

Project Number
17.02752



Date
10/6/2017

LAB 1
Sphere

Test Sample Description

Catalog Number: P900002-031-27
Description: LED Track Kit w/ Three Medium, Black Track-Heads mounted 18" On-Center

Photometry

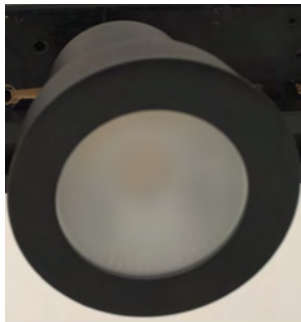
Test Method: IES LM-79-08 § 10
Preburn Time: 00:05
Time To Stabilize: 0:45
Total Operating Time: 2:10

Input Voltage (Volts): 120.0
Input Current (Amps): 0.242
Input Wattage (Watts): 28.8
Ambient Temp (°C): 25.3

Sphere

Test Method: IES LM-79-08 § 9.1 & 12.1
Preburn Time: 0:10
Time To Stabilize: 1:05
Total Operating Time: 1:15

Input Voltage (Volts): 120.0
Input Current (Amps): 0.239
Input Wattage (Watts): 28.5
Ambient Temp (°C): 24.0
PF @ 120V: 0.991
THD @ 120V (%): 12.4



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

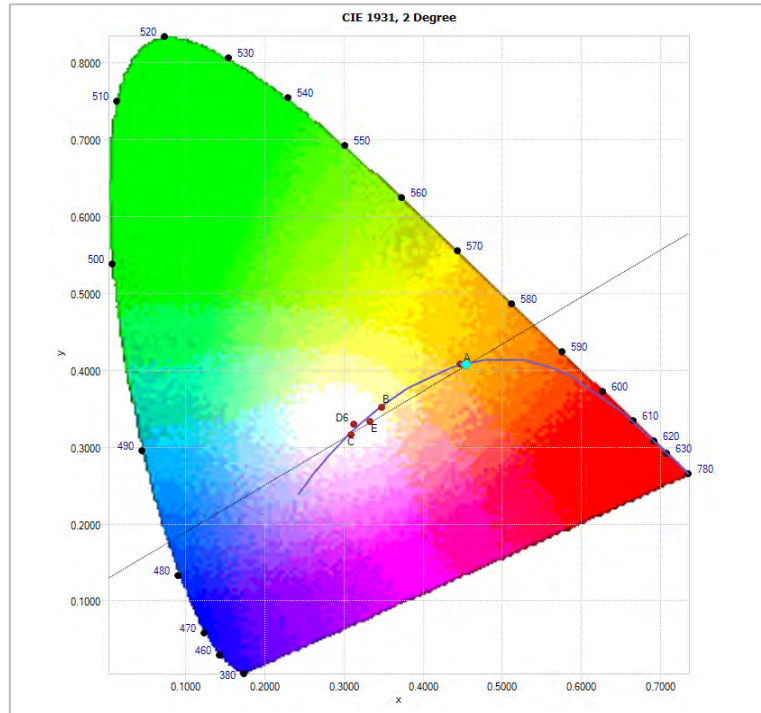




Lamp Cat#: SAW9A32E-E1
 Lamp Desc: 42 - Seoul Semiconductor 2700K LEDs
 Driver Desc: 1 - Buckingham XYZ-PRS-001

Efficacy: 59.1 LPW S/P Ratio: 1.3 LM/LM

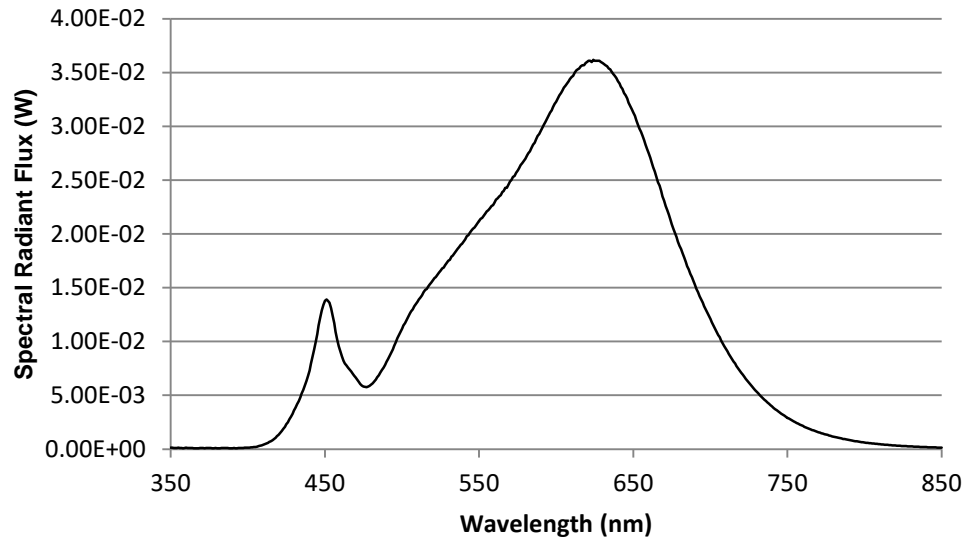
Chromaticity Diagram



Spectral Results

Name	Value	Unit
Φ	5.97	watts
$\Phi(v)$	1683	lumens
$\Phi(v')$	2167	lm'
Chrom x	0.4545	
Chrom y	0.4074	
Chrom u	0.2605	
Chrom v	0.3502	
Duv	0.0009	
Chrom u'	0.2605	
Chrom v'	0.5253	
CCT	2749	K
Purity	58.7	%
λ (dom)	584.2	nm
FWHM	149	nm
λ (peak)	624.2	nm
λ (center)	607.8	nm
λ (centroid)	599.7	nm
SDCM	Cool White	
RA	92	
Corr. Coef.	0.000745735	
Correlation	0.0054	
R1	92.3	
R2	95.5	
R3	97.0	
R4	92.4	
R5	91.9	
R6	94.7	
R7	91.8	
R8	81.3	
R9	58.7	
R10	88.5	
R11	93.1	
R12	84.8	
R13	93.1	
R14	97.6	

Spectral Distribution of Radiant Flux



This report shall not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.



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CATALOG NUMBER: P900002-031-27

LUMINAIRE: LED Track Kit w/ Three Medium, Black Track-Heads
Mounted 18" On-Center

LAMP CAT. NO.: SAW9A32E-E1

LAMP: 42- Seoul Semiconductor 2700K LEDs

BALLAST CATALOG NUMBER: XYZ-PRS-001

BALLAST: 1- Buckingham

MOUNTING: Ceiling

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.



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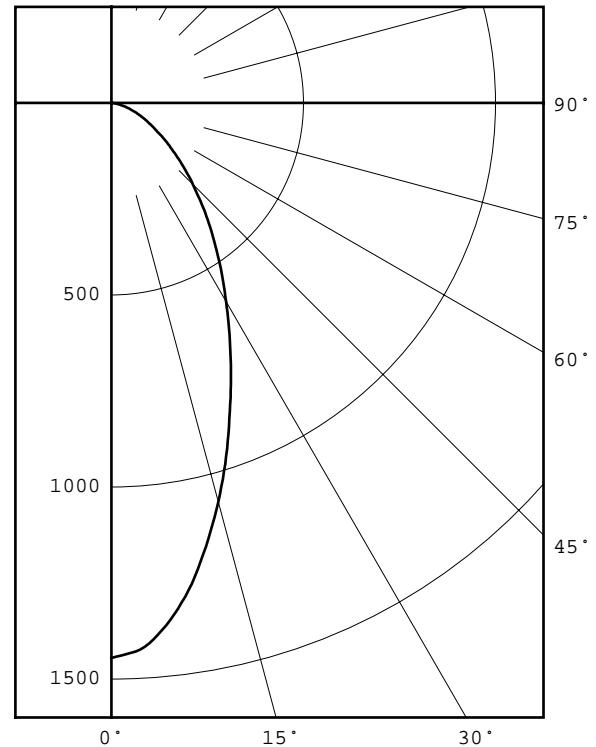
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DEG	CANDELA	LUMENS
0	1445	
5	1390	128
15	1075	299
25	735	338
35	482	302
45	300	233
55	172	155
65	89	89
75	35	38
85	3	6
90	0	

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%FIXT
0- 30	766	48.2
0- 40	1068	67.2
0- 60	1456	91.6
0- 90	1589	100.0
90-180	0	0.0
0-180	1589	100.0

EFFICACY = 55.2 lm/W
CIE TYPE - DIRECT
LUMINAIRE SPACING CRITERION = 0.75
PLANE : 0-DEG 90-DEG
SHIELDING ANGLES : 90 90
LUMINOUS LENGTH : 8.000 1.750

LUMINANCE DATA IN CANDELA/SQ M	
ANGLE	AVERAGE
IN DEG	
45	46972.
55	33200.
65	23316.
75	14972.
85	3811.





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CANDELA DISTRIBUTION

0.0	1445
2.5	1430
5.0	1390
7.5	1328
10.0	1252
12.5	1164
15.0	1075
17.5	985
20.0	895
22.5	812
25.0	735
27.5	663
30.0	597
32.5	538
35.0	482
37.5	431
40.0	385
42.5	340
45.0	300
47.5	264
50.0	230
52.5	199
55.0	172
57.5	146
60.0	124
62.5	106
65.0	89
67.5	74
70.0	60
72.5	47
75.0	35
77.5	25
80.0	16
82.5	9
85.0	3
87.5	1
90.0	0



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5-DEGREE ZONAL LUMEN SUMMARY		
0- 5		34
5- 10		94
10- 15		138
15- 20		162
20- 25		170
25- 30		168
30- 35		158
35- 40		144
40- 45		126
45- 50		107
50- 55		87
55- 60		68
60- 65		52
65- 70		38
70- 75		25
75- 80		14
80- 85		5
85- 90		1

10-DEGREE ZONAL LUMEN SUMMARY		
0- 10		128
10- 20		299
20- 30		338
30- 40		302
40- 50		233
50- 60		155
60- 70		89
70- 80		38
80- 90		6



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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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	57
6	79	68	61	56	78	67	60	55	66	59	55	64	59	54	63	58	54	52
7	74	63	56	51	73	62	55	51	61	55	50	60	54	50	58	53	50	48
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	42	41
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38

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.

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10/6/2017

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	11/2/2017
<i>Power Source</i>	Voltage-Regulated House Power	N/A	N/A
<i>Thermometer</i>	National Instruments / USB-TC01	176F4E3	11/7/2017

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	Calibrated Weekly
<i>Thermometer</i>	National Instruments / USB TC01	1912751	11/2/2017
<i>LAMP Power Meter</i>	Yokogawa / WT332	C2QA27075V	11/1/2017
<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	031159372	10/31/2017
<i>Cal Lamp Supply</i>	Labsphere / LPS-150-0268	1218148505	12/1/2017
<i>Spectrometer</i>	Labsphere / CDS 1100	0624117792	N/A

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