

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: P261117

Luminaire Tested: **24CZ-LD5-50SE-S-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261117  
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-3000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3969.4 lumens  
Efficiency: N/A  
Efficacy: 97.7 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

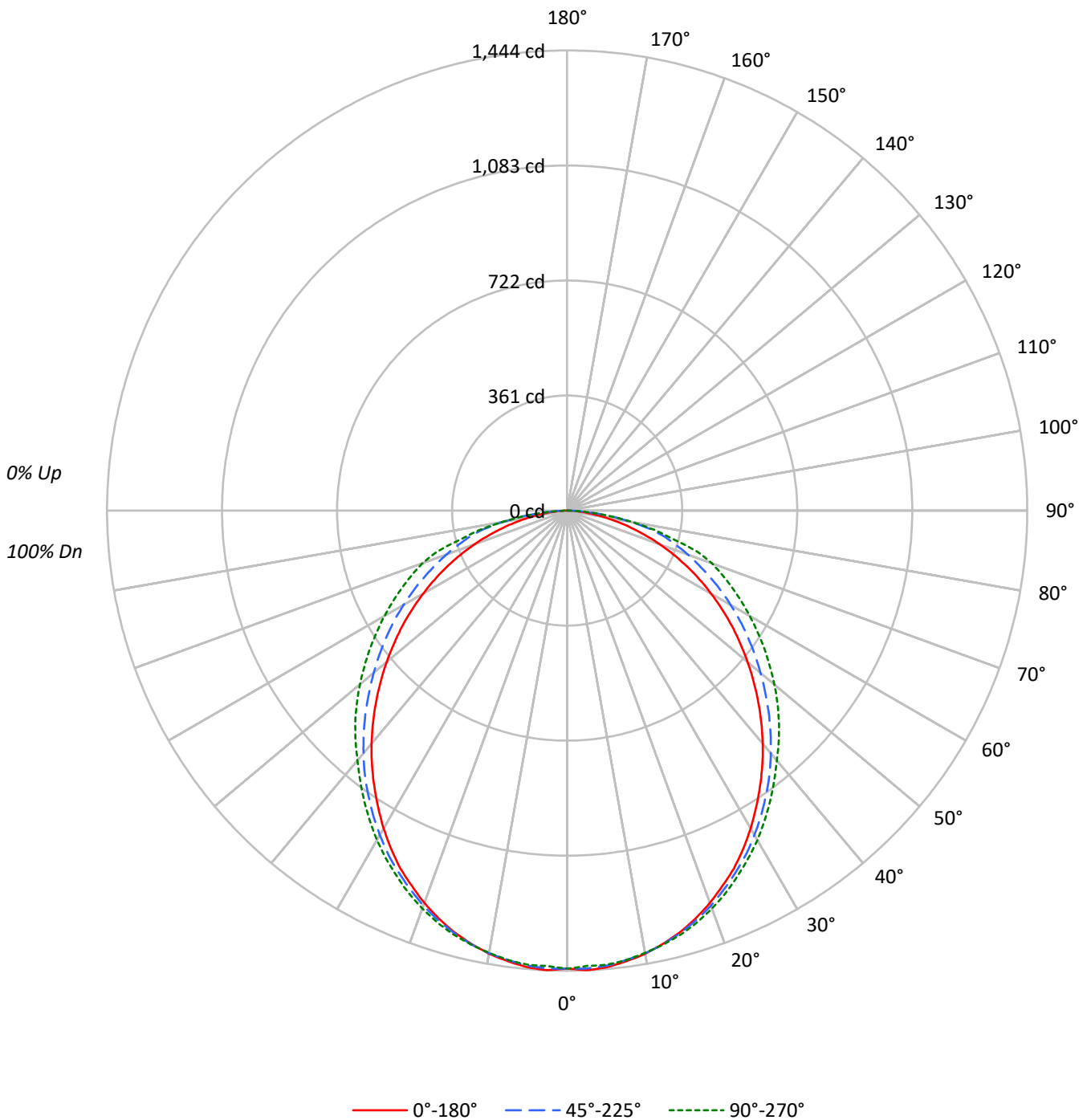
Input Watts (W): 40.624353  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1933	1933	1933
5°	1943	1935	1932
10°	1929	1927	1925
15°	1908	1912	1919
20°	1876	1889	1902
25°	1839	1859	1878
30°	1789	1826	1855
35°	1733	1788	1825
40°	1677	1747	1798
45°	1613	1701	1789
50°	1548	1659	1778
55°	1481	1624	1772
60°	1404	1596	1781
65°	1320	1577	1817
70°	1216	1585	1902
75°	1078	1641	1772
80°	900	1556	1596
85°	673	1244	1142



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.9	3.4
10°-20°	386.4	9.7
20°-30°	575.8	14.5
30°-40°	677.8	17.1
40°-50°	688.8	17.4
50°-60°	619.3	15.6
60°-70°	489.3	12.3
70°-80°	310.4	7.8
80°-90°	85.7	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°	1098.1	27.7
0°-40°	1775.9	44.7
0°-60°	3084.1	77.7
0°-90°	3969.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3969.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1437	1437	1437	1437	1437	
5°	1438	1426	1433	1430	1430	136
15°	1370	1363	1372	1376	1378	386
25°	1239	1238	1252	1260	1265	570
35°	1055	1062	1088	1100	1111	660
45°	848	860	894	921	940	654
55°	631	647	692	737	756	564
65°	415	436	495	549	571	411
75°	207	243	316	343	341	221
85°	44	75	81	74	74	54
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1437.0	1437.0	1437.0	1437.0	1437.0
2.5°	1443.6	1433.0	1438.3	1435.7	1430.4
5°	1438.3	1426.4	1433.0	1430.4	1430.4
7.5°	1426.4	1417.2	1422.5	1421.1	1422.5
10°	1411.9	1402.7	1410.6	1410.6	1409.3
12.5°	1392.1	1384.2	1393.4	1393.4	1394.7
15°	1369.6	1363.0	1372.3	1376.2	1377.6
17.5°	1341.9	1335.3	1347.2	1351.1	1355.1
20°	1310.2	1307.6	1319.4	1323.4	1328.7
22.5°	1274.5	1274.5	1286.4	1291.7	1299.6
25°	1238.9	1237.6	1252.1	1260.0	1265.3
27.5°	1196.6	1197.9	1216.4	1224.3	1231.0
30°	1151.7	1154.3	1175.5	1184.7	1194.0
32.5°	1104.2	1109.4	1133.2	1143.8	1153.0
35°	1055.3	1061.9	1088.3	1100.2	1110.8
37.5°	1006.4	1015.7	1043.4	1055.3	1067.2
40°	954.9	962.8	994.5	1009.1	1023.6
42.5°	902.1	912.6	944.3	965.5	982.6
45°	847.9	859.8	894.2	920.6	940.4
47.5°	793.8	809.6	842.6	878.3	895.5
50°	739.6	755.5	792.5	832.1	849.3
52.5°	684.2	700.0	742.3	783.2	801.7
55°	631.3	647.2	692.1	737.0	755.5
57.5°	575.9	593.0	643.2	689.4	707.9
60°	521.7	538.9	593.0	641.9	661.7
62.5°	468.9	487.4	544.2	595.7	615.5
65°	414.7	435.9	495.3	549.4	570.6
67.5°	361.9	385.7	447.7	504.5	527.0
70°	309.1	336.8	402.8	460.9	483.4
72.5°	257.5	287.9	357.9	416.0	427.9
75°	207.4	243.0	315.7	343.4	340.8
77.5°	159.8	199.4	268.1	273.4	281.3
80°	116.2	159.8	200.8	211.3	206.0
82.5°	76.6	120.2	144.0	138.7	137.4
85°	43.6	75.3	80.6	74.0	74.0
87.5°	18.5	30.4	26.4	19.8	18.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)