

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: P261119

Luminaire Tested: **24CZ-LD5-50SE-S-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261119  
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-LD5-50SE-S-UNV-L93050-W2A1-U-4000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4683.7 lumens  
Efficiency: N/A  
Efficacy: 115.0 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

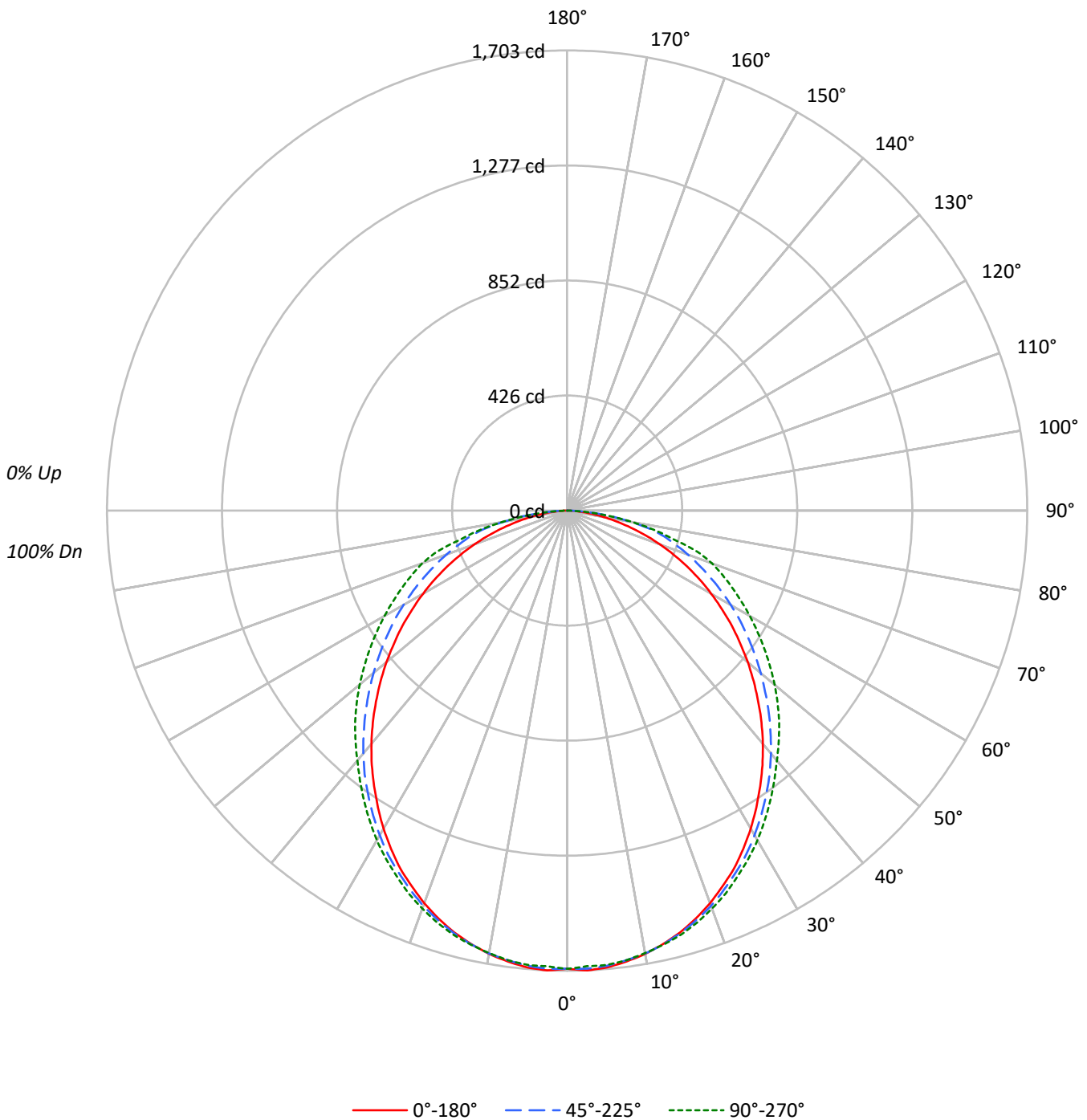
Input Watts (W): 40.743486  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2281	2281	2281
5°	2292	2284	2280
10°	2276	2274	2272
15°	2251	2255	2264
20°	2214	2229	2245
25°	2170	2193	2216
30°	2111	2155	2189
35°	2045	2109	2153
40°	1979	2061	2121
45°	1904	2008	2111
50°	1827	1957	2098
55°	1747	1916	2091
60°	1657	1883	2101
65°	1558	1861	2143
70°	1435	1870	2244
75°	1272	1936	2090
80°	1062	1836	1884
85°	794	1468	1348



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.3	3.4
10°-20°	455.9	9.7
20°-30°	679.4	14.5
30°-40°	799.8	17.1
40°-50°	812.8	17.4
50°-60°	730.8	15.6
60°-70°	577.3	12.3
70°-80°	366.3	7.8
80°-90°	101.1	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°	1295.7	27.7
0°-40°	2095.5	44.7
0°-60°	3639.0	77.7
0°-90°	4683.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4683.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1696	1696	1696	1696	1696	
5°	1697	1683	1691	1688	1688	161
15°	1616	1608	1619	1624	1625	455
25°	1462	1460	1477	1487	1493	672
35°	1245	1253	1284	1298	1311	779
45°	1000	1014	1055	1086	1110	772
55°	745	764	817	870	891	665
65°	489	514	584	648	673	485
75°	245	287	372	405	402	260
85°	51	89	95	87	87	63
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1695.6	1695.6	1695.6	1695.6	1695.6
2.5°	1703.4	1690.9	1697.1	1694.0	1687.8
5°	1697.1	1683.1	1690.9	1687.8	1687.8
7.5°	1683.1	1672.2	1678.4	1676.9	1678.4
10°	1666.0	1655.1	1664.4	1664.4	1662.8
12.5°	1642.6	1633.2	1644.1	1644.1	1645.7
15°	1616.1	1608.3	1619.2	1623.9	1625.4
17.5°	1583.4	1575.6	1589.6	1594.3	1599.0
20°	1546.0	1542.8	1556.9	1561.6	1567.8
22.5°	1503.9	1503.9	1517.9	1524.1	1533.5
25°	1461.8	1460.3	1477.4	1486.7	1493.0
27.5°	1411.9	1413.5	1435.3	1444.7	1452.5
30°	1359.0	1362.1	1387.0	1397.9	1408.8
32.5°	1302.9	1309.1	1337.1	1349.6	1360.5
35°	1245.2	1253.0	1284.1	1298.2	1310.6
37.5°	1187.5	1198.4	1231.2	1245.2	1259.2
40°	1126.7	1136.1	1173.5	1190.6	1207.8
42.5°	1064.4	1076.9	1114.3	1139.2	1159.5
45°	1000.5	1014.5	1055.1	1086.2	1109.6
47.5°	936.6	955.3	994.3	1036.4	1056.6
50°	872.7	891.4	935.1	981.8	1002.1
52.5°	807.3	826.0	875.8	924.2	946.0
55°	744.9	763.6	816.6	869.6	891.4
57.5°	679.5	699.7	759.0	813.5	835.3
60°	615.6	635.8	699.7	757.4	780.8
62.5°	553.2	575.1	642.1	702.9	726.2
65°	489.3	514.3	584.4	648.3	673.2
67.5°	427.0	455.1	528.3	595.3	621.8
70°	364.7	397.4	475.3	543.9	570.4
72.5°	303.9	339.7	422.3	490.9	504.9
75°	244.7	286.8	372.5	405.2	402.1
77.5°	188.6	235.3	316.4	322.6	331.9
80°	137.1	188.6	236.9	249.3	243.1
82.5°	90.4	141.8	169.9	163.6	162.1
85°	51.4	88.8	95.1	87.3	87.3
87.5°	21.8	35.8	31.2	23.4	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)