

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-LD5-30SE-N-CLI-UNV-L840-ED3-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 (P23769)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: HBLED-LD5-30SE-N-CLI-UNV-L840-ED3-U  
Description: METALUX HIGH BAY LINEAR LED  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

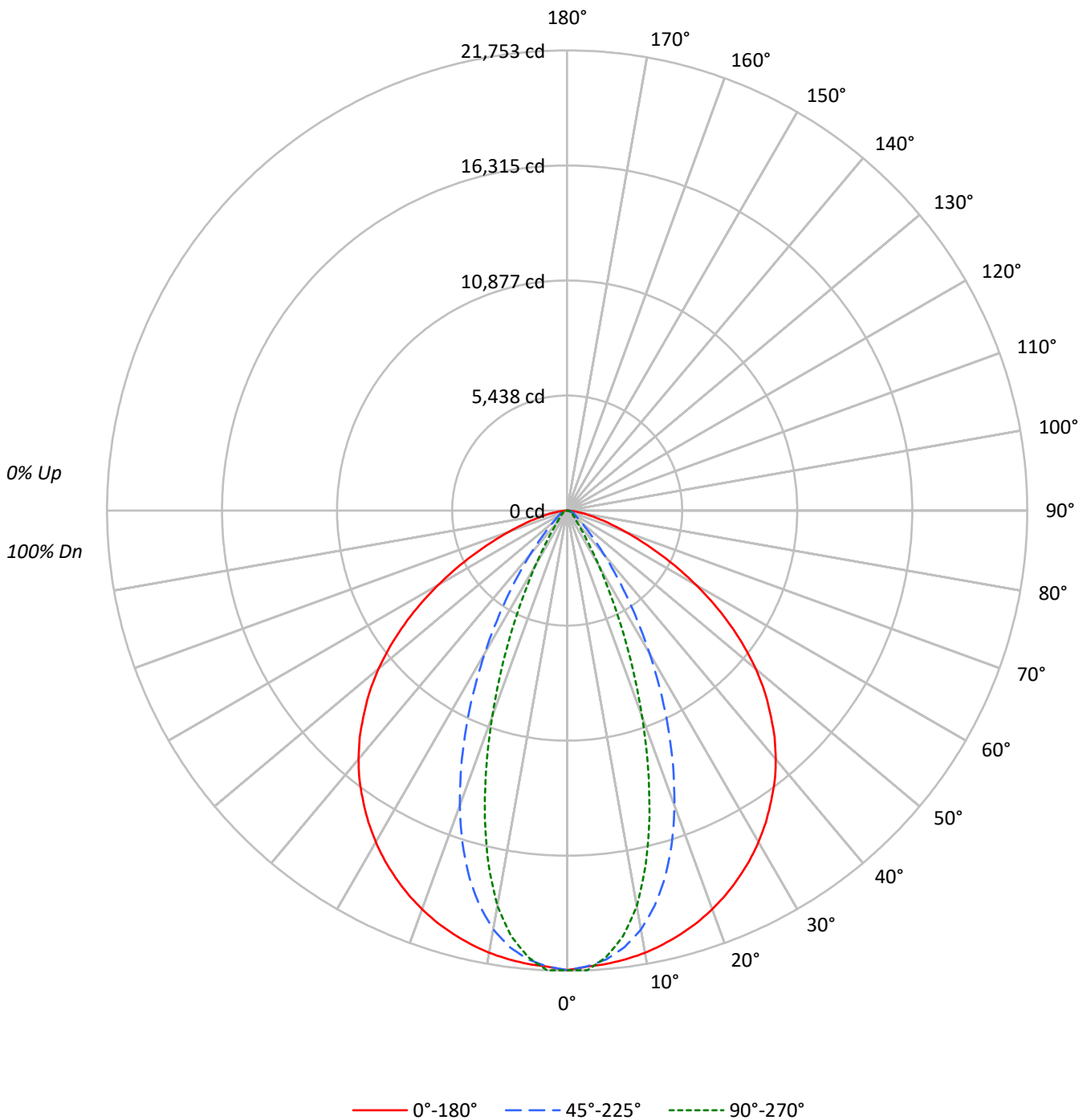
Lumens per Lamp: N/A  
Luminaire Lumens: 23782.0 lumens  
Efficiency: N/A  
Efficacy: 123.2 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 0.64 / 0.78  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 193  
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-LD5-30SE-N-CLI-UNV-L840-ED3-U

### Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: HBLED-LD5-30SE-N-CLI-UNV-L840-ED3-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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72				72
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65				65
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60				60
6	81	70	63	58	79	69	62	57	68	62	57	66	61	57	65	60	56	55				55
7	76	65	58	53	75	64	58	53	63	57	52	62	56	52	60	56	52	50				50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46				46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43				43
10	64	53	47	42	63	53	46	42	52	46	42	51	46	42	50	45	42	40				40

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	29228	29228	29228
5°	29052	28764	28612
10°	29004	27461	25913
15°	28887	24962	20928
20°	28714	21240	14833
25°	28457	16748	8962
30°	28111	12088	4606
35°	27604	7903	2300
40°	26949	4747	1342
45°	25829	2835	1004
50°	24362	1854	843
55°	22049	1406	735
60°	18948	1198	671
65°	15241	1093	634
70°	11482	1170	630
75°	8446	1112	648
80°	6179	1108	709
85°	4628	1343	919



TEST NUMBER: P#

CATALOG NUMBER: HBLED-LD5-30SE-N-CLI-UNV-L840-ED3-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2000.6	8.4
10°-20°	4977.0	20.9
20°-30°	5512.8	23.2
30°-40°	4416.7	18.6
40°-50°	3153.0	13.3
50°-60°	2025.2	8.5
60°-70°	1097.5	4.6
70°-80°	469.1	2.0
80°-90°	130.1	0.5
90°-100°	0.0	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°	12490.4	52.5
0°-40°	16907.1	71.1
0°-60°	22085.3	92.9
0°-90°	23782.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	23782.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	21723	21723	21723	21723	21723	
5°	21510	21590	21296	21229	21184	###
15°	20738	20089	17920	15836	15024	5851
25°	19168	16902	11282	7350	6037	8830
35°	16806	12156	4811	1940	1400	10508
45°	13574	7017	1490	634	528	10463
55°	9399	3137	600	368	314	8377
65°	4787	1288	343	237	199	4794
75°	1625	471	214	149	125	1805
85°	300	125	87	72	60	366
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: HBLED-LD5-30SE-N-CLI-UNV-L840-ED3-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	21723.1	21723.1	21723.1	21723.1	21723.1
2.5°	21580.1	21715.1	21569.8	21660.2	21752.9
5°	21510.3	21590.4	21296.4	21228.9	21184.2
7.5°	21389.0	21366.2	20813.5	20455.4	20282.6
10°	21228.9	21043.5	20099.6	19312.4	18966.8
12.5°	21000.0	20617.9	19132.7	17750.6	17164.8
15°	20738.0	20089.3	17919.9	15836.4	15024.0
17.5°	20424.5	19471.4	16470.3	13783.8	12711.7
20°	20053.8	18725.4	14834.1	11603.0	10359.3
22.5°	19639.6	17865.0	13082.4	9429.1	8095.0
25°	19168.2	16901.6	11281.5	7350.1	6036.6
27.5°	18659.1	15831.8	9490.9	5492.0	4294.1
30°	18093.8	14673.9	7780.3	3960.0	2964.5
32.5°	17477.1	13442.8	6191.1	2784.9	2027.5
35°	16805.5	12155.6	4811.2	1940.5	1400.5
37.5°	16117.9	10842.1	3633.9	1371.9	1004.6
40°	15343.3	9533.2	2702.5	1004.6	764.3
42.5°	14511.5	8249.4	2000.0	773.5	619.0
45°	13574.4	7017.2	1489.7	633.9	527.5
47.5°	12665.9	5868.4	1131.6	540.0	458.8
50°	11638.5	4831.8	885.6	471.4	402.7
52.5°	10548.1	3919.9	718.5	415.3	354.7
55°	9399.3	3137.3	599.5	368.4	313.5
57.5°	8235.7	2485.1	512.6	328.4	279.2
60°	7041.2	1987.4	445.1	294.1	249.4
62.5°	5875.3	1589.2	389.0	264.3	223.1
65°	4787.2	1288.3	343.2	236.8	199.1
67.5°	3781.5	1018.3	320.4	212.8	179.6
70°	2918.8	792.9	297.5	189.9	160.2
72.5°	2211.7	608.7	263.2	169.3	141.9
75°	1624.7	471.4	214.0	148.7	124.7
77.5°	1162.5	362.7	173.9	129.3	107.6
80°	797.5	270.0	143.0	111.0	91.5
82.5°	518.3	191.1	115.6	91.5	75.5
85°	299.8	124.7	87.0	72.1	59.5
87.5°	129.3	68.6	59.5	53.8	45.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)