

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-LD5-24SE-W-FLI-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 (P26703)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: HBLED-LD5-24SE-W-FLI-UNV-L850-ED2-U
Description: METALUX HIGH BAY LINEAR LED
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

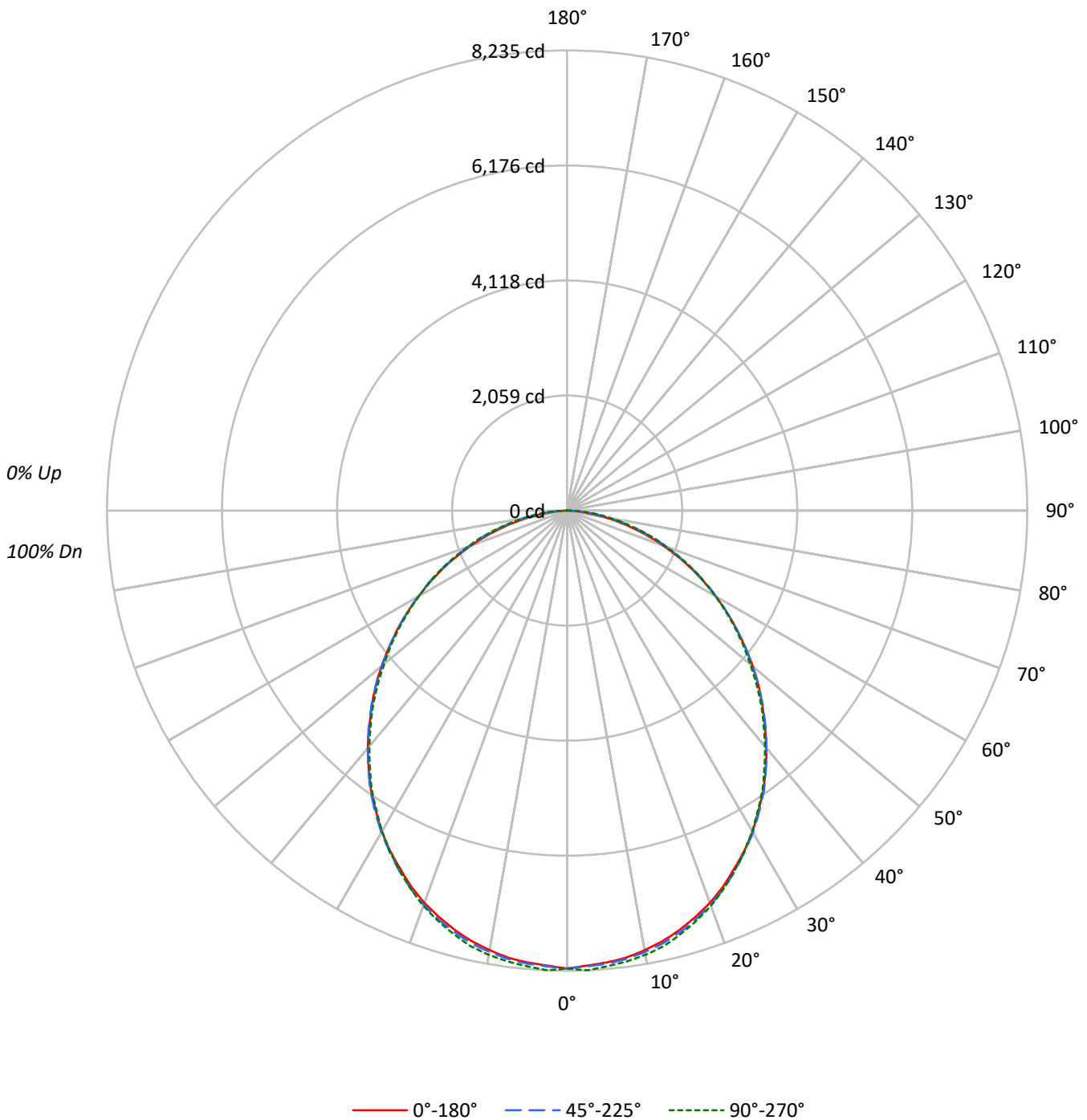
Lumens per Lamp: N/A
Luminaire Lumens: 21407.0 lumens
Efficiency: N/A
Efficacy: 139.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 154
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°	11027	11027	11027
5°	10964	10995	11057
10°	10914	10958	11029
15°	10818	10877	10930
20°	10696	10747	10778
25°	10498	10557	10542
30°	10304	10332	10290
35°	10049	10075	10010
40°	9747	9747	9672
45°	9406	9432	9336
50°	9083	9068	8954
55°	8690	8691	8613
60°	8269	8279	8246
65°	7793	7871	7891
70°	7198	7395	7403
75°	6361	6773	6879
80°	5217	5932	6267
85°	3620	4980	5632



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	775.1	3.6
10°-20°	2204.9	10.3
20°-30°	3276.6	15.3
30°-40°	3831.2	17.9
40°-50°	3819.8	17.8
50°-60°	3314.2	15.5
60°-70°	2447.9	11.4
70°-80°	1370.6	6.4
80°-90°	365.7	1.7
90°-100°	1.1	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°	6256.5	29.2
0°-40°	10087.8	47.1
0°-60°	17221.7	80.4
0°-90°	21405.9	100.0
90°-120°	1.1	0.0
90°-150°	1.1	0.0
90°-180°	1.0	0.0
0°-180°	21407.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8195	8195	8195	8195	8195	
5°	8118	8169	8140	8176	8187	771
15°	7766	7820	7808	7846	7846	2190
25°	7071	7128	7111	7127	7101	3260
35°	6118	6172	6134	6132	6094	3822
45°	4943	4996	4957	4936	4906	3816
55°	3704	3730	3705	3699	3672	3312
65°	2448	2472	2472	2485	2479	2421
75°	1224	1260	1303	1312	1323	1303
85°	234	284	323	351	365	285
90°	0	5	6	14	13	9
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-LD5-24SE-W-FLI-UNV-L850-ED2-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8195.2	8195.2	8195.2	8195.2	8195.2
2.5°	8150.4	8198.9	8165.0	8197.3	8234.8
5°	8117.6	8168.6	8140.5	8176.4	8186.9
7.5°	8069.6	8119.1	8092.0	8128.0	8138.9
10°	7988.3	8042.0	8020.6	8061.3	8072.7
12.5°	7893.5	7944.0	7929.9	7977.4	7985.2
15°	7766.3	7820.5	7808.5	7846.0	7846.5
17.5°	7625.6	7676.7	7667.8	7697.0	7695.9
20°	7469.8	7524.5	7505.7	7537.5	7527.6
22.5°	7285.3	7343.6	7320.2	7346.8	7321.7
25°	7071.1	7127.9	7111.2	7126.8	7100.8
27.5°	6863.6	6915.8	6881.4	6900.1	6872.5
30°	6632.3	6676.6	6650.0	6656.2	6622.9
32.5°	6372.2	6424.8	6392.5	6391.5	6356.0
35°	6117.9	6171.5	6133.5	6132.5	6094.4
37.5°	5836.4	5886.5	5841.7	5844.3	5800.0
40°	5549.3	5592.5	5549.3	5547.2	5506.6
42.5°	5237.6	5295.0	5255.4	5260.0	5205.8
45°	4943.2	4995.8	4956.7	4936.4	4906.2
47.5°	4649.8	4672.7	4640.4	4635.2	4592.4
50°	4339.2	4356.4	4331.9	4325.6	4277.7
52.5°	4018.1	4047.8	4016.6	4008.2	3976.4
55°	3704.4	3729.9	3704.9	3698.7	3671.6
57.5°	3388.6	3421.9	3396.4	3390.1	3368.2
60°	3072.7	3082.6	3076.4	3085.8	3064.4
62.5°	2759.0	2781.9	2789.2	2786.6	2770.0
65°	2447.9	2471.9	2472.4	2484.9	2478.6
67.5°	2129.5	2160.7	2169.6	2182.6	2188.3
70°	1829.8	1853.8	1879.8	1887.6	1881.9
72.5°	1528.0	1566.6	1595.8	1602.6	1627.1
75°	1223.7	1260.2	1302.9	1312.3	1323.2
77.5°	941.2	989.7	1028.2	1040.8	1054.3
80°	673.3	727.0	765.6	782.8	808.8
82.5°	441.9	496.7	535.8	552.9	584.7
85°	234.5	283.5	322.6	351.3	364.8
87.5°	69.3	111.0	133.4	141.8	153.7
90°	0.0	5.2	6.3	14.1	13.0
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)