

Project Number
20.00818



HUBBELL
Lighting

Date
7/7/2020
Rev 1: 12/7/2020

Photometric Test Report

Lab 5
Sphere

Test Sample Description

Catalog Number: P810032-028-30
Description: 1x2 Flat Panel Sample

Revision 1: Updated the Product Catalog Number from P350206-028-30 per Brand management.

Photometry

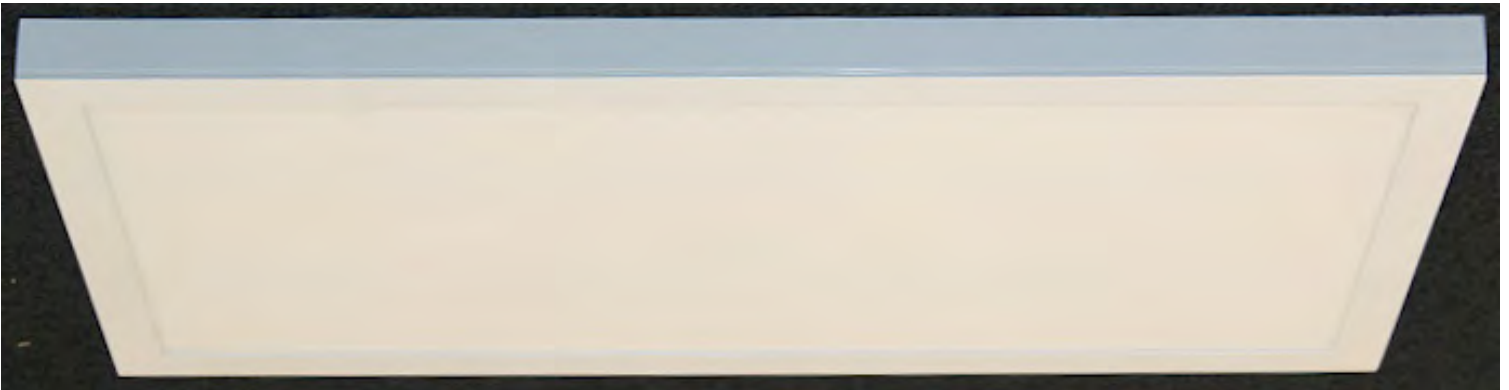
Test Method: IES LM-41-14
IES LM-79-08 §10
Preburn Time: 0:05
Time To Stabilize: 0:53
Total Operating Time: 1:50

Input Voltage (Volts): 120.2
Input Current (Amps): 0.176
Input Wattage (Watts): 20.7
Ambient Temp (°C): 25.4
PF @ 120V: 0.975
THD @ 120V (%): 13.58

Sphere

Test Method: IES LM-16-93
IES LM-79-08 §12.1
Preburn Time: 1:20
Time To Stabilize: 1:27
Total Operating Time: 3:04

Input Voltage (Volts): 120.0
Input Current (Amps): 0.175
Input Wattage (Watts): 20.6
Ambient Temp (°C): 24



Hubbell Lighting, Inc.

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

Revised By: D. ROBBINS
Revision Approval: P. McCARTHY



* This customer-provided information was not verified by the laboratory. Note that LED manufacturer and part # are unverifiable by the lab.

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ISSUE DATE: 07/07/20

REV 1 DATE: 12/07/20

PREPARED FOR: PROGRESS

CATALOG NUMBER: P810032-028-30

LUMINAIRE: 1x2 Flat Panel Sample

LAMP CAT. NO.: BXEW-30G-11L-3B-00

LAMP: 144- Bridgelux 3000K LEDs

BALLAST CATALOG NUMBER: BQE25-0550-40-TD

BALLAST: 1- BECKY - Programmed to 550mA

MOUNTING: Ceiling

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.

REVISION 1: Updated the Product Catalog Number from
P350206-028-30 per Brand management.

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CANDELA DISTRIBUTION						FLUX
	0.0	22.5	45.0	67.5	90.0	
0	537	537	537	537	537	
5	537	537	534	534	534	51
15	520	519	517	516	517	146
25	486	485	482	481	481	223
35	436	435	432	431	431	271
45	370	370	367	366	365	284
55	292	290	288	287	287	258
65	203	201	200	200	199	199
75	111	111	109	108	107	116
85	32	31	30	29	29	34
90	2	2	1	1	1	
95	0	0	0	0	0	0
105	0	0	0	0	0	0
115	0	0	0	0	0	0
125	0	0	0	0	0	0
135	0	0	0	0	0	0
145	0	0	0	0	0	0
155	0	0	0	0	0	0
165	0	0	0	0	0	0
175	0	0	0	0	0	0
180	0	0	0	0	0	

ZONAL LUMEN	SUMMARY	
ZONE	LUMENS	%FIXT
0- 30	420	26.5
0- 40	690	43.7
0- 60	1232	77.9
0- 90	1581	100.0
90-120	0	0.0
90-130	0	0.0
90-150	0	0.0
90-180	0	0.0
0-180	1581	100.0

EFFICACY = 76.4 lm/W

CIE TYPE - DIRECT

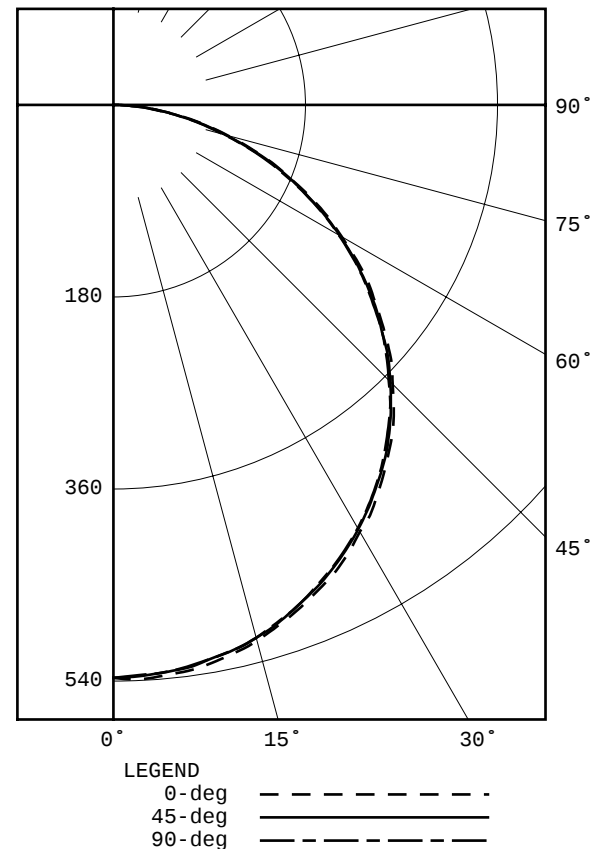
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CUT TYPE      DIRECT
PLANE          : 0-DEG  90-DEG

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SPACING CRITERIA :	1.28	1.27
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SHIELDING ANGLES : 90 90





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PLANE : 0-DEG 90-DEG
LUMINOUS LENGTH : 22.000 10.000

LUMINANCE DATA IN CANDELA/SQ M

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	3687.	3657.	3637.
55	3587.	3538.	3525.
65	3384.	3334.	3318.
75	3022.	2967.	2913.
85	2587.	2425.	2344.



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CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	537	537	537	537	537
5.0	537	537	534	534	534
10.0	531	530	527	527	527
15.0	520	519	517	516	517
20.0	504	504	501	501	501
25.0	486	485	482	481	481
30.0	462	462	459	458	458
35.0	436	435	432	431	431
40.0	406	405	402	400	400
45.0	370	370	367	366	365
50.0	332	331	328	327	328
55.0	292	290	288	287	287
60.0	247	247	245	244	244
65.0	203	201	200	200	199
70.0	158	156	156	154	154
75.0	111	111	109	108	107
80.0	69	67	67	66	66
85.0	32	31	30	29	29
90.0	2	2	1	1	1
95.0	0	0	0	0	0
100.0	0	0	0	0	0
105.0	0	0	0	0	0
110.0	0	0	0	0	0
115.0	0	0	0	0	0
120.0	0	0	0	0	0
125.0	0	0	0	0	0
130.0	0	0	0	0	0
135.0	0	0	0	0	0
140.0	0	0	0	0	0
145.0	0	0	0	0	0
150.0	0	0	0	0	0
155.0	0	0	0	0	0
160.0	0	0	0	0	0
165.0	0	0	0	0	0
170.0	0	0	0	0	0
175.0	0	0	0	0	0
180.0	0	0	0	0	0



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5-DEGREE		
ZONAL	LUMEN	SUMMARY
0- 5		13
5- 10		38
10- 15		62
15- 20		84
20- 25		103
25- 30		119
30- 35		131
35- 40		139
40- 45		143
45- 50		141
50- 55		134
55- 60		123
60- 65		108
65- 70		90
70- 75		69
75- 80		47
80- 85		26
85- 90		8
90- 95		0
95-100		0
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		51
0- 20		197
0- 30		420
0- 40		690
0- 50		974
0- 60		1232
0- 70		1430
0- 80		1546
0- 90		1581
0-100		1581
0-110		1581
0-120		1581
0-130		1581
0-140		1581
0-150		1581
0-160		1581
0-170		1581
0-180		1581



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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	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	85	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	55	42	34	28	41	33	28	40	33	28	39	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	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.

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Goniophotometer Calibration

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

Lamp Number: ITL78966-1000-66

Calibration Current: 8.300 Amps DC

Total Luminous Flux: 23013.0 Lumens

Calibration Date: 08/20/2019

Test Equipment Used

<i>Instrument</i>	<i>Manufacturer / Model</i>	<i>S/N</i>	<i>Calibration Due:</i>
<i>Goniophotometer</i>	ITL/HLI LAB 5 - Test Distance: 56.0'	N/A	N/A
<i>Power Analyzer</i>	Yokogawa / WT 332	C2QA27072V	10/31/2020
<i>Power Source</i>	Voltage-Regulated House Power	N/A	N/A
<i>Thermometer</i>	National Instruments / USB-TC01	1912722	10/31/2020

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	10/31/2020
<i>Power Analyzer</i>	Yokogawa / WT332	C2QA27075V	10/31/2020
<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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