

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: P229965

Luminaire Tested: **24CZ-LD5-40-UNV-L935-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229965  
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-L935-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3413.0 lumens  
Efficiency: N/A  
Efficacy: 117.5 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

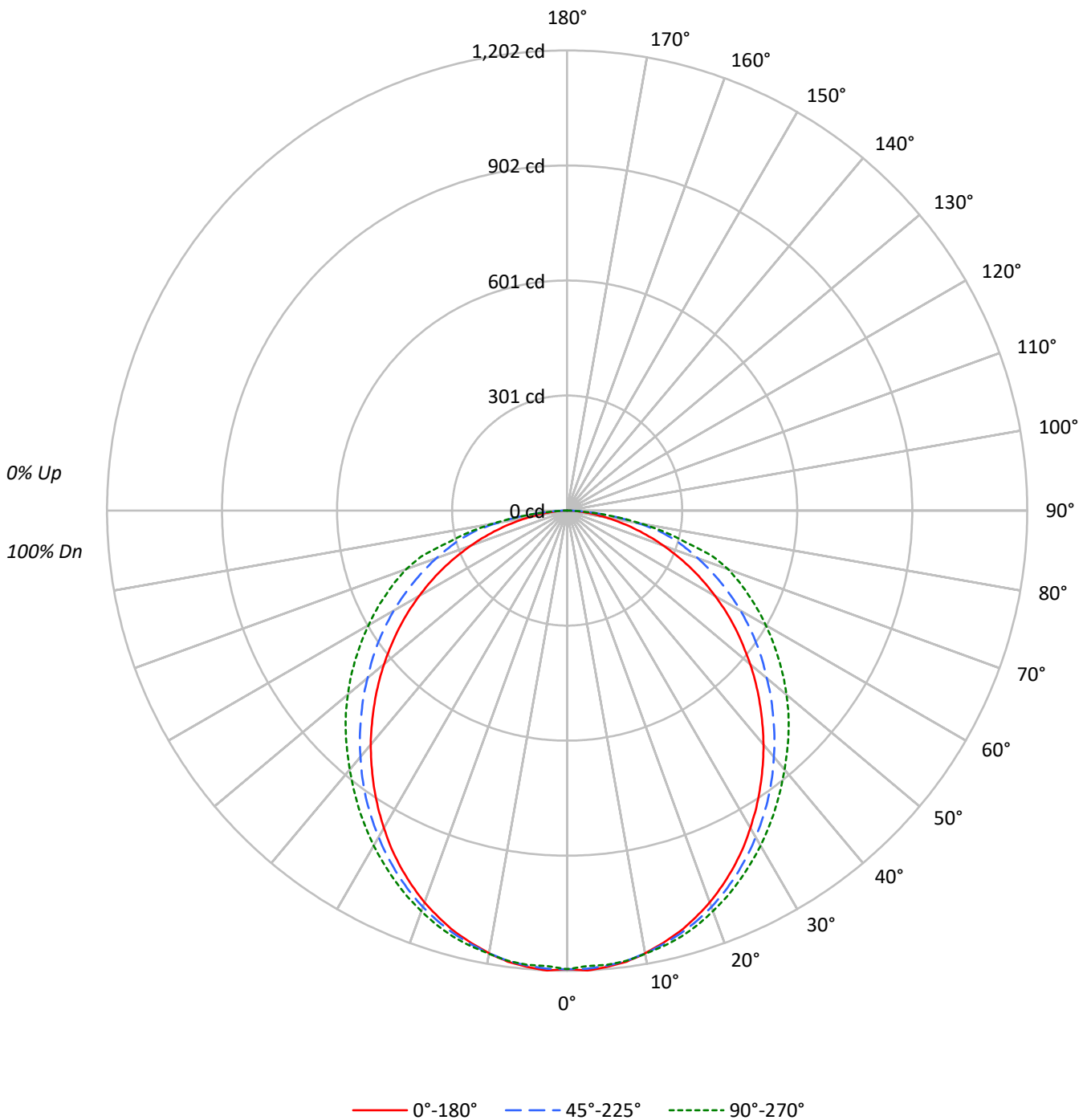
Input Watts (W): 29.04  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1612	1612	1612
5°	1616	1611	1608
10°	1605	1605	1606
15°	1585	1594	1605
20°	1559	1578	1594
25°	1527	1556	1582
30°	1487	1530	1570
35°	1445	1505	1559
40°	1402	1476	1552
45°	1354	1447	1556
50°	1306	1424	1566
55°	1258	1415	1582
60°	1201	1406	1613
65°	1138	1406	1667
70°	1053	1430	1756
75°	941	1495	1671
80°	788	1430	1530
85°	596	1101	1047



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.2	3.3
10°-20°	322.1	9.4
20°-30°	481.6	14.1
30°-40°	571.3	16.7
40°-50°	588.0	17.2
50°-60°	539.5	15.8
60°-70°	436.2	12.8
70°-80°	283.1	8.3
80°-90°	78.0	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°	916.9	26.9
0°-40°	1488.2	43.6
0°-60°	2615.7	76.6
0°-90°	3413.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3413.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1198	1198	1198	1198	1198	
5°	1197	1188	1193	1192	1191	114
15°	1138	1134	1144	1149	1152	321
25°	1028	1030	1048	1058	1066	473
35°	880	887	916	936	949	550
45°	712	723	761	797	818	549
55°	536	553	603	652	674	479
65°	358	379	442	500	524	353
75°	181	215	288	321	321	193
85°	39	65	71	69	68	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1197.8	1197.8	1197.8	1197.8	1197.8
2.5°	1202.5	1193.1	1197.8	1196.6	1190.8
5°	1196.6	1188.4	1193.1	1191.9	1190.8
7.5°	1188.4	1180.3	1186.1	1184.9	1186.1
10°	1174.4	1167.4	1174.4	1175.6	1175.6
12.5°	1156.9	1151.0	1160.4	1162.7	1165.1
15°	1138.2	1133.5	1144.0	1148.7	1152.2
17.5°	1114.8	1111.3	1124.2	1130.0	1134.7
20°	1089.1	1087.9	1102.0	1107.8	1113.6
22.5°	1059.9	1059.9	1076.3	1083.3	1091.4
25°	1028.3	1029.5	1048.2	1057.6	1065.7
27.5°	994.5	995.6	1017.8	1029.5	1038.9
30°	957.1	961.7	985.1	1000.3	1010.8
32.5°	919.7	925.5	951.2	968.7	980.4
35°	879.9	886.9	916.2	936.0	948.9
37.5°	839.0	847.2	878.8	901.0	916.2
40°	798.1	807.5	840.2	865.9	883.4
42.5°	754.9	765.4	801.6	832.0	850.7
45°	711.7	723.3	760.7	797.0	818.0
47.5°	668.4	682.4	722.2	761.9	784.1
50°	624.0	638.0	680.1	725.7	747.9
52.5°	579.6	596.0	642.7	689.5	711.7
55°	536.4	552.7	603.0	652.1	674.3
57.5°	492.0	508.3	563.3	614.7	636.9
60°	446.4	465.1	522.4	574.9	599.5
62.5°	402.0	421.9	482.6	538.7	562.1
65°	357.6	378.6	441.7	500.1	523.5
67.5°	312.0	336.5	402.0	461.6	486.1
70°	267.6	294.5	363.4	423.0	446.4
72.5°	224.4	253.6	324.9	385.6	399.7
75°	181.1	215.0	287.5	321.4	321.4
77.5°	140.2	177.6	245.4	258.3	265.3
80°	101.7	142.6	184.6	199.8	197.5
82.5°	67.8	108.7	132.0	132.0	128.5
85°	38.6	65.4	71.3	68.9	67.8
87.5°	16.4	24.5	22.2	17.5	15.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)