



Luminaire Flux and Color Quality Test Report

Date Tested: November 30, 2010
LTL Test Number: 21733
Company: Sunovia Energy Technologies
Catalog Number: PS-14/90-OW/T5/277/BZ
Luminaire: Cast brown enamel aluminum housing, clear prismatic plastic enclosure
Lamp: 48 white LEDs
Ballast/Driver: One High Perfection Tech LP1090-24-GG-170

Measured Luminaire Electrical Values:

Voltage: 120.0 VAC
Current: 0.7339 A
Watts: 87.23 W
Power Factor: 0.990
Temperature: 25.0 °C



Measured Luminaire Photometric Values:

Radiant Flux: 18860 mW
Luminous Flux: 5994 Lumens
Luminaire Efficacy: 68.7 Lumens per Watt
CCT: 4672 K
CRI (Ra): 73.4
Chromaticity (x): 0.3547
Chromaticity (y): 0.3576
Chromaticity (u'): 0.2155
Chromaticity (v'): 0.4890
Duv: -0.0011

Approved by: *MG*

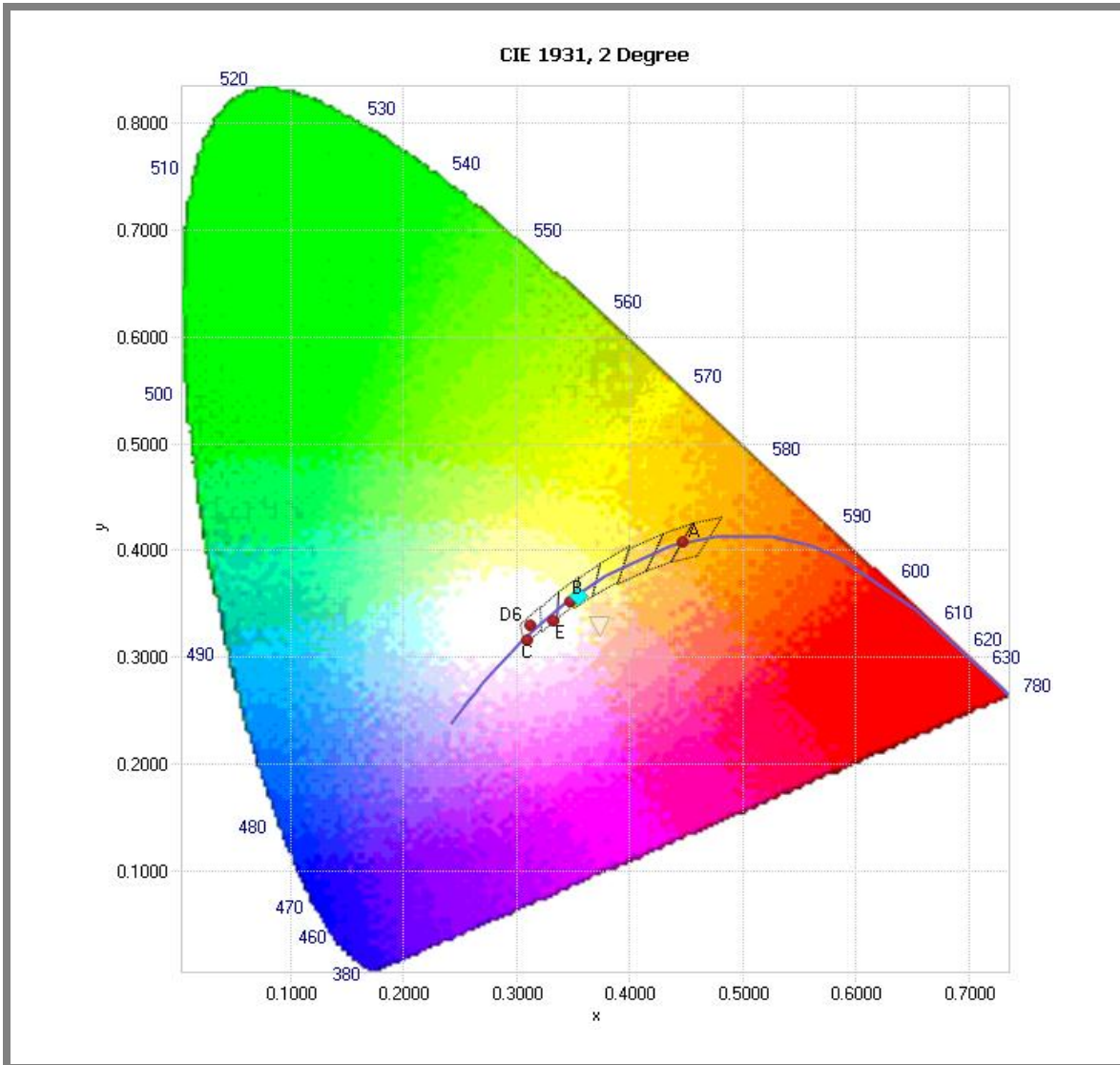
Testing was performed in accordance with IES LM-79-2008



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Chromaticity Coordinates						
x	y	u	v	u'	v'	Duv
0.3547	0.3576	0.2155	0.3260	0.2155	0.4890	-0.0011

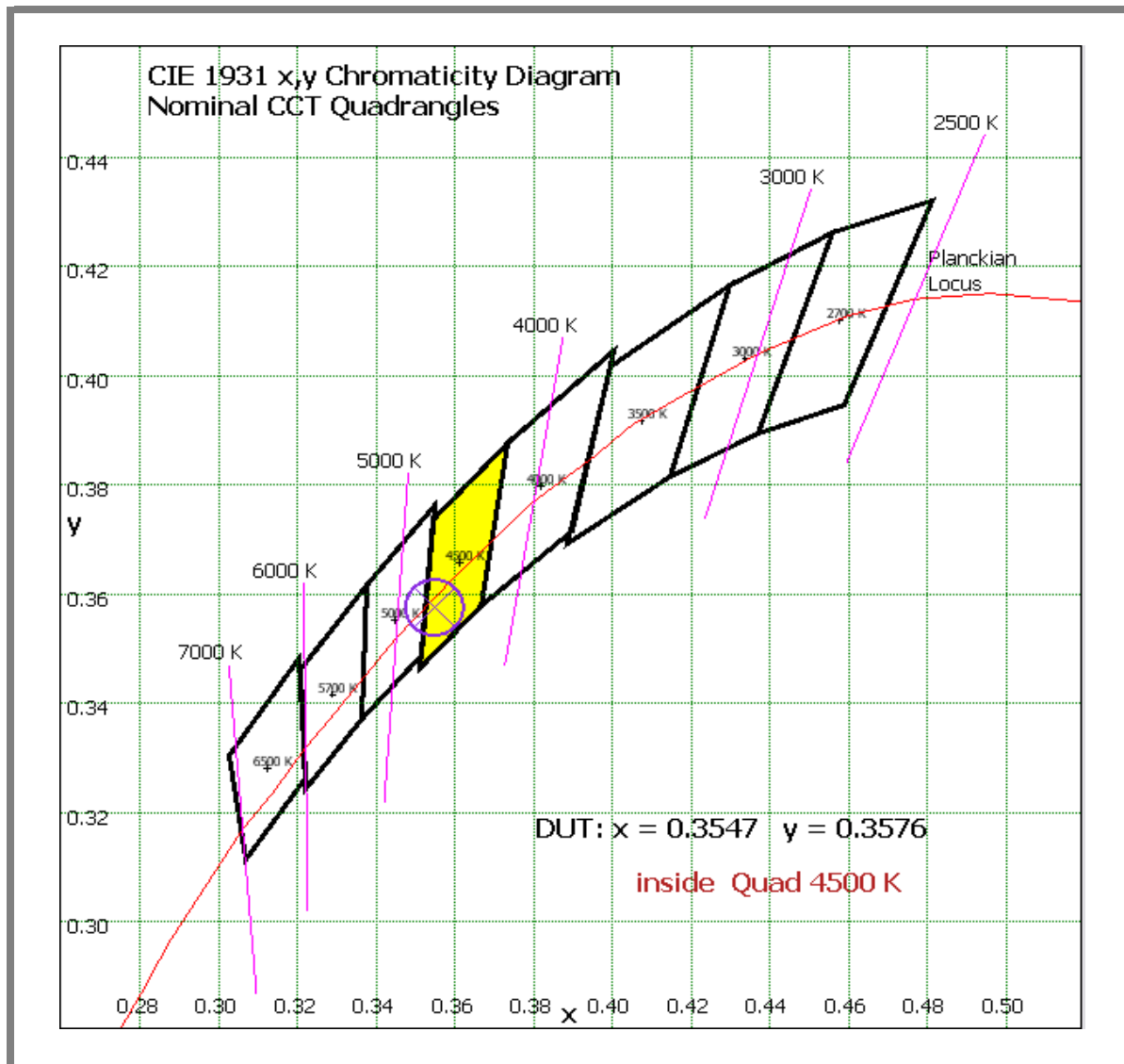




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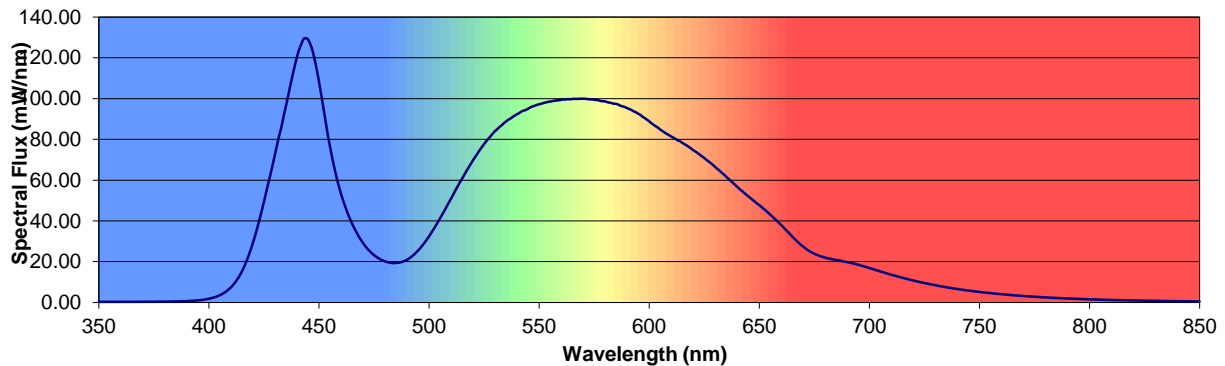
Chromaticity Coordinates						
x	y	u	v	u'	v'	Duv
0.3547	0.3576	0.2155	0.3260	0.2155	0.4890	-0.0011





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Spectral Power Distribution											
λ(nm)	mW	λ(nm)	mW	λ(nm)	mW	λ(nm)	mW	λ(nm)	mW	λ(nm)	mW
350	0.29	400	1.81	450	108.43	500	32.41	550	97.26		
351	0.27	401	2.05	451	102.09	501	34.08	551	97.48		
352	0.28	402	2.35	452	95.59	502	35.84	552	97.88		
353	0.28	403	2.67	453	89.06	503	37.56	553	98.09		
354	0.29	404	3.08	454	82.32	504	39.44	554	98.42		
355	0.28	405	3.54	455	76.56	505	41.24	555	98.53		
356	0.28	406	4.08	456	71.10	506	43.14	556	98.77		
357	0.29	407	4.76	457	66.05	507	45.05	557	98.95		
358	0.28	408	5.50	458	61.40	508	47.00	558	99.10		
359	0.28	409	6.39	459	57.22	509	48.99	559	99.20		
360	0.28	410	7.39	460	53.34	510	50.93	560	99.41		
361	0.29	411	8.54	461	49.97	511	52.94	561	99.57		
362	0.30	412	9.92	462	46.82	512	55.02	562	99.57		
363	0.28	413	11.45	463	43.87	513	56.91	563	99.76		
364	0.29	414	13.15	464	41.26	514	58.93	564	99.64		
365	0.29	415	15.18	465	38.83	515	60.71	565	99.82		
366	0.30	416	17.44	466	36.56	516	62.58	566	99.87		
367	0.30	417	20.01	467	34.49	517	64.47	567	99.84		
368	0.30	418	22.82	468	32.56	518	66.31	568	99.89		
369	0.31	419	25.89	469	30.74	519	68.05	569	99.94		
370	0.31	420	29.21	470	29.17	520	69.78	570	99.95		
371	0.32	421	32.71	471	27.68	521	71.43	571	99.91		
372	0.31	422	36.57	472	26.38	522	73.03	572	99.78		
373	0.31	423	40.76	473	25.20	523	74.70	573	99.61		
374	0.32	424	44.84	474	24.15	524	76.17	574	99.60		
375	0.33	425	49.33	475	23.20	525	77.67	575	99.47		
376	0.34	426	53.87	476	22.41	526	79.09	576	99.32		
377	0.36	427	58.48	477	21.71	527	80.35	577	99.17		
378	0.36	428	62.96	478	21.10	528	81.59	578	98.83		
379	0.37	429	67.64	479	20.57	529	82.91	579	98.70		
380	0.38	430	72.47	480	20.16	530	84.07	580	98.62		
382	0.41	432	82.08	482	19.55	532	86.08	582	98.04		
383	0.43	433	86.26	483	19.38	533	86.91	583	97.78		
384	0.45	434	91.54	484	19.29	534	87.97	584	97.49		
385	0.47	435	96.32	485	19.36	535	88.79	585	97.39		
386	0.49	436	101.33	486	19.45	536	89.63	586	97.04		
387	0.52	437	106.40	487	19.66	537	90.23	587	96.48		
388	0.56	438	111.37	488	19.97	538	91.01	588	96.17		
389	0.60	439	116.00	489	20.41	539	91.74	589	95.83		
390	0.65	440	120.38	490	20.94	540	92.35	590	95.34		
391	0.70	441	124.04	491	21.63	541	92.93	591	94.85		
392	0.77	442	126.74	492	22.40	542	93.70	592	94.39		
393	0.83	443	129.23	493	23.29	543	94.11	593	93.72		
394	0.92	444	129.62	494	24.33	544	94.48	594	93.27		
395	1.02	445	129.12	495	25.45	545	95.03	595	92.59		
396	1.13	446	126.87	496	26.61	546	95.71	596	91.99		
397	1.25	447	123.83	497	27.96	547	96.12	597	91.10		
398	1.41	448	119.43	498	29.34	548	96.50	598	90.44		
399	1.61	449	114.27	499	30.84	549	96.90	599	89.62		





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λ (nm)	mW	λ (nm)	mW	λ (nm)	mW	λ (nm)	mW	λ (nm)	mW	λ (nm)	mW
600	88.86	650	47.69	700	16.89	750	5.15	800	1.53		
601	87.93	651	46.83	701	16.56	751	5.02	801	1.49		
602	87.16	652	45.93	702	16.22	752	4.90	802	1.45		
603	86.40	653	45.01	703	15.89	753	4.78	803	1.42		
604	85.73	654	44.03	704	15.55	754	4.67	804	1.39		
605	84.84	655	43.05	705	15.21	755	4.56	805	1.36		
606	84.07	656	42.05	706	14.87	756	4.45	806	1.32		
607	83.35	657	41.09	707	14.56	757	4.34	807	1.29		
608	82.67	658	40.05	708	14.22	758	4.23	808	1.26		
609	82.09	659	38.97	709	13.90	759	4.12	809	1.24		
610	81.40	660	37.90	710	13.58	760	4.03	810	1.20		
611	80.82	661	36.83	711	13.28	761	3.93	811	1.17		
612	80.20	662	35.66	712	12.97	762	3.84	812	1.15		
613	79.49	663	34.60	713	12.67	763	3.74	813	1.12		
614	79.08	664	33.46	714	12.39	764	3.65	814	1.10		
615	78.31	665	32.32	715	12.07	765	3.55	815	1.07		
616	77.65	666	31.21	716	11.81	766	3.46	816	1.05		
617	77.02	667	30.14	717	11.54	767	3.38	817	1.02		
618	76.30	668	29.14	718	11.26	768	3.30	818	1.01		
619	75.56	669	28.17	719	10.99	769	3.22	819	0.98		
620	74.68	670	27.36	720	10.73	770	3.14	820	0.96		
621	74.06	671	26.49	721	10.48	771	3.07	821	0.94		
622	73.28	672	25.70	722	10.24	772	2.99	822	0.92		
623	72.45	673	25.06	723	9.99	773	2.92	823	0.89		
624	71.63	674	24.43	724	9.75	774	2.85	824	0.87		
625	70.88	675	23.89	725	9.51	775	2.78	825	0.86		
626	69.96	676	23.41	726	9.29	776	2.72	826	0.83		
627	69.16	677	22.98	727	9.06	777	2.65	827	0.82		
628	68.27	678	22.57	728	8.85	778	2.59	828	0.80		
629	67.42	679	22.28	729	8.64	779	2.53	829	0.78		
630	66.40	680	21.97	730	8.43	780	2.46	830	0.77		
632	64.62	682	21.45	732	8.03	782	2.35	832	0.73		
633	63.57	683	21.23	733	7.82	783	2.29	833	0.71		
634	62.69	684	21.01	734	7.62	784	2.24	834	0.70		
635	61.63	685	20.82	735	7.45	785	2.18	835	0.68		
636	60.68	686	20.62	736	7.26	786	2.13	836	0.67		
637	59.70	687	20.45	737	7.08	787	2.07	837	0.65		
638	58.70	688	20.17	738	6.90	788	2.03	838	0.64		
639	57.70	689	19.97	739	6.73	789	1.98	839	0.63		
640	56.68	690	19.77	740	6.57	790	1.94	840	0.61		
641	55.70	691	19.53	741	6.40	791	1.89	841	0.60		
642	54.78	692	19.28	742	6.26	792	1.85	842	0.58		
643	53.83	693	19.02	743	6.10	793	1.80	843	0.58		
644	52.96	694	18.73	744	5.95	794	1.76	844	0.56		
645	52.06	695	18.46	745	5.81	795	1.72	845	0.55		
646	51.17	696	18.17	746	5.67	796	1.68	846	0.54		
647	50.28	697	17.83	747	5.53	797	1.64	847	0.53		
648	49.41	698	17.53	748	5.40	798	1.60	848	0.51		
649	48.55	699	17.22	749	5.26	799	1.57	849	0.51		
								850	0.49		



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Color Rendering Index Detail								
R1	R2	R3	R4	R5	R6	R7	R8	Ra (CRI)
72.2	76.8	78.8	74.8	72.1	67.7	81.4	63.7	73.4

Color Rendering Index Detail (Expanded)								
R9	R10	R11	R12	R13	R14			
-7.9	43.5	71.5	46.3	72.0	87.6			

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 4π 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.