

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-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-LD5-60SE-N-UNV-L840-ED4-U  
Description: METALUX HIGH BAY LINEAR LED  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

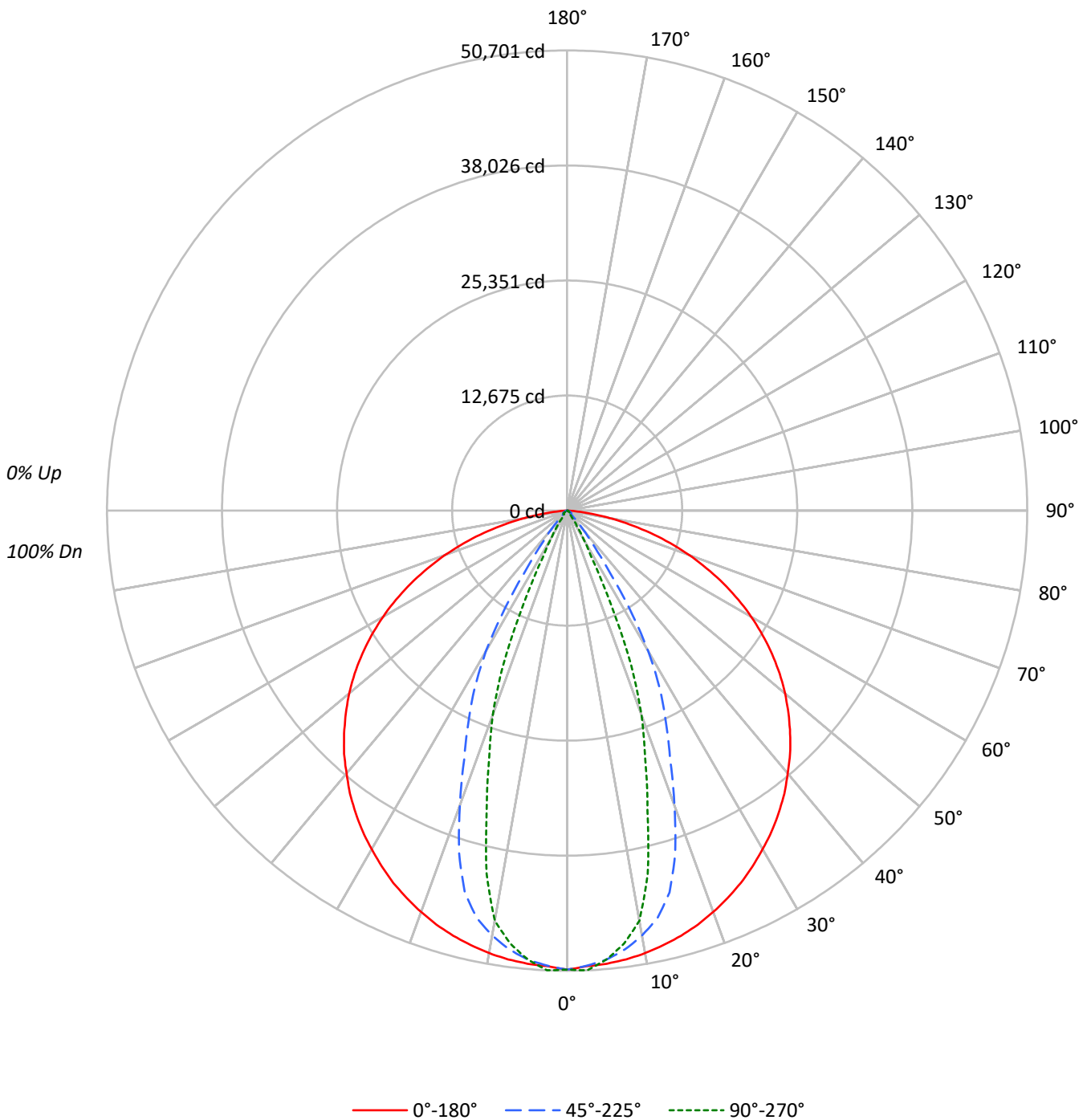
Lumens per Lamp: N/A  
Luminaire Lumens: 53758.0 lumens  
Efficiency: N/A  
Efficacy: 139.3 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 0.62 / 0.77  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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	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°	68052	68052	68052
5°	67688	67090	67061
10°	67646	64940	62662
15°	67550	60670	47689
20°	67393	49458	34327
25°	67222	38242	16910
30°	66924	27793	5484
35°	66766	12330	1411
40°	66417	5008	951
45°	66120	1406	1012
50°	65604	997	1123
55°	64659	1185	480
60°	63063	1321	291
65°	60470	843	345
70°	56177	748	426
75°	49144	563	588
80°	36746	690	839
85°	18201	891	1115



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	4693.7	8.7
10°-20°	11736.6	21.8
20°-30°	12712.5	23.6
30°-40°	9414.2	17.5
40°-50°	6780.7	12.6
50°-60°	4198.5	7.8
60°-70°	2582.1	4.8
70°-80°	1361.2	2.5
80°-90°	278.6	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°	29142.9	54.2
0°-40°	38557.0	71.7
0°-60°	49536.2	92.1
0°-90°	53758.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	53758.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	50578	50578	50578	50578	50578	
5°	50116	50301	49673	49709	49652	###
15°	48494	47368	43555	37039	34236	13689
25°	45280	41476	25759	16205	11390	20864
35°	40648	28656	7507	1766	859	25430
45°	34748	16145	739	534	532	26798
55°	27564	3325	505	457	204	24606
65°	18994	351	265	168	108	18740
75°	9453	82	108	142	113	9985
85°	1179	31	58	87	72	###
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	50578.0	50578.0	50578.0	50578.0	50578.0
2.5°	50253.1	50573.2	50195.4	50476.9	50700.7
5°	50116.0	50301.3	49673.3	49709.4	49651.6
7.5°	49875.4	49832.1	48775.8	48313.9	48111.7
10°	49512.1	49225.8	47531.9	46567.1	45864.5
12.5°	49042.9	48402.9	45980.0	42912.2	41006.6
15°	48494.3	47368.3	43554.7	37039.0	34236.0
17.5°	47839.9	46244.6	39589.5	31043.1	28540.8
20°	47067.5	44991.1	34541.5	26411.4	23974.1
22.5°	46206.1	43465.6	29638.0	21950.6	18473.8
25°	45279.8	41475.8	25759.4	16204.9	11390.3
27.5°	44209.1	38918.2	22121.4	9544.9	5813.1
30°	43075.8	35838.4	17889.1	5134.6	3529.7
32.5°	41933.0	32347.2	12658.3	3207.3	2001.8
35°	40648.1	28656.3	7506.9	1766.1	859.0
37.5°	39307.9	25273.3	4436.8	803.6	551.0
40°	37813.8	22181.5	2851.2	534.1	541.4
42.5°	36370.1	19299.1	1604.8	526.9	536.6
45°	34748.4	16144.7	738.7	534.1	531.7
47.5°	33071.4	12874.9	478.8	539.0	539.0
50°	31341.4	9205.6	476.4	551.0	536.6
52.5°	29515.2	5743.3	495.7	548.6	440.3
55°	27563.9	3325.2	505.3	457.2	204.5
57.5°	25542.8	1960.9	510.1	262.3	115.5
60°	23435.1	1085.1	490.8	194.9	108.3
62.5°	21262.4	517.3	387.4	182.9	105.9
65°	18993.5	351.3	264.7	168.4	108.3
67.5°	16638.0	271.9	209.3	158.8	110.7
70°	14280.0	202.1	190.1	158.8	108.3
72.5°	11883.6	137.1	158.8	161.2	108.3
75°	9453.4	81.8	108.3	142.0	113.1
77.5°	7045.0	50.5	84.2	146.8	137.1
80°	4742.4	43.3	89.0	137.1	108.3
82.5°	2783.8	38.5	86.6	105.9	86.6
85°	1179.0	31.3	57.7	86.6	72.2
87.5°	221.4	26.5	45.7	69.8	62.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)