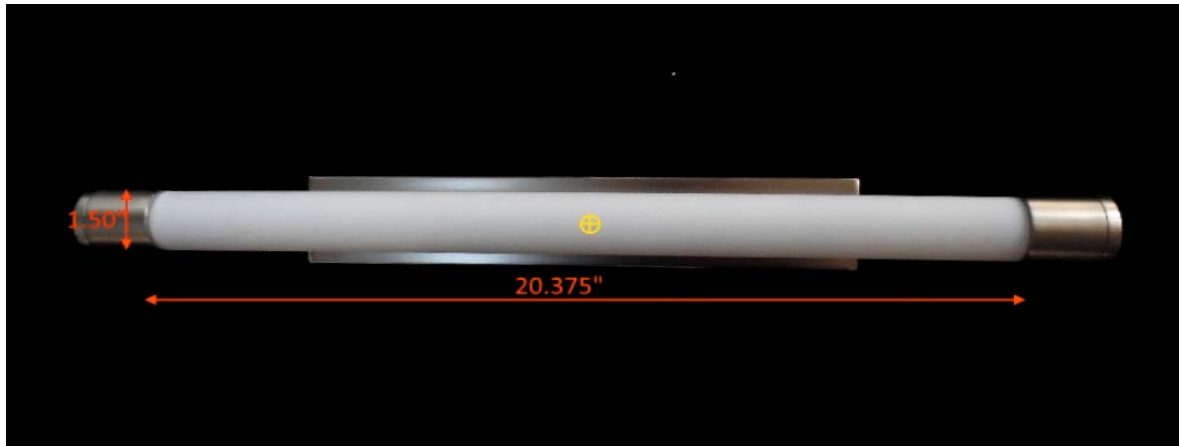




Report of Test

LLIA000802-051A

Catalog Number: 3-557-24 Zenith Vanity
Wall mounted, formed steel housing, formed steel enameled reflector,
formed translucent white plastic enclosure
72 white LEDs, one Harvard Engineering LER7-568x17-930-72S-I LED board
One LTF DA12W350C1834D010-0014 dimming LED driver.
120.0Vac, 60.00Hz, 0.1242A, 14.51W, 0.974PF, 9.3%THD(i)



Performance Summary

Total Light Output	969 lm
Luminaire Power	14.5 W
Luminous Efficacy	66.8 lm/W

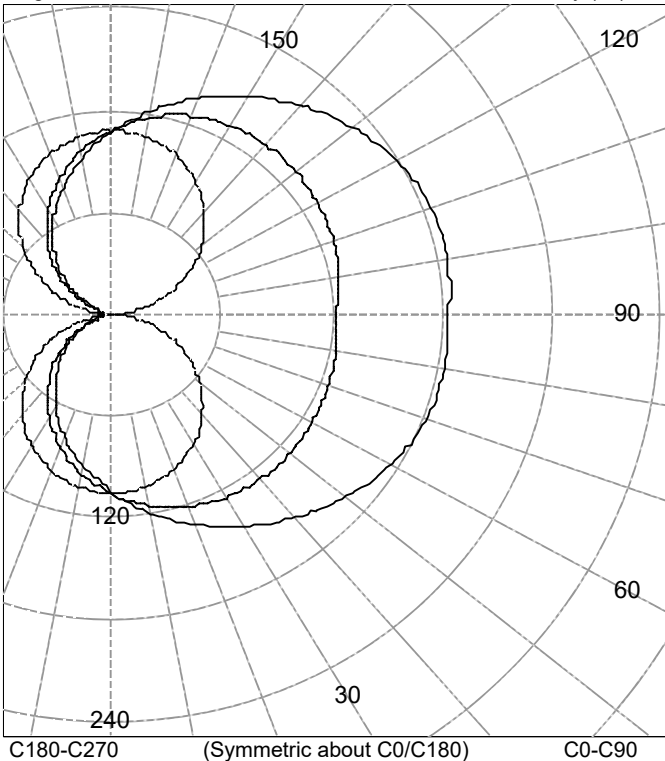
PREPARED FOR : Oxygen Lighting, 201 Railhead Road, Fort Worth, TX 76106, USA



Test Report No. LLIA000802-051A

Catalog Number: 3-557-24 Zenith Vanity
Wall mounted, formed steel housing, formed steel enameled reflector,
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120.0Vac, 60.00Hz, 0.1242A, 14.51W, 0.974PF, 9.3%THD(i)

Legend: C0/C180-Solid, C45/C225-Dashed, C90/C270-Grey (cd)



AVERAGE LUMINANCE (cd/m ²)			
Gamma	C0	C45	C90
45.0	5824	5182	4665
55.0	6280	5387	4348
65.0	6863	5761	3929
75.0	7621	6385	3284
85.0	8619	7375	1800

INTENSITY SUMMARY (cd)

Gamma	C-Plane					Flux (lm)
	C0	C22.5	C45	C67.5	C90	
0.0	105	105	105	105	105	
5.0	112	111	111	106	105	10
10.0	119	117	115	107	104	
15.0	125	123	118	108	101	29
20.0	132	128	121	107	98	
25.0	138	134	123	106	94	46
30.0	144	139	125	104	89	
35.0	151	143	126	102	83	58
40.0	157	148	127	98	77	
45.0	162	152	127	94	70	66
50.0	167	156	127	90	62	
55.0	172	160	127	85	54	70
60.0	176	163	126	80	46	
65.0	180	165	126	75	38	69
70.0	182	167	125	71	30	
75.0	184	168	125	66	21	66
80.0	184	168	124	63	13	
85.0	184	167	122	60	6	64
90.0	184	167	122	60	0	

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	% Lamp	% Luminaire
0-30	85	N / A	8.7
0-40	143	N / A	14.7
0-60	279	N / A	28.8
0-90	479	N / A	49.4
40-90	336	N / A	34.7
60-90	200	N / A	20.6
90-180	490	N / A	50.6
0-180	969	N / A	100.0

Total Light Output = 969 lm

Signed:

Authorized Signatory

Date of test 30-Sep-2017
Date of report 30-Sep-2017



Test Report No. LLIA000802-051A

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120.0Vac, 60.00Hz, 0.1242A, 14.51W, 0.974PF, 9.3%THD(i)

Intensity data (cd)

Gamma	C-Plane				
	C0	C22.5	C45	C67.5	C90
0.0	105	105	105	105	105
2.5	109	108	109	105	105
5.0	112	111	111	106	105
7.5	116	114	113	107	104
10.0	119	117	115	107	104
12.5	122	120	116	107	102
15.0	125	123	118	108	101
17.5	129	126	119	107	100
20.0	132	128	121	107	98
22.5	135	131	122	107	96
25.0	138	134	123	106	94
27.5	141	136	124	105	91
30.0	144	139	125	104	89
32.5	148	141	125	103	86
35.0	151	143	126	102	83
37.5	154	146	126	100	80
40.0	157	148	127	98	77
42.5	159	150	127	96	73
45.0	162	152	127	94	70
47.5	165	154	127	92	66
50.0	167	156	127	90	62
52.5	170	158	127	88	58
55.0	172	160	127	85	54
57.5	174	161	127	83	50
60.0	176	163	126	80	46
62.5	178	164	126	78	42
65.0	180	165	126	75	38
67.5	181	166	126	73	34
70.0	182	167	125	71	30
72.5	183	167	125	69	25
75.0	184	168	125	66	21
77.5	184	168	124	65	17
80.0	184	168	124	63	13
82.5	184	168	123	62	9
85.0	184	167	122	60	6
87.5	184	167	122	60	2
90.0	184	167	122	60	0



Test Report No. LLIA000802-051A

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120.0Vac, 60.00Hz, 0.1242A, 14.51W, 0.974PF, 9.3%THD(i)

Intensity data (cd)

Gamma	C-Plane				
	C0	C22.5	C45	C67.5	C90
90.0	184	167	122	60	0
92.5	184	168	123	60	3
95.0	185	169	124	62	6
97.5	186	169	125	63	10
100.0	186	170	126	65	14
102.5	186	170	127	67	18
105.0	186	170	127	69	23
107.5	186	170	128	71	27
110.0	185	170	128	73	31
112.5	184	169	129	76	35
115.0	183	169	129	78	39
117.5	182	168	130	81	44
120.0	180	166	130	83	48
122.5	178	165	130	86	52
125.0	176	164	130	88	56
127.5	174	162	131	91	60
130.0	171	160	131	93	64
132.5	169	158	131	95	68
135.0	166	156	131	97	72
137.5	164	154	131	99	75
140.0	161	152	131	101	79
142.5	158	150	130	103	82
145.0	155	148	130	104	85
147.5	152	145	129	106	88
150.0	149	143	129	107	91
152.5	145	140	128	108	94
155.0	142	138	127	109	96
157.5	139	135	126	110	98
160.0	136	132	125	110	100
162.5	132	130	123	110	102
165.0	129	127	121	110	104
167.5	125	124	120	110	105
170.0	122	120	118	110	106
172.5	118	117	116	109	107
175.0	115	114	114	108	108
177.5	111	111	111	107	108
180.0	108	108	108	108	108



Test Report No. LLIA000802-051A

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120.0Vac, 60.00Hz, 0.1242A, 14.51W, 0.974PF, 9.3%THD(i)

Intensity data (cd)

Gamma	C-Plane				
	C90	C112.5	C135	C157.5	C180
0.0	105	105	105	105	105
2.5	105	102	104	102	101
5.0	105	101	101	98	98
7.5	104	99	98	95	94
10.0	104	97	96	92	91
12.5	102	95	93	89	88
15.0	101	92	90	86	84
17.5	100	90	87	82	81
20.0	98	87	83	78	77
22.5	96	85	80	75	73
25.0	94	82	76	71	70
27.5	91	79	73	68	66
30.0	89	76	69	64	62
32.5	86	72	65	60	59
35.0	83	69	62	56	55
37.5	80	65	58	53	51
40.0	77	61	54	49	48
42.5	73	58	50	46	44
45.0	70	54	46	42	41
47.5	66	50	43	38	37
50.0	62	46	39	35	34
52.5	58	42	35	32	31
55.0	54	39	32	28	28
57.5	50	35	28	25	25
60.0	46	31	25	22	21
62.5	42	27	22	19	18
65.0	38	24	19	16	16
67.5	34	20	16	13	13
70.0	30	17	13	10	10
72.5	25	14	10	8	9
75.0	21	11	7	8	9
77.5	17	8	6	7	8
80.0	13	5	5	7	8
82.5	9	3	5	7	8
85.0	6	2	5	7	8
87.5	2	2	5	7	8
90.0	0	2	5	7	8



Test Report No. LLIA000802-051A

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120.0Vac, 60.00Hz, 0.1242A, 14.51W, 0.974PF, 9.3%THD(i)

Intensity data (cd)

Gamma	C-Plane				
	C90	C112.5	C135	C157.5	C180
90.0	0	2	5	7	8
92.5	3	2	5	7	8
95.0	6	2	5	7	8
97.5	10	3	5	7	8
100.0	14	5	5	7	8
102.5	18	8	6	7	9
105.0	23	11	6	8	9
107.5	27	14	9	8	9
110.0	31	17	12	9	9
112.5	35	21	15	12	11
115.0	39	24	18	15	15
117.5	44	28	22	19	18
120.0	48	32	25	22	21
122.5	52	36	29	25	24
125.0	56	40	32	29	28
127.5	60	44	36	32	31
130.0	64	47	40	36	35
132.5	68	51	44	40	38
135.0	72	55	48	43	42
137.5	75	59	51	47	46
140.0	79	63	55	51	49
142.5	82	66	59	54	53
145.0	85	70	63	58	57
147.5	88	74	67	62	61
150.0	91	77	70	66	64
152.5	94	80	74	69	68
155.0	96	83	78	73	72
157.5	98	86	81	77	75
160.0	100	89	85	80	79
162.5	102	92	88	84	83
165.0	104	95	91	88	87
167.5	105	97	95	91	90
170.0	106	99	98	94	94
172.5	107	101	101	98	97
175.0	108	103	103	101	101
177.5	108	105	106	105	104
180.0	108	108	108	108	108



Test Number: LLIA000802-051A

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120.0Vac, 60.00Hz, 0.1242A, 14.51W, 0.974PF, 9.3%THD(i)

Coefficients Of Utilization - Zonal Cavity Method

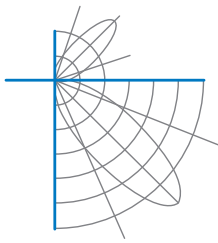
Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	49
1	95	89	84	79	87	82	77	73	68	65	62	56	53	51	44	43	41	35
2	85	76	69	63	78	70	63	58	58	53	49	47	44	40	37	35	32	27
3	77	66	58	51	70	61	53	47	50	45	40	41	37	33	32	29	26	22
4	70	58	49	42	64	53	45	39	44	38	33	36	31	28	28	25	22	18
5	64	51	42	36	58	47	39	33	39	33	28	32	27	23	25	22	19	15
6	59	46	37	31	54	42	34	28	35	29	24	29	24	20	23	19	16	13
7	54	41	33	27	49	38	30	25	32	26	21	26	21	18	21	17	14	11
8	50	37	29	23	46	34	27	22	29	23	19	24	19	16	19	15	13	10
9	47	34	26	21	43	31	24	19	26	21	16	22	17	14	17	14	11	9
10	44	31	23	18	40	29	22	17	24	19	15	20	16	12	16	13	10	8

For absolute test reports, CUs are expressed as a percentage of total lumen output. Calculations were based on published IES procedures, and are based on the zonal cavity method. Basic assumptions: 1) Room surfaces are lambertian reflectors. 2) Incident flux on each surface is uniformly distributed. 3) The room is spectrally neutral. When luminaires are not evenly distributed throughout the room, or do not exhibit lateral symmetry, CU values may differ from actual performance.

Circle of Light Plot

Height(ft)	Illuminance at Nadir (fc)	Beam Width (across 50% Nadir Illum)	
		0-180	90-270
6.0	2.9	9.17	7.53
8.0	1.6	12.23	10.05
10.0	1.0	15.28	12.56
12.0	0.7	18.34	15.07
14.0	0.5	21.40	17.58
16.0	0.4	24.45	20.09



Test Report No. LLIA000802-051A

Catalog Number: 3-557-24 Zenith Vanity
Wall mounted, formed steel housing, formed steel enameled reflector,
formed translucent white plastic enclosure
72 white LEDs, one Harvard Engineering LER7-568x17-930-72S-I LED board
One LTF DA12W350C1834D010-0014 dimming LED driver.
120.0Vac, 60.00Hz, 0.1242A, 14.51W, 0.974PF, 9.3%THD(i)





Test Report No. LLIA000802-051A

Catalog Number: 3-557-24 Zenith Vanity

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formed translucent white plastic enclosure

72 white LEDs, one Harvard Engineering LER7-568x17-930-72S-I LED board

One LTF DA12W350C1834D010-0014 dimming LED driver.

120.0Vac, 60.00Hz, 0.1242A, 14.51W, 0.974PF, 9.3%THD(i)

Test Distance 9.5 m
Test Temperature 25.7 °C

Notes The laboratory has not participated in the selection of samples to be tested. All testing is performed on the understanding that the significance of the report is limited to the extent that the test sample is representative of production units.

Tested in accordance with the applicable sections of publications: IES LM-79-08 (Sec. 12), IES LM-16-93, IES LM-58-13, CIE 13.3:1995, CIE 15:2004, ANSI C78.377:2015, ANSI C82.77-10:2014.

The luminous intensity values, and other derived quantities, contained in this report are based on the absolute data, as measured.

Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

This report is free of erasures and corrections.

Photometric intensity values are reported using the CIE Gamma coordinate system as defined in CIE publication number 121.

This report may contain data that are not covered by the NVLAP accreditation. Quantities marked with * are not covered.

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the Federal Government.



Report of Test

LLIA000802-051B

Integrating Sphere Report

Catalog Number: 3-557-24 Zenith Vanity

Wall mounted, formed steel housing, formed steel enameled reflector,
formed translucent white plastic enclosure

72 white LEDs, one Harvard Engineering LER7-568x17-930-72S-I LED board

One LTF DA12W350C1834D010-0014 dimming LED driver.



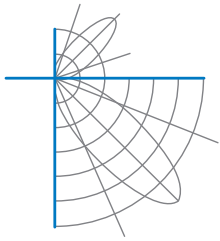
Performance Summary

Voltage	120.0 Vac
Current	0.1242 A
Power	14.51 W
Frequency	60.00 Hz
Power Factor	0.975
Current THD	9.3 %

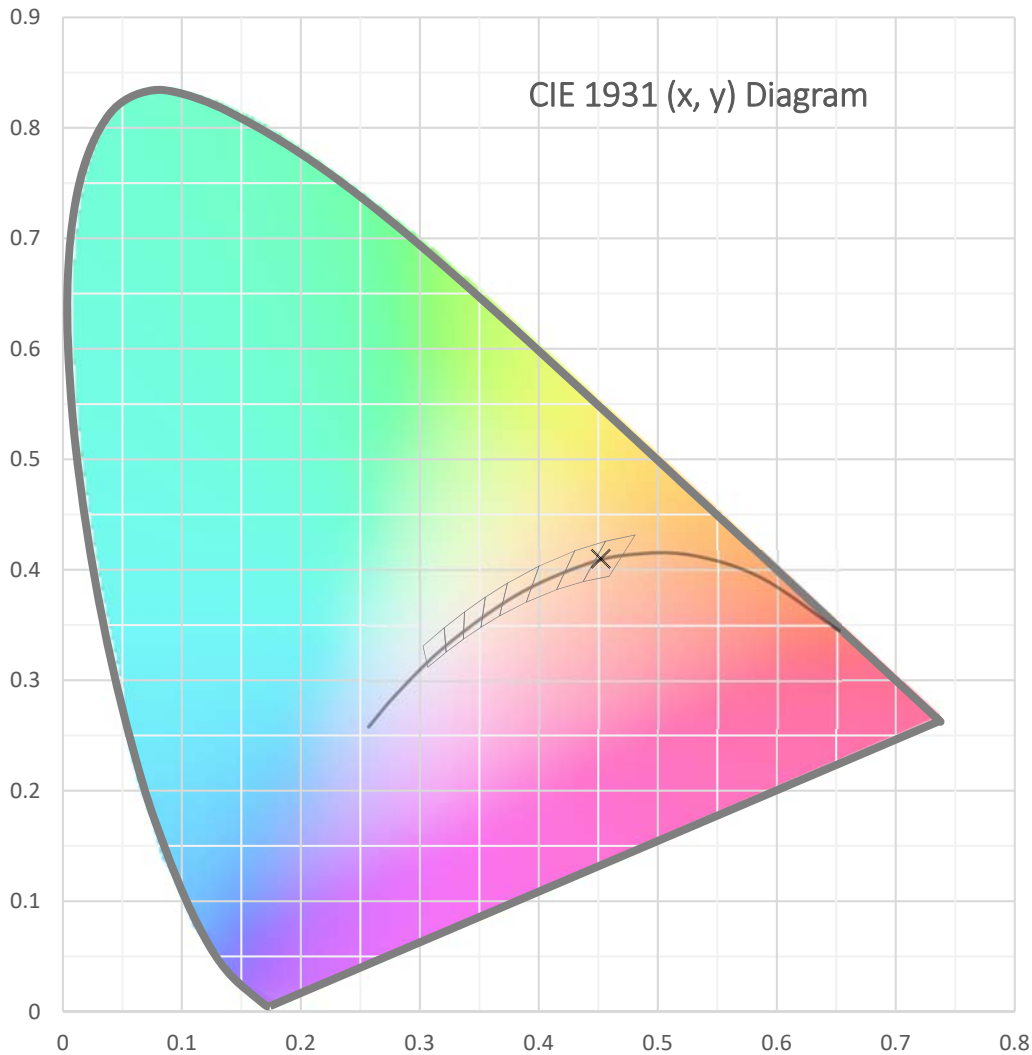
Total Luminous Flux	965.2 lm
Efficacy	66.5 lm/W
Chromaticity (x,y)	(0.4521, 0.4099)
(u',v')	(0.2578, 0.5259)
Duv	0.0005
CCT	2807 K
CRI (Ra)	93
R9	64

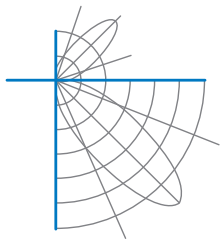
Prepared For:
Oxygen Lighting
201 Railhead Road
Fort Worth, TX 76106, USA

Test date: 09/26/2017
Report date: 09/30/2017



Test Report Number: LLIA000802-051B
Catalog Number: 3-557-24 Zenith Vanity
Wall mounted, formed steel housing, formed steel enameled reflector,
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72 white LEDs, one Harvard Engineering LER7-568x17-930-72S-I LED board
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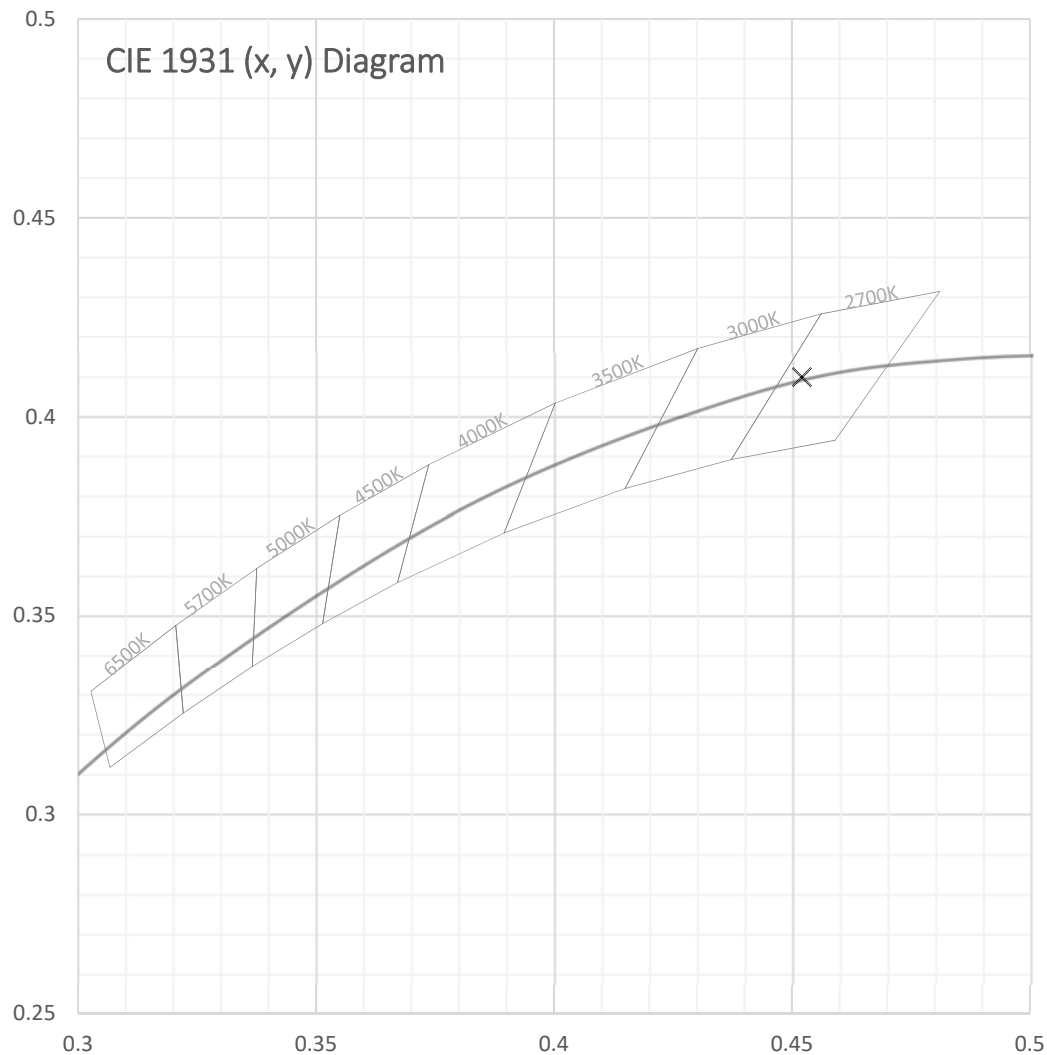
Test Report Number: LLIA000802-051B

Catalog Number: 3-557-24 Zenith Vanity

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72 white LEDs, one Harvard Engineering LER7-568x17-930-72S-I LED board

One LTF DA12W350C1834D010-0014 dimming LED driver.

Spectral Data

Total Radiant Flux	3.466 W
Total Luminous Flux	965.2 Lm
Chromaticity CIE 1931 (x, y)	(0.4521, 0.4099)
Chromaticity CIE 1976 (u', v')	(0.2578, 0.5259)
Correlated Color Temperature (CCT)	2807 K
Color Rendering Index (Ra)	93
R1	93
R2	95
R3	96
R4	94
R5	92
R6	94
R7	94
R8	84
R9	64
R10	88
R11	94
R12	82
R13	94
R14	97
Distance from Planckian Locus (Duv)	0.0005
Scotopic/Photopic Ratio *	1.312

Electrical Data

Voltage	120.0 Vac
Current	0.1242 A
Power	14.51 W
Frequency	60.00 Hz
Power Factor	0.975
Current THD	9.3 %



Test Report Number: LLIA000802-051B

Catalog Number: 3-557-24 Zenith Vanity

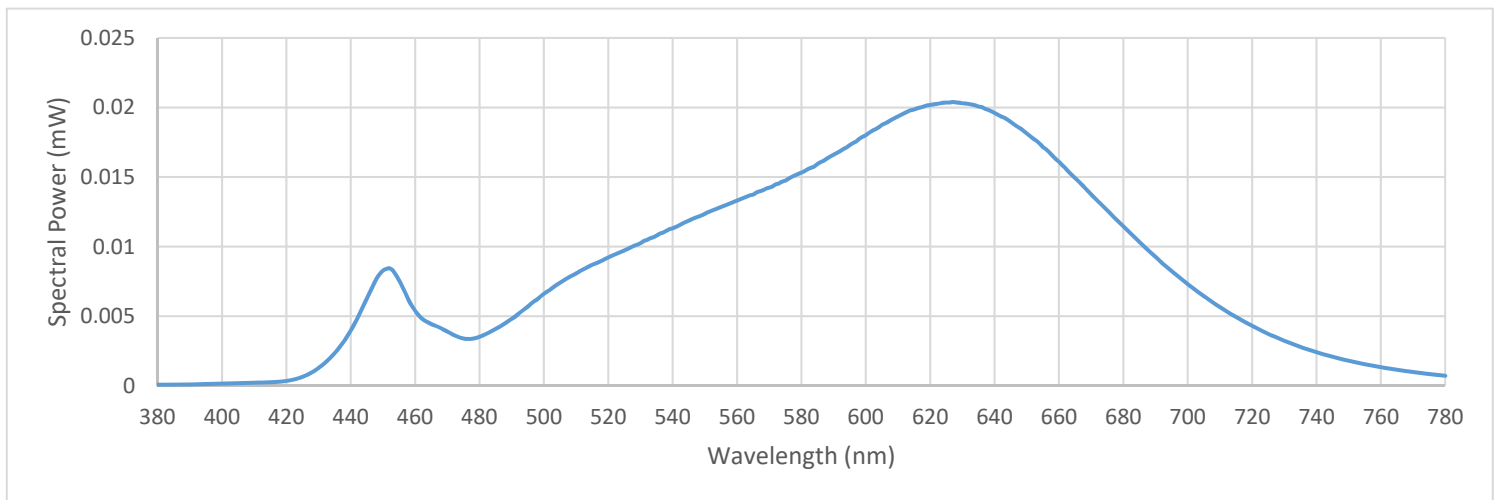
Wall mounted, formed steel housing, formed steel enameled reflector,
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One LTF DA12W350C1834D010-0014 dimming LED driver.

Summary Spectral Power Distribution (wavelength - nm, spectral power - mW)

380	0.000076	480	0.003523	580	0.015329	680	0.011467
385	0.000081	485	0.004073	585	0.015942	685	0.010343
390	0.000098	490	0.004809	590	0.016609	690	0.009262
395	0.000123	495	0.005686	595	0.017300	695	0.008232
400	0.000154	500	0.006606	600	0.018010	700	0.007315
405	0.000187	505	0.007403	605	0.018748	705	0.006451
410	0.000220	510	0.008072	610	0.019351	710	0.005647
415	0.000257	515	0.008704	615	0.019854	715	0.004945
420	0.000349	520	0.009228	620	0.020177	720	0.004302
425	0.000641	525	0.009723	625	0.020347	725	0.003727
430	0.001285	530	0.010250	630	0.020298	730	0.003238
435	0.002353	535	0.010789	635	0.020072	735	0.002788
440	0.003988	540	0.011320	640	0.019616	740	0.002407
445	0.006286	545	0.011863	645	0.018948	745	0.002086
450	0.008279	550	0.012360	650	0.018133	750	0.001796
455	0.007578	555	0.012828	655	0.017160	755	0.001549
460	0.005412	560	0.013305	660	0.016103	760	0.001341
465	0.004435	565	0.013741	665	0.014918	765	0.001151
470	0.003890	570	0.014239	670	0.013747	770	0.000981
475	0.003388	575	0.014742	675	0.012613	775	0.000846
						780	0.000723





Test Report Number: LLIA000802-051B

Catalog Number: 3-557-24 Zenith Vanity

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formed translucent white plastic enclosure
72 white LEDs, one Harvard Engineering LER7-568x17-930-72S-I LED board
One LTF DA12W350C1834D010-0014 dimming LED driver.

Test Equipment Configuration: LightLab International Allentown 2m Integrating Sphere
Measurements acquired using a Labsphere CDS 2600 spectroradiometer
Testing was performed using 4 π geometry

Test Temperature: 24.6 °C

Test Procedure: Tested in accordance with the applicable sections of:
LM-79-08, LM-78-07, LM-58-13, ANSI_ANSLG C78.377-2015, ANSI C82-77-10:2014

Significance: The laboratory has not participated in the selection of samples to be tested.
All testing is performed on the understanding that the significance of the report
is limited to the extent that the test sample is representative of production units.

Notes: The measurements and other derived quantities contained in this report
are based on the absolute data as measured.

Prorating the performance of the sample for the use of other component
combinations (such as lamp / LED / Ballast / driver), or for use in different
environmental conditions than that tested, may produce erroneous results.

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