

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: P230088

Luminaire Tested: **24CZ-LD5-55SE-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230088  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-55SE-S-UNV-L930-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH SMOOTH LENS  
Light Source: (84) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4682.0 lumens  
Efficiency: N/A  
Efficacy: 85.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

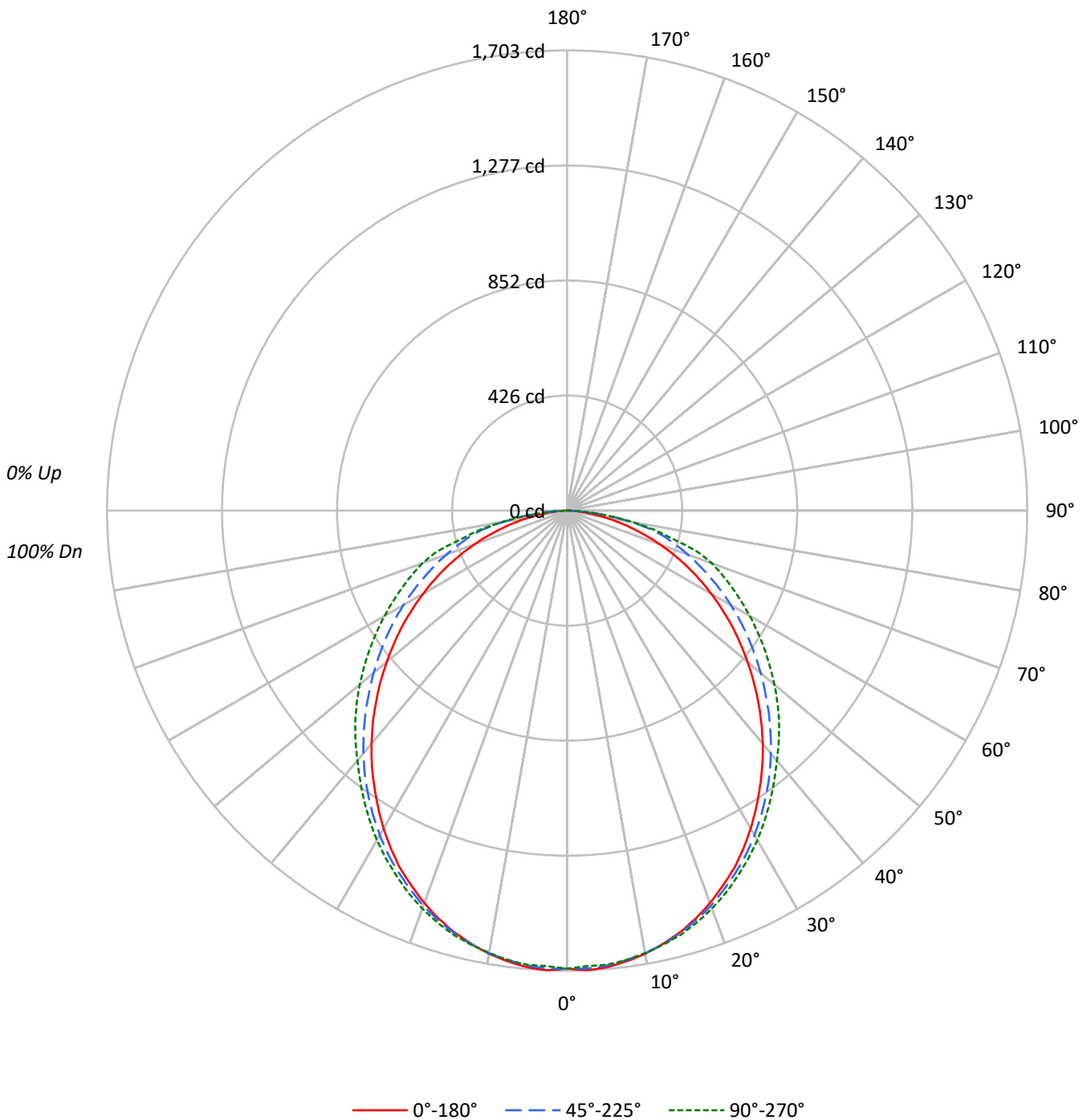
Input Watts (W): 54.69  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2281	2281	2281
5°	2291	2283	2279
10°	2275	2273	2271
15°	2250	2255	2263
20°	2213	2228	2244
25°	2169	2193	2216
30°	2111	2154	2188
35°	2044	2109	2152
40°	1978	2060	2121
45°	1903	2007	2111
50°	1826	1957	2097
55°	1747	1915	2090
60°	1656	1882	2100
65°	1557	1860	2143
70°	1434	1869	2243
75°	1272	1935	2089
80°	1062	1835	1883
85°	794	1467	1346



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.3	3.4
10°-20°	455.8	9.7
20°-30°	679.2	14.5
30°-40°	799.5	17.1
40°-50°	812.5	17.4
50°-60°	730.5	15.6
60°-70°	577.1	12.3
70°-80°	366.1	7.8
80°-90°	101.0	2.2
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°	1295.2	27.7
0°-40°	2094.7	44.7
0°-60°	3637.7	77.7
0°-90°	4682.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4682.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1695	1695	1695	1695	1695	
5°	1696	1682	1690	1687	1687	161
15°	1616	1608	1619	1623	1625	455
25°	1461	1460	1477	1486	1492	672
35°	1245	1252	1284	1298	1310	779
45°	1000	1014	1055	1086	1109	772
55°	745	763	816	869	891	665
65°	489	514	584	648	673	485
75°	245	287	372	405	402	260
85°	51	89	95	87	87	63
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1695.0	1695.0	1695.0	1695.0	1695.0
2.5°	1702.8	1690.3	1696.5	1693.4	1687.2
5°	1696.5	1682.5	1690.3	1687.2	1687.2
7.5°	1682.5	1671.6	1677.8	1676.3	1677.8
10°	1665.4	1654.5	1663.8	1663.8	1662.3
12.5°	1642.0	1632.7	1643.6	1643.6	1645.1
15°	1615.5	1607.7	1618.6	1623.3	1624.9
17.5°	1582.8	1575.0	1589.0	1593.7	1598.4
20°	1545.4	1542.3	1556.3	1561.0	1567.2
22.5°	1503.4	1503.4	1517.4	1523.6	1533.0
25°	1461.3	1459.7	1476.9	1486.2	1492.4
27.5°	1411.4	1413.0	1434.8	1444.2	1451.9
30°	1358.5	1361.6	1386.5	1397.4	1408.3
32.5°	1302.4	1308.6	1336.7	1349.1	1360.0
35°	1244.7	1252.5	1283.7	1297.7	1310.2
37.5°	1187.1	1198.0	1230.7	1244.7	1258.8
40°	1126.3	1135.7	1173.1	1190.2	1207.4
42.5°	1064.0	1076.5	1113.9	1138.8	1159.1
45°	1000.2	1014.2	1054.7	1085.8	1109.2
47.5°	936.3	955.0	993.9	1036.0	1056.2
50°	872.4	891.1	934.7	981.5	1001.7
52.5°	807.0	825.7	875.5	923.8	945.6
55°	744.7	763.4	816.3	869.3	891.1
57.5°	679.2	699.5	758.7	813.2	835.0
60°	615.4	635.6	699.5	757.1	780.5
62.5°	553.0	574.9	641.8	702.6	726.0
65°	489.2	514.1	584.2	648.1	673.0
67.5°	426.9	454.9	528.1	595.1	621.6
70°	364.5	397.3	475.2	543.7	570.2
72.5°	303.8	339.6	422.2	490.7	504.8
75°	244.6	286.6	372.3	405.0	401.9
77.5°	188.5	235.2	316.2	322.5	331.8
80°	137.1	188.5	236.8	249.3	243.0
82.5°	90.4	141.8	169.8	163.6	162.0
85°	51.4	88.8	95.0	87.2	87.2
87.5°	21.8	35.8	31.2	23.4	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)