

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-LD5-18HE-N-CL-UNV-L840-ED2-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 (P23768)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: HBLED-LD5-18HE-N-CL-UNV-L840-ED2-U  
Description: METALUX HIGH BAY LINEAR LED  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

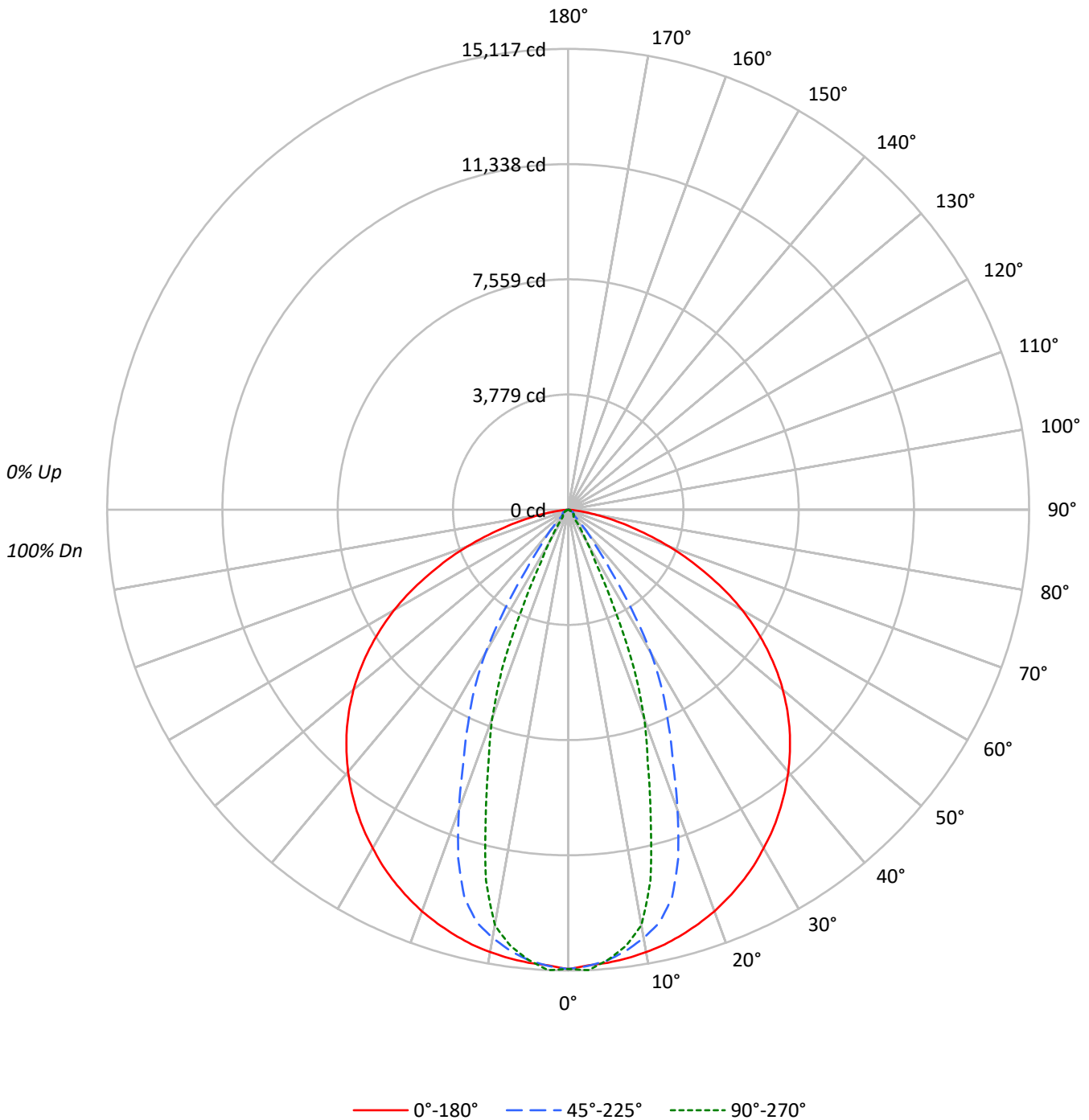
Lumens per Lamp: N/A  
Luminaire Lumens: 16114.0 lumens  
Efficiency: N/A  
Efficacy: 144.0 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 0.63 / 0.78  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 111.9  
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	112	109	105	103	109	106	104	101	102	100	98	98	97	95	95	94	92	90				90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73				73
4	92	83	76	71	90	82	75	71	79	74	70	77	73	69	75	71	68	66				66
5	86	76	69	64	85	75	69	64	73	68	63	72	67	63	70	66	62	60				60
6	81	71	64	59	80	70	63	58	68	62	58	67	62	58	65	61	57	55				55
7	77	66	59	54	75	65	58	54	64	58	53	62	57	53	61	56	53	51				51
8	72	61	55	50	71	61	54	50	60	54	49	59	53	49	58	53	49	47				47
9	69	58	51	46	67	57	51	46	56	50	46	55	50	46	54	49	46	44				44
10	65	54	48	43	64	54	47	43	53	47	43	52	47	43	51	46	43	41				41

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

	0°	45°	90°
0°	20272	20272	20272
5°	20148	20043	20028
10°	20134	19489	18913
15°	20111	18326	14543
20°	20072	14997	10431
25°	20009	11555	5301
30°	19915	8433	1929
35°	19843	3873	671
40°	19721	1758	463
45°	19546	656	469
50°	19234	476	494
55°	18665	501	376
60°	17737	535	332
65°	16085	408	270
70°	13792	294	249
75°	10541	260	237
80°	6595	245	257
85°	2083	286	346



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1402.7	8.7
10°-20°	3533.6	21.9
20°-30°	3848.2	23.9
30°-40°	2878.7	17.9
40°-50°	2069.8	12.8
50°-60°	1271.2	7.9
60°-70°	731.5	4.5
70°-80°	326.5	2.0
80°-90°	51.8	0.3
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°	8784.6	54.5
0°-40°	11663.2	72.4
0°-60°	15004.2	93.1
0°-90°	16114.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16114.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	15067	15067	15067	15067	15067	
5°	14917	14988	14840	14853	14829	###
15°	14438	14161	13156	11299	10440	4076
25°	13478	12511	7783	4994	3570	6213
35°	12081	8665	2358	693	409	7557
45°	10272	4868	345	255	247	7913
55°	7957	1012	214	207	160	7094
65°	5052	111	128	106	85	5001
75°	2028	67	50	52	46	2200
85°	135	13	18	24	22	269
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	15067.0	15067.0	15067.0	15067.0	15067.0
2.5°	14962.2	15060.1	14977.6	15051.6	15117.1
5°	14917.4	14987.6	14839.6	14853.4	14828.8
7.5°	14840.3	14857.3	14589.8	14486.4	14436.3
10°	14737.0	14691.5	14264.4	14018.4	13843.4
12.5°	14606.7	14456.4	13859.6	12981.4	12457.9
15°	14437.9	14161.1	13156.5	11299.1	10440.2
17.5°	14236.6	13852.7	11992.2	9417.1	8673.8
20°	14018.4	13511.9	10474.1	8006.9	7285.2
22.5°	13760.9	13076.3	8976.8	6659.2	5668.4
25°	13478.0	12511.1	7783.3	4993.8	3570.5
27.5°	13172.7	11765.6	6678.5	3062.4	1930.6
30°	12818.0	10858.1	5427.9	1718.6	1241.3
32.5°	12471.8	9800.3	3877.4	1144.9	793.4
35°	12080.9	8664.6	2357.7	693.1	408.6
37.5°	11666.9	7632.2	1475.7	377.0	282.2
40°	11228.2	6653.0	1000.8	267.5	263.7
42.5°	10759.4	5767.1	626.8	254.4	262.9
45°	10272.1	4868.1	344.6	255.2	246.7
47.5°	9743.2	3892.0	240.6	241.3	240.6
50°	9188.9	2791.8	227.4	238.2	235.9
52.5°	8591.3	1733.2	228.2	232.8	208.9
55°	7956.8	1011.6	213.6	206.6	160.4
57.5°	7289.9	630.7	208.9	170.4	144.2
60°	6591.3	333.1	198.9	153.4	123.4
62.5°	5847.3	164.2	159.6	131.1	101.0
65°	5052.4	111.0	128.0	106.4	84.8
67.5°	4284.5	100.2	96.4	87.1	74.0
70°	3505.8	91.7	74.8	76.3	63.2
72.5°	2741.7	83.3	60.1	65.5	53.2
75°	2027.7	67.1	50.1	51.7	45.5
77.5°	1410.9	52.4	39.3	43.9	42.4
80°	851.2	33.2	31.6	36.2	33.2
82.5°	412.5	21.6	24.7	28.5	26.2
85°	134.9	13.1	18.5	23.9	22.4
87.5°	17.0	7.7	15.4	20.8	19.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)