

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-LD5-60SE-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-LD5-60SE-W-FLI-UNV-L850-ED4-U
Description: METALUX HIGH BAY LINEAR LED
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

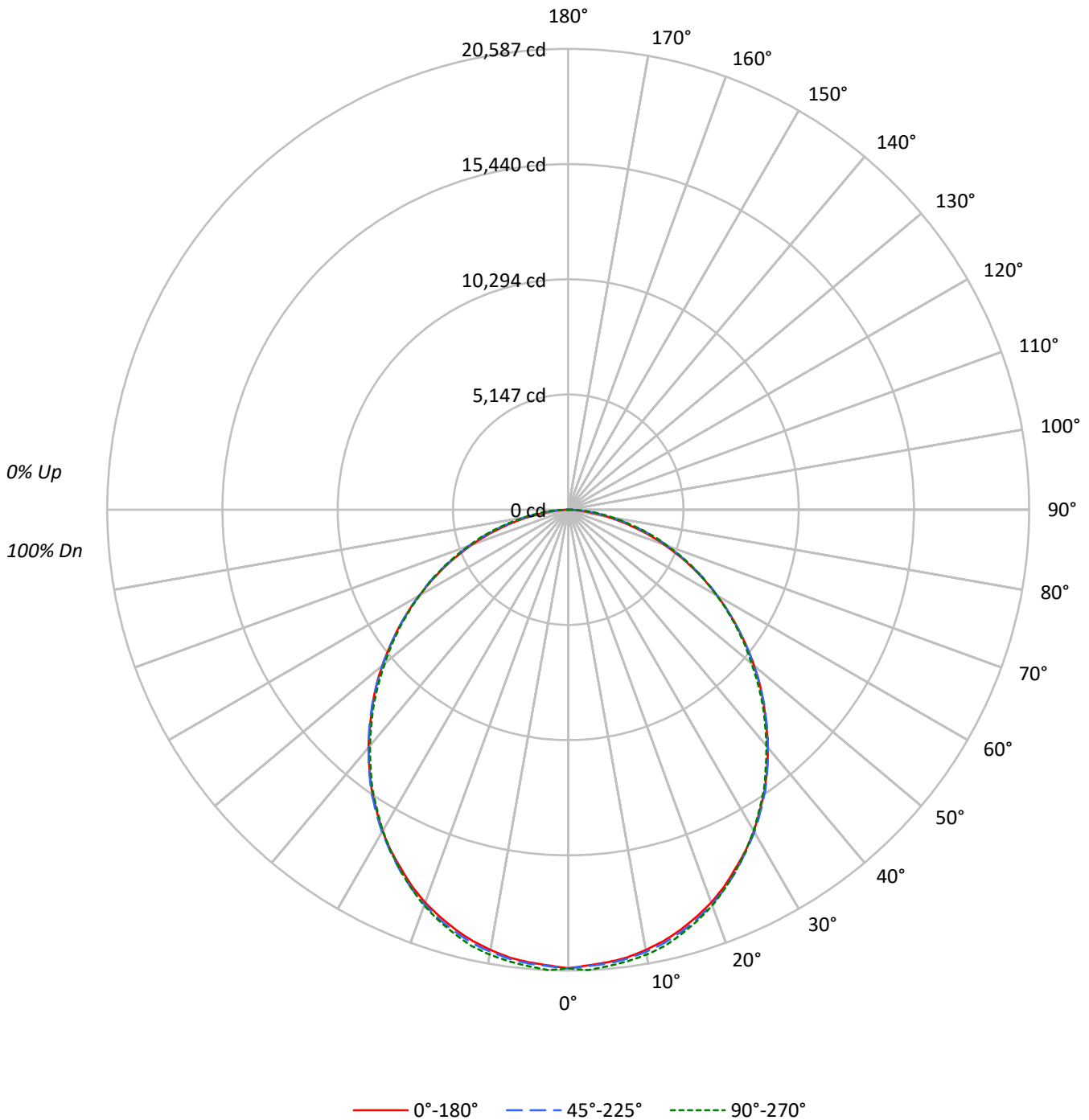
Lumens per Lamp: N/A
Luminaire Lumens: 53517.0 lumens
Efficiency: N/A
Efficacy: 138.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 386
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°	27566	27566	27566
5°	27409	27487	27643
10°	27285	27395	27573
15°	27045	27192	27324
20°	26738	26867	26946
25°	26244	26393	26354
30°	25760	25829	25724
35°	25122	25186	25026
40°	24367	24367	24179
45°	23515	23579	23339
50°	22707	22669	22385
55°	21724	21727	21532
60°	20672	20696	20615
65°	19483	19678	19728
70°	17995	18488	18508
75°	15903	16933	17197
80°	13043	14830	15668
85°	9051	12451	14079



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1937.6	3.6
10°-20°	5512.2	10.3
20°-30°	8191.4	15.3
30°-40°	9577.9	17.9
40°-50°	9549.4	17.8
50°-60°	8285.4	15.5
60°-70°	6119.7	11.4
70°-80°	3426.4	6.4
80°-90°	914.2	1.7
90°-100°	2.7	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°	15641.2	29.2
0°-40°	25219.1	47.1
0°-60°	43053.9	80.4
0°-90°	53514.3	100.0
90°-120°	2.7	0.0
90°-150°	2.7	0.0
90°-180°	3.0	0.0
0°-180°	53517.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	20488	20488	20488	20488	20488	
5°	20294	20421	20351	20441	20467	###
15°	19416	19551	19521	19615	19616	5476
25°	17678	17820	17778	17817	17752	8150
35°	15294	15429	15334	15331	15236	9554
45°	12358	12489	12392	12341	12265	9540
55°	9261	9325	9262	9247	9179	8281
65°	6120	6180	6181	6212	6196	6052
75°	3059	3150	3257	3281	3308	3258
85°	586	709	806	878	912	712
90°	0	13	16	35	33	24
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-LD5-60SE-W-FLI-UNV-L850-ED4-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	20487.8	20487.8	20487.8	20487.8	20487.8
2.5°	20375.8	20496.9	20412.3	20493.0	20586.8
5°	20293.7	20421.4	20351.0	20440.9	20467.0
7.5°	20173.8	20297.6	20229.8	20319.7	20347.1
10°	19970.6	20104.8	20051.4	20153.0	20181.6
12.5°	19733.5	19859.8	19824.7	19943.2	19962.8
15°	19415.5	19551.0	19521.1	19614.9	19616.2
17.5°	19063.8	19191.5	19169.3	19242.3	19239.7
20°	18674.2	18811.0	18764.1	18843.6	18818.8
22.5°	18213.0	18358.9	18300.3	18366.7	18304.2
25°	17677.5	17819.5	17777.8	17816.9	17751.8
27.5°	17159.0	17289.2	17203.3	17250.2	17181.1
30°	16580.5	16691.2	16624.8	16640.4	16557.0
32.5°	15930.3	16061.9	15981.2	15978.5	15889.9
35°	15294.5	15428.7	15333.6	15331.0	15235.9
37.5°	14591.0	14716.1	14604.0	14610.5	14499.8
40°	13873.1	13981.2	13873.1	13867.9	13766.3
42.5°	13094.0	13237.3	13138.3	13150.0	13014.5
45°	12357.8	12489.4	12391.7	12340.9	12265.3
47.5°	11624.3	11681.6	11600.9	11587.8	11481.0
50°	10847.8	10890.8	10829.6	10813.9	10694.1
52.5°	10045.2	10119.5	10041.3	10020.5	9941.0
55°	9260.9	9324.7	9262.2	9246.6	9178.8
57.5°	8471.3	8554.7	8490.9	8475.2	8420.5
60°	7681.8	7706.5	7690.9	7714.4	7660.9
62.5°	6897.5	6954.8	6973.0	6966.5	6924.8
65°	6119.6	6179.6	6180.9	6212.1	6196.5
67.5°	5323.6	5401.7	5423.9	5456.5	5470.8
70°	4574.4	4634.4	4699.5	4719.0	4704.7
72.5°	3820.1	3916.5	3989.4	4006.4	4067.6
75°	3059.2	3150.4	3257.2	3280.7	3308.0
77.5°	2353.0	2474.2	2570.6	2601.9	2635.7
80°	1683.3	1817.5	1913.9	1956.9	2022.1
82.5°	1104.8	1241.6	1339.4	1382.4	1461.8
85°	586.3	708.8	806.5	878.1	912.0
87.5°	173.3	277.5	333.5	354.4	384.4
90°	0.0	13.0	15.6	35.2	32.6
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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CATALOG NUMBER: HBLED-LD5-60SE-W-FLI-UNV-L850-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)