

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

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

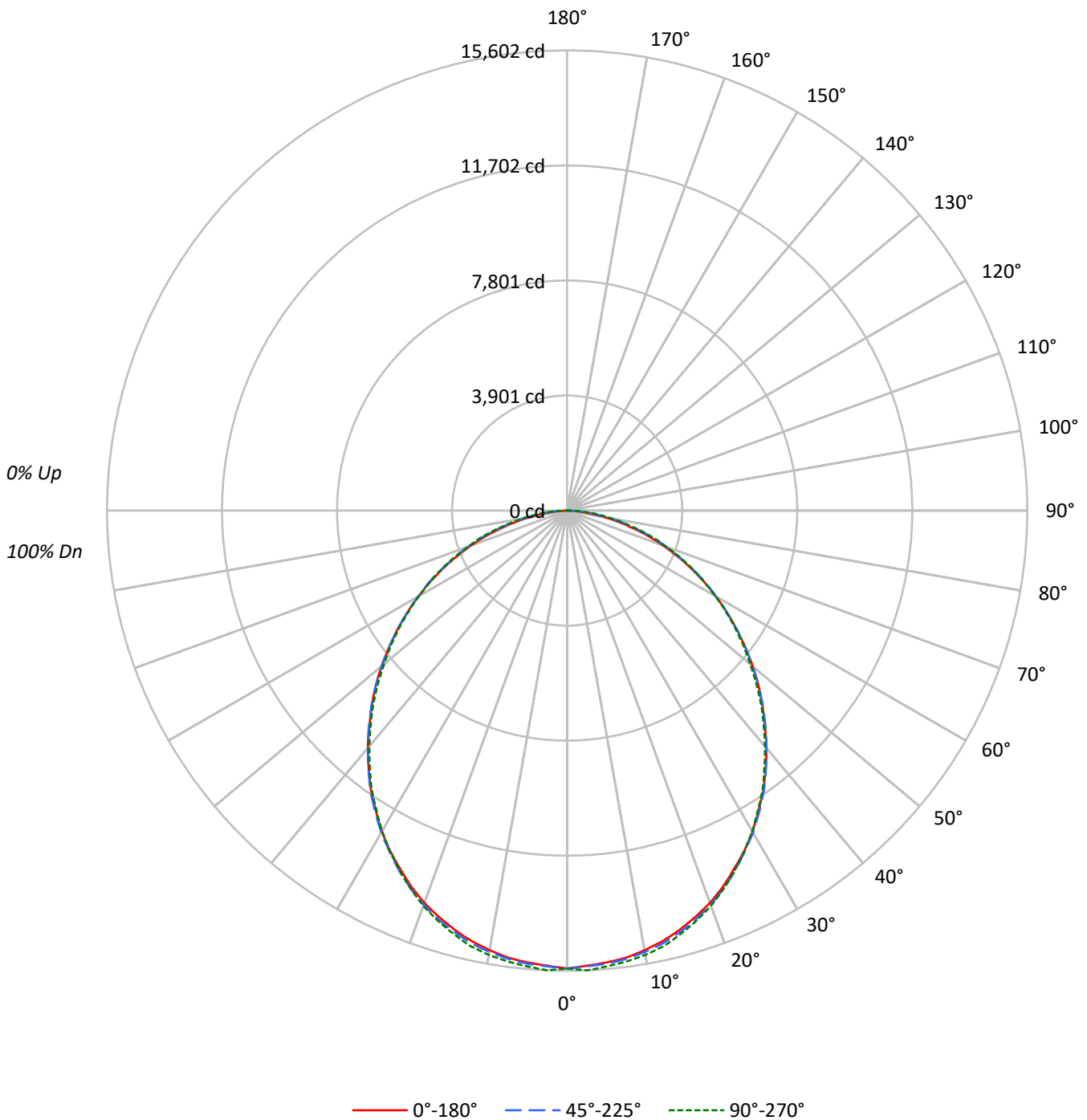
Lumens per Lamp: N/A  
Luminaire Lumens: 40559.0 lumens  
Efficiency: N/A  
Efficacy: 135.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 299.1  
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°	20892	20892	20892
5°	20773	20831	20950
10°	20678	20762	20897
15°	20497	20608	20708
20°	20264	20362	20421
25°	19889	20002	19973
30°	19523	19575	19495
35°	19039	19088	18966
40°	18467	18467	18325
45°	17821	17870	17688
50°	17209	17180	16965
55°	16464	16466	16318
60°	15666	15685	15624
65°	14766	14913	14951
70°	13638	14011	14027
75°	12053	12833	13033
80°	9885	11239	11874
85°	6859	9436	10671



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1468.5	3.6
10°-20°	4177.5	10.3
20°-30°	6208.0	15.3
30°-40°	7258.8	17.9
40°-50°	7237.2	17.8
50°-60°	6279.3	15.5
60°-70°	4638.0	11.4
70°-80°	2596.7	6.4
80°-90°	692.9	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°	11854.0	29.2
0°-40°	19112.9	47.1
0°-60°	32629.4	80.4
0°-90°	40556.9	100.0
90°-120°	2.1	0.0
90°-150°	2.1	0.0
90°-180°	2.0	0.0
0°-180°	40559.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	15527	15527	15527	15527	15527	
5°	15380	15477	15424	15492	15511	###
15°	14714	14817	14794	14866	14866	4150
25°	13397	13505	13473	13503	13454	6177
35°	11591	11693	11621	11619	11547	7241
45°	9366	9465	9391	9353	9296	7230
55°	7019	7067	7020	7008	6956	6276
65°	4638	4683	4684	4708	4696	4587
75°	2318	2388	2468	2486	2507	2469
85°	444	537	611	666	691	540
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-LD5-48SE-W-FLI-UNV-L840-ED4-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	15527.1	15527.1	15527.1	15527.1	15527.1
2.5°	15442.2	15534.0	15469.9	15531.1	15602.2
5°	15380.0	15476.8	15423.5	15491.6	15511.3
7.5°	15289.2	15383.0	15331.6	15399.8	15420.5
10°	15135.1	15236.8	15196.3	15273.4	15295.1
12.5°	14955.4	15051.2	15024.5	15114.4	15129.2
15°	14714.5	14817.2	14794.5	14865.6	14866.5
17.5°	14447.9	14544.7	14527.9	14583.2	14581.2
20°	14152.6	14256.3	14220.8	14281.0	14262.2
22.5°	13803.1	13913.7	13869.3	13919.6	13872.2
25°	13397.3	13504.9	13473.3	13502.9	13453.6
27.5°	13004.3	13103.0	13037.9	13073.4	13021.1
30°	12565.9	12649.8	12599.4	12611.3	12548.1
32.5°	12073.1	12172.9	12111.7	12109.7	12042.5
35°	11591.3	11693.0	11620.9	11618.9	11546.9
37.5°	11058.1	11152.9	11068.0	11072.9	10989.0
40°	10514.0	10596.0	10514.0	10510.1	10433.0
42.5°	9923.5	10032.2	9957.1	9966.0	9863.3
45°	9365.6	9465.4	9391.3	9352.8	9295.5
47.5°	8809.7	8853.2	8792.0	8782.1	8701.1
50°	8221.2	8253.8	8207.4	8195.6	8104.7
52.5°	7613.0	7669.3	7610.0	7594.2	7534.0
55°	7018.6	7066.9	7019.5	7007.7	6956.4
57.5°	6420.2	6483.4	6435.0	6423.1	6381.7
60°	5821.8	5840.6	5828.7	5846.5	5806.0
62.5°	5227.4	5270.8	5284.7	5279.7	5248.1
65°	4637.9	4683.3	4684.3	4708.0	4696.2
67.5°	4034.6	4093.8	4110.6	4135.3	4146.2
70°	3466.8	3512.2	3561.6	3576.4	3565.6
72.5°	2895.1	2968.2	3023.5	3036.3	3082.7
75°	2318.5	2387.6	2468.5	2486.3	2507.1
77.5°	1783.3	1875.1	1948.2	1971.9	1997.5
80°	1275.7	1377.4	1450.5	1483.1	1532.5
82.5°	837.3	941.0	1015.1	1047.6	1107.9
85°	444.3	537.2	611.2	665.5	691.2
87.5°	131.3	210.3	252.8	268.6	291.3
90°	0.0	9.9	11.8	26.7	24.7
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)