

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-LD5-60HE-N-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 (P23767)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: HBLED-LD5-60HE-N-UNV-L840-ED4-U  
Description: METALUX HIGH BAY LINEAR LED  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

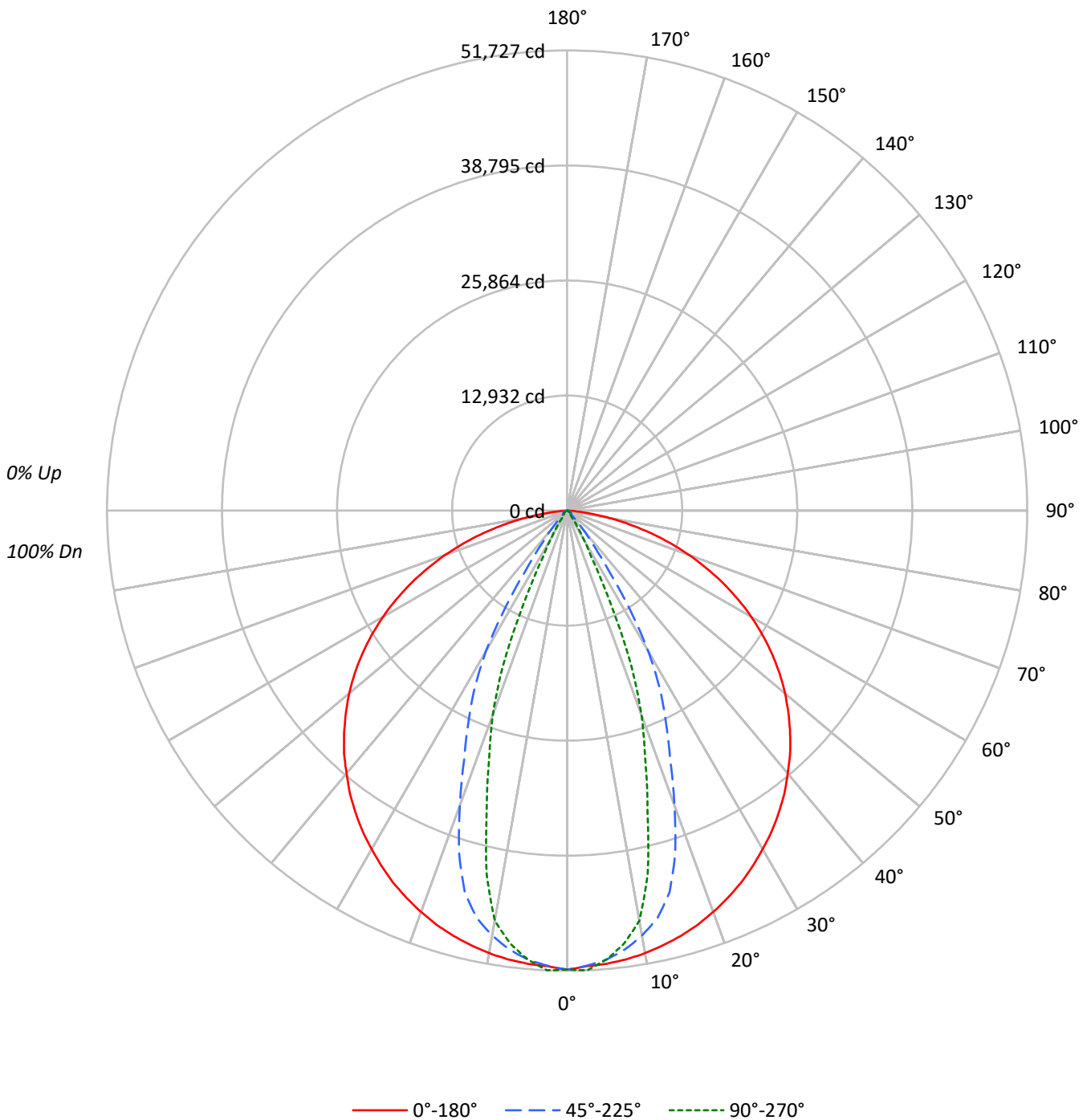
Lumens per Lamp: N/A  
Luminaire Lumens: 54846.0 lumens  
Efficiency: N/A  
Efficacy: 148.6 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 0.62 / 0.77  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 369  
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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73
4	92	82	76	70	90	81	75	70	79	73	69	77	72	68	75	71	67	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	70	63	58	68	62	58	66	61	57	65	60	57	55
7	76	66	58	54	75	65	58	53	63	57	53	62	57	53	61	56	52	51
8	72	61	54	49	71	61	54	49	59	53	49	58	53	49	57	52	49	47
9	68	57	51	46	67	57	50	46	56	50	46	55	49	46	54	49	45	44
10	65	54	47	43	64	53	47	43	53	47	43	52	46	43	51	46	42	41

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

	0°	45°	90°
0°	69429	69429	69429
5°	69058	68448	68418
10°	69015	66255	63930
15°	68917	61898	48654
20°	68757	50459	35022
25°	68582	39016	17252
30°	68279	28356	5595
35°	68117	12580	1440
40°	67761	5109	970
45°	67458	1434	1032
50°	66932	1017	1146
55°	65968	1209	490
60°	64340	1348	297
65°	61693	860	352
70°	57314	763	435
75°	50139	574	600
80°	37489	704	856
85°	18569	909	1136



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	4788.7	8.7
10°-20°	11974.1	21.8
20°-30°	12969.8	23.6
30°-40°	9604.7	17.5
40°-50°	6917.9	12.6
50°-60°	4283.5	7.8
60°-70°	2634.3	4.8
70°-80°	1388.7	2.5
80°-90°	284.2	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°	29732.7	54.2
0°-40°	39337.4	71.7
0°-60°	50538.8	92.1
0°-90°	54846.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	54846.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	51602	51602	51602	51602	51602	
5°	51130	51319	50679	50715	50656	###
15°	49476	48327	44436	37789	34929	13967
25°	46196	42315	26281	16533	11621	21286
35°	41471	29236	7659	1802	876	25945
45°	35452	16472	754	545	542	27340
55°	28122	3392	516	466	209	25104
65°	19378	358	270	172	110	19119
75°	9645	84	110	145	115	10187
85°	1203	32	59	88	74	###
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	51601.6	51601.6	51601.6	51601.6	51601.6
2.5°	51270.2	51596.7	51211.3	51498.5	51726.8
5°	51130.3	51319.3	50678.6	50715.4	50656.5
7.5°	50884.8	50840.6	49763.0	49291.7	49085.5
10°	50514.1	50222.0	48493.9	47509.5	46792.7
12.5°	50035.5	49382.5	46910.6	43780.7	41836.6
15°	49475.8	48327.0	44436.2	37788.6	34928.8
17.5°	48808.1	47180.6	40390.7	31671.4	29118.4
20°	48020.1	45901.6	35240.6	26946.0	24459.3
22.5°	47141.3	44345.3	30237.8	22394.8	18847.7
25°	46196.2	42315.2	26280.7	16532.8	11620.9
27.5°	45103.8	39705.8	22569.1	9738.1	5930.7
30°	43947.7	36563.7	18251.2	5238.5	3601.1
32.5°	42781.6	33001.9	12914.5	3272.2	2042.4
35°	41470.8	29236.2	7658.9	1801.8	876.4
37.5°	40103.5	25784.8	4526.6	819.9	562.1
40°	38579.1	22630.5	2908.9	545.0	552.3
42.5°	37106.2	19689.7	1637.3	537.6	547.4
45°	35451.7	16471.5	753.6	545.0	542.5
47.5°	33740.7	13135.4	488.5	549.9	549.9
50°	31975.8	9391.9	486.0	562.1	547.4
52.5°	30112.6	5859.5	505.7	559.7	449.2
55°	28121.8	3392.5	515.5	466.4	208.7
57.5°	26059.8	2000.6	520.4	267.6	117.8
60°	23909.4	1107.1	500.8	198.8	110.5
62.5°	21692.8	527.8	395.2	186.6	108.0
65°	19377.9	358.4	270.0	171.8	110.5
67.5°	16974.7	277.4	213.6	162.0	112.9
70°	14569.0	206.2	193.9	162.0	110.5
72.5°	12124.1	139.9	162.0	164.5	110.5
75°	9644.8	83.5	110.5	144.8	115.4
77.5°	7187.6	51.6	85.9	149.7	139.9
80°	4838.3	44.2	90.8	139.9	110.5
82.5°	2840.2	39.3	88.4	108.0	88.4
85°	1202.8	31.9	58.9	88.4	73.6
87.5°	225.8	27.0	46.6	71.2	63.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)