

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: P389375

Luminaire Tested: **22CZ2-70VHE-S-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: P389375  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-70VHE-S-UNV-L930-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6083.3 lumens  
Efficiency: N/A  
Efficacy: 120.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

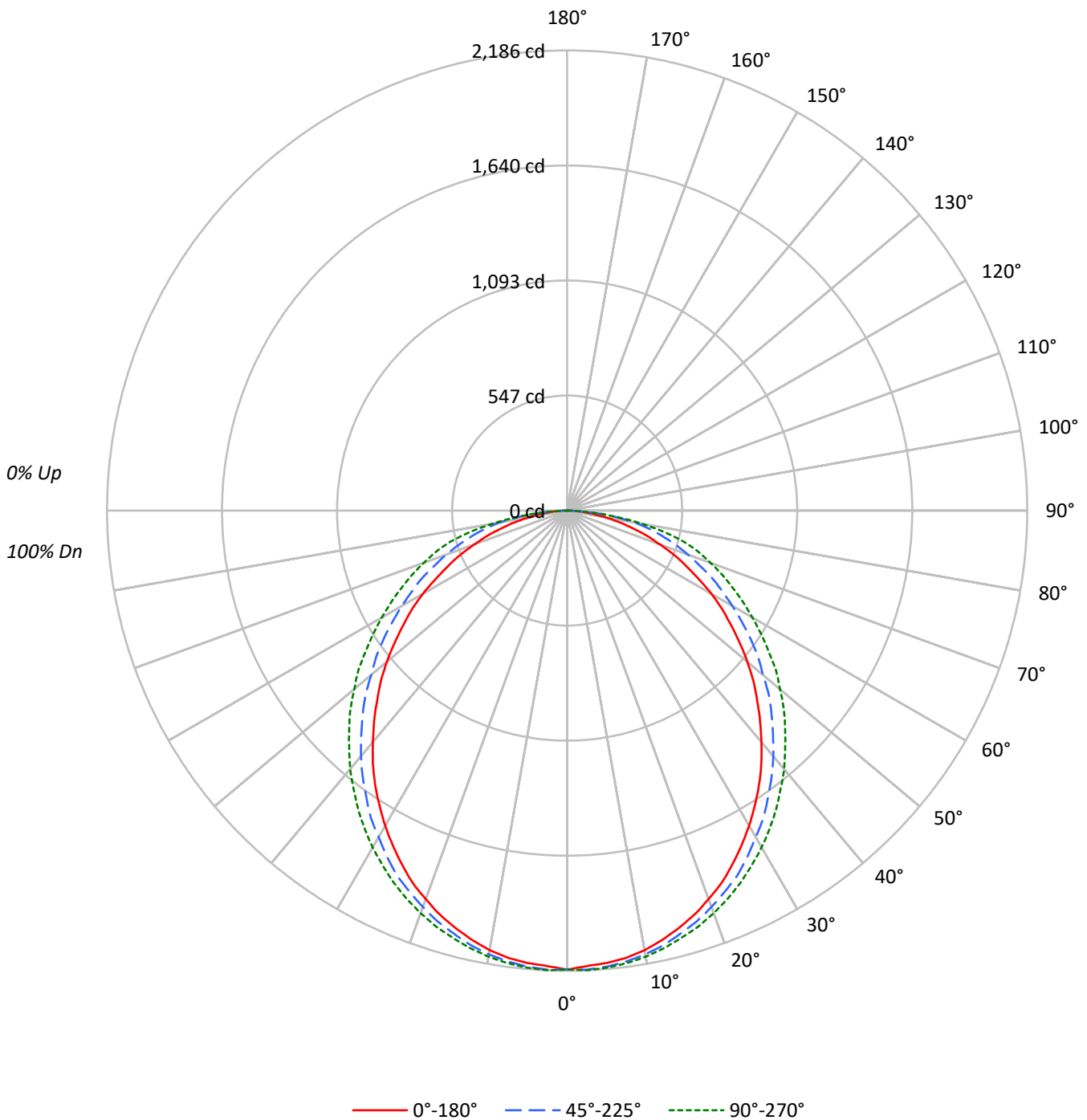
Input Watts (W): 50.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	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	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	5866	5866	5866
5°	5827	5873	5888
10°	5793	5848	5879
15°	5717	5796	5852
20°	5625	5739	5828
25°	5512	5680	5790
30°	5371	5565	5742
35°	5222	5464	5688
40°	5045	5354	5634
45°	4861	5228	5574
50°	4682	5086	5525
55°	4461	4994	5486
60°	4262	4873	5469
65°	3976	4844	5530
70°	3663	4801	5695
75°	3305	4869	5991
80°	2859	5015	5630
85°	2365	4205	4205



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	206.1	3.4
10°-20°	586.6	9.6
20°-30°	877.8	14.4
30°-40°	1039.5	17.1
40°-50°	1059.4	17.4
50°-60°	949.5	15.6
60°-70°	743.4	12.2
70°-80°	479.4	7.9
80°-90°	141.6	2.3
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°	1670.6	27.5
0°-40°	2710.1	44.5
0°-60°	4719.0	77.6
0°-90°	6083.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6083.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2180	2180	2180	2180	2180	
5°	2157	2163	2174	2177	2180	205
15°	2052	2064	2080	2098	2100	579
25°	1856	1873	1913	1939	1950	854
35°	1590	1609	1663	1714	1731	993
45°	1277	1306	1374	1445	1465	986
55°	951	982	1064	1138	1169	853
65°	624	661	761	834	868	620
75°	318	366	468	548	576	341
85°	77	105	136	136	136	90
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2179.8	2179.8	2179.8	2179.8	2179.8
2.5°	2165.6	2171.3	2182.7	2185.5	2185.5
5°	2157.1	2162.8	2174.2	2177.0	2179.8
7.5°	2142.9	2145.8	2160.0	2165.6	2168.5
10°	2120.2	2125.9	2140.1	2148.6	2151.5
12.5°	2089.0	2097.5	2114.6	2125.9	2128.7
15°	2052.1	2063.5	2080.5	2097.5	2100.4
17.5°	2012.4	2023.7	2046.4	2066.3	2072.0
20°	1964.1	1978.3	2003.9	2026.6	2035.1
22.5°	1915.9	1927.2	1958.4	1986.8	1995.3
25°	1856.3	1873.3	1913.0	1938.6	1949.9
27.5°	1793.8	1813.7	1853.4	1887.5	1898.8
30°	1728.5	1748.4	1791.0	1833.6	1847.8
32.5°	1660.4	1683.1	1734.2	1776.8	1791.0
35°	1589.5	1609.3	1663.3	1714.4	1731.4
37.5°	1515.7	1532.7	1595.1	1649.1	1666.1
40°	1436.2	1458.9	1524.2	1586.6	1603.7
42.5°	1356.7	1382.3	1447.5	1515.7	1532.7
45°	1277.2	1305.6	1373.8	1444.7	1464.6
47.5°	1200.6	1223.3	1300.0	1368.1	1396.5
50°	1118.3	1141.0	1214.8	1291.4	1319.8
52.5°	1033.2	1064.4	1143.8	1217.6	1251.7
55°	950.8	982.1	1064.4	1138.2	1169.4
57.5°	874.2	899.8	984.9	1061.5	1092.8
60°	791.9	814.6	905.4	987.7	1016.1
62.5°	703.9	738.0	831.6	908.3	942.3
65°	624.4	661.3	760.7	834.5	868.5
67.5°	550.6	584.7	681.2	760.7	797.6
70°	465.5	510.9	610.2	689.7	723.8
72.5°	397.4	437.1	539.3	618.8	655.7
75°	317.9	366.1	468.3	547.8	576.2
77.5°	252.6	300.9	397.4	459.8	474.0
80°	184.5	232.7	323.6	354.8	363.3
82.5°	124.9	170.3	232.7	241.3	244.1
85°	76.6	105.0	136.2	136.2	136.2
87.5°	36.9	42.6	48.3	45.4	45.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)