

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: P389140

Luminaire Tested: **22CZ2-20VHE-S-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: P389140
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20VHE-S-UNV-L940-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1780.0 lumens
Efficiency: N/A
Efficacy: 125.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

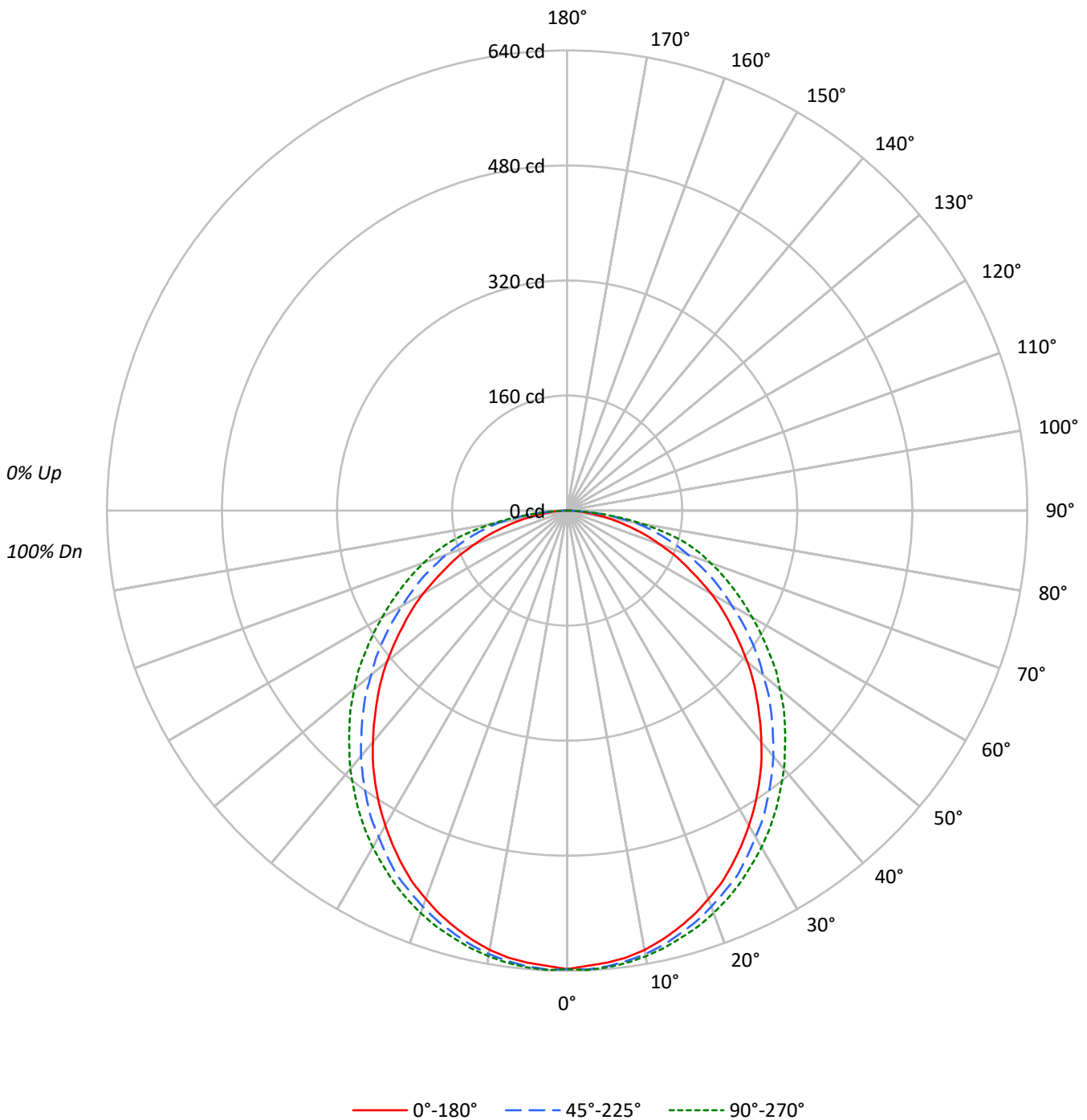
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	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	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1716	1716	1716
5°	1705	1719	1723
10°	1695	1711	1720
15°	1673	1696	1712
20°	1646	1679	1705
25°	1613	1662	1694
30°	1572	1629	1680
35°	1528	1599	1664
40°	1476	1567	1648
45°	1422	1530	1631
50°	1370	1488	1617
55°	1305	1461	1605
60°	1247	1426	1600
65°	1163	1417	1618
70°	1072	1405	1666
75°	967	1424	1753
80°	837	1468	1647
85°	692	1232	1232



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.3	3.4
10°-20°	171.7	9.6
20°-30°	256.8	14.4
30°-40°	304.2	17.1
40°-50°	310.0	17.4
50°-60°	277.8	15.6
60°-70°	217.5	12.2
70°-80°	140.3	7.9
80°-90°	41.4	2.3
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°	488.8	27.5
0°-40°	793.0	44.5
0°-60°	1380.8	77.6
0°-90°	1780.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1780.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	638	638	638	638	638	
5°	631	633	636	637	638	60
15°	600	604	609	614	615	169
25°	543	548	560	567	571	250
35°	465	471	487	502	507	291
45°	374	382	402	423	428	289
55°	278	287	311	333	342	249
65°	183	194	223	244	254	181
75°	93	107	137	160	169	100
85°	22	31	40	40	40	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	637.8	637.8	637.8	637.8	637.8
2.5°	633.7	635.3	638.7	639.5	639.5
5°	631.2	632.8	636.2	637.0	637.8
7.5°	627.0	627.9	632.0	633.7	634.5
10°	620.4	622.0	626.2	628.7	629.5
12.5°	611.3	613.7	618.7	622.0	622.9
15°	600.5	603.8	608.8	613.7	614.6
17.5°	588.8	592.2	598.8	604.6	606.3
20°	574.7	578.9	586.3	593.0	595.5
22.5°	560.6	563.9	573.0	581.4	583.8
25°	543.2	548.1	559.8	567.2	570.6
27.5°	524.9	530.7	542.3	552.3	555.6
30°	505.8	511.6	524.1	536.5	540.7
32.5°	485.8	492.5	507.4	519.9	524.1
35°	465.1	470.9	486.7	501.6	506.6
37.5°	443.5	448.5	466.7	482.5	487.5
40°	420.2	426.9	446.0	464.3	469.2
42.5°	397.0	404.5	423.6	443.5	448.5
45°	373.7	382.0	402.0	422.7	428.5
47.5°	351.3	357.9	380.4	400.3	408.6
50°	327.2	333.9	355.5	377.9	386.2
52.5°	302.3	311.4	334.7	356.3	366.3
55°	278.2	287.4	311.4	333.0	342.2
57.5°	255.8	263.3	288.2	310.6	319.7
60°	231.7	238.4	264.9	289.0	297.3
62.5°	206.0	215.9	243.3	265.8	275.7
65°	182.7	193.5	222.6	244.2	254.1
67.5°	161.1	171.1	199.3	222.6	233.4
70°	136.2	149.5	178.6	201.8	211.8
72.5°	116.3	127.9	157.8	181.1	191.8
75°	93.0	107.1	137.0	160.3	168.6
77.5°	73.9	88.0	116.3	134.5	138.7
80°	54.0	68.1	94.7	103.8	106.3
82.5°	36.5	49.8	68.1	70.6	71.4
85°	22.4	30.7	39.9	39.9	39.9
87.5°	10.8	12.5	14.1	13.3	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)