



Integrating Sphere Test Report

Relevant Standards
IES LM-79-2008
ANSI C78.377-2008, ANSI C82.77
CIE 13.3-1995, CIE 15-2004

Prepared For
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Catalog Number
CHS-Q2-T5-A-30

LTL Test Number
25206

Test Date

2011-08-30

Prepared By

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Approved By

Brian Moyer, Engineer

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Cast gray enamel aluminum housing, molded specular plastic reflectors, clear glass drop enclosure
Catalog Number: CHS-Q2-T5-A-30
Lamp: Eight white LEDs
Mounting: Horizontal
Ballast/Driver: One SOL LED power supply



Summary of Results

Radiant Flux: 7344 mW
Luminous Flux: 2561 Lumens
Luminaire Efficacy: 94.7 Lumens/Watt
CCT: 5207 K
CRI (Ra): 68.0
Chromaticity (x): 0.3408
Chromaticity (y): 0.3727
Chromaticity (u): 0.2008
Chromaticity (v): 0.3293
Duv: 0.0114

Test Conditions

Test Temperature: 24.4 °C
Voltage: 13.00 VDC
Current: 2.080 A
Power: 27.04 W

Testing was performed in a Labsphere SLMS7650 two meter integrating sphere using the 4π geometry method, a Labsphere CDS 1100 spectrometer, and LightMtrX software. Absorption correction was employed for this measurement.

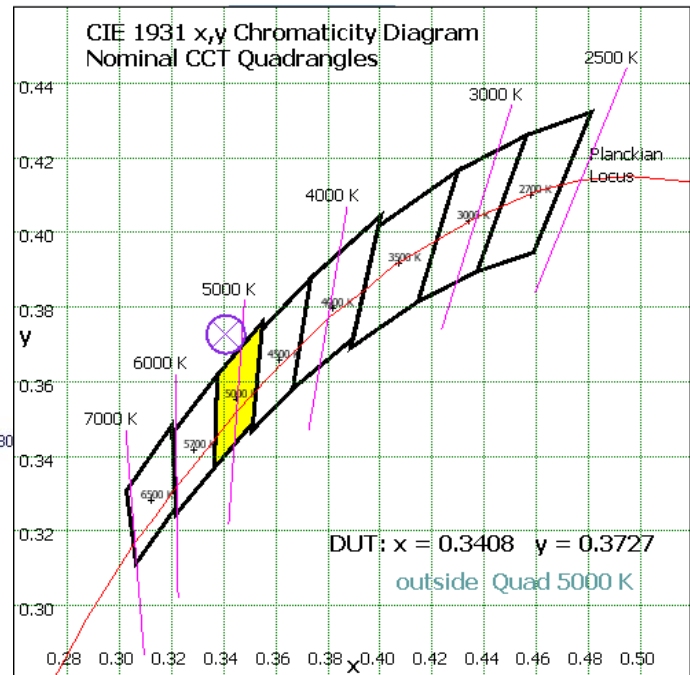
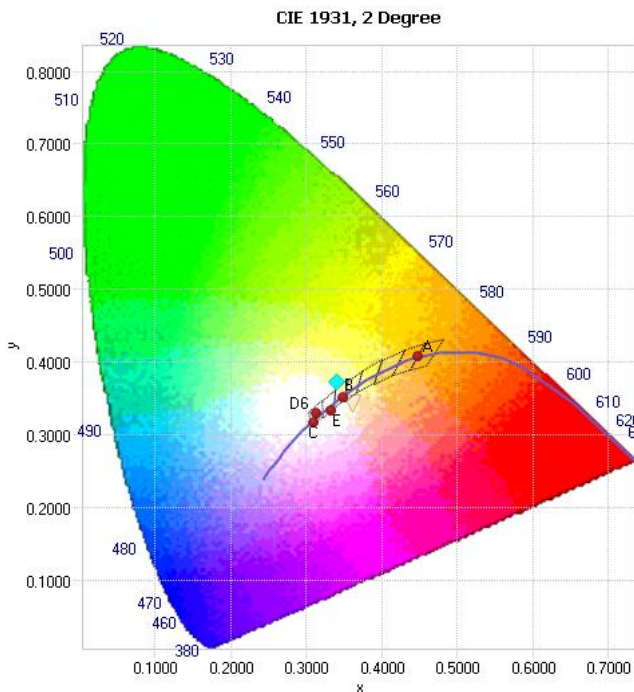


Chromaticity Coordinates

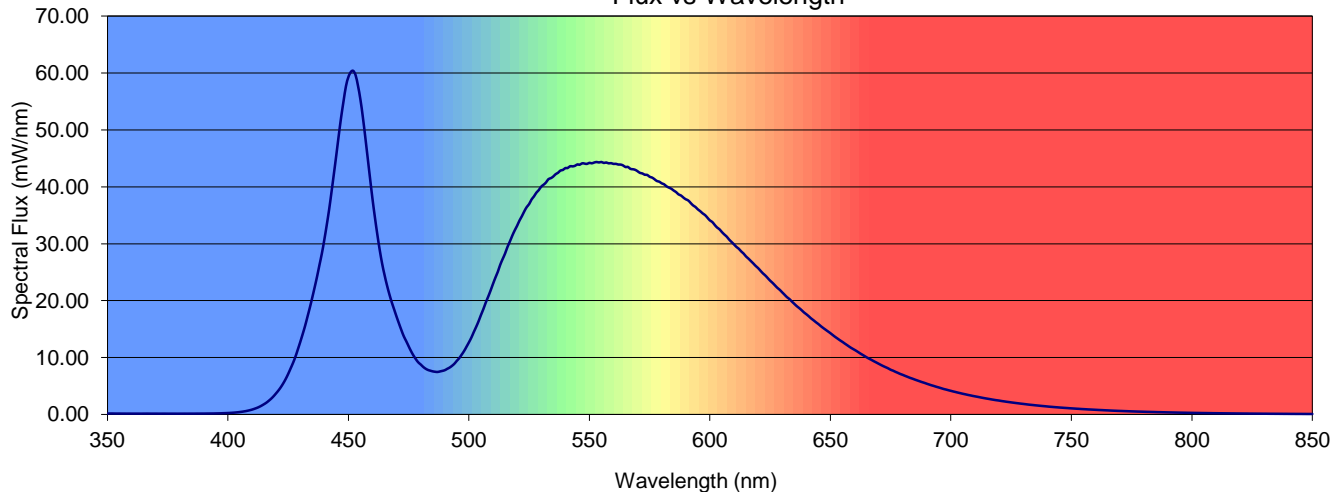
x	y	u	v	u'	v'	Duv
0.3408	0.3727	0.2008	0.3293	0.2008	0.4939	0.0114

Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
68.0	63.0	73.0	80.4	67.3	63.8	62.9	81.5	52.2	-48.6	35.9	61.4	32.3	64.5	88.9



Flux vs Wavelength





Spectral Power Distribution

λ(nm)	mW/nm	λ(nm)	mW/nm	λ(nm)	mW/nm	λ(nm)	mW/nm	λ(nm)	mW/nm	λ(nm)	mW/nm	λ(nm)	mW/nm	λ(nm)	mW/nm
350	0.174	422	4.82	494	8.93	566	43.5	638	18.4	710	3.20	782	0.462		
351	0.175	423	5.50	495	9.43	567	43.2	639	18.0	711	3.11	783	0.449		
352	0.176	424	6.26	496	9.91	568	43.1	640	17.6	712	3.03	784	0.438		
353	0.170	425	7.11	497	10.5	569	43.0	641	17.3	713	2.94	785	0.426		
354	0.166	426	8.07	498	11.1	570	42.7	642	16.9	714	2.87	786	0.414		
355	0.167	427	9.03	499	11.9	571	42.4	643	16.6	715	2.79	787	0.405		
356	0.158	428	10.1	500	12.7	572	42.3	644	16.2	716	2.72	788	0.395		
357	0.161	429	11.4	501	13.5	573	42.1	645	15.9	717	2.64	789	0.384		
358	0.157	430	12.7	502	14.5	574	42.1	646	15.5	718	2.57	790	0.374		
359	0.158	431	14.1	503	15.4	575	41.8	647	15.2	719	2.51	791	0.366		
360	0.154	432	15.5	504	16.4	576	41.6	648	14.9	720	2.45	792	0.357		
361	0.153	433	17.1	505	17.5	577	41.3	649	14.6	721	2.38	793	0.348		
362	0.153	434	18.8	506	18.5	578	41.0	650	14.3	722	2.31	794	0.339		
363	0.156	435	20.5	507	19.7	579	40.9	651	14.0	723	2.25	795	0.329		
364	0.152	436	22.3	508	20.7	580	40.6	652	13.6	724	2.19	796	0.322		
365	0.157	437	24.2	509	21.8	581	40.4	653	13.3	725	2.13	797	0.315		
366	0.157	438	26.3	510	22.9	582	40.1	654	13.0	726	2.08	798	0.306		
367	0.161	439	28.3	511	24.0	583	39.9	655	12.8	727	2.02	799	0.298		
368	0.153	440	30.7	512	25.1	584	39.7	656	12.5	728	1.97	800	0.291		
369	0.156	441	33.2	513	26.3	585	39.3	657	12.2	729	1.91	801	0.283		
370	0.154	442	36.0	514	27.3	586	39.1	658	11.9	730	1.86	802	0.277		
371	0.152	443	39.1	515	28.3	587	38.7	659	11.6	731	1.81	803	0.270		
372	0.151	444	42.3	516	29.4	588	38.5	660	11.4	732	1.76	804	0.263		
373	0.152	445	45.6	517	30.4	589	38.1	661	11.1	733	1.71	805	0.257		
374	0.153	446	49.0	518	31.4	590	37.8	662	10.8	734	1.67	806	0.251		
375	0.148	447	52.2	519	32.3	591	37.6	663	10.6	735	1.62	807	0.244		
376	0.149	448	55.1	520	33.2	592	37.2	664	10.3	736	1.58	808	0.237		
377	0.150	449	57.7	521	34.1	593	36.7	665	10.1	737	1.54	809	0.232		
378	0.149	450	59.3	522	34.8	594	36.5	666	9.83	738	1.50	810	0.227		
379	0.146	451	60.2	523	35.7	595	36.0	667	9.61	739	1.46	811	0.222		
380	0.149	452	60.4	524	36.4	596	35.7	668	9.37	740	1.42	812	0.216		
381	0.151	453	59.6	525	37.0	597	35.3	669	9.15	741	1.37	813	0.211		
382	0.154	454	57.7	526	37.8	598	35.0	670	8.93	742	1.34	814	0.206		
383	0.152	455	55.3	527	38.3	599	34.6	671	8.70	743	1.30	815	0.201		
384	0.153	456	52.2	528	39.0	600	34.1	672	8.49	744	1.27	816	0.195		
385	0.154	457	48.8	529	39.4	601	33.8	673	8.30	745	1.23	817	0.192		
386	0.155	458	45.1	530	40.0	602	33.3	674	8.11	746	1.20	818	0.186		
387	0.161	459	41.4	531	40.4	603	32.9	675	7.87	747	1.17	819	0.182		
388	0.161	460	37.9	532	40.8	604	32.5	676	7.70	748	1.14	820	0.179		
389	0.163	461	34.6	533	41.3	605	32.1	677	7.50	749	1.11	821	0.175		
390	0.163	462	31.7	534	41.5	606	31.6	678	7.32	750	1.08	822	0.170		
391	0.170	463	28.9	535	41.8	607	31.2	679	7.12	751	1.06	823	0.166		
392	0.175	464	26.5	536	42.2	608	30.7	680	6.97	752	1.03	824	0.161		
393	0.178	465	24.5	537	42.5	609	30.3	681	6.79	753	1.00	825	0.160		
394	0.185	466	22.7	538	42.9	610	29.9	682	6.63	754	0.971	826	0.155		
395	0.191	467	21.1	539	43.0	611	29.5	683	6.45	755	0.947	827	0.152		
396	0.203	468	19.7	540	43.3	612	29.1	684	6.31	756	0.922	828	0.149		
397	0.212	469	18.4	541	43.3	613	28.7	685	6.15	757	0.896	829	0.145		
398	0.228	470	17.2	542	43.6	614	28.3	686	5.99	758	0.874	830	0.141		
399	0.244	471	16.0	543	43.6	615	27.8	687	5.85	759	0.854	831	0.139		
400	0.262	472	14.8	544	43.7	616	27.4	688	5.70	760	0.830	832	0.134		
401	0.284	473	13.7	545	43.9	617	27.0	689	5.57	761	0.806	833	0.132		
402	0.313	474	12.9	546	43.9	618	26.6	690	5.41	762	0.787	834	0.129		
403	0.347	475	12.0	547	44.1	619	26.1	691	5.27	763	0.766	835	0.125		
404	0.389	476	11.1	548	44.1	620	25.7	692	5.13	764	0.743	836	0.124		
405	0.441	477	10.4	549	44.0	621	25.3	693	5.01	765	0.724	837	0.121		
406	0.498	478	9.72	550	44.2	622	24.8	694	4.87	766	0.704	838	0.119		
407	0.567	479	9.16	551	44.1	623	24.4	695	4.75	767	0.684	839	0.116		
408	0.649	480	8.79	552	44.3	624	24.0	696	4.62	768	0.666	840	0.114		
409	0.749	481	8.38	553	44.4	625	23.5	697	4.49	769	0.648	841	0.109		
410	0.863	482	8.06	554	44.3	626	23.1	698	4.38	770	0.630	842	0.109		
411	1.00	483	7.83	555	44.4	627	22.7	699	4.27	771	0.616	843	0.105		
412	1.16	484	7.70	556	44.2	628	22.3	700	4.16	772	0.600	844	0.102		
413	1.34	485	7.58	557	44.3	629	21.9	701	4.05	773	0.585	845	0.102		
414	1.56	486	7.51	558	44.1	630	21.5	702	3.95	774	0.568	846	0.0997		
415	1.82	487	7.48	559	44.2	631	21.0	703	3.84	775	0.555	847	0.0967		
416	2.09	488	7.57	560	44.0	632	20.6	704	3.74	776	0.539	848	0.0950		
417	2.43	489	7.67	561	44.0	633	20.3	705	3.64	777	0.526	849	0.0937		
418	2.80	490	7.78	562	43.9	634	19.9	706	3.55	778	0.511	850	0.0918		
419	3.23	491	8.02	563	43.9	635	19.5	707	3.45	779	0.500				
420	3.72	492	8.25	564	43.7	636	19.1	708	3.37	780	0.487				
421	4.24	493	8.56	565	43.5	637	18.7	709	3.28	781	0.472				