

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-LD5-15HE-W-FLI-UNV-L850-ED1-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-LD5-15HE-W-FLI-UNV-L850-ED1-U
Description: METALUX HIGH BAY LINEAR LED
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

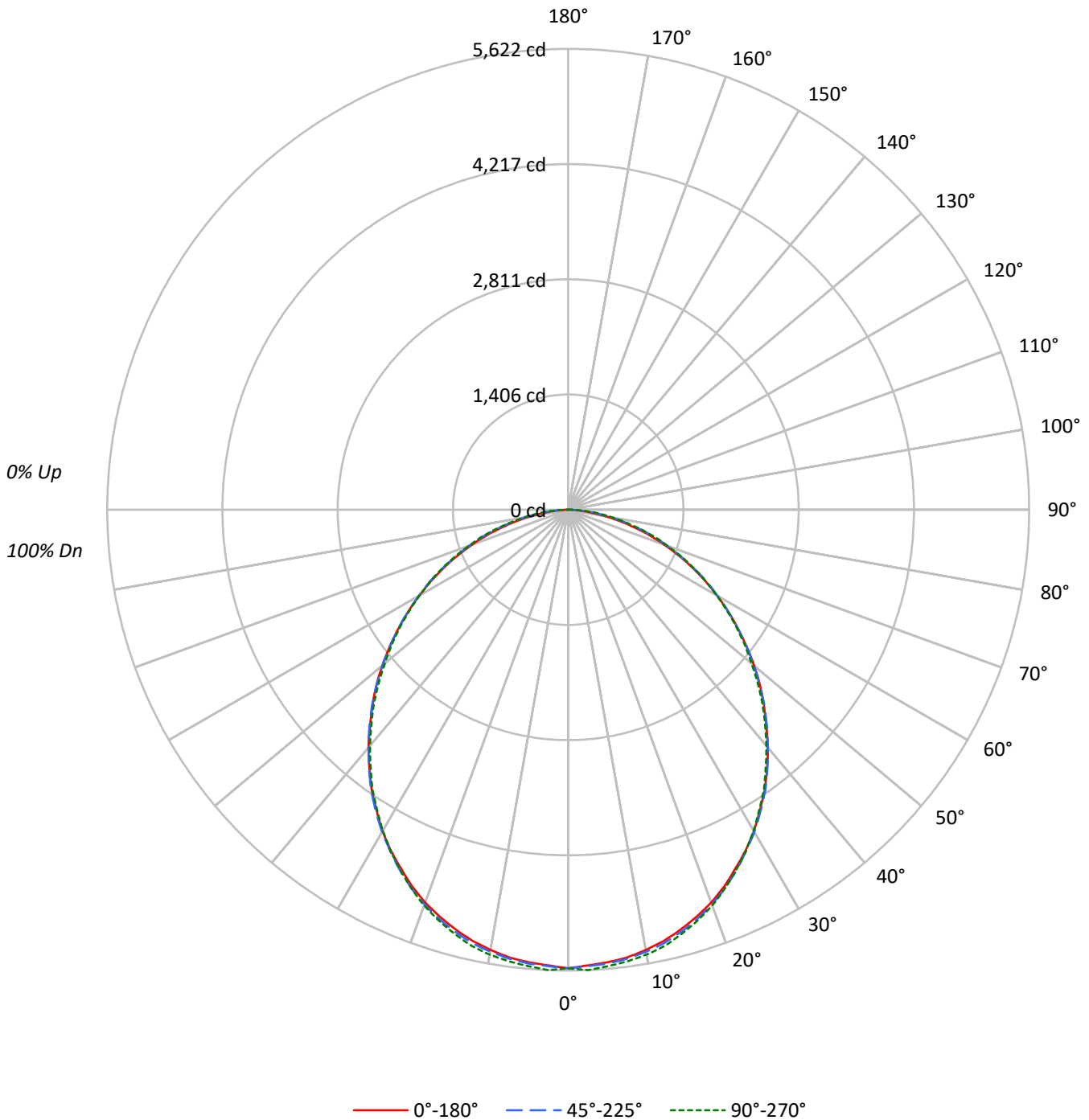
Lumens per Lamp: N/A
Luminaire Lumens: 14614.0 lumens
Efficiency: N/A
Efficacy: 159.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 91.8
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



TEST NUMBER: P#
CATALOG NUMBER: HBLED-LD5-15HE-W-FLI-UNV-L850-ED1-U

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: HBLED-LD5-15HE-W-FLI-UNV-L850-ED1-U

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°	7528	7528	7528
5°	7485	7506	7549
10°	7451	7481	7529
15°	7385	7425	7461
20°	7302	7337	7358
25°	7166	7207	7197
30°	7034	7053	7024
35°	6860	6878	6834
40°	6654	6654	6603
45°	6421	6439	6373
50°	6201	6190	6113
55°	5932	5933	5880
60°	5645	5652	5630
65°	5320	5373	5387
70°	4914	5048	5054
75°	4343	4624	4696
80°	3562	4049	4279
85°	2472	3399	3844



TEST NUMBER: P#

CATALOG NUMBER: HBLED-LD5-15HE-W-FLI-UNV-L850-ED1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	529.1	3.6
10°-20°	1505.2	10.3
20°-30°	2236.8	15.3
30°-40°	2615.5	17.9
40°-50°	2607.7	17.8
50°-60°	2262.5	15.5
60°-70°	1671.1	11.4
70°-80°	935.6	6.4
80°-90°	249.7	1.7
90°-100°	0.8	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°	4271.2	29.2
0°-40°	6886.6	47.1
0°-60°	11756.8	80.4
0°-90°	14613.3	100.0
90°-120°	0.8	0.0
90°-150°	0.8	0.0
90°-180°	1.0	0.0
0°-180°	14614.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5595	5595	5595	5595	5595	
5°	5542	5576	5557	5582	5589	526
15°	5302	5339	5331	5356	5357	1495
25°	4827	4866	4855	4865	4848	2226
35°	4176	4213	4187	4186	4160	2609
45°	3375	3410	3384	3370	3349	2605
55°	2529	2546	2529	2525	2506	2261
65°	1671	1688	1688	1696	1692	1653
75°	835	860	890	896	903	890
85°	160	194	220	240	249	194
90°	0	4	4	10	9	6
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-LD5-15HE-W-FLI-UNV-L850-ED1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5594.7	5594.7	5594.7	5594.7	5594.7
2.5°	5564.1	5597.1	5574.0	5596.1	5621.7
5°	5541.6	5576.5	5557.3	5581.8	5589.0
7.5°	5508.9	5542.7	5524.2	5548.8	5556.2
10°	5453.4	5490.1	5475.5	5503.2	5511.0
12.5°	5388.7	5423.2	5413.6	5445.9	5451.3
15°	5301.8	5338.8	5330.7	5356.3	5356.6
17.5°	5205.8	5240.7	5234.6	5254.5	5253.8
20°	5099.4	5136.8	5124.0	5145.7	5138.9
22.5°	4973.5	5013.3	4997.3	5015.4	4998.4
25°	4827.2	4866.0	4854.6	4865.3	4847.5
27.5°	4685.6	4721.2	4697.7	4710.5	4691.7
30°	4527.7	4557.9	4539.8	4544.0	4521.3
32.5°	4350.1	4386.1	4364.0	4363.3	4339.1
35°	4176.5	4213.2	4187.2	4186.5	4160.5
37.5°	3984.4	4018.5	3987.9	3989.7	3959.5
40°	3788.4	3817.9	3788.4	3786.9	3759.2
42.5°	3575.6	3614.7	3587.7	3590.9	3553.9
45°	3374.6	3410.5	3383.8	3370.0	3349.3
47.5°	3174.3	3189.9	3167.9	3164.3	3135.1
50°	2962.2	2974.0	2957.2	2953.0	2920.2
52.5°	2743.1	2763.3	2742.0	2736.3	2714.6
55°	2528.9	2546.3	2529.2	2525.0	2506.5
57.5°	2313.3	2336.1	2318.6	2314.4	2299.4
60°	2097.7	2104.4	2100.2	2106.6	2092.0
62.5°	1883.5	1899.2	1904.1	1902.4	1891.0
65°	1671.1	1687.5	1687.8	1696.4	1692.1
67.5°	1453.7	1475.1	1481.1	1490.0	1493.9
70°	1249.1	1265.5	1283.3	1288.6	1284.7
72.5°	1043.1	1069.5	1089.4	1094.0	1110.7
75°	835.4	860.3	889.5	895.9	903.3
77.5°	642.5	675.6	702.0	710.5	719.7
80°	459.7	496.3	522.6	534.4	552.2
82.5°	301.7	339.1	365.7	377.5	399.2
85°	160.1	193.5	220.2	239.8	249.0
87.5°	47.3	75.8	91.1	96.8	105.0
90°	0.0	3.6	4.3	9.6	8.9
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



TEST NUMBER: P#

CATALOG NUMBER: HBLED-LD5-15HE-W-FLI-UNV-L850-ED1-U

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)