

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: P390313

Luminaire Tested: **22CZ2-39VHE-HRP-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: P390313  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-39VHE-HRP-UNV-L935-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2890.3 lumens  
Efficiency: N/A  
Efficacy: 101.1 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

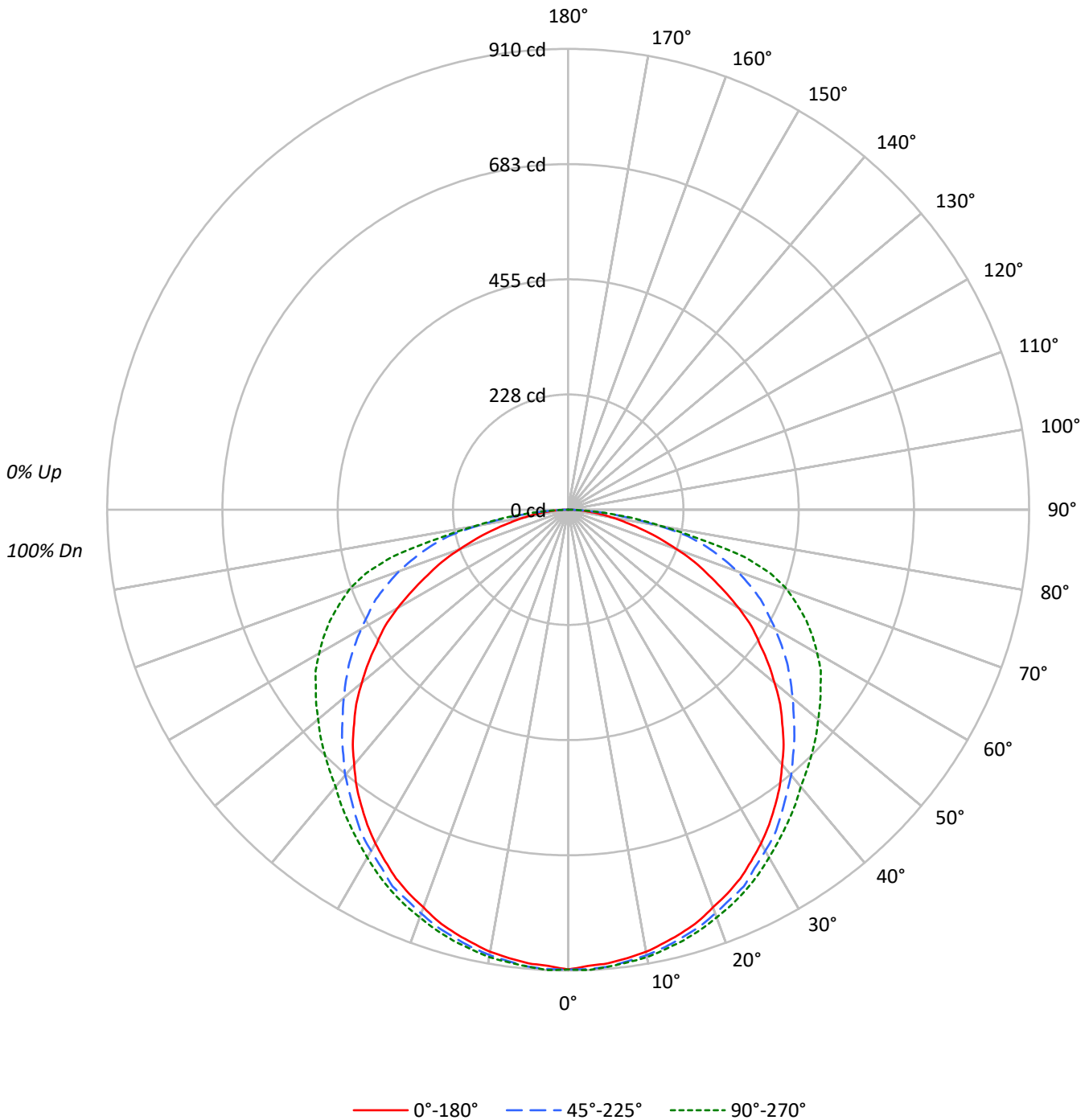
Input Watts (W): 28.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	2443	2443	2443
5°	2430	2447	2447
10°	2423	2440	2452
15°	2411	2435	2452
20°	2393	2430	2454
25°	2386	2437	2462
30°	2365	2418	2464
35°	2340	2410	2480
40°	2308	2405	2510
45°	2274	2403	2589
50°	2226	2421	2697
55°	2165	2474	2853
60°	2094	2540	3055
65°	1950	2667	3303
70°	1790	2794	3614
75°	1570	2940	3736
80°	1351	2800	2932
85°	1183	2035	2232



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.9	3.0
10°-20°	246.6	8.5
20°-30°	376.2	13.0
30°-40°	459.4	15.9
40°-50°	491.2	17.0
50°-60°	474.1	16.4
60°-70°	408.1	14.1
70°-80°	276.1	9.6
80°-90°	72.9	2.5
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°	708.7	24.5
0°-40°	1168.0	40.4
0°-60°	2133.3	73.8
0°-90°	2890.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2890.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	908	908	908	908	908	
5°	899	902	906	906	906	85
15°	865	868	874	878	880	244
25°	804	808	821	825	829	370
35°	712	719	734	748	755	446
45°	598	608	632	663	680	461
55°	461	476	527	580	608	413
65°	306	336	419	485	519	305
75°	151	200	283	340	359	162
85°	38	53	66	68	72	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	907.9	907.9	907.9	907.9	907.9
2.5°	901.5	903.6	907.9	907.9	910.0
5°	899.4	901.5	905.8	905.8	905.8
7.5°	893.0	895.1	899.4	901.5	901.5
10°	886.6	888.8	893.0	895.1	897.3
12.5°	876.0	878.1	884.5	888.8	888.8
15°	865.4	867.5	873.9	878.1	880.3
17.5°	852.6	856.9	863.2	867.5	869.6
20°	835.6	839.9	848.4	854.7	856.9
22.5°	820.7	825.0	833.5	839.9	844.1
25°	803.7	808.0	820.7	825.0	829.2
27.5°	782.4	786.7	797.3	805.8	812.2
30°	761.2	765.4	778.2	788.8	793.1
32.5°	737.8	744.2	759.1	767.6	773.9
35°	712.3	718.7	733.5	748.4	754.8
37.5°	686.8	693.1	708.0	727.2	735.7
40°	657.0	665.5	684.6	710.2	714.4
42.5°	629.4	640.0	657.0	686.8	697.4
45°	597.5	608.1	631.5	663.4	680.4
47.5°	567.7	578.3	603.8	642.1	663.4
50°	531.6	546.4	578.3	623.0	644.2
52.5°	497.5	510.3	552.8	601.7	627.2
55°	461.4	476.3	527.3	580.5	608.1
57.5°	429.5	442.3	499.7	559.2	591.1
60°	389.1	406.1	472.0	535.8	567.7
62.5°	346.6	372.1	444.4	510.3	544.3
65°	306.2	335.9	418.9	484.8	518.8
67.5°	270.0	301.9	387.0	457.1	489.0
70°	227.5	267.9	355.1	423.1	459.3
72.5°	189.2	233.9	318.9	387.0	418.9
75°	151.0	199.9	282.8	340.2	359.3
77.5°	116.9	163.7	242.4	259.4	261.5
80°	87.2	129.7	180.7	182.9	189.2
82.5°	59.5	91.4	116.9	127.6	129.7
85°	38.3	53.2	65.9	68.0	72.3
87.5°	17.0	19.1	23.4	21.3	21.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)