

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: P230047

Luminaire Tested: **24CZ-LD5-50-S-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230047
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-LD5-50-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: 4884.0 lumens
Efficiency: N/A
Efficacy: 120.1 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

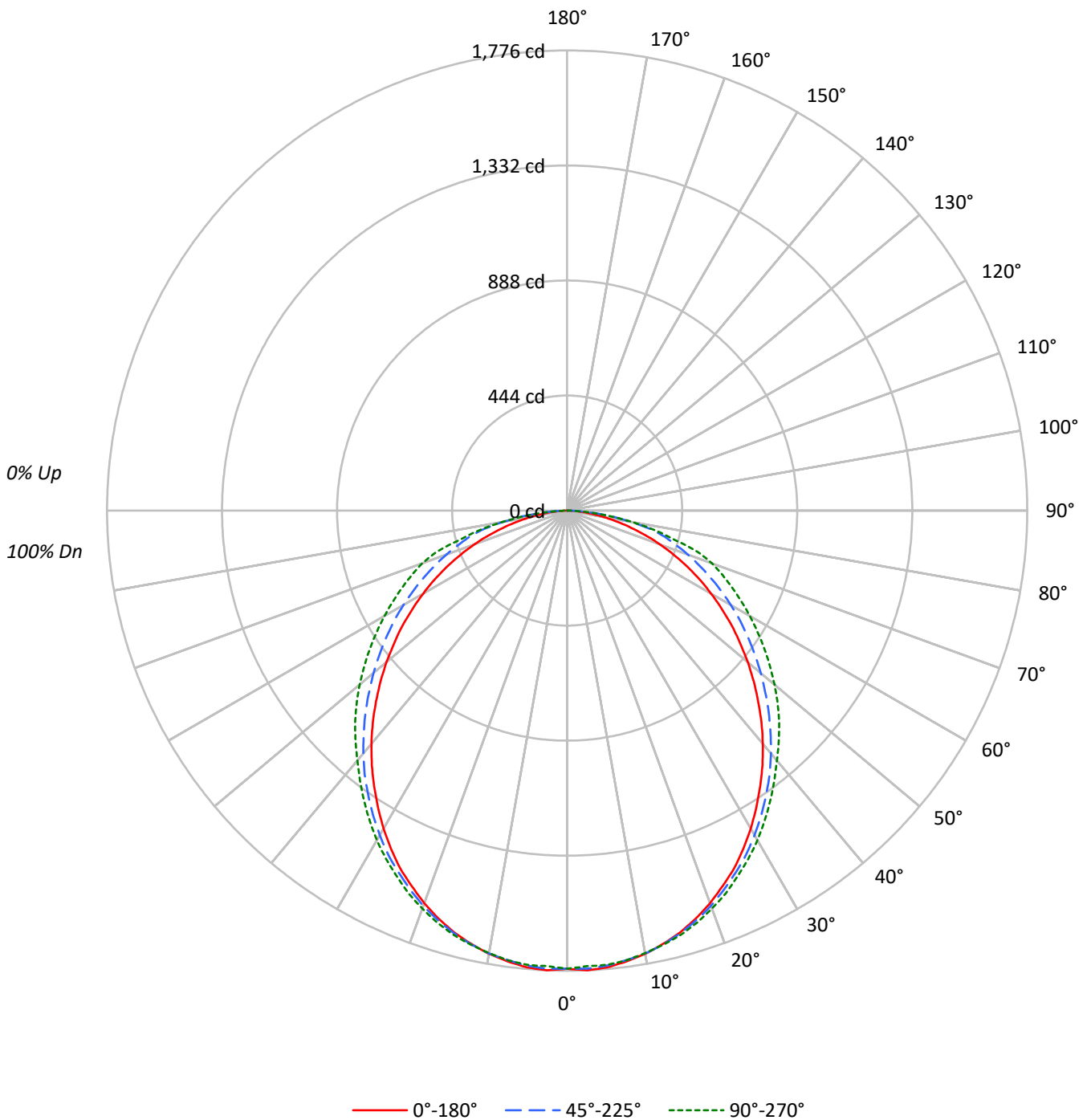
Input Watts (W): 40.68
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2379	2379	2379
5°	2390	2381	2377
10°	2373	2371	2369
15°	2347	2352	2361
20°	2308	2325	2341
25°	2263	2287	2311
30°	2202	2247	2282
35°	2133	2200	2245
40°	2064	2149	2212
45°	1985	2093	2202
50°	1905	2041	2187
55°	1822	1997	2181
60°	1727	1964	2191
65°	1625	1940	2235
70°	1496	1950	2340
75°	1326	2019	2180
80°	1108	1914	1964
85°	827	1530	1405



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.2	3.4
10°-20°	475.4	9.7
20°-30°	708.5	14.5
30°-40°	834.0	17.1
40°-50°	847.6	17.4
50°-60°	762.0	15.6
60°-70°	602.0	12.3
70°-80°	381.9	7.8
80°-90°	105.4	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°	1351.1	27.7
0°-40°	2185.1	44.7
0°-60°	3794.7	77.7
0°-90°	4884.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4884.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1768	1768	1768	1768	1768	
5°	1770	1755	1763	1760	1760	168
15°	1685	1677	1688	1693	1695	475
25°	1524	1523	1541	1550	1557	701
35°	1298	1307	1339	1354	1367	812
45°	1043	1058	1100	1133	1157	805
55°	777	796	852	907	930	694
65°	510	536	609	676	702	505
75°	255	299	388	422	419	272
85°	54	93	99	91	91	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1768.1	1768.1	1768.1	1768.1	1768.1
2.5°	1776.2	1763.2	1769.7	1766.5	1760.0
5°	1769.7	1755.1	1763.2	1760.0	1760.0
7.5°	1755.1	1743.7	1750.2	1748.6	1750.2
10°	1737.2	1725.8	1735.6	1735.6	1734.0
12.5°	1712.8	1703.1	1714.5	1714.5	1716.1
15°	1685.2	1677.1	1688.5	1693.3	1695.0
17.5°	1651.1	1643.0	1657.6	1662.5	1667.3
20°	1612.1	1608.8	1623.5	1628.3	1634.8
22.5°	1568.2	1568.2	1582.8	1589.3	1599.1
25°	1524.3	1522.7	1540.6	1550.3	1556.8
27.5°	1472.3	1474.0	1496.7	1506.5	1514.6
30°	1417.1	1420.3	1446.3	1457.7	1469.1
32.5°	1358.6	1365.1	1394.3	1407.3	1418.7
35°	1298.4	1306.6	1339.1	1353.7	1366.7
37.5°	1238.3	1249.7	1283.8	1298.4	1313.1
40°	1174.9	1184.7	1223.7	1241.6	1259.4
42.5°	1109.9	1122.9	1161.9	1187.9	1209.1
45°	1043.3	1057.9	1100.2	1132.7	1157.1
47.5°	976.7	996.2	1036.8	1080.7	1101.8
50°	910.1	929.6	975.1	1023.8	1044.9
52.5°	841.8	861.3	913.3	963.7	986.4
55°	776.8	796.3	851.5	906.8	929.6
57.5°	708.5	729.7	791.4	848.3	871.0
60°	641.9	663.0	729.7	789.8	814.2
62.5°	576.9	599.7	669.5	732.9	757.3
65°	510.3	536.3	609.4	676.0	702.0
67.5°	445.3	474.5	550.9	620.8	648.4
70°	380.3	414.4	495.7	567.2	594.8
72.5°	316.9	354.3	440.4	511.9	526.5
75°	255.1	299.0	388.4	422.5	419.3
77.5°	196.6	245.4	329.9	336.4	346.1
80°	143.0	196.6	247.0	260.0	253.5
82.5°	94.3	147.9	177.1	170.6	169.0
85°	53.6	92.6	99.1	91.0	91.0
87.5°	22.8	37.4	32.5	24.4	22.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)