



Table of Contents

Lab Request # 9030

Test Operating Conditions	.....	2
Goniophotometric test results	.....	3 to 7
<i>Summary table/luminance</i>	.....	3
<i>Candela table</i>	.....	4
<i>5-degree and 10-degree zonal lumen summary</i>	.....	6
<i>Coefficients of utilization table</i>	7
Test equipment used	8

Project Number
9030



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Date
5/12/2014

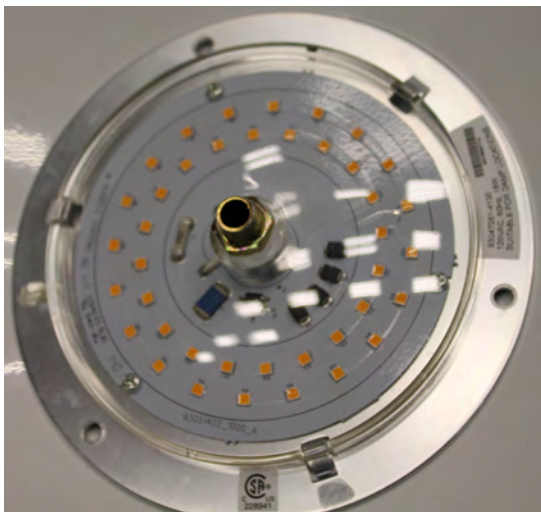
Lab #5

Test Sample Description

Catalog Number: P5094-XX30K9
Description: 1-LT. 17W LED MODULE, CORD HUNG PENDANT.

Test Method: IES LM-79-08 § 10
Preburn Time: 00:00
Time To Stabilize: 8:00
Total Operating Time: 8:10

Input Voltage (Volts): 120.0
Input Current (Amps): 0.140
Input Wattage (Watts): 15.6
Ambient Temp (°C): 25.1



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NVLAP LAB CODE: 201003-0

REPORT NUMBER: 9030
ISSUE DATE: 05/12/14
PREPARED FOR: PROGRESS
CATALOG NUMBER: P5094-XX30K9
LUMINAIRE: 1-LT. 17W LED MODULE, CORD HUNG PENDANT
LAMP: 1- HAL LED
BALLAST CAT. NO.:
BALLAST: NO EXTERNAL DRIVER
MOUNTING: PENDANT
NOTE: DATA SHOWN IS ABSOLUTE FOR THE
SAMPLE PROVIDED.
ACCREDITED LABORATORY CODE 201003-0

PAGE: 3 OF 8

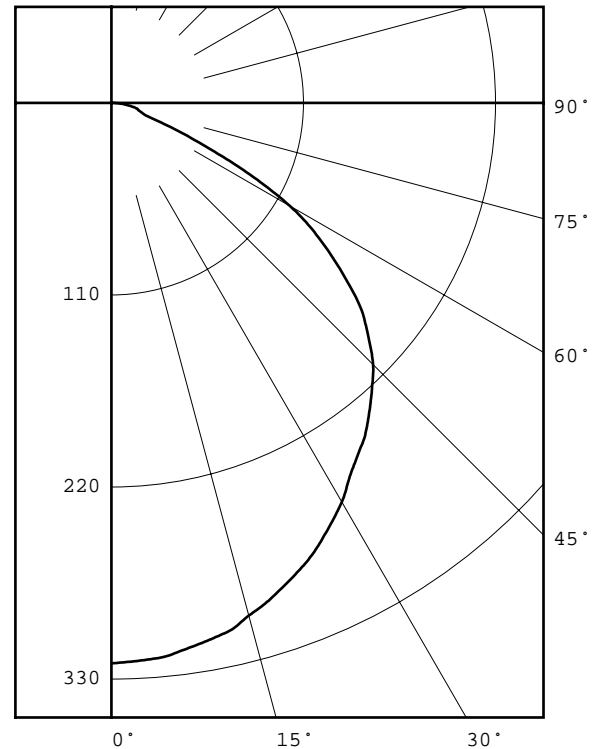
DEG	CANDELA	LUMENS
0	321	
5	319	30
15	304	86
25	280	129
35	246	154
45	212	163
55	155	138
65	62	64
75	16	17
85	6	7
90	0	

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%FIXT
0- 30	245	31.1
0- 40	399	50.7
0- 60	700	88.8
0- 90	788	100.0
90-180	0	0.0
0-180	788	100.0

TOTAL INPUT WATTS = 15.6
EFFICACY = 50.5 Lm/W
CIE TYPE - DIRECT
LUMINAIRE SPACING CRITERION = 1.2
LUMINOUS DIAMETER: 16.000

LUMINANCE DATA IN CANDELA/SQ METER

ANGLE	AVERAGE
IN DEG	
45	2310.
55	2083.
65	1131.
75	476.
85	531.



Checked	<u>D. BLACK</u>
Approved	<u>M. WASHBURN</u>



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PAGE: 4 OF 8

CANDELA DISTRIBUTION

	0.0
0.0	321
2.5	320
5.0	319
7.5	316
10.0	313
12.5	310
15.0	304
17.5	299
20.0	293
22.5	287
25.0	280
27.5	272
30.0	264
32.5	254
35.0	246
37.5	239
40.0	230
42.5	221
45.0	212
47.5	200
50.0	188
52.5	172
55.0	155
57.5	138
60.0	118
62.5	91
65.0	62
67.5	39
70.0	21
72.5	18
75.0	16
77.5	15
80.0	12
82.5	9
85.0	6
87.5	3
90.0	0



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REPORT NUMBER: 9030
ISSUE DATE: 05/12/14
PREPARED FOR: PROGRESS

PAGE: 5 OF 8

ZONAL LUMEN SUMMARY

0- 5	8.
5- 10	23.
10- 15	37.
15- 20	49.
20- 25	60.
25- 30	69.
30- 35	75.
35- 40	80.
40- 45	82.
45- 50	81.
50- 55	75.
55- 60	63.
60- 65	44.
65- 70	20.
70- 75	10.
75- 80	8.
80- 85	5.
85- 90	2.



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REPORT NUMBER: 9030
ISSUE DATE: 05/12/14
PREPARED FOR: PROGRESS

PAGE: 6 OF 8

5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	8
5- 10	23
10- 15	37
15- 20	49
20- 25	60
25- 30	69
30- 35	75
35- 40	80
40- 45	82
45- 50	81
50- 55	75
55- 60	63
60- 65	44
65- 70	20
70- 75	10
75- 80	8
80- 85	5
85- 90	2

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	30
0- 20	116
0- 30	245
0- 40	399
0- 50	562
0- 60	700
0- 70	764
0- 80	782
0- 90	788



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REPORT NUMBER: 9030
ISSUE DATE: 05/12/14

PAGE: 7 OF 8

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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	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75
3	93	83	76	70	91	82	75	70	79	73	68	76	71	67	74	70	66	64	64
4	86	74	66	60	83	73	66	60	71	64	59	68	63	58	66	61	57	55	55
5	79	67	58	52	77	66	58	52	64	57	51	62	56	51	60	55	50	48	48
6	73	60	52	46	71	59	51	46	58	50	45	56	50	45	54	49	44	42	42
7	68	55	46	40	66	54	46	40	52	45	40	51	45	40	50	44	40	38	38
8	63	50	42	36	61	49	42	36	48	41	36	47	40	36	46	40	35	34	34
9	59	46	38	33	57	45	38	33	44	37	32	43	37	32	42	36	32	30	30
10	55	42	35	30	54	42	34	29	41	34	29	40	34	29	39	33	29	27	27

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
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Date
5/12/2014

Goniophotometer Calibration

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

Lamp Number: ITL78966-1000-36

Calibration Current: 8.300 Amps DC

Total Luminous Flux: 25829.0 Lumens

Calibration Date: 3/28/2014

Test Equipment Used

<i>Instrument</i>	<i>Manufacturer / Model</i>	<i>S/N</i>	<i>Calibration Due:</i>
Goniophotometer	ITL/HLI LAB 5 - Test Distance: 56.0'	N/A	
Power Analyzer	Yokogawa / WT 210	91K308534	11/11/2014
Power Analyzer	Yokogawa / WT 210	91K308538	11/11/2014
Power Source	Voltage-Regulated House Power	N/A	N/A
Thermometer	National Instruments/USB-TC01	1912722	2/15/2015

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