

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-LD5-60SE-W-FLI-UNV-L840-ED4-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-LD5-60SE-W-FLI-UNV-L840-ED4-U  
Description: METALUX HIGH BAY LINEAR LED  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

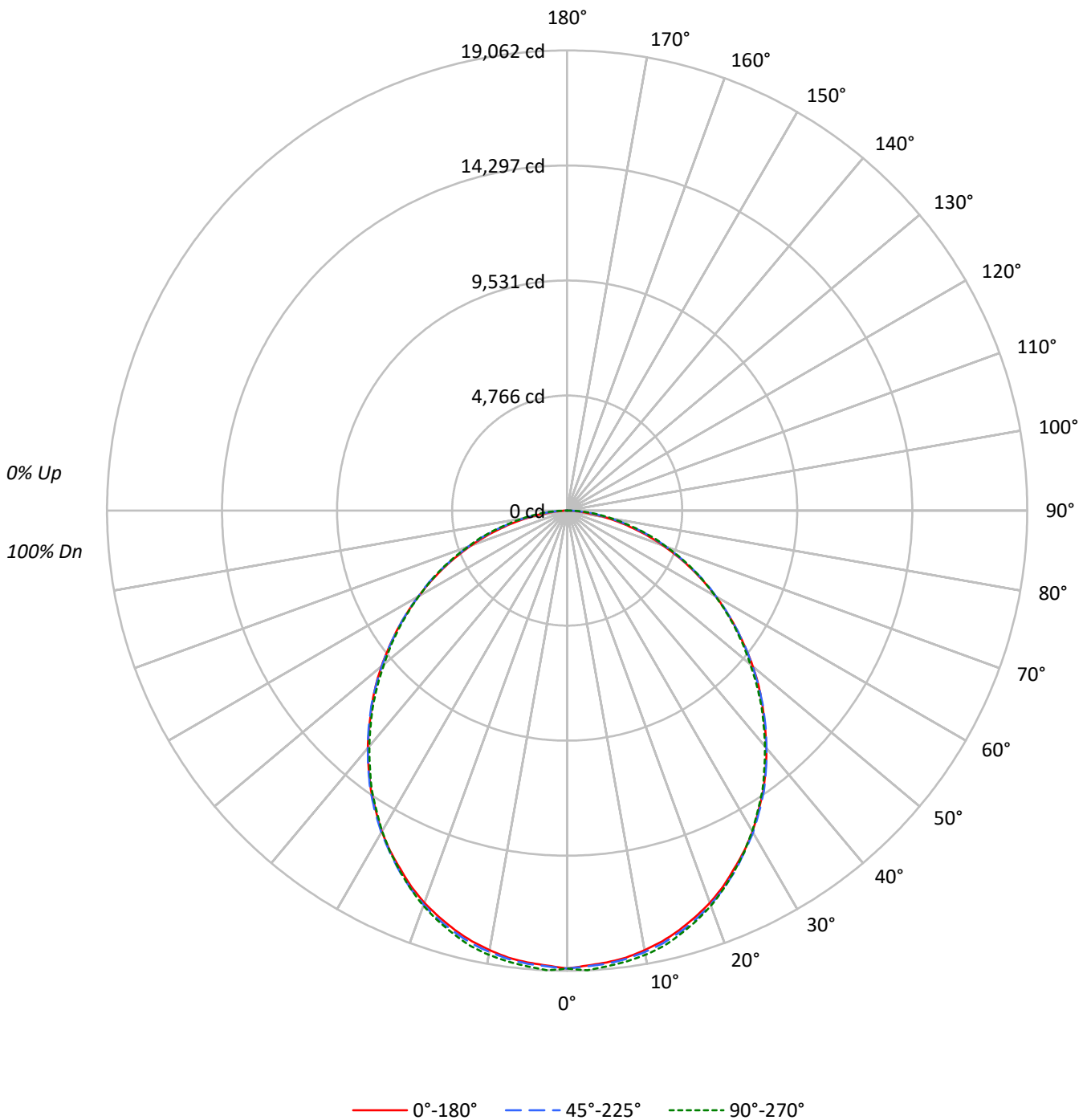
Lumens per Lamp: N/A  
Luminaire Lumens: 49552.0 lumens  
Efficiency: N/A  
Efficacy: 128.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 386  
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°	25524	25524	25524
5°	25379	25450	25595
10°	25263	25365	25530
15°	25041	25177	25300
20°	24758	24877	24949
25°	24299	24437	24402
30°	23852	23915	23818
35°	23261	23320	23171
40°	22561	22561	22388
45°	21773	21832	21609
50°	21024	20989	20726
55°	20115	20117	19936
60°	19140	19163	19088
65°	18039	18220	18266
70°	16662	17118	17137
75°	14725	15678	15923
80°	12077	13731	14507
85°	8381	11527	13036



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1794.1	3.6
10°-20°	5103.8	10.3
20°-30°	7584.5	15.3
30°-40°	8868.3	17.9
40°-50°	8841.9	17.8
50°-60°	7671.5	15.5
60°-70°	5666.3	11.4
70°-80°	3172.5	6.4
80°-90°	846.5	1.7
90°-100°	2.5	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°	14482.4	29.2
0°-40°	23350.7	47.1
0°-60°	39864.1	80.4
0°-90°	49549.5	100.0
90°-120°	2.5	0.0
90°-150°	2.5	0.0
90°-180°	3.0	0.0
0°-180°	49552.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	18970	18970	18970	18970	18970	
5°	18790	18908	18843	18926	18951	###
15°	17977	18102	18075	18162	18163	5070
25°	16368	16499	16461	16497	16437	7546
35°	14161	14286	14198	14195	14107	8846
45°	11442	11564	11474	11427	11357	8833
55°	8575	8634	8576	8562	8499	7668
65°	5666	5722	5723	5752	5737	5604
75°	2832	2917	3016	3038	3063	3017
85°	543	656	747	813	844	659
90°	0	12	14	33	30	22
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#

CATALOG NUMBER: HBLED-LD5-60SE-W-FLI-UNV-L840-ED4-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	18969.9	18969.9	18969.9	18969.9	18969.9
2.5°	18866.2	18978.3	18899.9	18974.7	19061.6
5°	18790.2	18908.4	18843.2	18926.5	18950.6
7.5°	18679.2	18793.8	18731.0	18814.3	18839.6
10°	18491.0	18615.2	18565.8	18659.9	18686.4
12.5°	18271.4	18388.4	18355.9	18465.6	18483.7
15°	17977.1	18102.5	18074.8	18161.6	18162.9
17.5°	17651.4	17769.6	17749.1	17816.6	17814.2
20°	17290.7	17417.3	17373.9	17447.5	17424.6
22.5°	16863.6	16998.7	16944.4	17006.0	16948.1
25°	16367.8	16499.3	16460.7	16496.9	16436.6
27.5°	15887.7	16008.3	15928.7	15972.1	15908.2
30°	15352.1	15454.6	15393.1	15407.5	15330.3
32.5°	14750.1	14871.9	14797.1	14794.7	14712.7
35°	14161.4	14285.6	14197.6	14195.2	14107.1
37.5°	13510.0	13625.8	13522.0	13528.0	13425.5
40°	12845.2	12945.4	12845.2	12840.4	12746.3
42.5°	12123.9	12256.5	12164.9	12175.7	12050.3
45°	11442.3	11564.1	11473.6	11426.6	11356.6
47.5°	10763.1	10816.2	10741.4	10729.3	10630.4
50°	10044.1	10083.9	10027.2	10012.7	9901.7
52.5°	9301.0	9369.7	9297.4	9278.1	9204.5
55°	8574.8	8633.9	8576.0	8561.5	8498.8
57.5°	7843.7	7920.9	7861.8	7847.3	7796.7
60°	7112.7	7135.6	7121.1	7142.8	7093.4
62.5°	6386.4	6439.5	6456.4	6450.4	6411.8
65°	5666.2	5721.7	5722.9	5751.9	5737.4
67.5°	4929.2	5001.5	5022.0	5052.2	5065.5
70°	4235.5	4291.0	4351.3	4369.4	4356.1
72.5°	3537.0	3626.3	3693.9	3709.5	3766.2
75°	2832.5	2917.0	3015.9	3037.6	3062.9
77.5°	2178.7	2290.9	2380.1	2409.1	2440.5
80°	1558.6	1682.9	1772.1	1811.9	1872.3
82.5°	1023.0	1149.7	1240.1	1279.9	1353.5
85°	542.9	656.3	746.7	813.1	844.4
87.5°	160.4	257.0	308.8	328.1	355.9
90°	0.0	12.1	14.5	32.6	30.2
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)