

Project Number  
16.00232



**HUBBELL**  
Lighting

Date  
1/28/2016

LAB 6

*Test Sample Description*

*Catalog Number:* P5634-2030K9  
*Description:* 1-Lt. LED Wall Sconce w/ HAL AC 9W LED Module

*Test Method:* IES LM-79-08 § 10  
*Preburn Time:* 0:05  
*Time To Stabilize:* 1:47  
*Total Operating Time:* 2:20  
  
*Input Voltage (Volts):* 120.0  
*Input Current (Amps):* 0.069  
*Input Wattage (Watts):* 7.8  
*Ambient Temp (°C):* 24.5



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Greenville, SC 29607  
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*Checked:* D. ROBBINS  
*Approved:* M. WASHBURN



*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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REPORT NUMBER: 16.00232  
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PREPARED FOR: PROGRESS  
CATALOG NUMBER: P5634-2030K9  
LUMINAIRE: 1-Lt. LED Wall Sconce w/ HAL AC 9W LED Module  
LAMP CAT. NO.: 93049180-3130  
LAMP: 20 - Nichia 3000K LEDs  
MOUNTING: Wall  
NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.

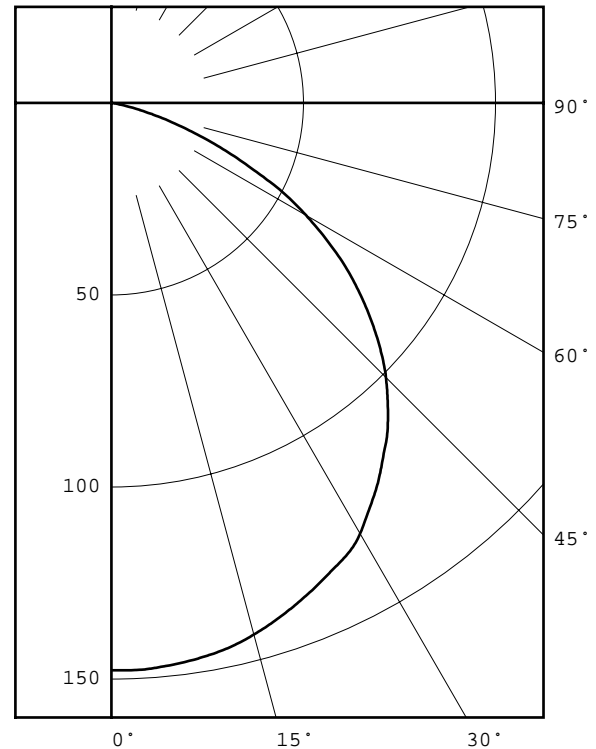
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DEG	CANDELA	LUMENS
0	148	
5	147	14
15	143	40
25	135	62
35	121	76
45	101	78
55	74	66
65	40	40
75	10	11
85	0	0
90	0	

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%FIXT
0- 30	117	30.1
0- 40	192	49.6
0- 60	336	86.6
0- 90	388	100.0
90-180	0	0.0
0-180	388	100.0

TOTAL INPUT WATTS = 7.8  
EFFICACY = 49.7 Lm/W  
CIE TYPE - DIRECT  
LUMINAIRE SPACING CRITERION = 1.3  
PLANE : 0-DEG 90-DEG  
LUMINOUS LENGTH : 3.500 5.750

LUMINANCE DATA IN CANDELA/SQ METER	
ANGLE	AVERAGE
IN DEG	
45	11008.
55	9987.
65	7305.
75	2915.
85	265.





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CANDELA DISTRIBUTION

	0.0
0.0	148
2.5	148
5.0	147
7.5	147
10.0	146
12.5	145
15.0	143
17.5	141
20.0	139
22.5	137
25.0	135
27.5	133
30.0	130
32.5	125
35.0	121
37.5	116
40.0	112
42.5	107
45.0	101
47.5	95
50.0	88
52.5	82
55.0	74
57.5	67
60.0	59
62.5	50
65.0	40
67.5	32
70.0	23
72.5	16
75.0	10
77.5	5
80.0	2
82.5	1
85.0	0
87.5	0
90.0	0



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ZONAL LUMEN SUMMARY

0- 5	4.
5- 10	10.
10- 15	17.
15- 20	23.
20- 25	29.
25- 30	34.
30- 35	37.
35- 40	39.
40- 45	39.
45- 50	38.
50- 55	35.
55- 60	31.
60- 65	24.
65- 70	16.
70- 75	8.
75- 80	3.
80- 85	0.
85- 90	0.



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5-DEGREE  
ZONAL LUMEN SUMMARY

0- 5	4
5- 10	10
10- 15	17
15- 20	23
20- 25	29
25- 30	34
30- 35	37
35- 40	39
40- 45	39
45- 50	38
50- 55	35
55- 60	31
60- 65	24
65- 70	16
70- 75	8
75- 80	3
80- 85	0
85- 90	0

10-DEGREE  
ZONAL LUMEN SUMMARY

0- 10	14
0- 20	54
0- 30	117
0- 40	192
0- 50	270
0- 60	336
0- 70	376
0- 80	388
0- 90	388



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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	110	106	102	99	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87	87
2	101	94	87	82	82	99	92	86	81	88	84	79	85	81	78	82	79	76	74	74
3	93	83	75	69	69	90	81	74	69	78	72	67	76	71	66	73	69	65	63	63
4	85	74	65	59	59	83	72	65	59	70	63	58	68	62	57	66	61	56	54	54
5	78	66	57	51	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47	47
6	72	59	51	45	45	70	59	50	45	57	50	44	55	49	44	54	48	43	41	41
7	67	54	45	40	40	65	53	45	39	52	44	39	50	44	39	49	43	39	37	37
8	62	49	41	35	35	61	49	41	35	47	40	35	46	40	35	45	39	35	33	33
9	58	45	37	32	32	57	45	37	32	43	36	31	42	36	31	41	35	31	29	29
10	55	42	34	29	29	53	41	34	29	40	33	29	39	33	28	38	33	28	27	27

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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