

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: P387600

Luminaire Tested: **22CZ2-100VHE-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: P387600  
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-L930-CD1-SDWPD1-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: 7814.6 lumens  
Efficiency: N/A  
Efficacy: 100.6 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

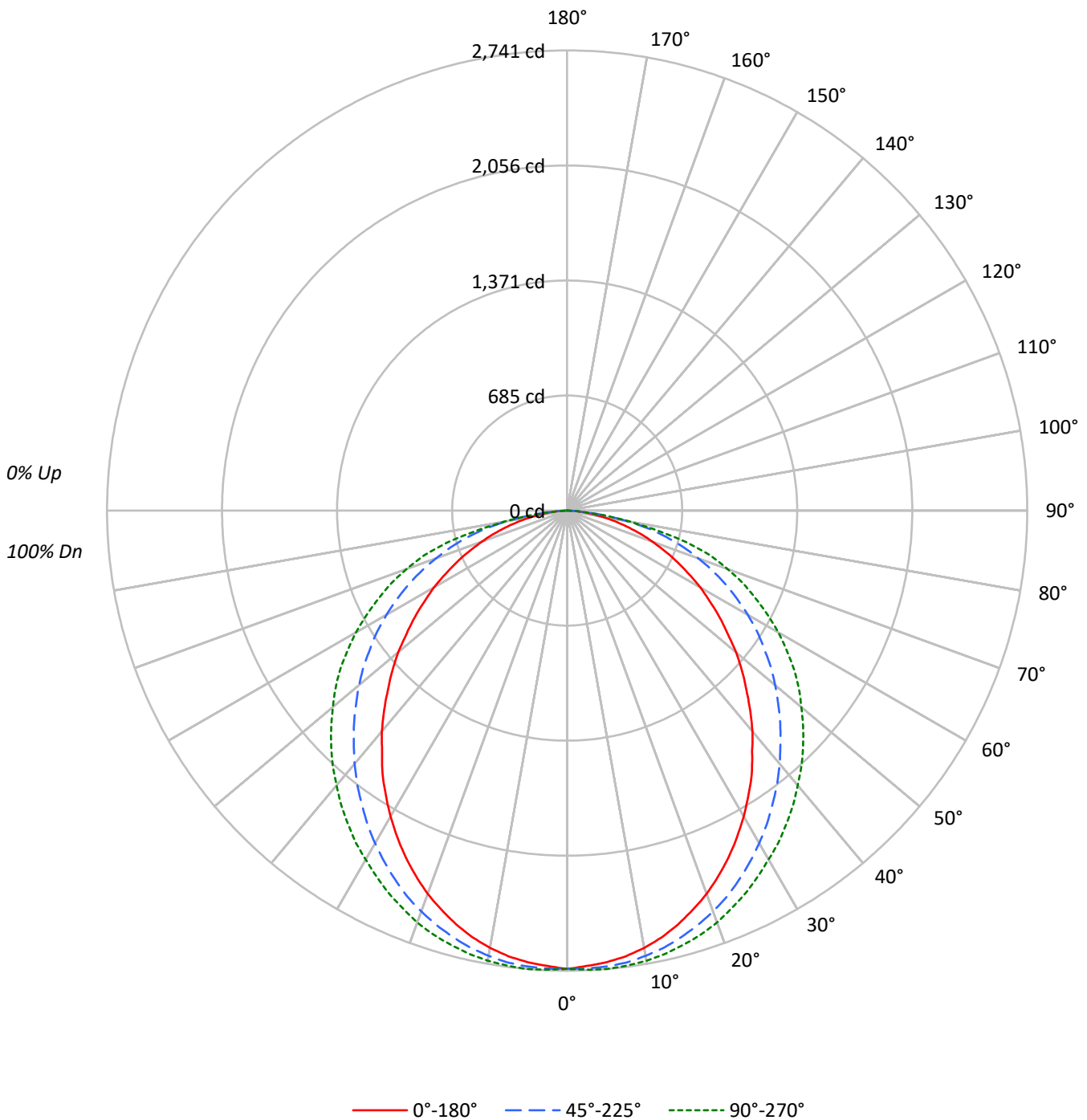
Input Watts (W): 77.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	7346	7346	7346
5°	7294	7364	7404
10°	7226	7358	7439
15°	7109	7326	7460
20°	6957	7276	7477
25°	6762	7202	7467
30°	6535	7111	7457
35°	6299	7006	7481
40°	6033	6919	7505
45°	5745	6832	7566
50°	5497	6770	7624
55°	5203	6717	7743
60°	4930	6687	7825
65°	4606	6636	7888
70°	4231	6537	7996
75°	3818	6363	7713
80°	3276	5633	5805
85°	2634	3322	2634



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	258.8	3.3
10°-20°	739.9	9.5
20°-30°	1111.3	14.2
30°-40°	1325.4	17.0
40°-50°	1370.4	17.5
50°-60°	1259.9	16.1
60°-70°	1003.0	12.8
70°-80°	612.8	7.8
80°-90°	133.2	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°	2110.0	27.0
0°-40°	3435.4	44.0
0°-60°	6065.7	77.6
0°-90°	7814.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7814.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2730	2730	2730	2730	2730	
5°	2700	2708	2726	2737	2741	256
15°	2552	2582	2630	2667	2678	719
25°	2277	2333	2426	2492	2515	1048
35°	1918	1999	2133	2244	2277	1196
45°	1510	1617	1795	1940	1988	1167
55°	1109	1231	1432	1595	1650	992
65°	723	846	1042	1187	1239	716
75°	367	475	612	720	742	391
85°	85	104	108	93	85	98
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2729.8	2729.8	2729.8	2729.8	2729.8
2.5°	2715.0	2718.7	2729.8	2737.2	2737.2
5°	2700.2	2707.6	2726.1	2737.2	2741.0
7.5°	2677.9	2689.0	2715.0	2729.8	2733.5
10°	2644.5	2659.4	2692.7	2715.0	2722.4
12.5°	2603.7	2626.0	2666.8	2696.4	2703.9
15°	2551.8	2581.5	2629.7	2666.8	2677.9
17.5°	2492.5	2529.5	2588.9	2633.4	2648.2
20°	2429.4	2466.5	2540.7	2592.6	2611.1
22.5°	2355.2	2403.4	2488.7	2548.1	2562.9
25°	2277.3	2333.0	2425.7	2492.5	2514.7
27.5°	2192.0	2258.8	2358.9	2440.5	2459.1
30°	2103.0	2173.5	2288.5	2377.5	2399.7
32.5°	2010.3	2091.9	2214.3	2314.4	2344.1
35°	1917.6	1999.2	2132.7	2243.9	2277.3
37.5°	1810.0	1906.4	2054.8	2169.8	2210.6
40°	1717.3	1810.0	1969.5	2095.6	2136.4
42.5°	1613.4	1713.6	1880.5	2017.7	2065.9
45°	1509.6	1617.1	1795.2	1939.8	1988.0
47.5°	1413.1	1520.7	1706.1	1858.2	1906.4
50°	1313.0	1424.3	1617.1	1772.9	1821.1
52.5°	1205.4	1327.8	1528.1	1683.9	1739.5
55°	1109.0	1231.4	1431.7	1594.9	1650.5
57.5°	1008.8	1135.0	1342.7	1498.4	1550.4
60°	916.1	1038.5	1242.5	1394.6	1453.9
62.5°	816.0	942.1	1142.4	1290.7	1346.4
65°	723.3	845.7	1042.2	1186.9	1238.8
67.5°	630.5	752.9	938.4	1075.6	1135.0
70°	537.8	660.2	830.8	964.3	1016.3
72.5°	456.2	563.8	727.0	849.4	897.6
75°	367.2	474.8	612.0	719.5	741.8
77.5°	285.6	382.0	497.0	545.2	552.6
80°	211.4	285.6	363.5	374.6	374.6
82.5°	140.9	196.6	226.2	230.0	226.2
85°	85.3	103.9	107.6	92.7	85.3
87.5°	29.7	29.7	18.5	11.1	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)