

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: P392877

Luminaire Tested: **12EN-LD2-31-UNV-L83050-W2A-1-U (4000K)**

Issue Date: 3/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P392877  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-563-38)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 12EN-LD2-31-UNV-L83050-W2A-1-U (4000K)  
Description: 1X2 ENCOUNTER, 3100 LUMENS, VIVIDTUNE TUNABLE WHITE  
Light Source: 2700K/6500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3139.3 lumens  
Efficiency: N/A  
Efficacy: 116.3 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

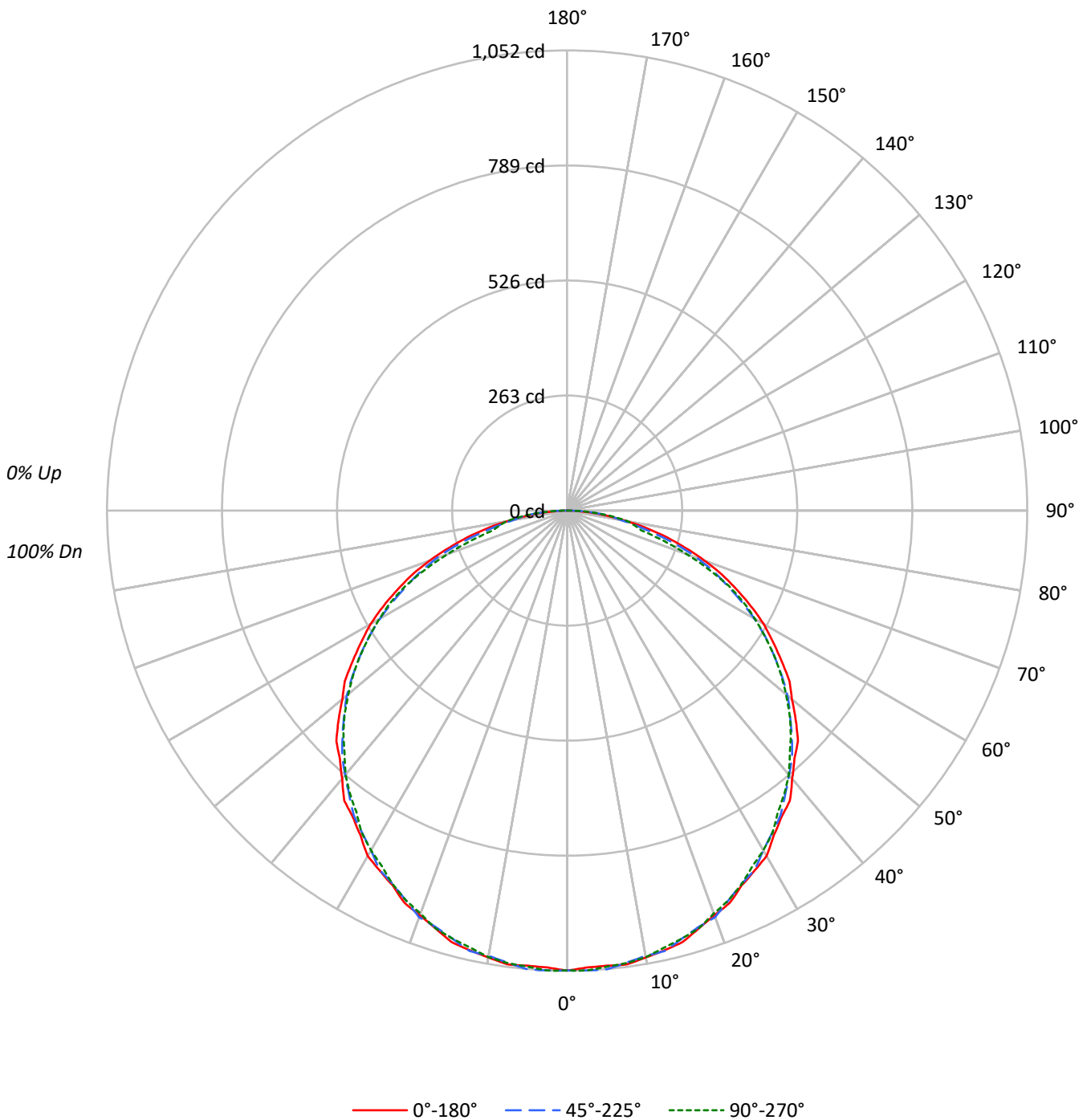
Input Watts (W): 27  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5659	5659	5659
5°	5642	5686	5653
10°	5669	5648	5664
15°	5690	5646	5646
20°	5637	5666	5614
25°	5612	5594	5600
30°	5667	5573	5573
35°	5615	5589	5523
40°	5623	5545	5538
45°	5680	5527	5504
50°	5617	5508	5466
55°	5606	5418	5418
60°	5589	5318	5340
65°	5448	5128	5192
70°	5262	4977	4567
75°	4907	4427	3654
80°	4265	3828	4327
85°	3347	4156	4218



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.7	3.2
10°-20°	286.5	9.1
20°-30°	435.9	13.9
30°-40°	531.3	16.9
40°-50°	562.5	17.9
50°-60°	520.9	16.6
60°-70°	405.3	12.9
70°-80°	226.9	7.2
80°-90°	70.4	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°	822.1	26.2
0°-40°	1353.4	43.1
0°-60°	2436.8	77.6
0°-90°	3139.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3139.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1052	1052	1052	1052	1052	
5°	1044	1052	1052	1054	1046	100
15°	1021	1015	1013	1011	1013	287
25°	945	943	942	941	943	438
35°	855	855	851	846	841	537
45°	746	740	726	722	723	572
55°	598	592	577	574	577	535
65°	428	418	403	404	408	424
75°	236	228	213	191	176	248
85°	54	56	67	67	68	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1051.5	1051.5	1051.5	1051.5	1051.5
2.5°	1045.4	1049.4	1052.5	1052.5	1052.5
5°	1044.4	1051.5	1052.5	1053.5	1046.4
7.5°	1046.4	1041.4	1042.4	1040.4	1043.4
10°	1037.4	1032.4	1033.4	1035.4	1036.4
12.5°	1029.4	1030.4	1031.4	1030.4	1023.3
15°	1021.3	1015.3	1013.3	1011.3	1013.3
17.5°	1001.2	997.2	998.2	999.2	1001.2
20°	984.2	989.2	989.2	987.2	980.2
22.5°	971.1	970.1	964.1	961.1	964.1
25°	945.0	943.0	942.0	941.0	943.0
27.5°	927.9	927.9	926.9	922.9	916.9
30°	911.9	906.8	896.8	894.8	896.8
32.5°	879.7	875.7	872.7	868.7	873.7
35°	854.6	854.6	850.6	845.6	840.6
37.5°	836.5	830.5	818.5	814.4	815.5
40°	800.4	796.4	789.3	784.3	788.3
42.5°	769.3	768.3	761.2	755.2	753.2
45°	746.2	740.1	726.1	722.1	723.1
47.5°	709.0	703.0	690.9	686.9	689.9
50°	670.8	666.8	657.8	651.8	652.8
52.5°	640.7	632.7	617.6	615.6	616.6
55°	597.5	592.5	577.4	574.4	577.4
57.5°	557.4	551.3	537.3	531.2	536.3
60°	519.2	510.2	494.1	492.1	496.1
62.5°	474.0	467.0	447.9	448.9	454.9
65°	427.8	417.8	402.7	403.7	407.7
67.5°	383.6	372.6	360.5	354.5	349.5
70°	334.4	326.4	316.3	297.3	290.2
72.5°	283.2	276.2	267.1	238.0	233.0
75°	236.0	228.0	212.9	190.8	175.7
77.5°	185.8	181.8	163.7	153.7	158.7
80°	137.6	137.6	123.5	134.6	139.6
82.5°	92.4	91.4	101.4	106.5	105.4
85°	54.2	56.2	67.3	67.3	68.3
87.5°	23.1	26.1	31.1	32.1	32.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)