

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-W-FLI-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 (P26703)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: HBLED-LD5-24HE-W-FLI-UNV-L840-ED2-U
Description: METALUX HIGH BAY LINEAR LED
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

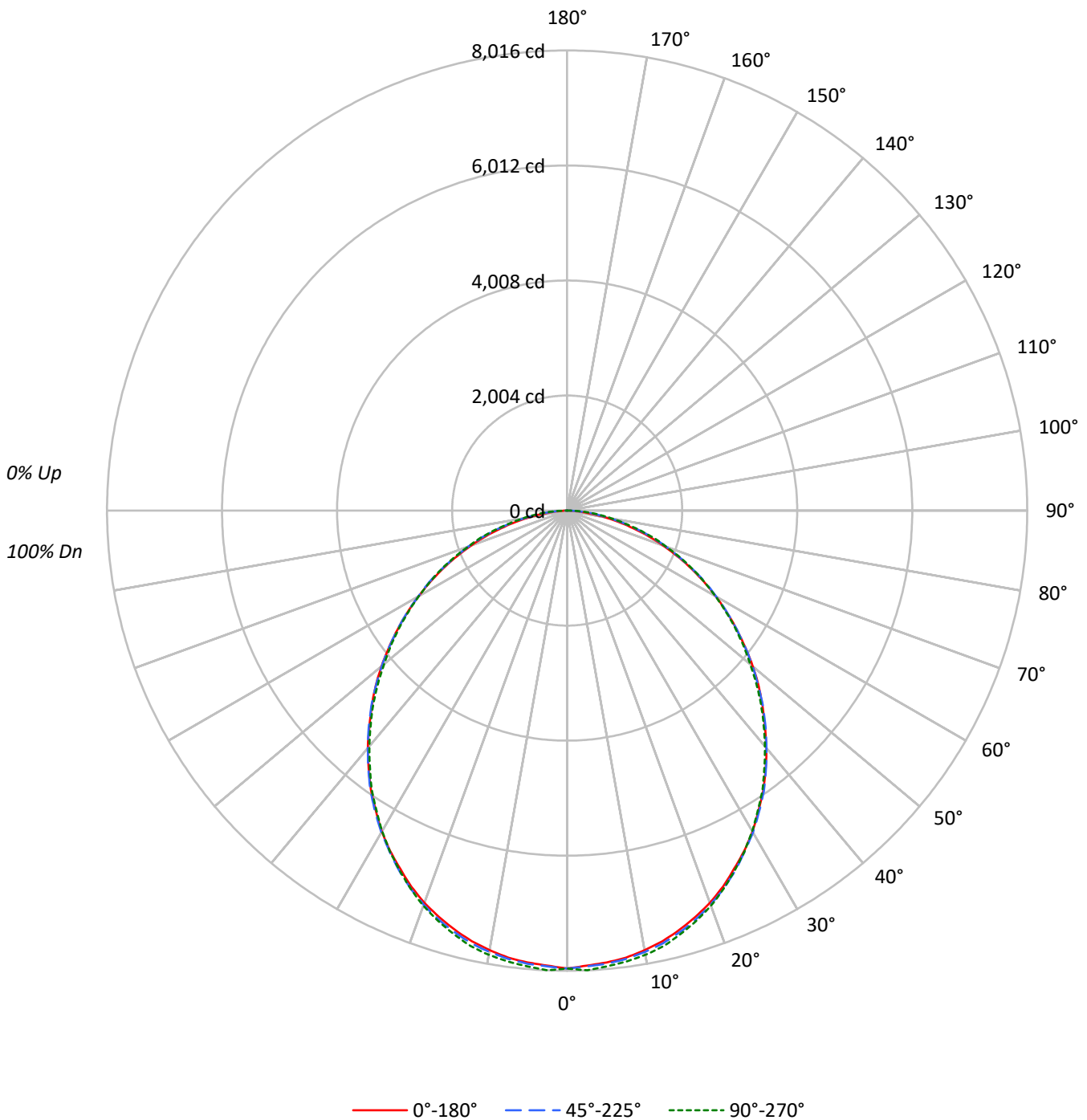
Lumens per Lamp: N/A
Luminaire Lumens: 20837.0 lumens
Efficiency: N/A
Efficacy: 142.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84					84			
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71					71			
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60					60			
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	53	51					51			
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47	45					45			
6	71	58	49	42	69	57	48	42	55	47	42	53	47	42	52	46	41	39					39			
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	28	52	40	33	28	39	32	27	38	32	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10733	10733	10733
5°	10672	10702	10763
10°	10623	10666	10736
15°	10530	10587	10639
20°	10411	10461	10491
25°	10218	10276	10261
30°	10030	10057	10016
35°	9781	9806	9744
40°	9487	9487	9414
45°	9156	9180	9087
50°	8841	8826	8716
55°	8458	8460	8383
60°	8048	8058	8027
65°	7586	7662	7681
70°	7007	7198	7206
75°	6192	6593	6696
80°	5078	5774	6100
85°	3524	4847	5482



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	754.4	3.6
10°-20°	2146.2	10.3
20°-30°	3189.4	15.3
30°-40°	3729.2	17.9
40°-50°	3718.1	17.8
50°-60°	3225.9	15.5
60°-70°	2382.7	11.4
70°-80°	1334.1	6.4
80°-90°	356.0	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°	6089.9	29.2
0°-40°	9819.1	47.1
0°-60°	16763.2	80.4
0°-90°	20835.9	100.0
90°-120°	1.1	0.0
90°-150°	1.1	0.0
90°-180°	1.0	0.0
0°-180°	20837.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7977	7977	7977	7977	7977	
5°	7901	7951	7924	7959	7969	751
15°	7560	7612	7601	7637	7638	2132
25°	6883	6938	6922	6937	6912	3173
35°	5955	6007	5970	5969	5932	3720
45°	4812	4863	4825	4805	4776	3714
55°	3606	3631	3606	3600	3574	3224
65°	2383	2406	2406	2419	2413	2356
75°	1191	1227	1268	1277	1288	1268
85°	228	276	314	342	355	277
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#

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7977.0	7977.0	7977.0	7977.0	7977.0
2.5°	7933.4	7980.5	7947.6	7979.0	8015.5
5°	7901.4	7951.1	7923.7	7958.7	7968.9
7.5°	7854.7	7902.9	7876.6	7911.6	7922.2
10°	7775.6	7827.9	7807.1	7846.6	7857.8
12.5°	7683.3	7732.5	7718.8	7764.9	7772.6
15°	7559.5	7612.3	7600.6	7637.1	7637.6
17.5°	7422.5	7472.2	7463.6	7492.0	7491.0
20°	7270.9	7324.1	7305.9	7336.8	7327.2
22.5°	7091.3	7148.1	7125.3	7151.1	7126.8
25°	6882.8	6938.1	6921.8	6937.1	6911.7
27.5°	6680.9	6731.6	6698.1	6716.4	6689.5
30°	6455.7	6498.8	6472.9	6479.0	6446.5
32.5°	6202.5	6253.8	6222.3	6221.3	6186.8
35°	5955.0	6007.2	5970.2	5969.2	5932.1
37.5°	5681.0	5729.7	5686.1	5688.6	5645.5
40°	5401.5	5443.6	5401.5	5399.5	5359.9
42.5°	5098.2	5154.0	5115.4	5120.0	5067.2
45°	4811.6	4862.8	4824.7	4805.0	4775.5
47.5°	4526.0	4548.3	4516.8	4511.8	4470.2
50°	4223.6	4240.4	4216.5	4210.4	4163.8
52.5°	3911.1	3940.1	3909.6	3901.5	3870.6
55°	3605.8	3630.6	3606.3	3600.2	3573.8
57.5°	3298.3	3330.8	3305.9	3299.9	3278.6
60°	2990.9	3000.6	2994.5	3003.6	2982.8
62.5°	2685.5	2707.9	2715.0	2712.4	2696.2
65°	2382.7	2406.0	2406.5	2418.7	2412.6
67.5°	2072.7	2103.2	2111.8	2124.5	2130.1
70°	1781.1	1804.4	1829.8	1837.4	1831.8
72.5°	1487.3	1524.9	1553.3	1559.9	1583.7
75°	1191.1	1226.6	1268.2	1277.3	1288.0
77.5°	916.1	963.3	1000.9	1013.0	1026.2
80°	655.4	707.7	745.2	761.9	787.3
82.5°	430.2	483.4	521.5	538.2	569.2
85°	228.3	276.0	314.0	341.9	355.1
87.5°	67.5	108.1	129.9	138.0	149.6
90°	0.0	5.1	6.1	13.7	12.7
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)