	3.52	99.9	99.7	99.7	99.8	99.5	99.5	99.5	99.5	99.6	99.7	99.6
n mean median std. dev. min max				24	24	24	24	24	24	24	24	24	24	24
				99.9	99.8	99.8	99.9	99.7	99.6	99.7	99.7	99.8	99.9	99.8
				99.9	99.7	99.8	99.8	99.7	99.6	99.7	99.7	99.8	99.9	99.9
				0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
				99.1	98.8	98.7	98.7	98.4	98.3	98.2	98.2	98.2	98.2	98.2
				100.7	100.6	100.7	100.8	100.6	100.6	100.7	100.7	100.9	101.0	100.9



Test Condition 2      85 °C      1.050 A														
TABLE 3.2 - PHOTOSYNTHETIC PHOTON FLUX MAINTENANCE RESULTS														
Test Condition 2      85 °C      1.050 A														
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none										
		PPF (μmol/s)	VF (V)	Photosynthetic Photon Flux Maintenance (%)										
				12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000
5800001073C7031C	D1	5.5239	3.36	99.4	99.4	99.4	99.4	99.3	99.4	99.4	99.2	99.0	98.9	98.9
	D2	5.4533	3.49	100.4	100.4	100.4	100.3	100.3	100.3	100.4	100.2	100.0	99.9	100.0
	D3	5.3829	3.46	100.5	100.5	100.5	100.5	100.4	100.5	100.6	100.4	100.2	100.2	100.2
	D4	5.4109	3.48	100.1	100.0	100.0	100.1	100.0	100.1	100.1	99.9	99.7	99.7	99.7
	D5	5.4620	3.68	99.7	99.7	99.7	99.7	99.6	99.7	99.7	99.5	99.3	99.4	99.3
	D6	5.4944	3.56	99.8	99.8	99.8	99.8	99.7	99.8	99.8	99.6	99.5	99.4	99.4
	D7	5.5539	3.49	99.3	99.2	99.2	99.2	99.1	99.2	99.2	99.0	98.9	98.8	98.8
	D8	5.4887	3.58	99.9	99.8	99.8	99.8	99.8	99.8	99.9	99.7	99.6	99.5	99.4
	D9	5.4865	3.60	99.9	99.9	99.9	99.8	99.8	99.8	99.9	99.7	99.5	99.5	99.5
	D10	5.4812	3.62	100.6	100.6	100.5	100.6	100.5	100.6	100.7	100.5	100.3	100.3	100.3
	D11	5.4354	3.61	99.4	99.4	99.3	99.3	99.2	99.3	99.3	99.1	98.9	98.8	98.7
	D12	5.5041	3.52	99.7	99.7	99.7	99.7	99.6	99.7	99.7	99.5	99.4	99.3	99.3
960000108055031C	D1	5.4561	3.52	99.9	99.9	99.9	100.0	99.8	99.9	99.9	99.7	99.5	99.4	99.4
	D2	5.4952	3.45	99.2	99.2	99.2	99.2	99.1	99.2	99.2	99.1	98.9	98.8	98.9
	D3	5.4204	3.43	98.1	98.0	97.9	97.9	97.8	97.8	97.8	97.6	97.3	97.2	97.2
	D4	5.4778	3.50	100.6	100.6	100.5	100.5	100.4	100.5	100.6	100.4	100.2	100.1	100.2
	D5	5.4421	3.53	99.0	99.0	98.9	98.9	98.8	98.8	98.8	98.6	98.4	98.3	98.3
	D6	5.5347	3.64	99.2	99.1	99.1	99.1	99.1	99.1	99.2	99.0	98.8	98.7	98.7
	D7	5.4267	3.51	100.2	100.3	100.2	100.2	100.1	100.1	100.2	100.0	99.8	99.7	99.8
	D8	5.4409	3.53	100.9	100.9	100.9	100.9	100.8	100.9	101.0	100.7	100.6	100.5	100.6
	D9	5.4740	3.59	100.2	100.2	100.2	100.2	100.0	100.1	100.2	100.0	99.8	99.8	99.8
	D10	5.5093	3.60	100.0	100.0	100.0	100.0	99.9	100.0	100.0	99.8	99.6	99.6	99.6
	D11	5.5185	3.58	100.0	100.0	100.0	100.0	99.9	100.0	100.0	99.9	99.7	99.6	99.6
	D12	5.4147	3.52	99.5	99.5	99.5	99.4	99.3	99.3	99.3	99.2	99.0	98.8	98.8
n				24	24	24	24	24	24	24	24	24	24	24
mean				99.8	99.8	99.8	99.8	99.7	99.7	99.8	99.6	99.4	99.3	99.3
median				99.9	99.8	99.8	99.8	99.8	99.8	99.9	99.7	99.5	99.5	99.4
std. dev.				0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
min				98.1	98.0	97.9	97.9	97.8	97.8	97.8	97.6	97.3	97.2	97.2
max				100.9	100.9	100.9	100.9	100.8	100.9	101.0	100.7	100.6	100.5	100.6



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Test Condition 2				85 °C		1.050 A											
TABLE 3.3 - CHROMATICITY COORDINATE U' RESULTS																GW CSSRM2.EM	
Test Condition 2				85 °C		1.050 A											
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none													
		u'		Chromaticity Coordinate u'													
				1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000			
5800001073C7031C	D1		0.2343	0.2334	0.2333	0.2333	0.2332	0.2331	0.2331	0.2331	0.2331	0.2330	0.2330	0.2330			
	D2		0.2351	0.2343	0.2343	0.2342	0.2342	0.2341	0.2341	0.2340	0.2341	0.2341	0.2340	0.2340			
	D3		0.2370	0.2360	0.2359	0.2358	0.2358	0.2357	0.2356	0.2356	0.2356	0.2356	0.2355	0.2355			
	D4		0.2364	0.2355	0.2354	0.2353	0.2353	0.2351	0.2351	0.2351	0.2351	0.2351	0.2351	0.2350			
	D5		0.2340	0.2332	0.2331	0.2330	0.2330	0.2329	0.2328	0.2328	0.2328	0.2328	0.2328	0.2327			
	D6		0.2356	0.2347	0.2346	0.2345	0.2345	0.2344	0.2343	0.2344	0.2344	0.2344	0.2343	0.2343			
	D7		0.2330	0.2320	0.2319	0.2318	0.2318	0.2317	0.2317	0.2317	0.2316	0.2317	0.2316	0.2316			
	D8		0.2348	0.2337	0.2336	0.2336	0.2335	0.2334	0.2333	0.2333	0.2333	0.2333	0.2332	0.2333			
	D9		0.2334	0.2325	0.2323	0.2323	0.2322	0.2321	0.2320	0.2321	0.2320	0.2320	0.2320	0.2320			
	D10		0.2344	0.2334	0.2332	0.2332	0.2331	0.2331	0.2330	0.2330	0.2330	0.2329	0.2329	0.2329			
	D11		0.2336	0.2329	0.2329	0.2329	0.2329	0.2328	0.2328	0.2328	0.2328	0.2328	0.2328	0.2327			
	D12		0.2335	0.2326	0.2325	0.2324	0.2324	0.2323	0.2322	0.2323	0.2323	0.2322	0.2321	0.2322			
960000108055031C	D1		0.2327	0.2319	0.2319	0.2318	0.2318	0.2317	0.2317	0.2317	0.2316	0.2316	0.2316	0.2316			
	D2		0.2342	0.2333	0.2332	0.2332	0.2331	0.2330	0.2330	0.2330	0.2330	0.2329	0.2329	0.2329			
	D3		0.2367	0.2358	0.2357	0.2357	0.2357	0.2356	0.2356	0.2355	0.2355	0.2355	0.2354	0.2355			
	D4		0.2346	0.2337	0.2336	0.2336	0.2335	0.2335	0.2334	0.2334	0.2333	0.2333	0.2333	0.2332			
	D5		0.2337	0.2330	0.2329	0.2329	0.2329	0.2329	0.2328	0.2329	0.2328	0.2328	0.2328	0.2328			
	D6		0.2324	0.2315	0.2316	0.2315	0.2315	0.2314	0.2313	0.2313	0.2313	0.2313	0.2313	0.2313			
	D7		0.2337	0.2330	0.2331	0.2331	0.2330	0.2330	0.2330	0.2330	0.2330	0.2330	0.2330	0.2330			
	D8		0.2344	0.2333	0.2332	0.2332	0.2331	0.2330	0.2329	0.2329	0.2329	0.2329	0.2328	0.2329			
	D9		0.2339	0.2330	0.2330	0.2330	0.2329	0.2329	0.2328	0.2328	0.2328	0.2327	0.2327	0.2327			
	D10		0.2332	0.2324	0.2323	0.2322	0.2322	0.2321	0.2321	0.2320	0.2320	0.2320	0.2320	0.2320			
	D11		0.2343	0.2335	0.2334	0.2334	0.2333	0.2333	0.2332	0.2332	0.2332	0.2331	0.2331	0.2331			
	D12		0.2357	0.2353	0.2353	0.2354	0.2353	0.2353	0.2353	0.2354	0.2353	0.2353	0.2353	0.2354			
n				24	24	24	24	24	24	24	24	24	24	24			
mean				0.2335	0.2334	0.2334	0.2333	0.2333	0.2332	0.2332	0.2332	0.2332	0.2332	0.2332			
median				0.2333	0.2332	0.2332	0.2331	0.2330	0.2330	0.2330	0.2330	0.2329	0.2329	0.2329			
std. dev.				0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012			
min				0.2315	0.2316	0.2315	0.2315	0.2314	0.2313	0.2313	0.2313	0.2313	0.2313	0.2313			
max				0.2360	0.2359	0.2358	0.2358	0.2357	0.2356	0.2356	0.2356	0.2356	0.2355	0.2355			



Test Condition 2				85 °C		1.050 A										
TABLE 3.3 - CHROMATICITY COORDINATE U' RESULTS															GW CSSRM2.EM	
Test Condition 2				85 °C		1.050 A										
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none												
		u'		Chromaticity Coordinate u'												
				12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000		
5800001073C7031C	D1		0.2343	0.2330	0.2330	0.2329	0.2329	0.2329	0.2329	0.2329	0.2329	0.2329	0.2329	0.2329		
	D2		0.2351	0.2340	0.2340	0.2339	0.2339	0.2339	0.2340	0.2339	0.2339	0.2340	0.2339	0.2339		
	D3		0.2370	0.2355	0.2355	0.2355	0.2355	0.2355	0.2355	0.2354	0.2355	0.2355	0.2355	0.2355		
	D4		0.2364	0.2350	0.2350	0.2349	0.2349	0.2349	0.2350	0.2349	0.2349	0.2350	0.2349	0.2349		
	D5		0.2340	0.2328	0.2327	0.2327	0.2327	0.2327	0.2327	0.2327	0.2327	0.2327	0.2326	0.2325		
	D6		0.2356	0.2343	0.2343	0.2342	0.2342	0.2342	0.2342	0.2342	0.2342	0.2343	0.2343	0.2342		
	D7		0.2330	0.2316	0.2316	0.2315	0.2315	0.2315	0.2315	0.2314	0.2315	0.2316	0.2315	0.2315		
	D8		0.2348	0.2333	0.2332	0.2332	0.2332	0.2332	0.2332	0.2331	0.2332	0.2332	0.2331	0.2331		
	D9		0.2334	0.2320	0.2319	0.2319	0.2319	0.2318	0.2319	0.2319	0.2318	0.2318	0.2318	0.2318		
	D10		0.2344	0.2329	0.2329	0.2329	0.2328	0.2328	0.2328	0.2328	0.2328	0.2328	0.2328	0.2327		
	D11		0.2336	0.2328	0.2328	0.2327	0.2327	0.2327	0.2327	0.2327	0.2327	0.2327	0.2327	0.2328		
	D12		0.2335	0.2321	0.2321	0.2321	0.2321	0.2320	0.2321	0.2319	0.2320	0.2321	0.2321	0.2320		
960000108055031C	D1		0.2327	0.2316	0.2316	0.2315	0.2315	0.2315	0.2316	0.2315	0.2315	0.2316	0.2316	0.2316		
	D2		0.2342	0.2329	0.2329	0.2329	0.2328	0.2329	0.2329	0.2328	0.2329	0.2329	0.2328	0.2328		
	D3		0.2367	0.2354	0.2355	0.2354	0.2354	0.2354	0.2354	0.2354	0.2354	0.2354	0.2354	0.2354		
	D4		0.2346	0.2333	0.2332	0.2332	0.2332	0.2332	0.2332	0.2331	0.2331	0.2332	0.2332	0.2332		
	D5		0.2337	0.2328	0.2327	0.2327	0.2327	0.2328	0.2327	0.2327	0.2327	0.2328	0.2328	0.2327		
	D6		0.2324	0.2313	0.2312	0.2312	0.2312	0.2312	0.2313	0.2312	0.2312	0.2312	0.2312	0.2312		
	D7		0.2337	0.2330	0.2330	0.2330	0.2330	0.2330	0.2330	0.2329	0.2330	0.2331	0.2331	0.2331		
	D8		0.2344	0.2328	0.2328	0.2328	0.2328	0.2328	0.2328	0.2327	0.2328	0.2328	0.2328	0.2327		
	D9		0.2339	0.2327	0.2327	0.2327	0.2326	0.2327	0.2327	0.2326	0.2327	0.2327	0.2327	0.2327		
	D10		0.2332	0.2320	0.2319	0.2319	0.2319	0.2320	0.2319	0.2319	0.2319	0.2319	0.2319	0.2319		
	D11		0.2343	0.2331	0.2331	0.2331	0.2331	0.2331	0.2331	0.2330	0.2330	0.2331	0.2331	0.2331		
	D12		0.2357	0.2353	0.2354	0.2353	0.2353	0.2353	0.2353	0.2353	0.2354	0.2354	0.2354	0.2354		
n				24	24	24	24	24	24	24	24	24	24	24		
mean				0.2331	0.2331	0.2331	0.2331	0.2331	0.2331	0.2330	0.2331	0.2331	0.2331	0.2331		
median				0.2329	0.2329	0.2329	0.2328	0.2328	0.2329	0.2328	0.2328	0.2328	0.2328	0.2328		
std. dev.				0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012		
min				0.2313	0.2312	0.2312	0.2312	0.2312	0.2313	0.2312	0.2312	0.2312	0.2312	0.2312		
max				0.2355	0.2355	0.2355	0.2355	0.2355	0.2355	0.2354	0.2355	0.2355	0.2355	0.2355		



Test Condition 2      85 °C      1.050 A													
TABLE 3.3 - CHROMATICITY COORDINATE U' RESULTS													
Test Condition 2      85 °C      1.050 A													
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none									
		u'		Chromaticity Coordinate u'									
				23000	24000	25000							
5800001073C7031C	D1		0.2343	0.2329	0.2328	0.2329							
	D2		0.2351	0.2339	0.2339	0.2339							
	D3		0.2370	0.2355	0.2355	0.2355							
	D4		0.2364	0.2349	0.2349	0.2349							
	D5		0.2340	0.2325	0.2326	0.2326							
	D6		0.2356	0.2342	0.2342	0.2342							
	D7		0.2330	0.2315	0.2315	0.2315							
	D8		0.2348	0.2331	0.2331	0.2331							
	D9		0.2334	0.2318	0.2318	0.2318							
	D10		0.2344	0.2327	0.2328	0.2327							
	D11		0.2336	0.2327	0.2327	0.2327							
	D12		0.2335	0.2320	0.2320	0.2320							
960000108055031C	D1		0.2327	0.2315	0.2315	0.2315							
	D2		0.2342	0.2328	0.2328	0.2329							
	D3		0.2367	0.2353	0.2354	0.2354							
	D4		0.2346	0.2331	0.2331	0.2332							
	D5		0.2337	0.2327	0.2327	0.2327							
	D6		0.2324	0.2312	0.2312	0.2312							
	D7		0.2337	0.2330	0.2330	0.2330							
	D8		0.2344	0.2327	0.2327	0.2327							
	D9		0.2339	0.2326	0.2326	0.2326							
	D10		0.2332	0.2319	0.2319	0.2319							
	D11		0.2343	0.2330	0.2331	0.2331							
	D12		0.2357	0.2354	0.2354	0.2354							
n				24	24	24							
mean				0.2330	0.2330	0.2331							
median				0.2328	0.2328	0.2328							
std. dev.				0.0012	0.0012	0.0012							
min				0.2312	0.2312	0.2312							
max				0.2355	0.2355	0.2355							

Test Condition 2				85 °C		1.050 A										
TABLE 3.4 - CHROMATICITY COORDINATE V' RESULTS															GW CSSRM2.EM	
Test Condition 2				85 °C		1.050 A										
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none												
		v'		Chromaticity Coordinate v'												
				1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000		
5800001073C7031C	D1		0.5188	0.5188	0.5189	0.5189	0.5190	0.5191	0.5191	0.5191	0.5191	0.5192	0.5191	0.5192		
	D2		0.5196	0.5196	0.5198	0.5198	0.5199	0.5199	0.5199	0.5199	0.5199	0.5200	0.5200	0.5200		
	D3		0.5202	0.5199	0.5201	0.5201	0.5202	0.5202	0.5202	0.5202	0.5202	0.5202	0.5202	0.5202		
	D4		0.5188	0.5186	0.5188	0.5189	0.5190	0.5190	0.5190	0.5190	0.5191	0.5191	0.5190	0.5191		
	D5		0.5206	0.5208	0.5210	0.5211	0.5211	0.5212	0.5212	0.5212	0.5212	0.5213	0.5212	0.5212		
	D6		0.5206	0.5207	0.5208	0.5208	0.5209	0.5210	0.5210	0.5210	0.5210	0.5210	0.5210	0.5210		
	D7		0.5192	0.5190	0.5191	0.5190	0.5191	0.5191	0.5191	0.5191	0.5191	0.5192	0.5191	0.5191		
	D8		0.5195	0.5192	0.5193	0.5194	0.5194	0.5194	0.5194	0.5194	0.5194	0.5194	0.5194	0.5194		
	D9		0.5200	0.5199	0.5200	0.5200	0.5201	0.5200	0.5201	0.5201	0.5201	0.5201	0.5200	0.5201		
	D10		0.5189	0.5188	0.5190	0.5190	0.5190	0.5190	0.5191	0.5191	0.5191	0.5191	0.5190	0.5191		
	D11		0.5193	0.5195	0.5198	0.5199	0.5200	0.5201	0.5201	0.5202	0.5202	0.5203	0.5202	0.5203		
	D12		0.5191	0.5190	0.5191	0.5191	0.5192	0.5192	0.5193	0.5193	0.5192	0.5193	0.5192	0.5193		
960000108055031C	D1		0.5192	0.5193	0.5194	0.5195	0.5197	0.5197	0.5197	0.5197	0.5197	0.5198	0.5197	0.5197		
	D2		0.5190	0.5189	0.5190	0.5190	0.5190	0.5191	0.5190	0.5190	0.5191	0.5191	0.5190	0.5190		
	D3		0.5201	0.5198	0.5199	0.5200	0.5200	0.5200	0.5200	0.5200	0.5201	0.5201	0.5200	0.5200		
	D4		0.5195	0.5194	0.5194	0.5195	0.5195	0.5196	0.5195	0.5196	0.5196	0.5197	0.5195	0.5195		
	D5		0.5206	0.5207	0.5209	0.5210	0.5211	0.5212	0.5212	0.5213	0.5213	0.5214	0.5213	0.5213		
	D6		0.5193	0.5193	0.5193	0.5194	0.5194	0.5195	0.5194	0.5195	0.5195	0.5195	0.5195	0.5195		
	D7		0.5191	0.5194	0.5198	0.5199	0.5201	0.5202	0.5202	0.5202	0.5203	0.5204	0.5204	0.5204		
	D8		0.5199	0.5198	0.5198	0.5199	0.5199	0.5200	0.5200	0.5200	0.5200	0.5201	0.5200	0.5200		
	D9		0.5208	0.5209	0.5210	0.5211	0.5211	0.5212	0.5212	0.5212	0.5212	0.5213	0.5212	0.5212		
	D10		0.5193	0.5195	0.5196	0.5198	0.5198	0.5199	0.5199	0.5199	0.5200	0.5200	0.5200	0.5200		
	D11		0.5190	0.5190	0.5191	0.5192	0.5192	0.5193	0.5193	0.5193	0.5193	0.5194	0.5193	0.5193		
	D12		0.5205	0.5209	0.5213	0.5215	0.5217	0.5218	0.5218	0.5219	0.5220	0.5221	0.5220	0.5220		
n				24	24	24	24	24	24	24	24	24	24	24		
mean				0.5196	0.5198	0.5198	0.5199	0.5199	0.5200	0.5200	0.5200	0.5200	0.5200	0.5200		
median				0.5194	0.5197	0.5198	0.5198	0.5199	0.5199	0.5199	0.5200	0.5200	0.5200	0.5200		
std. dev.				0.0007	0.0007	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008		
min				0.5186	0.5188	0.5189	0.5190	0.5190	0.5190	0.5190	0.5191	0.5191	0.5190	0.5190		
max				0.5209	0.5213	0.5215	0.5217	0.5218	0.5218	0.5219	0.5220	0.5221	0.5220	0.5220		



Test Condition 2				85 °C		1.050 A									
TABLE 3.4 - CHROMATICITY COORDINATE V' RESULTS															
Test Condition 2				85 °C		1.050 A									
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none											
		v'		Chromaticity Coordinate v'											
				12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000	
5800001073C7031C	D1		0.5188	0.5192	0.5192	0.5192	0.5192	0.5193	0.5192	0.5193	0.5193	0.5193	0.5193	0.5193	
	D2		0.5196	0.5200	0.5200	0.5200	0.5200	0.5200	0.5201	0.5201	0.5201	0.5201	0.5201	0.5201	
	D3		0.5202	0.5202	0.5202	0.5203	0.5202	0.5203	0.5203	0.5203	0.5203	0.5203	0.5203	0.5203	
	D4		0.5188	0.5191	0.5191	0.5192	0.5191	0.5192	0.5192	0.5192	0.5192	0.5192	0.5192	0.5192	
	D5		0.5206	0.5213	0.5213	0.5213	0.5213	0.5214	0.5214	0.5214	0.5214	0.5214	0.5214	0.5214	
	D6		0.5206	0.5210	0.5210	0.5211	0.5210	0.5211	0.5211	0.5211	0.5211	0.5211	0.5211	0.5212	
	D7		0.5192	0.5191	0.5191	0.5191	0.5191	0.5192	0.5192	0.5191	0.5191	0.5191	0.5191	0.5192	
	D8		0.5195	0.5195	0.5194	0.5195	0.5195	0.5195	0.5194	0.5195	0.5195	0.5195	0.5195	0.5195	
	D9		0.5200	0.5201	0.5201	0.5202	0.5201	0.5202	0.5202	0.5202	0.5202	0.5202	0.5201	0.5202	
	D10		0.5189	0.5191	0.5191	0.5192	0.5191	0.5191	0.5191	0.5191	0.5191	0.5191	0.5191	0.5191	
	D11		0.5193	0.5203	0.5203	0.5204	0.5203	0.5204	0.5204	0.5204	0.5205	0.5205	0.5205	0.5205	
	D12		0.5191	0.5193	0.5193	0.5193	0.5193	0.5194	0.5193	0.5194	0.5194	0.5194	0.5194	0.5194	
960000108055031C	D1		0.5192	0.5198	0.5198	0.5198	0.5198	0.5198	0.5199	0.5199	0.5199	0.5199	0.5199	0.5199	
	D2		0.5190	0.5191	0.5191	0.5191	0.5191	0.5191	0.5191	0.5192	0.5192	0.5192	0.5192	0.5192	
	D3		0.5201	0.5201	0.5200	0.5201	0.5200	0.5201	0.5200	0.5201	0.5201	0.5201	0.5201	0.5201	
	D4		0.5195	0.5196	0.5196	0.5196	0.5196	0.5196	0.5196	0.5197	0.5197	0.5197	0.5197	0.5197	
	D5		0.5206	0.5214	0.5214	0.5215	0.5214	0.5215	0.5215	0.5216	0.5216	0.5215	0.5216	0.5216	
	D6		0.5193	0.5195	0.5195	0.5196	0.5195	0.5196	0.5196	0.5196	0.5196	0.5196	0.5197	0.5197	
	D7		0.5191	0.5205	0.5205	0.5205	0.5205	0.5205	0.5206	0.5206	0.5206	0.5206	0.5206	0.5206	
	D8		0.5199	0.5201	0.5201	0.5201	0.5201	0.5201	0.5201	0.5201	0.5201	0.5201	0.5202	0.5202	
	D9		0.5208	0.5213	0.5213	0.5213	0.5213	0.5213	0.5213	0.5214	0.5214	0.5214	0.5215	0.5214	
	D10		0.5193	0.5200	0.5200	0.5201	0.5201	0.5201	0.5201	0.5201	0.5202	0.5202	0.5202	0.5202	
	D11		0.5190	0.5194	0.5193	0.5194	0.5194	0.5194	0.5194	0.5195	0.5195	0.5194	0.5195	0.5195	
	D12		0.5205	0.5221	0.5221	0.5222	0.5222	0.5222	0.5222	0.5223	0.5223	0.5223	0.5223	0.5223	
n				24	24	24	24	24	24	24	24	24	24	24	
mean				0.5200	0.5200	0.5201	0.5200	0.5201	0.5201	0.5201	0.5201	0.5201	0.5202	0.5202	
median				0.5200	0.5200	0.5201	0.5200	0.5201	0.5201	0.5201	0.5201	0.5201	0.5201	0.5201	
std. dev.				0.0008	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	
min				0.5191	0.5191	0.5191	0.5191	0.5191	0.5191	0.5191	0.5191	0.5191	0.5191	0.5191	
max				0.5221	0.5221	0.5222	0.5222	0.5222	0.5222	0.5223	0.5223	0.5223	0.5223	0.5223	

Test Condition 2      85 °C      1.050 A													
TABLE 3.4 - CHROMATICITY COORDINATE V' RESULTS													
Test Condition 2      85 °C      1.050 A													
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none									
		v'		Chromaticity Coordinate v'									
				23000	24000	25000							
5800001073C7031C	D1		0.5188	0.5195	0.5195	0.5195							
	D2		0.5196	0.5202	0.5202	0.5203							
	D3		0.5202	0.5204	0.5205	0.5205							
	D4		0.5188	0.5193	0.5193	0.5193							
	D5		0.5206	0.5216	0.5216	0.5217							
	D6		0.5206	0.5213	0.5213	0.5214							
	D7		0.5192	0.5193	0.5193	0.5194							
	D8		0.5195	0.5197	0.5197	0.5197							
	D9		0.5200	0.5204	0.5204	0.5204							
	D10		0.5189	0.5193	0.5192	0.5193							
	D11		0.5193	0.5207	0.5206	0.5207							
	D12		0.5191	0.5196	0.5196	0.5196							
960000108055031C	D1		0.5192	0.5201	0.5201	0.5201							
	D2		0.5190	0.5193	0.5193	0.5194							
	D3		0.5201	0.5202	0.5202	0.5203							
	D4		0.5195	0.5197	0.5198	0.5199							
	D5		0.5206	0.5217	0.5218	0.5218							
	D6		0.5193	0.5198	0.5199	0.5199							
	D7		0.5191	0.5207	0.5208	0.5208							
	D8		0.5199	0.5203	0.5203	0.5204							
	D9		0.5208	0.5215	0.5216	0.5216							
	D10		0.5193	0.5203	0.5204	0.5204							
	D11		0.5190	0.5196	0.5196	0.5197							
	D12		0.5205	0.5224	0.5224	0.5225							
n				24	24	24							
mean				0.5203	0.5203	0.5204							
median				0.5202	0.5202	0.5203							
std. dev.				0.0009	0.0009	0.0009							
min				0.5193	0.5192	0.5193							
max				0.5224	0.5224	0.5225							



Test Condition 2					85 °C		1.050 A											
TABLE 3.5 - CHROMATICITY SHIFT RESULTS																	GW CSSRM2.EM	
Test Condition 2					85 °C		1.050 A											
Load board ID	Device number	Zero hour measurements			Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none													
		u'	v'		Chromaticity shift (Δu'v')													
					1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000			
5800001073C7031C	D1	0.2343	0.5188		0.0009	0.0010	0.0010	0.0011	0.0012	0.0013	0.0012	0.0012	0.0013	0.0014	0.0013			
	D2	0.2351	0.5196		0.0008	0.0009	0.0009	0.0010	0.0011	0.0011	0.0012	0.0011	0.0011	0.0012	0.0012			
	D3	0.2370	0.5202		0.0011	0.0012	0.0013	0.0013	0.0014	0.0014	0.0014	0.0014	0.0015	0.0015	0.0015			
	D4	0.2364	0.5188		0.0010	0.0010	0.0011	0.0011	0.0013	0.0013	0.0013	0.0013	0.0014	0.0014	0.0014			
	D5	0.2340	0.5206		0.0009	0.0010	0.0011	0.0012	0.0012	0.0013	0.0013	0.0013	0.0014	0.0014	0.0014			
	D6	0.2356	0.5206		0.0008	0.0010	0.0011	0.0011	0.0012	0.0013	0.0013	0.0012	0.0013	0.0013	0.0013			
	D7	0.2330	0.5192		0.0011	0.0011	0.0012	0.0012	0.0013	0.0013	0.0013	0.0014	0.0014	0.0015	0.0014			
	D8	0.2348	0.5195		0.0011	0.0012	0.0013	0.0013	0.0014	0.0015	0.0015	0.0015	0.0015	0.0016	0.0015			
	D9	0.2334	0.5200		0.0009	0.0011	0.0011	0.0012	0.0013	0.0014	0.0013	0.0014	0.0014	0.0014	0.0014			
	D10	0.2344	0.5189		0.0010	0.0011	0.0012	0.0012	0.0013	0.0014	0.0014	0.0014	0.0015	0.0015	0.0015			
	D11	0.2336	0.5193		0.0007	0.0008	0.0009	0.0010	0.0011	0.0011	0.0012	0.0012	0.0012	0.0012	0.0013			
	D12	0.2335	0.5191		0.0009	0.0010	0.0011	0.0012	0.0012	0.0013	0.0012	0.0013	0.0013	0.0014	0.0014			
960000108055031C	D1	0.2327	0.5192		0.0008	0.0009	0.0010	0.0011	0.0011	0.0012	0.0012	0.0012	0.0013	0.0012	0.0013			
	D2	0.2342	0.5190		0.0008	0.0009	0.0009	0.0010	0.0011	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012			
	D3	0.2367	0.5201		0.0009	0.0010	0.0010	0.0011	0.0011	0.0012	0.0012	0.0012	0.0012	0.0013	0.0013			
	D4	0.2346	0.5195		0.0010	0.0010	0.0010	0.0011	0.0011	0.0012	0.0012	0.0013	0.0013	0.0013	0.0014			
	D5	0.2337	0.5206		0.0007	0.0008	0.0009	0.0009	0.0010	0.0011	0.0011	0.0011	0.0012	0.0012	0.0012			
	D6	0.2324	0.5193		0.0009	0.0009	0.0009	0.0009	0.0010	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011			
	D7	0.2337	0.5191		0.0007	0.0009	0.0010	0.0012	0.0012	0.0013	0.0013	0.0014	0.0014	0.0014	0.0014			
	D8	0.2344	0.5199		0.0011	0.0012	0.0012	0.0013	0.0014	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015			
	D9	0.2339	0.5208		0.0009	0.0010	0.0010	0.0011	0.0011	0.0012	0.0012	0.0013	0.0013	0.0013	0.0013			
	D10	0.2332	0.5193		0.0008	0.0009	0.0010	0.0011	0.0012	0.0012	0.0013	0.0013	0.0013	0.0013	0.0014			
	D11	0.2343	0.5190		0.0008	0.0009	0.0009	0.0010	0.0010	0.0012	0.0011	0.0012	0.0012	0.0012	0.0012			
	D12	0.2357	0.5205		0.0007	0.0010	0.0011	0.0013	0.0014	0.0014	0.0015	0.0016	0.0017	0.0016	0.0016			
n					24	24	24	24	24	24	24	24	24	24	24			
mean					0.0009	0.0010	0.0011	0.0011	0.0012	0.0013	0.0013	0.0013	0.0013	0.0013	0.0014			
median					0.0009	0.0010	0.0010	0.0011	0.0012	0.0013	0.0013	0.0013	0.0013	0.0013	0.0014			
std. dev.					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001			
min					0.0007	0.0008	0.0009	0.0009	0.0010	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011			
max					0.0011	0.0012	0.0013	0.0013	0.0014	0.0015	0.0015	0.0016	0.0017	0.0016	0.0016			



Test Condition 2					85 °C	1.050 A											
TABLE 3.5 - CHROMATICITY SHIFT RESULTS																GW CSSRM2.EM	
Test Condition 2					85 °C	1.050 A											
Load board ID	Device number	Zero hour measurements			Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none												
		u'	v'		Chromaticity shift (Δu'v')												
					12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000		
5800001073C7031C	D1	0.2343	0.5188		0.0014	0.0014	0.0015	0.0015	0.0015	0.0014	0.0015	0.0015	0.0015	0.0015	0.0014	0.0015	
	D2	0.2351	0.5196		0.0012	0.0012	0.0013	0.0012	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	
	D3	0.2370	0.5202		0.0015	0.0015	0.0016	0.0016	0.0016	0.0015	0.0016	0.0016	0.0016	0.0016	0.0015	0.0016	
	D4	0.2364	0.5188		0.0014	0.0014	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	
	D5	0.2340	0.5206		0.0014	0.0014	0.0015	0.0015	0.0015	0.0015	0.0015	0.0016	0.0016	0.0015	0.0016	0.0017	
	D6	0.2356	0.5206		0.0013	0.0013	0.0014	0.0014	0.0015	0.0014	0.0015	0.0015	0.0015	0.0014	0.0014	0.0014	
	D7	0.2330	0.5192		0.0014	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0016	0.0015	0.0015	0.0015	0.0015	
	D8	0.2348	0.5195		0.0015	0.0016	0.0016	0.0016	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	
	D9	0.2334	0.5200		0.0014	0.0015	0.0015	0.0015	0.0016	0.0015	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	
	D10	0.2344	0.5189		0.0015	0.0015	0.0015	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0017	
	D11	0.2336	0.5193		0.0013	0.0013	0.0014	0.0013	0.0014	0.0013	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	
	D12	0.2335	0.5191		0.0014	0.0014	0.0015	0.0014	0.0015	0.0015	0.0016	0.0015	0.0015	0.0015	0.0015	0.0015	
960000108055031C	D1	0.2327	0.5192		0.0013	0.0013	0.0014	0.0013	0.0014	0.0013	0.0015	0.0014	0.0013	0.0014	0.0014	0.0014	
	D2	0.2342	0.5190		0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0014	0.0013	0.0013	0.0013	0.0013	0.0013	
	D3	0.2367	0.5201		0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0014	0.0013	0.0013	0.0013	0.0013	0.0014	
	D4	0.2346	0.5195		0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0015	0.0015	0.0014	0.0015	0.0015	0.0014	
	D5	0.2337	0.5206		0.0012	0.0013	0.0013	0.0013	0.0013	0.0013	0.0014	0.0014	0.0013	0.0014	0.0014	0.0014	
	D6	0.2324	0.5193		0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0013	0.0012	0.0012	0.0012	0.0012	0.0012	
	D7	0.2337	0.5191		0.0015	0.0015	0.0016	0.0015	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	
	D8	0.2344	0.5199		0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0017	0.0017	0.0016	0.0017	0.0017	0.0017	
	D9	0.2339	0.5208		0.0013	0.0013	0.0014	0.0014	0.0014	0.0014	0.0015	0.0014	0.0014	0.0014	0.0014	0.0014	
	D10	0.2332	0.5193		0.0014	0.0014	0.0015	0.0015	0.0014	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	
	D11	0.2343	0.5190		0.0013	0.0012	0.0013	0.0013	0.0012	0.0013	0.0014	0.0013	0.0013	0.0013	0.0013	0.0013	
	D12	0.2357	0.5205		0.0017	0.0017	0.0018	0.0018	0.0018	0.0018	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019	
n					24	24	24	24	24	24	24	24	24	24	24		
mean					0.0014	0.0014	0.0015	0.0014	0.0015	0.0014	0.0015	0.0015	0.0015	0.0015	0.0015		
median					0.0014	0.0014	0.0015	0.0014	0.0015	0.0014	0.0015	0.0015	0.0015	0.0015	0.0015		
std. dev.					0.0001	0.0001	0.0001	0.0001	0.0002	0.0001	0.0001	0.0001	0.0002	0.0001	0.0002		
min					0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0013	0.0012	0.0012	0.0012	0.0012		
max					0.0017	0.0017	0.0018	0.0018	0.0018	0.0018	0.0019	0.0019	0.0019	0.0019	0.0019		



Test Condition 2					85 °C	1.050 A										
TABLE 3.5 - CHROMATICITY SHIFT RESULTS															GW CSSRM2.EM	
Test Condition 2					85 °C	1.050 A										
Load board ID	Device number	Zero hour measurements			Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none											
		u'	v'		Chromaticity shift (Δu'v')											
					23000	24000	25000									
5800001073C7031C	D1	0.2343	0.5188		0.0016	0.0016	0.0016									
	D2	0.2351	0.5196		0.0014	0.0014	0.0014									
	D3	0.2370	0.5202		0.0016	0.0016	0.0016									
	D4	0.2364	0.5188		0.0016	0.0016	0.0016									
	D5	0.2340	0.5206		0.0018	0.0017	0.0018									
	D6	0.2356	0.5206		0.0015	0.0015	0.0016									
	D7	0.2330	0.5192		0.0015	0.0015	0.0016									
	D8	0.2348	0.5195		0.0017	0.0017	0.0018									
	D9	0.2334	0.5200		0.0017	0.0017	0.0017									
	D10	0.2344	0.5189		0.0017	0.0017	0.0017									
	D11	0.2336	0.5193		0.0016	0.0015	0.0016									
	D12	0.2335	0.5191		0.0016	0.0016	0.0016									
960000108055031C	D1	0.2327	0.5192		0.0015	0.0015	0.0015									
	D2	0.2342	0.5190		0.0013	0.0014	0.0013									
	D3	0.2367	0.5201		0.0014	0.0013	0.0013									
	D4	0.2346	0.5195		0.0015	0.0015	0.0015									
	D5	0.2337	0.5206		0.0015	0.0015	0.0016									
	D6	0.2324	0.5193		0.0013	0.0013	0.0014									
	D7	0.2337	0.5191		0.0017	0.0017	0.0018									
	D8	0.2344	0.5199		0.0017	0.0017	0.0017									
	D9	0.2339	0.5208		0.0015	0.0016	0.0016									
	D10	0.2332	0.5193		0.0016	0.0016	0.0016									
	D11	0.2343	0.5190		0.0014	0.0014	0.0014									
	D12	0.2357	0.5205		0.0020	0.0020	0.0021									
n					24	24	24									
mean					0.0016	0.0016	0.0016									
median					0.0016	0.0016	0.0016									
std. dev.					0.0002	0.0002	0.0002									
min					0.0013	0.0013	0.0013									
max					0.0020	0.0020	0.0021									

Test Condition 2				85 °C		1.050 A											
TABLE 3.6 - FORWARD VOLTAGE MAINTENANCE RESULTS																GW CSSRM2.EM	
Test Condition 2				85 °C		1.050 A											
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none													
		Vf (V)		Forward Voltage Maintainence (%)													
				1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000			
5800001073C7031C	D1		3.36	98.64	98.75	98.61	98.77	98.88	98.74	98.76	98.59	99.81	99.57	101.01			
	D2		3.49	98.03	97.38	97.26	97.31	98.56	97.81	97.61	97.25	98.63	98.00	99.46			
	D3		3.46	98.94	98.40	98.40	98.81	100.02	99.24	98.76	98.96	99.01	99.17	100.58			
	D4		3.48	98.32	98.07	98.76	98.62	98.72	98.95	98.29	98.52	100.65	99.01	99.16			
	D5		3.68	96.18	96.14	96.48	96.39	96.21	96.65	97.17	96.26	98.21	96.36	96.49			
	D6		3.56	97.29	97.38	97.38	97.60	97.35	97.68	98.87	97.88	98.13	97.63	98.20			
	D7		3.49	97.90	97.64	97.76	97.60	97.64	97.97	98.27	97.94	99.62	98.60	98.36			
	D8		3.58	97.33	96.94	96.91	97.27	96.92	98.42	97.11	97.73	98.71	98.02	97.44			
	D9		3.60	97.78	97.59	97.56	97.97	97.78	99.98	97.75	98.46	98.14	98.12	97.96			
	D10		3.62	96.35	96.32	96.15	96.31	97.91	97.98	96.53	96.38	96.44	96.66	96.56			
	D11		3.61	96.91	96.44	96.14	96.13	97.64	96.56	96.41	96.38	96.48	96.80	96.58			
	D12		3.52	98.76	98.63	98.73	98.76	98.97	99.67	98.95	99.90	99.75	98.98	99.45			
960000108055031C	D1		3.52	96.61	96.10	95.58	95.46	95.49	95.23	95.16	95.40	95.10	95.73	95.48			
	D2		3.45	98.77	98.56	98.06	97.84	97.91	97.95	98.48	98.18	97.87	98.21	98.52			
	D3		3.43	99.11	98.92	98.58	98.47	98.44	98.57	99.08	98.86	98.40	98.49	99.10			
	D4		3.50	98.11	97.64	97.64	97.58	97.33	97.33	97.32	97.39	97.26	98.56	97.37			
	D5		3.53	98.30	98.08	98.73	97.89	97.55	97.36	97.94	97.28	97.63	99.30	97.47			
	D6		3.64	97.04	97.14	97.59	97.24	96.89	96.94	97.49	96.56	97.02	97.79	97.72			
	D7		3.51	98.01	97.68	97.61	97.87	97.66	97.77	97.77	97.35	97.67	98.03	98.56			
	D8		3.53	97.81	97.69	97.73	97.58	97.39	97.38	97.39	97.31	97.52	97.25	97.64			
	D9		3.59	97.92	97.75	97.64	97.60	97.49	97.77	97.75	97.84	97.47	97.36	97.62			
	D10		3.60	97.77	97.34	97.45	98.34	97.50	97.54	97.42	97.69	97.26	97.48	98.44			
	D11		3.58	97.82	97.37	97.59	98.70	97.69	97.46	97.08	97.63	97.30	98.00	98.97			
	D12		3.52	100.44	98.52	98.55	98.75	98.54	98.67	98.25	98.68	98.29	98.89	99.68			
n				24	24	24	24	24	24	24	24	24	24	24			
mean				97.9	97.6	97.6	97.7	97.8	97.9	97.7	97.7	98.0	98.0	98.2			
median				97.9	97.6	97.6	97.7	97.7	97.8	97.8	97.7	98.0	98.0	98.3			
std. dev.				1.0	0.8	0.9	0.9	0.9	1.0	0.9	1.0	1.2	1.0	1.3			
min				96.2	96.1	95.6	95.5	95.5	95.2	95.2	95.4	95.1	95.7	95.5			
max				100.4	98.9	98.8	98.8	100.0	100.0	99.1	99.9	100.7	99.6	101.0			



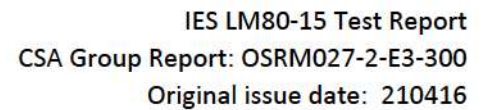
Test Condition 2				85 °C		1.050 A											
TABLE 3.6 - FORWARD VOLTAGE MAINTENANCE RESULTS																GW CSSRM2.EM	
Test Condition 2				85 °C		1.050 A											
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none													
		Vf (V)		Forward Voltage Maintainence (%)													
				12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000			
5800001073C7031C	D1		3.36	100.10	98.77	99.25	105.32	100.01	98.70	106.71	102.29	99.69	103.92	101.49			
	D2		3.49	98.67	97.61	97.97	98.28	98.36	96.88	98.38	99.60	99.63	98.86	99.10			
	D3		3.46	99.65	99.19	98.92	98.69	98.63	98.53	99.91	101.69	100.67	99.95	100.44			
	D4		3.48	98.65	98.33	98.23	98.82	98.26	98.18	98.87	99.49	98.33	99.47	98.47			
	D5		3.68	96.03	95.82	95.76	97.28	95.81	95.62	96.57	96.78	95.93	97.42	95.93			
	D6		3.56	98.87	97.55	98.33	102.01	97.74	96.94	97.80	100.92	97.64	97.73	97.60			
	D7		3.49	99.48	98.02	99.05	101.82	98.03	97.42	97.71	101.54	98.17	97.76	98.28			
	D8		3.58	97.50	97.44	96.95	97.79	97.57	96.84	97.01	97.93	97.26	97.07	97.09			
	D9		3.60	97.71	97.94	97.50	98.38	98.15	97.38	97.44	97.41	97.59	97.56	97.28			
	D10		3.62	98.28	99.37	95.99	96.75	95.96	96.01	96.02	96.46	96.25	96.42	96.29			
	D11		3.61	99.23	99.50	95.70	100.09	96.06	95.79	96.30	96.89	96.38	96.63	97.82			
	D12		3.52	101.33	100.16	99.16	103.90	98.97	98.47	99.30	99.41	100.22	100.78	101.14			
960000108055031C	D1		3.52	95.19	95.59	95.96	95.87	95.22	95.37	95.58	95.94	95.71	96.00	95.68			
	D2		3.45	97.99	98.24	98.63	98.62	97.81	97.93	98.41	97.91	99.44	98.62	98.37			
	D3		3.43	98.55	98.70	98.88	98.55	98.35	99.03	98.94	98.41	100.04	98.67	99.26			
	D4		3.50	97.19	97.55	97.54	97.37	97.35	98.11	97.65	98.08	99.14	97.46	97.89			
	D5		3.53	97.17	98.14	97.29	97.50	97.84	97.73	97.43	97.96	100.48	97.36	97.17			
	D6		3.64	96.51	97.58	98.64	97.09	97.24	96.81	96.79	96.80	99.04	97.85	96.57			
	D7		3.51	97.22	98.05	99.20	97.66	97.37	97.20	97.30	97.41	98.10	98.84	97.57			
	D8		3.53	97.28	97.90	97.21	97.77	97.31	97.25	97.32	97.59	98.99	97.71	97.55			
	D9		3.59	97.42	97.90	97.14	97.70	97.90	97.44	98.04	97.90	99.07	97.44	97.03			
	D10		3.60	97.30	97.78	97.10	97.24	97.76	97.80	97.80	97.60	97.79	97.30	97.55			
	D11		3.58	97.45	98.49	97.35	97.41	97.08	97.62	97.09	97.37	97.55	97.36	97.52			
	D12		3.52	98.35	99.56	98.08	98.28	97.87	98.38	97.95	98.27	98.24	100.64	97.70			
			n	24	24	24	24	24	24	24	24	24	24	24	24		
			mean	98.0	98.1	97.7	98.8	97.6	97.4	98.0	98.4	98.4	98.3	97.9			
			median	97.8	98.0	97.8	98.0	97.8	97.4	97.7	97.9	98.3	97.7	97.6			
			std. dev.	1.4	1.1	1.1	2.3	1.1	1.0	2.1	1.7	1.4	1.7	1.5			
			min	95.2	95.6	95.7	95.9	95.2	95.4	95.6	95.9	95.7	96.0	95.7			
			max	101.3	100.2	99.3	105.3	100.0	99.0	106.7	102.3	100.7	103.9	101.5			

Test Condition 2				85 °C		1.050 A										
TABLE 3.6 - FORWARD VOLTAGE MAINTENANCE RESULTS															GW CSSRM2.EM	
Test Condition 2				85 °C		1.050 A										
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none												
		Vf (V)		Forward Voltage Maintainence (%)												
				23000	24000	25000										
5800001073C7031C	D1		3.36	106.04	115.64	104.01										
	D2		3.49	100.36	101.86	103.37										
	D3		3.46	99.53	101.67	102.27										
	D4		3.48	101.00	98.97	98.75										
	D5		3.68	98.91	96.74	98.84										
	D6		3.56	99.82	98.20	102.04										
	D7		3.49	99.86	98.44	99.76										
	D8		3.58	97.23	97.10	96.93										
	D9		3.60	97.99	97.36	97.48										
	D10		3.62	97.85	96.16	96.42										
	D11		3.61	97.48	96.15	96.83										
	D12		3.52	100.97	99.93	101.30										
960000108055031C	D1		3.52	96.13	96.54	95.76										
	D2		3.45	99.35	98.18	98.17										
	D3		3.43	99.86	98.64	98.80										
	D4		3.50	98.29	98.57	99.16										
	D5		3.53	97.96	98.39	99.54										
	D6		3.64	98.89	99.19	101.40										
	D7		3.51	99.20	100.00	101.50										
	D8		3.53	98.14	98.02	97.74										
	D9		3.59	98.08	97.76	98.13										
	D10		3.60	97.12	97.38	97.82										
	D11		3.58	97.40	99.45	97.27										
	D12		3.52	99.05	102.82	98.44										
n				24	24	24										
mean				99.0	99.3	99.2										
median				98.9	98.4	98.8										
std. dev.				1.9	3.9	2.3										
min				96.1	96.2	95.8										
max				106.0	115.6	104.0										



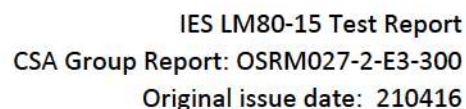
Test Condition 3      105 °C      1.050 A														
TABLE 4.0 - LUMEN MAINTENANCE RESULTS														
Test Condition 3      105 °C      1.050 A														
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none										
		Flux (lm)	Vf (V)	Lumen Maintenance (%)										
				1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000
1300001078A6031C	D1	390.84	3.35	98.9	98.6	98.4	98.3	98.0	97.8	97.7	97.7	97.6	97.5	97.4
	D2	391.01	3.41	98.8	98.2	98.0	97.8	97.4	97.1	97.0	96.8	96.7	96.6	96.5
	D3	393.08	3.47	100.2	100.0	99.9	99.9	99.7	99.6	99.5	99.5	99.4	99.5	99.4
	D4	394.04	3.53	100.4	100.5	100.5	100.5	100.4	100.4	100.4	100.5	100.5	100.6	100.6
	D5	390.62	3.53	100.1	100.0	100.0	100.1	99.9	99.9	99.9	99.9	99.9	100.0	99.9
	D6	393.15	3.54	99.2	99.0	99.0	99.0	98.8	98.8	98.8	98.8	98.8	98.9	98.9
	D7	385.92	3.46	98.8	98.3	98.0	97.8	97.5	97.2	97.0	96.9	96.8	96.7	96.6
	D8	395.82	3.60	99.5	99.4	99.4	99.5	99.3	99.3	99.3	99.4	99.4	99.5	99.5
	D9	393.70	3.64	100.6	100.6	100.7	100.8	100.6	100.6	100.6	100.6	100.6	100.7	100.7
	D10	391.64	3.56	100.2	100.1	100.2	100.3	100.1	100.1	100.1	100.1	100.2	100.3	100.3
	D11	388.70	3.62	100.5	100.5	100.5	100.6	100.4	100.4	100.4	100.4	100.4	100.5	100.5
	D12	396.11	3.58	100.2	100.2	100.2	100.3	100.1	100.1	100.2	100.2	100.2	100.3	100.3
DE00001081CE031C	D1	398.03	3.37	100.3	100.3	100.3	100.4	100.2	100.2	100.1	100.1	100.2	100.2	100.2
	D2	392.93	3.46	100.6	100.6	100.6	100.7	100.5	100.5	100.6	100.6	100.6	100.7	100.7
	D3	384.56	3.68	101.5	101.6	101.6	101.6	101.4	101.4	101.4	101.4	101.3	101.4	101.3
	D4	384.42	3.62	101.2	101.2	101.3	101.3	101.2	101.1	101.2	101.2	101.2	101.3	101.3
	D5	388.80	3.53	98.4	98.0	97.8	97.7	97.4	97.2	97.2	97.0	96.9	97.0	96.8
	D6	390.23	3.65	100.0	100.0	100.0	100.1	99.9	99.9	100.0	100.0	100.1	100.2	100.2
	D7	392.65	3.50	99.8	99.6	99.6	99.6	99.4	99.4	99.4	99.3	99.4	99.5	99.4
	D8	393.09	3.56	100.4	100.4	100.5	100.6	100.4	100.4	100.5	100.4	100.5	100.6	100.6
	D9	396.21	3.64	99.9	99.9	100.0	100.1	99.9	99.9	99.9	99.9	99.9	100.0	99.9
	D10	392.07	3.55	99.5	99.1	98.9	98.8	98.5	98.3	98.3	98.1	98.1	98.1	98.0
	D11	401.96	3.58	99.7	99.5	99.5	99.5	99.2	99.2	99.2	99.1	99.2	99.3	99.2
	D12	389.83	3.56	99.8	99.7	99.7	99.7	99.6	99.5	99.6	99.5	99.5	99.7	99.6
n mean median std. dev. min max				24	24	24	24	24	24	24	24	24	24	24
				99.9	99.8	99.8	99.8	99.6	99.5	99.5	99.5	99.5	99.6	99.5
				100.1	100.0	100.0	100.1	99.9	99.9	99.9	99.9	99.9	100.0	99.9
				0.8	0.9	1.0	1.1	1.1	1.2	1.3	1.3	1.4	1.4	1.4
				98.4	98.0	97.8	97.7	97.4	97.1	97.0	96.8	96.7	96.6	96.5
				101.5	101.6	101.6	101.6	101.4	101.4	101.4	101.4	101.3	101.4	101.3





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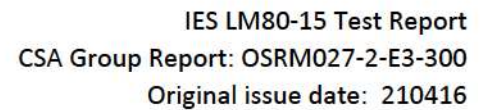
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Test Condition 3      105 °C      1.050 A														
TABLE 4.1 - RADIANT FLUX MAINTENANCE RESULTS														
Test Condition 3      105 °C      1.050 A														
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none										
		Flux (W)	VF (V)	Radiant Flux Maintenance (%)										
				1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000
1300001078A6031C	D1	1.1814	3.35	98.6	98.2	98.0	98.0	97.6	97.4	97.3	97.3	97.1	97.1	97.0
	D2	1.1796	3.41	98.5	97.9	97.7	97.4	97.0	96.8	96.6	96.5	96.3	96.3	96.1
	D3	1.1864	3.47	99.9	99.6	99.5	99.5	99.2	99.1	99.0	99.0	98.9	99.0	98.9
	D4	1.1864	3.53	100.1	100.1	100.1	100.1	100.0	99.9	99.9	99.9	100.0	100.1	100.1
	D5	1.1852	3.53	99.8	99.6	99.6	99.6	99.4	99.4	99.3	99.3	99.3	99.4	99.4
	D6	1.1863	3.54	98.9	98.6	98.6	98.6	98.4	98.3	98.3	98.3	98.3	98.5	98.4
	D7	1.1706	3.46	98.6	98.0	97.7	97.5	97.1	96.8	96.7	96.6	96.4	96.4	96.2
	D8	1.2006	3.60	99.2	99.0	99.0	99.1	98.9	98.8	98.9	98.9	98.9	99.0	99.0
	D9	1.1891	3.64	100.2	100.1	100.2	100.2	100.0	100.0	100.0	100.0	100.0	100.1	100.0
	D10	1.1878	3.56	99.9	99.7	99.8	99.8	99.6	99.6	99.6	99.6	99.6	99.8	99.7
	D11	1.1776	3.62	100.1	100.0	100.1	100.0	99.9	99.8	99.8	99.8	99.8	99.9	99.9
	D12	1.1929	3.58	100.0	99.8	99.9	100.0	99.8	99.7	99.8	99.7	99.8	99.9	99.9
DE00001081CE031C	D1	1.2079	3.37	100.0	100.0	100.0	100.0	99.7	99.7	99.7	99.7	99.7	99.8	99.7
	D2	1.1805	3.46	100.3	100.3	100.3	100.3	100.1	100.0	100.1	100.1	100.1	100.2	100.1
	D3	1.1627	3.68	101.0	101.0	100.9	101.0	100.7	100.6	100.6	100.6	100.5	100.6	100.5
	D4	1.1650	3.62	100.7	100.7	100.7	100.7	100.5	100.4	100.5	100.4	100.4	100.5	100.5
	D5	1.1770	3.53	98.1	97.7	97.4	97.4	97.0	96.7	96.8	96.6	96.5	96.5	96.3
	D6	1.1791	3.65	99.7	99.5	99.6	99.6	99.4	99.3	99.5	99.4	99.5	99.6	99.5
	D7	1.1896	3.50	99.4	99.2	99.1	99.1	98.8	98.7	98.8	98.7	98.7	98.8	98.7
	D8	1.1869	3.56	100.0	100.0	100.0	100.0	99.8	99.8	99.9	99.8	99.8	100.0	99.9
	D9	1.1997	3.64	99.7	99.6	99.6	99.8	99.5	99.4	99.5	99.4	99.4	99.5	99.4
	D10	1.1837	3.55	99.2	98.8	98.6	98.5	98.1	97.9	97.9	97.7	97.7	97.7	97.6
	D11	1.2185	3.58	99.4	99.2	99.1	99.1	98.8	98.7	98.8	98.7	98.7	98.8	98.7
	D12	1.1847	3.56	99.5	99.4	99.3	99.3	99.2	99.1	99.2	99.0	99.0	99.2	99.1
n				24	24	24	24	24	24	24	24	24	24	24
mean				99.6	99.4	99.4	99.4	99.1	99.0	99.0	99.0	98.9	99.0	98.9
median				99.7	99.6	99.6	99.6	99.4	99.4	99.4	99.4	99.4	99.5	99.4
std. dev.				0.7	0.9	0.9	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.3
min				98.1	97.7	97.4	97.4	97.0	96.7	96.6	96.5	96.3	96.3	96.1
max				101.0	101.0	100.9	101.0	100.7	100.6	100.6	100.6	100.5	100.6	100.5

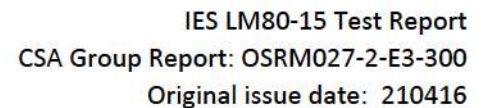


Test Condition 3      105 °C      1.050 A														
TABLE 4.1 - RADIANT FLUX MAINTENANCE RESULTS														
Test Condition 3      105 °C      1.050 A														
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none										
		Flux (W)	VF (V)	Radiant Flux Maintenance (%)										
				12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000
1300001078A6031C	D1	1.1814	3.35	96.9	96.8	96.7	96.5	96.3	96.3	96.2	95.9	95.6	95.6	95.5
	D2	1.1796	3.41	96.0	95.8	95.6	95.5	95.2	95.2	95.1	94.8	94.5	94.3	94.2
	D3	1.1864	3.47	98.8	98.7	98.6	98.5	98.5	98.4	98.4	98.1	97.9	97.7	97.6
	D4	1.1864	3.53	100.0	100.0	99.9	99.8	99.8	99.8	99.8	99.6	99.3	99.2	99.2
	D5	1.1852	3.53	99.4	99.2	99.2	99.1	99.0	99.0	99.0	98.7	98.5	98.5	98.5
	D6	1.1863	3.54	98.4	98.3	98.3	98.1	98.1	98.0	98.1	97.8	97.7	96.9	96.2
	D7	1.1706	3.46	96.1	95.9	95.8	95.5	95.4	95.3	95.2	94.9	94.7	94.5	94.4
	D8	1.2006	3.60	99.0	99.0	98.9	98.8	98.8	98.8	98.8	98.6	98.4	98.3	98.3
	D9	1.1891	3.64	100.1	100.0	99.9	99.8	99.7	99.7	99.7	99.4	99.3	99.3	99.3
	D10	1.1878	3.56	99.6	99.6	99.6	99.4	99.4	99.4	99.4	99.1	99.0	98.9	98.8
	D11	1.1776	3.62	99.9	99.9	99.8	99.7	99.6	99.6	99.7	99.5	99.2	99.2	99.2
	D12	1.1929	3.58	99.8	99.8	99.7	99.6	99.6	99.6	99.6	99.4	99.2	99.1	99.1
DE00001081CE031C	D1	1.2079	3.37	99.7	99.7	99.6	99.5	99.4	99.5	99.4	99.3	99.0	98.8	98.8
	D2	1.1805	3.46	100.2	100.1	100.1	100.0	99.9	99.9	99.9	99.7	99.5	99.4	99.1
	D3	1.1627	3.68	100.4	100.4	100.3	100.2	100.1	100.1	100.1	99.8	99.5	99.4	99.3
	D4	1.1650	3.62	100.5	100.4	100.3	100.2	100.1	100.2	100.1	99.9	99.7	99.5	99.4
	D5	1.1770	3.53	96.3	96.2	96.1	96.0	95.8	95.8	95.8	95.5	95.2	95.2	95.1
	D6	1.1791	3.65	99.6	99.5	99.5	99.4	99.3	99.3	99.4	99.2	98.9	98.9	98.8
	D7	1.1896	3.50	98.7	98.7	98.6	98.5	98.4	98.4	98.4	98.2	98.0	97.8	97.8
	D8	1.1869	3.56	99.9	99.9	99.8	99.7	99.5	99.6	99.6	99.4	99.2	99.1	99.1
	D9	1.1997	3.64	99.4	99.4	99.3	99.2	99.0	99.1	99.1	98.8	98.6	98.5	98.4
	D10	1.1837	3.55	97.4	97.4	97.2	97.1	96.9	96.9	96.8	96.6	96.3	96.1	96.0
	D11	1.2185	3.58	98.7	98.7	98.5	98.5	98.4	98.4	98.4	98.1	97.9	97.9	97.8
	D12	1.1847	3.56	99.1	99.1	99.0	98.9	98.7	98.8	98.8	98.5	98.4	98.2	98.2
n mean median std. dev. min max				24	24	24	24	24	24	24	24	24	24	24
				98.9	98.8	98.8	98.6	98.5	98.5	98.5	98.3	98.1	97.9	97.8
				99.4	99.3	99.3	99.1	99.0	99.0	99.0	98.8	98.6	98.5	98.4
				1.4	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.7
				96.0	95.8	95.6	95.5	95.2	95.2	95.1	94.8	94.5	94.3	94.2
				100.5	100.4	100.3	100.2	100.1	100.2	100.1	99.9	99.7	99.5	99.4

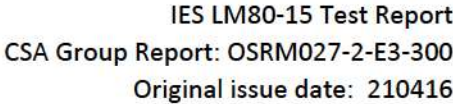


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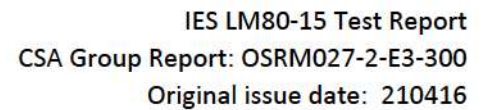


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Test Condition 3				105 °C		1.050 A											
TABLE 4.3 - CHROMATICITY COORDINATE U' RESULTS																GW CSSRM2.EM	
Test Condition 3				105 °C		1.050 A											
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none													
		u'		Chromaticity Coordinate u'													
				1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000			
1300001078A6031C	D1		0.2354	0.2344	0.2343	0.2343	0.2342	0.2342	0.2341	0.2342	0.2341	0.2341	0.2340	0.2341			
	D2		0.2339	0.2330	0.2329	0.2328	0.2328	0.2328	0.2327	0.2327	0.2327	0.2327	0.2327	0.2327			
	D3		0.2340	0.2329	0.2328	0.2327	0.2326	0.2326	0.2325	0.2325	0.2324	0.2325	0.2325	0.2324			
	D4		0.2332	0.2322	0.2321	0.2321	0.2321	0.2320	0.2320	0.2320	0.2319	0.2319	0.2319	0.2319			
	D5		0.2353	0.2340	0.2339	0.2338	0.2337	0.2336	0.2336	0.2336	0.2335	0.2335	0.2335	0.2335			
	D6		0.2349	0.2339	0.2337	0.2337	0.2335	0.2335	0.2335	0.2334	0.2334	0.2334	0.2334	0.2334			
	D7		0.2363	0.2354	0.2353	0.2353	0.2352	0.2351	0.2351	0.2351	0.2351	0.2351	0.2351	0.2351			
	D8		0.2338	0.2328	0.2327	0.2327	0.2326	0.2325	0.2325	0.2325	0.2324	0.2324	0.2324	0.2324			
	D9		0.2334	0.2324	0.2323	0.2322	0.2321	0.2320	0.2321	0.2321	0.2320	0.2320	0.2320	0.2320			
	D10		0.2354	0.2345	0.2344	0.2344	0.2343	0.2342	0.2342	0.2342	0.2342	0.2342	0.2342	0.2341			
	D11		0.2362	0.2350	0.2349	0.2348	0.2347	0.2347	0.2346	0.2347	0.2346	0.2346	0.2346	0.2345			
	D12		0.2327	0.2318	0.2316	0.2316	0.2315	0.2314	0.2314	0.2314	0.2314	0.2313	0.2313	0.2313			
DE00001081CE031C	D1		0.2306	0.2297	0.2295	0.2295	0.2294	0.2294	0.2293	0.2293	0.2293	0.2293	0.2293	0.2292			
	D2		0.2336	0.2327	0.2325	0.2324	0.2324	0.2323	0.2322	0.2323	0.2322	0.2322	0.2322	0.2322			
	D3		0.2356	0.2346	0.2344	0.2344	0.2344	0.2343	0.2342	0.2343	0.2343	0.2342	0.2342	0.2342			
	D4		0.2359	0.2350	0.2349	0.2349	0.2348	0.2347	0.2347	0.2347	0.2347	0.2347	0.2346	0.2346			
	D5		0.2349	0.2342	0.2340	0.2340	0.2340	0.2339	0.2338	0.2339	0.2339	0.2338	0.2338	0.2338			
	D6		0.2330	0.2321	0.2319	0.2319	0.2319	0.2318	0.2317	0.2317	0.2317	0.2317	0.2317	0.2317			
	D7		0.2357	0.2347	0.2346	0.2345	0.2345	0.2344	0.2344	0.2344	0.2344	0.2343	0.2343	0.2343			
	D8		0.2337	0.2327	0.2326	0.2325	0.2325	0.2324	0.2323	0.2324	0.2324	0.2323	0.2323	0.2323			
	D9		0.2321	0.2310	0.2308	0.2307	0.2307	0.2306	0.2305	0.2305	0.2305	0.2305	0.2304	0.2304			
	D10		0.2321	0.2310	0.2309	0.2308	0.2308	0.2307	0.2306	0.2307	0.2307	0.2306	0.2306	0.2306			
	D11		0.2311	0.2301	0.2300	0.2299	0.2298	0.2298	0.2297	0.2297	0.2297	0.2297	0.2297	0.2297			
	D12		0.2351	0.2342	0.2341	0.2340	0.2340	0.2339	0.2338	0.2339	0.2339	0.2339	0.2338	0.2338			
n				24	24	24	24	24	24	24	24	24	24	24			
mean				0.2331	0.2330	0.2329	0.2329	0.2328	0.2327	0.2328	0.2327	0.2327	0.2327	0.2327			
median				0.2330	0.2329	0.2328	0.2327	0.2327	0.2326	0.2326	0.2326	0.2326	0.2326	0.2325			
std. dev.				0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016			
min				0.2297	0.2295	0.2295	0.2294	0.2294	0.2293	0.2293	0.2293	0.2293	0.2293	0.2292			
max				0.2354	0.2353	0.2353	0.2352	0.2351	0.2351	0.2351	0.2351	0.2351	0.2351	0.2351			



Test Condition 3				105 °C		1.050 A											
TABLE 4.3 - CHROMATICITY COORDINATE U' RESULTS																GW CSSRM2.EM	
Test Condition 3				105 °C		1.050 A											
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none													
		u'		Chromaticity Coordinate u'													
				12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000			
1300001078A6031C	D1		0.2354	0.2340	0.2340	0.2340	0.2340	0.2340	0.2340	0.2339	0.2341	0.2340	0.2340	0.2339			
	D2		0.2339	0.2327	0.2327	0.2327	0.2326	0.2326	0.2326	0.2326	0.2327	0.2326	0.2326	0.2326			
	D3		0.2340	0.2324	0.2324	0.2323	0.2323	0.2323	0.2323	0.2322	0.2323	0.2323	0.2322	0.2322			
	D4		0.2332	0.2319	0.2319	0.2318	0.2318	0.2318	0.2318	0.2317	0.2318	0.2318	0.2318	0.2318			
	D5		0.2353	0.2335	0.2334	0.2334	0.2334	0.2334	0.2334	0.2333	0.2334	0.2334	0.2333	0.2332			
	D6		0.2349	0.2334	0.2334	0.2333	0.2333	0.2333	0.2333	0.2333	0.2333	0.2333	0.2332	0.2332			
	D7		0.2363	0.2351	0.2351	0.2350	0.2351	0.2350	0.2350	0.2350	0.2351	0.2351	0.2351	0.2350			
	D8		0.2338	0.2324	0.2324	0.2323	0.2324	0.2323	0.2323	0.2322	0.2323	0.2323	0.2323	0.2322			
	D9		0.2334	0.2320	0.2319	0.2319	0.2319	0.2319	0.2319	0.2318	0.2319	0.2319	0.2317	0.2317			
	D10		0.2354	0.2341	0.2341	0.2341	0.2341	0.2341	0.2340	0.2340	0.2341	0.2341	0.2340	0.2340			
	D11		0.2362	0.2345	0.2345	0.2345	0.2345	0.2345	0.2345	0.2344	0.2344	0.2345	0.2344	0.2344			
	D12		0.2327	0.2313	0.2313	0.2313	0.2312	0.2313	0.2312	0.2312	0.2312	0.2312	0.2312	0.2311			
DE00001081CE031C	D1		0.2306	0.2292	0.2292	0.2292	0.2292	0.2292	0.2292	0.2292	0.2292	0.2292	0.2292	0.2292			
	D2		0.2336	0.2322	0.2322	0.2321	0.2321	0.2321	0.2321	0.2320	0.2321	0.2321	0.2321	0.2321			
	D3		0.2356	0.2342	0.2342	0.2341	0.2341	0.2341	0.2341	0.2341	0.2341	0.2342	0.2341	0.2341			
	D4		0.2359	0.2346	0.2346	0.2345	0.2345	0.2345	0.2345	0.2345	0.2345	0.2345	0.2346	0.2345			
	D5		0.2349	0.2338	0.2337	0.2336	0.2336	0.2337	0.2337	0.2336	0.2337	0.2337	0.2336	0.2335			
	D6		0.2330	0.2316	0.2316	0.2316	0.2316	0.2316	0.2316	0.2316	0.2316	0.2316	0.2316	0.2316			
	D7		0.2357	0.2343	0.2343	0.2343	0.2342	0.2342	0.2342	0.2342	0.2342	0.2342	0.2342	0.2342			
	D8		0.2337	0.2323	0.2322	0.2322	0.2322	0.2323	0.2323	0.2322	0.2322	0.2323	0.2322	0.2322			
	D9		0.2321	0.2304	0.2304	0.2304	0.2303	0.2303	0.2303	0.2303	0.2303	0.2303	0.2303	0.2303			
	D10		0.2321	0.2306	0.2306	0.2306	0.2305	0.2306	0.2305	0.2305	0.2306	0.2306	0.2306	0.2305			
	D11		0.2311	0.2296	0.2296	0.2296	0.2295	0.2296	0.2296	0.2295	0.2295	0.2296	0.2295	0.2294			
	D12		0.2351	0.2338	0.2338	0.2337	0.2338	0.2337	0.2338	0.2337	0.2337	0.2338	0.2337	0.2337			
n				24	24	24	24	24	24	24	24	24	24	24			
mean				0.2327	0.2326	0.2326	0.2326	0.2326	0.2326	0.2325	0.2326	0.2326	0.2326	0.2325			
median				0.2325	0.2325	0.2325	0.2325	0.2324	0.2324	0.2324	0.2325	0.2325	0.2324	0.2324			
std. dev.				0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016			
min				0.2292	0.2292	0.2292	0.2292	0.2292	0.2292	0.2292	0.2292	0.2292	0.2292	0.2292			
max				0.2351	0.2351	0.2350	0.2351	0.2350	0.2350	0.2350	0.2351	0.2351	0.2351	0.2350			

Test Condition 3      105 °C      1.050 A													
TABLE 4.3 - CHROMATICITY COORDINATE U' RESULTS													
Test Condition 3      105 °C      1.050 A													
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none									
		u'		Chromaticity Coordinate u'									
				23000	24000	25000							
1300001078A6031C	D1		0.2354	0.2340	0.2340	0.2340							
	D2		0.2339	0.2326	0.2326	0.2327							
	D3		0.2340	0.2322	0.2322	0.2323							
	D4		0.2332	0.2317	0.2318	0.2318							
	D5		0.2353	0.2332	0.2333	0.2333							
	D6		0.2349	0.2330	0.2332	0.2332							
	D7		0.2363	0.2350	0.2350	0.2351							
	D8		0.2338	0.2323	0.2323	0.2323							
	D9		0.2334	0.2317	0.2317	0.2317							
	D10		0.2354	0.2340	0.2340	0.2340							
	D11		0.2362	0.2344	0.2344	0.2345							
	D12		0.2327	0.2312	0.2312	0.2312							
DE00001081CE031C	D1		0.2306	0.2291	0.2292	0.2292							
	D2		0.2336	0.2320	0.2321	0.2321							
	D3		0.2356	0.2341	0.2341	0.2342							
	D4		0.2359	0.2345	0.2345	0.2346							
	D5		0.2349	0.2335	0.2335	0.2336							
	D6		0.2330	0.2315	0.2316	0.2316							
	D7		0.2357	0.2342	0.2342	0.2343							
	D8		0.2337	0.2322	0.2322	0.2323							
	D9		0.2321	0.2303	0.2303	0.2303							
	D10		0.2321	0.2305	0.2306	0.2306							
	D11		0.2311	0.2294	0.2295	0.2295							
	D12		0.2351	0.2337	0.2337	0.2338							
n				24	24	24							
mean				0.2325	0.2326	0.2326							
median				0.2324	0.2324	0.2325							
std. dev.				0.0016	0.0016	0.0016							
min				0.2291	0.2292	0.2292							
max				0.2350	0.2350	0.2351							



Test Condition 3				105 °C		1.050 A										
TABLE 4.4 - CHROMATICITY COORDINATE V' RESULTS															GW CSSRM2.EM	
Test Condition 3				105 °C		1.050 A										
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none												
		v'		Chromaticity Coordinate v'												
				1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000		
1300001078A6031C	D1		0.5205	0.5205	0.5206	0.5206	0.5207	0.5207	0.5207	0.5207	0.5207	0.5208	0.5208	0.5207	0.5208	
	D2		0.5201	0.5202	0.5202	0.5202	0.5203	0.5203	0.5203	0.5203	0.5203	0.5203	0.5204	0.5203	0.5204	
	D3		0.5204	0.5203	0.5204	0.5204	0.5205	0.5205	0.5206	0.5205	0.5206	0.5206	0.5206	0.5206	0.5207	
	D4		0.5204	0.5205	0.5206	0.5206	0.5207	0.5207	0.5208	0.5208	0.5208	0.5208	0.5209	0.5208	0.5209	
	D5		0.5191	0.5191	0.5193	0.5193	0.5193	0.5194	0.5194	0.5194	0.5195	0.5195	0.5195	0.5194	0.5195	
	D6		0.5205	0.5205	0.5206	0.5206	0.5207	0.5207	0.5207	0.5208	0.5208	0.5208	0.5208	0.5208	0.5208	
	D7		0.5201	0.5201	0.5201	0.5201	0.5202	0.5202	0.5202	0.5202	0.5202	0.5203	0.5203	0.5202	0.5203	
	D8		0.5186	0.5186	0.5186	0.5187	0.5188	0.5188	0.5188	0.5188	0.5188	0.5189	0.5189	0.5188	0.5189	
	D9		0.5196	0.5197	0.5199	0.5199	0.5200	0.5200	0.5201	0.5201	0.5201	0.5201	0.5202	0.5201	0.5202	
	D10		0.5196	0.5197	0.5199	0.5199	0.5200	0.5200	0.5200	0.5201	0.5201	0.5201	0.5201	0.5201	0.5201	
	D11		0.5203	0.5204	0.5205	0.5205	0.5207	0.5207	0.5207	0.5207	0.5207	0.5208	0.5208	0.5207	0.5208	
	D12		0.5200	0.5198	0.5199	0.5200	0.5201	0.5201	0.5201	0.5201	0.5201	0.5201	0.5202	0.5201	0.5202	
DE00001081CE031C	D1		0.5162	0.5163	0.5163	0.5163	0.5164	0.5165	0.5165	0.5165	0.5165	0.5165	0.5166	0.5165	0.5166	
	D2		0.5211	0.5211	0.5211	0.5211	0.5212	0.5213	0.5213	0.5213	0.5213	0.5214	0.5213	0.5214	0.5214	
	D3		0.5206	0.5211	0.5213	0.5214	0.5215	0.5215	0.5216	0.5216	0.5216	0.5217	0.5217	0.5216	0.5218	
	D4		0.5204	0.5209	0.5211	0.5212	0.5212	0.5214	0.5214	0.5214	0.5214	0.5215	0.5215	0.5215	0.5216	
	D5		0.5195	0.5199	0.5199	0.5200	0.5200	0.5201	0.5201	0.5201	0.5201	0.5201	0.5201	0.5201	0.5202	
	D6		0.5191	0.5194	0.5195	0.5196	0.5197	0.5198	0.5198	0.5198	0.5197	0.5199	0.5199	0.5199	0.5199	
	D7		0.5200	0.5203	0.5204	0.5205	0.5206	0.5206	0.5206	0.5206	0.5206	0.5207	0.5207	0.5207	0.5208	
	D8		0.5200	0.5202	0.5202	0.5203	0.5204	0.5204	0.5204	0.5205	0.5205	0.5206	0.5206	0.5206	0.5206	
	D9		0.5181	0.5180	0.5180	0.5181	0.5181	0.5182	0.5183	0.5182	0.5183	0.5183	0.5183	0.5183	0.5184	
	D10		0.5187	0.5186	0.5187	0.5187	0.5188	0.5188	0.5188	0.5188	0.5188	0.5188	0.5188	0.5188	0.5189	
	D11		0.5167	0.5168	0.5168	0.5168	0.5169	0.5170	0.5170	0.5169	0.5171	0.5171	0.5171	0.5171	0.5171	
	D12		0.5188	0.5190	0.5190	0.5191	0.5190	0.5191	0.5192	0.5191	0.5192	0.5192	0.5192	0.5192	0.5193	
n				24	24	24	24	24	24	24	24	24	24	24		
mean				0.5196	0.5197	0.5198	0.5198	0.5199	0.5199	0.5199	0.5200	0.5200	0.5199	0.5200		
median				0.5200	0.5200	0.5201	0.5201	0.5202	0.5202	0.5201	0.5202	0.5202	0.5202	0.5202		
std. dev.				0.0012	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013		
min				0.5163	0.5163	0.5163	0.5164	0.5165	0.5165	0.5165	0.5165	0.5165	0.5166	0.5165		
max				0.5211	0.5213	0.5214	0.5215	0.5215	0.5216	0.5216	0.5217	0.5217	0.5216	0.5218		



Test Condition 3				105 °C		1.050 A										
TABLE 4.4 - CHROMATICITY COORDINATE V' RESULTS															GW CSSRM2.EM	
Test Condition 3				105 °C		1.050 A										
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none												
		v'		Chromaticity Coordinate v'												
				12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000		
1300001078A6031C	D1		0.5205	0.5209	0.5209	0.5210	0.5210	0.5212	0.5212	0.5213	0.5213	0.5214	0.5215	0.5216		
	D2		0.5201	0.5204	0.5205	0.5205	0.5205	0.5207	0.5207	0.5208	0.5208	0.5209	0.5210	0.5210		
	D3		0.5204	0.5207	0.5208	0.5208	0.5208	0.5209	0.5210	0.5210	0.5212	0.5212	0.5213	0.5214		
	D4		0.5204	0.5209	0.5211	0.5211	0.5211	0.5212	0.5213	0.5213	0.5214	0.5215	0.5216	0.5217		
	D5		0.5191	0.5195	0.5196	0.5197	0.5197	0.5198	0.5199	0.5200	0.5200	0.5201	0.5201	0.5202		
	D6		0.5205	0.5209	0.5210	0.5210	0.5211	0.5211	0.5212	0.5213	0.5214	0.5214	0.5214	0.5213		
	D7		0.5201	0.5203	0.5204	0.5204	0.5204	0.5205	0.5205	0.5206	0.5207	0.5207	0.5207	0.5208		
	D8		0.5186	0.5189	0.5190	0.5191	0.5191	0.5192	0.5193	0.5193	0.5194	0.5194	0.5196	0.5197		
	D9		0.5196	0.5202	0.5203	0.5204	0.5204	0.5205	0.5206	0.5207	0.5207	0.5208	0.5207	0.5208		
	D10		0.5196	0.5201	0.5202	0.5203	0.5203	0.5204	0.5205	0.5205	0.5206	0.5207	0.5208	0.5208		
	D11		0.5203	0.5208	0.5208	0.5209	0.5209	0.5210	0.5211	0.5211	0.5212	0.5212	0.5213	0.5214		
	D12		0.5200	0.5202	0.5203	0.5204	0.5204	0.5205	0.5205	0.5206	0.5207	0.5207	0.5208	0.5209		
DE00001081CE031C	D1		0.5162	0.5166	0.5167	0.5167	0.5168	0.5169	0.5169	0.5170	0.5171	0.5172	0.5173	0.5173		
	D2		0.5211	0.5214	0.5214	0.5215	0.5216	0.5216	0.5216	0.5218	0.5219	0.5219	0.5220	0.5221		
	D3		0.5206	0.5218	0.5218	0.5219	0.5219	0.5220	0.5220	0.5221	0.5222	0.5223	0.5224	0.5225		
	D4		0.5204	0.5216	0.5216	0.5217	0.5218	0.5218	0.5219	0.5220	0.5221	0.5222	0.5223	0.5223		
	D5		0.5195	0.5202	0.5202	0.5202	0.5203	0.5204	0.5204	0.5204	0.5205	0.5206	0.5206	0.5206		
	D6		0.5191	0.5199	0.5200	0.5200	0.5201	0.5202	0.5202	0.5203	0.5204	0.5205	0.5206	0.5207		
	D7		0.5200	0.5208	0.5208	0.5209	0.5210	0.5210	0.5211	0.5211	0.5212	0.5213	0.5213	0.5214		
	D8		0.5200	0.5207	0.5207	0.5208	0.5209	0.5209	0.5209	0.5210	0.5211	0.5212	0.5213	0.5213		
	D9		0.5181	0.5184	0.5185	0.5186	0.5186	0.5187	0.5188	0.5188	0.5190	0.5190	0.5191	0.5192		
	D10		0.5187	0.5189	0.5189	0.5190	0.5191	0.5192	0.5192	0.5193	0.5194	0.5195	0.5196	0.5196		
	D11		0.5167	0.5172	0.5172	0.5173	0.5174	0.5174	0.5175	0.5176	0.5177	0.5178	0.5178	0.5178		
	D12		0.5188	0.5193	0.5194	0.5194	0.5195	0.5196	0.5196	0.5197	0.5197	0.5198	0.5199	0.5199		
n				24	24	24	24	24	24	24	24	24	24	24		
mean				0.5200	0.5201	0.5202	0.5202	0.5203	0.5203	0.5204	0.5205	0.5206	0.5206	0.5207		
median				0.5203	0.5203	0.5204	0.5204	0.5205	0.5206	0.5206	0.5207	0.5208	0.5208	0.5209		
std. dev.				0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013		
min				0.5166	0.5167	0.5167	0.5168	0.5169	0.5169	0.5170	0.5171	0.5172	0.5173	0.5173		
max				0.5218	0.5218	0.5219	0.5219	0.5220	0.5220	0.5221	0.5222	0.5223	0.5224	0.5225		



Test Condition 3				105 °C		1.050 A									
TABLE 4.4 - CHROMATICITY COORDINATE V' RESULTS														GW CSSRM2.EM	
Test Condition 3				105 °C		1.050 A									
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none											
		v'		Chromaticity Coordinate v'											
				23000	24000	25000									
1300001078A6031C	D1		0.5205	0.5217	0.5219	0.5219									
	D2		0.5201	0.5212	0.5212	0.5214									
	D3		0.5204	0.5215	0.5217	0.5218									
	D4		0.5204	0.5218	0.5220	0.5220									
	D5		0.5191	0.5204	0.5206	0.5206									
	D6		0.5205	0.5214	0.5215	0.5213									
	D7		0.5201	0.5209	0.5211	0.5211									
	D8		0.5186	0.5198	0.5200	0.5200									
	D9		0.5196	0.5209	0.5212	0.5212									
	D10		0.5196	0.5209	0.5211	0.5211									
	D11		0.5203	0.5215	0.5217	0.5217									
	D12		0.5200	0.5210	0.5212	0.5212									
DE00001081CE031C	D1		0.5162	0.5175	0.5176	0.5177									
	D2		0.5211	0.5222	0.5224	0.5224									
	D3		0.5206	0.5226	0.5227	0.5228									
	D4		0.5204	0.5225	0.5226	0.5227									
	D5		0.5195	0.5208	0.5209	0.5209									
	D6		0.5191	0.5208	0.5209	0.5210									
	D7		0.5200	0.5215	0.5216	0.5217									
	D8		0.5200	0.5215	0.5216	0.5217									
	D9		0.5181	0.5194	0.5195	0.5196									
	D10		0.5187	0.5198	0.5199	0.5200									
	D11		0.5167	0.5180	0.5182	0.5182									
	D12		0.5188	0.5201	0.5202	0.5203									
n				24	24	24									
mean				0.5208	0.5210	0.5210									
median				0.5210	0.5212	0.5212									
std. dev.				0.0012	0.0013	0.0012									
min				0.5175	0.5176	0.5177									
max				0.5226	0.5227	0.5228									

Test Condition 3      105 °C      1.050 A

TABLE 4.5 - CHROMATICITY SHIFT RESULTS

GW CSSRM2.EM

Test Condition 3      105 °C      1.050 A

Load board ID	Device number	Zero hour measurements			Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none										
		u'	v'		Chromaticity shift ( $\Delta u'v'$ )										
					1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000
1300001078A6031C	D1	0.2354	0.5205		0.0009	0.0011	0.0011	0.0012	0.0013	0.0013	0.0012	0.0014	0.0013	0.0014	0.0014
	D2	0.2339	0.5201		0.0009	0.0010	0.0011	0.0011	0.0012	0.0012	0.0012	0.0013	0.0013	0.0012	0.0013
	D3	0.2340	0.5204		0.0011	0.0012	0.0013	0.0014	0.0015	0.0015	0.0015	0.0016	0.0016	0.0016	0.0017
	D4	0.2332	0.5204		0.0010	0.0011	0.0011	0.0012	0.0012	0.0013	0.0013	0.0013	0.0014	0.0014	0.0014
	D5	0.2353	0.5191		0.0013	0.0014	0.0015	0.0016	0.0017	0.0017	0.0017	0.0018	0.0018	0.0018	0.0018
	D6	0.2349	0.5205		0.0010	0.0012	0.0013	0.0014	0.0014	0.0015	0.0015	0.0015	0.0015	0.0015	0.0016
	D7	0.2363	0.5201		0.0009	0.0010	0.0011	0.0011	0.0012	0.0012	0.0012	0.0013	0.0012	0.0013	0.0013
	D8	0.2338	0.5186		0.0010	0.0011	0.0011	0.0012	0.0013	0.0013	0.0013	0.0014	0.0014	0.0014	0.0014
	D9	0.2334	0.5196		0.0011	0.0012	0.0013	0.0014	0.0015	0.0015	0.0015	0.0015	0.0015	0.0016	0.0016
	D10	0.2354	0.5196		0.0009	0.0011	0.0011	0.0012	0.0013	0.0013	0.0013	0.0014	0.0014	0.0014	0.0014
	D11	0.2362	0.5203		0.0012	0.0013	0.0014	0.0015	0.0016	0.0016	0.0016	0.0017	0.0016	0.0016	0.0017
	D12	0.2327	0.5200		0.0010	0.0011	0.0011	0.0012	0.0013	0.0013	0.0013	0.0014	0.0014	0.0014	0.0014
DE00001081CE031C	D1	0.2306	0.5162		0.0009	0.0010	0.0011	0.0012	0.0013	0.0013	0.0013	0.0013	0.0014	0.0013	0.0014
	D2	0.2336	0.5211		0.0010	0.0012	0.0012	0.0013	0.0014	0.0015	0.0014	0.0015	0.0015	0.0015	0.0015
	D3	0.2356	0.5206		0.0011	0.0013	0.0014	0.0015	0.0016	0.0017	0.0016	0.0017	0.0017	0.0017	0.0018
	D4	0.2359	0.5204		0.0010	0.0012	0.0013	0.0014	0.0015	0.0016	0.0016	0.0017	0.0017	0.0017	0.0018
	D5	0.2349	0.5195		0.0008	0.0009	0.0010	0.0010	0.0011	0.0012	0.0011	0.0012	0.0012	0.0012	0.0012
	D6	0.2330	0.5191		0.0009	0.0011	0.0012	0.0012	0.0013	0.0014	0.0014	0.0014	0.0014	0.0015	0.0015
	D7	0.2357	0.5200		0.0011	0.0012	0.0013	0.0014	0.0015	0.0015	0.0015	0.0016	0.0016	0.0016	0.0016
	D8	0.2337	0.5200		0.0011	0.0011	0.0012	0.0013	0.0014	0.0014	0.0014	0.0015	0.0015	0.0015	0.0015
	D9	0.2321	0.5181		0.0011	0.0013	0.0014	0.0014	0.0015	0.0016	0.0016	0.0016	0.0016	0.0017	0.0017
	D10	0.2321	0.5187		0.0011	0.0012	0.0013	0.0013	0.0014	0.0015	0.0014	0.0014	0.0015	0.0015	0.0015
	D11	0.2311	0.5167		0.0010	0.0011	0.0012	0.0013	0.0014	0.0015	0.0014	0.0014	0.0015	0.0015	0.0015
	D12	0.2351	0.5188		0.0009	0.0010	0.0011	0.0011	0.0012	0.0013	0.0013	0.0013	0.0013	0.0013	0.0014
n					24	24	24	24	24	24	24	24	24	24	24
mean					0.0010	0.0011	0.0012	0.0013	0.0014	0.0014	0.0014	0.0015	0.0015	0.0015	0.0015
median					0.0010	0.0011	0.0012	0.0013	0.0014	0.0014	0.0014	0.0014	0.0015	0.0015	0.0015
std. dev.					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002
min					0.0008	0.0009	0.0010	0.0010	0.0011	0.0012	0.0011	0.0012	0.0012	0.0012	0.0012
max					0.0013	0.0014	0.0015	0.0016	0.0017	0.0017	0.0017	0.0018	0.0018	0.0018	0.0018



Test Condition 3      105 °C      1.050 A

TABLE 4.5 - CHROMATICITY SHIFT RESULTS

GW CSSRM2.EM

Test Condition 3      105 °C      1.050 A

Load board ID	Device number	Zero hour measurements			Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none										
		u'	v'		Chromaticity shift ( $\Delta u'v'$ )										
					12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000
1300001078A6031C	D1	0.2354	0.5205		0.0014	0.0014	0.0015	0.0015	0.0016	0.0016	0.0017	0.0016	0.0017	0.0018	0.0018
	D2	0.2339	0.5201		0.0013	0.0013	0.0013	0.0014	0.0014	0.0015	0.0015	0.0014	0.0015	0.0016	0.0016
	D3	0.2340	0.5204		0.0016	0.0017	0.0017	0.0018	0.0018	0.0019	0.0019	0.0019	0.0019	0.0021	0.0021
	D4	0.2332	0.5204		0.0014	0.0015	0.0015	0.0015	0.0016	0.0017	0.0017	0.0017	0.0018	0.0019	0.0019
	D5	0.2353	0.5191		0.0018	0.0019	0.0019	0.0020	0.0020	0.0020	0.0021	0.0020	0.0021	0.0022	0.0023
	D6	0.2349	0.5205		0.0016	0.0016	0.0017	0.0017	0.0017	0.0018	0.0018	0.0018	0.0018	0.0020	0.0019
	D7	0.2363	0.5201		0.0013	0.0013	0.0013	0.0013	0.0013	0.0014	0.0014	0.0014	0.0014	0.0014	0.0015
	D8	0.2338	0.5186		0.0015	0.0015	0.0016	0.0015	0.0016	0.0017	0.0017	0.0017	0.0017	0.0018	0.0019
	D9	0.2334	0.5196		0.0016	0.0017	0.0017	0.0017	0.0018	0.0019	0.0020	0.0019	0.0020	0.0021	0.0021
	D10	0.2354	0.5196		0.0014	0.0015	0.0015	0.0016	0.0016	0.0017	0.0017	0.0017	0.0018	0.0019	0.0019
	D11	0.2362	0.5203		0.0018	0.0018	0.0018	0.0018	0.0018	0.0019	0.0019	0.0019	0.0019	0.0020	0.0021
	D12	0.2327	0.5200		0.0015	0.0015	0.0015	0.0015	0.0015	0.0016	0.0016	0.0016	0.0017	0.0017	0.0018
DE00001081CE031C	D1	0.2306	0.5162		0.0014	0.0014	0.0015	0.0015	0.0015	0.0016	0.0016	0.0017	0.0017	0.0018	0.0018
	D2	0.2336	0.5211		0.0015	0.0015	0.0016	0.0016	0.0016	0.0016	0.0017	0.0018	0.0017	0.0018	0.0019
	D3	0.2356	0.5206		0.0018	0.0019	0.0019	0.0020	0.0020	0.0020	0.0021	0.0022	0.0022	0.0023	0.0024
	D4	0.2359	0.5204		0.0018	0.0018	0.0019	0.0020	0.0020	0.0021	0.0021	0.0022	0.0023	0.0023	0.0024
	D5	0.2349	0.5195		0.0013	0.0013	0.0014	0.0015	0.0015	0.0015	0.0016	0.0016	0.0016	0.0017	0.0018
	D6	0.2330	0.5191		0.0015	0.0016	0.0016	0.0017	0.0017	0.0018	0.0018	0.0019	0.0019	0.0020	0.0021
	D7	0.2357	0.5200		0.0017	0.0017	0.0018	0.0018	0.0019	0.0019	0.0019	0.0020	0.0020	0.0020	0.0021
	D8	0.2337	0.5200		0.0016	0.0016	0.0017	0.0017	0.0017	0.0017	0.0018	0.0019	0.0019	0.0020	0.0020
	D9	0.2321	0.5181		0.0017	0.0017	0.0018	0.0019	0.0019	0.0019	0.0020	0.0020	0.0020	0.0020	0.0021
	D10	0.2321	0.5187		0.0015	0.0015	0.0016	0.0016	0.0016	0.0017	0.0017	0.0017	0.0017	0.0017	0.0018
	D11	0.2311	0.5167		0.0016	0.0016	0.0016	0.0017	0.0017	0.0017	0.0018	0.0019	0.0019	0.0020	0.0020
	D12	0.2351	0.5188		0.0014	0.0014	0.0015	0.0015	0.0016	0.0015	0.0016	0.0016	0.0017	0.0017	0.0018
n					24	24	24	24	24	24	24	24	24	24	24
mean					0.0016	0.0016	0.0016	0.0017	0.0017	0.0017	0.0018	0.0018	0.0018	0.0019	0.0020
median					0.0015	0.0016	0.0016	0.0017	0.0017	0.0017	0.0018	0.0018	0.0018	0.0019	0.0019
std. dev.					0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
min					0.0013	0.0013	0.0013	0.0013	0.0013	0.0014	0.0014	0.0014	0.0014	0.0014	0.0015
max					0.0018	0.0019	0.0019	0.0020	0.0020	0.0021	0.0021	0.0022	0.0023	0.0023	0.0024

Test Condition 3      105 °C      1.050 A

TABLE 4.5 - CHROMATICITY SHIFT RESULTS

GW CSSRM2.EM

Test Condition 3      105 °C      1.050 A

Load board ID	Device number	Zero hour measurements			Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none									
		u'	v'		Chromaticity shift ( $\Delta u'v'$ )									
					23000	24000	25000							
1300001078A6031C	D1	0.2354	0.5205		0.0019	0.0020	0.0020							
	D2	0.2339	0.5201		0.0017	0.0017	0.0018							
	D3	0.2340	0.5204		0.0021	0.0022	0.0022							
	D4	0.2332	0.5204		0.0020	0.0021	0.0021							
	D5	0.2353	0.5191		0.0024	0.0024	0.0024							
	D6	0.2349	0.5205		0.0021	0.0020	0.0019							
	D7	0.2363	0.5201		0.0016	0.0017	0.0016							
	D8	0.2338	0.5186		0.0020	0.0021	0.0020							
	D9	0.2334	0.5196		0.0022	0.0024	0.0023							
	D10	0.2354	0.5196		0.0020	0.0021	0.0021							
	D11	0.2362	0.5203		0.0021	0.0022	0.0022							
	D12	0.2327	0.5200		0.0018	0.0020	0.0019							
DE00001081CE031C	D1	0.2306	0.5162		0.0020	0.0020	0.0020							
	D2	0.2336	0.5211		0.0020	0.0020	0.0020							
	D3	0.2356	0.5206		0.0025	0.0026	0.0026							
	D4	0.2359	0.5204		0.0026	0.0026	0.0027							
	D5	0.2349	0.5195		0.0019	0.0019	0.0019							
	D6	0.2330	0.5191		0.0022	0.0022	0.0023							
	D7	0.2357	0.5200		0.0022	0.0023	0.0023							
	D8	0.2337	0.5200		0.0022	0.0022	0.0022							
	D9	0.2321	0.5181		0.0022	0.0023	0.0023							
	D10	0.2321	0.5187		0.0019	0.0019	0.0020							
	D11	0.2311	0.5167		0.0021	0.0022	0.0022							
	D12	0.2351	0.5188		0.0019	0.0020	0.0020							
n					24	24	24							
mean					0.0021	0.0021	0.0021							
median					0.0021	0.0021	0.0021							
std. dev.					0.0002	0.0002	0.0003							
min					0.0016	0.0017	0.0016							
max					0.0026	0.0026	0.0027							



Test Condition 3				105 °C		1.050 A											
TABLE 4.6 - FORWARD VOLTAGE MAINTENANCE RESULTS														GW CSSRM2.EM			
Test Condition 3				105 °C		1.050 A											
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none													
		Vf (V)		Forward Voltage Maintainence (%)													
				1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000			
1300001078A6031C	D1		3.35	99.42	99.24	99.23	99.65	99.24	99.10	99.67	98.99	99.75	99.42	99.10			
	D2		3.41	100.49	99.54	99.88	99.46	100.65	100.68	99.80	99.25	101.62	101.07	99.40			
	D3		3.47	99.64	98.85	99.42	98.99	99.94	100.46	99.31	99.11	101.30	101.13	99.27			
	D4		3.53	97.96	97.56	97.92	97.86	97.77	98.01	98.02	97.65	98.30	97.84	97.64			
	D5		3.53	99.34	98.86	99.12	99.69	99.18	99.21	99.42	99.27	99.46	99.18	99.28			
	D6		3.54	99.29	98.95	99.24	99.83	99.24	99.41	99.53	99.29	100.36	100.17	99.59			
	D7		3.46	99.38	99.31	99.43	99.24	99.20	99.61	100.00	99.03	100.25	100.44	99.60			
	D8		3.60	97.61	97.87	97.40	97.39	97.66	97.89	98.11	97.35	97.93	98.18	97.88			
	D9		3.64	97.55	97.71	97.47	97.65	97.61	97.66	97.46	97.39	97.82	98.06	97.70			
	D10		3.56	98.35	98.30	98.38	98.31	98.14	98.17	98.26	98.28	98.31	98.64	98.63			
	D11		3.62	98.51	97.49	97.18	97.38	97.53	97.07	97.35	97.14	97.43	97.49	98.03			
	D12		3.58	99.37	98.02	98.12	97.96	98.28	97.43	97.58	97.38	97.71	97.96	98.37			
DE00001081CE031C	D1		3.37	101.72	98.76	98.36	100.54	98.94	98.19	98.58	98.52	99.18	100.12	100.04			
	D2		3.46	102.90	98.44	98.49	98.59	98.62	98.04	98.60	98.83	101.17	100.63	100.30			
	D3		3.68	100.10	96.97	97.32	97.30	96.91	96.93	97.46	99.00	102.29	98.81	99.31			
	D4		3.62	97.71	97.71	97.18	96.79	96.75	96.73	97.13	99.10	99.67	96.94	98.09			
	D5		3.53	100.61	100.03	99.10	99.47	99.76	99.11	101.13	102.27	101.35	99.58	99.92			
	D6		3.65	98.50	97.37	97.14	97.49	97.63	97.07	98.88	99.50	99.47	97.92	97.20			
	D7		3.50	98.43	98.74	98.92	98.82	98.97	98.80	98.87	99.48	99.15	99.60	99.08			
	D8		3.56	97.87	97.63	97.67	97.54	97.87	97.22	97.28	97.58	97.45	97.48	98.89			
	D9		3.64	98.42	98.26	98.58	98.73	98.46	98.20	97.86	98.04	98.62	98.51	99.99			
	D10		3.55	99.09	100.34	100.00	99.89	99.07	99.27	100.32	99.14	100.06	99.44	99.44			
	D11		3.58	99.57	99.72	99.37	98.67	99.13	98.40	101.53	99.58	99.43	99.23	99.65			
	D12		3.56	99.64	98.27	98.58	99.55	99.78	98.06	99.54	98.92	98.27	99.37	99.77			
	n	mean	median	std. dev.	min	max	24	24	24	24	24	24	24	24			
							99.2	98.5	98.5	98.6	98.6	98.4	98.8	98.8	99.4	99.1	99.0
							99.3	98.4	98.5	98.7	98.8	98.2	98.7	99.0	99.4	99.2	99.3
							1.3	0.9	0.9	1.0	1.0	1.1	1.2	1.1	1.4	1.2	0.9
							97.5	97.0	97.1	96.8	96.8	96.7	97.1	97.1	97.4	96.9	97.2
							102.9	100.3	100.0	100.5	100.7	100.7	101.5	102.3	102.3	101.1	100.3

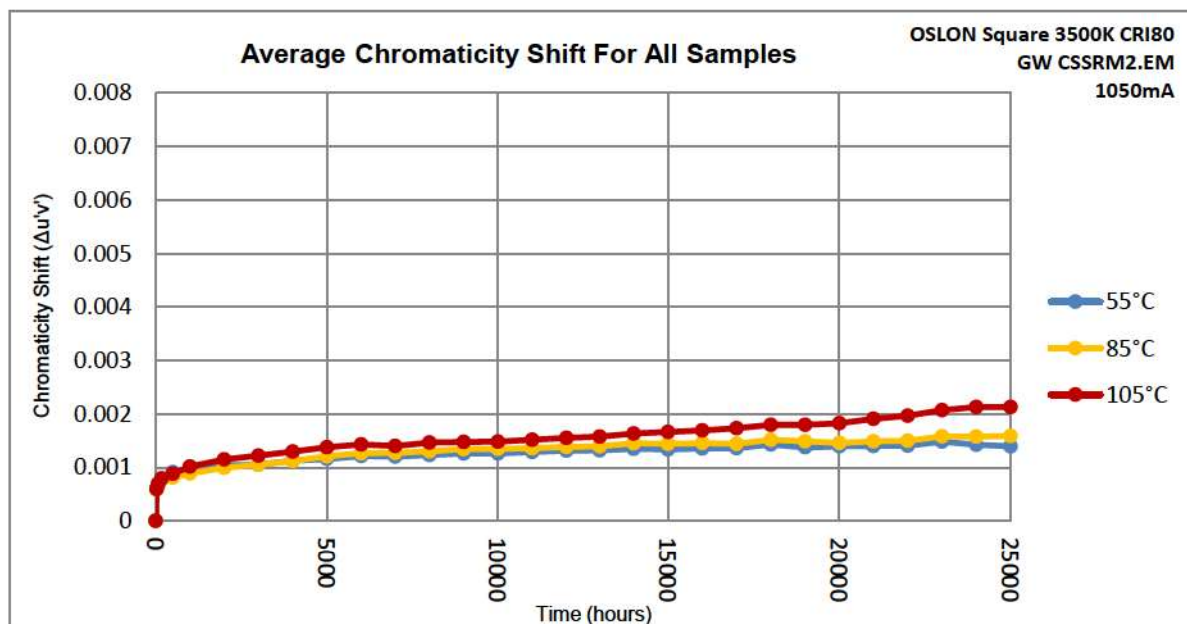
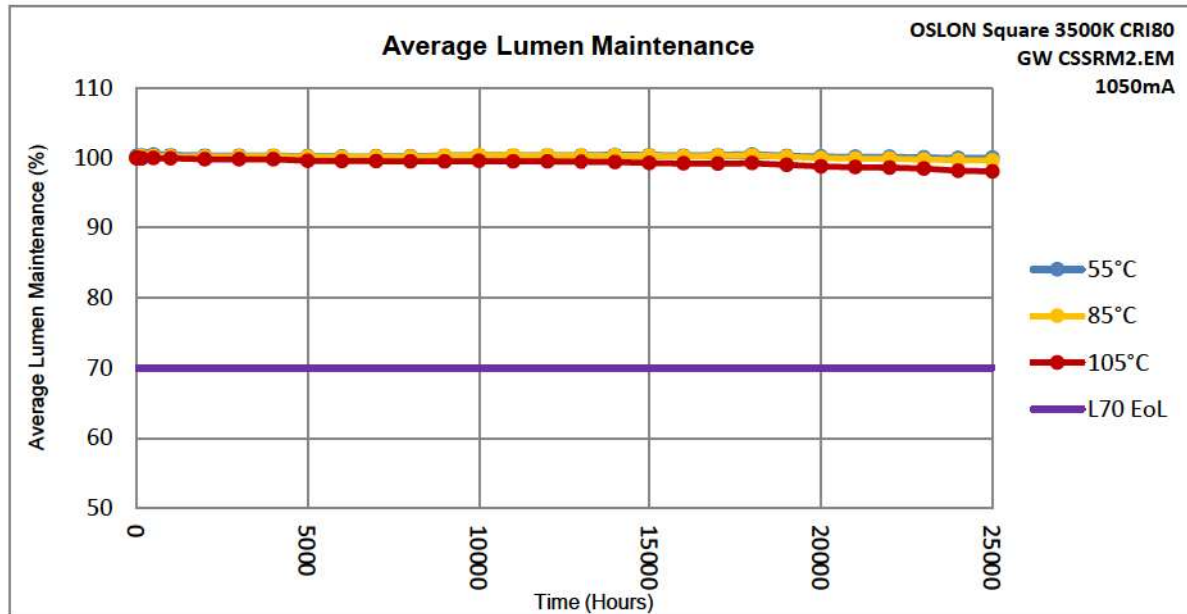


Test Condition 3				105 °C		1.050 A											
TABLE 4.6 - FORWARD VOLTAGE MAINTENANCE RESULTS																GW CSSRM2.EM	
Test Condition 3				105 °C		1.050 A											
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none													
		Vf (V)		Forward Voltage Maintainence (%)													
				12000	13000	14000	15000	16000	17000	18000	19000	20000	21000	22000			
1300001078A6031C	D1		3.35	100.30	99.94	101.22	100.29	99.83	99.06	99.44	99.67	99.91	100.15	107.45			
	D2		3.41	102.13	99.85	101.21	101.67	101.76	99.57	102.18	102.40	102.10	102.83	101.88			
	D3		3.47	101.33	98.97	100.94	102.40	100.84	99.22	101.58	102.09	101.57	102.23	102.63			
	D4		3.53	98.35	98.11	98.01	99.14	97.85	97.33	97.59	97.83	97.96	98.26	99.46			
	D5		3.53	99.60	99.89	99.16	99.64	100.33	99.12	99.75	100.08	99.99	100.10	99.66			
	D6		3.54	100.92	99.46	99.31	99.81	100.98	99.44	99.97	101.17	107.14	100.53	100.24			
	D7		3.46	100.85	99.09	99.23	99.30	100.42	99.07	99.28	100.60	106.42	100.99	100.51			
	D8		3.60	98.40	98.28	98.09	98.45	98.85	98.83	99.65	98.66	101.53	99.52	100.93			
	D9		3.64	98.44	98.16	97.70	99.06	98.17	98.45	99.45	98.09	100.93	98.75	100.67			
	D10		3.56	99.04	98.38	98.38	99.48	98.30	98.12	98.50	98.45	98.91	98.56	98.97			
	D11		3.62	98.42	97.25	97.39	98.28	97.78	97.41	97.87	98.15	98.93	97.43	98.07			
	D12		3.58	99.22	97.60	97.58	99.93	98.51	97.56	99.17	98.53	98.85	97.71	98.31			
DE00001081CE031C	D1		3.37	99.22	99.56	100.33	102.93	99.05	98.38	98.80	101.20	98.26	101.06	102.83			
	D2		3.46	106.37	99.02	99.08	99.69	98.83	98.04	98.45	104.00	98.06	99.71	103.88			
	D3		3.68	106.06	98.86	98.83	98.63	97.38	97.61	97.38	103.93	97.37	97.92	101.75			
	D4		3.62	98.92	100.03	97.70	97.14	96.82	97.32	96.28	107.24	96.98	97.14	98.33			
	D5		3.53	101.13	101.45	100.41	101.80	100.58	104.57	99.56	107.10	100.77	100.89	105.99			
	D6		3.65	98.00	98.24	98.81	101.42	98.43	102.06	98.21	98.69	99.39	98.96	102.73			
	D7		3.50	99.30	99.43	99.06	101.47	99.18	99.41	99.44	104.72	100.38	99.87	99.59			
	D8		3.56	97.37	97.48	97.22	98.57	97.49	97.31	103.15	103.35	98.14	98.53	98.22			
	D9		3.64	98.19	98.13	97.96	98.86	98.12	98.05	103.70	99.77	98.70	99.45	99.41			
	D10		3.55	99.34	98.91	98.79	100.13	98.77	99.09	98.68	100.21	99.17	99.77	99.51			
	D11		3.58	101.21	99.11	98.48	100.34	99.68	99.05	98.59	99.78	99.50	99.86	99.17			
	D12		3.56	100.43	98.36	97.79	99.52	98.91	98.35	98.03	98.89	98.66	99.17	99.08			
n				24	24	24	24	24	24	24	24	24	24	24			
mean				100.1	98.9	98.9	99.9	99.0	98.9	99.4	101.0	100.0	99.6	100.8			
median				99.3	98.9	98.8	99.7	98.8	98.6	99.2	100.1	99.3	99.6	99.9			
std. dev.				2.3	1.0	1.2	1.4	1.3	1.6	1.8	2.8	2.5	1.4	2.4			
min				97.4	97.2	97.2	97.1	96.8	97.3	96.3	97.8	97.0	97.1	98.1			
max				106.4	101.4	101.2	102.9	101.8	104.6	103.7	107.2	107.1	102.8	107.5			



Test Condition 3				105 °C		1.050 A									
TABLE 4.6 - FORWARD VOLTAGE MAINTENANCE RESULTS														GW CSSRM2.EM	
Test Condition 3				105 °C		1.050 A									
Load board ID	Device number	Zero hour measurements		Photometric test drive current: 1.050 A Photometric test ambient temperature: 25 ± 2 °C Failures observed: none											
		Vf (V)		Forward Voltage Maintainence (%)											
				23000	24000	25000									
1300001078A6031C	D1		3.35	101.20	103.12	100.94									
	D2		3.41	101.88	101.82	101.91									
	D3		3.47	104.64	101.98	101.73									
	D4		3.53	100.98	99.33	99.03									
	D5		3.53	100.27	99.63	101.36									
	D6		3.54	101.72	100.22	101.60									
	D7		3.46	101.51	100.57	104.96									
	D8		3.60	102.13	98.75	104.01									
	D9		3.64	101.21	98.30	100.61									
	D10		3.56	98.54	98.42	98.94									
	D11		3.62	101.06	97.66	98.02									
	D12		3.58	101.79	97.93	98.36									
DE00001081CE031C	D1		3.37	107.54	101.38	107.92									
	D2		3.46	100.07	100.96	99.20									
	D3		3.68	99.61	98.45	98.23									
	D4		3.62	97.90	98.25	99.19									
	D5		3.53	103.21	105.62	108.45									
	D6		3.65	101.11	104.44	103.85									
	D7		3.50	99.45	102.20	101.06									
	D8		3.56	97.74	99.00	100.24									
	D9		3.64	99.60	99.40	101.23									
	D10		3.55	100.03	99.15	99.83									
	D11		3.58	99.37	99.59	100.33									
	D12		3.56	99.23	99.89	101.03									
n				24	24	24									
mean				100.9	100.3	101.3									
median				101.0	99.6	101.0									
std. dev.				2.1	2.1	2.8									
min				97.7	97.7	98.0									
max				107.5	105.6	108.4									

## 5.0 Charts:





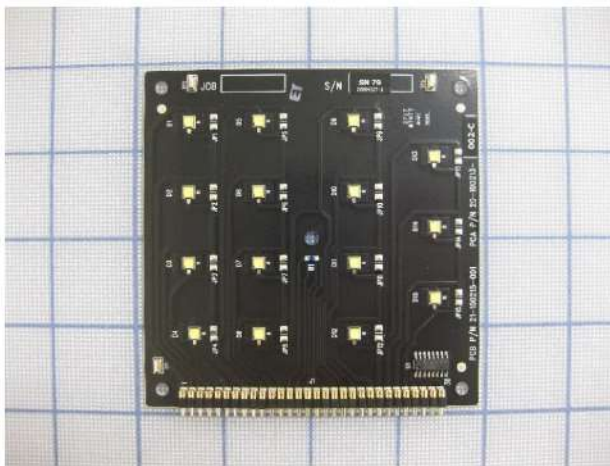
## 6.0 Additional Information

### 6.1 Auxiliary Equipment

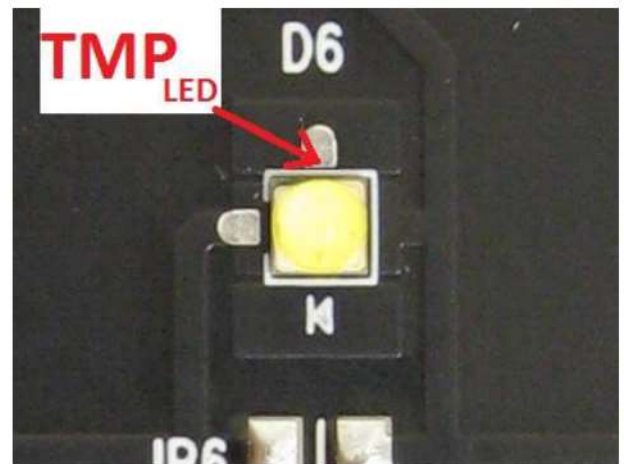
Lifetest thermal chamber:	Orb Optronix Thermal Platform - resistive heating, liquid cooling, no forced air flow
Lifetest current source:	Orb Optronix 12-Channel Driver
Photometric test current source:	Keithley 2425
Photometric test thermal control:	Orb Optronix TEC-100
Spectrometer:	Instrument Systems, CAS 140CT
Integrating Sphere:	Gamma Scientific 20"
Photometric reference standards:	LabSphere SCL-50

### 6.2 Additional Test Information

### 6.3 Photographs



**Fig. 1** OSRM027 load board example.



**Fig. 2** OSRM027 OSLON Square white LED and temperature measurement point.



#### 6.4 Dimensional Drawing\*

\* all dimension in millimeters

This report alone may not be used to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the Federal Government.

- END OF REPORT -



# Appendix A: Energy Star® LM-80 Application

## **ENERGY STAR® LM-80 Cover Page**

### **Administrative Information**

Tested subcomponent series	OSLON® Square
Tested subcomponent model number	GW CSSRM2.EM
Report issue date	16 <sup>th</sup> Apr 2021
Report revision date (if applicable)	Not Applicable
Testing start date	10 <sup>th</sup> Nov 2017
Testing completion date	16 <sup>th</sup> Apr 2021
DUT sampling method	According to ANSI/IES LM-80 Test Method

### **DUT Identification**

DUT manufacturer's name	OSRAM Opto Semiconductors (Malaysia) Sdn Bhd
DUT identification	GW CSSRM2.EM
Description of DUT	LED Package

### **DUT Characteristics**

Total input power (W)	3.72
Average current density per LED die (mA/mm <sup>2</sup> )	525.00
Average power density per LED Package (W/mm <sup>2</sup> )	0.41
Representative CRI (Ra) of the tested sample set	80
Minimum die edge to die edge spacing	Not Applicable

# Appendix B: Lumen Maintenance Projection (IES TM-21-11)

For Information Only!

## 1. General Information

Description of LED light source tested	OSLON® Square GW CSSRM2.EM
Sample size per temperature	24
LED drive current used in the test	1050 mA
Current per die	1050 mA
Test duration	25,000 hours
Test duration used for projection	12,000 hours to 25,000 hours

## 2. Projection Data (Lumen Maintenance)

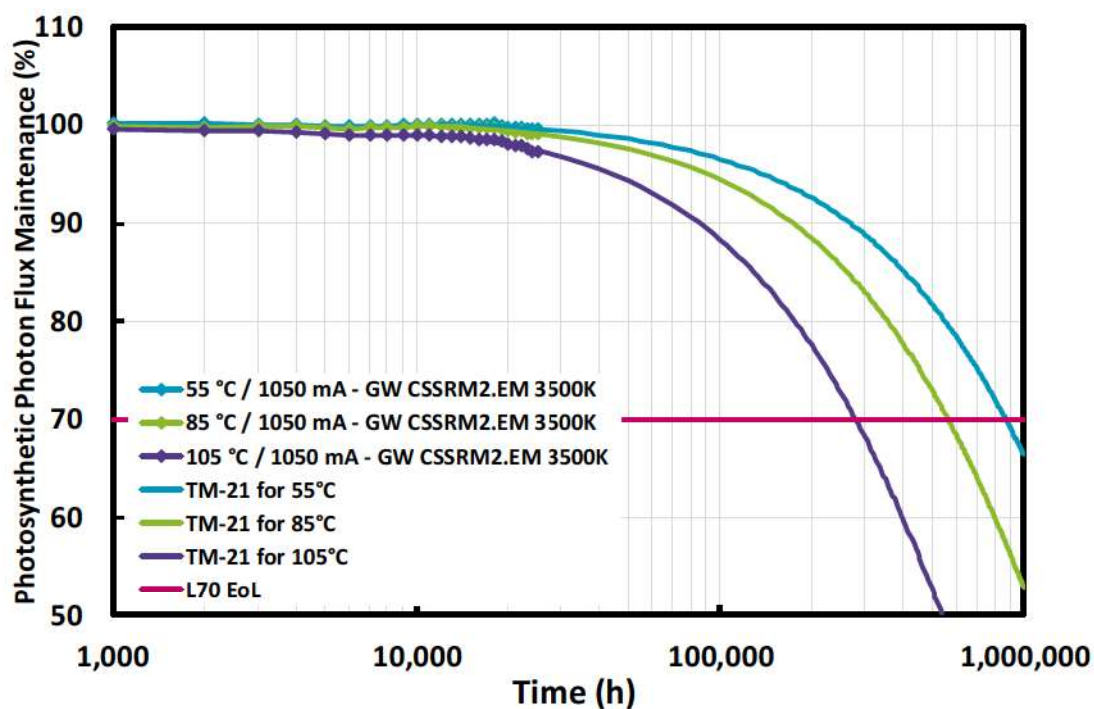
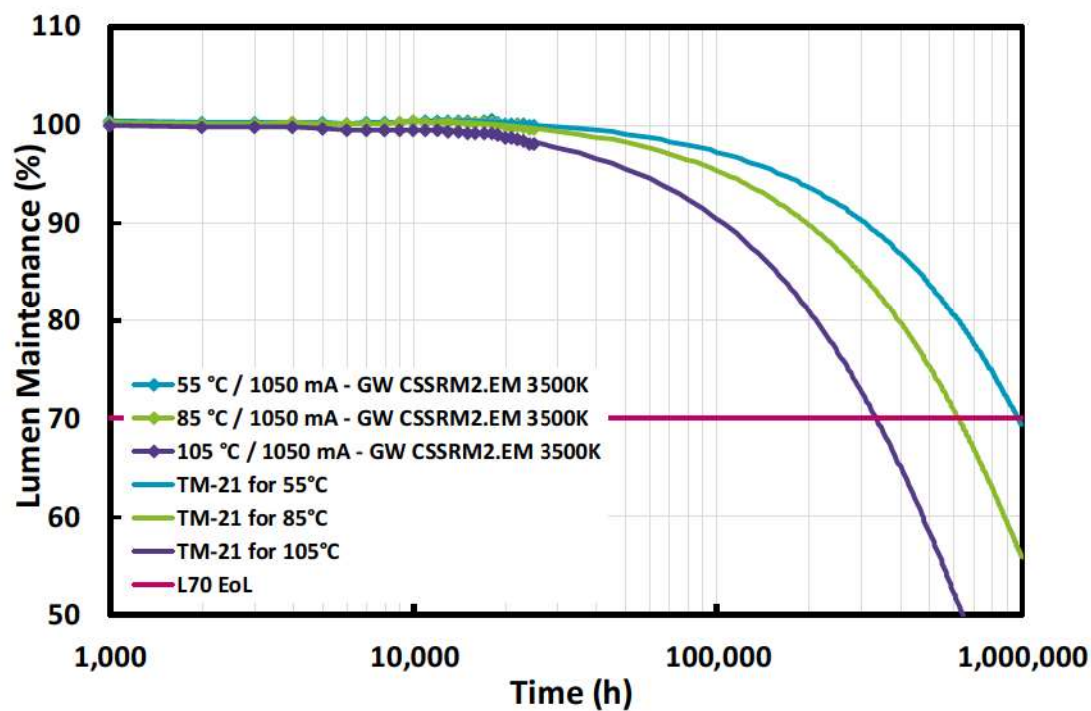
	I	II	III
Case temperature (solder point)	$T_S = 55\text{ °C}$	$T_S = 85\text{ °C}$	$T_S = 105\text{ °C}$
$\alpha$	3.754E-07	5.930E-07	1.099E-06
B	1.010E+00	1.012E+00	1.009E+00
Reported L70	> 150,000 hours	> 150,000 hours	> 150,000 hours
Reported L80	> 150,000 hours	> 150,000 hours	> 150,000 hours
Reported L90	> 150,000 hours	> 150,000 hours	104,504 hours

## 2b. Projection Data (Photosynthetic Photon Flux Maintenance)

	I	II	III
Case temperature (solder point)	$T_S = 55\text{ °C}$	$T_S = 85\text{ °C}$	$T_S = 105\text{ °C}$
$\alpha$	4.166E-07	6.464E-07	1.296E-06
B	1.006E+00	1.007E+00	1.006E+00
Reported $Q_{90}$	> 150,000 hours	> 150,000 hours	85,752 hours



### 3. Graphic chart



## Appendix C: Additional Models Covered By Testing

The 28 September 2017 *ENERGY STAR® Requirements for the Use of LM-80 Data* defines conditions for which a LM-80 report is applied to cover models that have not been directly tested.

The test results in this report applies to the following list of models:

- OSLO<sup>®</sup> Square GW CSSRM2.EM with CCT 2700 K – 6500 K
- OSLO<sup>®</sup> Square GW CSSRM2.PM with CCT 2700 K – 6500 K
- OSLO<sup>®</sup> Square GW CSSRM3.PM with CCT 2700 K – 6500 K
- OSLO<sup>®</sup> Square GW CSSRM2.CM with CCT 2700 K – 6500 K
- OSLO<sup>®</sup> Square GW CSSRM3.EM with CCT 2700 K – 6500 K
- OSLO<sup>®</sup> Square GW CSSRMU.CM with CCT 2700 K – 4000 K



## Disclaimer

Please carefully read the below terms and conditions before using the Information.  
If you do not agree with any of these terms and conditions, do not use the Information.

The Information contained in this document does not constitute an independent warranty. The committed behavior is described in the Product data sheet.

Further explanations:

**Data:** The Data used in this Document consider the reliability test results under the mentioned driving conditions only. For Product information on the maximum operating conditions please refer to the Product data sheet or contact your local sales partner.

**Conditions:** The conditions for the generation of the data are as follows:

1. The Data and curves shown in this Document are based on experiments carried out under laboratory conditions on a random sample size of LED with readouts at discrete readout times (where applicable). Thus, the Data above represent a limited number of production lots only and may differ between different assembly lots over time (including chip or package changes). Thus, the behavior of the LED in the final application may differ from the Data. The behavior of the LED at conditions or readout times deviating from those stated above may not be deduced from the Data.
2. For long term operation additional failure modes of the chip or package can occur which are not shown in this Document.
3. Possible differences in the thermal management of OSRAM OS and customer's setup may lead to a different aging behavior.
4. The lifetime projection data presented in this Document has been evaluated in accordance with the lifetime extrapolation method described and defined in IES TM-21-11. The lifetime projection is based on the Data shown in this Document. The Data had been collected and assembled according to IES LM-80-15.

END OF DOCUMENT

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