

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-LD5-12SE-W-FLI-UNV-L840-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-LD5-12SE-W-FLI-UNV-L840-ED1-U  
Description: METALUX HIGH BAY LINEAR LED  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

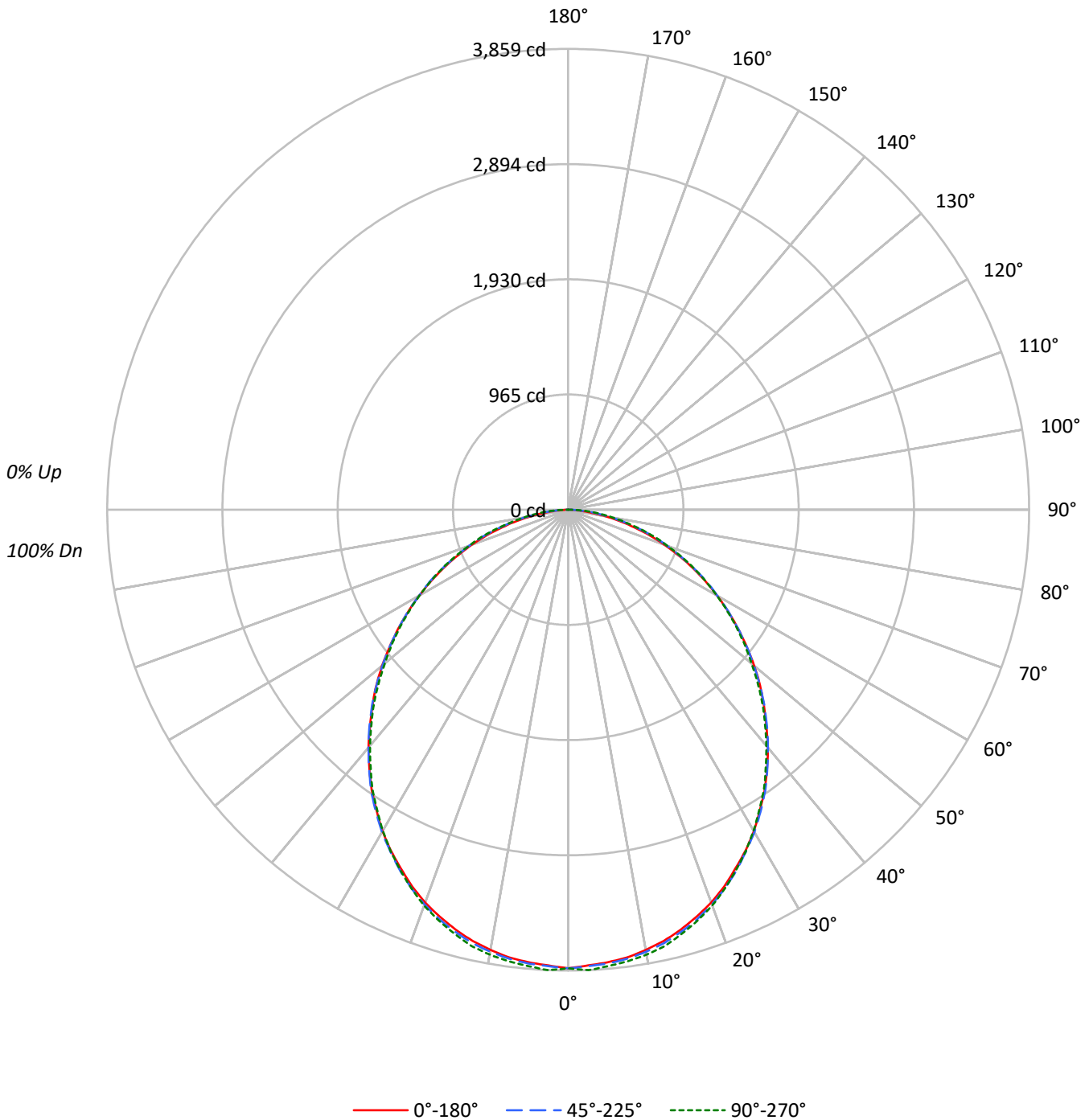
Lumens per Lamp: N/A  
Luminaire Lumens: 10032.0 lumens  
Efficiency: N/A  
Efficacy: 131.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 76.6  
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°	5167	5167	5167
5°	5138	5153	5182
10°	5115	5135	5169
15°	5070	5097	5122
20°	5012	5036	5051
25°	4919	4947	4940
30°	4829	4842	4822
35°	4709	4721	4691
40°	4568	4568	4532
45°	4408	4420	4375
50°	4257	4249	4196
55°	4072	4073	4036
60°	3875	3880	3865
65°	3652	3689	3698
70°	3373	3465	3469
75°	2981	3174	3224
80°	2445	2780	2937
85°	1697	2334	2640



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	363.2	3.6
10°-20°	1033.3	10.3
20°-30°	1535.5	15.3
30°-40°	1795.4	17.9
40°-50°	1790.1	17.8
50°-60°	1553.1	15.5
60°-70°	1147.2	11.4
70°-80°	642.3	6.4
80°-90°	171.4	1.7
90°-100°	0.5	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°	2932.0	29.2
0°-40°	4727.4	47.1
0°-60°	8070.6	80.4
0°-90°	10031.5	100.0
90°-120°	0.5	0.0
90°-150°	0.5	0.0
90°-180°	1.0	0.0
0°-180°	10032.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3840	3840	3840	3840	3840	
5°	3804	3828	3815	3832	3837	361
15°	3640	3665	3659	3677	3677	1026
25°	3314	3340	3332	3340	3328	1528
35°	2867	2892	2874	2874	2856	1791
45°	2316	2341	2323	2313	2299	1788
55°	1736	1748	1736	1733	1721	1552
65°	1147	1158	1159	1164	1162	1135
75°	574	591	611	615	620	611
85°	110	133	151	165	171	133
90°	0	2	3	7	6	4
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-LD5-12SE-W-FLI-UNV-L840-ED1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3840.5	3840.5	3840.5	3840.5	3840.5
2.5°	3819.5	3842.2	3826.4	3841.5	3859.1
5°	3804.1	3828.1	3814.9	3831.7	3836.6
7.5°	3781.7	3804.9	3792.2	3809.0	3814.2
10°	3743.6	3768.7	3758.7	3777.8	3783.1
12.5°	3699.1	3722.8	3716.2	3738.4	3742.1
15°	3639.5	3664.9	3659.3	3676.9	3677.1
17.5°	3573.6	3597.5	3593.4	3607.0	3606.6
20°	3500.6	3526.2	3517.4	3532.3	3527.7
22.5°	3414.1	3441.5	3430.5	3442.9	3431.2
25°	3313.7	3340.3	3332.5	3339.9	3327.6
27.5°	3216.5	3240.9	3224.8	3233.6	3220.7
30°	3108.1	3128.8	3116.4	3119.3	3103.7
32.5°	2986.2	3010.9	2995.7	2995.2	2978.6
35°	2867.0	2892.2	2874.4	2873.9	2856.0
37.5°	2735.1	2758.6	2737.6	2738.8	2718.0
40°	2600.6	2620.8	2600.6	2599.6	2580.5
42.5°	2454.5	2481.4	2462.8	2465.0	2439.6
45°	2316.5	2341.2	2322.9	2313.4	2299.2
47.5°	2179.0	2189.8	2174.6	2172.2	2152.2
50°	2033.5	2041.5	2030.0	2027.1	2004.6
52.5°	1883.0	1896.9	1882.3	1878.4	1863.5
55°	1736.0	1748.0	1736.2	1733.3	1720.6
57.5°	1588.0	1603.6	1591.7	1588.7	1578.5
60°	1440.0	1444.6	1441.7	1446.1	1436.1
62.5°	1293.0	1303.7	1307.1	1305.9	1298.1
65°	1147.2	1158.4	1158.6	1164.5	1161.6
67.5°	997.9	1012.6	1016.7	1022.8	1025.5
70°	857.5	868.7	880.9	884.6	881.9
72.5°	716.1	734.2	747.8	751.0	762.5
75°	573.5	590.6	610.6	615.0	620.1
77.5°	441.1	463.8	481.9	487.7	494.1
80°	315.5	340.7	358.8	366.8	379.0
82.5°	207.1	232.8	251.1	259.1	274.0
85°	109.9	132.9	151.2	164.6	171.0
87.5°	32.5	52.0	62.5	66.4	72.0
90°	0.0	2.4	2.9	6.6	6.1
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)