



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
Sea Gull Lighting Products, LLC
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Catalog Number
98860S (AC)

Project Number
6012-000718
Test Number
29278

Test Date

2012-03-26

Prepared By

A handwritten signature in black ink, appearing to read 'Jeff A. Smith Jr.'.

Jeff Smith Jr., Technician

Approved By

A handwritten signature in black ink, appearing to read 'Zachary Mooney'.

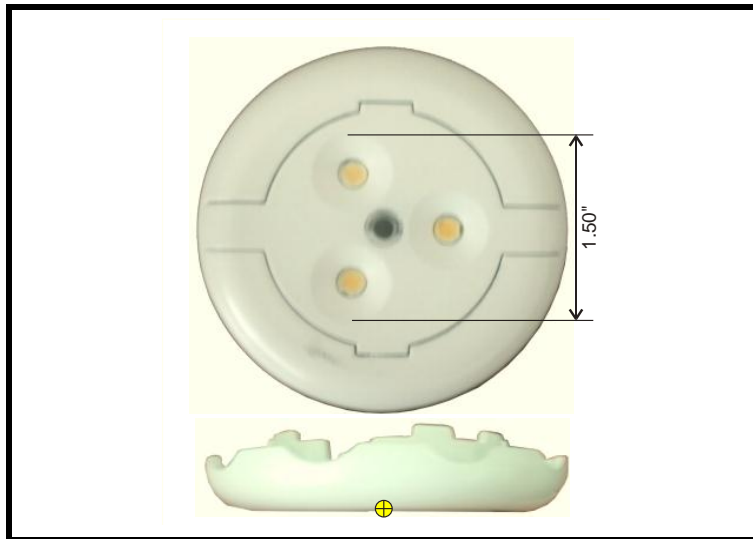
Zachary Mooney, Project Coordinator

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Cast white enamel aluminum housing, no enclosure
Catalog Number: 98860S (AC)
Lamp: Three white LEDs with clear plastic optics below each
Mounting: Surface

Luminaire



Summary of Results

Radiant Flux: 550.2 mW
Luminous Flux: 171.1 Lumens
Luminaire Efficacy: 43.0 Lumens/Watt
CCT: 2927 K
CRI (Ra): 82.4
Chromaticity (x): 0.4401
Chromaticity (y): 0.4019
Chromaticity (u): 0.2536
Chromaticity (v): 0.3473
Duv: -0.0016

Test Conditions

Test Temperature: 24.4 °C
Voltage: 12.00 VAC
Current: 0.3549 A
Power: 3.978 W
Power Factor: 0.934
Frequency: 60 Hz
Current THD: 34.6 %

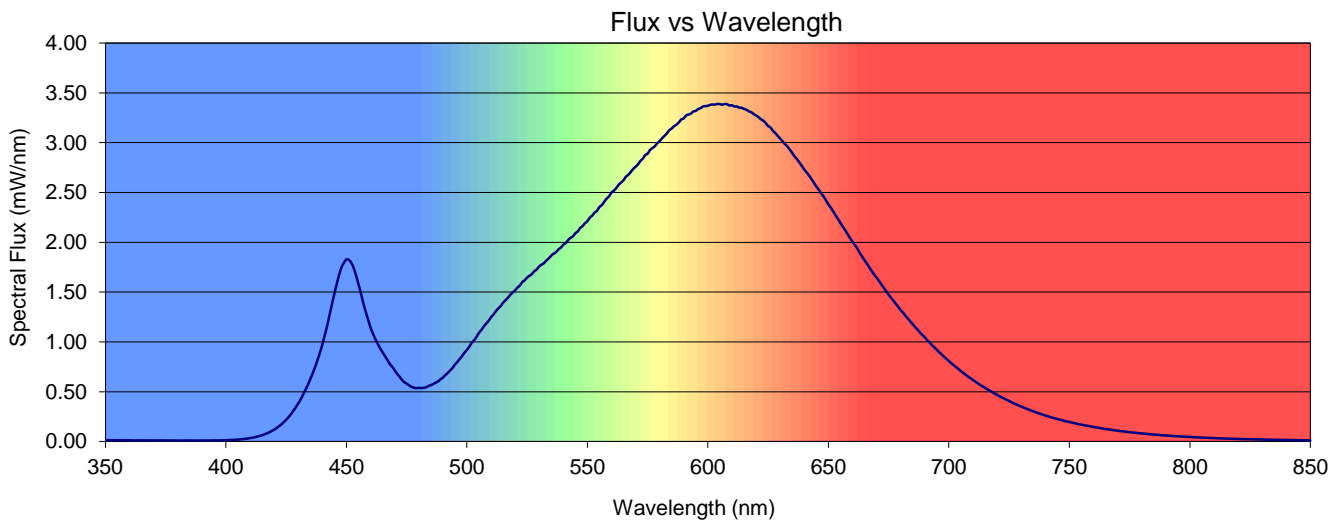
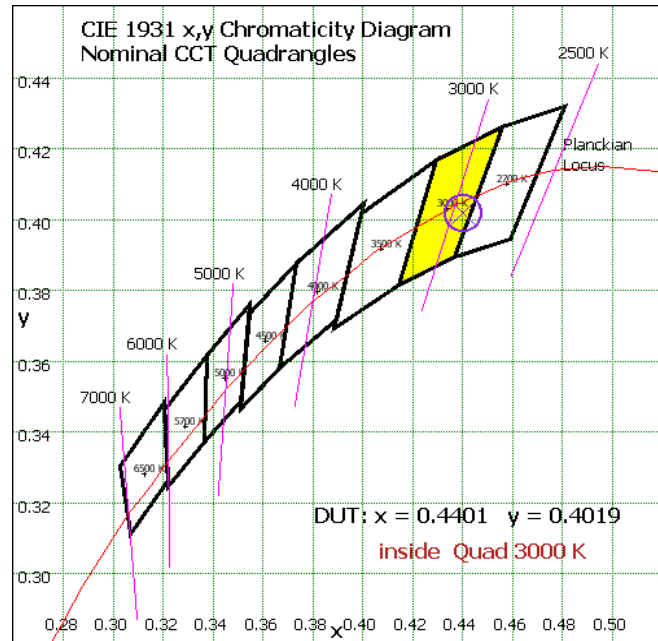
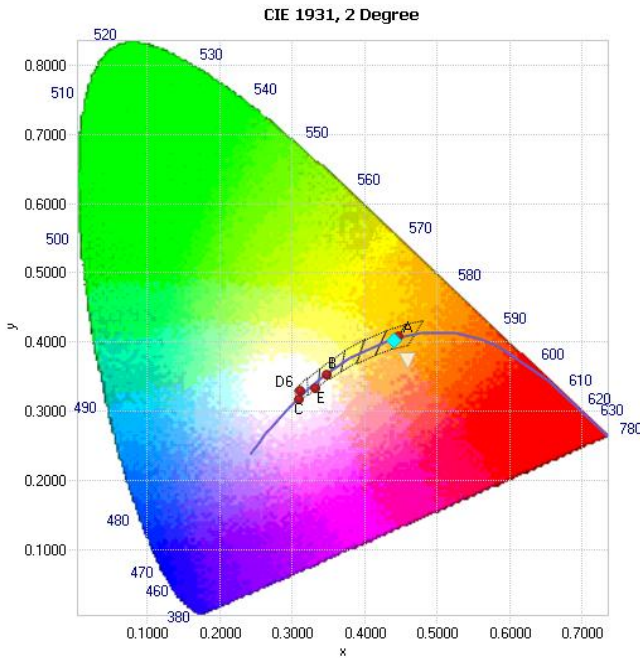


Chromaticity Coordinates

x	y	u	v	u'	v'	Duv
0.4401	0.4019	0.2536	0.3473	0.2536	0.5210	-0.0016

Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
82.4	80.7	89.2	95.4	80.0	79.9	85.2	84.9	63.8	17.9	74.3	77.4	67.0	82.4	97.2





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	0.0133	422	0.153	494	0.737	566	2.66	638	2.80	710	0.618	782	0.0765
351	0.0133	423	0.172	495	0.771	567	2.68	639	2.77	711	0.601	783	0.0742
352	0.0132	424	0.194	496	0.798	568	2.71	640	2.73	712	0.585	784	0.0720
353	0.0125	425	0.219	497	0.828	569	2.74	641	2.70	713	0.568	785	0.0700
354	0.0132	426	0.245	498	0.857	570	2.76	642	2.67	714	0.553	786	0.0679
355	0.0123	427	0.274	499	0.891	571	2.78	643	2.63	715	0.539	787	0.0657
356	0.0130	428	0.308	500	0.919	572	2.82	644	2.60	716	0.524	788	0.0643
357	0.0128	429	0.344	501	0.952	573	2.84	645	2.56	717	0.510	789	0.0626
358	0.0119	430	0.382	502	0.991	574	2.88	646	2.53	718	0.497	790	0.0607
359	0.0126	431	0.422	503	1.02	575	2.89	647	2.49	719	0.482	791	0.0587
360	0.0120	432	0.470	504	1.05	576	2.93	648	2.46	720	0.468	792	0.0573
361	0.0116	433	0.517	505	1.09	577	2.95	649	2.42	721	0.455	793	0.0553
362	0.0106	434	0.569	506	1.12	578	2.96	650	2.38	722	0.443	794	0.0541
363	0.0114	435	0.626	507	1.15	579	2.99	651	2.35	723	0.430	795	0.0523
364	0.0119	436	0.683	508	1.18	580	3.01	652	2.31	724	0.418	796	0.0507
365	0.0117	437	0.747	509	1.21	581	3.04	653	2.27	725	0.407	797	0.0493
366	0.0112	438	0.817	510	1.25	582	3.07	654	2.23	726	0.395	798	0.0478
367	0.0112	439	0.891	511	1.27	583	3.09	655	2.19	727	0.382	799	0.0466
368	0.0111	440	0.972	512	1.31	584	3.13	656	2.15	728	0.372	800	0.0453
369	0.0107	441	1.06	513	1.33	585	3.14	657	2.12	729	0.360	801	0.0440
370	0.0102	442	1.16	514	1.36	586	3.17	658	2.08	730	0.350	802	0.0429
371	0.0107	443	1.27	515	1.39	587	3.18	659	2.04	731	0.341	803	0.0414
372	0.0107	444	1.38	516	1.42	588	3.20	660	2.01	732	0.331	804	0.0404
373	0.0107	445	1.48	517	1.44	589	3.23	661	1.97	733	0.322	805	0.0395
374	0.0109	446	1.58	518	1.47	590	3.24	662	1.94	734	0.312	806	0.0384
375	0.00989	447	1.67	519	1.50	591	3.27	663	1.89	735	0.304	807	0.0371
376	0.0105	448	1.75	520	1.52	592	3.28	664	1.86	736	0.295	808	0.0363
377	0.0103	449	1.79	521	1.55	593	3.29	665	1.82	737	0.286	809	0.0353
378	0.0103	450	1.83	522	1.57	594	3.31	666	1.79	738	0.278	810	0.0344
379	0.0100	451	1.82	523	1.60	595	3.32	667	1.75	739	0.270	811	0.0332
380	0.00993	452	1.80	524	1.62	596	3.34	668	1.71	740	0.262	812	0.0324
381	0.00955	453	1.74	525	1.65	597	3.35	669	1.68	741	0.254	813	0.0313
382	0.00986	454	1.67	526	1.66	598	3.36	670	1.65	742	0.246	814	0.0304
383	0.00993	455	1.58	527	1.68	599	3.37	671	1.61	743	0.239	815	0.0298
384	0.0103	456	1.49	528	1.71	600	3.37	672	1.58	744	0.233	816	0.0288
385	0.0102	457	1.39	529	1.73	601	3.38	673	1.54	745	0.226	817	0.0279
386	0.0103	458	1.30	530	1.76	602	3.38	674	1.51	746	0.219	818	0.0274
387	0.00988	459	1.22	531	1.78	603	3.38	675	1.47	747	0.214	819	0.0268
388	0.00997	460	1.14	532	1.79	604	3.39	676	1.44	748	0.207	820	0.0260
389	0.00953	461	1.08	533	1.82	605	3.39	677	1.41	749	0.201	821	0.0254
390	0.0101	462	1.03	534	1.84	606	3.38	678	1.38	750	0.196	822	0.0246
391	0.00995	463	0.981	535	1.87	607	3.39	679	1.35	751	0.190	823	0.0238
392	0.0104	464	0.936	536	1.89	608	3.39	680	1.32	752	0.185	824	0.0234
393	0.0100	465	0.897	537	1.90	609	3.37	681	1.29	753	0.180	825	0.0228
394	0.0106	466	0.858	538	1.93	610	3.38	682	1.26	754	0.174	826	0.0221
395	0.0106	467	0.819	539	1.95	611	3.36	683	1.23	755	0.169	827	0.0215
396	0.0114	468	0.779	540	1.97	612	3.36	684	1.20	756	0.165	828	0.0210
397	0.0115	469	0.751	541	1.99	613	3.35	685	1.18	757	0.160	829	0.0204
398	0.0117	470	0.716	542	2.02	614	3.35	686	1.15	758	0.155	830	0.0197
399	0.0123	471	0.681	543	2.04	615	3.34	687	1.12	759	0.150	831	0.0194
400	0.0128	472	0.652	544	2.06	616	3.33	688	1.09	760	0.146	832	0.0187
401	0.0140	473	0.621	545	2.09	617	3.31	689	1.07	761	0.142	833	0.0183
402	0.0149	474	0.596	546	2.11	618	3.31	690	1.05	762	0.137	834	0.0179
403	0.0163	475	0.581	547	2.14	619	3.29	691	1.02	763	0.134	835	0.0176
404	0.0178	476	0.564	548	2.16	620	3.27	692	0.994	764	0.130	836	0.0169
405	0.0194	477	0.550	549	2.19	621	3.26	693	0.967	765	0.126	837	0.0167
406	0.0215	478	0.541	550	2.21	622	3.23	694	0.946	766	0.122	838	0.0163
407	0.0239	479	0.535	551	2.25	623	3.22	695	0.920	767	0.119	839	0.0158
408	0.0267	480	0.538	552	2.27	624	3.20	696	0.897	768	0.115	840	0.0154
409	0.0300	481	0.537	553	2.30	625	3.17	697	0.874	769	0.112	841	0.0152
410	0.0340	482	0.539	554	2.32	626	3.15	698	0.852	770	0.109	842	0.0144
411	0.0387	483	0.544	555	2.35	627	3.12	699	0.829	771	0.106	843	0.0141
412	0.0434	484	0.556	556	2.37	628	3.10	700	0.808	772	0.102	844	0.0138
413	0.0493	485	0.566	557	2.41	629	3.07	701	0.787	773	0.0998	845	0.0136
414	0.0553	486	0.576	558	2.44	630	3.04	702	0.767	774	0.0965	846	0.0131
415	0.0631	487	0.591	559	2.46	631	3.01	703	0.747	775	0.0938	847	0.0129
416	0.0722	488	0.603	560	2.50	632	2.99	704	0.727	776	0.0912	848	0.0122
417	0.0815	489	0.623	561	2.52	633	2.96	705	0.707	777	0.0883	849	0.0122
418	0.0927	490	0.641	562	2.54	634	2.93	706	0.688	778	0.0862	850	0.0119
419	0.105	491	0.666	563	2.58	635	2.90	707	0.669	779	0.0836		
420	0.119	492	0.687	564	2.60	636	2.86	708	0.651	780	0.0812		
421	0.135	493	0.712	565	2.62	637	2.83	709	0.635	781	0.0787		