

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: P#

Luminaire Tested: **24CZ-LD5-45SE-S-UNV-L835-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P#  
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-LD5-45SE-S-UNV-L835-CD1-U  
Description: CRUZE 2x4 LED TROFFER

Light Source: -  
Ballast/Driver: -

**Summary**

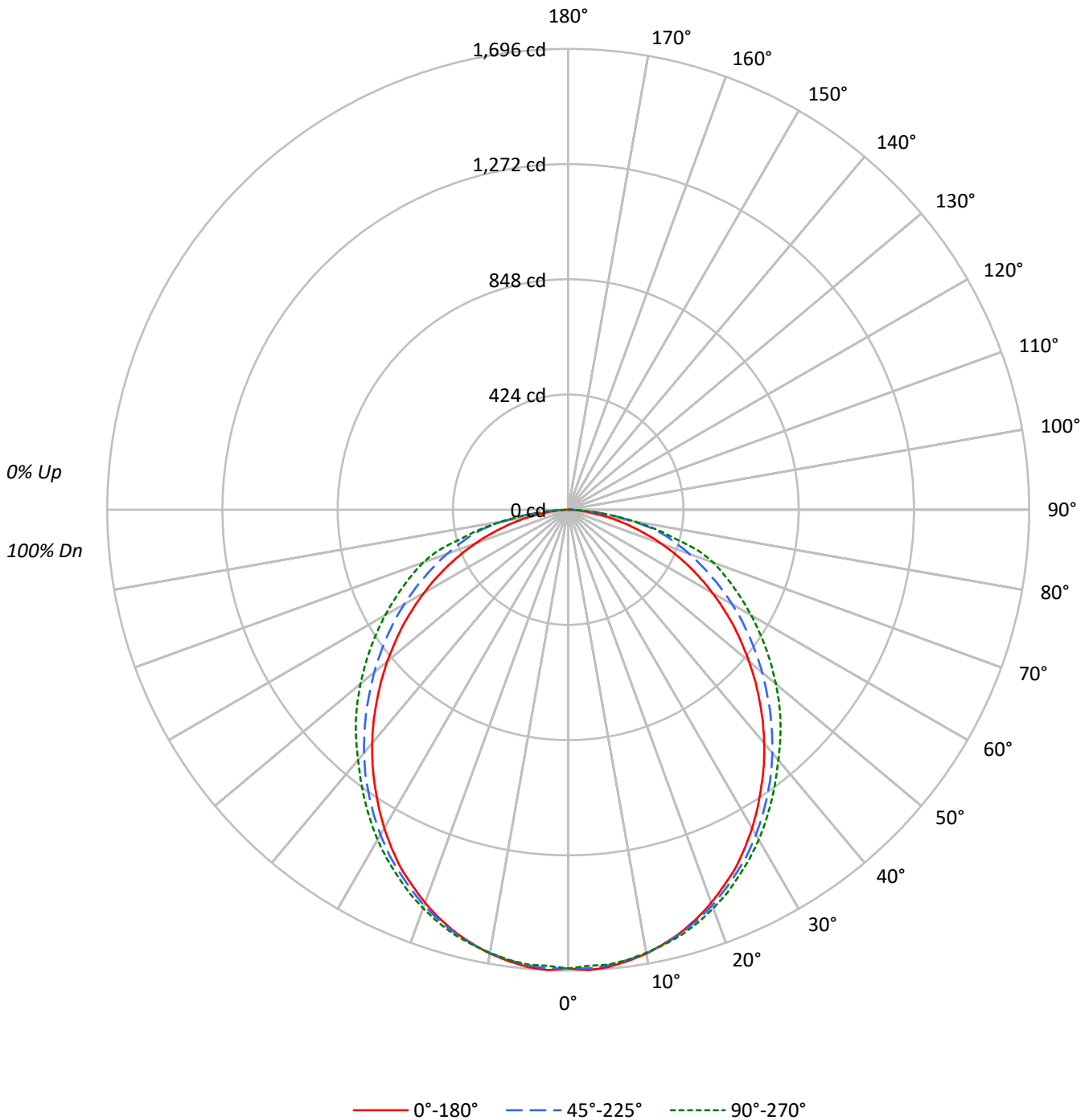
Lumens per Lamp: N/A  
Luminaire Lumens: 4663.4 lumens  
Efficiency: N/A  
Efficacy: 116.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 4' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 39.91  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	2272	2272	2272
5°	2277	2263	2260
10°	2256	2243	2242
15°	2226	2214	2225
20°	2184	2177	2195
25°	2136	2131	2157
30°	2072	2082	2118
35°	2001	2025	2071
40°	1930	1965	2027
45°	1849	1898	2002
50°	1766	1833	1971
55°	1680	1773	1943
60°	1581	1717	1925
65°	1472	1663	1927
70°	1337	1625	1964
75°	1158	1610	1754
80°	926	1405	1461
85°	615	910	854



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.6	3.4
10°-20°	454.0	9.7
20°-30°	676.5	14.5
30°-40°	796.4	17.1
40°-50°	809.3	17.4
50°-60°	727.6	15.6
60°-70°	574.8	12.3
70°-80°	364.7	7.8
80°-90°	100.6	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°	1290.1	27.7
0°-40°	2086.4	44.7
0°-60°	3623.3	77.7
0°-90°	4663.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4663.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1688	1688	1688	1688	1688	
5°	1690	1676	1684	1680	1680	160
15°	1609	1601	1612	1617	1618	453
25°	1456	1454	1471	1480	1486	669
35°	1240	1248	1279	1293	1305	776
45°	996	1010	1050	1082	1105	769
55°	742	760	813	866	888	662
65°	487	512	582	646	670	483
75°	244	286	371	403	400	259
85°	51	88	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°	1688.3	1688.3	1688.3	1688.3	1688.3
2.5°	1696.0	1683.6	1689.8	1686.7	1680.5
5°	1689.8	1675.8	1683.6	1680.5	1680.5
7.5°	1675.8	1665.0	1671.2	1669.6	1671.2
10°	1658.8	1647.9	1657.2	1657.2	1655.7
12.5°	1635.5	1626.2	1637.0	1637.0	1638.6
15°	1609.1	1601.4	1612.2	1616.9	1618.4
17.5°	1576.5	1568.8	1582.7	1587.4	1592.0
20°	1539.3	1536.2	1550.1	1554.8	1561.0
22.5°	1497.4	1497.4	1511.4	1517.6	1526.9
25°	1455.5	1453.9	1471.0	1480.3	1486.5
27.5°	1405.8	1407.4	1429.1	1438.4	1446.2
30°	1353.1	1356.2	1381.0	1391.9	1402.7
32.5°	1297.2	1303.4	1331.4	1343.8	1354.6
35°	1239.8	1247.6	1278.6	1292.6	1305.0
37.5°	1182.4	1193.3	1225.8	1239.8	1253.8
40°	1121.9	1131.2	1168.4	1185.5	1202.6
42.5°	1059.8	1072.2	1109.5	1134.3	1154.5
45°	996.2	1010.2	1050.5	1081.5	1104.8
47.5°	932.6	951.2	990.0	1031.9	1052.1
50°	869.0	887.6	931.0	977.6	997.7
52.5°	803.8	822.4	872.1	920.2	941.9
55°	741.7	760.3	813.1	865.8	887.6
57.5°	676.5	696.7	755.7	810.0	831.7
60°	612.9	633.1	696.7	754.1	777.4
62.5°	550.9	572.6	639.3	699.8	723.1
65°	487.2	512.1	581.9	645.5	670.3
67.5°	425.2	453.1	526.0	592.7	619.1
70°	363.1	395.7	473.3	541.5	567.9
72.5°	302.6	338.3	420.5	488.8	502.8
75°	243.6	285.5	370.9	403.4	400.3
77.5°	187.8	234.3	315.0	321.2	330.5
80°	136.5	187.8	235.9	248.3	242.1
82.5°	90.0	141.2	169.1	162.9	161.4
85°	51.2	88.4	94.7	86.9	86.9
87.5°	21.7	35.7	31.0	23.3	21.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)