

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-L835-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-L835-ED4-U
Description: METALUX HIGH BAY LINEAR LED
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

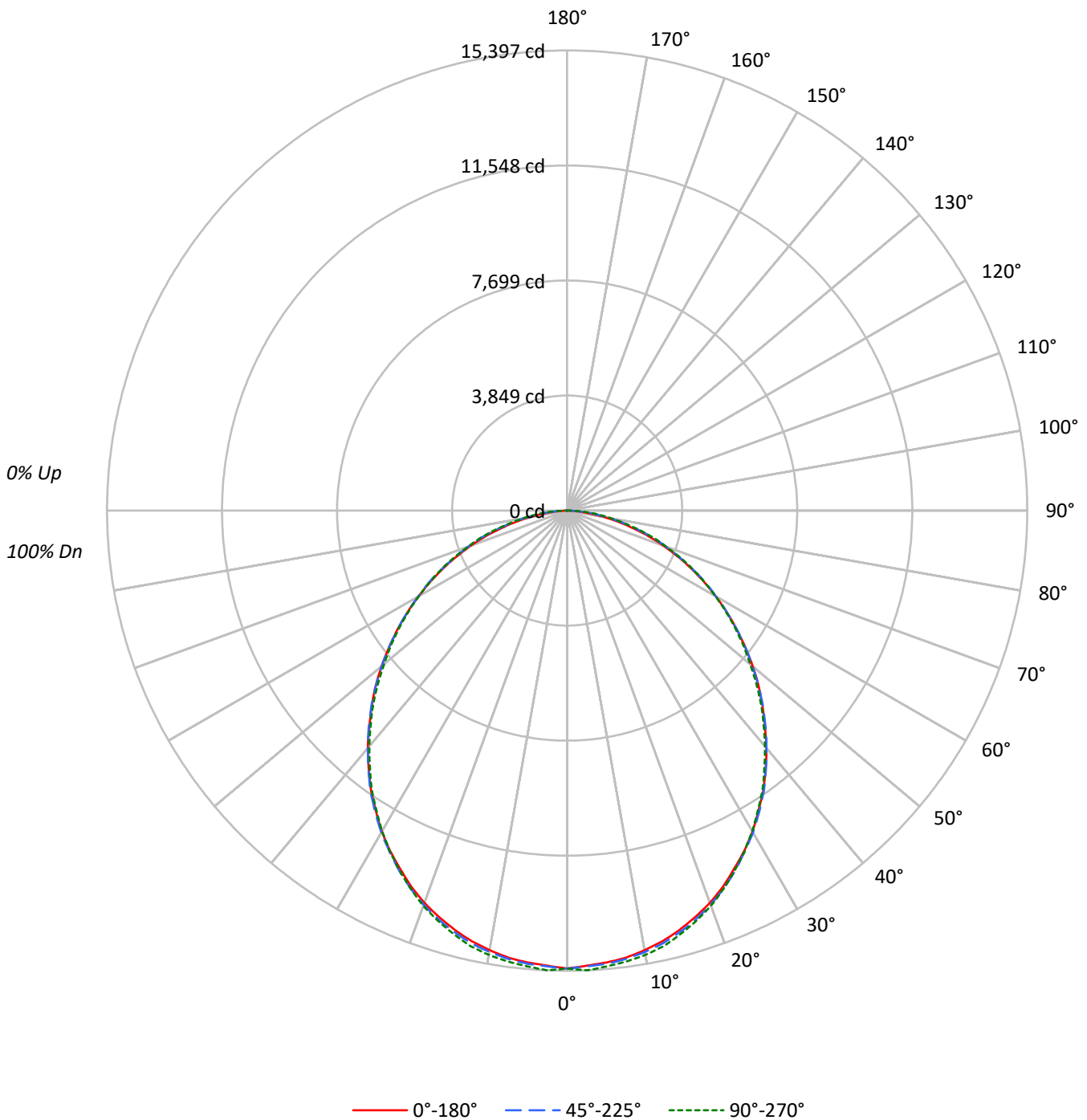
Lumens per Lamp: N/A
Luminaire Lumens: 40026.0 lumens
Efficiency: N/A
Efficacy: 139.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P#
CATALOG NUMBER: HBLED-LD5-48HE-W-FLI-UNV-L835-ED4-U

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: HBLED-LD5-48HE-W-FLI-UNV-L835-ED4-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	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°	20617	20617	20617
5°	20500	20558	20675
10°	20407	20489	20622
15°	20227	20337	20436
20°	19998	20094	20153
25°	19628	19739	19711
30°	19266	19318	19239
35°	18789	18837	18717
40°	18224	18224	18084
45°	17587	17635	17455
50°	16983	16954	16742
55°	16248	16250	16104
60°	15460	15479	15419
65°	14571	14717	14755
70°	13459	13827	13842
75°	11894	12664	12862
80°	9755	11092	11718
85°	6769	9312	10530



TEST NUMBER: P#

CATALOG NUMBER: HBLED-LD5-48HE-W-FLI-UNV-L835-ED4-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1449.2	3.6
10°-20°	4122.6	10.3
20°-30°	6126.5	15.3
30°-40°	7163.4	17.9
40°-50°	7142.1	17.8
50°-60°	6196.7	15.5
60°-70°	4577.0	11.4
70°-80°	2562.6	6.4
80°-90°	683.8	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°	11698.2	29.2
0°-40°	18861.7	47.1
0°-60°	32200.5	80.4
0°-90°	40023.9	100.0
90°-120°	2.1	0.0
90°-150°	2.1	0.0
90°-180°	2.0	0.0
0°-180°	40026.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	15323	15323	15323	15323	15323	
5°	15178	15273	15221	15288	15308	###
15°	14521	14622	14600	14670	14671	4095
25°	13221	13327	13296	13326	13277	6095
35°	11439	11539	11468	11466	11395	7145
45°	9243	9341	9268	9230	9173	7135
55°	6926	6974	6927	6916	6865	6194
65°	4577	4622	4623	4646	4634	4527
75°	2288	2356	2436	2454	2474	2437
85°	438	530	603	657	682	533
90°	0	10	12	26	24	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-L835-ED4-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	15323.1	15323.1	15323.1	15323.1	15323.1
2.5°	15239.3	15329.9	15266.6	15327.0	15397.1
5°	15177.9	15273.4	15220.8	15288.0	15307.5
7.5°	15088.2	15180.8	15130.1	15197.4	15217.8
10°	14936.2	15036.6	14996.6	15072.7	15094.1
12.5°	14758.9	14853.4	14827.1	14915.8	14930.4
15°	14521.1	14622.5	14600.0	14670.2	14671.2
17.5°	14258.0	14353.5	14336.9	14391.5	14389.6
20°	13966.7	14069.0	14033.9	14093.3	14074.8
22.5°	13621.7	13730.8	13687.0	13736.7	13689.9
25°	13221.2	13327.4	13296.2	13325.5	13276.8
27.5°	12833.4	12930.8	12866.5	12901.6	12850.0
30°	12400.7	12483.6	12433.9	12445.6	12383.2
32.5°	11914.5	12012.9	11952.5	11950.5	11884.3
35°	11439.0	11539.3	11468.2	11466.2	11395.1
37.5°	10912.8	11006.3	10922.5	10927.4	10844.6
40°	10375.8	10456.7	10375.8	10371.9	10295.9
42.5°	9793.1	9900.3	9826.3	9835.0	9733.7
45°	9242.6	9341.0	9267.9	9229.9	9173.4
47.5°	8694.0	8736.8	8676.4	8666.7	8586.8
50°	8113.2	8145.4	8099.6	8087.9	7998.2
52.5°	7512.9	7568.5	7510.0	7494.4	7435.0
55°	6926.3	6974.1	6927.3	6915.6	6864.9
57.5°	6335.8	6398.2	6350.4	6338.7	6297.8
60°	5745.3	5763.8	5752.1	5769.7	5729.7
62.5°	5158.7	5201.6	5215.2	5210.3	5179.2
65°	4576.9	4621.8	4622.7	4646.1	4634.4
67.5°	3981.6	4040.0	4056.6	4081.0	4091.7
70°	3421.3	3466.1	3514.8	3529.4	3518.7
72.5°	2857.1	2929.2	2983.7	2996.4	3042.2
75°	2288.0	2356.2	2436.1	2453.6	2474.1
77.5°	1759.8	1850.5	1922.6	1946.0	1971.3
80°	1259.0	1359.3	1431.5	1463.6	1512.3
82.5°	826.3	928.6	1001.7	1033.9	1093.3
85°	438.5	530.1	603.2	656.8	682.1
87.5°	129.6	207.6	249.5	265.0	287.5
90°	0.0	9.7	11.7	26.3	24.4
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-LD5-48HE-W-FLI-UNV-L835-ED4-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)