



Lab 1
Sphere

Test Sample Description

Catalog Number: P810018-028
Description: 18" EdgeLit Round - White w/ Plastic Refractor

Photometry

Test Method: IES LM-46-04
IES LM-79-08 §10
Preburn Time: 0:15
Time To Stabilize: 0:30
Total Operating Time: 1:35

Input Voltage (Volts): 120.1
Input Current (Amps): 0.195
Input Wattage (Watts): 22.6
Ambient Temp (°C): 24.9

Sphere

Test Method: IES LM-16-93
IES LM-79-08 §12.1
Preburn Time: 1:00
Time To Stabilize: 0:58
Total Operating Time: 1:58

Input Voltage (Volts): 120.0
Input Current (Amps): 0.194
Input Wattage (Watts): 22.5
Ambient Temp (°C): 24.2



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

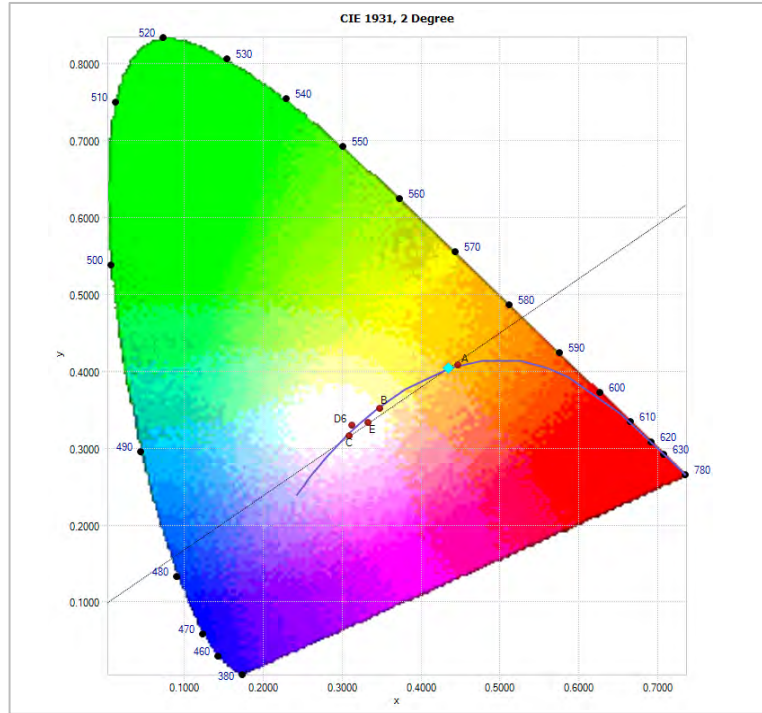




Lamp Cat#: STW912D-E1
 Lamp Desc: 84 - Seoul 3000K LEDs
 Driver Desc: 1 - LG TRIA017C0420P-01

Efficacy: 97.3 LPW S/P Ratio: 1.4 LM/LM

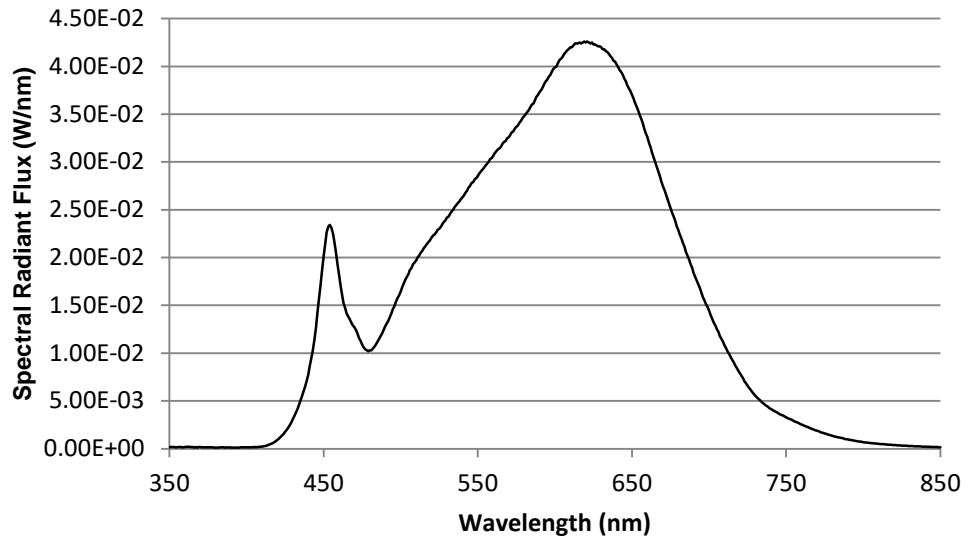
Chromaticity Diagram



Spectral Results

Name	Value	Unit
Φ	7.60	watts
Φ(v)	2190	lumens
Φ(v')	3129	lm'
Chrom x	0.4347	
Chrom y	0.4049	
Chrom u	0.2488	
Chrom v	0.3476	
Duv	0.0006	
Chrom u'	0.2488	
Chrom v'	0.5214	
CCT	3042	K
Purity	52	%
λ (dom)	582.4	nm
FWHM	167.2	nm
λ (peak)	620.5	nm
λ (center)	599.9	nm
λ (centroid)	593.6	nm
SDCM	Cool White	
RA	92	
Corr. Coef.	0.000646391	
Correlation	0.0054	
R1	92.4	
R2	95.9	
R3	98.0	
R4	92.0	
R5	91.8	
R6	94.6	
R7	92.6	
R8	82.5	
R9	60.1	
R10	89.5	
R11	92.3	
R12	78.9	
R13	93.3	
R14	98.3	

Spectral Distribution of Radiant Flux





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ISSUE DATE: 06/27/18

PREPARED FOR: PROGRESS

CATALOG NUMBER: P810018-028

LUMINAIRE: 18" EdgeLit Round - White w/ Plastic Refractor

LAMP CAT. NO.: STW912D-E1

LAMP: 84- Seoul 3000K LEDs

BALLAST CATALOG NUMBER: TRIA017C0420P-01

BALLAST: 1- LG

MOUNTING: Ceiling

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.



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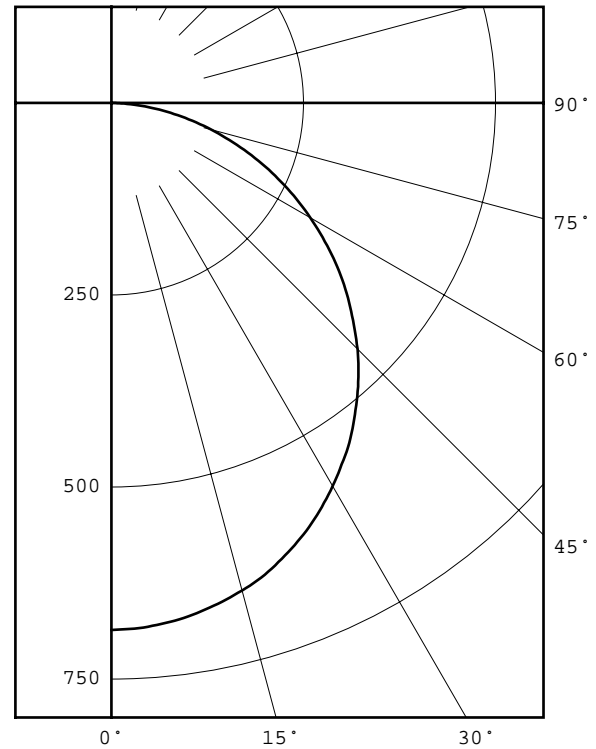
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DEG	CANDELA	LUMENS
0	686	
5	682	65
15	657	185
25	609	280
35	540	337
45	453	349
55	353	315
65	244	242
75	135	142
85	35	40
90	0	

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%FIXT
0- 30	531	27.1
0- 40	868	44.4
0- 60	1532	78.3
0- 90	1957	100.0
90-180	0	0.0
0-180	1957	100.0

EFFICACY = 86.6 lm/W
CIE TYPE - DIRECT
SPACING CRITERION: 1.25
LUMINOUS DIAMETER: 16.500

LUMINANCE DATA IN CANDELA/SQ M	
ANGLE	AVERAGE
IN DEG	
45	4644.
55	4461.
65	4185.
75	3781.
85	2911.





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CANDELA DISTRIBUTION

0.0	686
2.5	685
5.0	682
7.5	678
10.0	672
12.5	665
15.0	657
17.5	648
20.0	636
22.5	623
25.0	609
27.5	593
30.0	576
32.5	558
35.0	540
37.5	519
40.0	498
42.5	476
45.0	453
47.5	428
50.0	404
52.5	379
55.0	353
57.5	326
60.0	299
62.5	272
65.0	244
67.5	217
70.0	189
72.5	161
75.0	135
77.5	108
80.0	83
82.5	58
85.0	35
87.5	13
90.0	0



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5-DEGREE ZONAL LUMEN SUMMARY		
0- 5		16
5- 10		48
10- 15		79
15- 20		107
20- 25		131
25- 30		150
30- 35		164
35- 40		173
40- 45		176
45- 50		173
50- 55		165
55- 60		151
60- 65		132
65- 70		110
70- 75		84
75- 80		58
80- 85		32
85- 90		8

10-DEGREE ZONAL LUMEN SUMMARY		
0- 10		65
0- 20		250
0- 30		531
0- 40		868
0- 50		1217
0- 60		1532
0- 70		1774
0- 80		1917
0- 90		1957



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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
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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>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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