

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: P271917

Luminaire Tested: **14CZ2-39HE-UNV-L930-CD1-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: P271917  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-39HE-UNV-L930-CD1-U  
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 90CRI  
Light Source: (196) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3271.5 lumens  
Efficiency: N/A  
Efficacy: 111.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

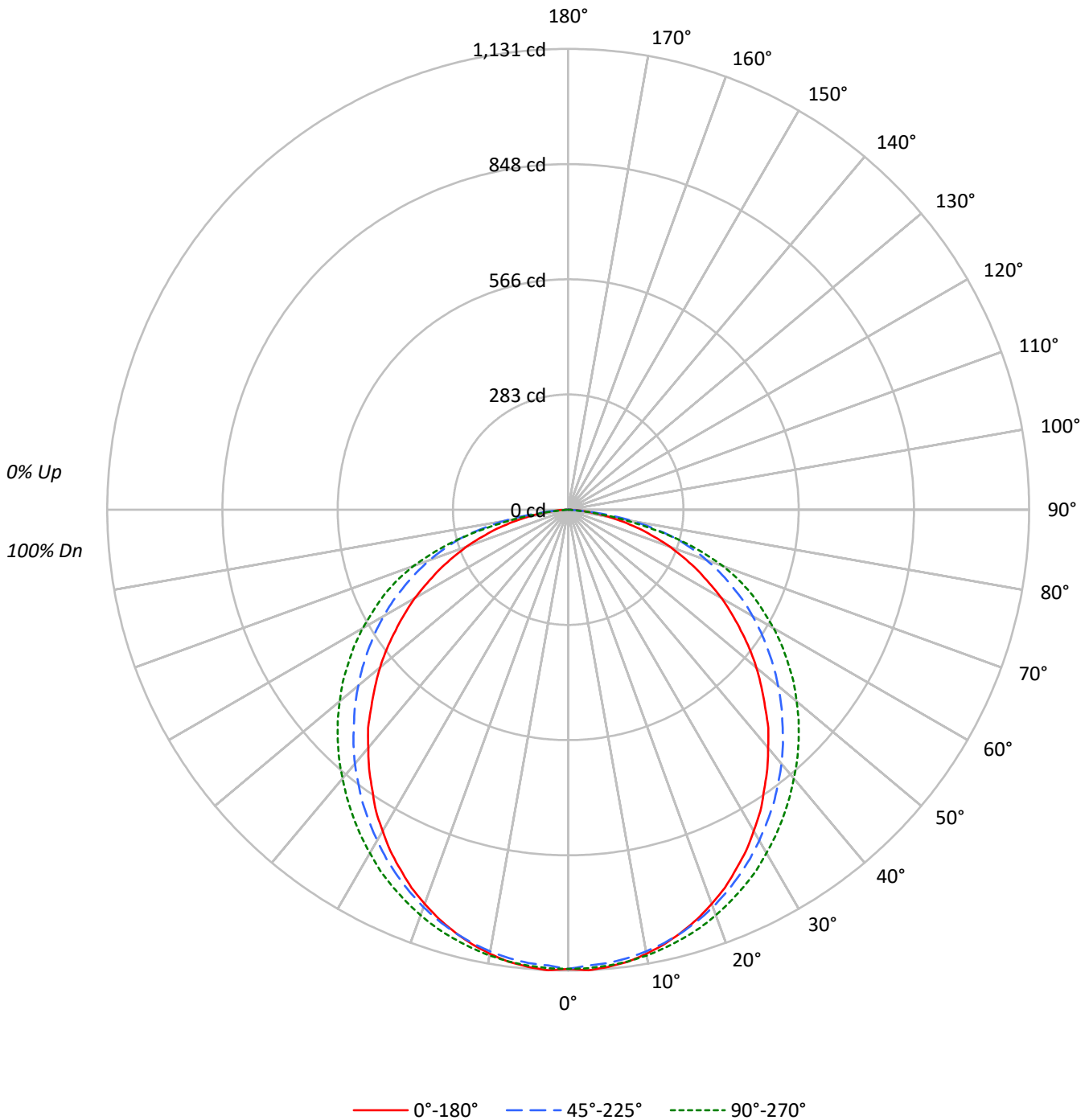
Input Watts (W): 29.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3033	3033	3033
5°	3042	3017	3035
10°	3024	3008	3036
15°	2992	2993	3034
20°	2948	2972	3033
25°	2892	2944	3030
30°	2829	2913	3024
35°	2754	2888	3022
40°	2680	2860	3026
45°	2598	2829	3043
50°	2522	2816	3063
55°	2426	2807	3090
60°	2340	2811	3133
65°	2220	2819	3182
70°	2083	2841	3179
75°	1888	2866	2875
80°	1548	2476	2046
85°	1149	1170	472



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.6	3.3
10°-20°	304.6	9.3
20°-30°	458.9	14.0
30°-40°	550.7	16.8
40°-50°	574.0	17.5
50°-60°	531.4	16.2
60°-70°	429.4	13.1
70°-80°	261.8	8.0
80°-90°	54.0	1.7
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°	870.2	26.6
0°-40°	1420.9	43.4
0°-60°	2526.3	77.2
0°-90°	3271.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3271.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1127	1127	1127	1127	1127	
5°	1126	1123	1117	1125	1123	107
15°	1074	1074	1074	1089	1089	303
25°	974	980	991	1016	1020	449
35°	838	851	879	911	920	525
45°	683	703	743	785	800	528
55°	517	544	598	645	659	463
65°	349	383	443	487	500	345
75°	182	222	276	280	276	191
85°	37	55	38	21	15	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1127.0	1127.0	1127.0	1127.0	1127.0
2.5°	1131.4	1127.8	1119.7	1127.8	1126.3
5°	1126.3	1123.4	1116.8	1124.9	1123.4
7.5°	1119.0	1116.1	1110.3	1119.7	1118.3
10°	1106.6	1105.2	1100.8	1111.7	1111.0
12.5°	1092.0	1091.3	1089.1	1101.5	1100.8
15°	1073.8	1074.5	1074.5	1089.1	1089.1
17.5°	1053.4	1054.8	1057.7	1073.8	1076.0
20°	1029.3	1032.2	1038.0	1056.3	1059.2
22.5°	1004.5	1006.7	1015.4	1037.3	1040.2
25°	973.9	979.7	991.4	1016.2	1020.5
27.5°	944.7	949.8	965.8	991.4	998.7
30°	910.4	918.4	937.4	965.1	973.1
32.5°	877.6	886.3	908.2	940.3	947.6
35°	838.2	851.3	879.0	911.1	919.9
37.5°	802.4	814.8	846.2	881.2	891.4
40°	763.0	778.4	814.1	851.3	861.5
42.5°	726.6	741.1	779.8	817.7	831.6
45°	682.8	703.2	743.3	784.9	799.5
47.5°	642.7	663.1	709.1	753.6	766.7
50°	602.5	624.4	672.6	718.5	731.7
52.5°	561.0	584.3	636.1	682.1	697.4
55°	517.2	544.2	598.2	644.9	658.7
57.5°	475.6	503.3	561.0	608.4	622.2
60°	434.8	463.2	522.3	567.5	582.1
62.5°	389.5	423.1	484.4	528.9	539.8
65°	348.7	383.0	442.8	487.3	499.7
67.5°	305.7	342.9	402.7	443.5	455.2
70°	264.8	303.5	361.1	399.0	404.1
72.5°	221.0	260.4	318.8	342.9	342.9
75°	181.6	221.8	275.7	280.1	276.5
77.5°	138.6	183.1	218.1	209.4	200.6
80°	99.9	143.7	159.8	143.7	132.0
82.5°	67.1	104.3	96.3	76.6	67.8
85°	37.2	55.4	37.9	21.2	15.3
87.5°	13.9	12.4	3.6	3.6	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)