

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: P229961

Luminaire Tested: **24CZ-LD5-35-UNV-L935-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229961  
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-LD5-35-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: 3008.0 lumens  
Efficiency: N/A  
Efficacy: 118.8 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

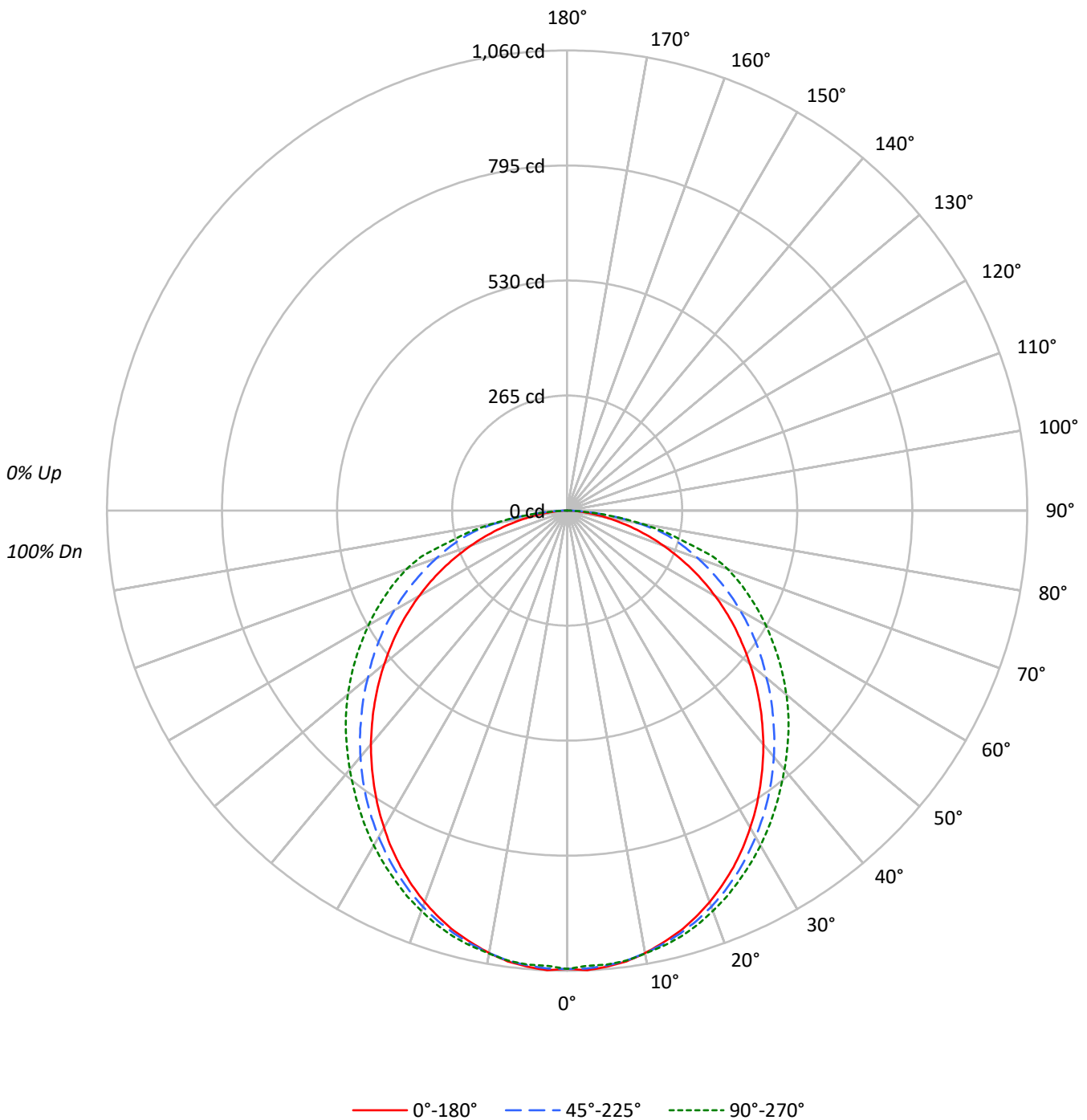
Input Watts (W): 25.32  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1420	1420	1420
5°	1424	1420	1417
10°	1414	1414	1416
15°	1397	1405	1415
20°	1374	1391	1405
25°	1345	1371	1394
30°	1310	1349	1384
35°	1274	1326	1374
40°	1235	1301	1368
45°	1193	1276	1372
50°	1151	1255	1380
55°	1109	1247	1394
60°	1059	1239	1422
65°	1004	1239	1469
70°	928	1260	1548
75°	830	1317	1472
80°	694	1261	1349
85°	525	969	922



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.8	3.3
10°-20°	283.9	9.4
20°-30°	424.4	14.1
30°-40°	503.5	16.7
40°-50°	518.3	17.2
50°-60°	475.4	15.8
60°-70°	384.4	12.8
70°-80°	249.5	8.3
80°-90°	68.8	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°	808.1	26.9
0°-40°	1311.6	43.6
0°-60°	2305.3	76.6
0°-90°	3008.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3008.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1056	1056	1056	1056	1056	
5°	1055	1047	1052	1050	1050	100
15°	1003	999	1008	1012	1016	283
25°	906	907	924	932	939	417
35°	776	782	807	825	836	485
45°	627	638	670	702	721	484
55°	473	487	531	575	594	422
65°	315	334	389	441	461	311
75°	160	190	253	283	283	170
85°	34	58	63	61	60	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1055.7	1055.7	1055.7	1055.7	1055.7
2.5°	1059.8	1051.5	1055.7	1054.6	1049.5
5°	1054.6	1047.4	1051.5	1050.5	1049.5
7.5°	1047.4	1040.2	1045.4	1044.3	1045.4
10°	1035.1	1028.9	1035.1	1036.1	1036.1
12.5°	1019.6	1014.5	1022.7	1024.8	1026.8
15°	1003.1	999.0	1008.3	1012.4	1015.5
17.5°	982.5	979.4	990.8	995.9	1000.0
20°	959.9	958.8	971.2	976.3	981.5
22.5°	934.1	934.1	948.5	954.7	961.9
25°	906.3	907.3	923.8	932.1	939.3
27.5°	876.4	877.5	897.0	907.3	915.6
30°	843.5	847.6	868.2	881.6	890.9
32.5°	810.5	815.7	838.3	853.8	864.1
35°	775.5	781.7	807.4	825.0	836.3
37.5°	739.5	746.7	774.5	794.1	807.4
40°	703.4	711.7	740.5	763.2	778.6
42.5°	665.3	674.6	706.5	733.3	749.8
45°	627.2	637.5	670.5	702.4	720.9
47.5°	589.1	601.5	636.5	671.5	691.1
50°	550.0	562.3	599.4	639.6	659.1
52.5°	510.8	525.3	566.4	607.6	627.2
55°	472.7	487.1	531.4	574.7	594.3
57.5°	433.6	448.0	496.4	541.7	561.3
60°	393.4	409.9	460.4	506.7	528.3
62.5°	354.3	371.8	425.4	474.8	495.4
65°	315.2	333.7	389.3	440.8	461.4
67.5°	275.0	296.6	354.3	406.8	428.4
70°	235.8	259.5	320.3	372.8	393.4
72.5°	197.7	223.5	286.3	339.9	352.2
75°	159.6	189.5	253.4	283.2	283.2
77.5°	123.6	156.5	216.3	227.6	233.8
80°	89.6	125.6	162.7	176.1	174.1
82.5°	59.7	95.8	116.4	116.4	113.3
85°	34.0	57.7	62.8	60.8	59.7
87.5°	14.4	21.6	19.6	15.4	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)