

Project Number
16.00184



HUBBELL
Lighting

Date
1/20/2016

LAB 6

Test Sample Description

Catalog Number: P5345-2030K9
Description: 9 x 7 Mini-Pendant w/ 1- 9W LED MODULE

Test Method: IES LM-79-08 § 10
Preburn Time: 0:010
Time To Stabilize: 1:05
Total Operating Time: 1:46

Input Voltage (Volts): 120.1
Input Current (Amps): 0.064
Input Wattage (Watts): 7.2
Ambient Temp (°C): 24.1



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www.hubbellighting.com

Checked: D. ROBBINS
Approved: M. WASHBURN





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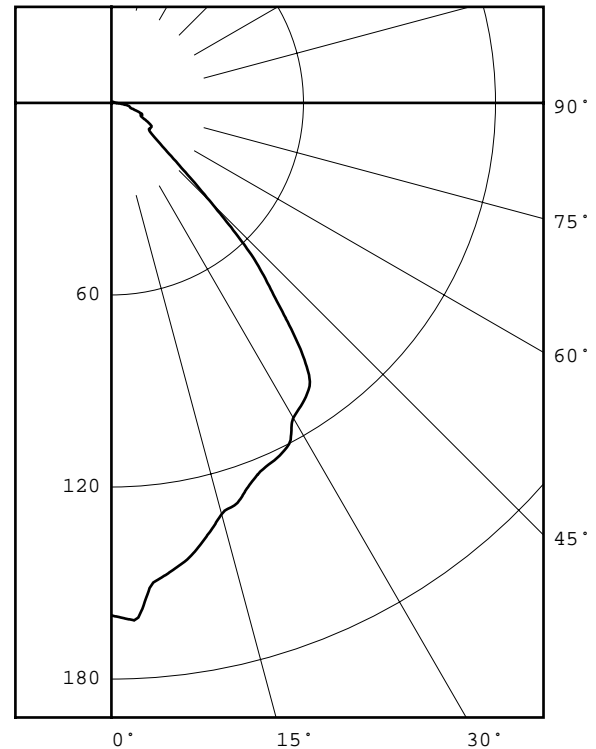
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PREPARED FOR: PROGRESS
CATALOG NUMBER: P5345-2030K9
LUMINAIRE: 9 x 7 Mini-Pendant w/ 1- 9W LED MODULE
LAMP CAT. NO.: 93049180-3130
LAMP: 20- Nichia 3000K LEDs
MOUNTING: Pendant/Ceiling
NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.

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DEG	CANDELA	LUMENS
0	160	
5	150	14
15	133	38
25	122	56
35	108	64
45	44	36
55	14	14
65	11	11
75	6	8
85	3	3
90	1	
95	1	1
105	1	1
115	1	1
125	0	0
135	0	0
145	0	0
155	0	0
165	1	0
175	1	0
180	1	

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%FIXT
0- 30	108	43.5
0- 40	173	69.4
0- 60	222	89.3
0- 90	244	98.2
90-120	3	1.3
90-130	4	1.5
90-150	4	1.6
90-180	5	1.8
0-180	249	100.0

TOTAL INPUT WATTS = 7.2
EFFICACY = 34.6 Lm/W
CIE TYPE - DIRECT
LUMINAIRE SPACING CRITERION = 1.1





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PLANE : 0-DEG 90-DEG
LUMINOUS LENGTH : 9.000 9.000
HEIGHT OF SIDE : 7.000 7.000

LUMINANCE DATA IN CANDELA/SQ METER

ANGLE AVERAGE

IN DEG

45	676.
55	226.
65	178.
75	121.
85	64.



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CANDELA DISTRIBUTION

	0.0
0.0	160
5.0	150
10.0	144
15.0	133
20.0	127
25.0	122
30.0	114
35.0	108
40.0	80
45.0	44
50.0	20
55.0	14
60.0	14
65.0	11
70.0	10
75.0	6
80.0	5
85.0	3
90.0	1
95.0	1
100.0	1
105.0	1
110.0	1
115.0	1
120.0	1
125.0	0
130.0	0
135.0	0
140.0	0
145.0	0
150.0	0
155.0	0
160.0	1
165.0	1
170.0	1
175.0	1
180.0	1



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ZONAL LUMEN SUMMARY

0- 5	4.
5- 10	11.
10- 15	16.
15- 20	21.
20- 25	26.
25- 30	30.
30- 35	33.
35- 40	32.
40- 45	24.
45- 50	12.
50- 55	7.
55- 60	7.
60- 65	6.
65- 70	5.
70- 75	4.
75- 80	3.
80- 85	2.
85- 90	1.
90- 95	1.
95-100	1.
100-105	1.
105-110	1.
110-115	1.
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.



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	4
5- 10	11
10- 15	16
15- 20	21
20- 25	26
25- 30	30
30- 35	33
35- 40	32
40- 45	24
45- 50	12
50- 55	7
55- 60	7
60- 65	6
65- 70	5
70- 75	4
75- 80	3
80- 85	2
85- 90	1
90- 95	1
95-100	1
100-105	1
105-110	1
110-115	1
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	14
0- 20	52
0- 30	108
0- 40	173
0- 50	208
0- 60	222
0- 70	234
0- 80	241
0- 90	244
0-100	246
0-110	247
0-120	248
0-130	248
0-140	248
0-150	248
0-160	249
0-170	249
0-180	249



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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	
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98
1	111	107	103	100	108	104	101	99	100	97	95	96	94	92	92	90	89	87
2	103	96	91	86	100	95	90	85	91	87	83	87	84	81	84	82	79	77
3	96	87	81	76	94	86	80	75	83	78	73	80	76	72	77	74	71	69
4	89	80	73	67	87	78	72	67	76	70	65	73	68	64	71	67	63	62
5	84	73	65	60	82	72	65	60	70	63	59	68	62	58	66	61	57	56
6	78	67	59	54	76	66	59	54	64	58	53	62	57	53	61	56	52	50
7	73	62	54	49	72	61	54	49	59	53	48	58	52	48	56	51	48	46
8	69	57	50	45	67	56	49	45	55	49	44	54	48	44	53	47	44	42
9	65	53	46	41	63	52	46	41	51	45	41	50	44	40	49	44	40	38
10	61	49	42	38	60	49	42	38	48	42	37	47	41	37	46	41	37	35

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 LUMINAIRE SAMPLE.

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Goniophotometer Calibration

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

Lamp Number: ITL78966-1000-14

Calibration Current: 8.300 Amps DC

Total Luminous Flux: 23413.0 Lumens

Calibration Date: 07/18/2015

Test Equipment Used

<i>Instrument</i>	<i>Manufacturer / Model</i>	<i>S/N</i>	<i>Calibration Due:</i>
<i>Goniophotometer</i>	ITL / HLI LAB 6 - Test Distance: 31.3'	N/A	N/A
<i>Power Analyzer</i>	Yokogawa / WT 332	C2QA27076V	11/10/2016
<i>Power Source</i>	Voltage-Regulated House Power	N/A	N/A
<i>Thermometer</i>	National Instruments / USB-TC01	1912745	11/10/2016

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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.