

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-L850-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-L850-ED4-U
Description: METALUX HIGH BAY LINEAR LED
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

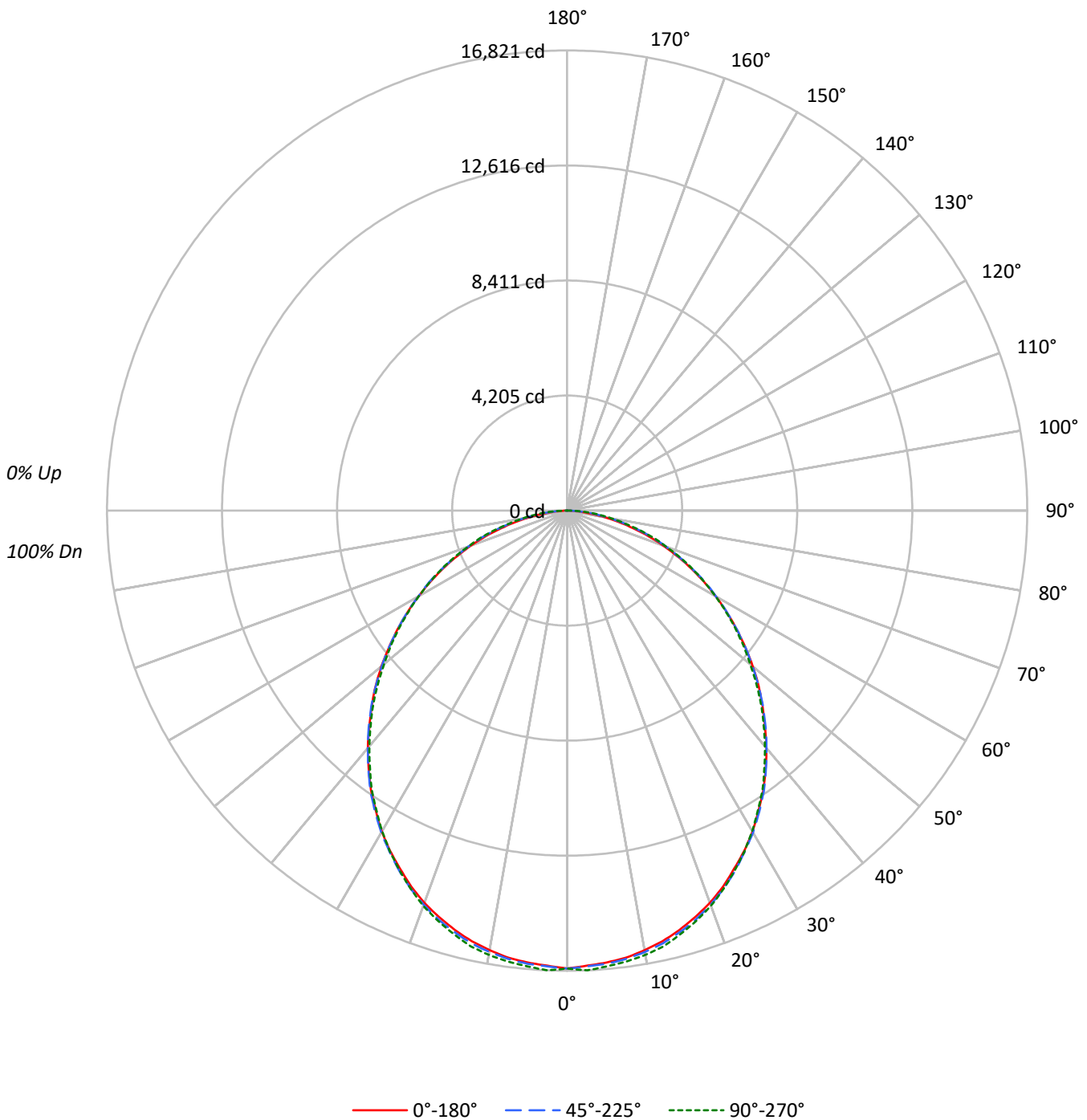
Lumens per Lamp: N/A
Luminaire Lumens: 43728.0 lumens
Efficiency: N/A
Efficacy: 152.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	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°	22524	22524	22524
5°	22396	22459	22587
10°	22294	22384	22530
15°	22098	22218	22326
20°	21848	21953	22017
25°	21443	21565	21533
30°	21048	21104	21018
35°	20527	20579	20448
40°	19910	19910	19756
45°	19213	19266	19070
50°	18553	18522	18290
55°	17750	17753	17593
60°	16890	16910	16845
65°	15919	16079	16119
70°	14704	15106	15123
75°	12994	13835	14051
80°	10657	12117	12802
85°	7396	10173	11504



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1583.2	3.6
10°-20°	4503.9	10.3
20°-30°	6693.1	15.3
30°-40°	7826.0	17.9
40°-50°	7802.7	17.8
50°-60°	6769.9	15.5
60°-70°	5000.3	11.4
70°-80°	2799.6	6.4
80°-90°	747.0	1.7
90°-100°	2.2	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°	12780.2	29.2
0°-40°	20606.2	47.1
0°-60°	35178.8	80.4
0°-90°	43725.8	100.0
90°-120°	2.2	0.0
90°-150°	2.2	0.0
90°-180°	2.0	0.0
0°-180°	43728.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	16740	16740	16740	16740	16740	
5°	16582	16686	16628	16702	16723	###
15°	15864	15975	15950	16027	16028	4474
25°	14444	14560	14526	14558	14505	6659
35°	12497	12607	12529	12527	12449	7806
45°	10097	10205	10125	10084	10022	7795
55°	7567	7619	7568	7555	7500	6766
65°	5000	5049	5050	5076	5063	4945
75°	2500	2574	2661	2681	2703	2662
85°	479	579	659	718	745	582
90°	0	11	13	29	27	19
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-L850-ED4-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	16740.3	16740.3	16740.3	16740.3	16740.3
2.5°	16648.8	16747.8	16678.6	16744.6	16821.2
5°	16581.7	16686.0	16628.5	16702.0	16723.3
7.5°	16483.8	16584.9	16529.5	16603.0	16625.3
10°	16317.7	16427.3	16383.7	16466.7	16490.1
12.5°	16123.9	16227.2	16198.4	16295.3	16311.3
15°	15864.2	15974.9	15950.4	16027.1	16028.1
17.5°	15576.7	15681.1	15663.0	15722.6	15720.5
20°	15258.4	15370.2	15331.9	15396.8	15376.6
22.5°	14881.6	15000.8	14952.9	15007.2	14956.1
25°	14444.0	14560.1	14526.0	14558.0	14504.7
27.5°	14020.3	14126.8	14056.5	14094.9	14038.4
30°	13547.7	13638.2	13583.9	13596.6	13528.5
32.5°	13016.5	13124.0	13058.0	13055.8	12983.5
35°	12497.0	12606.6	12528.9	12526.8	12449.0
37.5°	11922.1	12024.3	11932.7	11938.1	11847.6
40°	11335.5	11423.9	11335.5	11331.2	11248.2
42.5°	10698.9	10816.0	10735.1	10744.7	10634.0
45°	10097.4	10204.9	10125.1	10083.6	10021.8
47.5°	9498.1	9544.9	9478.9	9468.3	9381.0
50°	8863.6	8898.7	8848.7	8835.9	8738.0
52.5°	8207.8	8268.5	8204.6	8187.6	8122.6
55°	7566.9	7619.1	7568.0	7555.2	7499.9
57.5°	6921.8	6989.9	6937.8	6925.0	6880.3
60°	6276.7	6296.9	6284.1	6303.3	6259.7
62.5°	5635.8	5682.7	5697.6	5692.2	5658.2
65°	5000.3	5049.2	5050.3	5075.9	5063.1
67.5°	4349.8	4413.7	4431.8	4458.4	4470.1
70°	3737.7	3786.7	3839.9	3855.9	3844.2
72.5°	3121.3	3200.1	3259.7	3273.5	3323.6
75°	2499.6	2574.1	2661.4	2680.6	2702.9
77.5°	1922.6	2021.6	2100.4	2125.9	2153.6
80°	1375.4	1485.1	1563.8	1599.0	1652.2
82.5°	902.8	1014.5	1094.4	1129.5	1194.4
85°	479.1	579.1	659.0	717.5	745.2
87.5°	141.6	226.8	272.5	289.6	314.0
90°	0.0	10.6	12.8	28.7	26.6
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)