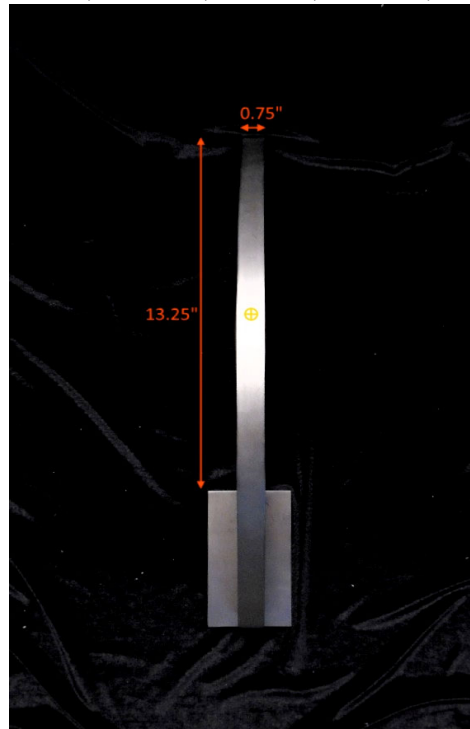




Report of Test

LLIA001067-004A

Catalog Number: 3-553 Bolo Sconce
Surface wall mounted, formed steel housing,
translucent white plastic enclosure.
24 white LEDs, one Quorum International 30K90 E174501 SM303P18L21 LED board
One ERP ESS015W-0350-42 dimmable LED driver.
120.0Vac, 60.00Hz, 0.1153A, 13.62W, 0.985PF, 14.1%THD(i)



Performance Summary

Total Light Output	600 lm
Luminaire Power	13.6 W
Luminous Efficacy	44.1 lm/W

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

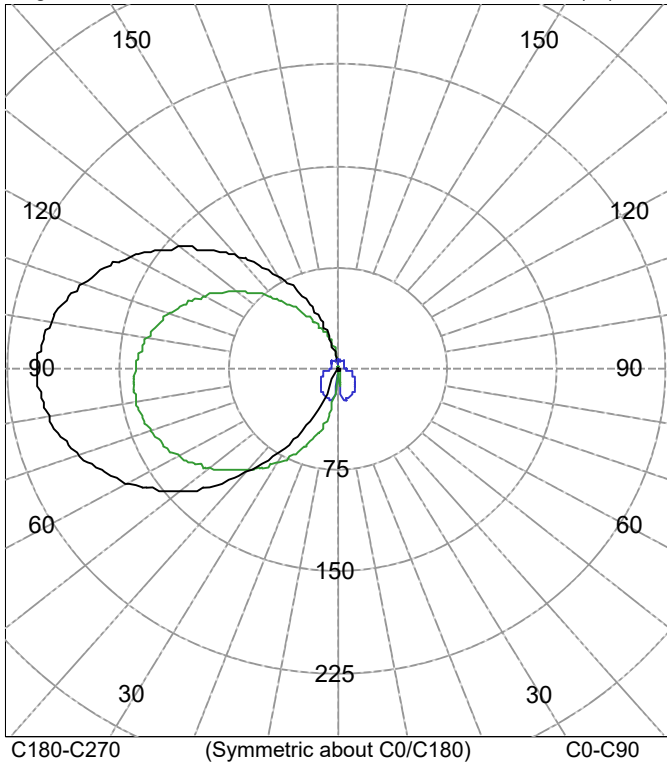


Test Report No. LLIA001067-004A

Catalog Number: 3-553 Bolo Sconce
Surface wall mounted, formed steel housing,
translucent white plastic enclosure.

24 white LEDs, one Quorum International 30K90 E174501 SM303P18L21 LED board
One ERP ESS015W-0350-42 dimmable LED driver.
120.0Vac, 60.00Hz, 0.1153A, 13.62W, 0.985PF, 14.1%THD(i)

Legend: C0/C180-Black, C45/C225-Green, C90/C270-Blue (cd)



INTENSITY SUMMARY (cd)

Gamma	C-Plane					Flux (lm)
	C0	C22.5	C45	C67.5	C90	
0.0	0	0	0	0	0	
5.0	0	0	0	1	3	1
10.0	0	6	11	16	23	
15.0	1	4	7	13	23	6
20.0	1	2	4	10	22	
25.0	2	2	2	7	22	13
30.0	2	2	1	5	21	
35.0	2	2	1	3	20	24
40.0	2	2	1	2	19	
45.0	2	2	1	1	17	36
50.0	2	2	1	0	16	
55.0	2	2	1	0	15	48
60.0	2	2	1	0	13	
65.0	2	1	1	0	11	58
70.0	2	1	1	0	10	
75.0	1	1	1	0	8	66
80.0	1	1	1	0	7	
85.0	1	1	0	0	6	69
90.0	1	1	0	0	5	

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	% Lamp	% Luminaire
0-30	20	N / A	3.3
0-40	43	N / A	7.2
0-60	127	N / A	21.1
0-90	319	N / A	53.2
40-90	276	N / A	46.0
60-90	193	N / A	32.1
90-180	281	N / A	46.8
0-180	600	N / A	100.0

Total Light Output = 600 lm

Signed:

Authorized Signatory

Date of test

25-Jan-2019

Date of report

29-Jan-2019



Test Report No. LLIA001067-004A

Catalog Number: 3-553 Bolo Sconce
Surface wall mounted, formed steel housing,
translucent white plastic enclosure.

24 white LEDs, one Quorum International 30K90 E174501 SM303P18L21 LED board
One ERP ESS015W-0350-42 dimmable LED driver.
120.0Vac, 60.00Hz, 0.1153A, 13.62W, 0.985PF, 14.1%THD(i)

Intensity data (cd)

Gamma	C-Plane				
	C0	C22.5	C45	C67.5	C90
0.0	0	0	0	0	0
2.5	0	0	0	0	0
5.0	0	0	0	1	3
7.5	0	5	13	17	22
10.0	0	6	11	16	23
12.5	1	5	9	15	23
15.0	1	4	7	13	23
17.5	1	3	6	12	23
20.0	1	2	4	10	22
22.5	2	2	3	9	22
25.0	2	2	2	7	22
27.5	2	2	1	6	21
30.0	2	2	1	5	21
32.5	2	2	1	4	20
35.0	2	2	1	3	20
37.5	2	2	1	2	19
40.0	2	2	1	2	19
42.5	2	2	1	1	18
45.0	2	2	1	1	17
47.5	2	2	1	1	17
50.0	2	2	1	0	16
52.5	2	2	1	0	15
55.0	2	2	1	0	15
57.5	2	2	1	0	14
60.0	2	2	1	0	13
62.5	2	1	1	0	12
65.0	2	1	1	0	11
67.5	2	1	1	0	11
70.0	2	1	1	0	10
72.5	1	1	1	0	9
75.0	1	1	1	0	8
77.5	1	1	1	0	8
80.0	1	1	1	0	7
82.5	1	1	0	0	6
85.0	1	1	0	0	6
87.5	1	1	0	0	5
90.0	1	1	0	0	5



Test Report No. LLIA001067-004A

Catalog Number: 3-553 Bolo Sconce
Surface wall mounted, formed steel housing,
translucent white plastic enclosure.

24 white LEDs, one Quorum International 30K90 E174501 SM303P18L21 LED board
One ERP ESS015W-0350-42 dimmable LED driver.
120.0Vac, 60.00Hz, 0.1153A, 13.62W, 0.985PF, 14.1%THD(i)

Intensity data (cd)

Gamma	C-Plane				
	C0	C22.5	C45	C67.5	C90
90.0	1	1	0	0	5
92.5	0	0	0	0	5
95.0	0	0	0	0	5
97.5	0	0	0	0	5
100.0	0	0	0	0	5
102.5	0	0	0	0	5
105.0	0	0	0	0	5
107.5	0	0	0	0	5
110.0	0	0	0	0	5
112.5	0	0	0	0	5
115.0	0	0	0	0	5
117.5	0	0	0	0	5
120.0	0	0	0	0	5
122.5	0	1	0	0	5
125.0	0	1	0	0	5
127.5	0	1	0	0	6
130.0	0	1	0	0	6
132.5	0	1	1	0	6
135.0	0	1	1	0	6
137.5	0	1	1	0	6
140.0	0	1	1	0	6
142.5	0	1	1	0	6
145.0	0	1	1	0	6
147.5	0	1	1	1	6
150.0	0	1	1	1	6
152.5	0	1	1	1	6
155.0	0	1	1	1	7
157.5	0	1	1	1	7
160.0	0	1	1	2	7
162.5	0	1	1	2	7
165.0	0	1	1	3	7
167.5	0	1	2	4	7
170.0	0	1	2	4	7
172.5	0	1	3	5	7
175.0	0	1	3	4	6
177.5	0	1	2	2	3
180.0	1	1	1	1	1



Test Report No. LLIA001067-004A

Catalog Number: 3-553 Bolo Sconce
Surface wall mounted, formed steel housing,
translucent white plastic enclosure.

24 white LEDs, one Quorum International 30K90 E174501 SM303P18L21 LED board
One ERP ESS015W-0350-42 dimmable LED driver.
120.0Vac, 60.00Hz, 0.1153A, 13.62W, 0.985PF, 14.1%THD(i)

Intensity data (cd)

Gamma	C-Plane				
	C90	C112.5	C135	C157.5	C180
0.0	0	0	0	0	0
2.5	0	0	0	0	0
5.0	3	5	7	2	0
7.5	22	27	28	8	0
10.0	23	31	36	8	0
12.5	23	34	43	15	0
15.0	23	36	49	32	0
17.5	23	38	54	39	0
20.0	22	40	59	46	1
22.5	22	42	64	52	25
25.0	22	45	69	59	38
27.5	21	47	74	67	49
30.0	21	49	79	74	60
32.5	20	51	84	82	71
35.0	20	53	88	89	82
37.5	19	55	93	97	93
40.0	19	57	98	104	103
42.5	18	59	102	111	114
45.0	17	61	106	117	124
47.5	17	62	110	124	133
50.0	16	64	114	130	141
52.5	15	65	118	136	148
55.0	15	66	121	142	155
57.5	14	68	124	148	161
60.0	13	69	127	153	167
62.5	12	69	130	158	173
65.0	11	70	132	163	178
67.5	11	71	134	167	183
70.0	10	71	136	171	188
72.5	9	71	137	175	192
75.0	8	72	138	178	195
77.5	8	71	139	181	198
80.0	7	71	140	183	201
82.5	6	71	140	185	203
85.0	6	70	140	187	204
87.5	5	70	139	187	205
90.0	5	69	138	187	205



Test Report No. LLIA001067-004A

Catalog Number: 3-553 Bolo Sconce
Surface wall mounted, formed steel housing,
translucent white plastic enclosure.

24 white LEDs, one Quorum International 30K90 E174501 SM303P18L21 LED board
One ERP ESS015W-0350-42 dimmable LED driver.
120.0Vac, 60.00Hz, 0.1153A, 13.62W, 0.985PF, 14.1%THD(i)

Intensity data (cd)

Gamma	C-Plane				
	C90	C112.5	C135	C157.5	C180
90.0	5	69	138	187	205
92.5	5	68	137	187	205
95.0	5	67	136	185	203
97.5	5	66	134	183	201
100.0	5	64	132	181	199
102.5	5	63	130	178	196
105.0	5	61	127	175	193
107.5	5	59	124	171	189
110.0	5	57	121	167	185
112.5	5	55	118	163	180
115.0	5	53	114	158	175
117.5	5	51	110	153	170
120.0	5	49	106	148	164
122.5	5	46	102	142	158
125.0	5	44	98	137	152
127.5	6	42	93	131	145
130.0	6	39	89	124	139
132.5	6	37	84	118	132
135.0	6	35	79	111	124
137.5	6	33	74	104	117
140.0	6	31	69	98	110
142.5	6	29	63	91	102
145.0	6	27	58	83	94
147.5	6	25	53	76	86
150.0	6	23	48	69	78
152.5	6	22	43	62	70
155.0	7	20	39	55	62
157.5	7	19	35	48	54
160.0	7	17	31	41	46
162.5	7	16	27	35	37
165.0	7	15	24	29	29
167.5	7	13	20	24	21
170.0	7	12	17	18	13
172.5	7	11	13	11	5
175.0	6	8	8	5	2
177.5	3	3	3	2	1
180.0	1	1	1	1	1



Test Number: LLIA001067-004A

Catalog Number: 3-553 Bolo Sconce

Surface wall mounted, formed steel housing,
translucent white plastic enclosure.

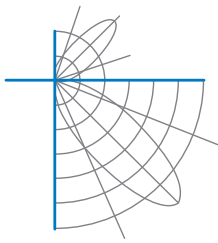
24 white LEDs, one Quorum International 30K90 E174501 SM303P18L21 LED board

One ERP ESS015W-0350-42 dimmable LED driver.

120.0Vac, 60.00Hz, 0.1153A, 13.62W, 0.985PF, 14.1%THD(i)

Coefficients Of Utilization - Zonal Cavity Method																		
Effective Floor Cavity Reflectance 0.20																		
RC	80				70				50			30			10			0
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
0	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53
1	93	86	80	74	85	79	73	68	66	62	58	54	51	48	43	40	38	33
2	82	72	63	56	75	66	58	51	54	48	43	44	39	35	34	31	28	23
3	73	61	51	44	67	56	47	40	46	39	34	37	32	27	29	25	21	17
4	66	53	43	35	60	48	39	33	40	33	27	32	26	22	25	20	17	13
5	60	46	36	29	55	42	33	27	35	28	22	28	22	18	21	17	13	10
6	55	41	31	25	50	37	29	23	31	24	19	25	19	15	19	15	11	8
7	51	37	27	21	46	33	25	19	28	21	16	22	17	13	17	13	9	7
8	47	33	24	18	43	30	22	17	25	18	14	20	15	11	16	11	8	6
9	43	30	21	16	40	27	20	14	23	16	12	18	13	9	14	10	7	5
10	40	27	19	14	37	25	18	13	21	15	10	17	12	8	13	9	6	4

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.



Test Report No. LLIA001067-004A

Catalog Number: 3-553 Bolo Sconce
Surface wall mounted, formed steel housing,
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One ERP ESS015W-0350-42 dimmable LED driver.

120.0Vac, 60.00Hz, 0.1153A, 13.62W, 0.985PF, 14.1%THD(i)





Test Report No. LLIA001067-004A

Catalog Number: 3-553 Bolo Sconce
Surface wall mounted, formed steel housing,
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24 white LEDs, one Quorum International 30K90 E174501 SM303P18L21 LED board
One ERP ESS015W-0350-42 dimmable LED driver.
120.0Vac, 60.00Hz, 0.1153A, 13.62W, 0.985PF, 14.1%THD(i)

Test Distance 9.5 m
Test Temperature 24.9 °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.

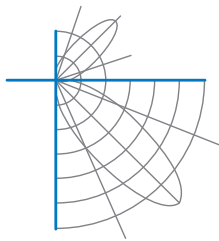
Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

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

LLIA001067-004B

Integrating Sphere Report

Catalog Number: 3-553 Bolo Sconce

Surface wall mounted, formed steel housing,
translucent white plastic enclosure.

24 white LEDs, one Quorum International 30K90 E174501 SM303P18L21 LED board

One ERP ESS015W-0350-42 dimmable LED driver.



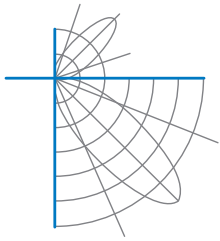
Performance Summary

Voltage	120.0 Vac
Current	0.1153 A
Power	13.64 W
Frequency	59.99 Hz
Power Factor	0.985
Current THD	14.2 %
Total Luminous Flux	597.7 lm
Efficacy	43.8 lm/W
Chromaticity (x,y)	(0.4438, 0.4025)
(u',v')	(0.2557, 0.5218)
Duv	-0.0015
CCT	2876 K
CRI (Ra)	94
R9	56
TM-30: Rf	92
TM-30: Rg	99

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

Test date: 01/22/2019

Report date: 01/29/2019



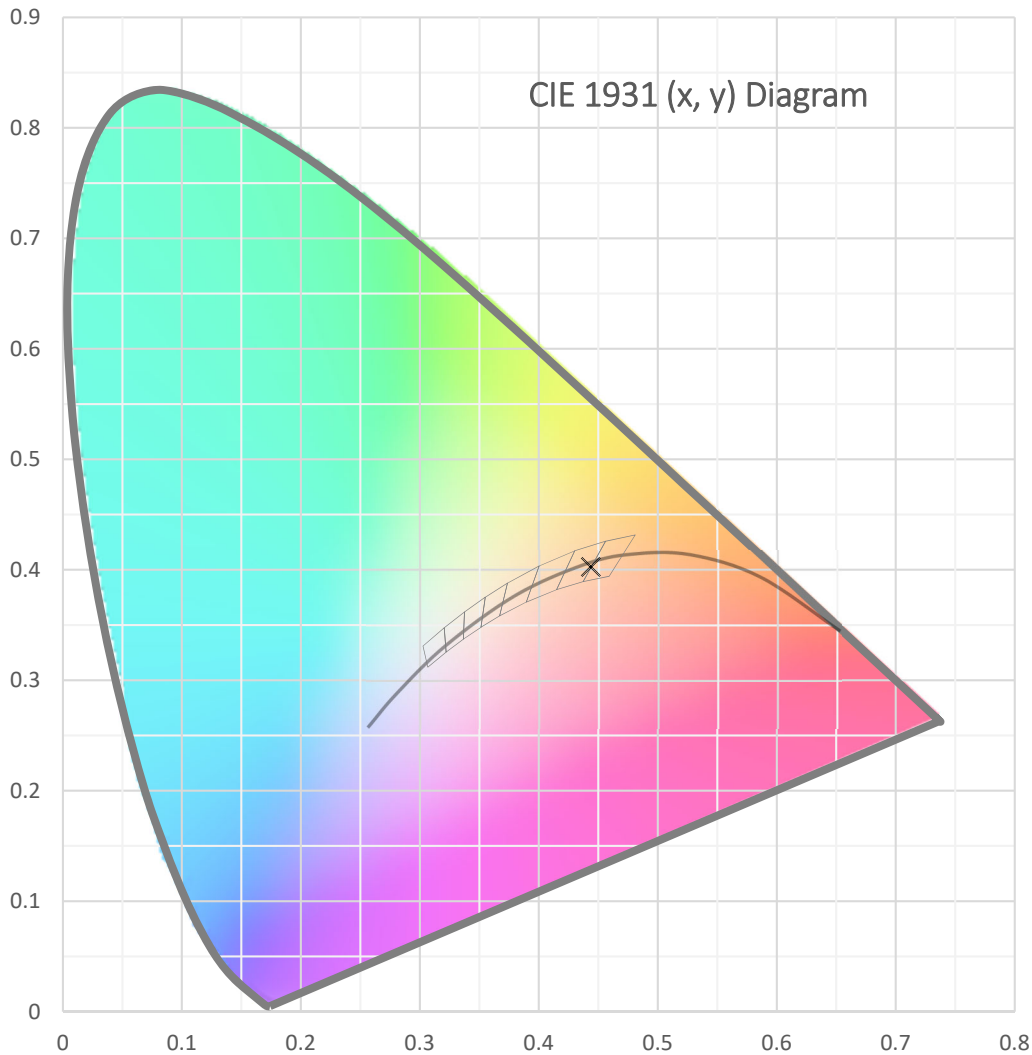
Test Report Number: LLIA001067-004B

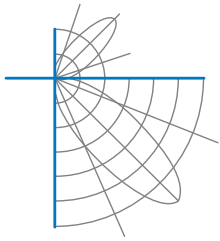
Catalog Number: 3-553 Bolo Sconce

Surface wall mounted, formed steel housing,
translucent white plastic enclosure.

24 white LEDs, one Quorum International 30K90 E174501 SM303P18L21 LED board

One ERP ESS015W-0350-42 dimmable LED driver.





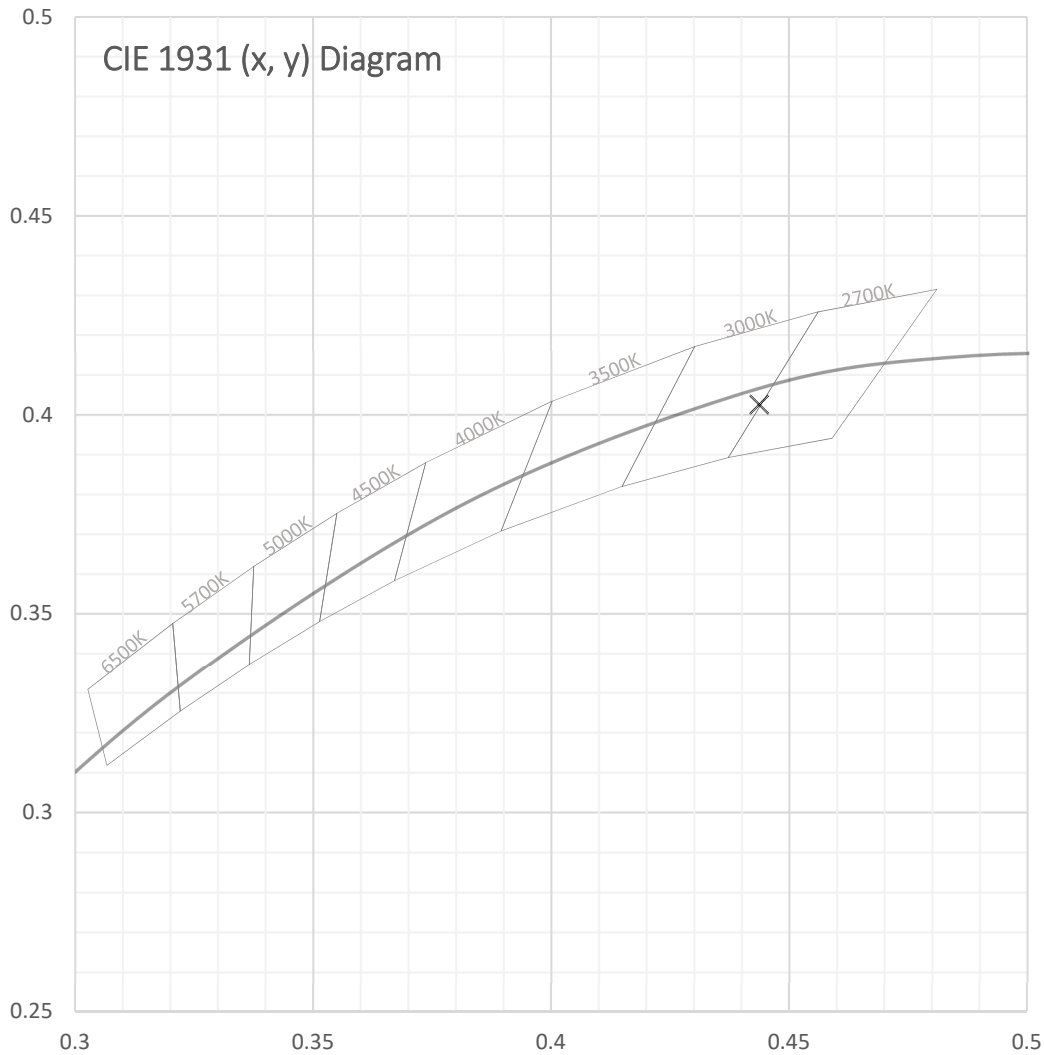
Test Report Number: LLIA001067-004B

Catalog Number: 3-553 Bolo Sconce

Surface wall mounted, formed steel housing,
translucent white plastic enclosure.

24 white LEDs, one Quorum International 30K90 E174501 SM303P18L21 LED board

One ERP ESS015W-0350-42 dimmable LED driver.





Test Report Number: LLIA001067-004B

Catalog Number: 3-553 Bolo Sconce

Surface wall mounted, formed steel housing,
translucent white plastic enclosure.

24 white LEDs, one Quorum International 30K90 E174501 SM303P18L21 LED board

One ERP ESS015W-0350-42 dimmable LED driver.

Spectral Data

Total Radiant Flux	2.028 W
Total Luminous Flux	597.7 Lm
Chromaticity CIE 1931 (x, y)	(0.4438, 0.4025)
Chromaticity CIE 1976 (u', v')	(0.2557, 0.5218)
Correlated Color Temperature (CCT)	2876 K
Color Rendering Index (Ra)	94
R1	98
R2	99
R3	95
R4	99
R5	99
R6	93
R7	89
R8	79
R9	56
R10	98
R11	95
R12	87
R13	99
R14	98
TM-30: Rf	92
TM-30: Rg	99
Distance from Planckian Locus (Duv)	-0.0015
Scotopic/Photopic Ratio *	1.430

Electrical Data

Voltage	120.0 Vac
Current	0.1153 A
Power	13.64 W
Frequency	59.99 Hz
Power Factor	0.985
Current THD	14.2 %



Test Report Number: LLIA001067-004B

Catalog Number: 3-553 Bolo Sconce

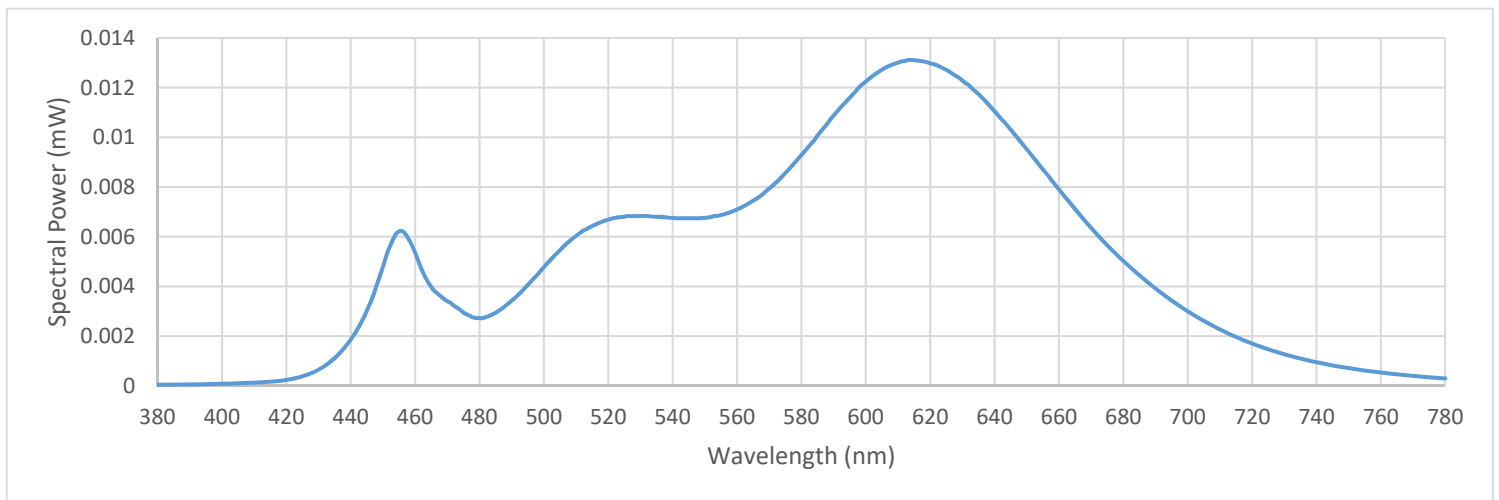
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translucent white plastic enclosure.

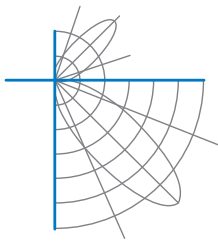
24 white LEDs, one Quorum International 30K90 E174501 SM303P18L21 LED board

One ERP ESS015W-0350-42 dimmable LED driver.

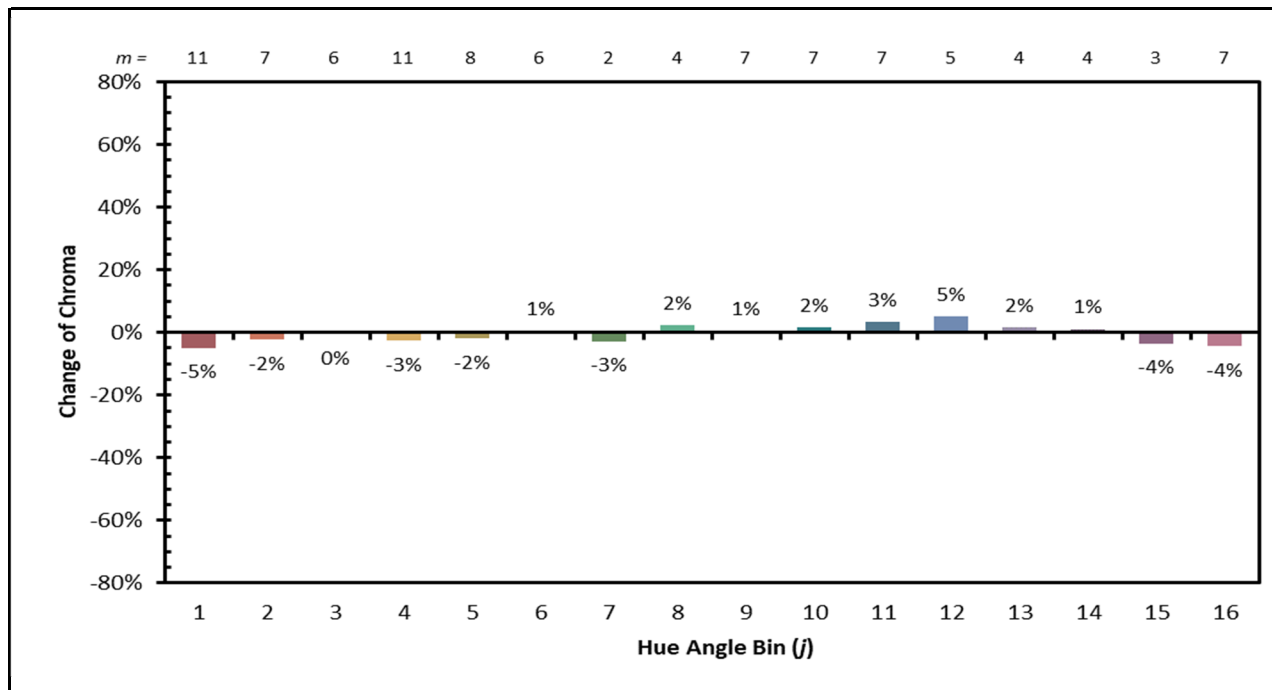
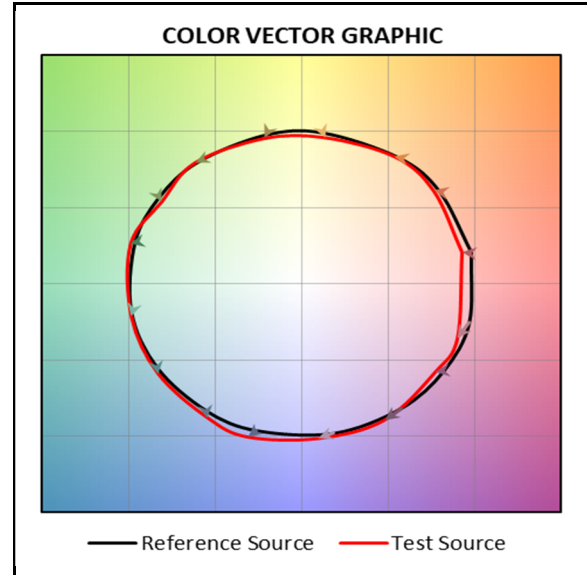
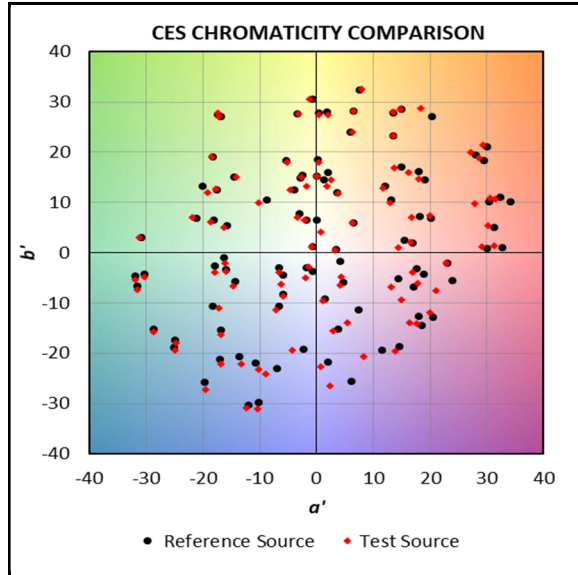
Summary Spectral Power Distribution (wavelength - nm, spectral power - mW)

380	0.000046	480	0.002721	580	0.009276	680	0.005016
385	0.000047	485	0.002939	585	0.010081	685	0.004460
390	0.000054	490	0.003429	590	0.010872	690	0.003914
395	0.000065	495	0.004051	595	0.011598	695	0.003428
400	0.000081	500	0.004779	600	0.012241	700	0.003005
405	0.000101	505	0.005456	605	0.012725	705	0.002611
410	0.000126	510	0.006025	610	0.013002	710	0.002263
415	0.000160	515	0.006435	615	0.013102	715	0.001967
420	0.000237	520	0.006696	620	0.012972	720	0.001700
425	0.000382	525	0.006807	625	0.012715	725	0.001466
430	0.000650	530	0.006831	630	0.012287	730	0.001268
435	0.001117	535	0.006805	635	0.011740	735	0.001095
440	0.001855	540	0.006761	640	0.011046	740	0.000945
445	0.003020	545	0.006747	645	0.010311	745	0.000819
450	0.004783	550	0.006758	650	0.009523	750	0.000708
455	0.006213	555	0.006869	655	0.008704	755	0.000613
460	0.005357	560	0.007101	660	0.007912	760	0.000535
465	0.003965	565	0.007441	665	0.007102	765	0.000461
470	0.003402	570	0.007938	670	0.006345	770	0.000398
475	0.002945	575	0.008555	675	0.005660	775	0.000344
						780	0.000298





IES TM-30 Summary





Test Report Number: LLIA001067-004B

Catalog Number: 3-553 Bolo Sconce

Surface wall mounted, formed steel housing,
translucent white plastic enclosure.

24 white LEDs, one Quorum International 30K90 E174501 SM303P18L21 LED board

One ERP ESS015W-0350-42 dimmable 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: 25.4 °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, TM-30-15

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.

This report is free of erasures and corrections

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