

Project Number
15.00743



HUBBELL
Lighting

Date
5/7/2015

LAB 6

Test Sample Description

Catalog Number: P3648-3130K9

Description: White Ceiling Fixture w/ AC HAL 17W LED Module

Test Method: IES LM-79-08 § 10

Preburn Time: 00:00

Time To Stabilize: 0:56

Total Operating Time: 1:17

Input Voltage (Volts): 120.2

Input Current (Amps): 0.155

Input Wattage (Watts): 17.2

Ambient Temp (°C): 25.0



Hubbell Lighting, Inc.

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

Checked: R. WILLIAMS
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.



HUBBELL
Lighting

701 Millennium Blvd
Greenville, SC 29607
www.hubbelllighting.com



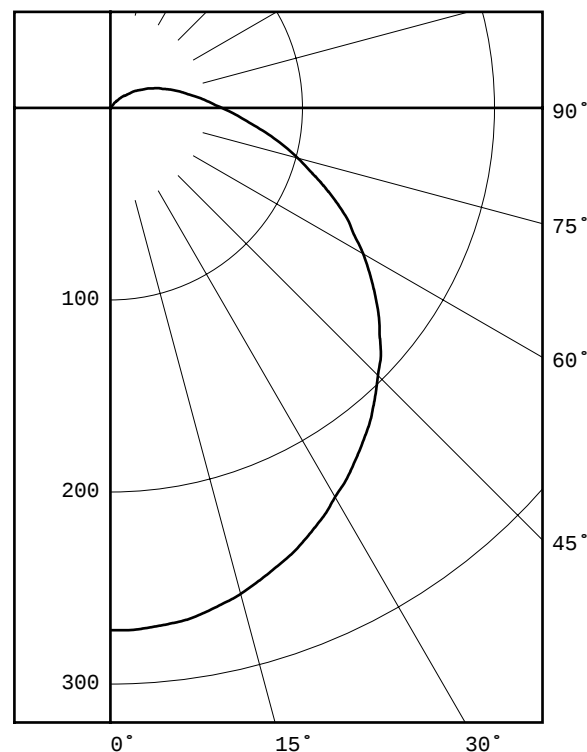
REPORT NUMBER: 15.00743
ISSUE DATE: 05/07/15
PREPARED FOR: PROGRESS
CATALOG NUMBER: P3648-3130K9
LUMINAIRE: White Ceiling Fixture w/ AC HAL 17W LED Module
LENS: White Polycarbonate - Part# 93061256
LAMP CAT. NO.: 93047261-4130
LAMP: 40 Nichia 3000K LEDs
MOUNTING: Ceiling
NOTE: DATA SHOWN IS ABSOLUTE FOR THE
SAMPLE PROVIDED.

PAGE: 2 OF 8

DEG	CANDELA	LUMENS
0	272	
5	271	26
15	262	74
25	245	113
35	223	140
45	197	152
55	168	150
65	136	134
75	101	107
85	70	77
90	58	
95	49	54
105	35	37
115	24	24
125	15	13
135	7	5
145	0	0
155	0	0
165	0	0
175	0	0
180	0	

ZONAL ZONE	LUMEN	SUMMARY LUMENS	%FIXT
0- 30		213	19.2
0- 40		352	31.8
0- 60		655	59.2
0- 90		973	87.9
90-120		115	10.4
90-130		128	11.6
90-150		134	12.1
90-180		134	12.1
0-180		1107	100.0

TOTAL INPUT WATTS = 17.2
EFFICACY = 64.4 Lm/W
CIE TYPE - SEMI-DIRECT
LUMINAIRE SPACING CRITERION = 1.3





®

HUBBELL
Lighting

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



REPORT NUMBER: 15.00743
ISSUE DATE: 05/07/15
PREPARED FOR: PROGRESS

PAGE: 3 OF 8

LUMINOUS DIAMETER: 9.500
HEIGHT OF SIDE : 3.000

LUMINANCE DATA IN CANDELA/SQ METER
ANGLE AVERAGE
IN DEG

45	4344.
55	4067.
65	3777.
75	3411.
85	3137.



HUBBELL
Lighting

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



REPORT NUMBER: 15.00743
ISSUE DATE: 05/07/15
PREPARED FOR: PROGRESS

PAGE: 4 OF 8

CANDELA DISTRIBUTION

	0.0
0.0	272
5.0	271
10.0	268
15.0	262
20.0	254
25.0	245
30.0	234
35.0	223
40.0	211
45.0	197
50.0	183
55.0	168
60.0	152
65.0	136
70.0	118
75.0	101
80.0	85
85.0	70
90.0	58
95.0	49
100.0	41
105.0	35
110.0	29
115.0	24
120.0	19
125.0	15
130.0	10
135.0	7
140.0	4
145.0	0
150.0	0
155.0	0
160.0	0
165.0	0
170.0	0
175.0	0
180.0	0



HUBBELL
Lighting

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



REPORT NUMBER: 15.00743
ISSUE DATE: 05/07/15
PREPARED FOR: PROGRESS

PAGE: 5 OF 8

ZONAL LUMEN SUMMARY

0- 5	6.
5- 10	19.
10- 15	31.
15- 20	43.
20- 25	52.
25- 30	61.
30- 35	67.
35- 40	72.
40- 45	76.
45- 50	77.
50- 55	76.
55- 60	74.
60- 65	70.
65- 70	64.
70- 75	57.
75- 80	50.
80- 85	42.
85- 90	35.
90- 95	29.
95-100	24.
100-105	20.
105-110	17.
110-115	14.
115-120	11.
120-125	8.
125-130	5.
130-135	4.
135-140	2.
140-145	0.
145-150	0.
150-155	0.
155-160	0.
160-165	0.
165-170	0.
170-175	0.
175-180	0.



HUBBELL
Lighting

701 Millennium Blvd
Greenville, SC 29607
www.hubbelllighting.com



REPORT NUMBER: 15.00743
ISSUE DATE: 05/07/15
PREPARED FOR: PROGRESS

PAGE: 6 OF 8

**5-DEGREE
ZONAL LUMEN SUMMARY**

0- 5	6
5- 10	19
10- 15	31
15- 20	43
20- 25	52
25- 30	61
30- 35	67
35- 40	72
40- 45	76
45- 50	77
50- 55	76
55- 60	74
60- 65	70
65- 70	64
70- 75	57
75- 80	50
80- 85	42
85- 90	35
90- 95	29
95-100	24
100-105	20
105-110	17
110-115	14
115-120	11
120-125	8
125-130	5
130-135	4
135-140	2
140-145	0
145-150	0
150-155	0
155-160	0
160-165	0
165-170	0
170-175	0
175-180	0

**10-DEGREE
ZONAL LUMEN SUMMARY**

0- 10	26
0- 20	100
0- 30	213
0- 40	352
0- 50	505
0- 60	655
0- 70	789
0- 80	896
0- 90	973
0-100	1027
0-110	1064
0-120	1088
0-130	1101
0-140	1107
0-150	1107
0-160	1107
0-170	1107
0-180	1107



HUBBELL
Lighting

701 Millennium Blvd
Greenville, SC 29607
www.hubbelllighting.com



REPORT NUMBER: 15.00743
ISSUE DATE: 05/07/15

PAGE: 7 OF 8

PREPARED FOR: PROGRESS

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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	91	91	91	88
1	103	97	92	87	99	94	89	85	87	83	80	81	78	75	76	73	71	68
2	93	83	75	69	89	80	73	67	75	69	64	70	65	60	65	61	57	54
3	84	72	63	56	80	70	61	55	65	58	52	61	55	50	56	52	47	45
4	77	64	54	47	73	61	53	46	57	50	44	53	47	42	50	45	40	37
5	70	56	47	40	67	55	46	39	51	43	37	48	41	36	45	39	34	32
6	65	51	41	34	62	49	40	34	46	38	32	43	36	31	40	35	30	28
7	60	46	37	30	57	44	36	30	42	34	29	39	32	27	37	31	26	24
8	56	42	33	27	53	40	32	26	38	31	25	36	29	24	34	28	24	21
9	52	38	30	24	50	37	29	23	35	28	23	33	27	22	31	25	21	19
10	48	35	27	21	47	34	26	21	32	25	20	30	24	20	29	23	19	17

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.

Project Number
15.00743



Date
5/7/2015

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: 11/24/2014

Test Equipment Used

<i>Instrument</i>	<i>Manufacturer / Model</i>	<i>S/N</i>	<i>Calibration Due:</i>
<i>Goniophotometer</i>	ITL / HLI LAB 6 - Test Distance: 31.3'	N/A	N/A
<i>Power Analyzer</i>	Yokogawa / WT 332	C2QA27076V	11/12/2015
<i>Power Source</i>	Voltage-Regulated House Power	N/A	N/A
<i>Thermometer</i>	National Instruments / USB-TC01	1912745	11/11/2015

Hubbell Lighting, Inc.

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

This report shall not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.