

Project Number
20.01367



HUBBELL
Lighting

Date
11/10/2020

Photometric Test Report

Lab 1
Sphere

Test Sample Description

Catalog Number: P810029-028-30

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

Photometry

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

Preburn Time: 0:35

Time To Stabilize: 0:36

Total Operating Time: 1:45

Input Voltage (Volts): 120.0

Input Current (Amps): 0.131

Input Wattage (Watts): 15.4

Ambient Temp (°C): 25.5

PF @ 120V: 0.976

THD @ 120%V: 22.77

Sphere

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

Preburn Time: 1:00

Time To Stabilize: 1:22

Total Operating Time: 2:22

Input Voltage (Volts): 120.0

Input Current (Amps): 0.128

Input Wattage (Watts): 15.1

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

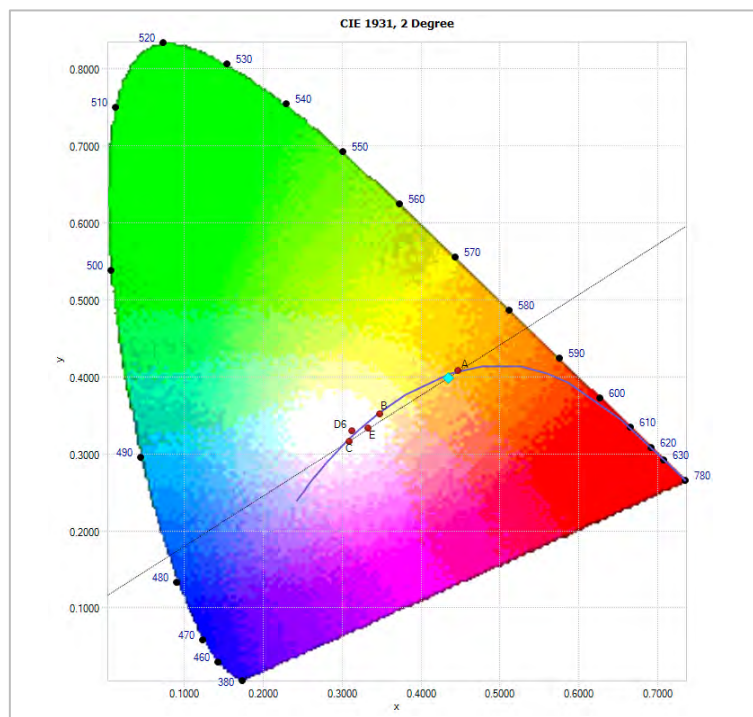
Lamp Desc: 1- AC LED Module w/ 14- Samsung 3000K LEDs

Efficacy: 76.2 LPW

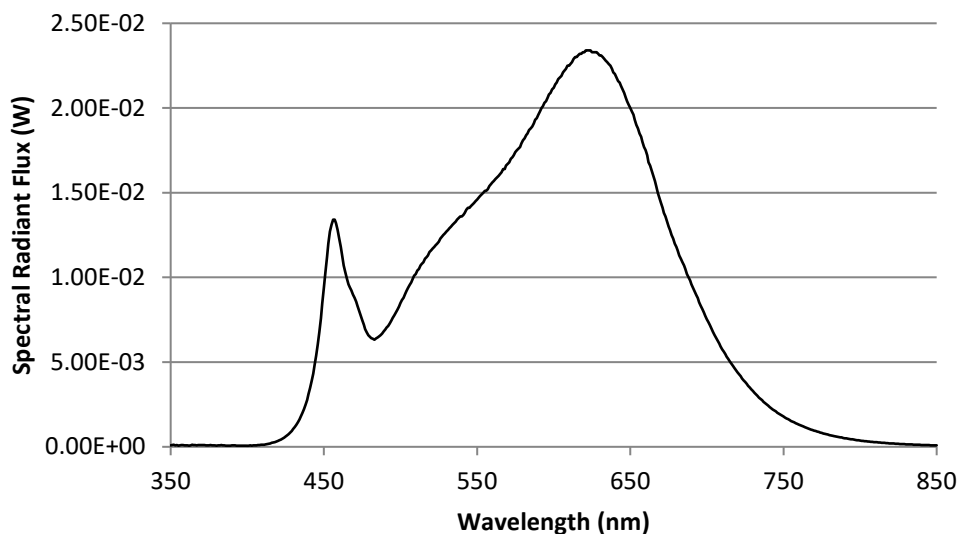
S/P Ratio: 1.5 LM/LM

Spectral Results

Name	Value	Unit
Φ	4.06	watts
$\Phi(v)$	1150	lumens
$\Phi(v')$	1679	lm'
Chrom x	0.4343	
Chrom y	0.3992	
Chrom u	0.2509	
Chrom v	0.346	
Duv	0.0017	
Chrom u'	0.2509	
Chrom v'	0.5191	
CCT	3003	K
Purity	50.2	%
λ (dom)	583.4	nm
FWHM	159.4	nm
λ (peak)	623.5	nm
λ (center)	600.7	nm
λ (centroid)	593.7	nm
SDCM	Cool White	
RA	94	
Corr. Coef.	0.001585658	
Correlation	0.0054	
R1	95.6	
R2	99.1	
R3	98.3	
R4	93.6	
R5	95.0	
R6	96.5	
R7	91.6	
R8	84.5	
R9	67.6	
R10	96.4	
R11	94.7	
R12	80.9	
R13	97.0	
R14	99.6	



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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PREPARED FOR: PROGRESS

CATALOG NUMBER: P810029-028-30

LUMINAIRE: 7.25" white Eyeball w/ Tooled PC Lens; Aimed at Nadir

LAMP CAT. NO.: SPMWH8229AD7SKV3H5

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

MOUNTING: Surface/Ceiling

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.



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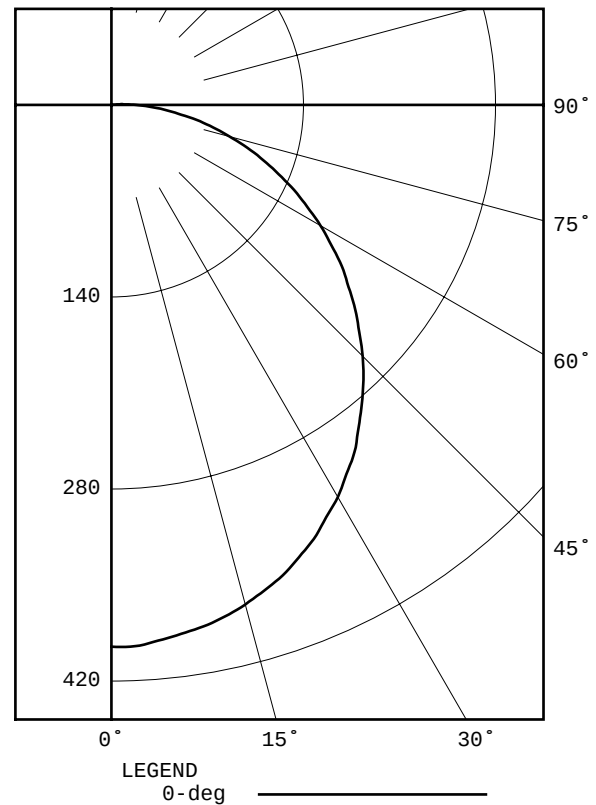
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DEG	CANDELA	LUMENS
0	395	
5	392	37
15	377	106
25	349	161
35	309	193
45	259	200
55	205	183
65	147	145
75	89	95
85	38	42
90	18	
95	5	7
105	0	0
115	0	0
125	0	0
135	0	0
145	0	0
155	0	0
165	0	0
175	0	0
180	0	

ZONAL ZONE	LUMEN	SUMMARY LUMENS	%FIXT
0- 30		304	26.0
0- 40		497	42.5
0- 60		879	75.3
0- 90		1162	99.4
90-120		7	0.6
90-130		7	0.6
90-150		7	0.6
90-180		7	0.6
0-180		1168	100.0

EFFICACY = 75.8 lm/W
CIE TYPE - DIRECT
SPACING CRITERION: 1.24
PLANE : 0-DEG 90-DEG
SHIELDING ANGLES : 90 90





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LUMINOUS DIAMETER: 4.500
HEIGHT OF SIDE : 0.500

LUMINANCE DATA IN CANDELA/SQ M
ANGLE AVERAGE
IN DEG

45	31273.
55	28977.
65	26008.
75	21933.
85	16237.



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CANDELA DISTRIBUTION

0.0	395
5.0	392
10.0	386
15.0	377
20.0	365
25.0	349
30.0	330
35.0	309
40.0	284
45.0	259
50.0	232
55.0	205
60.0	176
65.0	147
70.0	118
75.0	89
80.0	63
85.0	38
90.0	18
95.0	5
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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5-DEGREE		
ZONAL	LUMEN	SUMMARY
0- 5		9
5- 10		28
10- 15		45
15- 20		61
20- 25		75
25- 30		86
30- 35		94
35- 40		99
40- 45		101
45- 50		99
50- 55		95
55- 60		88
60- 65		78
65- 70		67
70- 75		54
75- 80		41
80- 85		27
85- 90		15
90- 95		6
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		37
0- 20		144
0- 30		304
0- 40		497
0- 50		697
0- 60		879
0- 70		1025
0- 80		1120
0- 90		1162
0-100		1168
0-110		1168
0-120		1168
0-130		1168
0-140		1168
0-150		1168
0-160		1168
0-170		1168
0-180		1168



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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	103	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	63	86	76	68	62	73	66	61	70	64	60	67	63	58	56
4	81	69	60	53	79	67	59	52	65	57	52	62	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	46	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	44	36	31	42	35	30	41	35	30	28
9	56	42	34	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	30	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 28V75W/E10

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>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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