

Project Number  
16.00231



**HUBBELL**  
Lighting

Date  
1/28/2016

LAB 6

*Test Sample Description*

Catalog Number: P5635-2030K9  
Description: 1-Lt. LED Wall Sconce w/ HAL AC 9W LED Module

Test Method: IES LM-79-08 § 10  
Preburn Time: 0:10  
Time To Stabilize: 2:46  
Total Operating Time: 3:16  
  
Input Voltage (Volts): 120.1  
Input Current (Amps): 0.063  
Input Wattage (Watts): 7.1  
Ambient Temp (°C): 24.5



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Checked: D. ROBBINS  
Approved: M. WASHBURN





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PREPARED FOR: PROGRESS  
CATALOG NUMBER: P5635-2030K9  
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.

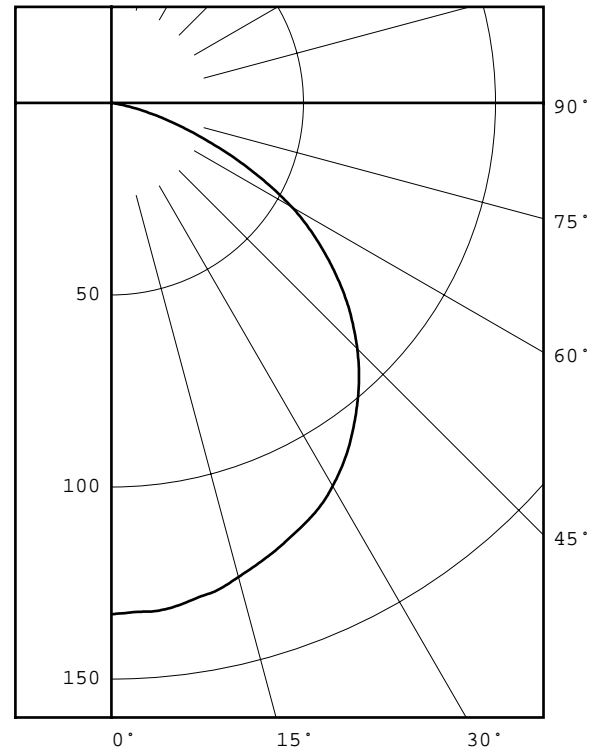
PAGE: 2 OF 7

DEG	CANDELA	LUMENS
0	133	
5	133	13
15	128	36
25	120	55
35	108	68
45	91	70
55	68	60
65	38	38
75	11	12
85	0	1
90	0	

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%FIXT
0- 30	104	29.6
0- 40	172	48.8
0- 60	302	85.8
0- 90	352	100.0
90-180	0	0.0
0-180	352	100.0

TOTAL INPUT WATTS = 7.1  
EFFICACY = 49.6 Lm/W  
CIE TYPE - DIRECT  
LUMINAIRE SPACING CRITERION = 1.3  
PLANE : 0-DEG 90-DEG  
LUMINOUS LENGTH : 3.500 5.000

LUMINANCE DATA IN CANDELA/SQ METER	
ANGLE	AVERAGE
IN DEG	
45	11332.
55	10435.
65	7961.
75	3626.
85	305.





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PAGE: 3 OF 7

CANDELA DISTRIBUTION

	0.0
0.0	133
2.5	133
5.0	133
7.5	132
10.0	131
12.5	130
15.0	128
17.5	126
20.0	124
22.5	122
25.0	120
27.5	118
30.0	115
32.5	112
35.0	108
37.5	104
40.0	100
42.5	95
45.0	91
47.5	85
50.0	80
52.5	74
55.0	68
57.5	61
60.0	54
62.5	46
65.0	38
67.5	30
70.0	23
72.5	16
75.0	11
77.5	6
80.0	2
82.5	1
85.0	0
87.5	0
90.0	0



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PAGE: 4 OF 7

ZONAL LUMEN SUMMARY

0- 5	3.
5- 10	9.
10- 15	15.
15- 20	21.
20- 25	26.
25- 30	30.
30- 35	33.
35- 40	35.
40- 45	35.
45- 50	34.
50- 55	32.
55- 60	28.
60- 65	22.
65- 70	15.
70- 75	9.
75- 80	3.
80- 85	0.
85- 90	0.



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PAGE: 5 OF 7

5-DEGREE  
ZONAL LUMEN SUMMARY

0- 5	3
5- 10	9
10- 15	15
15- 20	21
20- 25	26
25- 30	30
30- 35	33
35- 40	35
40- 45	35
45- 50	34
50- 55	32
55- 60	28
60- 65	22
65- 70	15
70- 75	9
75- 80	3
80- 85	0
85- 90	0

10-DEGREE  
ZONAL LUMEN SUMMARY

0- 10	13
0- 20	49
0- 30	104
0- 40	172
0- 50	241
0- 60	302
0- 70	339
0- 80	351
0- 90	352



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PAGE: 6 OF 7

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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	107	104	100	97	100	97	94	96	93	91	92	90	89	87	87
2	101	93	87	82	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73	73
3	92	82	75	69	69	90	81	74	68	78	72	67	75	70	66	73	68	65	63	63
4	85	73	65	59	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54	54
5	78	66	57	51	51	76	64	56	50	62	55	50	60	54	49	59	53	49	47	47
6	72	59	50	44	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41	41
7	67	54	45	39	39	65	53	45	39	51	44	39	50	43	38	48	43	38	36	36
8	62	49	41	35	35	61	48	40	35	47	40	35	46	39	34	44	39	34	32	32
9	58	45	37	31	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29	29
10	54	41	34	28	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26	26

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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