

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-L835-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-L835-ED4-U  
Description: METALUX HIGH BAY LINEAR LED  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

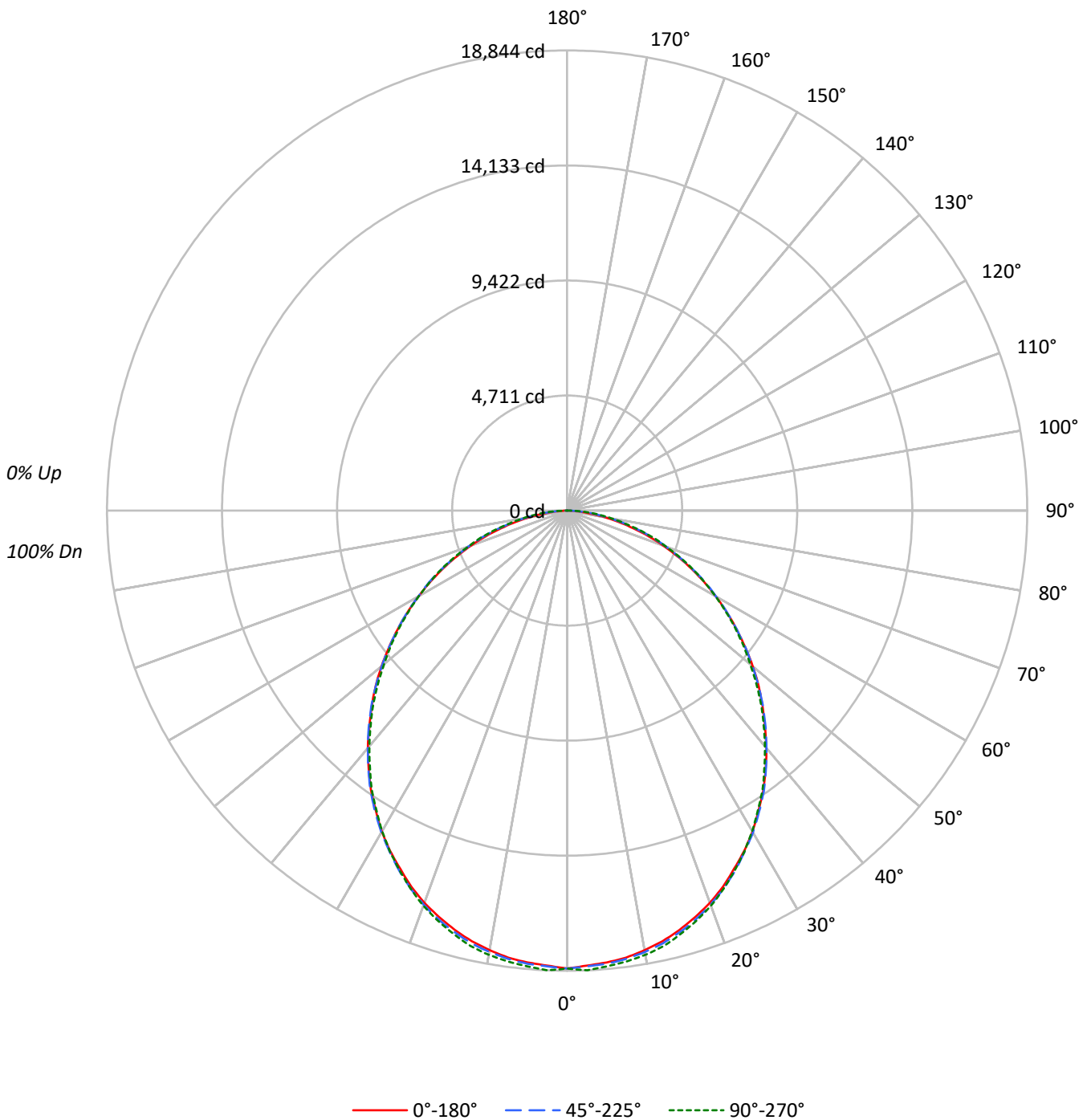
Lumens per Lamp: N/A  
Luminaire Lumens: 48985.0 lumens  
Efficiency: N/A  
Efficacy: 126.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

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°	25232	25232	25232
5°	25088	25159	25302
10°	24974	25075	25238
15°	24755	24889	25010
20°	24474	24592	24664
25°	24021	24158	24122
30°	23579	23642	23545
35°	22994	23053	22906
40°	22303	22303	22132
45°	21523	21582	21362
50°	20784	20749	20489
55°	19884	19887	19708
60°	18921	18943	18870
65°	17833	18012	18057
70°	16471	16922	16941
75°	14557	15499	15741
80°	11939	13574	14341
85°	8284	11396	12887



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1773.5	3.6
10°-20°	5045.4	10.3
20°-30°	7497.7	15.3
30°-40°	8766.8	17.9
40°-50°	8740.7	17.8
50°-60°	7583.7	15.5
60°-70°	5601.5	11.4
70°-80°	3136.2	6.4
80°-90°	836.8	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°	14316.7	29.2
0°-40°	23083.5	47.1
0°-60°	39408.0	80.4
0°-90°	48982.5	100.0
90°-120°	2.5	0.0
90°-150°	2.5	0.0
90°-180°	3.0	0.0
0°-180°	48985.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	18753	18753	18753	18753	18753	
5°	18575	18692	18628	18710	18734	###
15°	17771	17895	17868	17954	17955	5012
25°	16180	16310	16272	16308	16248	7460
35°	13999	14122	14035	14033	13946	8745
45°	11311	11432	11342	11296	11227	8732
55°	8477	8535	8478	8464	8402	7580
65°	5601	5656	5658	5686	5672	5540
75°	2800	2884	2981	3003	3028	2982
85°	537	649	738	804	835	652
90°	0	12	14	32	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-L835-ED4-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	18752.8	18752.8	18752.8	18752.8	18752.8
2.5°	18650.3	18761.2	18683.7	18757.6	18843.5
5°	18575.2	18692.0	18627.6	18709.9	18733.8
7.5°	18465.4	18578.7	18516.7	18599.0	18624.0
10°	18279.4	18402.2	18353.3	18446.4	18472.6
12.5°	18062.4	18178.0	18145.8	18254.4	18272.2
15°	17771.4	17895.4	17868.0	17953.8	17955.0
17.5°	17449.4	17566.3	17546.0	17612.8	17610.4
20°	17092.8	17218.0	17175.1	17247.8	17225.2
22.5°	16670.7	16804.2	16750.6	16811.4	16754.1
25°	16180.5	16310.5	16272.3	16308.1	16248.5
27.5°	15705.9	15825.1	15746.4	15789.4	15726.2
30°	15176.4	15277.8	15216.9	15231.2	15154.9
32.5°	14581.3	14701.8	14627.8	14625.4	14544.3
35°	13999.3	14122.2	14035.1	14032.7	13945.7
37.5°	13355.4	13469.8	13367.3	13373.3	13271.9
40°	12698.3	12797.2	12698.3	12693.5	12600.5
42.5°	11985.1	12116.3	12025.7	12036.4	11912.4
45°	11311.3	11431.8	11342.3	11295.8	11226.7
47.5°	10639.9	10692.4	10618.5	10606.5	10508.7
50°	9929.2	9968.5	9912.5	9898.2	9788.4
52.5°	9194.6	9262.5	9191.0	9171.9	9099.2
55°	8476.6	8535.1	8477.8	8463.5	8401.5
57.5°	7754.0	7830.3	7771.8	7757.5	7707.4
60°	7031.3	7053.9	7039.6	7061.1	7012.2
62.5°	6313.4	6365.8	6382.5	6376.6	6338.4
65°	5601.4	5656.3	5657.5	5686.1	5671.8
67.5°	4872.8	4944.3	4964.6	4994.4	5007.5
70°	4187.0	4241.9	4301.5	4319.4	4306.3
72.5°	3496.6	3584.8	3651.6	3667.1	3723.1
75°	2800.1	2883.6	2981.4	3002.8	3027.9
77.5°	2153.7	2264.7	2352.9	2381.5	2412.5
80°	1540.8	1663.6	1751.9	1791.2	1850.8
82.5°	1011.3	1136.5	1225.9	1265.3	1338.0
85°	536.6	648.7	738.2	803.8	834.8
87.5°	158.6	254.0	305.3	324.4	351.8
90°	0.0	11.9	14.3	32.2	29.8
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)