

Project Number
15.00737



HUBBELL
Lighting

Date
5/6/2015

LAB 1

Test Sample Description

Catalog Number: P2308-0930K9

Description: BEYOND - 12" Round w/ AC HAL 17W LED Module

Test Method: IES LM-79-08 § 10

Preburn Time: 0:45

Time To Stabilize: 1:13

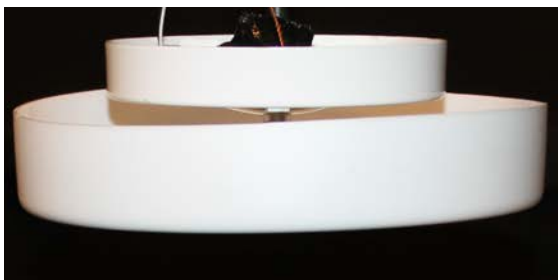
Total Operating Time: 2:16

Input Voltage (Volts): 120.0

Input Current (Amps): 0.152

Input Wattage (Watts): 17.0

Ambient Temp (°C): 25.2



Hubbell Lighting, Inc.

701 Millennium Boulevard
Greenville, SC 29607
www.hubbellighting.com

Checked: D. ROBBINS
Approved: P. McCARTHY

NVLAP
NVLAP LAB CODE: 201003-0

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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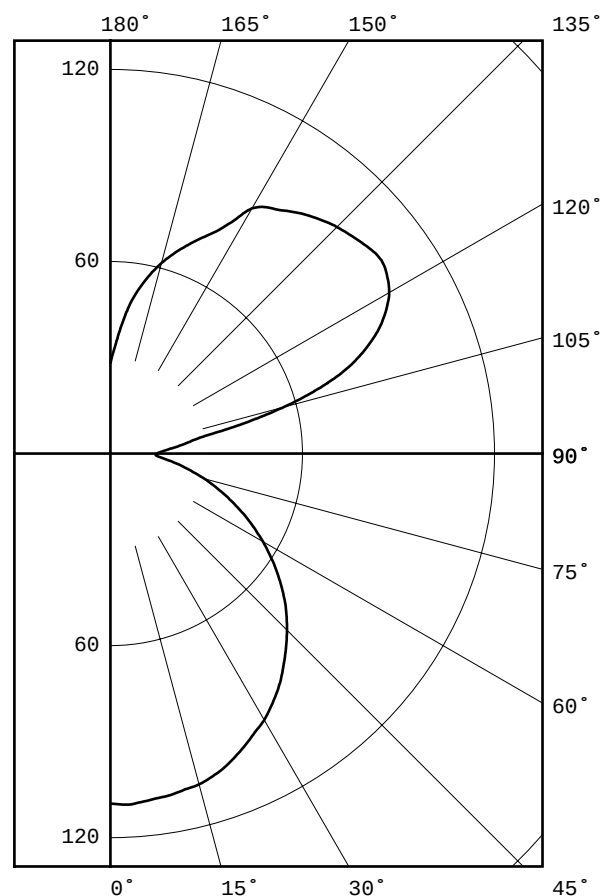
REPORT NUMBER: 15.00737
ISSUE DATE: 05/06/15
PREPARED FOR: PROGRESS
CATALOG NUMBER: P2308-0930K9
LUMINAIRE: BEYOND - 12" Round w/ AC HAL 17W LED Module
REFRACTOR: Acrylic - Part #93051135
LAMP CAT. NO.: 93047261-4130
LAMP: 40- Nichia 3000K LEDs
MOUNTING: CEILING / WALL
NOTE: DATA SHOWN IS ABSOLUTE FOR THE
SAMPLE PROVIDED.

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DEG	CANDELA	LUMENS
0	109	
5	109	10
15	107	30
25	100	46
35	91	57
45	78	60
55	63	56
65	47	46
75	30	32
85	16	19
90	15	
95	19	22
105	56	58
115	93	91
125	104	92
135	100	77
145	93	58
155	76	36
165	62	18
175	40	4
180	28	

ZONAL ZONE	LUMEN	SUMMARY LUMENS	%FIXT
0- 30		87	10.7
0- 40		144	17.6
0- 60		260	32.0
0- 90		357	43.9
90-120		171	21.0
90-130		263	32.3
90-150		399	49.0
90-180		457	56.1
0-180		814	100.0

TOTAL INPUT WATTS = 17.0
EFFICACY = 47.9 Lm/W
CIE TYPE - DIRECT-INDIRECT
LUMINAIRE SPACING CRITERION = 1.3





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LUMINOUS DIAMETER: 12.000
HEIGHT OF SIDE : 1.500

LUMINANCE DATA IN CANDELA/SQ METER

ANGLE AVERAGE

IN DEG

45	1304.
55	1230.
65	1129.
75	1010.
85	914.



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CANDELA DISTRIBUTION

	0.0
0.0	109
5.0	109
10.0	108
15.0	107
20.0	104
25.0	100
30.0	96
35.0	91
40.0	85
45.0	78
50.0	71
55.0	63
60.0	55
65.0	47
70.0	38
75.0	30
80.0	23
85.0	16
90.0	15
95.0	19
100.0	28
105.0	56
110.0	79
115.0	93
120.0	101
125.0	104
130.0	103
135.0	100
140.0	97
145.0	93
150.0	88
155.0	76
160.0	69
165.0	62
170.0	53
175.0	40
180.0	28



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ZONAL LUMEN SUMMARY

0- 5	3.
5- 10	8.
10- 15	13.
15- 20	17.
20- 25	21.
25- 30	25.
30- 35	28.
35- 40	29.
40- 45	30.
45- 50	30.
50- 55	29.
55- 60	27.
60- 65	25.
65- 70	21.
70- 75	18.
75- 80	14.
80- 85	11.
85- 90	8.
90- 95	9.
95-100	13.
100-105	22.
105-110	36.
110-115	44.
115-120	47.
120-125	47.
125-130	45.
130-135	41.
135-140	37.
140-145	32.
145-150	27.
150-155	21.
155-160	15.
160-165	11.
165-170	7.
170-175	3.
175-180	1.



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**5-DEGREE
ZONAL LUMEN SUMMARY**

0- 5	3
5- 10	8
10- 15	13
15- 20	17
20- 25	21
25- 30	25
30- 35	28
35- 40	29
40- 45	30
45- 50	30
50- 55	29
55- 60	27
60- 65	25
65- 70	21
70- 75	18
75- 80	14
80- 85	11
85- 90	8
90- 95	9
95-100	13
100-105	22
105-110	36
110-115	44
115-120	47
120-125	47
125-130	45
130-135	41
135-140	37
140-145	32
145-150	27
150-155	21
155-160	15
160-165	11
165-170	7
170-175	3
175-180	1

**10-DEGREE
ZONAL LUMEN SUMMARY**

0- 10	10
0- 20	41
0- 30	87
0- 40	144
0- 50	204
0- 60	260
0- 70	306
0- 80	339
0- 90	357
0-100	379
0-110	437
0-120	528
0-130	620
0-140	698
0-150	756
0-160	792
0-170	810
0-180	814



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	91	87	83	87	83	80	76	69	66	64	55	54	52	43	42	41	35
2	87	79	72	67	79	72	67	62	60	56	52	48	45	43	37	35	34	29
3	79	69	61	55	72	63	57	51	52	47	43	42	39	36	33	30	28	24
4	72	61	53	46	65	56	49	43	46	41	37	37	33	30	29	26	24	20
5	66	54	46	39	60	50	42	37	41	36	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	32	37	31	27	30	26	23	24	21	18	15
7	56	43	35	30	51	40	33	28	33	28	24	27	23	20	22	18	16	13
8	52	39	31	26	47	36	29	24	30	25	21	25	21	18	20	17	14	12
9	48	36	28	23	44	33	26	22	28	22	19	23	19	16	18	15	13	11
10	45	33	25	21	41	30	24	19	25	20	17	21	17	14	17	14	12	10

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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5/6/2015

Goniophotometer Calibration

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

Lamp Number: ITL78966-1000-38

Calibration Current: 8.300 Amps DC

Total Luminous Flux: 25753.0 Lumens

Calibration Date: 12/02/2014

Test Equipment Used

<i>Instrument</i>	<i>Manufacturer / Model</i>	<i>S/N</i>	<i>Calibration Due:</i>
<i>Goniophotometer</i>	ITL / HLI LAB 1 - Test Distance: 31.75'	N/A	N/A
<i>Power Analyzer</i>	Yokogawa / WT 332	C2QA27071V	11/12/2015
<i>Power Source</i>	Voltage-Regulated House Power	N/A	N/A
<i>Thermometer</i>	National Instruments / USB-TC01	176F4E3	11/11/2015

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