

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: P261068

Luminaire Tested: **24CZ-LD5-50-S-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261068  
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-L93050-W2A1-U-3500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED AT 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4357.5 lumens  
Efficiency: N/A  
Efficacy: 119.7 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

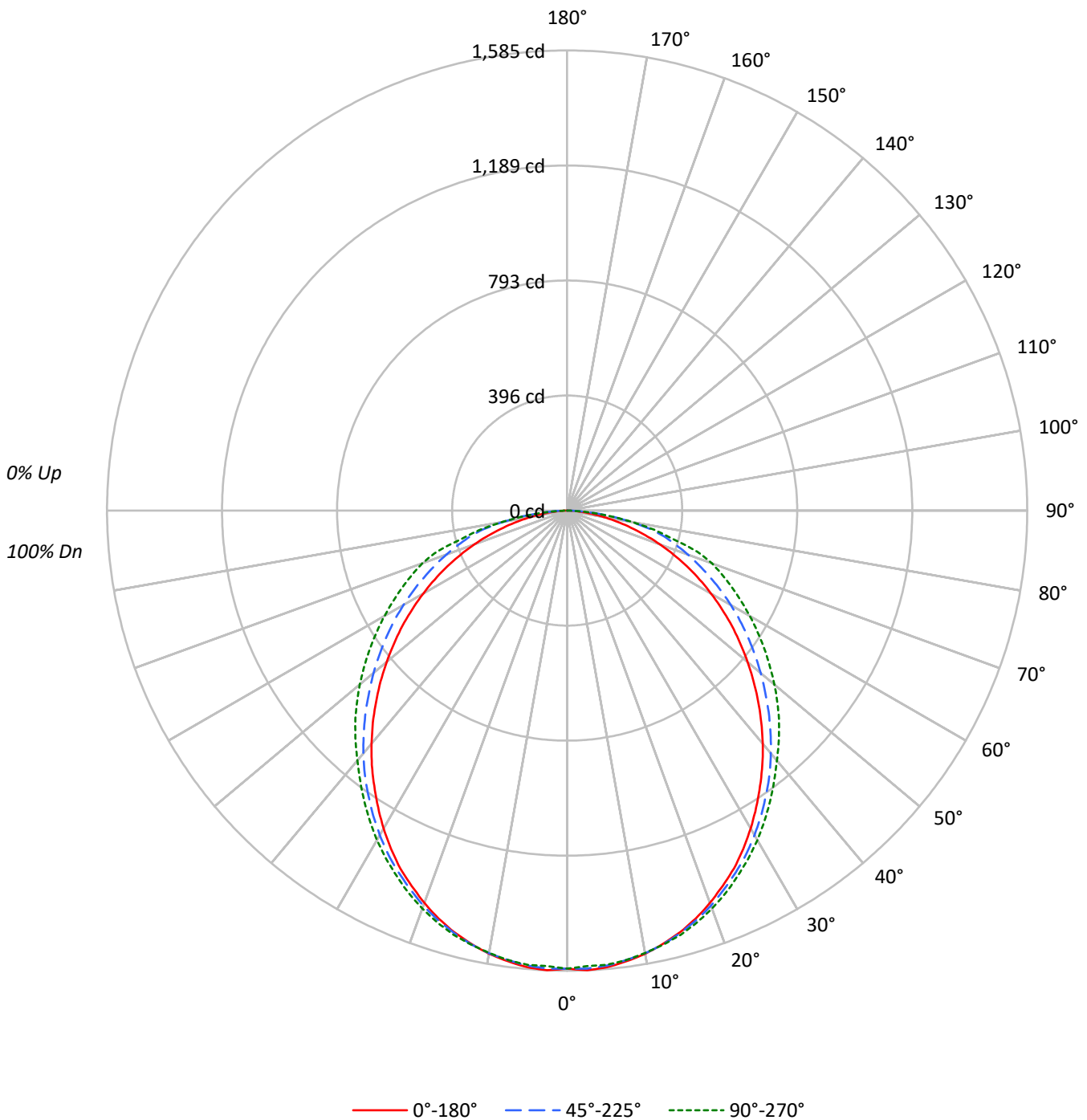
Input Watts (W): 36.390528  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2123	2123	2123
5°	2133	2125	2121
10°	2118	2116	2114
15°	2094	2098	2107
20°	2059	2074	2088
25°	2019	2041	2062
30°	1964	2005	2036
35°	1903	1962	2003
40°	1841	1918	1974
45°	1771	1868	1964
50°	1700	1821	1951
55°	1626	1782	1946
60°	1541	1752	1955
65°	1450	1731	1994
70°	1335	1740	2088
75°	1183	1801	1945
80°	989	1708	1753
85°	738	1365	1254



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.1	3.4
10°-20°	424.2	9.7
20°-30°	632.1	14.5
30°-40°	744.1	17.1
40°-50°	756.2	17.4
50°-60°	679.9	15.6
60°-70°	537.1	12.3
70°-80°	340.7	7.8
80°-90°	94.0	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°	1205.5	27.7
0°-40°	1949.6	44.7
0°-60°	3385.7	77.7
0°-90°	4357.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4357.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1578	1578	1578	1578	1578	
5°	1579	1566	1573	1570	1570	150
15°	1504	1496	1506	1511	1512	424
25°	1360	1359	1374	1383	1389	625
35°	1158	1166	1195	1208	1219	725
45°	931	944	982	1011	1032	718
55°	693	710	760	809	829	619
65°	455	478	544	603	626	451
75°	228	267	346	377	374	242
85°	48	83	88	81	81	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1577.5	1577.5	1577.5	1577.5	1577.5
2.5°	1584.8	1573.2	1579.0	1576.1	1570.3
5°	1579.0	1565.9	1573.2	1570.3	1570.3
7.5°	1565.9	1555.8	1561.6	1560.1	1561.6
10°	1550.0	1539.8	1548.5	1548.5	1547.1
12.5°	1528.2	1519.5	1529.7	1529.7	1531.1
15°	1503.6	1496.3	1506.5	1510.8	1512.3
17.5°	1473.1	1465.9	1478.9	1483.3	1487.6
20°	1438.3	1435.4	1448.5	1452.8	1458.6
22.5°	1399.2	1399.2	1412.2	1418.0	1426.7
25°	1360.0	1358.6	1374.5	1383.2	1389.0
27.5°	1313.6	1315.1	1335.4	1344.1	1351.3
30°	1264.3	1267.2	1290.4	1300.6	1310.7
32.5°	1212.1	1217.9	1244.0	1255.6	1265.8
35°	1158.5	1165.7	1194.7	1207.8	1219.4
37.5°	1104.8	1115.0	1145.4	1158.5	1171.5
40°	1048.3	1057.0	1091.8	1107.7	1123.7
42.5°	990.3	1001.9	1036.7	1059.9	1078.7
45°	930.8	943.9	981.6	1010.6	1032.3
47.5°	871.4	888.8	925.0	964.2	983.0
50°	812.0	829.4	870.0	913.4	932.3
52.5°	751.1	768.5	814.9	859.8	880.1
55°	693.1	710.5	759.8	809.1	829.4
57.5°	632.2	651.0	706.1	756.9	777.2
60°	572.7	591.6	651.0	704.7	726.4
62.5°	514.7	535.0	597.4	653.9	675.7
65°	455.3	478.5	543.7	603.2	626.4
67.5°	397.3	423.4	491.5	553.9	578.5
70°	339.3	369.7	442.2	506.0	530.7
72.5°	282.7	316.1	392.9	456.7	469.8
75°	227.6	266.8	346.5	377.0	374.1
77.5°	175.4	218.9	294.3	300.1	308.8
80°	127.6	175.4	220.4	232.0	226.2
82.5°	84.1	131.9	158.0	152.2	150.8
85°	47.8	82.6	88.4	81.2	81.2
87.5°	20.3	33.3	29.0	21.7	20.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)