

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-LD5-24HE-N-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 (P23767)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: HBLED-LD5-24HE-N-UNV-L840-ED2-U  
Description: METALUX HIGH BAY LINEAR LED  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

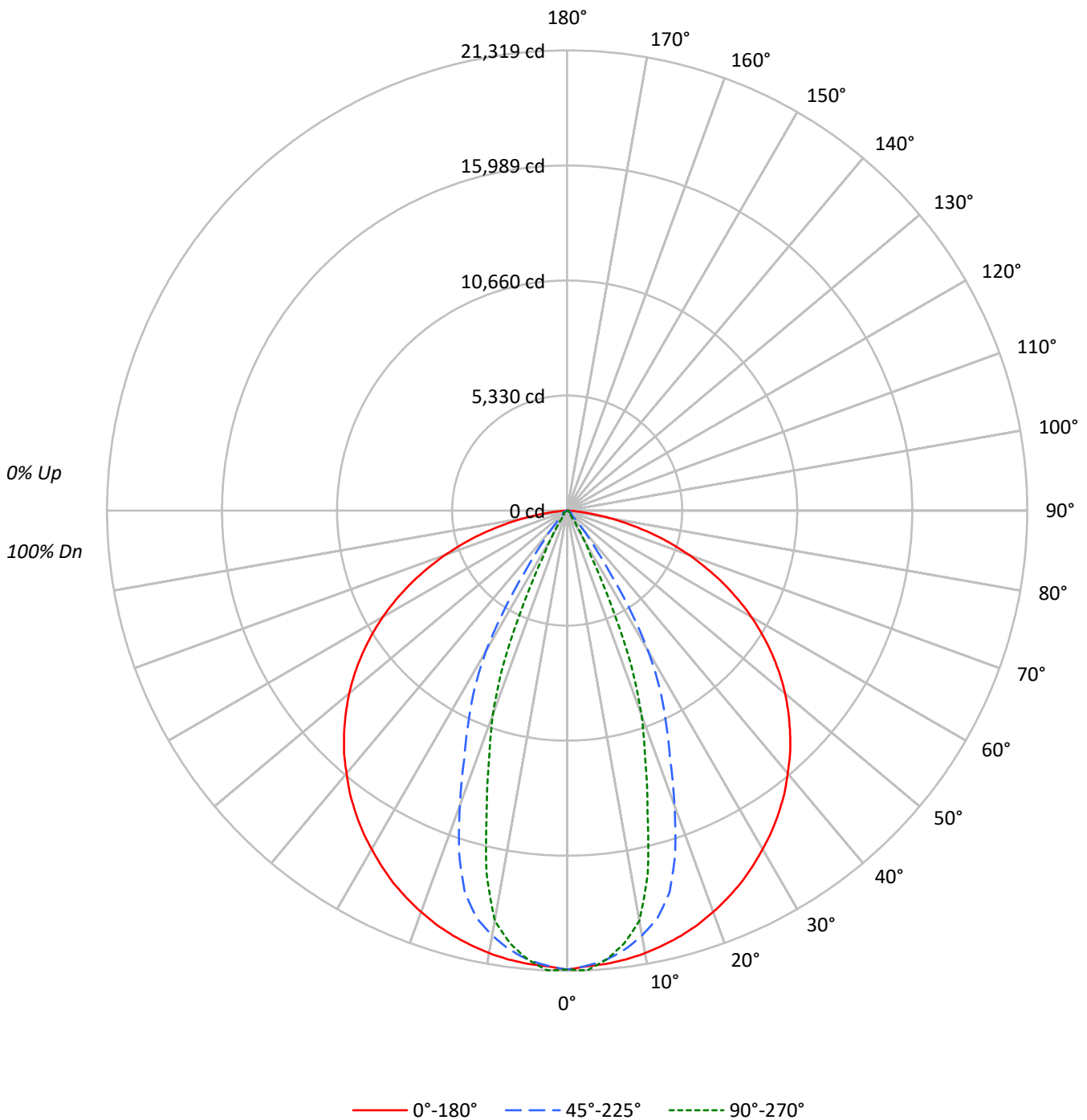
Lumens per Lamp: N/A  
Luminaire Lumens: 22605.0 lumens  
Efficiency: N/A  
Efficacy: 154.5 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 0.62 / 0.77  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 146.3  
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	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	76	81	77	74	73
4	92	82	76	70	90	81	75	70	79	73	69	77	72	68	75	71	67	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	70	63	58	68	62	58	66	61	57	65	60	57	55
7	76	66	58	54	75	65	58	53	63	57	53	62	57	53	61	56	52	51
8	72	61	54	49	71	61	54	49	59	53	49	58	53	49	57	52	49	47
9	68	57	51	46	67	57	50	46	56	50	46	55	49	46	54	49	45	44
10	65	54	47	43	64	53	47	43	53	47	43	52	46	43	51	46	42	41

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

	0°	45°	90°
0°	28616	28616	28616
5°	28463	28211	28199
10°	28445	27307	26349
15°	28405	25511	20053
20°	28339	20797	14434
25°	28266	16081	7111
30°	28141	11687	2306
35°	28075	5185	593
40°	27928	2106	400
45°	27803	591	425
50°	27586	419	472
55°	27189	498	202
60°	26518	555	122
65°	25427	354	145
70°	23622	314	179
75°	20665	237	247
80°	15451	290	353
85°	7654	375	469



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1973.7	8.7
10°-20°	4935.2	21.8
20°-30°	5345.6	23.6
30°-40°	3958.6	17.5
40°-50°	2851.2	12.6
50°-60°	1765.4	7.8
60°-70°	1085.7	4.8
70°-80°	572.4	2.5
80°-90°	117.1	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°	12254.4	54.2
0°-40°	16213.1	71.7
0°-60°	20829.7	92.1
0°-90°	22605.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	22605.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	21268	21268	21268	21268	21268	
5°	21074	21152	20887	20903	20878	###
15°	20392	19918	18314	15575	14396	5756
25°	19040	17440	10832	6814	4790	8773
35°	17092	12050	3157	743	361	10693
45°	14612	6789	311	225	224	11268
55°	11590	1398	212	192	86	10347
65°	7987	148	111	71	46	7880
75°	3975	34	46	60	48	4199
85°	496	13	24	36	30	749
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	21267.8	21267.8	21267.8	21267.8	21267.8
2.5°	21131.2	21265.8	21106.9	21225.3	21319.4
5°	21073.6	21151.5	20887.4	20902.6	20878.3
7.5°	20972.4	20954.2	20510.0	20315.8	20230.8
10°	20819.6	20699.2	19986.9	19581.2	19285.8
12.5°	20622.3	20353.2	19334.4	18044.4	17243.1
15°	20391.6	19918.1	18314.5	15574.7	14396.1
17.5°	20116.4	19445.7	16647.2	13053.5	12001.3
20°	19791.7	18918.5	14524.6	11105.9	10081.0
22.5°	19429.5	18277.1	12462.6	9230.1	7768.1
25°	19040.0	17440.4	10831.7	6814.1	4789.6
27.5°	18589.7	16364.9	9301.9	4013.6	2444.4
30°	18113.2	15069.9	7522.3	2159.1	1484.2
32.5°	17632.6	13601.8	5322.8	1348.7	841.8
35°	17092.4	12049.8	3156.6	742.6	361.2
37.5°	16528.8	10627.3	1865.7	337.9	231.7
40°	15900.5	9327.2	1198.9	224.6	227.6
42.5°	15293.5	8115.2	674.8	221.6	225.6
45°	14611.6	6788.8	310.6	224.6	223.6
47.5°	13906.4	5413.8	201.3	226.6	226.6
50°	13178.9	3870.9	200.3	231.7	225.6
52.5°	12411.0	2415.0	208.4	230.7	185.1
55°	11590.5	1398.2	212.5	192.2	86.0
57.5°	10740.6	824.6	214.5	110.3	48.6
60°	9854.4	456.3	206.4	82.0	45.5
62.5°	8940.8	217.5	162.9	76.9	44.5
65°	7986.7	147.7	111.3	70.8	45.5
67.5°	6996.2	114.3	88.0	66.8	46.5
70°	6004.7	85.0	79.9	66.8	45.5
72.5°	4997.0	57.7	66.8	67.8	45.5
75°	3975.1	34.4	45.5	59.7	47.6
77.5°	2962.4	21.2	35.4	61.7	57.7
80°	1994.1	18.2	37.4	57.7	45.5
82.5°	1170.6	16.2	36.4	44.5	36.4
85°	495.8	13.2	24.3	36.4	30.4
87.5°	93.1	11.1	19.2	29.3	26.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)