

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: P388178

Luminaire Tested: **22CZ2-75VHE-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: P388178  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-75VHE-SQR-UNV-L930-CD1-U  
Description: 2x2 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: 5988.0 lumens  
Efficiency: N/A  
Efficacy: 109.5 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

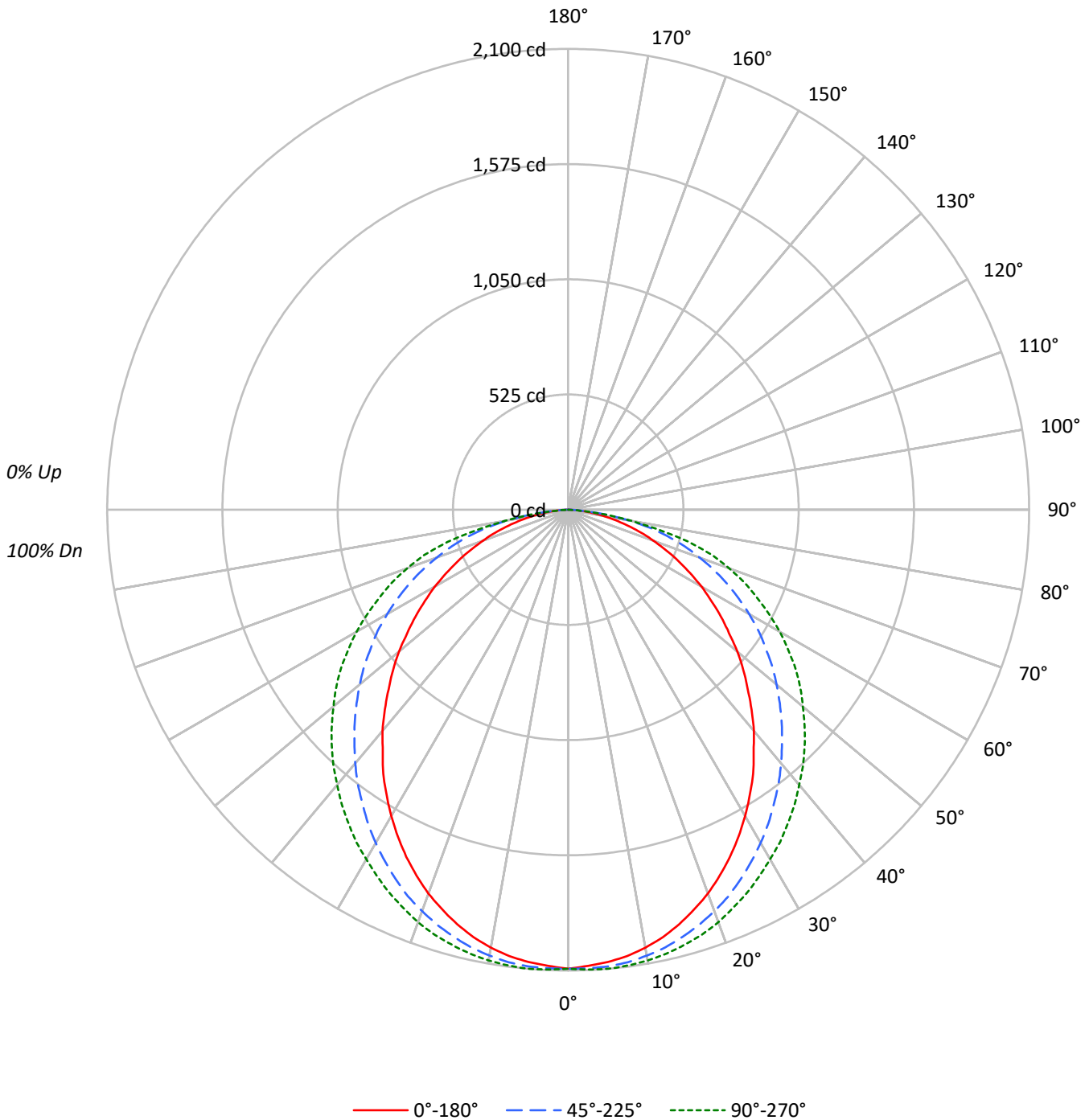
Input Watts (W): 54.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	5629	5629	5629
5°	5589	5643	5673
10°	5537	5638	5700
15°	5447	5614	5717
20°	5331	5575	5730
25°	5181	5519	5721
30°	5007	5449	5714
35°	4827	5368	5732
40°	4623	5301	5750
45°	4402	5235	5797
50°	4212	5187	5842
55°	3987	5147	5933
60°	3778	5124	5996
65°	3529	5085	6044
70°	3242	5009	6127
75°	2926	4875	5910
80°	2510	4316	4448
85°	2019	2544	2019



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	198.3	3.3
10°-20°	567.0	9.5
20°-30°	851.6	14.2
30°-40°	1015.6	17.0
40°-50°	1050.0	17.5
50°-60°	965.4	16.1
60°-70°	768.5	12.8
70°-80°	469.5	7.8
80°-90°	102.1	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°	1616.8	27.0
0°-40°	2632.4	44.0
0°-60°	4647.8	77.6
0°-90°	5988.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5988.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2092	2092	2092	2092	2092	
5°	2069	2075	2089	2097	2100	196
15°	1955	1978	2015	2043	2052	551
25°	1745	1788	1859	1910	1927	803
35°	1469	1532	1634	1719	1745	917
45°	1157	1239	1376	1486	1523	894
55°	850	944	1097	1222	1265	760
65°	554	648	799	910	949	549
75°	281	364	469	551	568	300
85°	65	80	82	71	65	75
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2091.8	2091.8	2091.8	2091.8	2091.8
2.5°	2080.4	2083.2	2091.8	2097.4	2097.4
5°	2069.0	2074.7	2088.9	2097.4	2100.3
7.5°	2052.0	2060.5	2080.4	2091.8	2094.6
10°	2026.4	2037.8	2063.3	2080.4	2086.1
12.5°	1995.1	2012.2	2043.4	2066.2	2071.9
15°	1955.3	1978.1	2015.0	2043.4	2052.0
17.5°	1909.9	1938.3	1983.8	2017.9	2029.2
20°	1861.5	1890.0	1946.8	1986.6	2000.8
22.5°	1804.7	1841.7	1907.0	1952.5	1963.9
25°	1745.0	1787.7	1858.7	1909.9	1926.9
27.5°	1679.7	1730.8	1807.5	1870.1	1884.3
30°	1611.4	1665.4	1753.5	1821.8	1838.8
32.5°	1540.4	1602.9	1696.7	1773.4	1796.2
35°	1469.3	1531.9	1634.2	1719.4	1745.0
37.5°	1386.9	1460.8	1574.5	1662.6	1693.9
40°	1315.9	1386.9	1509.1	1605.8	1637.0
42.5°	1236.3	1313.0	1440.9	1546.1	1583.0
45°	1156.7	1239.1	1375.6	1486.4	1523.3
47.5°	1082.8	1165.2	1307.3	1423.9	1460.8
50°	1006.1	1091.3	1239.1	1358.5	1395.4
52.5°	923.7	1017.5	1170.9	1290.3	1332.9
55°	849.8	943.6	1097.0	1222.1	1264.7
57.5°	773.0	869.7	1028.8	1148.2	1188.0
60°	702.0	795.8	952.1	1068.6	1114.1
62.5°	625.3	721.9	875.4	989.0	1031.7
65°	554.2	648.0	798.6	909.5	949.2
67.5°	483.1	576.9	719.0	824.2	869.7
70°	412.1	505.9	636.6	738.9	778.7
72.5°	349.6	432.0	557.0	650.8	687.8
75°	281.4	363.8	468.9	551.4	568.4
77.5°	218.8	292.7	380.8	417.8	423.5
80°	162.0	218.8	278.5	287.0	287.0
82.5°	108.0	150.6	173.4	176.2	173.4
85°	65.4	79.6	82.4	71.1	65.4
87.5°	22.7	22.7	14.2	8.5	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)