

Project Number
15.00509



HUBBELL
Lighting

Date
3/30/2015

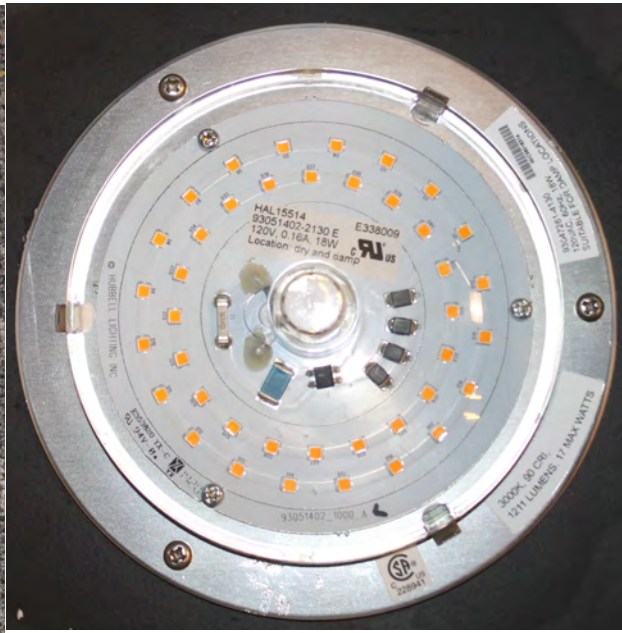
LAB 1

Test Sample Description

Catalog Number: P6017-2030K9
Description: C-T-C "DERBY" - LED FLUSH MOUNT

Test Method: IES LM-79-08 § 10
Preburn Time: 00:10
Time To Stabilize: 1:47
Total Operating Time: 3:35

Input Voltage (Volts): 120.1
Input Current (Amps): 0.151
Input Wattage (Watts): 16.8
Ambient Temp (°C): 25.2



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701 Millennium Boulevard
Greenville, SC 29607
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Checked: D. ROBBINS
Approved: M. WASHBURN





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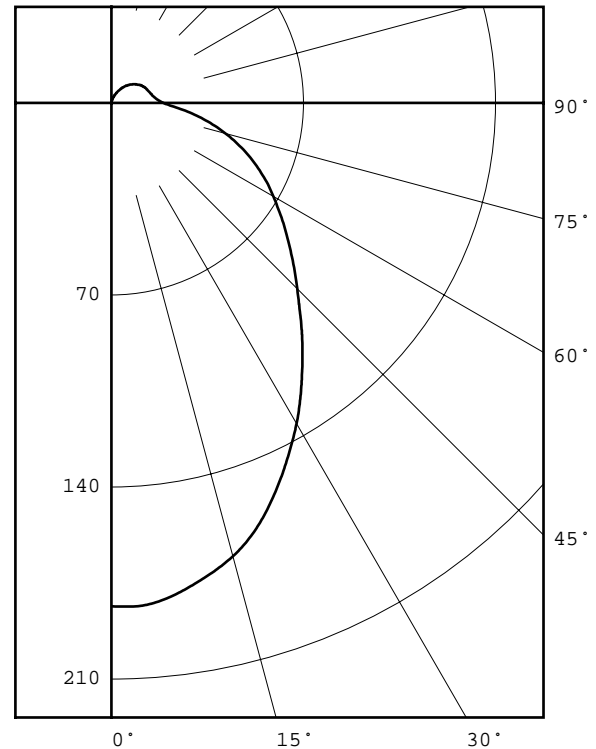
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ISSUE DATE: 03/30/15
PREPARED FOR: PROGRESS
CATALOG NUMBER: P6017-2030K9
LUMINAIRE: C-T-C "DERBY" - LED FLUSH MOUNT
LAMP CAT. NO.: 93047261-4130 Module
LAMP: 40 - Nichia 3000K LEDs
BALLAST: AC / 120V - HAL 17W, 120V module
MOUNTING: Ceiling
NOTE: DATA SHOWN IS ABSOLUTE FOR THE
SAMPLE PROVIDED.

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DEG	CANDELA	LUMENS
0	184	
5	183	17
15	171	48
25	148	68
35	121	76
45	96	74
55	77	69
65	60	60
75	43	45
85	25	28
90	19	
95	17	18
105	15	15
115	13	13
125	12	10
135	9	7
145	7	4
155	4	2
165	2	0
175	0	0
180	0	

ZONAL LUMEN	SUMMARY	
ZONE	LUMENS	%FIXT
0- 30	134	24.0
0- 40	209	37.6
0- 60	352	63.3
0- 90	485	87.2
90-120	47	8.4
90-130	57	10.3
90-150	69	12.4
90-180	71	12.8
0-180	556	100.0

TOTAL INPUT WATTS = 16.8
EFFICACY = 33.1 Lm/W
CIE TYPE - SEMI-DIRECT
LUMINAIRE SPACING CRITERION = 1.1





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PLANE : 0-DEG 90-DEG
LUMINOUS LENGTH : 8.000 8.000
HEIGHT OF SIDE : 3.000 3.000

LUMINANCE DATA IN CANDELA/SQ METER

ANGLE AVERAGE

IN DEG

45	2385.
55	2103.
65	1911.
75	1680.
85	1329.



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CANDELA DISTRIBUTION

	0.0
0.0	184
5.0	183
10.0	178
15.0	171
20.0	161
25.0	148
30.0	135
35.0	121
40.0	108
45.0	96
50.0	86
55.0	77
60.0	68
65.0	60
70.0	52
75.0	43
80.0	34
85.0	25
90.0	19
95.0	17
100.0	15
105.0	15
110.0	14
115.0	13
120.0	13
125.0	12
130.0	11
135.0	9
140.0	8
145.0	7
150.0	5
155.0	4
160.0	3
165.0	2
170.0	1
175.0	0
180.0	0



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ZONAL LUMEN SUMMARY

0- 5	4.
5- 10	13.
10- 15	21.
15- 20	27.
20- 25	32.
25- 30	36.
30- 35	38.
35- 40	38.
40- 45	38.
45- 50	37.
50- 55	35.
55- 60	33.
60- 65	31.
65- 70	28.
70- 75	25.
75- 80	21.
80- 85	16.
85- 90	12.
90- 95	10.
95-100	9.
100-105	8.
105-110	7.
110-115	7.
115-120	6.
120-125	6.
125-130	5.
130-135	4.
135-140	3.
140-145	2.
145-150	2.
150-155	1.
155-160	1.
160-165	0.
165-170	0.
170-175	0.
175-180	0.



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	4
5- 10	13
10- 15	21
15- 20	27
20- 25	32
25- 30	36
30- 35	38
35- 40	38
40- 45	38
45- 50	37
50- 55	35
55- 60	33
60- 65	31
65- 70	28
70- 75	25
75- 80	21
80- 85	16
85- 90	12
90- 95	10
95-100	9
100-105	8
105-110	7
110-115	7
115-120	6
120-125	6
125-130	5
130-135	4
135-140	3
140-145	2
145-150	2
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	17
0- 20	65
0- 30	134
0- 40	209
0- 50	284
0- 60	352
0- 70	412
0- 80	457
0- 90	485
0-100	504
0-110	519
0-120	532
0-130	543
0-140	550
0-150	554
0-160	556
0-170	556
0-180	556



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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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87
1	104	99	94	90	100	95	91	87	89	85	82	83	80	77	77	75	73	70
2	94	86	78	72	91	83	76	70	77	72	67	72	67	64	67	63	60	57
3	86	75	67	60	82	73	65	59	68	61	56	63	58	53	59	55	51	48
4	79	67	58	51	75	64	56	50	60	53	48	56	50	46	53	48	44	41
5	72	59	50	44	69	58	49	43	54	47	41	51	45	40	48	42	38	36
6	67	54	45	38	64	52	44	38	49	42	36	46	40	35	43	38	34	31
7	62	49	40	34	60	47	39	33	45	37	32	42	36	31	40	34	30	28
8	58	44	36	30	56	43	35	30	41	34	29	39	32	28	37	31	27	25
9	54	41	33	27	52	40	32	27	38	31	26	36	30	25	34	28	24	23
10	51	38	30	25	49	37	29	24	35	28	24	33	27	23	32	26	22	21

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

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