

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: P387508

Luminaire Tested: **14CZ2-39HE-SQR-UNV-L935-CD1-SWPD1-U**

Issue Date: 2/28/2020

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: P387508  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1911-580-2)  
Test Lab: INNOVATIONS CENTER(G2)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-39HE-SQR-UNV-L935-CD1-SWPD1-U  
Description: 1x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3179.6 lumens  
Efficiency: N/A  
Efficacy: 108.5 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

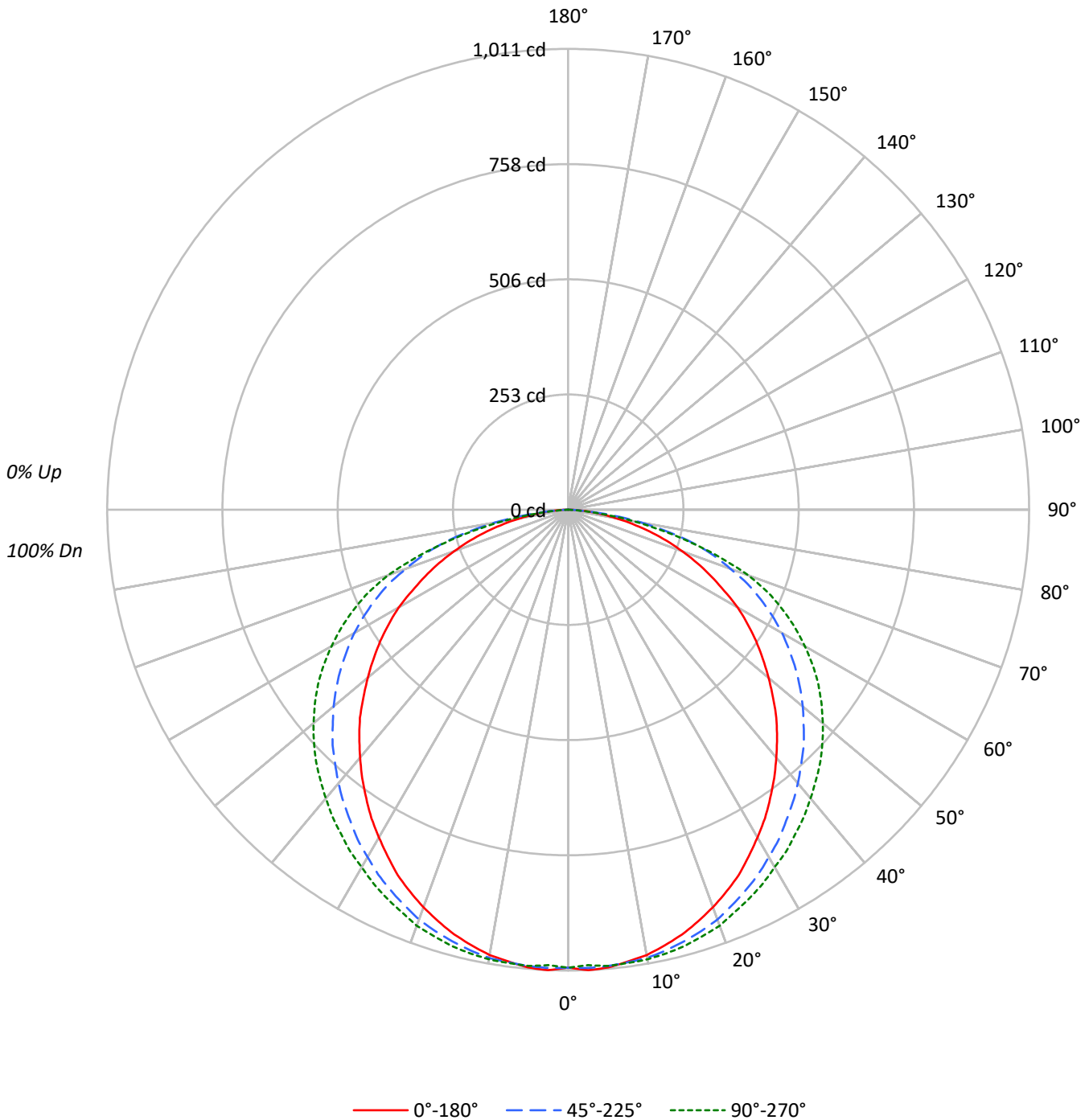
Input Watts (W): 29.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	51	60	54	50	48
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	68	55	45	39	67	54	45	39	52	44	38	50	43	38	49	42	38	35
7	63	49	40	34	62	49	40	34	47	39	34	46	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

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

	0°	45°	90°
0°	2704	2704	2704
5°	2723	2714	2714
10°	2711	2728	2737
15°	2688	2732	2759
20°	2657	2740	2781
25°	2627	2736	2793
30°	2579	2734	2813
35°	2537	2737	2853
40°	2494	2753	2905
45°	2458	2781	2976
50°	2402	2811	3052
55°	2361	2857	3143
60°	2312	2915	3225
65°	2204	2969	3306
70°	2093	2976	3304
75°	1916	2965	2915
80°	1640	2534	2259
85°	1288	1436	840



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.5	3.0
10°-20°	275.8	8.7
20°-30°	421.8	13.3
30°-40°	517.1	16.3
40°-50°	556.1	17.5
50°-60°	534.4	16.8
60°-70°	445.0	14.0
70°-80°	273.1	8.6
80°-90°	60.8	1.9
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°	793.2	24.9
0°-40°	1310.2	41.2
0°-60°	2400.7	75.5
0°-90°	3179.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3179.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1005	1005	1005	1005	1005	
5°	1008	998	1005	1005	1005	96
15°	965	962	981	987	990	272
25°	885	893	921	933	941	407
35°	772	792	833	856	869	483
45°	646	675	731	764	782	497
55°	503	546	609	651	670	449
65°	346	399	466	505	519	343
75°	184	240	285	284	280	195
85°	42	62	46	32	27	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1004.8	1004.8	1004.8	1004.8	1004.8
2.5°	1011.2	1001.6	1006.4	1004.8	1000.0
5°	1008.0	998.4	1004.8	1004.8	1004.8
7.5°	1000.0	992.0	1001.6	1003.2	1003.2
10°	992.0	985.6	998.4	1000.0	1001.6
12.5°	979.1	974.3	990.4	993.6	996.8
15°	964.7	961.5	980.7	987.2	990.4
17.5°	947.1	948.7	969.5	977.5	980.7
20°	927.9	932.7	956.7	964.7	971.1
22.5°	907.0	913.4	939.1	948.7	955.1
25°	884.6	892.6	921.4	932.7	940.7
27.5°	857.3	870.2	902.2	916.6	924.7
30°	830.1	844.5	879.8	897.4	905.4
32.5°	802.9	818.9	859.0	876.6	889.4
35°	772.4	791.6	833.3	855.7	868.6
37.5°	742.0	764.4	809.3	834.9	849.3
40°	709.9	734.0	783.6	812.5	826.9
42.5°	677.9	705.1	756.4	788.4	804.5
45°	645.8	674.7	730.7	764.4	782.0
47.5°	609.0	644.2	700.3	738.8	756.4
50°	573.7	612.2	671.5	711.5	729.1
52.5°	538.4	578.5	641.0	682.7	700.3
55°	503.2	546.5	609.0	650.6	669.9
57.5°	466.3	511.2	575.3	618.6	636.2
60°	429.5	475.9	541.7	581.7	599.3
62.5°	386.2	440.7	504.8	544.9	560.9
65°	346.1	399.0	466.3	504.8	519.2
67.5°	306.1	360.6	426.3	461.5	474.3
70°	266.0	320.5	378.2	411.8	419.9
72.5°	226.0	280.4	334.9	354.2	351.0
75°	184.3	240.4	285.2	283.6	280.4
77.5°	144.2	198.7	226.0	214.7	209.9
80°	105.8	158.6	163.5	152.2	145.8
82.5°	72.1	113.8	102.6	89.7	83.3
85°	41.7	62.5	46.5	32.1	27.2
87.5°	17.6	16.0	4.8	4.8	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)