

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: P230039

Luminaire Tested: **24CZ-LD5-40-S-UNV-L950-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230039  
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-LD5-40-S-UNV-L950-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3881.0 lumens  
Efficiency: N/A  
Efficacy: 133.6 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

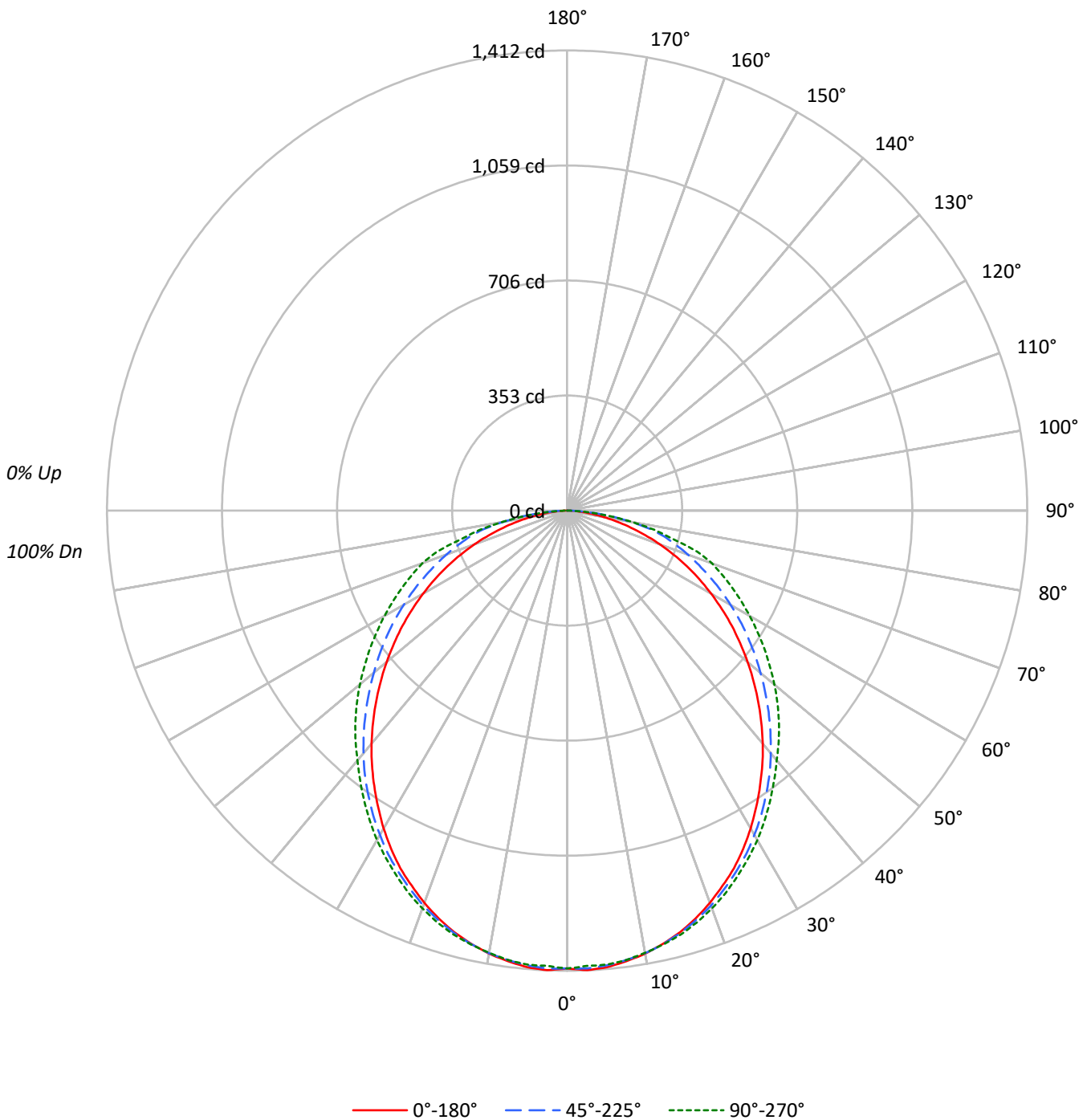
Input Watts (W): 29.04  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1890	1890	1890
5°	1899	1892	1889
10°	1886	1884	1883
15°	1865	1869	1876
20°	1834	1847	1860
25°	1798	1817	1837
30°	1750	1786	1814
35°	1695	1748	1784
40°	1640	1708	1758
45°	1577	1663	1749
50°	1514	1622	1738
55°	1448	1587	1733
60°	1373	1560	1741
65°	1291	1542	1776
70°	1189	1550	1859
75°	1054	1604	1732
80°	880	1521	1561
85°	658	1216	1116



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.8	3.4
10°-20°	377.8	9.7
20°-30°	563.0	14.5
30°-40°	662.7	17.1
40°-50°	673.5	17.4
50°-60°	605.5	15.6
60°-70°	478.4	12.3
70°-80°	303.5	7.8
80°-90°	83.8	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°	1073.6	27.7
0°-40°	1736.4	44.7
0°-60°	3015.4	77.7
0°-90°	3881.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3881.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1405	1405	1405	1405	1405	
5°	1406	1395	1401	1398	1398	133
15°	1339	1333	1342	1346	1347	377
25°	1211	1210	1224	1232	1237	557
35°	1032	1038	1064	1076	1086	646
45°	829	841	874	900	919	640
55°	617	633	677	721	739	551
65°	406	426	484	537	558	402
75°	203	238	309	336	333	216
85°	43	74	79	72	72	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1405.0	1405.0	1405.0	1405.0	1405.0
2.5°	1411.5	1401.1	1406.3	1403.7	1398.5
5°	1406.3	1394.7	1401.1	1398.5	1398.5
7.5°	1394.7	1385.6	1390.8	1389.5	1390.8
10°	1380.5	1371.4	1379.2	1379.2	1377.9
12.5°	1361.1	1353.3	1362.4	1362.4	1363.7
15°	1339.1	1332.7	1341.7	1345.6	1346.9
17.5°	1312.0	1305.6	1317.2	1321.1	1324.9
20°	1281.0	1278.4	1290.1	1293.9	1299.1
22.5°	1246.2	1246.2	1257.8	1262.9	1270.7
25°	1211.3	1210.0	1224.2	1232.0	1237.1
27.5°	1170.0	1171.3	1189.3	1197.1	1203.5
30°	1126.1	1128.6	1149.3	1158.3	1167.4
32.5°	1079.6	1084.7	1108.0	1118.3	1127.4
35°	1031.8	1038.2	1064.1	1075.7	1086.0
37.5°	984.0	993.1	1020.2	1031.8	1043.4
40°	933.6	941.4	972.4	986.6	1000.8
42.5°	882.0	892.3	923.3	944.0	960.8
45°	829.0	840.7	874.2	900.1	919.4
47.5°	776.1	791.6	823.9	858.8	875.5
50°	723.2	738.7	774.8	813.6	830.3
52.5°	668.9	684.4	725.7	765.8	783.9
55°	617.3	632.8	676.7	720.6	738.7
57.5°	563.0	579.8	628.9	674.1	692.2
60°	510.1	526.9	579.8	627.6	647.0
62.5°	458.4	476.5	532.0	582.4	601.8
65°	405.5	426.1	484.3	537.2	557.9
67.5°	353.8	377.1	437.8	493.3	515.3
70°	302.2	329.3	393.9	450.7	472.6
72.5°	251.8	281.5	350.0	406.8	418.4
75°	202.7	237.6	308.6	335.8	333.2
77.5°	156.3	195.0	262.1	267.3	275.1
80°	113.6	156.3	196.3	206.6	201.5
82.5°	74.9	117.5	140.8	135.6	134.3
85°	42.6	73.6	78.8	72.3	72.3
87.5°	18.1	29.7	25.8	19.4	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)