

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-LD5-36SE-W-FLI-UNV-L850-ED3-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.

**Test Information**

Test Method: LM-79-08  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26703)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: HBLED-LD5-36SE-W-FLI-UNV-L850-ED3-U  
Description: METALUX HIGH BAY LINEAR LED  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

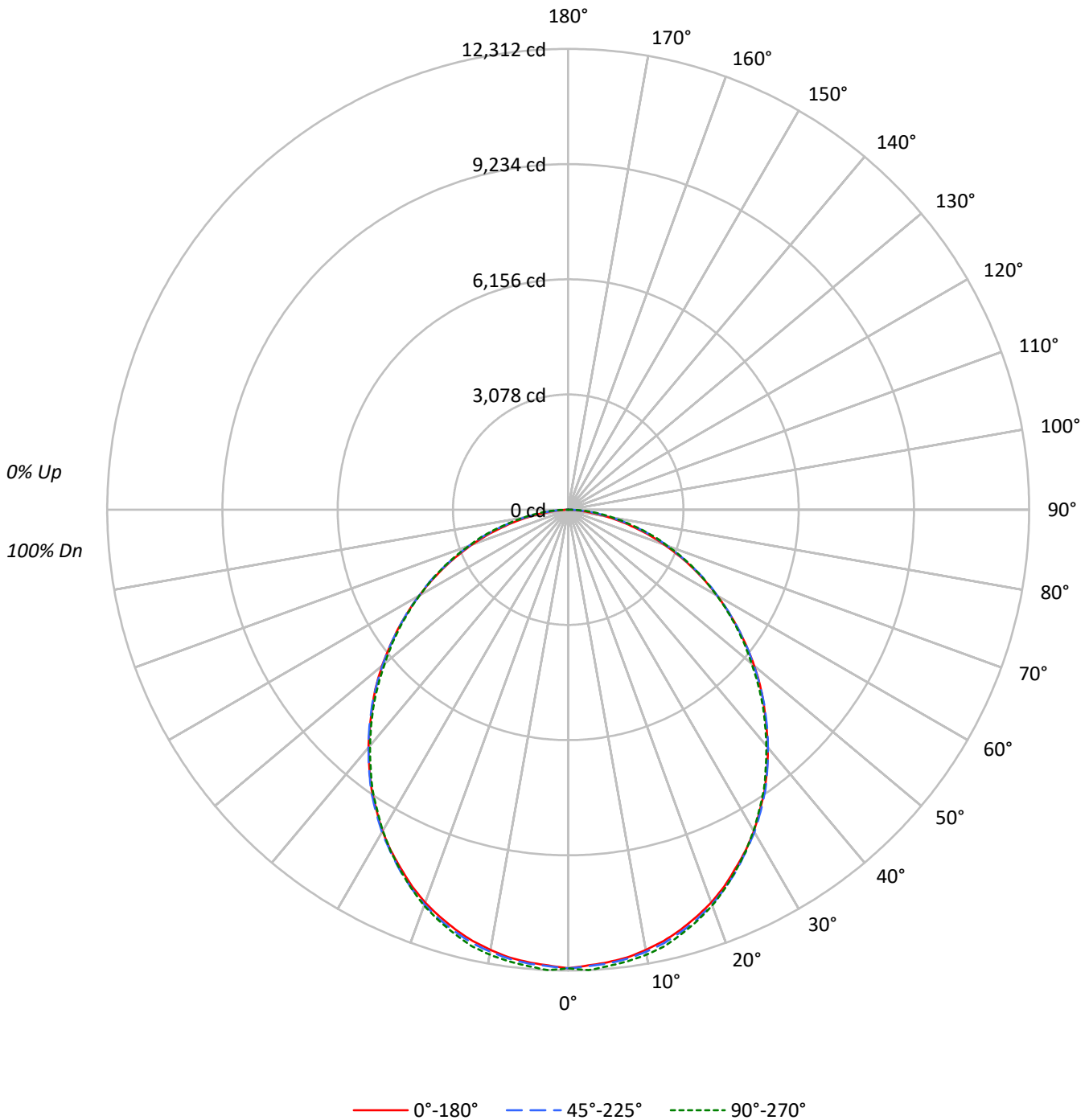
Lumens per Lamp: N/A  
Luminaire Lumens: 32007.0 lumens  
Efficiency: N/A  
Efficacy: 138.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 232  
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



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63	58	53	51
5	77	64	55	49	75	63	54	48	61	53	48		59	52	47		57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42		53	47	42		52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33		45	38	33		43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40	34	30	28
10	54	41	33	28	52	40	33	28	39	32	27		38	32	27		37	31	27	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	16487	16487	16487
5°	16393	16439	16533
10°	16318	16384	16491
15°	16175	16263	16342
20°	15992	16069	16115
25°	15696	15785	15762
30°	15406	15448	15385
35°	15025	15063	14967
40°	14573	14573	14461
45°	14063	14102	13958
50°	13580	13557	13388
55°	12993	12994	12877
60°	12363	12378	12330
65°	11652	11769	11799
70°	10762	11057	11069
75°	9511	10127	10285
80°	7800	8870	9370
85°	5412	7446	8421



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1158.8	3.6
10°-20°	3296.7	10.3
20°-30°	4899.1	15.3
30°-40°	5728.3	17.9
40°-50°	5711.2	17.8
50°-60°	4955.3	15.5
60°-70°	3660.0	11.4
70°-80°	2049.2	6.4
80°-90°	546.8	1.7
90°-100°	1.6	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°	9354.6	29.2
0°-40°	15082.8	47.1
0°-60°	25749.3	80.4
0°-90°	32005.4	100.0
90°-120°	1.6	0.0
90°-150°	1.6	0.0
90°-180°	2.0	0.0
0°-180°	32007.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	12253	12253	12253	12253	12253	
5°	12137	12213	12171	12225	12241	###
15°	11612	11693	11675	11731	11732	3275
25°	10572	10657	10632	10656	10617	4874
35°	9147	9228	9171	9169	9112	5714
45°	7391	7470	7411	7381	7336	5706
55°	5539	5577	5540	5530	5490	4953
65°	3660	3696	3697	3715	3706	3620
75°	1830	1884	1948	1962	1978	1949
85°	351	424	482	525	546	426
90°	0	8	9	21	20	14
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P#

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	12253.2	12253.2	12253.2	12253.2	12253.2
2.5°	12186.2	12258.6	12208.0	12256.3	12312.4
5°	12137.1	12213.4	12171.4	12225.1	12240.7
7.5°	12065.4	12139.4	12098.9	12152.7	12169.0
10°	11943.8	12024.1	11992.1	12052.9	12070.1
12.5°	11802.0	11877.6	11856.6	11927.5	11939.2
15°	11611.9	11692.9	11675.0	11731.1	11731.9
17.5°	11401.5	11477.9	11464.6	11508.3	11506.7
20°	11168.5	11250.3	11222.3	11269.8	11255.0
22.5°	10892.7	10979.9	10944.9	10984.6	10947.2
25°	10572.4	10657.3	10632.4	10655.8	10616.8
27.5°	10262.3	10340.2	10288.8	10316.8	10275.5
30°	9916.3	9982.5	9942.8	9952.2	9902.3
32.5°	9527.5	9606.2	9557.9	9556.3	9503.3
35°	9147.2	9227.5	9170.6	9169.0	9112.2
37.5°	8726.4	8801.3	8734.2	8738.1	8671.9
40°	8297.1	8361.8	8297.1	8294.0	8233.2
42.5°	7831.1	7916.8	7857.6	7864.6	7783.6
45°	7390.9	7469.6	7411.1	7380.7	7335.5
47.5°	6952.2	6986.5	6938.1	6930.4	6866.5
50°	6487.8	6513.5	6476.8	6467.5	6395.8
52.5°	6007.8	6052.2	6005.4	5993.0	5945.4
55°	5538.7	5576.9	5539.5	5530.1	5489.6
57.5°	5066.5	5116.3	5078.2	5068.8	5036.1
60°	4594.3	4609.1	4599.7	4613.7	4581.8
62.5°	4125.2	4159.5	4170.4	4166.5	4141.5
65°	3660.0	3695.8	3696.6	3715.3	3706.0
67.5°	3183.9	3230.6	3243.9	3263.4	3271.9
70°	2735.8	2771.7	2810.6	2822.3	2813.8
72.5°	2284.7	2342.3	2386.0	2396.1	2432.7
75°	1829.6	1884.1	1948.0	1962.1	1978.4
77.5°	1407.3	1479.7	1537.4	1556.1	1576.4
80°	1006.7	1087.0	1144.7	1170.4	1209.3
82.5°	660.8	742.6	801.0	826.7	874.3
85°	350.6	423.9	482.3	525.2	545.5
87.5°	103.6	166.0	199.5	211.9	229.9
90°	0.0	7.8	9.4	21.0	19.5
92.5°	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)