

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-LD5-36SE-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-LD5-36SE-N-CLI-UNV-L840-ED3-U  
Description: METALUX HIGH BAY LINEAR LED  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

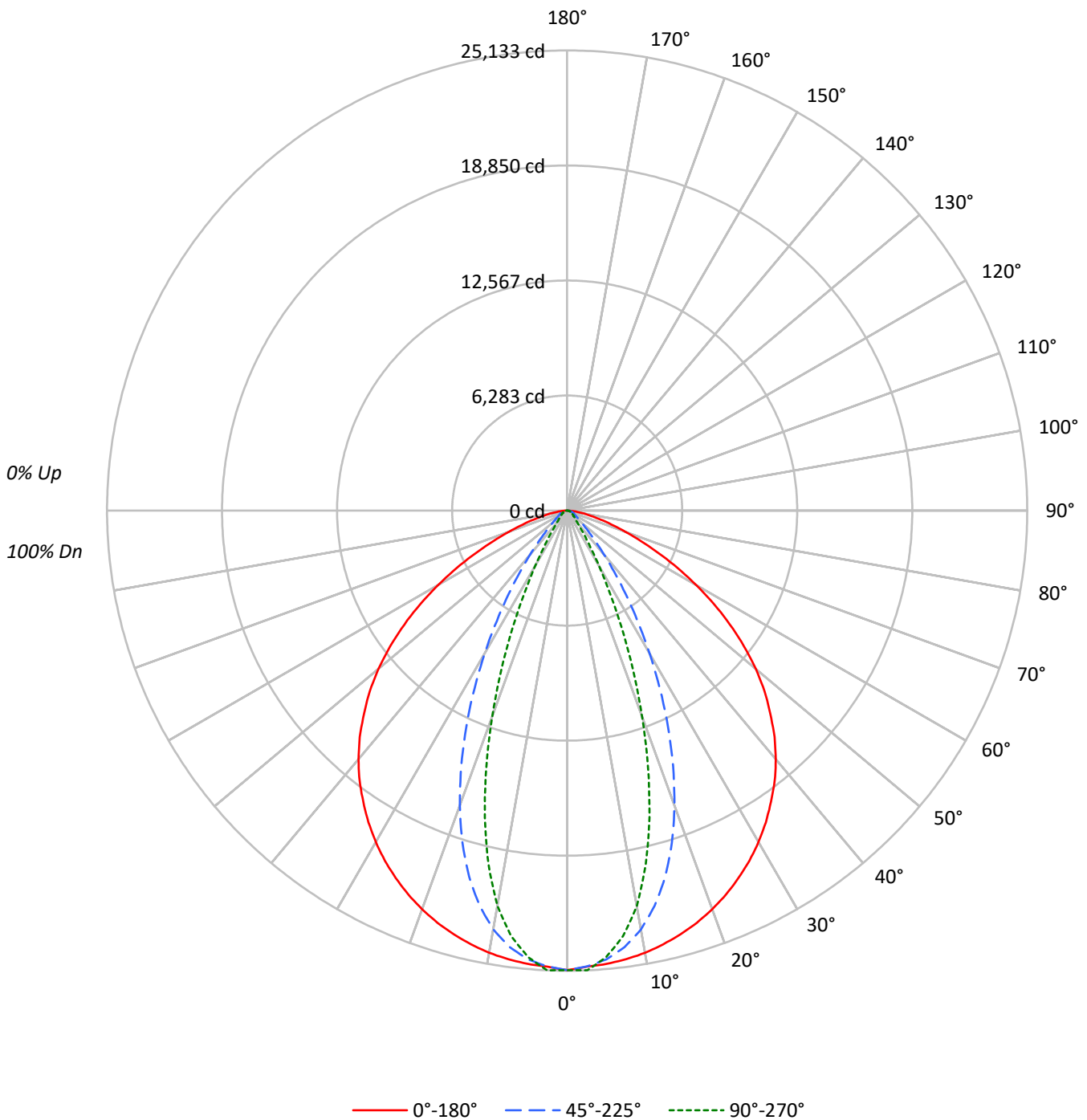
Lumens per Lamp: N/A  
Luminaire Lumens: 27477.0 lumens  
Efficiency: N/A  
Efficacy: 118.4 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 0.64 / 0.78  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 232  
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	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°	33769	33769	33769
5°	33566	33232	33057
10°	33510	31728	29939
15°	33375	28840	24179
20°	33175	24540	17137
25°	32878	19351	10354
30°	32479	13966	5321
35°	31893	9130	2658
40°	31136	5484	1551
45°	29843	3275	1160
50°	28147	2142	974
55°	25475	1625	850
60°	21892	1384	776
65°	17609	1263	732
70°	13266	1352	728
75°	9758	1285	749
80°	7139	1280	820
85°	5346	1551	1061



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2311.4	8.4
10°-20°	5750.3	20.9
20°-30°	6369.3	23.2
30°-40°	5103.0	18.6
40°-50°	3642.8	13.3
50°-60°	2339.9	8.5
60°-70°	1268.0	4.6
70°-80°	542.0	2.0
80°-90°	150.3	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°	14431.0	52.5
0°-40°	19534.0	71.1
0°-60°	25516.7	92.9
0°-90°	27477.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	27477.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	25098	25098	25098	25098	25098	
5°	24852	24945	24605	24527	24476	###
15°	23960	23210	20704	18297	17358	6760
25°	22146	19528	13034	8492	6974	10202
35°	19417	14044	5559	2242	1618	12140
45°	15683	8107	1721	732	609	12089
55°	10860	3625	693	426	362	9678
65°	5531	1488	397	274	230	5539
75°	1877	545	247	172	144	2086
85°	346	144	100	83	69	423
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	25098.3	25098.3	25098.3	25098.3	25098.3
2.5°	24933.0	25089.0	24921.1	25025.5	25132.6
5°	24852.4	24944.9	24605.2	24527.2	24475.6
7.5°	24712.2	24685.8	24047.3	23633.6	23433.9
10°	24527.2	24313.0	23222.4	22312.9	21913.7
12.5°	24262.8	23821.3	22105.4	20508.5	19831.7
15°	23960.1	23210.5	20704.1	18296.9	17358.3
17.5°	23597.9	22496.7	19029.3	15925.3	14686.7
20°	23169.6	21634.8	17138.9	13405.7	11968.8
22.5°	22691.0	20640.7	15115.0	10894.1	9352.7
25°	22146.4	19527.6	13034.3	8492.1	6974.5
27.5°	21558.1	18291.6	10965.4	6345.3	4961.2
30°	20905.1	16953.8	8989.2	4575.2	3425.1
32.5°	20192.6	15531.4	7153.0	3217.6	2342.5
35°	19416.6	14044.2	5558.7	2242.0	1618.0
37.5°	18622.1	12526.7	4198.5	1585.0	1160.7
40°	17727.1	11014.4	3122.4	1160.7	883.1
42.5°	16766.1	9531.1	2310.7	893.6	715.2
45°	15683.4	8107.4	1721.2	732.4	609.4
47.5°	14633.8	6780.2	1307.4	624.0	530.1
50°	13446.7	5582.5	1023.2	544.6	465.3
52.5°	12186.9	4528.9	830.2	479.9	409.8
55°	10859.7	3624.7	692.7	425.7	362.2
57.5°	9515.3	2871.2	592.2	379.4	322.6
60°	8135.2	2296.2	514.2	339.7	288.2
62.5°	6788.1	1836.2	449.5	305.4	257.8
65°	5531.0	1488.5	396.6	273.6	230.0
67.5°	4369.0	1176.5	370.1	245.9	207.5
70°	3372.3	916.1	343.7	219.4	185.1
72.5°	2555.3	703.3	304.0	195.6	163.9
75°	1877.1	544.6	247.2	171.9	144.1
77.5°	1343.1	419.1	200.9	149.4	124.3
80°	921.4	312.0	165.2	128.2	105.8
82.5°	598.8	220.8	133.5	105.8	87.2
85°	346.3	144.1	100.5	83.3	68.7
87.5°	149.4	79.3	68.7	62.1	52.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)