

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-L850-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-L850-ED2-U  
Description: METALUX HIGH BAY LINEAR LED  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

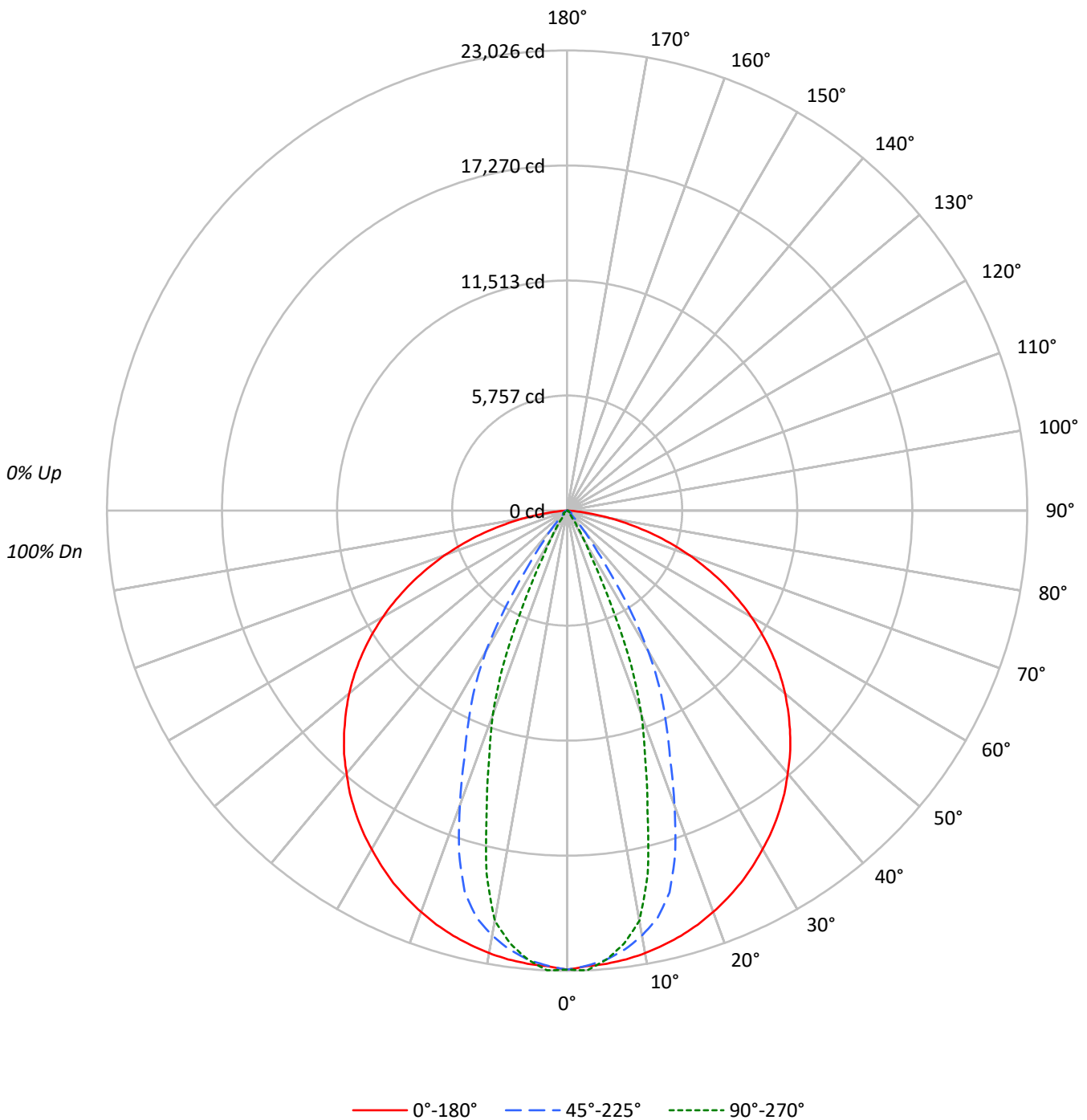
Lumens per Lamp: N/A  
Luminaire Lumens: 24414.0 lumens  
Efficiency: N/A  
Efficacy: 166.9 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 0.62 / 0.77  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

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	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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81					81			
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73					73			
4	92	82	76	70	90	81	75	70	79	73	69	77	72	68	75	71	67	66					66			
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	70	63	58	68	62	58	66	61	57	65	60	57	55					55			
7	76	66	58	54	75	65	58	53	63	57	53	62	57	53	61	56	52	51					51			
8	72	61	54	49	71	61	54	49	59	53	49	58	53	49	57	52	49	47					47			
9	68	57	51	46	67	57	50	46	56	50	46	55	49	46	54	49	45	44					44			
10	65	54	47	43	64	53	47	43	53	47	43	52	46	43	51	46	42	41					41			

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

	0°	45°	90°
0°	30906	30906	30906
5°	30740	30469	30455
10°	30721	29492	28458
15°	30678	27553	21658
20°	30606	22461	15589
25°	30529	17367	7680
30°	30393	12622	2490
35°	30322	5600	641
40°	30163	2274	432
45°	30028	638	460
50°	29794	453	510
55°	29365	538	218
60°	28640	600	132
65°	27462	383	157
70°	25512	339	194
75°	22319	256	267
80°	16688	313	381
85°	8265	404	506



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2131.6	8.7
10°-20°	5330.1	21.8
20°-30°	5773.4	23.6
30°-40°	4275.4	17.5
40°-50°	3079.4	12.6
50°-60°	1906.7	7.8
60°-70°	1172.6	4.8
70°-80°	618.2	2.5
80°-90°	126.5	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°	13235.1	54.2
0°-40°	17510.5	71.7
0°-60°	22496.7	92.1
0°-90°	24414.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	24414.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	22970	22970	22970	22970	22970	
5°	22760	22844	22559	22575	22549	###
15°	22024	21512	19780	16821	15548	6217
25°	20564	18836	11698	7359	5173	9475
35°	18460	13014	3409	802	390	11549
45°	15781	7332	336	243	242	12170
55°	12518	1510	230	208	93	11175
65°	8626	160	120	76	49	8511
75°	4293	37	49	64	51	4535
85°	535	14	26	39	33	809
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	22969.8	22969.8	22969.8	22969.8	22969.8
2.5°	22822.3	22967.6	22796.1	22923.9	23025.5
5°	22760.0	22844.1	22558.9	22575.3	22549.1
7.5°	22650.7	22631.1	22151.4	21941.6	21849.8
10°	22485.7	22355.7	21586.4	21148.3	20829.2
12.5°	22272.7	21982.0	20881.6	19488.4	18623.0
15°	22023.5	21512.1	19780.2	16821.1	15548.1
17.5°	21726.3	21001.8	17979.4	14098.1	12961.7
20°	21375.5	20432.5	15686.9	11994.6	10887.7
22.5°	20984.4	19739.8	13460.0	9968.8	8389.8
25°	20563.7	18836.1	11698.5	7359.4	5172.9
27.5°	20077.4	17674.5	10046.4	4334.8	2640.0
30°	19562.7	16275.9	8124.3	2331.8	1603.0
32.5°	19043.7	14690.4	5748.7	1456.6	909.1
35°	18460.2	13014.1	3409.2	802.0	390.1
37.5°	17851.6	11477.8	2015.0	365.0	250.2
40°	17173.0	10073.7	1294.9	242.6	245.9
42.5°	16517.4	8764.6	728.8	239.3	243.7
45°	15780.9	7332.1	335.5	242.6	241.5
47.5°	15019.3	5847.1	217.4	244.8	244.8
50°	14233.6	4180.7	216.4	250.2	243.7
52.5°	13404.2	2608.3	225.1	249.1	200.0
55°	12518.1	1510.1	229.5	207.6	92.9
57.5°	11600.2	890.6	231.7	119.1	52.4
60°	10643.0	492.8	222.9	88.5	49.2
62.5°	9656.3	234.9	175.9	83.0	48.1
65°	8625.8	159.5	120.2	76.5	49.2
67.5°	7556.1	123.5	95.1	72.1	50.3
70°	6485.2	91.8	86.3	72.1	49.2
72.5°	5396.9	62.3	72.1	73.2	49.2
75°	4293.2	37.2	49.2	64.5	51.4
77.5°	3199.4	22.9	38.2	66.7	62.3
80°	2153.7	19.7	40.4	62.3	49.2
82.5°	1264.3	17.5	39.3	48.1	39.3
85°	535.4	14.2	26.2	39.3	32.8
87.5°	100.5	12.0	20.8	31.7	28.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)