

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: P387506

Luminaire Tested: **14CZ2-39HE-SQR-UNV-L930-CD1-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: P387506  
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-L930-CD1-U  
Description: 1x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3141.8 lumens  
Efficiency: N/A  
Efficacy: 107.2 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

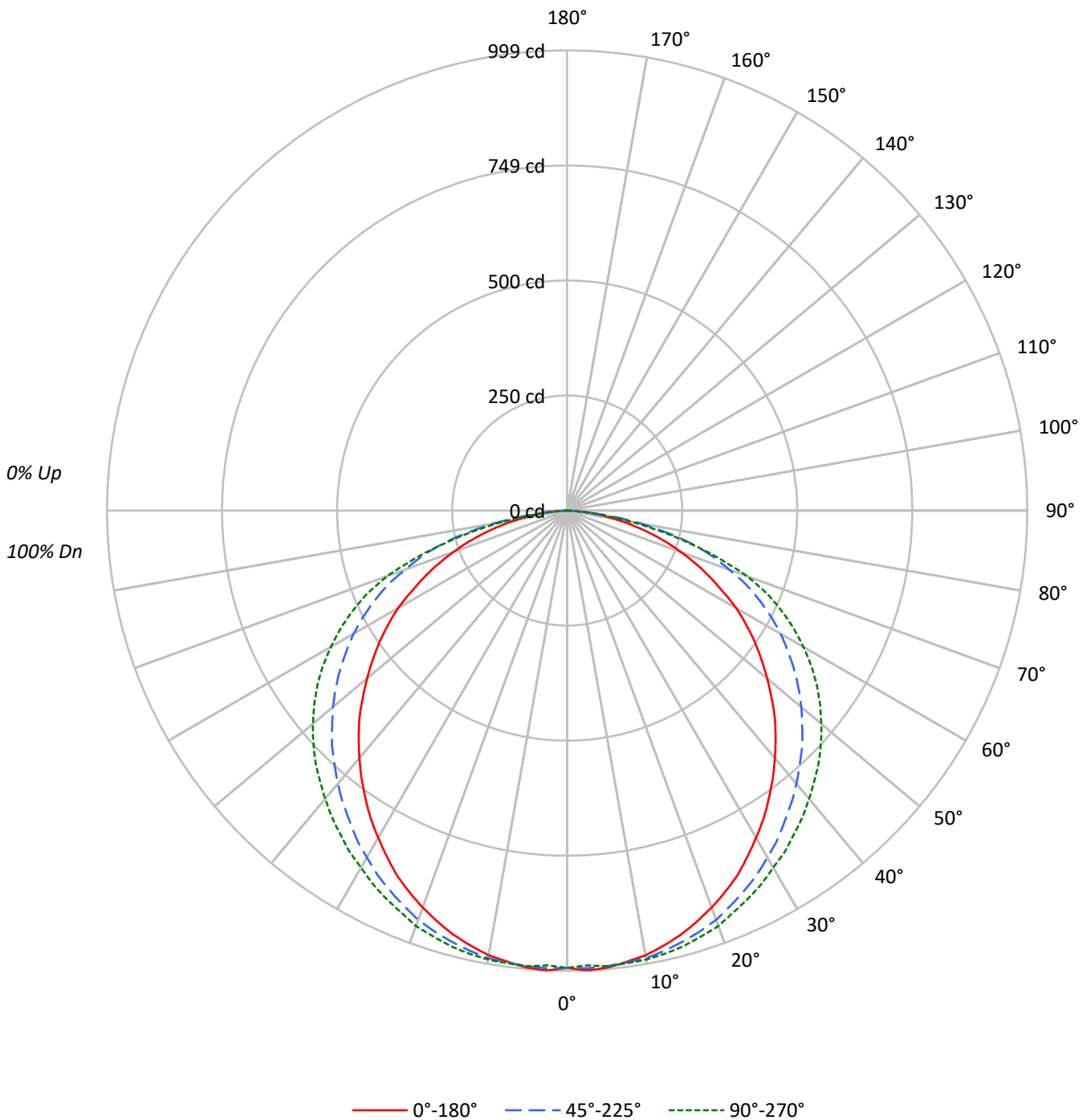
Input Watts (W): 29.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2672	2672	2672
5°	2690	2682	2682
10°	2678	2696	2704
15°	2656	2700	2726
20°	2625	2707	2748
25°	2595	2703	2760
30°	2549	2701	2780
35°	2507	2705	2819
40°	2464	2720	2870
45°	2428	2748	2941
50°	2373	2778	3016
55°	2333	2823	3105
60°	2284	2880	3187
65°	2178	2934	3266
70°	2068	2940	3264
75°	1893	2931	2881
80°	1619	2503	2233
85°	1272	1417	831



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.4	3.0
10°-20°	272.6	8.7
20°-30°	416.8	13.3
30°-40°	510.9	16.3
40°-50°	549.5	17.5
50°-60°	528.0	16.8
60°-70°	439.7	14.0
70°-80°	269.9	8.6
80°-90°	60.1	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°	783.7	24.9
0°-40°	1294.7	41.2
0°-60°	2372.2	75.5
0°-90°	3141.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3141.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	993	993	993	993	993	
5°	996	986	993	993	993	94
15°	953	950	969	975	979	269
25°	874	882	910	922	930	402
35°	763	782	823	846	858	478
45°	638	667	722	755	773	491
55°	497	540	602	643	662	444
65°	342	394	461	499	513	339
75°	182	238	282	280	277	193
85°	41	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°	992.8	992.8	992.8	992.8	992.8
2.5°	999.2	989.7	994.4	992.8	988.1
5°	996.0	986.5	992.8	992.8	992.8
7.5°	988.1	980.2	989.7	991.3	991.3
10°	980.2	973.8	986.5	988.1	989.7
12.5°	967.5	962.8	978.6	981.8	984.9
15°	953.2	950.1	969.1	975.4	978.6
17.5°	935.8	937.4	958.0	965.9	969.1
20°	916.8	921.6	945.3	953.2	959.6
22.5°	896.2	902.6	927.9	937.4	943.7
25°	874.1	882.0	910.5	921.6	929.5
27.5°	847.2	859.8	891.5	905.7	913.7
30°	820.2	834.5	869.3	886.7	894.7
32.5°	793.3	809.2	848.7	866.2	878.8
35°	763.2	782.2	823.4	845.6	858.2
37.5°	733.1	755.3	799.7	825.0	839.2
40°	701.5	725.2	774.3	802.8	817.1
42.5°	669.8	696.7	747.4	779.1	794.9
45°	638.1	666.6	722.1	755.3	772.7
47.5°	601.7	636.6	692.0	730.0	747.4
50°	566.9	604.9	663.5	703.1	720.5
52.5°	532.0	571.6	633.4	674.6	692.0
55°	497.2	540.0	601.7	642.9	661.9
57.5°	460.8	505.1	568.5	611.2	628.6
60°	424.4	470.3	535.2	574.8	592.2
62.5°	381.6	435.5	498.8	538.4	554.2
65°	342.0	394.3	460.8	498.8	513.0
67.5°	302.4	356.3	421.2	456.0	468.7
70°	262.9	316.7	373.7	407.0	414.9
72.5°	223.3	277.1	330.9	349.9	346.8
75°	182.1	237.5	281.9	280.3	277.1
77.5°	142.5	196.4	223.3	212.2	207.4
80°	104.5	156.8	161.5	150.4	144.1
82.5°	71.3	112.4	101.3	88.7	82.3
85°	41.2	61.8	45.9	31.7	26.9
87.5°	17.4	15.8	4.8	4.8	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)