



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
Los Angeles 2.0

Project Number
6012-001258
Test Number
30141

Test Date

2012-05-16

Prepared By

Handwritten signature of Kyle Spaziani in black ink.

Kyle Spaziani, Project Coordinator

Approved By

Handwritten signature of Eric M. Gaudreau in black ink.

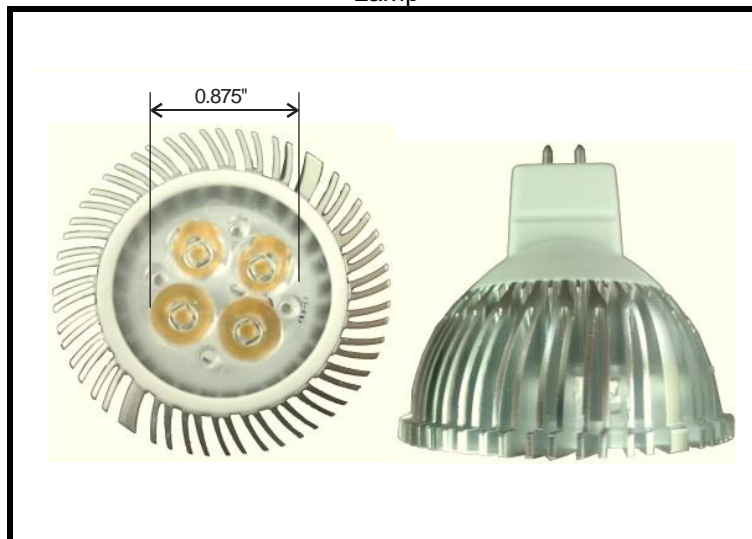
Eric Gaudreau, Project Coordinator

The results contained in this report pertain only to the tested sample.
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Lamp Description: Machined aluminum heatsink housing, frosted plastic enclosure with clear section below LEDs
Catalog Number: Los Angeles 2.0
Lamp: One 5 watt MR16 LED replacement lamp with four white LEDs
Mounting: VBU

Lamp



Summary of Results

Radiant Flux: 1067 mW
Luminous Flux: 348.0 Lumens
Lamp Efficacy: 74.3 Lumens/Watt
CCT: 2883 K
CRI (Ra): 80.5
Chromaticity (x): 0.4463
Chromaticity (y): 0.4086
Chromaticity (u): 0.2546
Chromaticity (v): 0.3497
Duv: 0.0001

Test Conditions

Test Temperature: 24.6 °C
Voltage: 12.00 VDC
Current: 0.3904 A
Power: 4.686 W

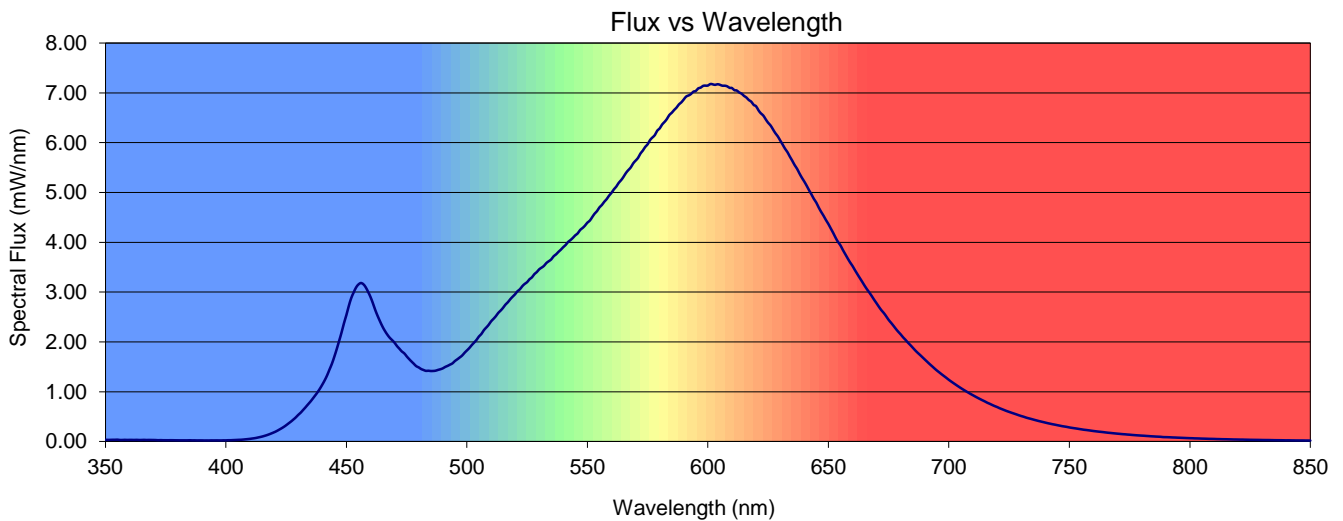
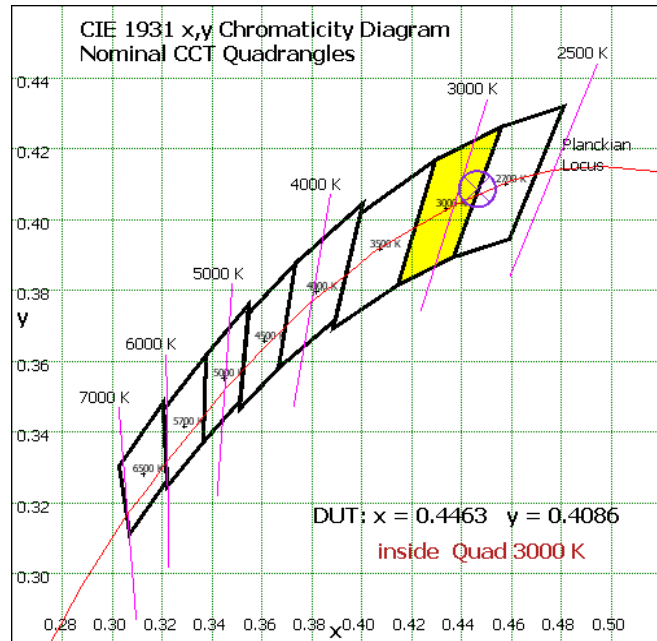
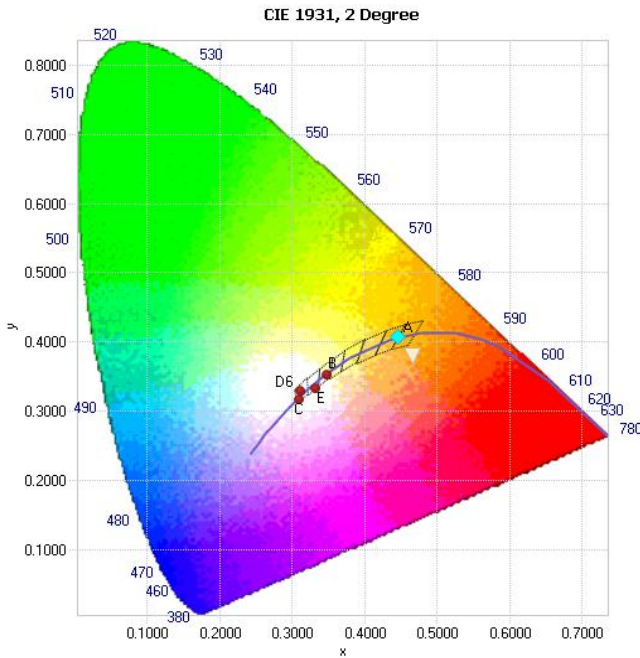


Chromaticity Coordinates

x	y	u	v	u'	v'	Duv
0.4463	0.4086	0.2546	0.3497	0.2546	0.5245	0.0001

Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
80.5	78.5	89.9	96.4	76.4	77.9	86.8	81.9	56.6	3.2	76.0	73.3	66.8	81.0	98.6





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
350	0.0350	422	0.235	494	1.57	566	5.39	638	5.38	710	0.929	782	0.112
351	0.0325	423	0.263	495	1.61	567	5.45	639	5.30	711	0.902	783	0.108
352	0.0332	424	0.293	496	1.65	568	5.50	640	5.22	712	0.876	784	0.105
353	0.0347	425	0.326	497	1.69	569	5.58	641	5.13	713	0.851	785	0.102
354	0.0350	426	0.364	498	1.72	570	5.64	642	5.04	714	0.827	786	0.0993
355	0.0369	427	0.400	499	1.78	571	5.69	643	4.96	715	0.803	787	0.0970
356	0.0312	428	0.441	500	1.83	572	5.78	644	4.87	716	0.778	788	0.0940
357	0.0308	429	0.484	501	1.88	573	5.84	645	4.80	717	0.756	789	0.0887
358	0.0335	430	0.534	502	1.93	574	5.91	646	4.70	718	0.733	790	0.0880
359	0.0314	431	0.578	503	1.99	575	5.97	647	4.61	719	0.711	791	0.0862
360	0.0326	432	0.631	504	2.04	576	6.05	648	4.53	720	0.693	792	0.0840
361	0.0325	433	0.684	505	2.11	577	6.10	649	4.45	721	0.670	793	0.0813
362	0.0313	434	0.742	506	2.16	578	6.15	650	4.37	722	0.651	794	0.0797
363	0.0332	435	0.797	507	2.23	579	6.24	651	4.28	723	0.631	795	0.0770
364	0.0303	436	0.858	508	2.29	580	6.29	652	4.19	724	0.612	796	0.0753
365	0.0308	437	0.922	509	2.34	581	6.36	653	4.09	725	0.595	797	0.0731
366	0.0330	438	0.987	510	2.41	582	6.42	654	4.01	726	0.578	798	0.0710
367	0.0306	439	1.06	511	2.46	583	6.48	655	3.94	727	0.562	799	0.0691
368	0.0314	440	1.14	512	2.52	584	6.55	656	3.85	728	0.545	800	0.0670
369	0.0309	441	1.23	513	2.58	585	6.60	657	3.76	729	0.528	801	0.0657
370	0.0303	442	1.33	514	2.63	586	6.66	658	3.68	730	0.512	802	0.0633
371	0.0286	443	1.45	515	2.68	587	6.70	659	3.60	731	0.498	803	0.0622
372	0.0262	444	1.56	516	2.75	588	6.77	660	3.53	732	0.481	804	0.0605
373	0.0278	445	1.70	517	2.80	589	6.81	661	3.44	733	0.467	805	0.0584
374	0.0256	446	1.86	518	2.86	590	6.87	662	3.36	734	0.455	806	0.0572
375	0.0260	447	2.02	519	2.91	591	6.93	663	3.29	735	0.441	807	0.0555
376	0.0253	448	2.19	520	2.96	592	6.95	664	3.21	736	0.428	808	0.0538
377	0.0264	449	2.37	521	3.02	593	6.98	665	3.13	737	0.415	809	0.0529
378	0.0256	450	2.54	522	3.06	594	7.02	666	3.06	738	0.403	810	0.0517
379	0.0247	451	2.72	523	3.12	595	7.04	667	2.99	739	0.392	811	0.0495
380	0.0241	452	2.88	524	3.16	596	7.09	668	2.92	740	0.380	812	0.0485
381	0.0236	453	2.99	525	3.20	597	7.10	669	2.84	741	0.368	813	0.0471
382	0.0237	454	3.09	526	3.26	598	7.14	670	2.78	742	0.358	814	0.0459
383	0.0237	455	3.15	527	3.30	599	7.15	671	2.70	743	0.347	815	0.0453
384	0.0233	456	3.18	528	3.36	600	7.15	672	2.64	744	0.338	816	0.0439
385	0.0249	457	3.16	529	3.40	601	7.18	673	2.58	745	0.328	817	0.0427
386	0.0232	458	3.10	530	3.46	602	7.17	674	2.51	746	0.319	818	0.0412
387	0.0234	459	3.01	531	3.49	603	7.16	675	2.44	747	0.309	819	0.0404
388	0.0221	460	2.90	532	3.53	604	7.17	676	2.38	748	0.301	820	0.0396
389	0.0225	461	2.78	533	3.58	605	7.16	677	2.32	749	0.293	821	0.0386
390	0.0224	462	2.64	534	3.62	606	7.14	678	2.26	750	0.283	822	0.0383
391	0.0211	463	2.52	535	3.66	607	7.14	679	2.20	751	0.275	823	0.0368
392	0.0216	464	2.41	536	3.72	608	7.13	680	2.15	752	0.267	824	0.0361
393	0.0211	465	2.31	537	3.76	609	7.10	681	2.09	753	0.260	825	0.0345
394	0.0224	466	2.22	538	3.81	610	7.10	682	2.04	754	0.252	826	0.0339
395	0.0221	467	2.15	539	3.85	611	7.05	683	1.99	755	0.245	827	0.0329
396	0.0224	468	2.08	540	3.90	612	7.05	684	1.94	756	0.237	828	0.0325
397	0.0222	469	2.03	541	3.95	613	7.01	685	1.88	757	0.231	829	0.0316
398	0.0215	470	1.98	542	4.01	614	6.98	686	1.83	758	0.225	830	0.0307
399	0.0234	471	1.92	543	4.04	615	6.94	687	1.78	759	0.218	831	0.0298
400	0.0231	472	1.86	544	4.09	616	6.91	688	1.74	760	0.211	832	0.0296
401	0.0258	473	1.81	545	4.14	617	6.85	689	1.69	761	0.205	833	0.0290
402	0.0258	474	1.77	546	4.18	618	6.82	690	1.65	762	0.199	834	0.0280
403	0.0285	475	1.71	547	4.25	619	6.76	691	1.60	763	0.194	835	0.0269
404	0.0303	476	1.66	548	4.29	620	6.73	692	1.56	764	0.189	836	0.0262
405	0.0334	477	1.61	549	4.33	621	6.65	693	1.51	765	0.182	837	0.0256
406	0.0350	478	1.56	550	4.39	622	6.59	694	1.47	766	0.177	838	0.0256
407	0.0385	479	1.51	551	4.43	623	6.54	695	1.43	767	0.172	839	0.0244
408	0.0431	480	1.49	552	4.50	624	6.47	696	1.39	768	0.167	840	0.0236
409	0.0484	481	1.46	553	4.57	625	6.40	697	1.35	769	0.162	841	0.0240
410	0.0536	482	1.44	554	4.63	626	6.35	698	1.31	770	0.157	842	0.0230
411	0.0607	483	1.42	555	4.70	627	6.27	699	1.28	771	0.153	843	0.0223
412	0.0672	484	1.42	556	4.75	628	6.19	700	1.24	772	0.148	844	0.0217
413	0.0770	485	1.42	557	4.81	629	6.13	701	1.20	773	0.145	845	0.0214
414	0.0880	486	1.42	558	4.87	630	6.05	702	1.17	774	0.140	846	0.0210
415	0.0990	487	1.42	559	4.94	631	5.96	703	1.14	775	0.137	847	0.0211
416	0.113	488	1.44	560	4.99	632	5.88	704	1.10	776	0.132	848	0.0200
417	0.128	489	1.45	561	5.06	633	5.81	705	1.07	777	0.128	849	0.0198
418	0.145	490	1.47	562	5.12	634	5.72	706	1.04	778	0.125	850	0.0191
419	0.165	491	1.50	563	5.19	635	5.64	707	1.01	779	0.122		
420	0.185	492	1.52	564	5.25	636	5.55	708	0.984	780	0.118		
421	0.208	493	1.54	565	5.31	637	5.48	709	0.955	781	0.115		