Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled data based on original data using

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P#

Luminaire Tested: **HBLED-LD5-12SE-N-CLI-UNV-L840-ED1-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Report Generated By E9911574 / USPTCWHP6081592

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P#
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23769)
Test Lab:	INNOVATION CENTER P2
Issue Date:	3/3/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	METALUX
Catalog Number:	HBLED-LD5-12SE-N-CLI-UNV-L840-ED1-U
Description:	METALUX HIGH BAY LINEAR LED
Light Source:	-
Ballast/Driver:	-

Luminaire Equipment:	Sample No.	Condition	Description

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	9302.0 lumens
Efficiency:	N/A
Efficacy:	121.4 lumens/watt
Spacing Criteria (0/90/45):	1.24 / 0.64 / 0.78
Luminous Opening:	Rectangular (W 2' x L: 4' x H: 0')
CIE Type:	Direct

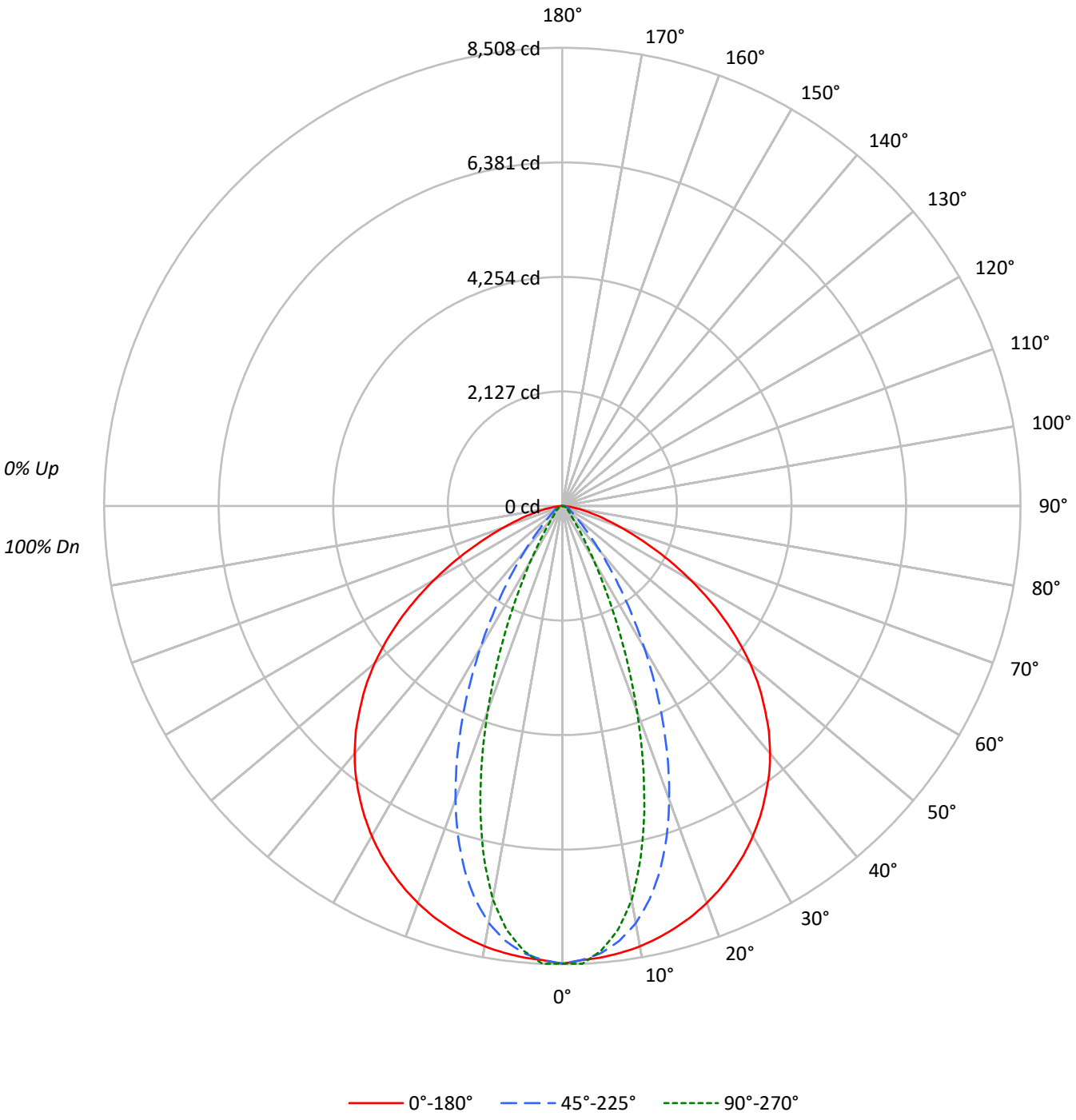
Input Watts (W):	76.6
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

TEST NUMBER: P#
CATALOG NUMBER: HBLED-LD5-12SE-N-CLI-UNV-L840-ED1-U

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

TEST NUMBER: P#
CATALOG NUMBER: HBLED-LD5-12SE-N-CLI-UNV-L840-ED1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60
6	81	70	63	58	79	69	62	57	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	75	64	58	53	63	57	52	62	56	52	60	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	47	42	63	53	46	42	52	46	42	51	46	42	50	45	42	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11432	11432	11432
5°	11364	11250	11191
10°	11344	10741	10136
15°	11299	9763	8186
20°	11231	8308	5802
25°	11131	6551	3505
30°	10995	4728	1801
35°	10797	3091	900
40°	10541	1857	525
45°	10103	1109	393
50°	9529	725	330
55°	8624	550	288
60°	7411	468	263
65°	5961	428	248
70°	4491	458	247
75°	3304	435	254
80°	2417	433	277
85°	1811	525	360

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

TEST NUMBER: P#
CATALOG NUMBER: HBLED-LD5-12SE-N-CLI-UNV-L840-ED1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	782.5	8.4
10°-20°	1946.7	20.9
20°-30°	2156.3	23.2
30°-40°	1727.5	18.6
40°-50°	1233.2	13.3
50°-60°	792.1	8.5
60°-70°	429.3	4.6
70°-80°	183.5	2.0
80°-90°	50.9	0.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	4885.4	52.5
0°-40°	6613.0	71.1
0°-60°	8638.4	92.9
0°-90°	9302.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9302.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8497	8497	8497	8497	8497	
5°	8414	8445	8330	8303	8286	800
15°	8111	7858	7009	6194	5876	2289
25°	7497	6611	4413	2875	2361	3454
35°	6573	4754	1882	759	548	4110
45°	5309	2745	583	248	206	4092
55°	3676	1227	234	144	123	3276
65°	1872	504	134	93	78	1875
75°	636	184	84	58	49	706
85°	117	49	34	28	23	143
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

TEST NUMBER: P#
CATALOG NUMBER: HBLED-LD5-12SE-N-CLI-UNV-L840-ED1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8496.7	8496.7	8496.7	8496.7	*8496.7*
2.5°	*8440.8*	*8493.6*	*8436.7*	*8472.1*	*8508.3*
5°	8413.5	8444.8	8329.8	8303.4	*8285.9*
7.5°	8366.0	8357.1	8140.9	8000.8	*7933.3*
10°	8303.4	8230.9	7861.7	7553.8	*7418.6*
12.5°	8213.9	8064.4	7483.5	6942.9	*6713.8*
15°	8111.4	7857.6	7009.1	6194.2	*5876.4*
17.5°	7988.8	7616.0	6442.1	5391.3	*4972.0*
20°	7843.8	7324.2	5802.2	4538.3	*4051.9*
22.5°	7681.8	6987.7	5117.0	3688.1	*3166.2*
25°	7497.4	6610.8	4412.6	2874.9	*2361.1*
27.5°	7298.2	6192.4	3712.2	2148.1	*1679.6*
30°	7077.2	5739.5	3043.2	1548.9	*1159.5*
32.5°	6835.9	5258.0	2421.6	1089.3	*793.0*
35°	6573.2	4754.5	1881.8	759.0	*547.8*
37.5°	6304.3	4240.7	1421.3	536.6	*392.9*
40°	6001.3	3728.8	1057.1	392.9	*298.9*
42.5°	5676.0	3226.7	782.3	302.5	*242.1*
45°	5309.4	2744.7	582.7	247.9	*206.3*
47.5°	4954.1	2295.4	442.6	211.2	*179.5*
50°	4552.2	1889.9	346.4	184.4	*157.5*
52.5°	4125.7	1533.2	281.0	162.5	*138.7*
55°	3676.4	1227.1	234.5	144.1	*122.6*
57.5°	3221.3	972.0	200.5	128.4	*109.2*
60°	2754.1	777.4	174.1	115.0	*97.6*
62.5°	2298.0	621.6	152.2	103.4	*87.3*
65°	1872.4	503.9	134.3	92.6	*77.9*
67.5°	1479.1	398.3	125.3	83.2	*70.3*
70°	1141.6	310.1	116.4	74.3	*62.7*
72.5°	865.1	238.1	102.9	66.2	*55.5*
75°	635.5	184.4	83.7	58.2	*48.8*
77.5°	454.7	141.9	68.0	50.6	*42.1*
80°	311.9	105.6	55.9	43.4	*35.8*
82.5°	202.7	74.7	45.2	35.8	*29.5*
85°	117.3	48.8	34.0	28.2	*23.3*
87.5°	50.6	26.9	23.3	21.0	*17.9*
90°	0.0	0.0	0.0	0.0	*0.0*

(END OF REPORT)