

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: P260638

Luminaire Tested: **24CZ-LD5-40-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260638  
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-LD5-40-UNV-L93050-W2A1-U-3500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (336) 90 CRI LEDS TUNED AT 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3462.1 lumens  
Efficiency: N/A  
Efficacy: 120.2 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

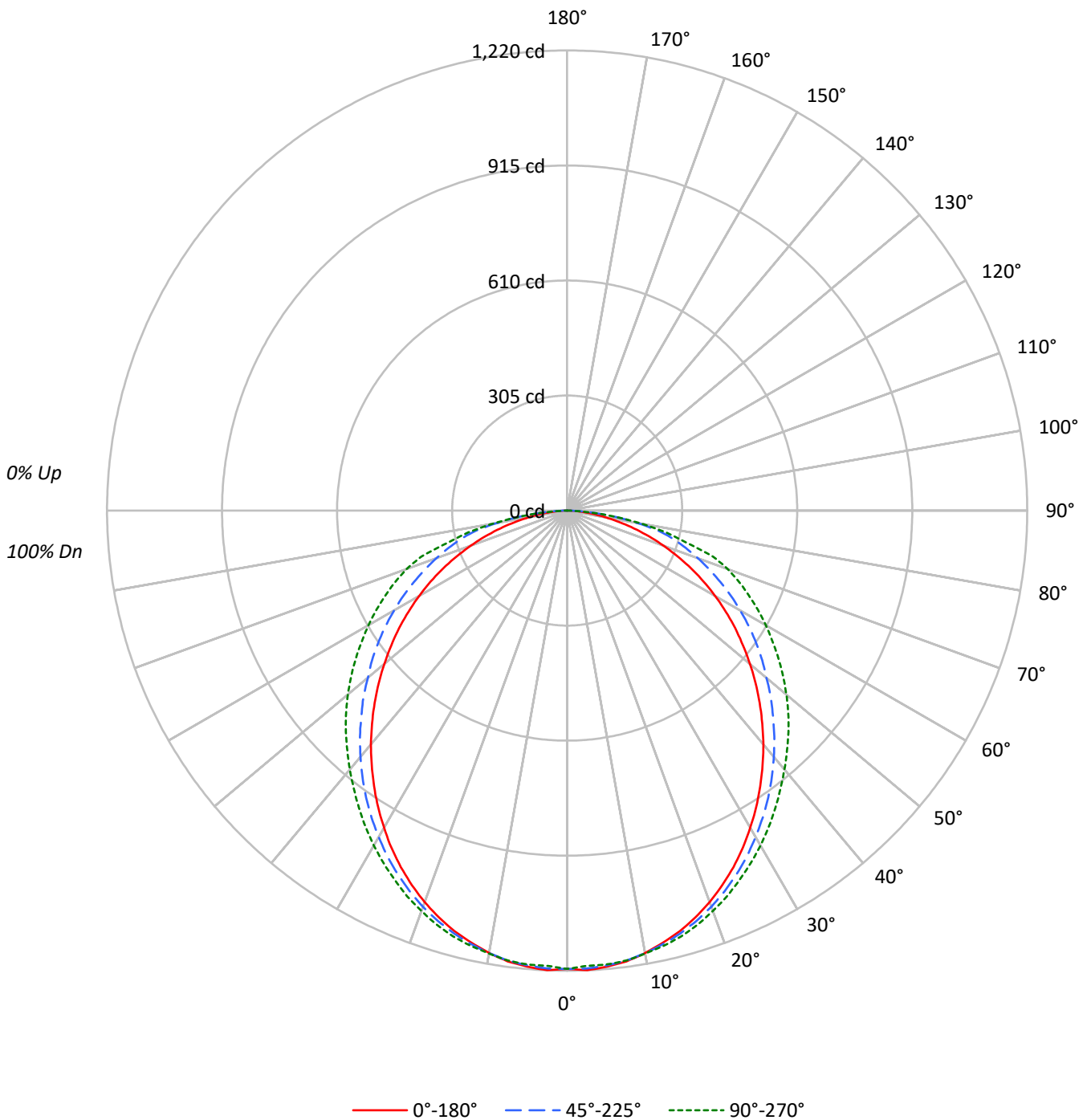
Input Watts (W): 28.809168  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1635	1635	1635
5°	1639	1635	1631
10°	1628	1628	1629
15°	1608	1617	1628
20°	1582	1601	1618
25°	1549	1579	1605
30°	1508	1553	1593
35°	1466	1526	1581
40°	1422	1497	1574
45°	1374	1468	1579
50°	1325	1444	1588
55°	1276	1435	1605
60°	1218	1426	1636
65°	1155	1427	1691
70°	1068	1450	1781
75°	955	1516	1695
80°	799	1451	1552
85°	604	1116	1062



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.8	3.3
10°-20°	326.8	9.4
20°-30°	488.5	14.1
30°-40°	579.5	16.7
40°-50°	596.5	17.2
50°-60°	547.2	15.8
60°-70°	442.4	12.8
70°-80°	287.1	8.3
80°-90°	79.2	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°	930.1	26.9
0°-40°	1509.6	43.6
0°-60°	2653.3	76.6
0°-90°	3462.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3462.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1215	1215	1215	1215	1215	
5°	1214	1206	1210	1209	1208	115
15°	1154	1150	1160	1165	1169	325
25°	1043	1044	1063	1073	1081	480
35°	893	900	929	950	962	558
45°	722	734	772	808	830	557
55°	544	561	612	661	684	486
65°	363	384	448	507	531	358
75°	184	218	292	326	326	195
85°	39	66	72	70	69	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1215.0	1215.0	1215.0	1215.0	1215.0
2.5°	1219.7	1210.3	1215.0	1213.8	1207.9
5°	1213.8	1205.5	1210.3	1209.1	1207.9
7.5°	1205.5	1197.2	1203.1	1202.0	1203.1
10°	1191.3	1184.2	1191.3	1192.5	1192.5
12.5°	1173.5	1167.6	1177.1	1179.4	1181.8
15°	1154.5	1149.8	1160.5	1165.2	1168.8
17.5°	1130.8	1127.3	1140.3	1146.2	1151.0
20°	1104.8	1103.6	1117.8	1123.7	1129.7
22.5°	1075.1	1075.1	1091.7	1098.8	1107.1
25°	1043.1	1044.3	1063.3	1072.8	1081.1
27.5°	1008.7	1009.9	1032.5	1044.3	1053.8
30°	970.8	975.6	999.3	1014.7	1025.3
32.5°	932.9	938.8	964.9	982.7	994.5
35°	892.6	899.7	929.3	949.5	962.5
37.5°	851.1	859.4	891.4	913.9	929.3
40°	809.6	819.1	852.3	878.4	896.1
42.5°	765.7	776.4	813.2	844.0	862.9
45°	721.9	733.7	771.7	808.4	829.8
47.5°	678.0	692.3	732.6	772.9	795.4
50°	633.0	647.2	689.9	736.1	758.6
52.5°	587.9	604.5	652.0	699.4	721.9
55°	544.1	560.7	611.6	661.4	684.0
57.5°	499.0	515.6	571.3	623.5	646.0
60°	452.8	471.8	529.9	583.2	608.1
62.5°	407.8	427.9	489.6	546.5	570.2
65°	362.7	384.1	448.1	507.3	531.0
67.5°	316.5	341.4	407.8	468.2	493.1
70°	271.4	298.7	368.6	429.1	452.8
72.5°	227.6	257.2	329.5	391.2	405.4
75°	183.7	218.1	291.6	326.0	326.0
77.5°	142.2	180.2	248.9	262.0	269.1
80°	103.1	144.6	187.3	202.7	200.3
82.5°	68.8	110.2	133.9	133.9	130.4
85°	39.1	66.4	72.3	69.9	68.8
87.5°	16.6	24.9	22.5	17.8	15.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)