

Project Number
16.00446



HUBBELL
Lighting

Date
2/24/2016

LAB 6

Test Sample Description

Catalog Number: P5341-2030K9
Description: 16" 1-Lt. LED Pendant w/ Aluminum Shade Reflector Antique Bronze/Gold inside

Test Method: IES LM-79-08 § 10
Preburn Time: 0:00
Time To Stabilize: 3:58
Total Operating Time: 4:36
Input Voltage (Volts): 120.1
Input Current (Amps): 0.147
Input Wattage (Watts): 16.4
Ambient Temp (°C): 24.3



Hubbell Lighting, Inc.
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Checked: D. ROBBINS / D. BLACK
Approved: M. WASHBURN





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REPORT NUMBER: 16.00446
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PREPARED FOR: PROGRESS
CATALOG NUMBER: P5341-2030K9
LUMINAIRE: 16" 1-Lt. LED Pendant w/ Aluminum Shade Reflector Antique
Bronze/Gold inside
LAMP CAT. NO.: 93047261-4130
LAMP: 40 - Nichia 3000K LEDs- 1- 17W HAL AC LED Module
MOUNTING: Pendant
NOTE: DATA SHOWN IS ABSOLUTE FOR THE
SAMPLE PROVIDED.

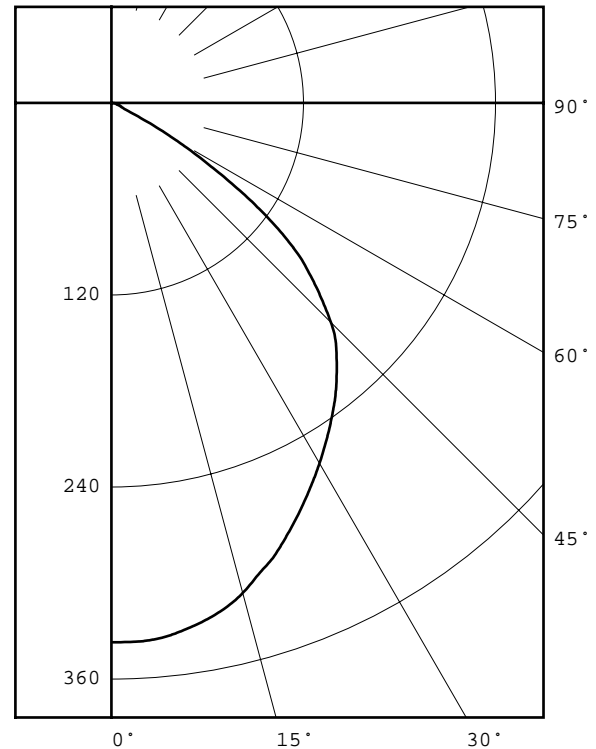
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DEG	CANDELA	LUMENS
0	337	
5	336	32
15	317	89
25	280	129
35	240	150
45	194	148
55	106	93
65	9	16
75	4	4
85	1	1
90	0	

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%FIXT
0- 30	250	37.7
0- 40	400	60.4
0- 60	641	96.7
0- 90	662	100.0
90-180	0	0.0
0-180	662	100.0

TOTAL INPUT WATTS = 16.4
EFFICACY = 40.4 Lm/W
CIE TYPE - DIRECT
LUMINAIRE SPACING CRITERION = 1.2
LUMINOUS DIAMETER: 16.000

LUMINANCE DATA IN CANDELA/SQ METER	
ANGLE	AVERAGE
IN DEG	
45	2114.
55	1424.
65	164.
75	119.
85	88.





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CANDELA DISTRIBUTION

	0.0
0.0	337
2.5	337
5.0	336
7.5	333
10.0	329
12.5	324
15.0	317
17.5	308
20.0	300
22.5	290
25.0	280
27.5	270
30.0	260
32.5	250
35.0	240
37.5	230
40.0	219
42.5	208
45.0	194
47.5	176
50.0	158
52.5	135
55.0	106
57.5	74
60.0	47
62.5	23
65.0	9
67.5	7
70.0	6
72.5	5
75.0	4
77.5	3
80.0	3
82.5	2
85.0	1
87.5	1
90.0	0



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ZONAL LUMEN SUMMARY

0- 5	8.
5- 10	24.
10- 15	38.
15- 20	51.
20- 25	61.
25- 30	68.
30- 35	74.
35- 40	77.
40- 45	77.
45- 50	71.
50- 55	58.
55- 60	35.
60- 65	12.
65- 70	4.
70- 75	3.
75- 80	2.
80- 85	1.
85- 90	0.



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	8
5- 10	24
10- 15	38
15- 20	51
20- 25	61
25- 30	68
30- 35	74
35- 40	77
40- 45	77
45- 50	71
50- 55	58
55- 60	35
60- 65	12
65- 70	4
70- 75	3
75- 80	2
80- 85	1
85- 90	0

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	32
0- 20	121
0- 30	250
0- 40	400
0- 50	548
0- 60	641
0- 70	657
0- 80	661
0- 90	662



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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	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	102	109	106	103	100	102	99	97	97	98	96	94	94	93	91	90
2	104	97	92	87	87	101	95	91	86	92	88	84	84	89	86	83	86	83	81	79
3	96	88	81	76	76	94	86	80	75	83	78	74	74	81	76	73	78	75	71	70
4	89	79	72	66	66	87	78	71	66	75	70	65	65	73	68	64	71	67	63	61
5	83	72	64	58	58	81	71	63	58	69	62	57	57	67	61	57	65	60	56	54
6	77	65	57	52	52	75	64	57	52	63	56	51	51	61	55	51	60	54	50	48
7	72	60	52	46	46	70	59	51	46	57	51	46	46	56	50	46	55	49	45	43
8	67	55	47	42	42	65	54	47	42	53	46	41	41	52	46	41	50	45	41	39
9	63	50	43	38	38	61	50	43	38	49	42	38	38	48	42	37	47	41	37	36
10	59	47	39	35	35	58	46	39	34	45	39	34	34	44	38	34	43	38	34	32

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.