

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: P260699

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260699  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-50SE-UNV-L93050-W2A1-U-4000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4591.9 lumens  
Efficiency: N/A  
Efficacy: 112.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

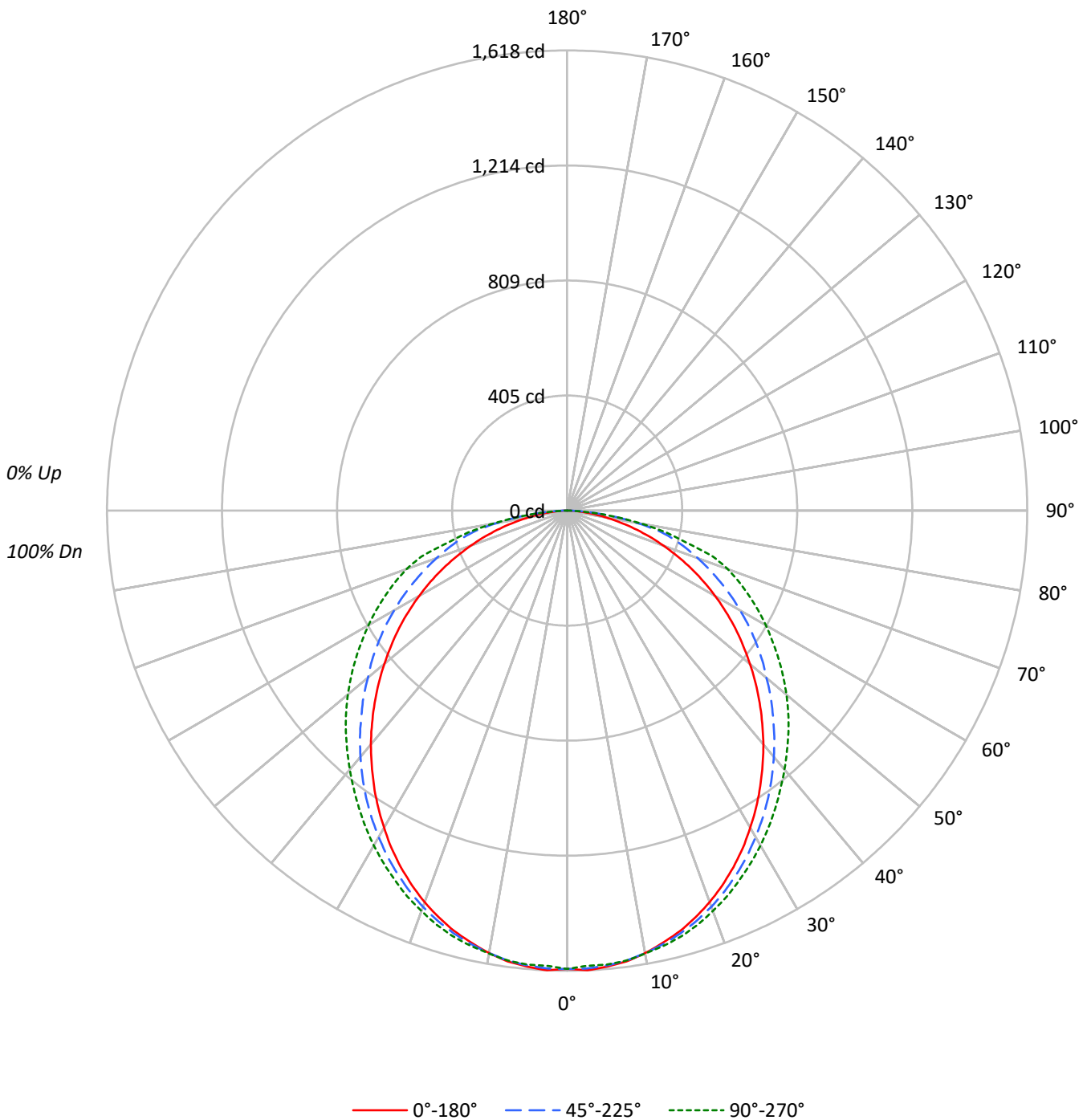
Input Watts (W): 40.743486  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2168	2168	2168
5°	2174	2168	2164
10°	2159	2159	2161
15°	2133	2144	2159
20°	2098	2123	2145
25°	2054	2094	2129
30°	2000	2059	2113
35°	1945	2025	2097
40°	1886	1985	2088
45°	1822	1948	2094
50°	1757	1915	2106
55°	1693	1903	2128
60°	1616	1891	2170
65°	1532	1892	2242
70°	1416	1924	2363
75°	1267	2011	2248
80°	1060	1925	2059
85°	801	1480	1408



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.3	3.3
10°-20°	433.4	9.4
20°-30°	647.9	14.1
30°-40°	768.6	16.7
40°-50°	791.1	17.2
50°-60°	725.8	15.8
60°-70°	586.8	12.8
70°-80°	380.9	8.3
80°-90°	105.0	2.3
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°	1233.6	26.9
0°-40°	2002.3	43.6
0°-60°	3519.2	76.6
0°-90°	4591.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4591.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1612	1612	1612	1612	1612	
5°	1610	1599	1605	1604	1602	153
15°	1531	1525	1539	1546	1550	431
25°	1384	1385	1410	1423	1434	637
35°	1184	1193	1233	1259	1277	740
45°	958	973	1024	1072	1100	739
55°	722	744	811	877	907	645
65°	481	509	594	673	704	475
75°	244	289	387	432	432	259
85°	52	88	96	93	91	64
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1611.5	1611.5	1611.5	1611.5	1611.5
2.5°	1617.8	1605.2	1611.5	1609.9	1602.1
5°	1609.9	1598.9	1605.2	1603.6	1602.1
7.5°	1598.9	1587.9	1595.8	1594.2	1595.8
10°	1580.1	1570.6	1580.1	1581.6	1581.6
12.5°	1556.5	1548.6	1561.2	1564.3	1567.5
15°	1531.3	1525.0	1539.2	1545.5	1550.2
17.5°	1499.9	1495.2	1512.4	1520.3	1526.6
20°	1465.3	1463.7	1482.6	1490.4	1498.3
22.5°	1426.0	1426.0	1448.0	1457.4	1468.4
25°	1383.5	1385.1	1410.3	1422.8	1433.8
27.5°	1337.9	1339.5	1369.4	1385.1	1397.7
30°	1287.6	1293.9	1325.4	1345.8	1359.9
32.5°	1237.3	1245.2	1279.8	1303.3	1319.1
35°	1183.9	1193.3	1232.6	1259.3	1276.6
37.5°	1128.8	1139.8	1182.3	1212.2	1232.6
40°	1073.8	1086.4	1130.4	1165.0	1188.6
42.5°	1015.6	1029.8	1078.5	1119.4	1144.6
45°	957.5	973.2	1023.5	1072.2	1100.5
47.5°	899.3	918.2	971.6	1025.1	1054.9
50°	839.5	858.4	915.0	976.3	1006.2
52.5°	779.8	801.8	864.7	927.6	957.5
55°	721.6	743.6	811.3	877.3	907.2
57.5°	661.9	683.9	757.8	827.0	856.8
60°	600.6	625.7	702.8	773.5	806.5
62.5°	540.8	567.6	649.3	724.8	756.2
65°	481.1	509.4	594.3	672.9	704.3
67.5°	419.8	452.8	540.8	621.0	654.0
70°	360.0	396.2	489.0	569.1	600.6
72.5°	301.9	341.2	437.1	518.8	537.7
75°	243.7	289.3	386.8	432.4	432.4
77.5°	188.7	239.0	330.2	347.5	356.9
80°	136.8	191.8	248.4	268.8	265.7
82.5°	91.2	146.2	177.7	177.7	172.9
85°	51.9	88.0	95.9	92.8	91.2
87.5°	22.0	33.0	29.9	23.6	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)