

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: P230044

Luminaire Tested: **24CZ-LD5-50-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230044
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-50-S-UNV-L930-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4215.0 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

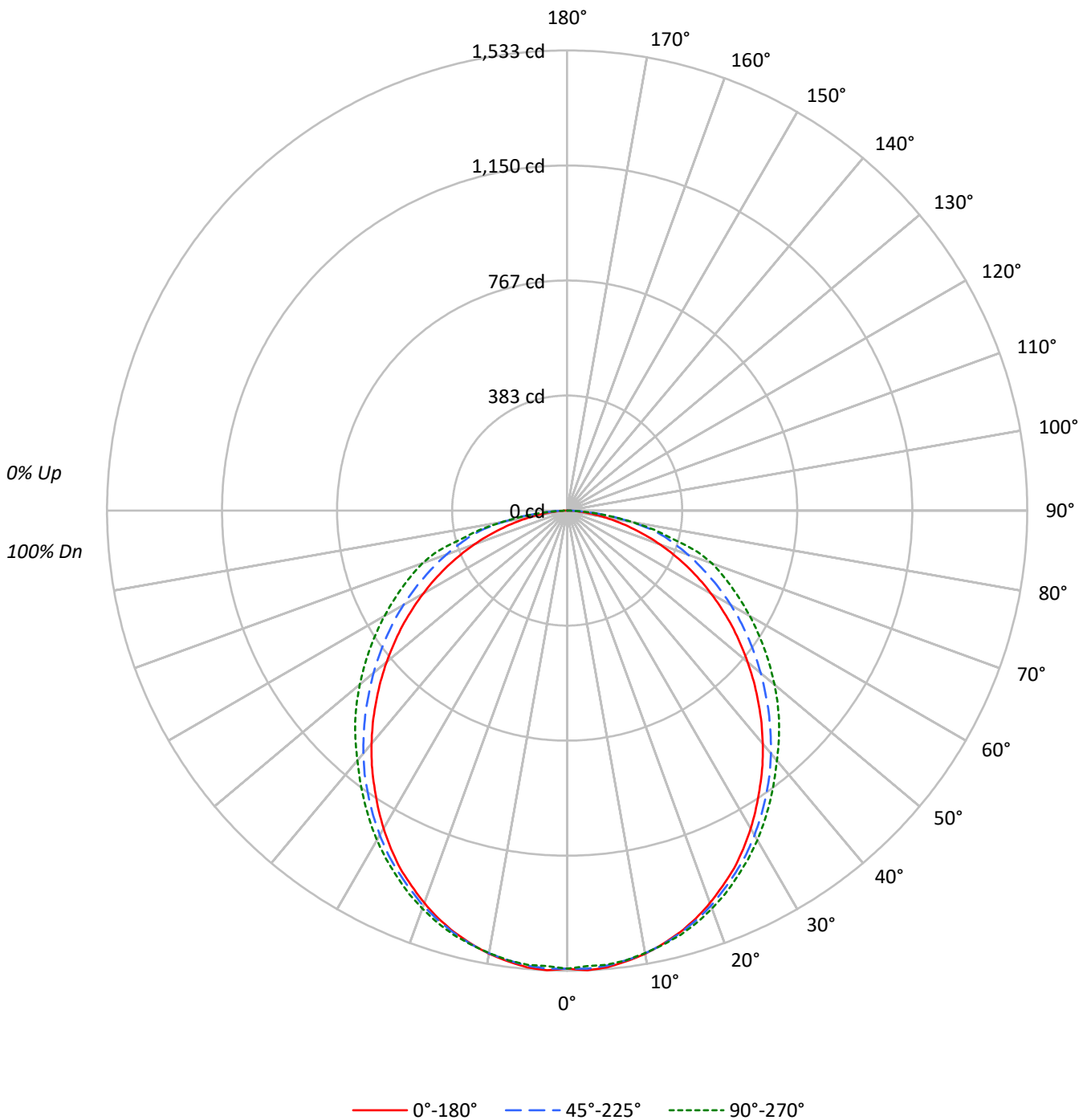
Input Watts (W): 40.68
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2053	2053	2053
5°	2063	2055	2051
10°	2048	2046	2045
15°	2026	2030	2038
20°	1992	2006	2020
25°	1953	1974	1995
30°	1900	1939	1970
35°	1841	1898	1937
40°	1781	1855	1909
45°	1713	1807	1900
50°	1644	1761	1888
55°	1573	1724	1882
60°	1491	1695	1891
65°	1402	1674	1929
70°	1291	1683	2019
75°	1145	1743	1881
80°	956	1652	1695
85°	715	1321	1212



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.3	3.4
10°-20°	410.3	9.7
20°-30°	611.5	14.5
30°-40°	719.8	17.1
40°-50°	731.5	17.4
50°-60°	657.6	15.6
60°-70°	519.5	12.3
70°-80°	329.6	7.8
80°-90°	91.0	2.2
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°	1166.0	27.7
0°-40°	1885.8	44.7
0°-60°	3274.9	77.7
0°-90°	4215.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4215.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1526	1526	1526	1526	1526	
5°	1527	1515	1522	1519	1519	145
15°	1454	1447	1457	1461	1463	410
25°	1316	1314	1330	1338	1344	605
35°	1121	1128	1156	1168	1180	701
45°	900	913	950	978	999	695
55°	670	687	735	783	802	599
65°	440	463	526	583	606	436
75°	220	258	335	365	362	234
85°	46	80	86	78	78	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1525.9	1525.9	1525.9	1525.9	1525.9
2.5°	1532.9	1521.7	1527.3	1524.5	1518.9
5°	1527.3	1514.7	1521.7	1518.9	1518.9
7.5°	1514.7	1504.9	1510.5	1509.1	1510.5
10°	1499.3	1489.4	1497.9	1497.9	1496.5
12.5°	1478.2	1469.8	1479.6	1479.6	1481.0
15°	1454.4	1447.4	1457.2	1461.4	1462.8
17.5°	1424.9	1417.9	1430.5	1434.7	1439.0
20°	1391.3	1388.5	1401.1	1405.3	1410.9
22.5°	1353.4	1353.4	1366.0	1371.6	1380.0
25°	1315.5	1314.1	1329.6	1338.0	1343.6
27.5°	1270.7	1272.1	1291.7	1300.1	1307.1
30°	1223.0	1225.8	1248.2	1258.0	1267.8
32.5°	1172.5	1178.1	1203.3	1214.6	1224.4
35°	1120.6	1127.6	1155.7	1168.3	1179.5
37.5°	1068.7	1078.5	1108.0	1120.6	1133.2
40°	1014.0	1022.4	1056.1	1071.5	1086.9
42.5°	957.9	969.1	1002.8	1025.2	1043.5
45°	900.4	913.0	949.5	977.5	998.6
47.5°	842.9	859.7	894.8	932.7	950.9
50°	785.4	802.2	841.5	883.6	901.8
52.5°	726.5	743.3	788.2	831.7	851.3
55°	670.4	687.2	734.9	782.6	802.2
57.5°	611.5	629.7	683.0	732.1	751.7
60°	554.0	572.2	629.7	681.6	702.6
62.5°	497.9	517.5	577.8	632.5	653.6
65°	440.4	462.8	525.9	583.4	605.9
67.5°	384.3	409.5	475.4	535.8	559.6
70°	328.2	357.6	427.8	489.5	513.3
72.5°	273.5	305.7	380.1	441.8	454.4
75°	220.2	258.1	335.2	364.6	361.8
77.5°	169.7	211.8	284.7	290.3	298.7
80°	123.4	169.7	213.2	224.4	218.8
82.5°	81.3	127.6	152.9	147.3	145.9
85°	46.3	79.9	85.6	78.5	78.5
87.5°	19.6	32.3	28.0	21.0	19.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)