

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-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 (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-L850-ED4-U  
Description: METALUX HIGH BAY LINEAR LED  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

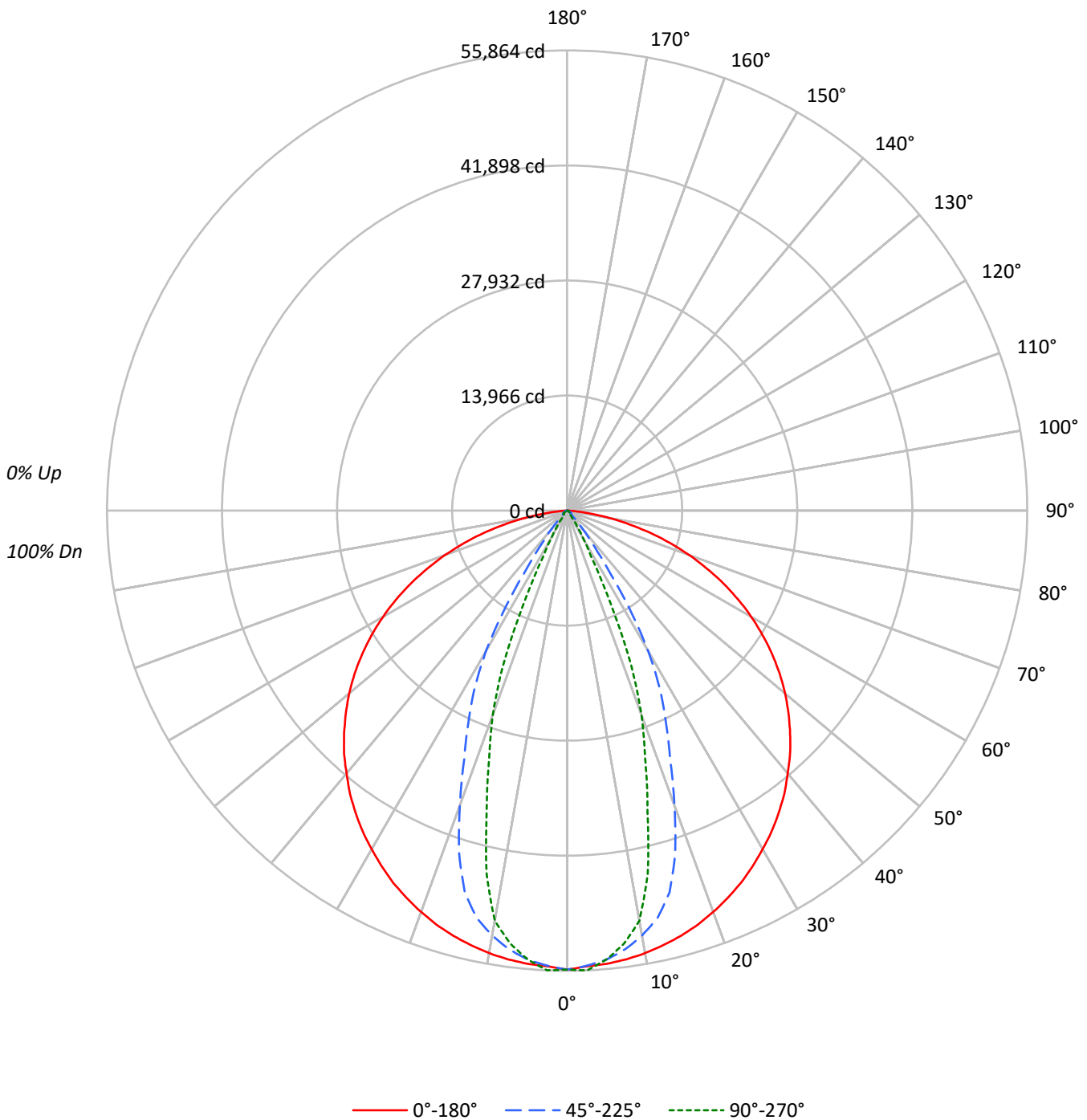
Lumens per Lamp: N/A  
Luminaire Lumens: 59233.0 lumens  
Efficiency: N/A  
Efficacy: 160.5 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 0.62 / 0.77  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

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	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	76	81	77	74	73					73			
4	92	82	76	70	90	81	75	70	79	73	69	77	72	68	75	71	67	66					66			
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	70	63	58	68	62	58	66	61	57	65	60	57	55					55			
7	76	66	58	54	75	65	58	53	63	57	53	62	57	53	61	56	52	51					51			
8	72	61	54	49	71	61	54	49	59	53	49	58	53	49	57	52	49	47					47			
9	68	57	51	46	67	57	50	46	56	50	46	55	49	46	54	49	45	44					44			
10	65	54	47	43	64	53	47	43	53	47	43	52	46	43	51	46	42	41					41			

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

	0°	45°	90°
0°	74983	74983	74983
5°	74582	73923	73891
10°	74535	71554	69044
15°	74430	66849	52546
20°	74257	54495	37823
25°	74068	42137	18632
30°	73740	30624	6042
35°	73566	13586	1554
40°	73181	5518	1048
45°	72854	1549	1115
50°	72286	1099	1238
55°	71244	1306	529
60°	69486	1455	321
65°	66628	928	380
70°	61898	824	469
75°	54149	620	648
80°	40488	760	924
85°	20054	982	1227



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	5171.7	8.7
10°-20°	12931.9	21.8
20°-30°	14007.3	23.6
30°-40°	10373.0	17.5
40°-50°	7471.2	12.6
50°-60°	4626.1	7.8
60°-70°	2845.0	4.8
70°-80°	1499.8	2.5
80°-90°	306.9	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°	32110.9	54.2
0°-40°	42483.9	71.7
0°-60°	54581.2	92.1
0°-90°	59233.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	59233.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	55729	55729	55729	55729	55729	
5°	55220	55424	54732	54772	54708	###
15°	53433	52192	47990	40811	37723	15084
25°	49891	45700	28383	17855	12550	22988
35°	44788	31575	8272	1946	946	28020
45°	38287	17789	814	588	586	29527
55°	30371	3664	557	504	225	27112
65°	20928	387	292	186	119	20649
75°	10416	90	119	156	125	11002
85°	1299	34	64	95	80	###
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	55729.1	55729.1	55729.1	55729.1	55729.1
2.5°	55371.2	55723.8	55307.6	55617.8	55864.3
5°	55220.1	55424.2	54732.3	54772.0	54708.4
7.5°	54955.0	54907.3	53743.4	53234.4	53011.7
10°	54554.7	54239.2	52372.8	51309.7	50535.6
12.5°	54037.7	53332.5	50662.8	47282.6	45183.0
15°	53433.2	52192.5	47990.5	40811.3	37722.7
17.5°	52712.1	50954.4	43621.5	34204.7	31447.5
20°	51861.1	49573.2	38059.4	29101.3	26415.7
22.5°	50912.0	47892.4	32656.4	24186.1	20355.3
25°	49891.3	45699.9	28382.8	17855.3	12550.4
27.5°	48711.6	42881.8	24374.4	10517.0	6405.1
30°	47462.9	39488.4	19711.0	5657.5	3889.2
32.5°	46203.6	35641.6	13947.5	3533.9	2205.7
35°	44787.9	31574.8	8271.5	1945.9	946.4
37.5°	43311.3	27847.3	4888.7	885.5	607.1
40°	41664.9	24440.6	3141.6	588.5	596.5
42.5°	40074.3	21264.6	1768.3	580.6	591.2
45°	38287.4	17789.0	813.9	588.5	585.9
47.5°	36439.6	14186.1	527.6	593.8	593.8
50°	34533.4	10143.2	524.9	607.1	591.2
52.5°	32521.2	6328.2	546.1	604.5	485.2
55°	30371.2	3663.8	556.7	503.7	225.3
57.5°	28144.2	2160.7	562.0	289.0	127.3
60°	25821.9	1195.7	540.8	214.7	119.3
62.5°	23427.9	570.0	426.8	201.5	116.6
65°	20927.9	387.1	291.6	185.6	119.3
67.5°	18332.5	299.6	230.6	175.0	122.0
70°	15734.4	222.7	209.4	175.0	119.3
72.5°	13093.9	151.1	175.0	177.6	119.3
75°	10416.2	90.1	119.3	156.4	124.6
77.5°	7762.5	55.7	92.8	161.7	151.1
80°	5225.3	47.7	98.1	151.1	119.3
82.5°	3067.3	42.4	95.4	116.6	95.4
85°	1299.0	34.5	63.6	95.4	79.5
87.5°	243.9	29.2	50.4	76.9	68.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)