

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: P230413

Luminaire Tested: **24CZ-LD5-60-SQP-UNV-L935-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230413  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25695)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-60-SQP-UNV-L935-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH SQP LENS  
Light Source: (168) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3627.4 lumens  
Efficiency: N/A  
Efficacy: 69.5 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.42  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

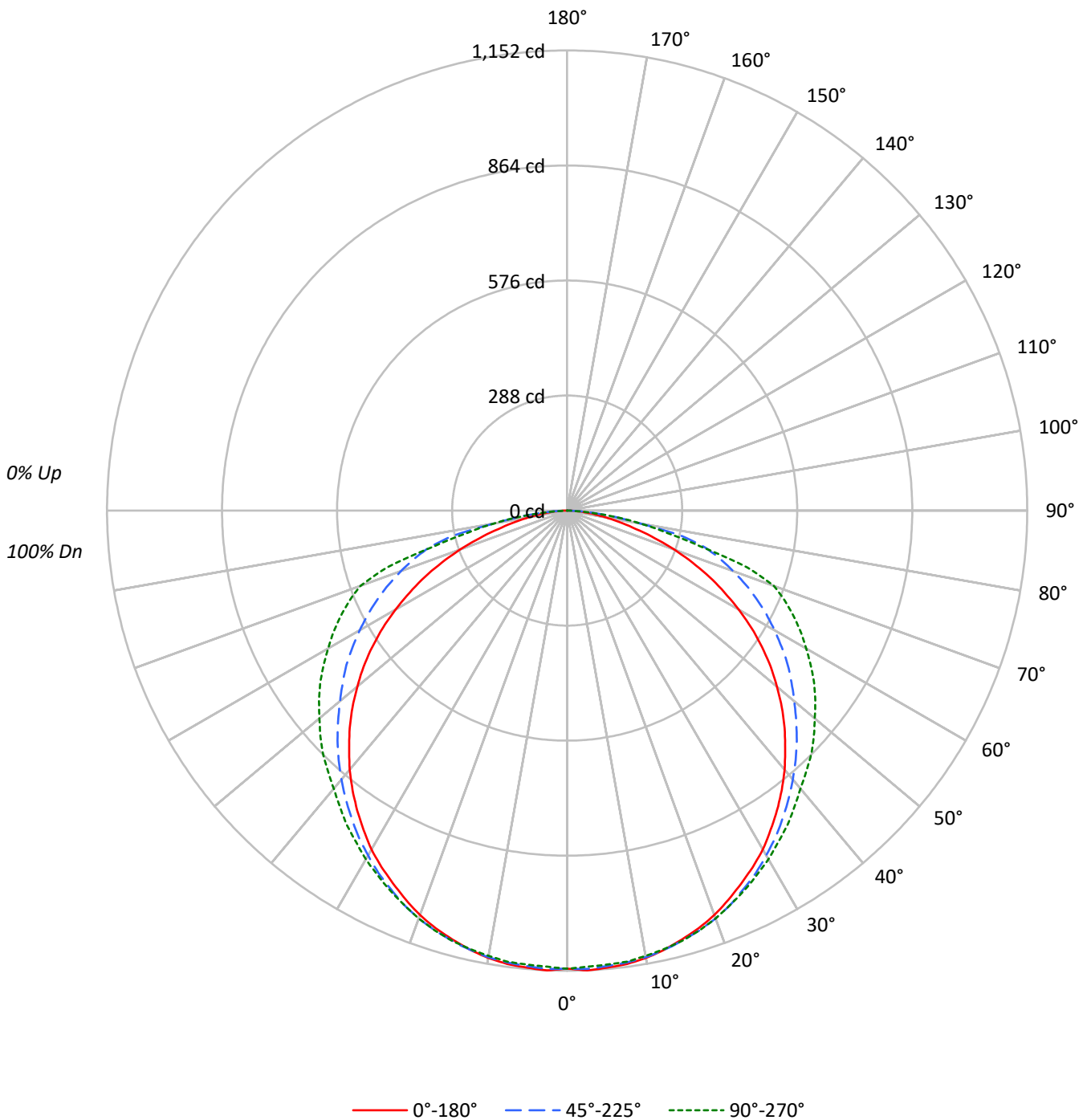
Input Watts (W): 52.17  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	97	93	96	93	90	92	90	87	89	87	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	60	70	64	59	67	63	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	51	45	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	29	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	51	38	30	24	50	37	30	24	36	29	24	35	29	24	35	28	24	22

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

	0°	45°	90°
0°	1543	1543	1543
5°	1551	1546	1541
10°	1554	1551	1546
15°	1548	1553	1553
20°	1543	1556	1556
25°	1530	1552	1558
30°	1522	1549	1566
35°	1505	1545	1579
40°	1488	1544	1596
45°	1465	1547	1644
50°	1436	1553	1694
55°	1398	1582	1771
60°	1336	1614	1861
65°	1253	1664	1992
70°	1120	1740	2167
75°	925	1861	1792
80°	755	1437	1452
85°	607	954	897



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.9	3.0
10°-20°	314.3	8.7
20°-30°	480.3	13.2
30°-40°	587.4	16.2
40°-50°	628.5	17.3
50°-60°	601.9	16.6
60°-70°	509.1	14.0
70°-80°	322.7	8.9
80°-90°	74.2	2.0
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°	903.4	24.9
0°-40°	1490.9	41.1
0°-60°	2721.3	75.0
0°-90°	3627.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3627.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1147	1147	1147	1147	1147	
5°	1149	1143	1145	1143	1141	109
15°	1111	1109	1115	1115	1115	314
25°	1030	1030	1046	1049	1049	475
35°	916	922	941	954	961	573
45°	770	783	813	847	864	593
55°	596	615	674	731	755	531
65°	394	431	523	594	626	388
75°	178	251	358	356	345	194
85°	39	60	62	56	58	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1146.7	1146.7	1146.7	1146.7	1146.7
2.5°	1152.3	1146.7	1148.6	1146.7	1142.9
5°	1148.6	1142.9	1144.8	1142.9	1141.1
7.5°	1144.8	1139.2	1141.1	1139.2	1139.2
10°	1137.3	1131.7	1135.4	1133.6	1131.7
12.5°	1126.1	1122.3	1126.1	1124.2	1124.2
15°	1111.1	1109.2	1114.8	1114.8	1114.8
17.5°	1096.1	1094.2	1101.7	1101.7	1101.7
20°	1077.4	1075.5	1086.7	1086.7	1086.7
22.5°	1054.9	1053.0	1068.0	1068.0	1068.0
25°	1030.5	1030.5	1045.5	1049.3	1049.3
27.5°	1006.2	1006.2	1023.0	1028.6	1028.6
30°	979.9	979.9	996.8	1004.3	1008.0
32.5°	948.1	951.8	970.6	979.9	983.7
35°	916.2	921.8	940.6	953.7	961.2
37.5°	882.5	888.1	910.6	925.6	935.0
40°	846.9	854.4	878.8	897.5	908.7
42.5°	807.6	818.8	846.9	871.3	886.2
45°	770.1	783.2	813.2	846.9	863.8
47.5°	728.9	743.8	777.6	820.7	837.5
50°	685.8	700.8	742.0	790.7	809.4
52.5°	642.7	659.5	708.2	760.7	783.2
55°	595.8	614.6	674.5	730.7	755.1
57.5°	547.1	569.6	637.0	697.0	723.2
60°	496.5	524.6	599.6	663.3	691.4
62.5°	444.1	477.8	562.1	629.6	659.5
65°	393.5	430.9	522.8	594.0	625.8
67.5°	339.1	386.0	483.4	560.2	590.2
70°	284.8	339.1	442.2	520.9	550.9
72.5°	230.5	296.0	401.0	472.2	472.2
75°	178.0	251.1	357.9	356.0	344.8
77.5°	134.9	209.9	294.2	251.1	252.9
80°	97.4	168.6	185.5	185.5	187.4
82.5°	65.6	129.3	119.9	118.0	121.8
85°	39.3	60.0	61.8	56.2	58.1
87.5°	18.7	20.6	16.9	11.2	11.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)