

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: P387413

Luminaire Tested: **14CZ2-25-SQR-UNV-L935-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: P387413  
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: 14CZ2-25-SQR-UNV-L935-CD1-U  
Description: 1x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2008.0 lumens  
Efficiency: N/A  
Efficacy: 97.9 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

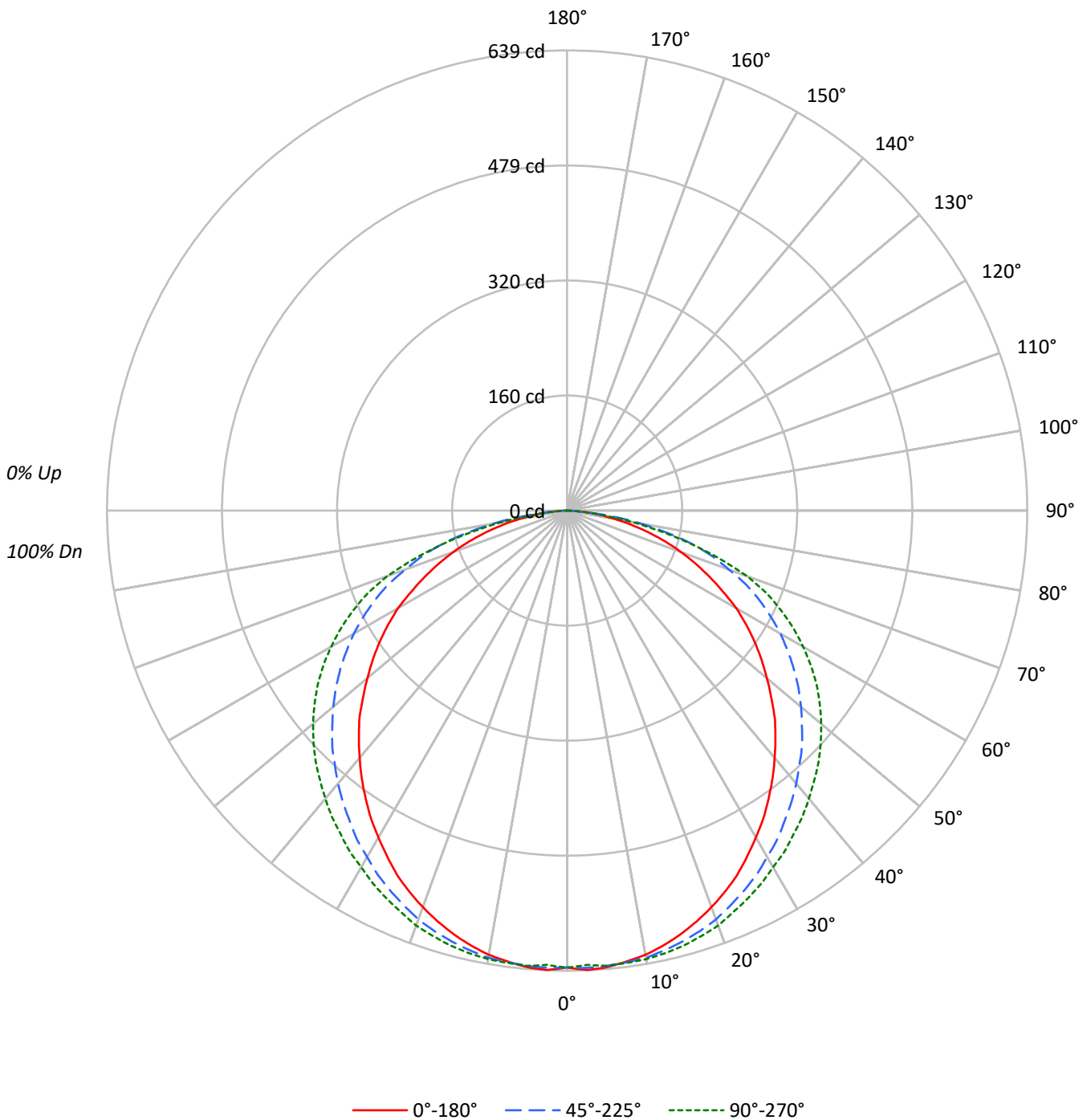
Input Watts (W): 20.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1707	1707	1707
5°	1720	1714	1714
10°	1712	1723	1728
15°	1697	1726	1742
20°	1678	1730	1756
25°	1659	1728	1764
30°	1629	1726	1777
35°	1602	1729	1802
40°	1575	1738	1834
45°	1552	1756	1880
50°	1517	1775	1928
55°	1491	1804	1985
60°	1460	1841	2037
65°	1392	1875	2088
70°	1322	1879	2087
75°	1210	1873	1841
80°	1035	1599	1427
85°	812	905	531



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.3	3.0
10°-20°	174.2	8.7
20°-30°	266.4	13.3
30°-40°	326.5	16.3
40°-50°	351.2	17.5
50°-60°	337.5	16.8
60°-70°	281.0	14.0
70°-80°	172.5	8.6
80°-90°	38.4	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°	500.9	24.9
0°-40°	827.4	41.2
0°-60°	1516.1	75.5
0°-90°	2008.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2008.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	634	634	634	634	634	
5°	637	630	634	634	634	60
15°	609	607	619	623	625	172
25°	559	564	582	589	594	257
35°	488	500	526	540	548	305
45°	408	426	462	483	494	314
55°	318	345	385	411	423	284
65°	219	252	294	319	328	217
75°	116	152	180	179	177	123
85°	26	40	29	20	17	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	634.5	634.5	634.5	634.5	634.5
2.5°	638.6	632.5	635.6	634.5	631.5
5°	636.6	630.5	634.5	634.5	634.5
7.5°	631.5	626.4	632.5	633.5	633.5
10°	626.4	622.4	630.5	631.5	632.5
12.5°	618.4	615.3	625.4	627.5	629.5
15°	609.2	607.2	619.4	623.4	625.4
17.5°	598.1	599.1	612.3	617.3	619.4
20°	586.0	589.0	604.2	609.2	613.3
22.5°	572.8	576.9	593.1	599.1	603.2
25°	558.6	563.7	581.9	589.0	594.1
27.5°	541.4	549.5	569.8	578.9	583.9
30°	524.2	533.3	555.6	566.7	571.8
32.5°	507.0	517.1	542.5	553.6	561.7
35°	487.8	499.9	526.3	540.4	548.5
37.5°	468.6	482.7	511.1	527.3	536.4
40°	448.3	463.5	494.9	513.1	522.2
42.5°	428.1	445.3	477.7	497.9	508.0
45°	407.8	426.1	461.5	482.7	493.9
47.5°	384.6	406.8	442.3	466.5	477.7
50°	362.3	386.6	424.0	449.3	460.5
52.5°	340.0	365.3	404.8	431.1	442.3
55°	317.8	345.1	384.6	410.9	423.0
57.5°	294.5	322.8	363.3	390.6	401.8
60°	271.2	300.6	342.1	367.4	378.5
62.5°	243.9	278.3	318.8	344.1	354.2
65°	218.6	252.0	294.5	318.8	327.9
67.5°	193.3	227.7	269.2	291.5	299.6
70°	168.0	202.4	238.8	260.1	265.2
72.5°	142.7	177.1	211.5	223.7	221.6
75°	116.4	151.8	180.1	179.1	177.1
77.5°	91.1	125.5	142.7	135.6	132.6
80°	66.8	100.2	103.2	96.1	92.1
82.5°	45.5	71.9	64.8	56.7	52.6
85°	26.3	39.5	29.3	20.2	17.2
87.5°	11.1	10.1	3.0	3.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)