



LAB 1  
Sphere

*Test Sample Description*

Catalog Number: P710047-150-30  
Description: 11" 1-Lt. LED Wall Sconce w/ Etched Opal Reractor

*Photometry*

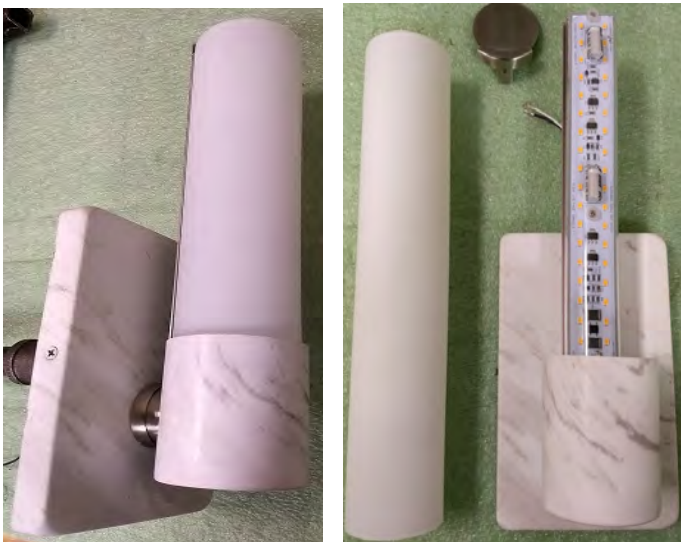
Test Method: IES LM-46-04  
IES LM-79-08 §10  
Preburn Time: 0:10  
Time To Stabilize: 1:15  
Total Operating Time: 2:25

Input Voltage (Volts): 120.2  
Input Current (Amps): 0.136  
Input Wattage (Watts): 16.2  
Ambient Temp (°C): 26

*Sphere*

Test Method: IES LM-16-93  
IES LM-79-08 §12.1  
Preburn Time: 8:00  
Time To Stabilize: 1:05  
Total Operating Time: 9:05

Input Voltage (Volts): 120.0  
Input Current (Amps): 0.136  
Input Wattage (Watts): 16.1  
Ambient Temp (°C): 24  
PF @ 120V: 0.984  
THD @ 120V (%): 15.5



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Checked (sphere): B. LEE  
Checked (photometry): D. ROBBINS  
Approved: P. McCARTHY

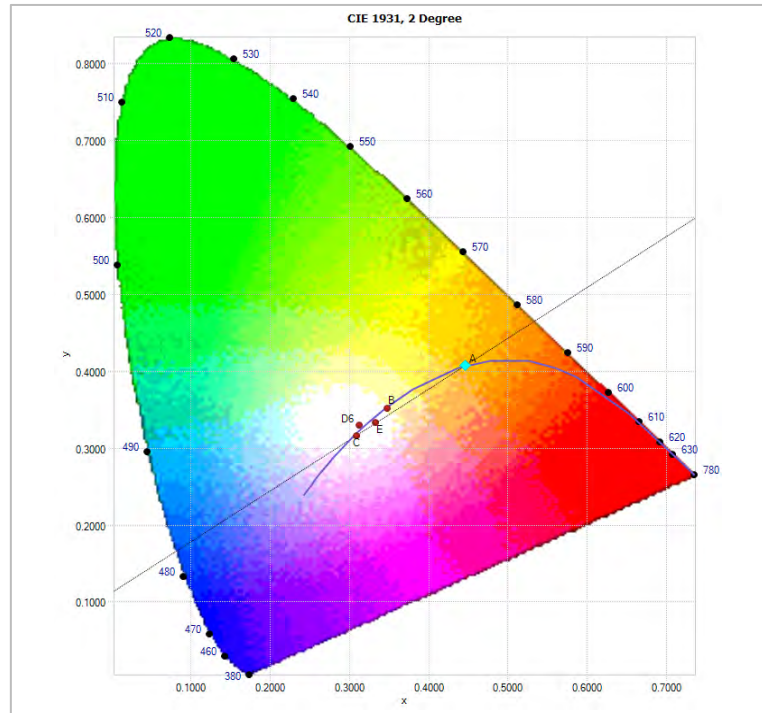




Lamp Cat#: EVAC120C-3528SE-L42-14S3P-145  
 Lamp Desc: 42 - Seoul 3000K LEDs  
 Driver Desc: NA

Efficacy: 51.1 LPW S/P Ratio: 1.3 LM/LM

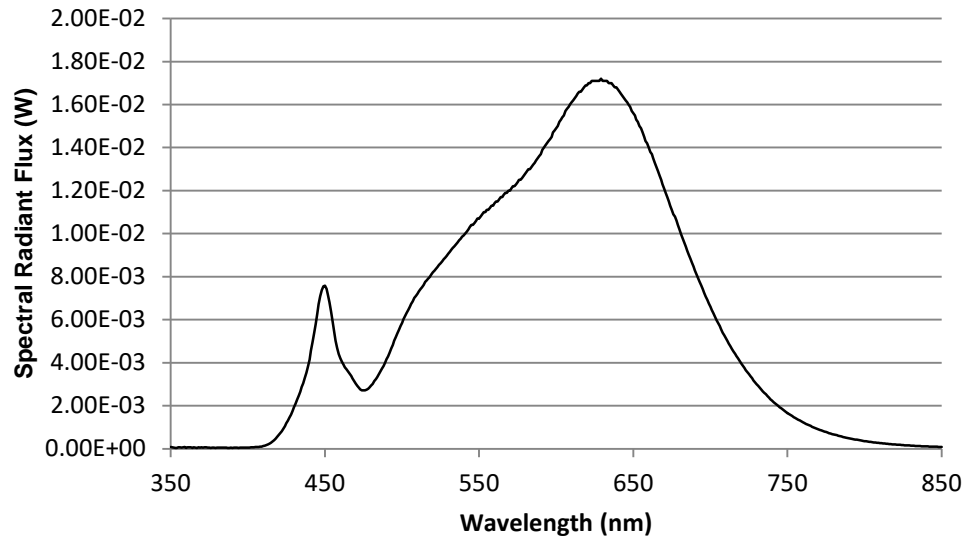
**Chromaticity Diagram**



**Spectral Results**

Name	Value	Unit
Φ	2.99	watts
Φ(v)	823	lumens
Φ(v')	1105	lm'
Chrom x	0.4462	
Chrom y	0.4079	
Chrom u	0.2549	
Chrom v	0.3495	
Duv	0.0001	
Chrom u'	0.2549	
Chrom v'	0.5243	
CCT	2879	K
Purity	56.4	%
λ (dom)	583.2	nm
FWHM	164.1	nm
λ (peak)	629.2	nm
λ (center)	606.4	nm
λ (centroid)	600.6	nm
SDCM	Cool White	
RA	94	
Corr. Coef.	0.000396322	
Correlation	0.0054	
R1	94.3	
R2	95.2	
R3	94.5	
R4	94.6	
R5	93.5	
R6	93.9	
R7	94.7	
R8	87.6	
R9	70.4	
R10	87.7	
R11	95.2	
R12	83.2	
R13	94.4	
R14	96.1	

**Spectral Distribution of Radiant Flux**





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**ISSUE DATE:** 02/02/18

**PREPARED FOR:** PROGRESS

**CATALOG NUMBER:** P710047-150-30

**LUMINAIRE:** 1- Lt. LED Wall Sconce w/ Etched Opal Refractor

**LAMP CAT. NO.:** EVAC120C-3528SE-L42-14S3P-145

**LAMP:** 42- Seoul 3000K LEDs

**MOUNTING:** Wall

**NOTE:** DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.



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**CANDELA DISTRIBUTION**

	0.0	45.0	90.0	135.0	180.0	
0	0	0	0	0	0	
5	6	5	4	2	1	1
15	24	23	17	7	0	4
25	42	41	32	12	0	12
35	61	59	46	19	0	24
45	77	75	59	26	0	38
55	91	88	70	32	1	53
65	103	99	79	37	4	66
75	111	107	85	41	7	77
85	115	111	88	43	9	83
90	116	112	90	44	11	
95	116	111	89	44	12	84
105	113	109	87	44	14	80
115	107	103	82	43	15	71
125	96	92	74	39	11	58
135	83	80	64	35	13	44
145	67	64	52	29	12	29
155	50	49	39	23	9	16
165	32	30	24	14	8	6
175	0	0	0	0	0	0
180	0	0	0	0	0	

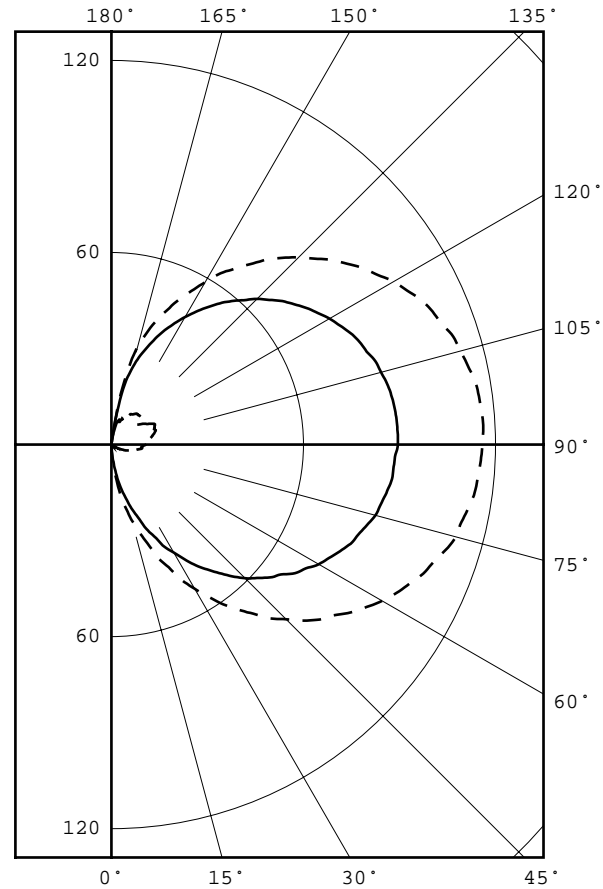
**FLUX**

1
4
12
24
38
53
66
77
83
84
80
71
58
44
29
16
6
0

**ZONAL LUMEN SUMMARY**

ZONE	LUMEN LUMENS	%FIXT
0- 30	17	2.3
0- 40	41	5.5
0- 60	132	17.7
0- 90	357	47.9
90-120	235	31.4
90-130	293	39.2
90-150	366	49.1
90-180	389	52.1
0-180	747	100.0

EFFICACY = 46.1 lm/W  
CIE TYPE - GENERAL DIFFUSE  
PLANE : 0-DEG 90-DEG  
SHIELDING ANGLES : 90 90



**LEGEND**  
0-deg - - - - -  
90-deg - - - - -  
180-deg - - - - -



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PLANE : 0-DEG 90-DEG  
LUMINOUS LENGTH : 2.500 2.500  
HEIGHT OF SIDE : 8.000 8.000

LUMINANCE DATA IN CANDELA/SQ M			
ANGLE	AVERAGE	AVERAGE	AVERAGE
IN DEG	0-DEG	90-DEG	180-DEG
45	6447.	4935.	0.
55	7095.	5441.	78.
65	7673.	5881.	276.
75	8247.	6323.	526.
85	8708.	6694.	712.



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CANDELA DISTRIBUTION  
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0.0	0	0	0	0	0	0	0	0	0
5.0	6	6	5	5	4	3	2	1	1
10.0	15	15	14	13	11	8	5	2	1
15.0	24	24	23	21	17	13	7	1	0
20.0	33	33	32	29	24	18	9	0	0
25.0	42	42	41	38	32	24	12	0	0
30.0	52	52	50	46	39	31	16	0	0
35.0	61	60	59	54	46	36	19	2	0
40.0	69	68	66	62	52	41	23	2	0
45.0	77	77	75	69	59	46	26	4	0
50.0	85	84	81	76	65	51	29	5	0
55.0	91	90	88	82	70	55	32	7	1
60.0	98	97	94	87	75	59	35	9	2
65.0	103	102	99	92	79	62	37	10	4
70.0	107	106	103	96	82	65	39	12	5
75.0	111	110	107	100	85	68	41	14	7
80.0	113	112	109	102	87	69	42	15	9
85.0	115	113	111	103	88	70	43	16	9
90.0	116	115	112	104	90	71	44	17	11
95.0	116	114	111	104	89	71	44	18	12
100.0	115	113	110	103	89	71	45	19	13
105.0	113	111	109	102	87	69	44	19	14
110.0	110	108	106	99	85	68	43	19	14
115.0	107	105	103	96	82	66	43	20	15
120.0	102	100	97	91	79	63	41	20	13
125.0	96	95	92	87	74	60	39	20	11
130.0	90	89	86	81	70	56	37	19	11
135.0	83	82	80	75	64	52	35	19	13
140.0	75	74	72	68	59	47	32	18	13
145.0	67	66	64	61	52	42	29	18	12
150.0	59	58	57	53	46	37	27	17	11
155.0	50	49	49	46	39	32	23	16	9
160.0	41	41	39	37	32	26	20	14	8
165.0	32	31	30	28	24	20	14	10	8
170.0	14	14	13	13	11	9	6	4	3
175.0	0	0	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0



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5-DEGREE  
ZONAL LUMEN SUMMARY

0- 5	0
5- 10	0
10- 15	1
15- 20	3
20- 25	5
25- 30	7
30- 35	10
35- 40	14
40- 45	17
45- 50	21
50- 55	24
55- 60	28
60- 65	32
65- 70	35
70- 75	37
75- 80	39
80- 85	41
85- 90	42
90- 95	42
95-100	42
100-105	41
105-110	39
110-115	37
115-120	34
120-125	31
125-130	27
130-135	24
135-140	20
140-145	16
145-150	13
150-155	10
155-160	7
160-165	4
165-170	2
170-175	0
175-180	0

10-DEGREE  
ZONAL LUMEN SUMMARY

0- 10	1
0- 20	5
0- 30	17
0- 40	41
0- 50	79
0- 60	132
0- 70	198
0- 80	275
0- 90	357
0-100	441
0-110	521
0-120	592
0-130	651
0-140	694
0-150	724
0-160	740
0-170	747
0-180	747



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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	107	107	107	107	107	98	98	98	98	82	82	82	68	68	68	54	54	54	48
1	92	85	79	73	83	77	72	67	63	59	56	51	48	45	39	37	34	29	29
2	81	71	63	55	73	65	57	51	52	47	42	41	37	33	31	28	25	20	20
3	73	61	51	44	66	55	47	40	44	38	33	35	30	26	26	22	19	14	14
4	66	52	43	35	59	48	39	32	38	32	26	30	25	20	22	18	15	11	11
5	60	46	36	29	54	42	33	27	34	27	22	26	21	17	19	15	12	8	8
6	55	41	31	24	49	37	28	22	30	23	18	23	18	14	17	13	10	7	7
7	50	36	27	21	45	33	25	19	27	20	15	21	16	12	15	11	8	5	5
8	46	33	24	18	42	30	22	16	24	18	13	19	14	10	14	10	7	4	4
9	43	29	21	16	39	27	19	14	22	16	11	17	12	9	13	9	6	4	4
10	40	27	19	14	36	24	17	12	20	14	10	16	11	8	12	8	5	3	3

ALL CANDELA, LUMENS, LUMINANCE, AND VCP VALUES IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY. THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE LUMEN OUTPUT OF THIS TEST SAMPLE.





### *Goniophotometer Calibration*

Calibration Lamp: GE 1000W, 120V, T6, CL (FEL)

Lamp Number: ITL78966-1000-38

Calibration Current: 8.300 Amps DC

Total Luminous Flux: 25889.0 Lumens

Calibration Date: 07/10/2017

### *Test Equipment Used*

<i>Instrument</i>	<i>Manufacturer / Model</i>	<i>S/N</i>	<i>Calibration Due:</i>
<i>Goniophotometer</i>	ITL/HLI LAB 1 - Test Distance: 31.74'	N/A	N/A
<i>Power Analyzer</i>	Yokogawa / WT 332	C2QA27071V	10/25/2018
<i>Power Source</i>	Voltage-Regulated House Power	N/A	N/A
<i>Thermometer</i>	National Instruments / USB-TC01	176F4E3	10/26/2018

### *Sphere Calibration*

Calibration Lamp: EIKO 28V75W/E10

Lamp Number: SCL-1400-J136

Calibration Current: 2.679 Amps

Total Luminous Flux: 1427 Lumens

### *Test Equipment Used - Color & SPD; THD & Power Factor*

<i>Instrument</i>	<i>Manufacturer / Model</i>	<i>S/N</i>	<i>Calibration Due:</i>
<i>3-Meter Sphere</i>	Labsphere / LMS-3M	N/A	Checked Daily
<i>Thermometer</i>	National Instruments / USB TC01	1912751	10/26/2018
<i>LAMP Power Meter</i>	Yokogawa / WT332	C2QA27075V	10/25/2018
<i>Power Supply</i>	Chroma / 61602	616020002113	N/A
<i>Power Supply PF/THD</i>	Voltage-Regulated House Power	N/A	N/A
<i>Aux Lamp Supply</i>	Labsphere / LPS-100-0833	0331159372	N/A
<i>Cal Lamp Supply</i>	Labsphere / LPS-150-0268	1218148505	N/A
<i>Spectrometer</i>	Labsphere / CDS 1100	0624117792	N/A

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