

Project Number
15.00851



Date
5/22/2015

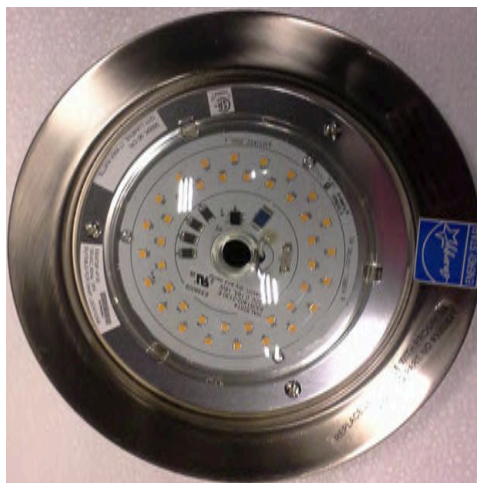
LAB 1

Test Sample Description

Catalog Number: P2310-0930K9
Description: BEYOND - LED Ceiling/Wall - Layered Glass w/ HAL 17 W Module -

Test Method: IES LM-79-08 § 10
Preburn Time: 00:15
Time To Stabilize: 1:34
Total Operating Time: 2:59

Input Voltage (Volts): 120.1
Input Current (Amps): 0.150
Input Wattage (Watts): 16.7
Ambient Temp (°C): 25.1



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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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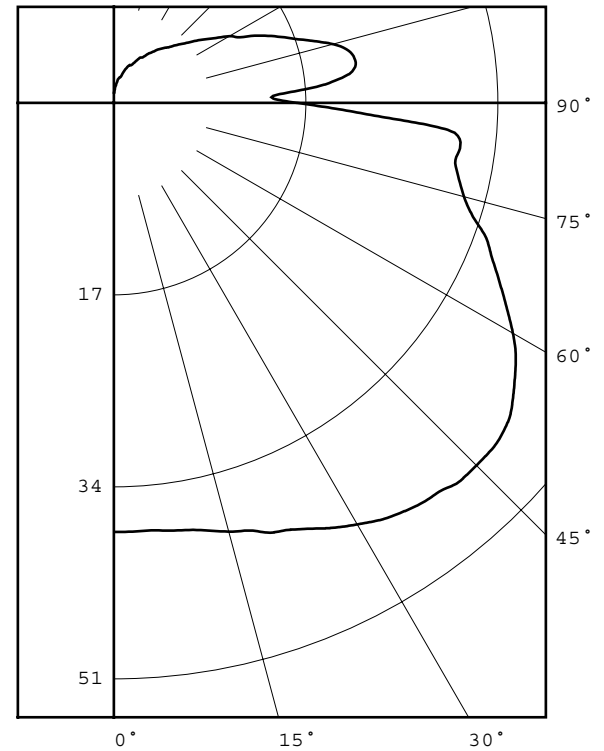


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ISSUE DATE: 05/22/15
PREPARED FOR: PROGRESS
CATALOG NUMBER: P2310-0930K9
LUMINAIRE: BEYOND - LED Ceiling/Wall - Layered Glass w/ HAL 17 W Module
LAMP CAT. NO.: 93047261-4130
LAMP: 40 - NICHIA 3000K LEDs
REFRACTOR: 10" Etched Glass w/ 5" Plated Brushed Nickel Plate & Acrylic
Diffuser LED Module Cover
MOUNTING: Ceiling
NOTE: DATA SHOWN IS ABSOLUTE FOR THE
SAMPLE PROVIDED.

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DEG	CANDELA	LUMENS
0	38.0	
5	38.0	3.6
15	39.3	11.2
25	41.6	19.3
35	44.3	27.8
45	45.4	35.1
55	43.3	38.7
65	37.7	37.5
75	32.1	34.3
85	30.3	28.7
90	12.9	
95	18.8	19.5
105	20.1	20.9
115	14.1	14.0
125	9.8	8.9
135	7.0	5.5
145	5.3	3.4
155	3.7	1.8
165	2.4	0.7
175	1.4	0.2
180	0.8	

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%FIXT
0- 30	34.1	11.0
0- 40	61.9	19.9
0- 60	135.7	43.6
0- 90	236.2	75.9
90-120	54.4	17.5
90-130	63.3	20.3
90-150	72.2	23.2
90-180	74.8	24.1
0-180	311.0	100.0



TOTAL INPUT WATTS = 16.7
EFFICACY = 18.6 Lm/W
CIE TYPE - SEMI-DIRECT
LUMINAIRE SPACING CRITERION = 1.8



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LUMINOUS DIAMETER: 5.000
HEIGHT OF SIDE : 1.000

LUMINANCE DATA IN CANDELA/SQ METER
ANGLE AVERAGE
IN DEG

45	4038.
55	4368.
65	4553.
75	5018.
85	7015.



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CANDELA DISTRIBUTION

	0.0
0.0	38.0
5.0	38.0
10.0	38.4
15.0	39.3
20.0	40.5
25.0	41.6
30.0	43.1
35.0	44.3
40.0	44.9
45.0	45.4
50.0	45.1
55.0	43.3
60.0	40.8
65.0	37.7
70.0	35.1
75.0	32.1
80.0	30.7
85.0	30.3
90.0	12.9
95.0	18.8
100.0	21.7
105.0	20.1
110.0	16.7
115.0	14.1
120.0	11.8
125.0	9.8
130.0	8.2
135.0	7.0
140.0	6.2
145.0	5.3
150.0	4.6
155.0	3.7
160.0	3.3
165.0	2.4
170.0	2.1
175.0	1.4
180.0	0.8



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ZONAL LUMEN SUMMARY

0- 5	0.9
5- 10	2.7
10- 15	4.6
15- 20	6.6
20- 25	8.6
25- 30	10.7
30- 35	12.9
35- 40	14.9
40- 45	16.8
45- 50	18.3
50- 55	19.3
55- 60	19.5
60- 65	19.1
65- 70	18.4
70- 75	17.5
75- 80	16.8
80- 85	16.7
85- 90	12.0
90- 95	8.2
95-100	11.3
100-105	11.3
105-110	9.6
110-115	7.8
115-120	6.2
120-125	5.0
125-130	3.9
130-135	3.1
135-140	2.4
140-145	1.9
145-150	1.4
150-155	1.0
155-160	0.7
160-165	0.5
165-170	0.3
170-175	0.1
175-180	0.0



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	1
5- 10	3
10- 15	5
15- 20	7
20- 25	9
25- 30	11
30- 35	13
35- 40	15
40- 45	17
45- 50	18
50- 55	19
55- 60	19
60- 65	19
65- 70	18
70- 75	17
75- 80	17
80- 85	17
85- 90	12
90- 95	8
95-100	11
100-105	11
105-110	10
110-115	8
115-120	6
120-125	5
125-130	4
130-135	3
135-140	2
140-145	2
145-150	1
150-155	1
155-160	1
160-165	0
165-170	0
170-175	0
175-180	0

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	4
0- 20	15
0- 30	34
0- 40	62
0- 50	97
0- 60	136
0- 70	173
0- 80	207
0- 90	236
0-100	256
0-110	277
0-120	291
0-130	299
0-140	305
0-150	308
0-160	310
0-170	311
0-180	311



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	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	113	113	113	113	108	108	108	108	98	98	98	88	88	88	80	80	80	76
1	99	92	87	81	94	88	82	78	79	75	71	71	67	64	63	61	58	54
2	88	78	70	63	83	74	66	60	66	60	55	59	54	50	53	49	45	42
3	79	67	57	50	74	63	55	48	57	50	44	51	45	40	45	40	36	33
4	72	58	48	41	67	55	46	39	50	42	36	44	38	33	39	34	30	27
5	65	51	41	34	61	49	39	33	44	36	30	39	33	28	35	29	25	22
6	60	46	36	29	56	43	34	28	39	31	26	35	28	24	31	26	21	19
7	55	41	31	25	52	39	30	24	35	28	22	31	25	20	28	23	19	16
8	51	37	28	22	48	35	27	21	32	25	19	29	22	18	26	20	16	14
9	48	34	25	19	45	32	24	18	29	22	17	26	20	16	24	18	14	12
10	44	31	22	17	42	29	22	16	27	20	15	24	18	14	22	17	13	11

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: ITL78966-1000-38

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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