

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: P387415

Luminaire Tested: **14CZ2-25-SQR-UNV-L940-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: P387415  
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-L940-CD1-SWPD1-U  
Description: 1x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2003.6 lumens  
Efficiency: N/A  
Efficacy: 97.7 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

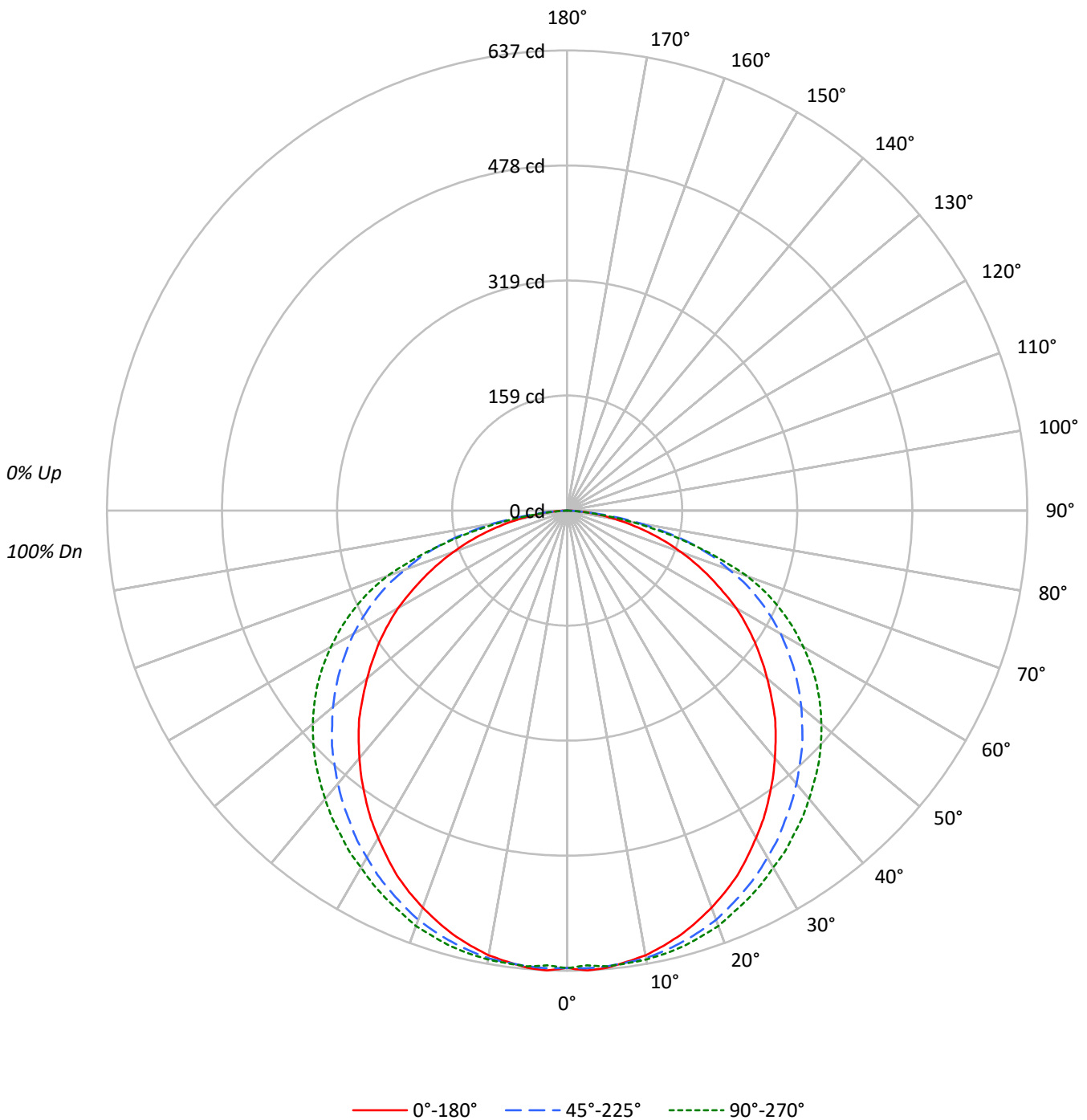
Input Watts (W): 20.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1704	1704	1704
5°	1716	1710	1710
10°	1708	1719	1724
15°	1694	1722	1739
20°	1674	1727	1752
25°	1655	1724	1760
30°	1625	1723	1773
35°	1599	1725	1798
40°	1571	1735	1831
45°	1549	1752	1875
50°	1513	1771	1924
55°	1488	1800	1980
60°	1456	1837	2033
65°	1389	1871	2083
70°	1319	1875	2082
75°	1207	1868	1837
80°	1032	1596	1424
85°	812	905	531



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.2	3.0
10°-20°	173.8	8.7
20°-30°	265.8	13.3
30°-40°	325.8	16.3
40°-50°	350.4	17.5
50°-60°	336.7	16.8
60°-70°	280.4	14.0
70°-80°	172.1	8.6
80°-90°	38.3	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°	499.8	24.9
0°-40°	825.6	41.2
0°-60°	1512.8	75.5
0°-90°	2003.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2003.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	633	633	633	633	633	
5°	635	629	633	633	633	60
15°	608	606	618	622	624	171
25°	557	562	581	588	593	256
35°	487	499	525	539	547	305
45°	407	425	460	482	493	313
55°	317	344	384	410	422	283
65°	218	251	294	318	327	216
75°	116	152	180	179	177	123
85°	26	39	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°	633.2	633.2	633.2	633.2	633.2
2.5°	637.2	631.1	634.2	633.2	630.1
5°	635.2	629.1	633.2	633.2	633.2
7.5°	630.1	625.1	631.1	632.1	632.1
10°	625.1	621.0	629.1	630.1	631.1
12.5°	617.0	614.0	624.1	626.1	628.1
15°	607.9	605.9	618.0	622.0	624.1
17.5°	596.8	597.8	610.9	616.0	618.0
20°	584.7	587.7	602.9	607.9	611.9
22.5°	571.6	575.6	591.8	597.8	601.9
25°	557.4	562.5	580.6	587.7	592.8
27.5°	540.3	548.3	568.5	577.6	582.7
30°	523.1	532.2	554.4	565.5	570.5
32.5°	505.9	516.0	541.3	552.4	560.4
35°	486.7	498.8	525.1	539.2	547.3
37.5°	467.5	481.7	510.0	526.1	535.2
40°	447.3	462.5	493.8	512.0	521.1
42.5°	427.2	444.3	476.6	496.8	506.9
45°	407.0	425.1	460.5	481.7	492.8
47.5°	383.7	405.9	441.3	465.5	476.6
50°	361.5	385.7	423.1	448.4	459.5
52.5°	339.3	364.5	403.9	430.2	441.3
55°	317.1	344.3	383.7	410.0	422.1
57.5°	293.9	322.1	362.5	389.8	400.9
60°	270.6	299.9	341.3	366.6	377.7
62.5°	243.4	277.7	318.1	343.3	353.4
65°	218.1	251.4	293.9	318.1	327.2
67.5°	192.9	227.2	268.6	290.8	298.9
70°	167.6	202.0	238.3	259.5	264.6
72.5°	142.4	176.7	211.1	223.2	221.1
75°	116.1	151.5	179.7	178.7	176.7
77.5°	90.9	125.2	142.4	135.3	132.3
80°	66.6	100.0	103.0	95.9	91.9
82.5°	45.4	71.7	64.6	56.5	52.5
85°	26.3	39.4	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)