

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: P387394

Luminaire Tested: **14CZ2-20-SQR-UNV-L950-CD1-SWPD1-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: P387394  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1911-580-2)  
Test Lab: INNOVATIONS CENTER(G2)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-20-SQR-UNV-L950-CD1-SWPD1-U  
Description: 1x4 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: 1726.8 lumens  
Efficiency: N/A  
Efficacy: 105.9 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

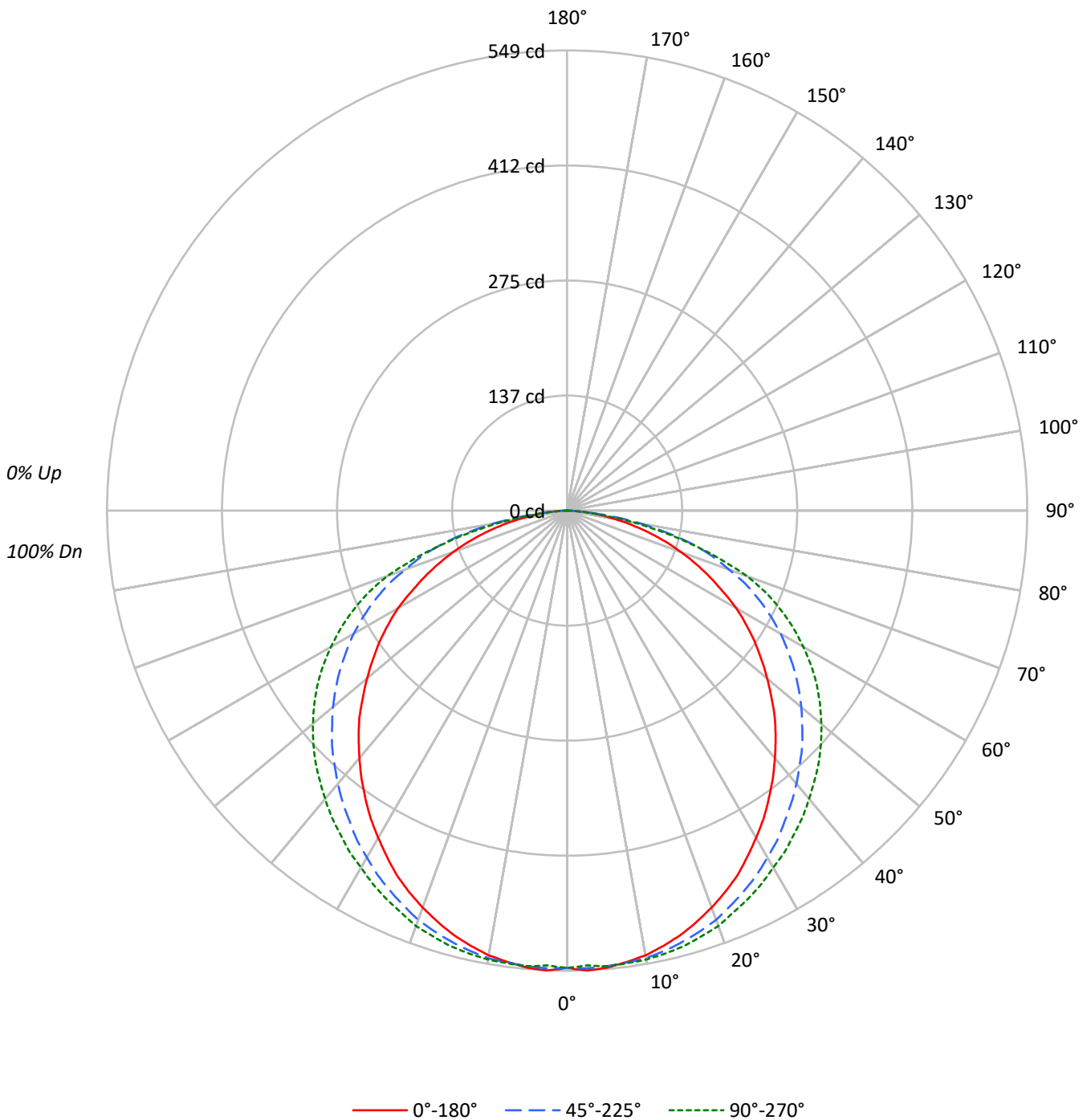
Input Watts (W): 16.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	51	60	54	50	48
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	68	55	45	39	67	54	45	39	52	44	38	50	43	38	49	42	38	35
7	63	49	40	34	62	49	40	34	47	39	34	46	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

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

	0°	45°	90°
0°	1468	1468	1468
5°	1479	1474	1474
10°	1472	1482	1486
15°	1460	1484	1499
20°	1443	1488	1510
25°	1426	1486	1517
30°	1401	1485	1528
35°	1378	1487	1550
40°	1354	1495	1578
45°	1335	1510	1616
50°	1304	1527	1658
55°	1282	1552	1707
60°	1255	1583	1752
65°	1197	1613	1796
70°	1137	1616	1794
75°	1041	1611	1583
80°	890	1376	1227
85°	698	778	457



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.9	3.0
10°-20°	149.8	8.7
20°-30°	229.1	13.3
30°-40°	280.8	16.3
40°-50°	302.0	17.5
50°-60°	290.2	16.8
60°-70°	241.6	14.0
70°-80°	148.3	8.6
80°-90°	33.0	1.9
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°	430.8	24.9
0°-40°	711.6	41.2
0°-60°	1303.8	75.5
0°-90°	1726.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1726.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	546	546	546	546	546	
5°	547	542	546	546	546	52
15°	524	522	533	536	538	148
25°	480	485	500	506	511	221
35°	420	430	453	465	472	263
45°	351	366	397	415	425	270
55°	273	297	331	353	364	244
65°	188	217	253	274	282	186
75°	100	130	155	154	152	106
85°	23	34	25	17	15	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	545.7	545.7	545.7	545.7	545.7
2.5°	549.2	543.9	546.6	545.7	543.1
5°	547.4	542.2	545.7	545.7	545.7
7.5°	543.1	538.7	543.9	544.8	544.8
10°	538.7	535.2	542.2	543.1	543.9
12.5°	531.8	529.1	537.9	539.6	541.3
15°	523.9	522.2	532.6	536.1	537.9
17.5°	514.4	515.2	526.5	530.9	532.6
20°	503.9	506.5	519.6	523.9	527.4
22.5°	492.6	496.1	510.0	515.2	518.7
25°	480.4	484.8	500.4	506.5	510.9
27.5°	465.6	472.6	490.0	497.8	502.2
30°	450.8	458.7	477.8	487.4	491.7
32.5°	436.0	444.7	466.5	476.1	483.0
35°	419.5	429.9	452.6	464.7	471.7
37.5°	403.0	415.1	439.5	453.4	461.3
40°	385.5	398.6	425.6	441.2	449.1
42.5°	368.1	382.9	410.8	428.2	436.9
45°	350.7	366.4	396.9	415.1	424.7
47.5°	330.7	349.9	380.3	401.2	410.8
50°	311.6	332.5	364.7	386.4	396.0
52.5°	292.4	314.2	348.1	370.8	380.3
55°	273.3	296.8	330.7	353.3	363.8
57.5°	253.3	277.6	312.4	335.9	345.5
60°	233.2	258.5	294.2	315.9	325.5
62.5°	209.7	239.3	274.1	295.9	304.6
65°	188.0	216.7	253.3	274.1	282.0
67.5°	166.2	195.8	231.5	250.6	257.6
70°	144.5	174.1	205.4	223.7	228.0
72.5°	122.7	152.3	181.9	192.3	190.6
75°	100.1	130.5	154.9	154.0	152.3
77.5°	78.3	107.9	122.7	116.6	114.0
80°	57.4	86.2	88.8	82.7	79.2
82.5°	39.2	61.8	55.7	48.7	45.3
85°	22.6	33.9	25.2	17.4	14.8
87.5°	9.6	8.7	2.6	2.6	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)