

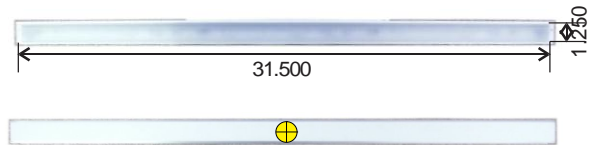


### Luminaire Flux and Color Quality Test Report

Test Date: October 15, 2010  
LTL Test Number: 21188  
Company: Visa Lighting  
Catalog Number: CV1972-LEDNWT  
Luminaire: Extruded white enamel aluminum housing, frosted plastic top and bottom enclosures.  
Lamp: 324 white LEDs  
Ballast/Driver: One High Perfection Tech Model: LP1040-24

#### Measured Luminaire Electrical Values:

Voltage: 120.0 V  
Current: 0.219 A  
Watts: 25.89 W  
Power Factor: 0.983  
Temperature: 25.2 °C



#### Measured Luminaire Photometric Values:

Radiant Flux: 2890 mW  
Luminous Flux: 839.8 Lumens  
Luminaire Efficacy: 32.4 Lumens per Watt  
CCT: 3555 K  
CRI (Ra): 88.2  
Chromaticity (x): 0.4011  
Chromaticity (y): 0.3862  
Chromaticity (u'): 0.2348  
Chromaticity (v'): 0.5087  
Duv: -0.0012

Approved by: *MG*

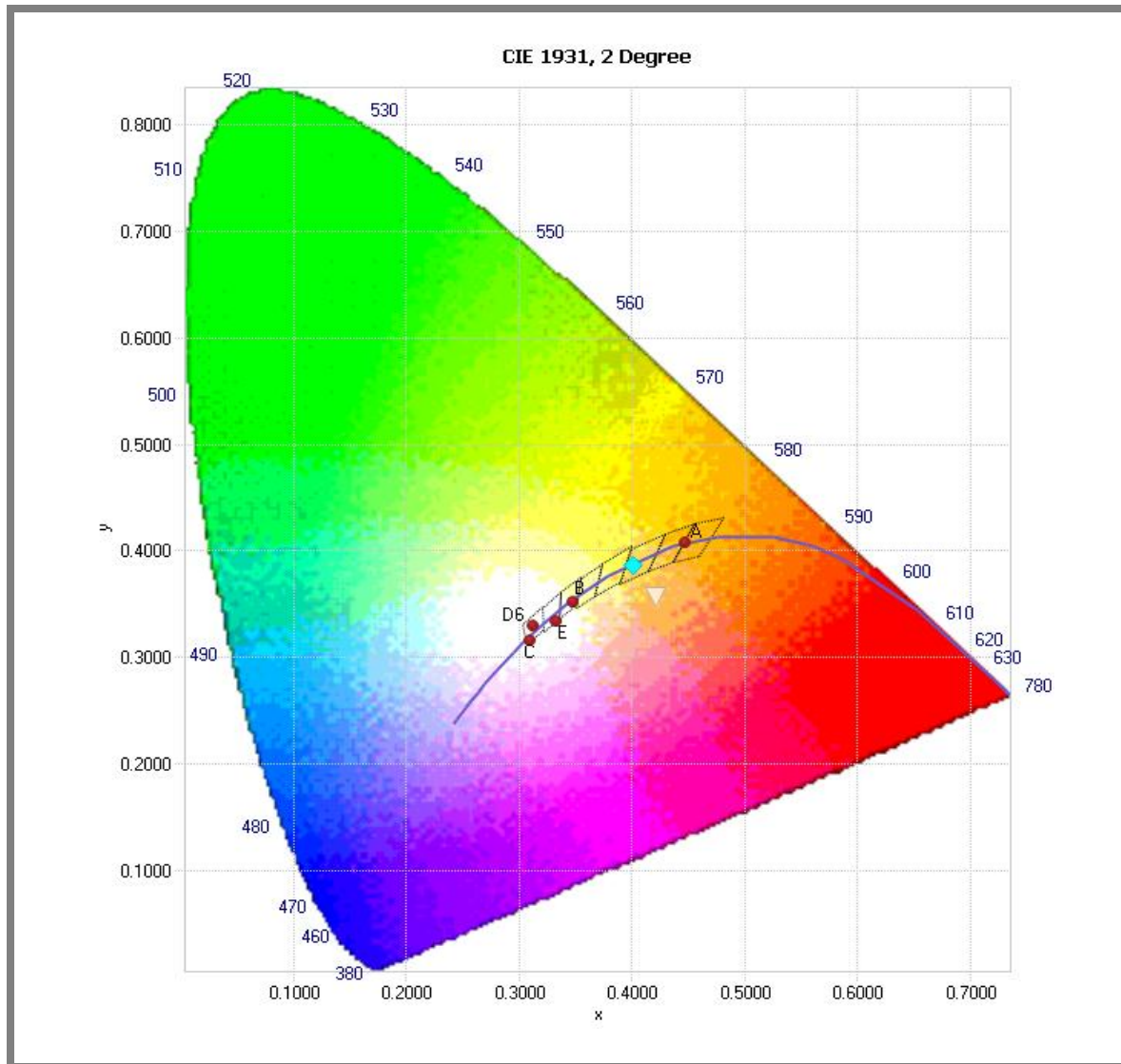
Testing was performed in accordance with IES LM-79-2008



Test Date: October 15, 2010

LTL Test Number: 21188

Chromaticity Coordinates						
x	y	u	v	u'	v'	Duv
0.4011	0.3862	0.2348	0.3391	0.2348	0.5087	-0.0012

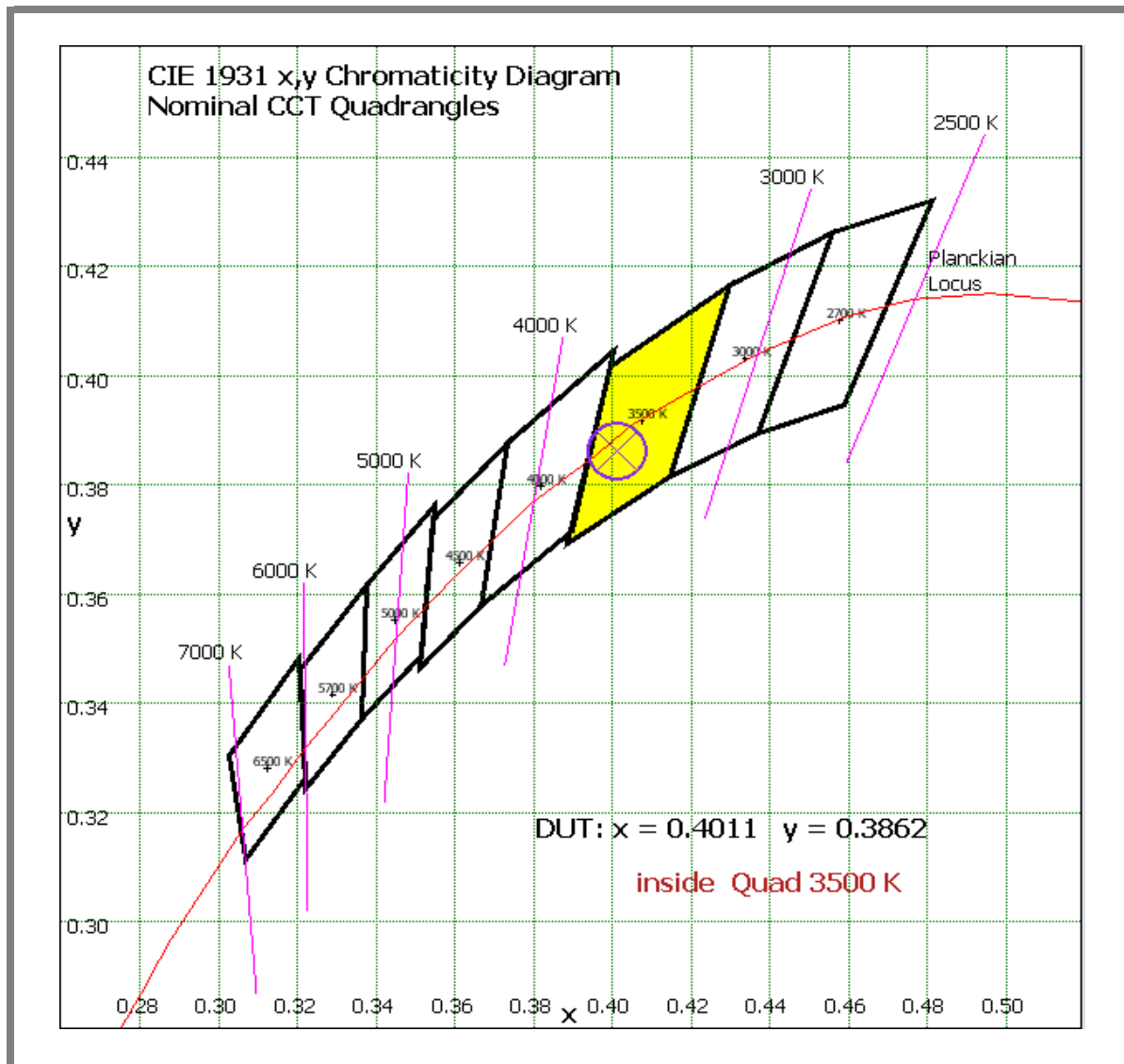




Test Date: October 15, 2010

LTL Test Number: 21188

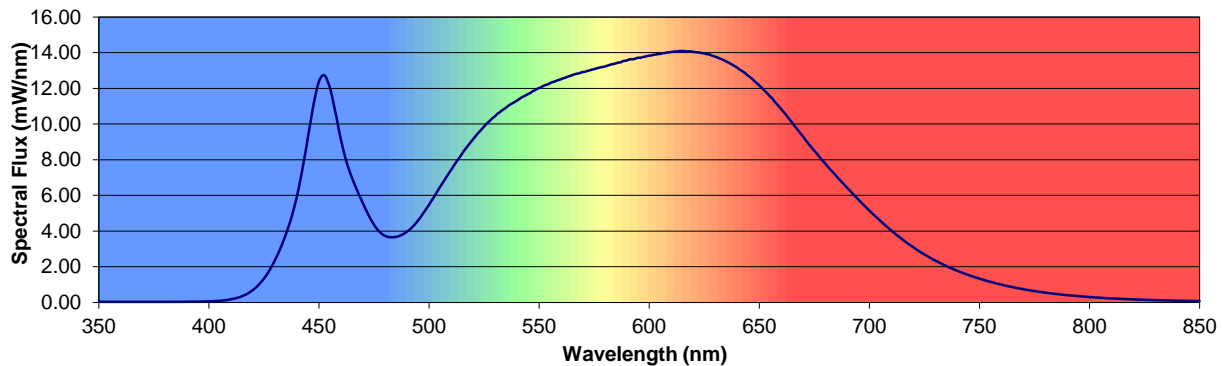
Chromaticity Coordinates							
x	y	u	v	u'	v'	Duv	
0.4011	0.3862	0.2348	0.3391	0.2348	0.5087	-0.0012	





Test Date: October 15, 2010
LTL Test Number: 21188

Spectral Power Distribution table with columns for wavelength (nm) and power (mW) across five groups of data.





Test Date: October 15, 2010

LTL Test Number: 21188

Spectral Power Distribution									
$\lambda$ (nm)	mW	$\lambda$ (nm)	mW	$\lambda$ (nm)	mW	$\lambda$ (nm)	mW	$\lambda$ (nm)	mW
600	13.84	650	12.17	700	5.15	750	1.33	800	0.30
601	13.85	651	12.05	701	5.03	751	1.29	801	0.29
602	13.89	652	11.93	702	4.91	752	1.26	802	0.28
603	13.90	653	11.80	703	4.80	753	1.22	803	0.28
604	13.93	654	11.67	704	4.69	754	1.19	804	0.27
605	13.93	655	11.55	705	4.57	755	1.15	805	0.26
606	13.98	656	11.42	706	4.46	756	1.12	806	0.25
607	13.98	657	11.26	707	4.35	757	1.09	807	0.25
608	14.01	658	11.12	708	4.24	758	1.06	808	0.24
609	14.02	659	10.98	709	4.13	759	1.03	809	0.23
610	14.04	660	10.83	710	4.03	760	1.00	810	0.23
611	14.06	661	10.69	711	3.92	761	0.97	811	0.22
612	14.07	662	10.54	712	3.82	762	0.94	812	0.21
613	14.08	663	10.38	713	3.73	763	0.91	813	0.21
614	14.10	664	10.22	714	3.63	764	0.88	814	0.20
615	14.09	665	10.08	715	3.53	765	0.86	815	0.20
616	14.10	666	9.90	716	3.44	766	0.83	816	0.19
617	14.08	667	9.76	717	3.35	767	0.81	817	0.18
618	14.07	668	9.58	718	3.26	768	0.78	818	0.18
619	14.08	669	9.44	719	3.18	769	0.76	819	0.17
620	14.05	670	9.28	720	3.09	770	0.74	820	0.17
621	14.04	671	9.11	721	3.00	771	0.72	821	0.17
622	14.02	672	8.95	722	2.92	772	0.69	822	0.16
623	14.01	673	8.80	723	2.84	773	0.68	823	0.16
624	13.99	674	8.66	724	2.76	774	0.65	824	0.15
625	13.96	675	8.50	725	2.69	775	0.63	825	0.15
626	13.93	676	8.36	726	2.62	776	0.62	826	0.14
627	13.91	677	8.21	727	2.55	777	0.60	827	0.14
628	13.87	678	8.06	728	2.48	778	0.58	828	0.14
629	13.82	679	7.92	729	2.41	779	0.56	829	0.13
630	13.78	680	7.78	730	2.34	780	0.55	830	0.13
632	13.68	682	7.49	732	2.22	782	0.52	832	0.12
633	13.63	683	7.36	733	2.16	783	0.50	833	0.12
634	13.58	684	7.23	734	2.10	784	0.49	834	0.12
635	13.51	685	7.08	735	2.04	785	0.47	835	0.11
636	13.45	686	6.95	736	1.98	786	0.46	836	0.11
637	13.38	687	6.82	737	1.93	787	0.44	837	0.11
638	13.31	688	6.68	738	1.87	788	0.43	838	0.10
639	13.24	689	6.55	739	1.82	789	0.42	839	0.10
640	13.16	690	6.41	740	1.77	790	0.41	840	0.10
641	13.07	691	6.29	741	1.72	791	0.39	841	0.10
642	12.99	692	6.16	742	1.68	792	0.38	842	0.09
643	12.91	693	6.02	743	1.63	793	0.37	843	0.09
644	12.81	694	5.90	744	1.58	794	0.36	844	0.09
645	12.71	695	5.77	745	1.54	795	0.35	845	0.09
646	12.61	696	5.65	746	1.49	796	0.34	846	0.08
647	12.51	697	5.52	747	1.45	797	0.33	847	0.08
648	12.39	698	5.40	748	1.41	798	0.32	848	0.08
649	12.28	699	5.27	749	1.37	799	0.31	849	0.08
								850	0.07



Test Date: October 15, 2010

LTL Test Number: 21188

Color Rendering Index Detail								
R1	R2	R3	R4	R5	R6	R7	R8	Ra (CRI)
88.4	90.9	90.7	88.1	86.8	85.8	92.6	82.5	88.2

Color Rendering Index Detail (Expanded)								
R9	R10	R11	R12	R13	R14			
54.9	76.3	86.0	64.9	88.7	94.2			

Testing was performed in the LTL two-meter integrating sphere (Labsphere model SLMS7650) using a Labsphere model CDS1100 spectrometer and LightMtrX software.

Testing was performed using the  $4\pi$  geometry method of measurement.

Absorption correction was employed for this measurement.

Electrical power was supplied to the device under test using a regulated power supply.

The device under test was allowed to reach stability according to appropriate IES standards prior to measurement.