

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: P276031

Luminaire Tested: **24CZ2-40-UNV-L93050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276031  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40-UNV-L93050-W2A1-U-5000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3576.7 lumens  
Efficiency: N/A  
Efficacy: 112.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

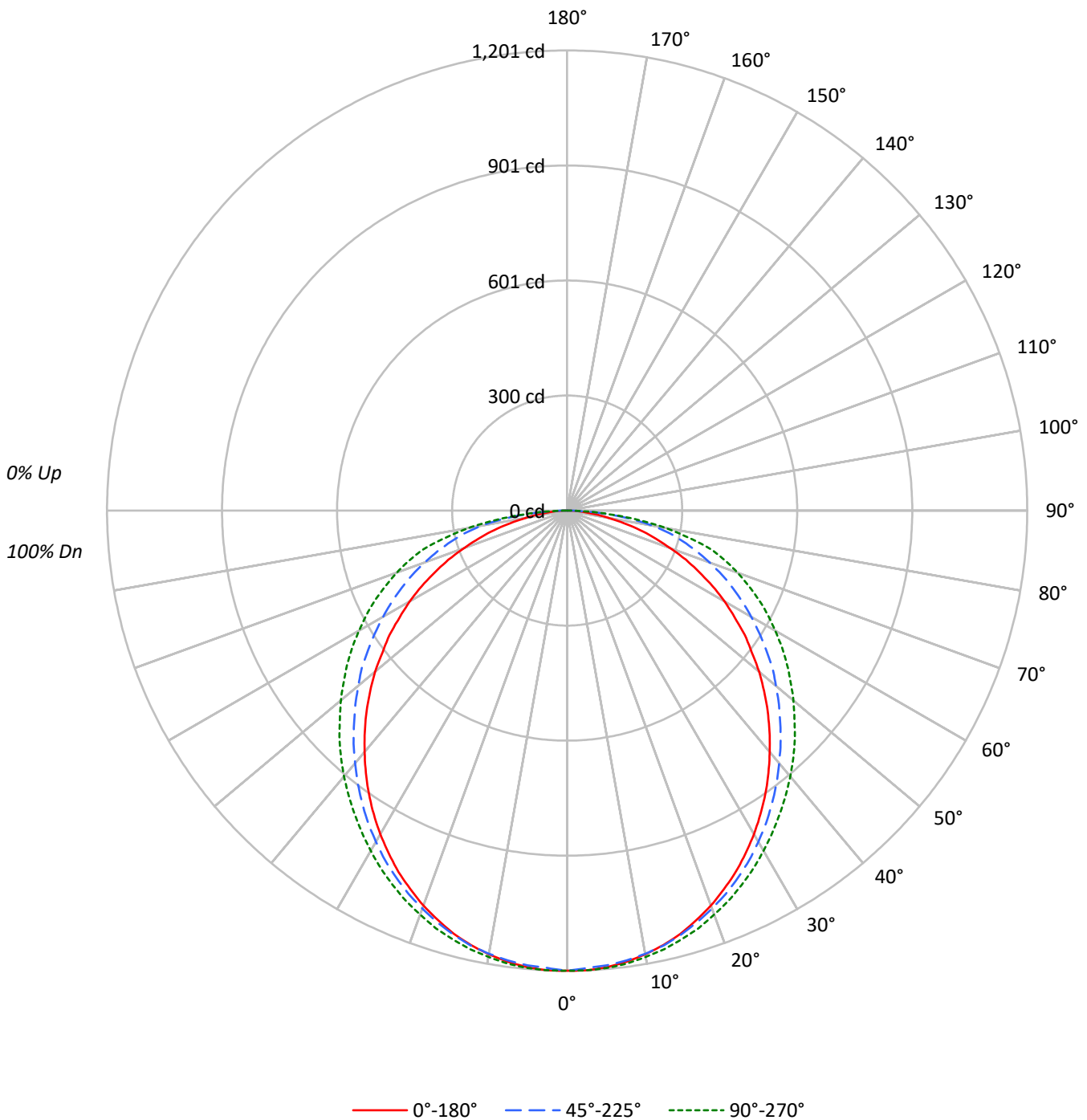
Input Watts (W): 31.688262  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	1616	1616	1616
5°	1615	1609	1619
10°	1606	1605	1616
15°	1593	1596	1613
20°	1571	1583	1607
25°	1545	1568	1600
30°	1515	1550	1593
35°	1482	1531	1588
40°	1445	1512	1591
45°	1408	1497	1599
50°	1369	1489	1614
55°	1327	1487	1644
60°	1275	1494	1686
65°	1209	1516	1760
70°	1122	1554	1860
75°	1024	1632	2017
80°	841	1757	2016
85°	645	1621	1732



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.6	3.2
10°-20°	324.2	9.1
20°-30°	487.9	13.6
30°-40°	584.7	16.3
40°-50°	609.3	17.0
50°-60°	566.9	15.9
60°-70°	466.9	13.1
70°-80°	318.0	8.9
80°-90°	105.0	2.9
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°	925.7	25.9
0°-40°	1510.5	42.2
0°-60°	2686.7	75.1
0°-90°	3576.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3576.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1201	1201	1201	1201	1201	
5°	1196	1196	1191	1197	1198	114
15°	1144	1145	1146	1157	1158	322
25°	1041	1046	1056	1074	1078	479
35°	902	913	932	957	967	564
45°	740	756	787	826	840	571
55°	566	585	634	684	701	504
65°	380	412	476	532	553	377
75°	197	241	314	370	388	208
85°	42	81	105	112	112	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1200.9	1200.9	1200.9	1200.9	1200.9
2.5°	1200.9	1200.9	1194.9	1200.9	1200.9
5°	1196.1	1196.1	1191.3	1197.3	1198.5
7.5°	1187.7	1188.9	1184.1	1191.3	1192.5
10°	1175.8	1177.0	1174.6	1181.8	1182.9
12.5°	1161.5	1162.7	1162.7	1171.0	1172.2
15°	1143.6	1144.7	1145.9	1156.7	1157.9
17.5°	1120.9	1124.5	1126.8	1140.0	1142.4
20°	1097.0	1100.6	1105.4	1119.7	1122.1
22.5°	1069.5	1074.3	1082.7	1098.2	1101.8
25°	1040.9	1045.7	1056.4	1074.3	1077.9
27.5°	1008.7	1015.8	1029.0	1048.1	1052.8
30°	975.2	982.4	997.9	1018.2	1025.4
32.5°	939.4	949.0	966.9	989.6	996.7
35°	902.4	913.2	932.3	957.3	966.9
37.5°	863.0	875.0	897.7	925.1	937.0
40°	822.5	836.8	860.7	892.9	906.0
42.5°	781.9	795.0	824.8	859.5	873.8
45°	740.1	755.6	786.6	826.0	840.4
47.5°	697.1	712.6	749.6	791.4	804.5
50°	654.1	669.7	711.4	755.6	771.1
52.5°	607.6	627.9	675.6	719.8	735.3
55°	565.8	584.9	633.9	684.0	700.7
57.5°	518.1	540.7	594.5	647.0	664.9
60°	473.9	497.8	555.1	608.8	626.7
62.5°	428.5	454.8	515.7	570.6	590.9
65°	379.6	411.8	476.3	532.4	552.7
67.5°	335.4	368.9	436.9	494.2	512.1
70°	285.3	325.9	395.1	452.4	472.7
72.5°	242.3	282.9	355.7	411.8	432.1
75°	197.0	241.1	313.9	370.0	387.9
77.5°	151.6	200.5	273.4	316.3	322.3
80°	108.6	160.0	226.8	251.9	260.2
82.5°	76.4	123.0	167.1	183.8	188.6
85°	41.8	81.2	105.0	112.2	112.2
87.5°	17.9	34.6	41.8	43.0	44.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)