

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: P390102

Luminaire Tested: **22CZ2-110VHE-RDP-UNV-L950-CD2-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: P390102  
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: 22CZ2-110VHE-RDP-UNV-L950-CD2-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6583.5 lumens  
Efficiency: N/A  
Efficacy: 75.1 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

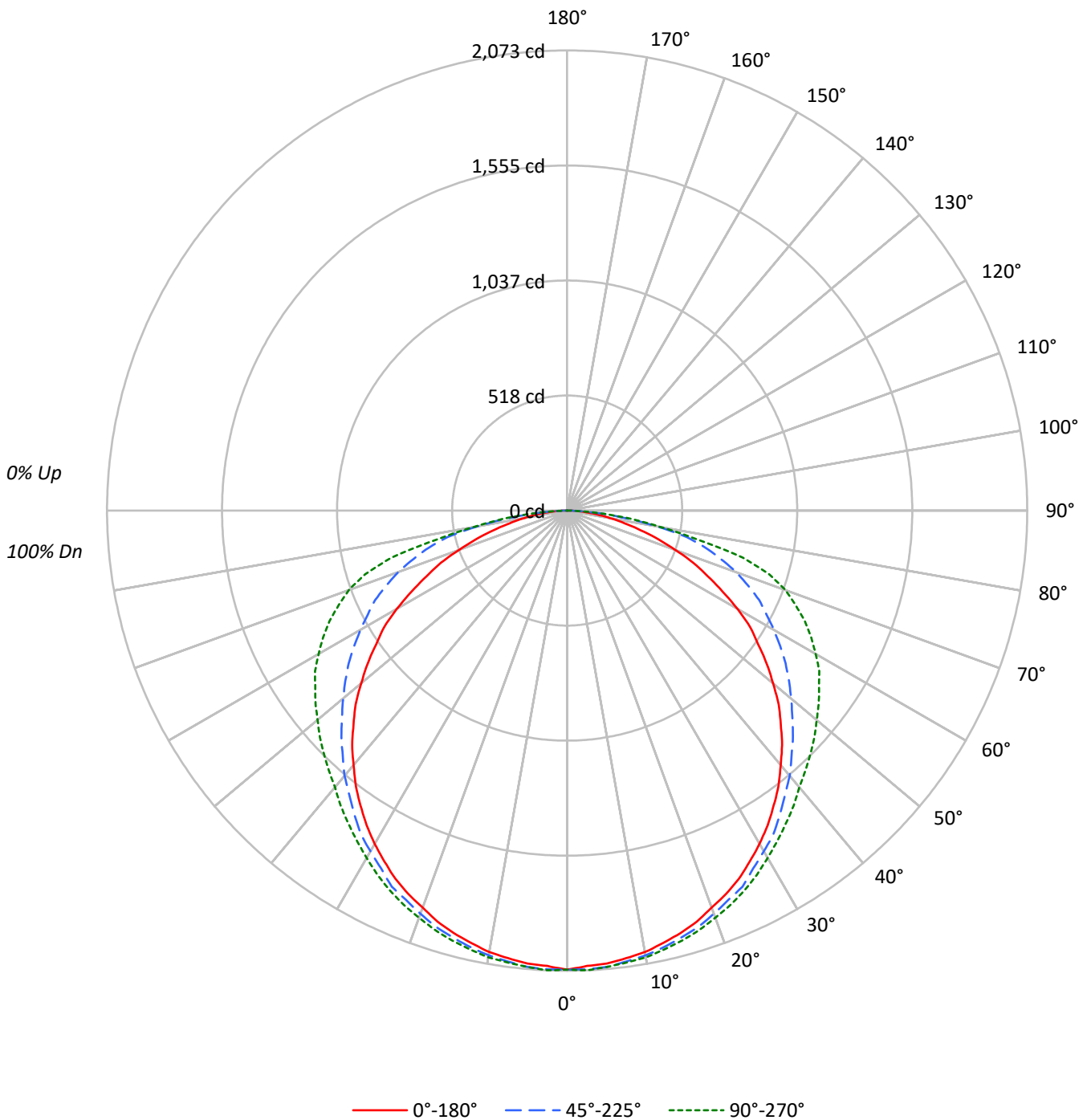
Input Watts (W): 87.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	5565	5565	5565
5°	5534	5573	5573
10°	5519	5558	5585
15°	5491	5545	5586
20°	5450	5534	5589
25°	5436	5551	5608
30°	5387	5508	5613
35°	5330	5489	5648
40°	5257	5478	5716
45°	5179	5474	5898
50°	5069	5515	6144
55°	4930	5635	6498
60°	4770	5787	6959
65°	4441	6075	7524
70°	4077	6364	8231
75°	3576	6697	8510
80°	3078	6380	6679
85°	2692	4634	5085



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	195.6	3.0
10°-20°	561.7	8.5
20°-30°	856.9	13.0
30°-40°	1046.3	15.9
40°-50°	1118.7	17.0
50°-60°	1079.8	16.4
60°-70°	929.5	14.1
70°-80°	628.9	9.6
80°-90°	166.0	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°	1614.2	24.5
0°-40°	2660.5	40.4
0°-60°	4859.1	73.8
0°-90°	6583.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6583.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2068	2068	2068	2068	2068	
5°	2049	2054	2063	2063	2063	195
15°	1971	1976	1990	2000	2005	556
25°	1831	1840	1869	1879	1889	843
35°	1622	1637	1671	1705	1719	1015
45°	1361	1385	1438	1511	1550	1050
55°	1051	1085	1201	1322	1385	942
65°	697	765	954	1104	1182	694
75°	344	455	644	775	818	369
85°	87	121	150	155	165	98
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2068.0	2068.0	2068.0	2068.0	2068.0
2.5°	2053.5	2058.3	2068.0	2068.0	2072.8
5°	2048.6	2053.5	2063.1	2063.1	2063.1
7.5°	2034.1	2038.9	2048.6	2053.5	2053.5
10°	2019.6	2024.4	2034.1	2038.9	2043.8
12.5°	1995.3	2000.2	2014.7	2024.4	2024.4
15°	1971.1	1976.0	1990.5	2000.2	2005.0
17.5°	1942.1	1951.8	1966.3	1976.0	1980.8
20°	1903.3	1913.0	1932.4	1946.9	1951.8
22.5°	1869.4	1879.1	1898.5	1913.0	1922.7
25°	1830.7	1840.4	1869.4	1879.1	1888.8
27.5°	1782.3	1791.9	1816.2	1835.5	1850.1
30°	1733.8	1743.5	1772.6	1796.8	1806.5
32.5°	1680.5	1695.1	1729.0	1748.3	1762.9
35°	1622.4	1637.0	1670.9	1704.8	1719.3
37.5°	1564.3	1578.8	1612.7	1656.3	1675.7
40°	1496.5	1515.9	1559.5	1617.6	1627.3
42.5°	1433.5	1457.8	1496.5	1564.3	1588.5
45°	1360.9	1385.1	1438.4	1511.0	1549.8
47.5°	1293.1	1317.3	1375.4	1462.6	1511.0
50°	1210.8	1244.7	1317.3	1419.0	1467.5
52.5°	1133.3	1162.3	1259.2	1370.6	1428.7
55°	1050.9	1084.8	1201.1	1322.2	1385.1
57.5°	978.3	1007.4	1138.1	1273.7	1346.4
60°	886.3	925.0	1075.2	1220.5	1293.1
62.5°	789.4	847.5	1012.2	1162.3	1239.8
65°	697.4	765.2	954.1	1104.2	1181.7
67.5°	615.1	687.7	881.4	1041.3	1113.9
70°	518.2	610.2	808.8	963.8	1046.1
72.5°	431.0	532.7	726.5	881.4	954.1
75°	343.9	455.2	644.1	774.9	818.5
77.5°	266.4	372.9	552.1	590.9	595.7
80°	198.6	295.4	411.7	416.5	431.0
82.5°	135.6	208.3	266.4	290.6	295.4
85°	87.2	121.1	150.1	155.0	164.7
87.5°	38.7	43.6	53.3	48.4	48.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)