

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: P236328

Luminaire Tested: **4SWLED-72HL-LN-UNV-L835-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236328
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1709-316-29)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SWLED-72HL-LN-UNV-L835-CD1-U
Description: METALUX SWLED LINEAR LUMINAIRE
4FT FIXTURE WITH 2 ROW LED, NARROW LENS
Light Source: (224) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

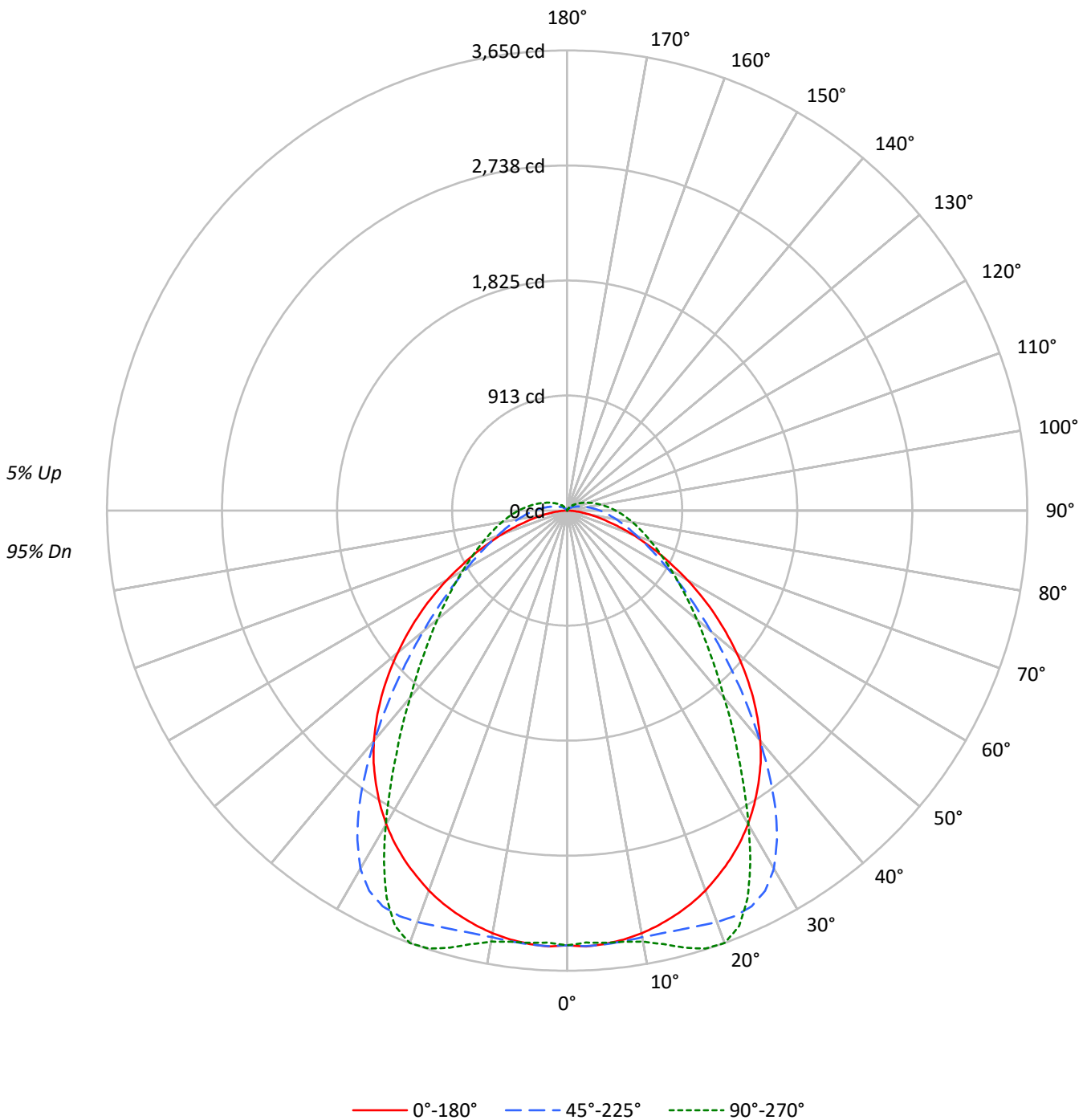
Lumens per Lamp: N/A
Luminaire Lumens: 9214.0 lumens
Efficiency: N/A
Efficacy: 128.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')
CIE Type: Direct

Input Watts (W): 71.5
Input Voltage (V): 120
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

TEST NUMBER: P236328

CATALOG NUMBER: 4SWLED-72HL-LN-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P236328

CATALOG NUMBER: 4SWLED-72HL-LN-UNV-L835-CD1-U

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	118	118	118	118	114	114	114	114	108	108	108	103	103	103	97	97	97	95
1	108	103	99	95	104	100	96	93	95	92	89	90	88	85	86	84	82	79
2	98	90	84	78	95	88	82	77	84	79	74	80	76	72	76	73	70	67
3	90	80	72	66	87	78	71	65	75	68	63	71	66	62	68	64	60	58
4	83	72	63	57	80	70	62	56	67	60	55	64	58	54	61	56	52	50
5	77	64	56	50	74	63	55	49	60	53	48	58	52	47	56	50	46	44
6	71	58	50	44	69	57	49	43	55	48	43	53	47	42	51	45	41	39
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	47	41	37	35
8	62	49	41	35	60	48	40	35	46	39	34	44	38	34	43	37	33	31
9	58	45	37	32	56	44	37	31	43	36	31	41	35	31	40	34	30	28
10	54	41	34	29	53	41	33	29	39	33	28	38	32	28	37	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24740	24740	24740
5°	24774	24234	23975
10°	24650	23777	23670
15°	24437	23666	24144
20°	24174	23905	24416
25°	23793	24043	22708
30°	23294	23159	19465
35°	22589	20847	16260
40°	21671	17762	13659
45°	20386	14795	11725
50°	18780	12223	10230
55°	16968	10226	9088
60°	14887	8695	8217
65°	12677	7595	7558
70°	10457	6792	7126
75°	8188	6294	6865
80°	6119	6021	6775
85°	4022	5965	6835



TEST NUMBER: P236328

CATALOG NUMBER: 4SWLED-72HL-LN-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	328.1	3.6
10°-20°	974.9	10.6
20°-30°	1518.8	16.5
30°-40°	1674.8	18.2
40°-50°	1483.1	16.1
50°-60°	1135.5	12.3
60°-70°	787.1	8.5
70°-80°	513.9	5.6
80°-90°	324.4	3.5
90°-100°	202.9	2.2
100°-110°	124.2	1.3
110°-120°	73.4	0.8
120°-130°	41.3	0.4
130°-140°	20.9	0.2
140°-150°	8.4	0.1
150°-160°	2.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	2821.8	30.6
0°-40°	4496.7	48.8
0°-60°	7115.3	77.2
0°-90°	8740.7	94.9
90°-120°	400.5	4.3
90°-150°	471.1	5.1
90°-180°	473.0	5.1
0°-180°	9214.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3448	3448	3448	3448	3448	
5°	3450	3427	3453	3441	3442	328
15°	3322	3324	3442	3541	3589	937
25°	3056	3157	3462	3449	3388	1407
35°	2644	2893	2881	2469	2362	1652
45°	2082	2312	1896	1632	1605	1602
55°	1427	1493	1168	1111	1130	1274
65°	805	817	736	786	816	802
75°	336	393	482	576	607	365
85°	69	173	322	421	452	79
90°	1	115	259	356	384	5
95°	0	74	204	295	324	0
105°	0	34	123	195	223	0
115°	0	18	74	126	147	0
125°	0	10	46	80	94	0
135°	1	4	26	48	57	1
145°	1	1	11	24	30	1
155°	2	1	2	7	10	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P236328

CATALOG NUMBER: 4SWLED-72HL-LN-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3447.6	3447.6	3447.6	3447.6	3447.6
2.5°	3460.7	3434.4	3458.1	3445.0	3430.1
5°	3450.2	3426.6	3452.8	3440.6	3441.5
7.5°	3431.8	3410.8	3445.8	3441.5	3449.3
10°	3404.7	3386.3	3436.2	3457.2	3471.2
12.5°	3367.0	3355.6	3435.3	3486.1	3522.0
15°	3321.5	3324.1	3442.3	3541.3	3588.6
17.5°	3268.9	3285.5	3455.5	3590.4	3642.9
20°	3207.6	3247.0	3473.0	3611.4	3649.9
22.5°	3133.1	3203.2	3480.0	3572.0	3566.7
25°	3056.1	3156.8	3462.5	3449.3	3388.0
27.5°	2968.5	3105.1	3400.3	3248.8	3146.3
30°	2870.4	3046.4	3280.3	2997.4	2876.5
32.5°	2762.6	2976.3	3097.2	2729.3	2610.2
35°	2644.4	2893.1	2880.9	2469.2	2361.5
37.5°	2521.7	2777.5	2630.4	2225.7	2145.1
40°	2384.2	2647.0	2374.6	2004.1	1934.0
42.5°	2236.2	2494.6	2128.5	1806.1	1762.3
45°	2082.0	2311.5	1896.3	1631.8	1604.7
47.5°	1920.0	2108.3	1680.9	1475.9	1465.4
50°	1755.3	1904.2	1487.3	1339.3	1341.0
52.5°	1588.0	1689.6	1317.4	1219.3	1229.8
55°	1426.9	1493.4	1168.5	1110.7	1129.9
57.5°	1260.4	1303.4	1038.0	1015.2	1039.7
60°	1102.8	1126.4	921.5	930.2	958.2
62.5°	943.4	962.6	823.4	853.1	882.9
65°	805.0	817.2	735.8	785.7	816.3
67.5°	670.1	691.1	658.7	725.3	756.8
70°	548.3	577.2	591.2	671.8	702.5
72.5°	433.6	477.4	533.4	622.8	653.4
75°	335.5	393.3	481.8	576.3	607.0
77.5°	254.0	321.5	435.3	535.2	565.0
80°	178.7	261.9	394.2	495.8	525.5
82.5°	116.5	213.7	355.6	457.2	486.1
85°	69.2	172.6	321.5	421.3	452.0
87.5°	31.5	140.1	289.1	388.9	417.8
90°	0.9	114.7	259.3	356.5	384.5
92.5°	0.0	92.8	231.2	325.8	353.9
95°	0.0	74.5	204.1	295.2	324.1
97.5°	0.0	60.4	179.6	268.0	296.1
100°	0.0	49.9	158.5	242.6	270.7
102.5°	0.0	41.2	139.3	219.0	246.1
105°	0.0	34.2	122.6	195.3	223.4
107.5°	0.0	28.9	107.7	175.2	201.5
110°	0.0	24.5	94.6	156.8	181.3



TEST NUMBER: P236328

CATALOG NUMBER: 4SWLED-72HL-LN-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	21.9	83.2	141.0	163.8
115°	0.0	18.4	73.6	126.1	147.2
117.5°	0.0	16.6	64.8	113.0	132.3
120°	0.0	14.0	57.8	100.7	118.2
122.5°	0.0	12.3	50.8	89.3	105.1
125°	0.0	9.6	45.5	79.7	93.7
127.5°	0.0	7.9	40.3	70.9	83.2
130°	0.9	6.1	35.9	62.2	73.6
132.5°	0.9	4.4	30.7	55.2	63.9
135°	0.9	3.5	26.3	48.2	56.9
137.5°	0.9	1.8	21.9	42.0	49.1
140°	0.9	0.9	17.5	35.9	42.0
142.5°	0.9	0.9	14.0	30.7	35.9
145°	0.9	0.9	11.4	24.5	29.8
147.5°	0.9	0.9	7.9	19.3	24.5
150°	1.8	0.9	5.3	14.9	19.3
152.5°	1.8	0.9	3.5	10.5	14.9
155°	1.8	0.9	1.8	7.0	10.5
157.5°	1.8	1.8	0.9	4.4	6.1
160°	1.8	1.8	0.9	1.8	3.5
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)