

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: P387609

Luminaire Tested: **22CZ2-100VHE-SQR-UNV-L950-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: P387609  
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: 22CZ2-100VHE-SQR-UNV-L950-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8587.8 lumens  
Efficiency: N/A  
Efficacy: 110.5 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

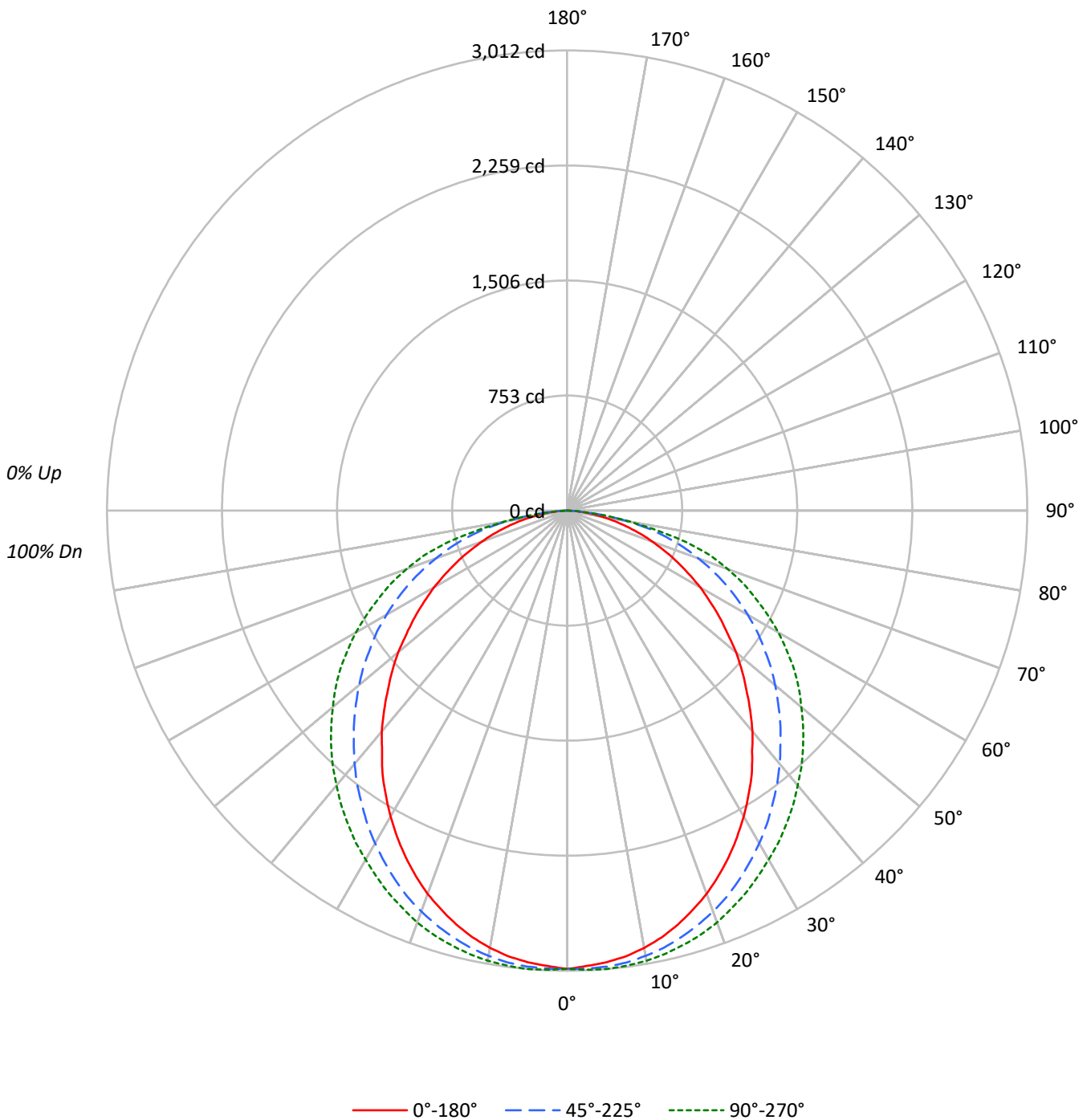
Input Watts (W): 77.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	8073	8073	8073
5°	8015	8092	8137
10°	7941	8086	8175
15°	7813	8051	8199
20°	7645	7996	8217
25°	7431	7915	8205
30°	7181	7814	8195
35°	6923	7699	8222
40°	6629	7603	8247
45°	6313	7508	8314
50°	6041	7440	8378
55°	5718	7381	8510
60°	5419	7349	8599
65°	5061	7293	8669
70°	4650	7183	8787
75°	4195	6992	8476
80°	3600	6189	6380
85°	2893	3649	2893



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	284.4	3.3
10°-20°	813.1	9.5
20°-30°	1221.3	14.2
30°-40°	1456.5	17.0
40°-50°	1505.9	17.5
50°-60°	1384.5	16.1
60°-70°	1102.2	12.8
70°-80°	673.4	7.8
80°-90°	146.4	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°	2318.8	27.0
0°-40°	3775.3	44.0
0°-60°	6665.8	77.6
0°-90°	8587.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8587.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3000	3000	3000	3000	3000	
5°	2967	2976	2996	3008	3012	281
15°	2804	2837	2890	2931	2943	790
25°	2503	2564	2666	2739	2764	1151
35°	2107	2197	2344	2466	2503	1315
45°	1659	1777	1973	2132	2185	1283
55°	1219	1353	1573	1753	1814	1090
65°	795	929	1145	1304	1361	787
75°	404	522	672	791	815	430
85°	94	114	118	102	94	108
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2999.9	2999.9	2999.9	2999.9	2999.9
2.5°	2983.6	2987.7	2999.9	3008.1	3008.1
5°	2967.3	2975.5	2995.8	3008.1	3012.2
7.5°	2942.9	2955.1	2983.6	2999.9	3004.0
10°	2906.2	2922.5	2959.2	2983.6	2991.8
12.5°	2861.3	2885.8	2930.6	2963.2	2971.4
15°	2804.3	2836.9	2889.9	2930.6	2942.9
17.5°	2739.1	2779.8	2845.0	2893.9	2910.3
20°	2669.8	2710.5	2792.1	2849.1	2869.5
22.5°	2588.3	2641.2	2735.0	2800.2	2816.5
25°	2502.7	2563.8	2665.7	2739.1	2763.5
27.5°	2408.9	2482.3	2592.3	2682.0	2702.4
30°	2311.1	2388.5	2514.9	2612.7	2637.2
32.5°	2209.2	2298.9	2433.4	2543.4	2576.0
35°	2107.3	2197.0	2343.7	2466.0	2502.7
37.5°	1989.1	2095.1	2258.1	2384.5	2429.3
40°	1887.2	1989.1	2164.3	2302.9	2347.8
42.5°	1773.1	1883.1	2066.5	2217.3	2270.3
45°	1658.9	1777.1	1972.8	2131.7	2184.7
47.5°	1553.0	1671.2	1875.0	2042.1	2095.1
50°	1442.9	1565.2	1777.1	1948.3	2001.3
52.5°	1324.7	1459.2	1679.3	1850.5	1911.6
55°	1218.7	1353.2	1573.3	1752.7	1813.8
57.5°	1108.7	1247.3	1475.5	1646.7	1703.8
60°	1006.8	1141.3	1365.5	1532.6	1597.8
62.5°	896.7	1035.3	1255.4	1418.4	1479.6
65°	794.8	929.3	1145.4	1304.3	1361.4
67.5°	692.9	827.4	1031.2	1182.0	1247.3
70°	591.0	725.5	913.0	1059.8	1116.8
72.5°	501.3	619.5	798.9	933.4	986.4
75°	403.5	521.7	672.5	790.7	815.2
77.5°	313.9	419.8	546.2	599.2	607.3
80°	232.3	313.9	399.4	411.7	411.7
82.5°	154.9	216.0	248.6	252.7	248.6
85°	93.7	114.1	118.2	101.9	93.7
87.5°	32.6	32.6	20.4	12.2	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)