

Project Number
15.02183



HUBBELL
Lighting

Date
11/25/2015

LAB 6

Test Sample Description

Catalog Number: 9436310930K9
Description: 1-Lt. 9" Flush-Mountw/ HAL 17W, AC LED Module

Test Method: IES LM-79-08 § 10
Preburn Time: 0:20
Time To Stabilize: 2:55
Total Operating Time: 16:03

Input Voltage (Volts): 120.2
Input Current (Amps): 0.150
Input Wattage (Watts): 16.7
Ambient Temp (°C): 25.2



Hubbell Lighting, Inc.

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Greenville, SC 29607
www.hubbellighting.com

Checked: B. FLAUM
Approved: P. McCARTHY





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REPORT NUMBER: 15.02183
ISSUE DATE: 11/25/15
PREPARED FOR: PROGRESS
CATALOG NUMBER: 9436310930K9
LUMINAIRE: 1-Lt. 7.5" Flush-Mountw/ HAL 17W, AC LED Module
LAMP CAT. NO.: 93047261-4130
LAMP: 40- Nichia 3000K LEDs
REFRACTOR: Acrylic - Part #93062013
MOUNTING: Ceiling
NOTE: DATA SHOWN IS ABSOLUTE FOR THE

PAGE: 2 OF 7

SAMPLE PROVIDED.

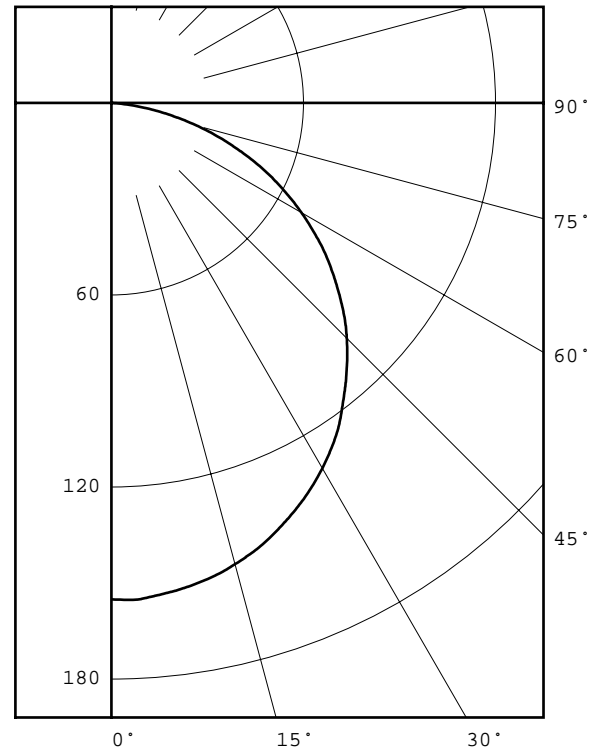
DEG	CANDELA	LUMENS
0	155	
5	155	15
15	149	42
25	139	64
35	124	77
45	104	80
55	81	72
65	56	55
75	28	29
85	3	5
90	0	

ZONAL LUMEN ZONE	SUMMARY LUMENS	%FIXT
0- 30	121	27.5
0- 40	198	45.0
0- 60	351	79.7
0- 90	440	100.0
90-180	0	0.0
0-180	440	100.0

TOTAL INPUT WATTS = 16.7
EFFICACY = 26.3 Lm/W
CIE TYPE - DIRECT
LUMINAIRE SPACING CRITERION = 1.3
LUMINOUS DIAMETER: 7.500

LUMINANCE DATA IN CANDELA/SQ METER

ANGLE IN DEG	AVERAGE
45	5158.
55	4971.
65	4606.
75	3767.
85	1247.





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PAGE: 3 OF 7

CANDELA DISTRIBUTION

	0.0
0.0	155
2.5	155
5.0	155
7.5	154
10.0	153
12.5	151
15.0	149
17.5	147
20.0	145
22.5	142
25.0	139
27.5	135
30.0	132
32.5	128
35.0	124
37.5	119
40.0	114
42.5	109
45.0	104
47.5	99
50.0	93
52.5	87
55.0	81
57.5	75
60.0	69
62.5	62
65.0	56
67.5	49
70.0	42
72.5	35
75.0	28
77.5	21
80.0	14
82.5	8
85.0	3
87.5	0
90.0	0



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PAGE: 4 OF 7

ZONAL LUMEN SUMMARY

0- 5	4.
5- 10	11.
10- 15	18.
15- 20	24.
20- 25	30.
25- 30	34.
30- 35	38.
35- 40	40.
40- 45	40.
45- 50	40.
50- 55	38.
55- 60	35.
60- 65	30.
65- 70	25.
70- 75	18.
75- 80	11.
80- 85	5.
85- 90	1.



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PAGE: 5 OF 7

5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	4
5- 10	11
10- 15	18
15- 20	24
20- 25	30
25- 30	34
30- 35	38
35- 40	40
40- 45	40
45- 50	40
50- 55	38
55- 60	35
60- 65	30
65- 70	25
70- 75	18
75- 80	11
80- 85	5
85- 90	1

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	15
0- 20	57
0- 30	121
0- 40	198
0- 50	278
0- 60	351
0- 70	405
0- 80	435
0- 90	440



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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	109	104	100	96	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84	84
2	99	91	84	78	78	96	89	83	78	85	80	76	82	78	74	79	76	72	70	70
3	90	80	72	65	65	88	78	71	65	75	69	63	72	67	62	70	65	61	59	59
4	83	71	62	55	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50	50
5	76	63	54	47	47	74	62	53	47	60	52	47	58	51	46	56	50	46	43	43
6	70	57	48	41	41	68	56	47	41	54	46	41	52	46	40	51	45	40	38	38
7	65	51	43	36	36	63	51	42	36	49	42	36	48	41	36	46	40	36	34	34
8	60	47	38	33	33	59	46	38	32	45	37	32	44	37	32	42	36	32	30	30
9	56	43	35	29	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27	27
10	53	40	32	26	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24	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 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.