

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: P230910

Luminaire Tested: **14CZ-LD5-20-S-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230910
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35112)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ-LD5-20-S-UNV-L940-CD1-U
Description: CRUZE 1x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1825.0 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

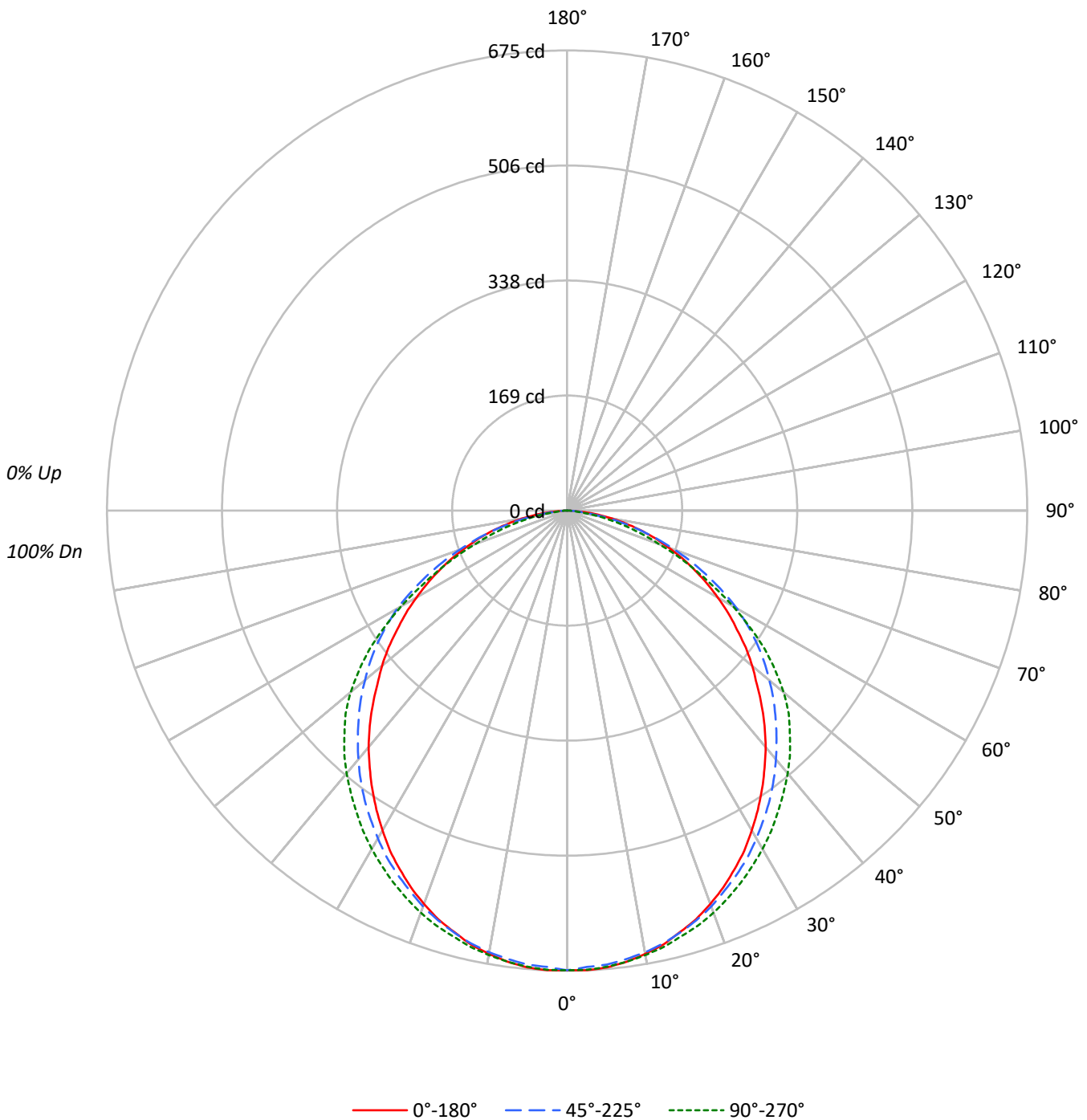
Input Watts (W): 16.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	100	97	106	102	98	95	98	95	92	94	92	89	91	89	87	85
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1814	1814	1814
5°	1817	1806	1814
10°	1804	1798	1809
15°	1783	1785	1801
20°	1758	1770	1798
25°	1724	1748	1789
30°	1683	1726	1781
35°	1638	1702	1771
40°	1591	1674	1768
45°	1535	1646	1758
50°	1485	1621	1736
55°	1427	1595	1659
60°	1374	1549	1514
65°	1316	1450	1331
70°	1242	1318	1126
75°	1158	1142	931
80°	1021	882	680
85°	803	426	377



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.7	3.5
10°-20°	181.5	9.9
20°-30°	272.3	14.9
30°-40°	324.7	17.8
40°-50°	334.4	18.3
50°-60°	298.1	16.3
60°-70°	214.8	11.8
70°-80°	112.3	6.2
80°-90°	23.2	1.3
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°	517.5	28.4
0°-40°	842.2	46.1
0°-60°	1474.7	80.8
0°-90°	1825.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1825.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	674	674	674	674	674	
5°	672	671	668	672	672	64
15°	640	641	641	647	646	181
25°	581	584	589	600	603	267
35°	498	505	518	535	539	312
45°	403	412	433	457	462	311
55°	304	314	340	355	354	273
65°	207	214	228	217	209	205
75°	111	117	110	95	90	118
85°	26	23	14	12	12	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	674.2	674.2	674.2	674.2	674.2
2.5°	675.0	673.3	670.1	674.2	674.2
5°	672.5	670.9	668.5	672.5	671.7
7.5°	667.6	666.0	663.6	668.5	667.6
10°	660.3	659.5	657.9	662.8	662.0
12.5°	652.2	651.4	650.6	655.5	655.5
15°	640.0	640.8	640.8	647.3	646.5
17.5°	628.6	629.4	630.2	638.4	638.4
20°	614.0	614.8	618.0	627.0	627.8
22.5°	598.5	599.3	603.4	614.0	615.6
25°	580.6	583.9	588.8	600.2	602.6
27.5°	562.7	565.2	573.3	586.3	588.0
30°	541.6	546.5	555.4	570.1	573.3
32.5°	520.5	526.2	536.7	553.0	557.1
35°	498.5	505.0	518.0	535.1	539.2
37.5°	475.7	481.4	497.7	515.6	521.3
40°	453.0	458.7	476.5	496.9	503.4
42.5°	428.6	436.7	454.6	477.4	483.9
45°	403.4	412.3	432.6	457.0	461.9
47.5°	377.3	387.1	410.7	435.1	440.8
50°	354.6	363.5	387.1	410.7	414.7
52.5°	330.2	338.3	364.3	383.8	384.7
55°	304.1	313.9	339.9	355.4	353.7
57.5°	280.6	288.7	313.9	322.0	317.2
60°	255.3	262.7	287.9	288.7	281.4
62.5°	231.0	238.3	257.8	252.1	243.2
65°	206.6	213.9	227.7	217.1	209.0
67.5°	183.0	189.5	197.6	183.8	175.7
70°	157.8	166.7	167.5	151.3	143.1
72.5°	135.8	140.7	139.1	123.6	116.3
75°	111.4	117.1	109.8	95.1	89.5
77.5°	88.6	92.7	82.9	69.1	65.1
80°	65.9	68.3	56.9	46.4	43.9
82.5°	44.7	44.7	32.5	25.2	22.8
85°	26.0	22.8	13.8	12.2	12.2
87.5°	8.9	5.7	5.7	5.7	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)