

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-LD5-48HE-W-FLI-UNV-L840-ED4-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-LD5-48HE-W-FLI-UNV-L840-ED4-U
Description: METALUX HIGH BAY LINEAR LED
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

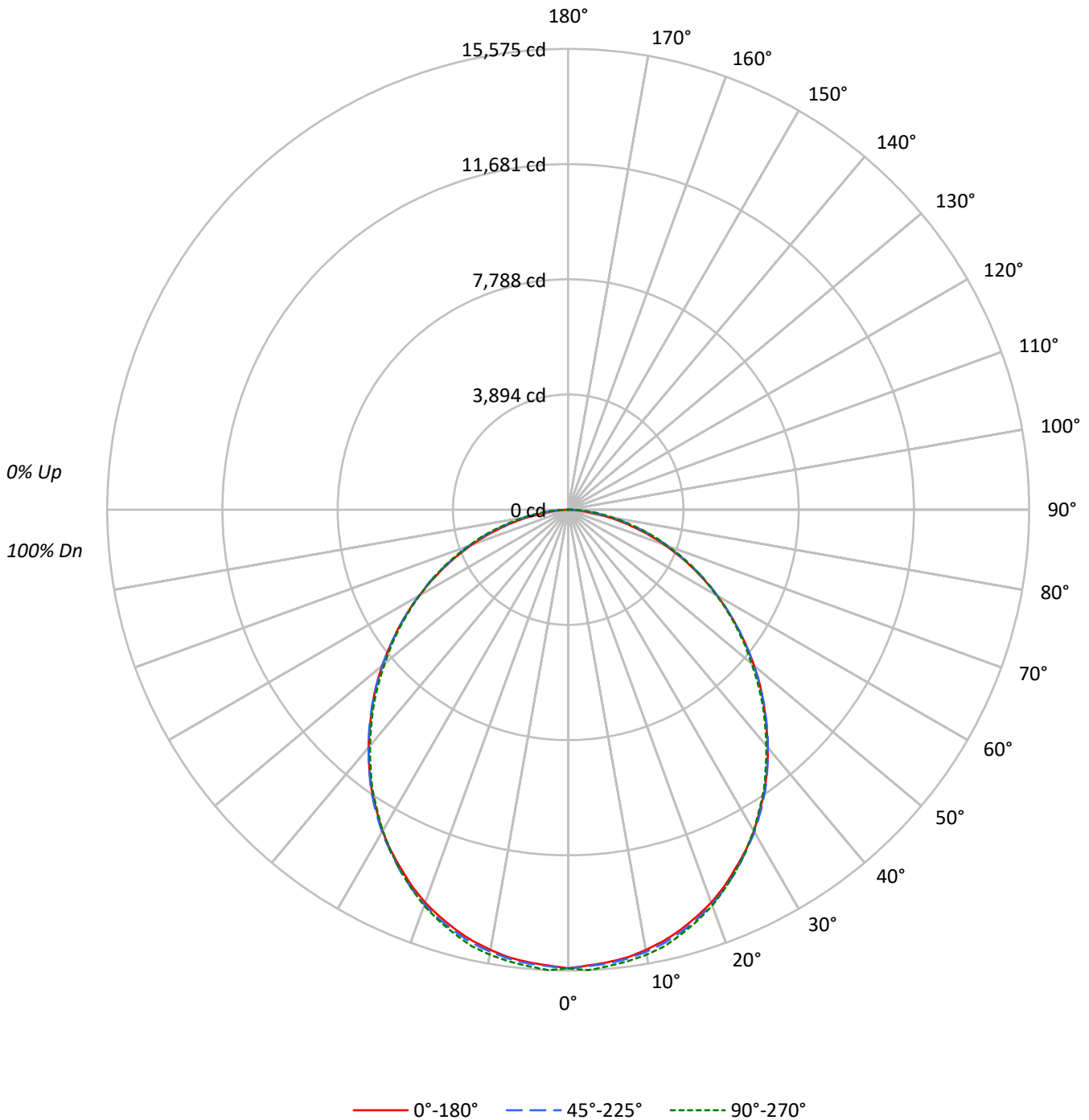
Lumens per Lamp: N/A
Luminaire Lumens: 40489.0 lumens
Efficiency: N/A
Efficacy: 141.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 286.2
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°	20855	20855	20855
5°	20737	20795	20914
10°	20643	20726	20861
15°	20461	20572	20673
20°	20229	20327	20386
25°	19855	19968	19938
30°	19489	19541	19461
35°	19006	19055	18933
40°	18435	18435	18293
45°	17790	17839	17657
50°	17179	17150	16936
55°	16436	16438	16290
60°	15639	15658	15597
65°	14740	14888	14925
70°	13615	13987	14002
75°	12032	12811	13010
80°	9868	11220	11853
85°	6848	9420	10652



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1465.9	3.6
10°-20°	4170.3	10.3
20°-30°	6197.3	15.3
30°-40°	7246.3	17.9
40°-50°	7224.7	17.8
50°-60°	6268.4	15.5
60°-70°	4630.0	11.4
70°-80°	2592.3	6.4
80°-90°	691.7	1.7
90°-100°	2.1	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°	11833.6	29.2
0°-40°	19079.9	47.1
0°-60°	32573.0	80.4
0°-90°	40486.9	100.0
90°-120°	2.1	0.0
90°-150°	2.1	0.0
90°-180°	2.0	0.0
0°-180°	40489.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	15500	15500	15500	15500	15500	
5°	15354	15450	15397	15465	15485	###
15°	14689	14792	14769	14840	14841	4143
25°	13374	13482	13450	13480	13430	6166
35°	11571	11673	11601	11599	11527	7228
45°	9350	9449	9375	9337	9280	7218
55°	7006	7055	7007	6996	6944	6265
65°	4630	4675	4676	4700	4688	4579
75°	2314	2384	2464	2482	2503	2465
85°	444	536	610	664	690	539
90°	0	10	12	27	25	18
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-LD5-48HE-W-FLI-UNV-L840-ED4-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	15500.3	15500.3	15500.3	15500.3	15500.3
2.5°	15415.6	15507.2	15443.2	15504.3	15575.2
5°	15353.5	15450.1	15396.8	15464.8	15484.6
7.5°	15262.8	15356.4	15305.2	15373.2	15393.9
10°	15109.0	15210.5	15170.1	15247.0	15268.7
12.5°	14929.6	15025.2	14998.6	15088.3	15103.1
15°	14689.1	14791.6	14768.9	14839.9	14840.9
17.5°	14422.9	14519.5	14502.8	14558.0	14556.0
20°	14128.2	14231.7	14196.2	14256.4	14237.6
22.5°	13779.3	13889.7	13845.3	13895.6	13848.3
25°	13374.2	13481.6	13450.1	13479.6	13430.3
27.5°	12981.8	13080.4	13015.4	13050.8	12998.6
30°	12544.2	12628.0	12577.7	12589.5	12526.4
32.5°	12052.3	12151.9	12090.8	12088.8	12021.8
35°	11571.3	11672.8	11600.9	11598.9	11526.9
37.5°	11039.0	11133.6	11048.9	11053.8	10970.0
40°	10495.9	10577.7	10495.9	10491.9	10415.0
42.5°	9906.4	10014.8	9939.9	9948.8	9846.3
45°	9349.5	9449.0	9375.1	9336.7	9279.5
47.5°	8794.5	8837.9	8776.8	8766.9	8686.1
50°	8207.0	8239.6	8193.2	8181.4	8090.7
52.5°	7599.8	7656.0	7596.9	7581.1	7521.0
55°	7006.4	7054.7	7007.4	6995.6	6944.3
57.5°	6409.1	6472.2	6423.9	6412.1	6370.7
60°	5811.8	5830.5	5818.7	5836.4	5796.0
62.5°	5218.4	5261.7	5275.5	5270.6	5239.1
65°	4629.9	4675.2	4676.2	4699.9	4688.0
67.5°	4027.6	4086.8	4103.5	4128.2	4139.0
70°	3460.8	3506.2	3555.5	3570.3	3559.4
72.5°	2890.1	2963.1	3018.3	3031.1	3077.4
75°	2314.5	2383.5	2464.3	2482.0	2502.7
77.5°	1780.2	1871.9	1944.8	1968.5	1994.1
80°	1273.5	1375.1	1448.0	1480.5	1529.8
82.5°	835.9	939.4	1013.3	1045.8	1106.0
85°	443.6	536.2	610.2	664.4	690.0
87.5°	131.1	210.0	252.3	268.1	290.8
90°	0.0	9.9	11.8	26.6	24.6
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)