

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: P392830

Luminaire Tested: **12EN-LD2-23-UNV-L93050-W2A-1-U (4500K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P392830
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-563-36)
Test Lab: INNOVATION CENTER
Issue Date: 3/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 12EN-LD2-23-UNV-L93050-W2A-1-U (4500K)
Description: 1X2 ENCOUNTER, 2300 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 2700K/6500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2015.6 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.26 / 1.39
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

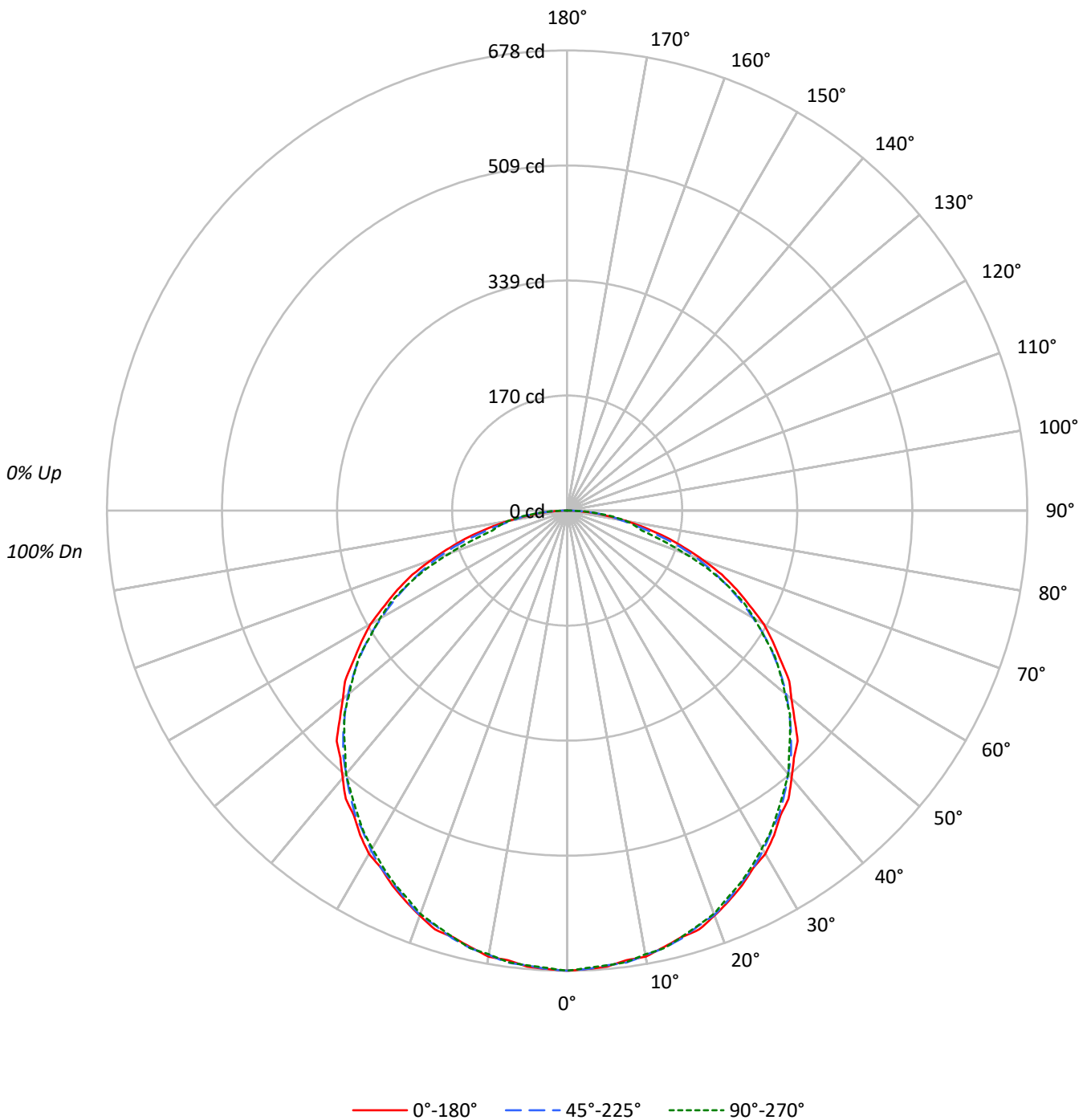
Input Watts (W): 19
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32					32			
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29					29			
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26					26			
10	52	39	31	26	51	38	31	25	37	30	25	36	30	25	35	29	25	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3648	3648	3648
5°	3643	3634	3634
10°	3647	3633	3628
15°	3626	3635	3626
20°	3636	3631	3621
25°	3619	3598	3593
30°	3629	3591	3569
35°	3600	3583	3554
40°	3615	3560	3560
45°	3656	3549	3535
50°	3610	3529	3507
55°	3600	3485	3502
60°	3601	3402	3430
65°	3511	3298	3310
70°	3358	3191	2888
75°	3123	2830	2375
80°	2721	2448	2749
85°	2167	2600	2655



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.1	3.2
10°-20°	184.0	9.1
20°-30°	280.0	13.9
30°-40°	341.1	16.9
40°-50°	361.4	17.9
50°-60°	334.7	16.6
60°-70°	260.3	12.9
70°-80°	145.1	7.2
80°-90°	44.9	2.2
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°	528.1	26.2
0°-40°	869.2	43.1
0°-60°	1565.3	77.7
0°-90°	2015.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2015.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	678	678	678	678	678	
5°	674	672	673	674	673	64
15°	651	653	652	652	651	184
25°	609	609	606	604	605	281
35°	548	548	545	543	541	345
45°	480	472	466	463	464	367
55°	384	380	371	369	373	344
65°	276	270	259	262	260	272
75°	150	146	136	122	114	158
85°	35	36	42	43	43	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	677.9	677.9	677.9	677.9	677.9
2.5°	676.1	676.1	676.1	676.1	674.4
5°	674.4	671.7	672.6	674.4	672.6
7.5°	668.2	670.9	671.7	671.7	670.9
10°	667.3	664.7	664.7	664.7	663.8
12.5°	658.6	659.4	660.3	660.3	660.3
15°	650.7	653.3	652.4	652.4	650.7
17.5°	647.1	642.8	641.9	641.9	641.0
20°	634.9	633.1	634.0	632.2	632.2
22.5°	622.6	621.7	620.8	619.9	617.3
25°	609.4	609.4	605.9	604.1	605.0
27.5°	593.6	595.3	593.6	591.8	590.1
30°	583.9	579.5	577.8	576.0	574.3
32.5°	567.2	565.5	560.2	557.6	559.3
35°	547.9	547.9	545.3	542.7	540.9
37.5°	535.6	530.4	526.0	523.3	523.3
40°	514.6	514.6	506.7	503.1	506.7
42.5°	494.4	494.4	488.2	486.5	483.8
45°	480.3	472.4	466.3	462.7	464.5
47.5°	454.0	452.2	444.3	441.7	445.2
50°	431.1	430.3	421.5	419.7	418.8
52.5°	412.7	404.8	396.9	394.3	396.0
55°	383.7	380.2	371.4	368.8	373.2
57.5°	359.1	355.6	345.1	343.3	343.3
60°	334.5	326.6	316.1	314.4	318.7
62.5°	302.9	299.4	288.0	288.9	293.3
65°	275.7	269.6	259.0	261.7	259.9
67.5°	246.7	239.7	230.9	227.4	224.8
70°	213.4	209.0	202.8	190.5	183.5
72.5°	180.0	176.5	170.3	152.8	147.5
75°	150.2	145.8	136.1	122.1	114.2
77.5°	117.7	117.7	104.5	98.3	101.9
80°	87.8	88.7	79.0	86.1	88.7
82.5°	59.7	58.8	65.0	67.6	67.6
85°	35.1	36.0	42.1	43.0	43.0
87.5°	14.0	16.7	19.3	20.2	21.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)