

Project Number
20.01368



HUBBELL
Lighting

Date
11/11/2020

Photometric Test Report

Lab 1
Sphere

Test Sample Description

Catalog Number: P810029-020-30

Description: 7.25" - Bronze Eyeball w/ Tooled PC Lens; Aimed at Nadir

Photometry

Test Method: IES LM-46-04
IES LM-79-08 §10

Preburn Time: 1:00
Time To Stabilize: 0:47
Total Operating Time: 2:27

Input Voltage (Volts): 120.1
Input Current (Amps): 0.133
Input Wattage (Watts): 15.7
Ambient Temp (°C): 25.4
PF @ 120V: 0.983
THD @ 120%V: 18.40

Sphere

Test Method: IES LM-16-93
IES LM-79-08 § 12.1

Preburn Time: 3:00
Time To Stabilize: 1:25
Total Operating Time: 4:25

Input Voltage (Volts): 120.0
Input Current (Amps): 0.130
Input Wattage (Watts): 15.3
Ambient Temp (°C): 24



Hubbell Lighting, Inc.

701 Millennium Boulevard
Greenville, SC 29607
www.hubbelllighting.com

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



* This customer-provided information was not verified by the laboratory and could affect the validity of the test results.

Note that the LED manufacturer and part number are unverifiable by the lab.

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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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Lamp Cat#: SPMWH8229AD7SKV3H5

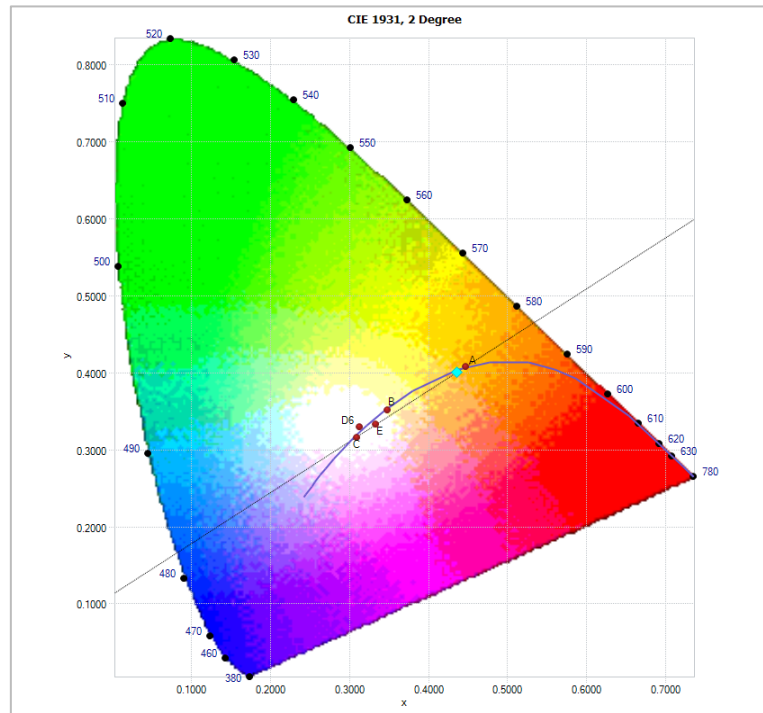
Lamp Desc: 14 - Samsung 3000K LEDs

Efficacy: 73.1 LPW

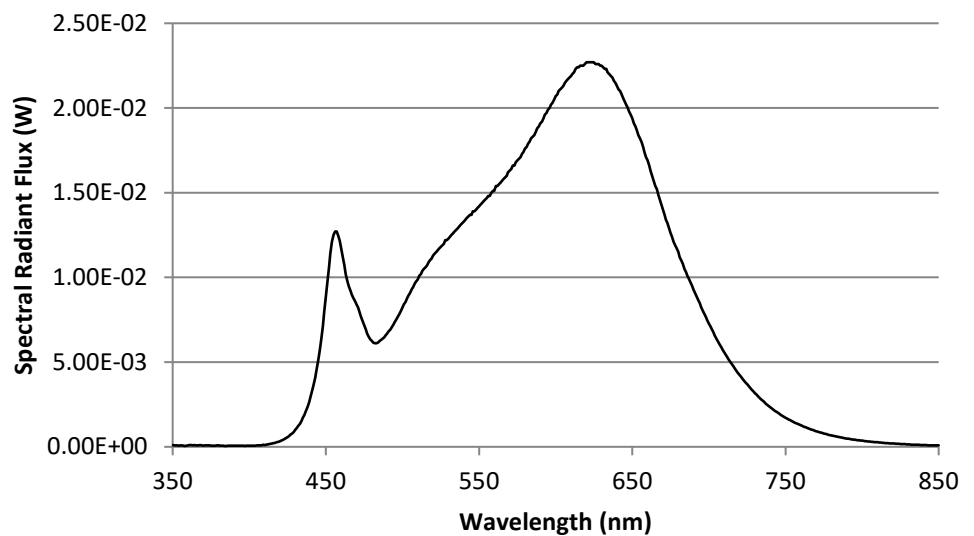
S/P Ratio: 1.5 LM'/LM

Spectral Results

Name	Value	Unit
Φ	3.93	watts
$\Phi(v)$	1119	lumens
$\Phi(v')$	1625	lm'
Chrom x	0.4353	
Chrom y	0.4008	
Chrom u	0.251	
Chrom v	0.3466	
Duv	0.0012	
Chrom u'	0.251	
Chrom v'	0.5198	
CCT	2998	K
Purity	51	%
λ (dom)	583.2	nm
FWHM	159.3	nm
λ (peak)	623	nm
λ (center)	600.7	nm
λ (centroid)	593.9	nm
SDCM	Cool White	
RA	94	
Corr. Coef.	0.001116995	
Correlation	0.0054	
R1	95.3	
R2	98.9	
R3	98.5	
R4	93.3	
R5	94.6	
R6	96.7	
R7	91.7	
R8	84.2	
R9	66.6	
R10	95.8	
R11	94.4	
R12	80.6	
R13	96.7	
R14	99.5	



Spectral Distribution of Radiant Flux



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Data shown is representative of the product sample tested. Actual field performance may vary.



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REPORT NUMBER: 20.01368

PAGE: 3 OF 9

ISSUE DATE: 11/11/20

PREPARED FOR: PROGRESS

CATALOG NUMBER: P810029-020-30

LUMINAIRE: 7.25" - Bronze Eyeball w/ Tooled PC Lens
Aimed at Nadir

LAMP CAT. NO.: SPMWH8229AD7SKV3H5

LAMP: 1- AC LED Module w/ 14- Samsung 3000K LEDs

MOUNTING: Surface

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.



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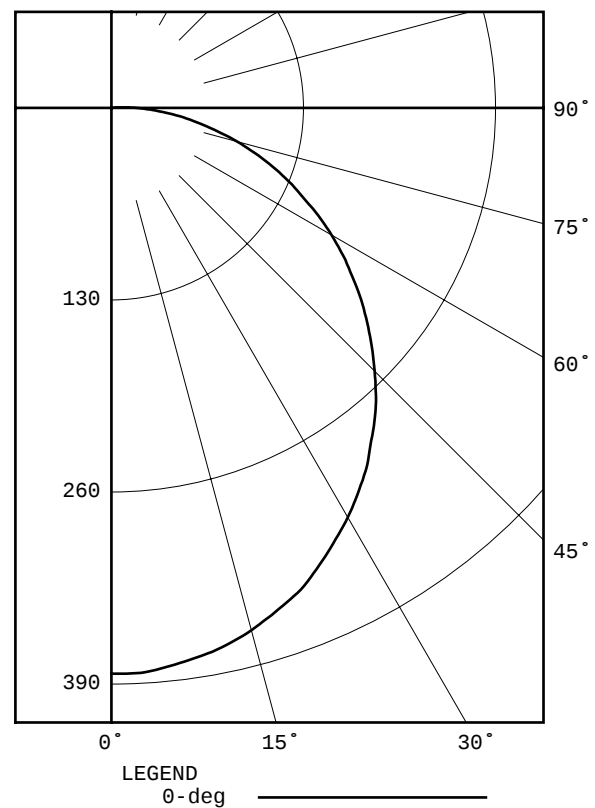
REPORT NUMBER: 20.01368
ISSUE DATE: 11/11/20
PREPARED FOR: PROGRESS
CATALOG NUMBER: P810029-020-30

PAGE: 4 OF 9

DEG	CANDELA	LUMENS
0	383	
5	381	36
15	366	103
25	338	156
35	300	187
45	252	195
55	199	178
65	143	142
75	88	93
85	37	41
90	17	
95	4	6
105	0	0
115	0	0
125	0	0
135	0	0
145	0	0
155	0	0
165	0	0
175	0	0
180	0	

ZONAL ZONE	LUMEN	SUMMARY LUMENS	%FIXT
0- 30		295	26.0
0- 40		483	42.4
0- 60		855	75.2
0- 90		1132	99.5
90-120		6	0.5
90-130		6	0.5
90-150		6	0.5
90-180		6	0.5
0-180		1138	100.0

EFFICACY = 72.5 lm/W
CIE TYPE - DIRECT
SPACING CRITERION: 1.24
PLANE : 0-DEG 90-DEG
SHIELDING ANGLES : 90 90





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CATALOG NUMBER: P810029-020-30

PAGE: 5 OF 9

LUMINOUS DIAMETER: 4.500
HEIGHT OF SIDE : 0.500

LUMINANCE DATA IN CANDELA/SQ M
ANGLE AVERAGE
IN DEG

45	30428.
55	28129.
65	25301.
75	21686.
85	15809.



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www.hubbelllighting.com**REPORT NUMBER:** 20.01368**ISSUE DATE:** 11/11/20**PREPARED FOR:** PROGRESS**CATALOG NUMBER:** P810029-020-30**PAGE:** 6 OF 9**CANDELA DISTRIBUTION**

0.0	383
5.0	381
10.0	375
15.0	366
20.0	354
25.0	338
30.0	320
35.0	300
40.0	277
45.0	252
50.0	226
55.0	199
60.0	172
65.0	143
70.0	116
75.0	88
80.0	61
85.0	37
90.0	17
95.0	4
100.0	0
105.0	0
110.0	0
115.0	0
120.0	0
125.0	0
130.0	0
135.0	0
140.0	0
145.0	0
150.0	0
155.0	0
160.0	0
165.0	0
170.0	0
175.0	0
180.0	0



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CATALOG NUMBER: P810029-020-30

PAGE: 7 OF 9

5-DEGREE		
ZONAL	LUMEN	SUMMARY
0- 5		9
5- 10		27
10- 15		44
15- 20		59
20- 25		73
25- 30		83
30- 35		91
35- 40		96
40- 45		98
45- 50		97
50- 55		92
55- 60		86
60- 65		77
65- 70		66
70- 75		53
75- 80		40
80- 85		27
85- 90		15
90- 95		5
95-100		1
100-105		0
105-110		0
110-115		0
115-120		0
120-125		0
125-130		0
130-135		0
135-140		0
140-145		0
145-150		0
150-155		0
155-160		0
160-165		0
165-170		0
170-175		0
175-180		0

10-DEGREE		
ZONAL	LUMEN	SUMMARY
0- 10		36
0- 20		139
0- 30		295
0- 40		483
0- 50		677
0- 60		855
0- 70		998
0- 80		1091
0- 90		1132
0-100		1138
0-110		1138
0-120		1138
0-130		1138
0-140		1138
0-150		1138
0-160		1138
0-170		1138
0-180		1138



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PAGE: 8 OF 9

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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	99
1	108	102	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	81
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	69	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	67	63	58	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	75	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	45	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	38	34	32
8	59	46	37	31	58	45	37	31	43	36	31	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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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Goniophotometer Calibration

Calibration Lamp: EIKO 75Q/CL/E10 28V75W

Lamp Number: SCL-1400-K136

Calibration Current: 2.679 Amps DC

Total Luminous Flux: 1429 Lumens

Calibration Date: 8/28/2020

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	10/31/2021
<i>Power Source</i>	Voltage-Regulated House Power	N/A	N/A
<i>Thermometer</i>	National Instruments / USB-TC01	176F4E3	10/31/2021

3-Meter-Sphere Calibration

Calibration Lamp: EIKO 28V75W/E10

Lamp Number: SCL-1400-K136

Calibration Current: 2.679 Amps

Total Luminous Flux: 1429 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	Calibration Checked Daily
<i>Thermometer</i>	National Instruments / USB TC01	1912751	10/31/2021
<i>Power Analyzer</i>	Yokogawa / WT332	C2QA27072V	10/31/2021
<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>	GW Instek / PSU 150-10	GER221028	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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