

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-LD5-36HE-W-FLI-UNV-L840-ED3-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-LD5-36HE-W-FLI-UNV-L840-ED3-U  
Description: METALUX HIGH BAY LINEAR LED  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

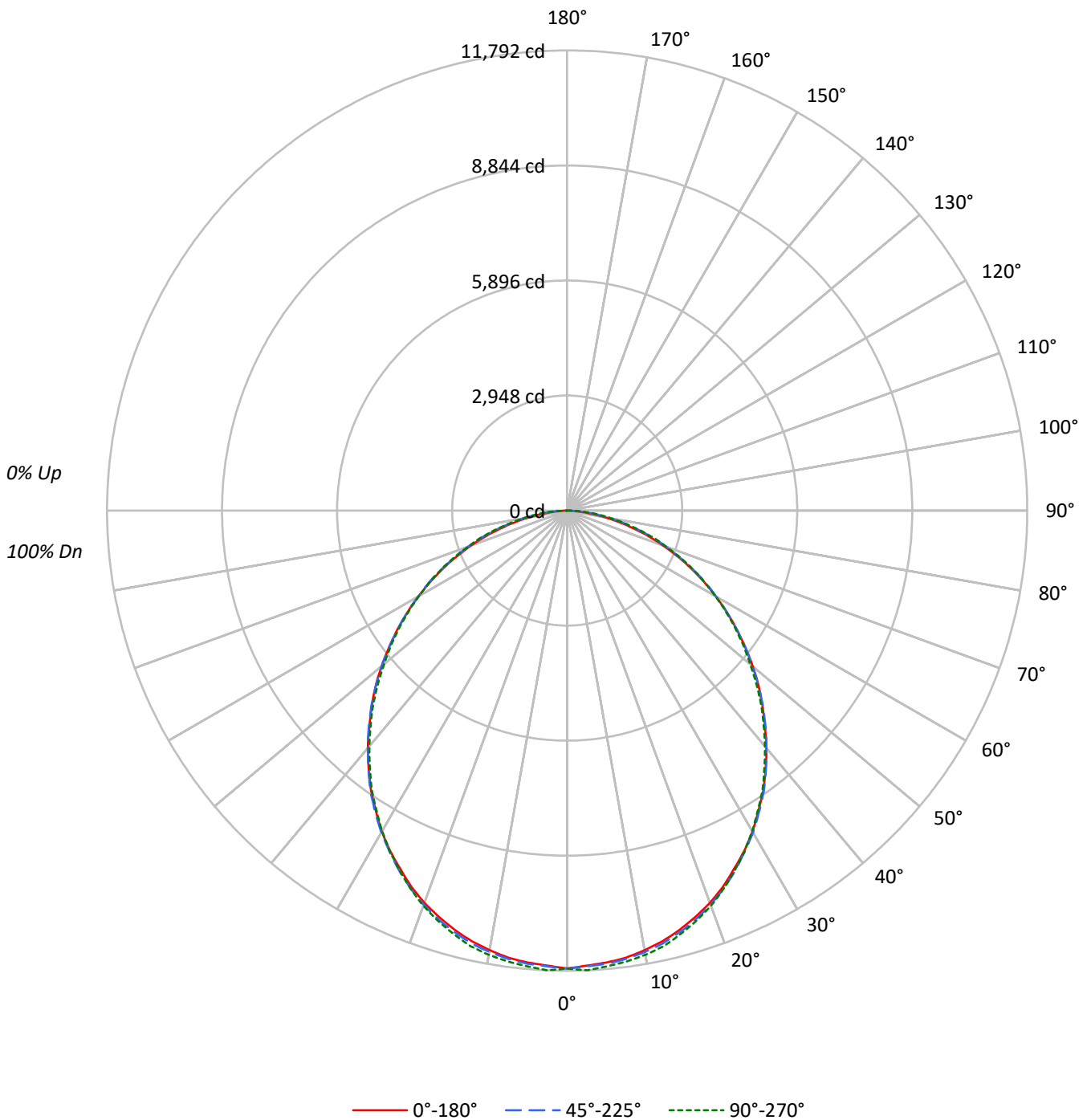
Lumens per Lamp: N/A  
Luminaire Lumens: 30654.0 lumens  
Efficiency: N/A  
Efficacy: 145.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 211.3  
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	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°	15790	15790	15790
5°	15700	15744	15834
10°	15628	15692	15794
15°	15491	15575	15651
20°	15316	15389	15434
25°	15032	15118	15095
30°	14755	14795	14734
35°	14390	14426	14334
40°	13957	13957	13850
45°	13469	13506	13368
50°	13006	12984	12822
55°	12443	12445	12333
60°	11841	11855	11808
65°	11160	11271	11300
70°	10308	10589	10601
75°	9109	9699	9850
80°	7471	8495	8974
85°	5184	7131	8065



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1109.9	3.6
10°-20°	3157.3	10.3
20°-30°	4692.0	15.3
30°-40°	5486.1	17.9
40°-50°	5469.8	17.8
50°-60°	4745.8	15.5
60°-70°	3505.3	11.4
70°-80°	1962.6	6.4
80°-90°	523.7	1.7
90°-100°	1.6	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°	8959.1	29.2
0°-40°	14445.3	47.1
0°-60°	24660.9	80.4
0°-90°	30652.4	100.0
90°-120°	1.6	0.0
90°-150°	1.6	0.0
90°-180°	2.0	0.0
0°-180°	30654.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	11735	11735	11735	11735	11735	
5°	11624	11697	11657	11708	11723	###
15°	11121	11199	11182	11235	11236	3136
25°	10126	10207	10183	10205	10168	4668
35°	8761	8837	8783	8781	8727	5472
45°	7078	7154	7098	7069	7026	5464
55°	5304	5341	5305	5296	5258	4743
65°	3505	3540	3540	3558	3549	3467
75°	1752	1804	1866	1879	1895	1866
85°	336	406	462	503	522	408
90°	0	8	9	20	19	14
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°	11735.2	11735.2	11735.2	11735.2	11735.2
2.5°	11671.0	11740.4	11691.9	11738.2	11791.9
5°	11624.0	11697.2	11656.9	11708.4	11723.3
7.5°	11555.4	11626.3	11587.5	11638.9	11654.6
10°	11438.9	11515.8	11485.2	11543.4	11559.8
12.5°	11303.1	11375.5	11355.4	11423.3	11434.5
15°	11121.0	11198.6	11181.5	11235.2	11236.0
17.5°	10919.5	10992.7	10980.0	11021.8	11020.3
20°	10696.4	10774.8	10747.9	10793.4	10779.2
22.5°	10432.2	10515.8	10482.2	10520.3	10484.5
25°	10125.5	10206.8	10183.0	10205.3	10168.0
27.5°	9828.5	9903.1	9853.9	9880.7	9841.2
30°	9497.1	9560.6	9522.5	9531.5	9483.7
32.5°	9124.7	9200.1	9153.8	9152.3	9101.6
35°	8760.6	8837.4	8782.9	8781.4	8727.0
37.5°	8357.6	8429.2	8365.0	8368.8	8305.3
40°	7946.4	8008.3	7946.4	7943.4	7885.2
42.5°	7500.1	7582.2	7525.5	7532.2	7454.6
45°	7078.4	7153.8	7097.8	7068.7	7025.5
47.5°	6658.3	6691.1	6644.9	6637.4	6576.2
50°	6213.5	6238.1	6203.1	6194.1	6125.4
52.5°	5753.8	5796.3	5751.6	5739.6	5694.1
55°	5304.5	5341.1	5305.3	5296.3	5257.5
57.5°	4852.3	4900.1	4863.5	4854.5	4823.2
60°	4400.1	4414.2	4405.3	4418.7	4388.1
62.5°	3950.8	3983.6	3994.1	3990.3	3966.5
65°	3505.3	3539.6	3540.3	3558.3	3549.3
67.5°	3049.3	3094.1	3106.8	3125.4	3133.6
70°	2620.2	2654.5	2691.8	2703.0	2694.8
72.5°	2188.1	2243.3	2285.1	2294.8	2329.9
75°	1752.3	1804.5	1865.7	1879.1	1894.8
77.5°	1347.8	1417.2	1472.4	1490.3	1509.7
80°	964.2	1041.1	1096.3	1120.9	1158.2
82.5°	632.8	711.2	767.2	791.8	837.3
85°	335.8	406.0	461.9	503.0	522.4
87.5°	99.3	159.0	191.0	203.0	220.2
90°	0.0	7.5	9.0	20.1	18.7
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)