

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: P387432

Luminaire Tested: **14CZ2-29-SQR-UNV-L930-CD1-SDWPD1-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: P387432  
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: 14CZ2-29-SQR-UNV-L930-CD1-SDWPD1-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: 2225.8 lumens  
Efficiency: N/A  
Efficacy: 91.6 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

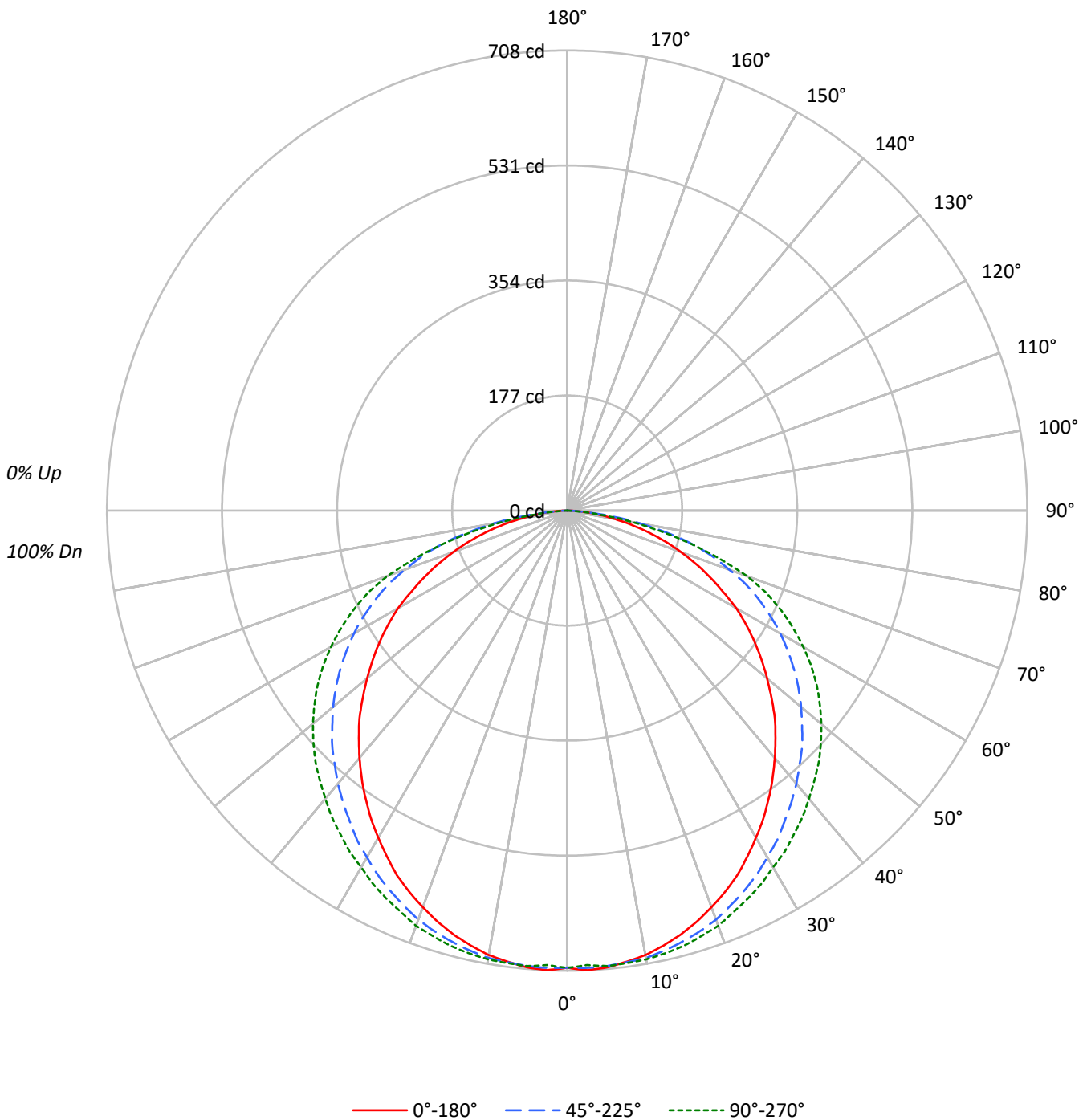
Input Watts (W): 24.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1893	1893	1893
5°	1906	1900	1900
10°	1897	1910	1916
15°	1881	1913	1931
20°	1860	1918	1947
25°	1839	1915	1955
30°	1806	1914	1969
35°	1776	1916	1997
40°	1746	1927	2034
45°	1721	1947	2083
50°	1681	1968	2137
55°	1652	2000	2200
60°	1618	2041	2258
65°	1543	2078	2315
70°	1465	2083	2312
75°	1341	2076	2041
80°	1147	1773	1582
85°	902	1003	590



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.8	3.0
10°-20°	193.1	8.7
20°-30°	295.3	13.3
30°-40°	362.0	16.3
40°-50°	389.3	17.5
50°-60°	374.1	16.8
60°-70°	311.5	14.0
70°-80°	191.2	8.6
80°-90°	42.6	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°	555.2	24.9
0°-40°	917.2	41.2
0°-60°	1680.6	75.5
0°-90°	2225.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2225.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	703	703	703	703	703	
5°	706	699	703	703	703	67
15°	675	673	686	691	693	190
25°	619	625	645	653	658	285
35°	541	554	583	599	608	338
45°	452	472	512	535	547	348
55°	352	382	426	456	469	315
65°	242	279	326	353	364	240
75°	129	168	200	199	196	137
85°	29	44	32	22	19	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	703.4	703.4	703.4	703.4	703.4
2.5°	707.9	701.1	704.5	703.4	700.0
5°	705.6	698.9	703.4	703.4	703.4
7.5°	700.0	694.4	701.1	702.3	702.3
10°	694.4	689.9	698.9	700.0	701.1
12.5°	685.4	682.1	693.3	695.5	697.8
15°	675.3	673.1	686.5	691.0	693.3
17.5°	663.0	664.1	678.7	684.3	686.5
20°	649.5	652.9	669.7	675.3	679.8
22.5°	634.9	639.4	657.4	664.1	668.6
25°	619.2	624.8	645.0	652.9	658.5
27.5°	600.2	609.1	631.6	641.7	647.3
30°	581.1	591.2	615.9	628.2	633.8
32.5°	562.0	573.2	601.3	613.6	622.6
35°	540.7	554.2	583.3	599.0	608.0
37.5°	519.4	535.1	566.5	584.5	594.6
40°	497.0	513.8	548.6	568.8	578.9
42.5°	474.5	493.6	529.5	551.9	563.1
45°	452.1	472.3	511.5	535.1	547.4
47.5°	426.3	451.0	490.2	517.2	529.5
50°	401.6	428.5	470.0	498.1	510.4
52.5°	376.9	405.0	448.7	477.9	490.2
55°	352.2	382.5	426.3	455.5	468.9
57.5°	326.4	357.9	402.7	433.0	445.4
60°	300.6	333.2	379.2	407.2	419.6
62.5°	270.4	308.5	353.4	381.4	392.6
65°	242.3	279.3	326.4	353.4	363.5
67.5°	214.3	252.4	298.4	323.1	332.1
70°	186.2	224.4	264.7	288.3	293.9
72.5°	158.2	196.3	234.5	247.9	245.7
75°	129.0	168.3	199.7	198.6	196.3
77.5°	101.0	139.1	158.2	150.3	147.0
80°	74.0	111.1	114.4	106.6	102.1
82.5°	50.5	79.6	71.8	62.8	58.3
85°	29.2	43.8	32.5	22.4	19.1
87.5°	12.3	11.2	3.4	3.4	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)