

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: P230045

Luminaire Tested: **24CZ-LD5-50-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230045
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-L935-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4381.0 lumens
Efficiency: N/A
Efficacy: 107.7 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

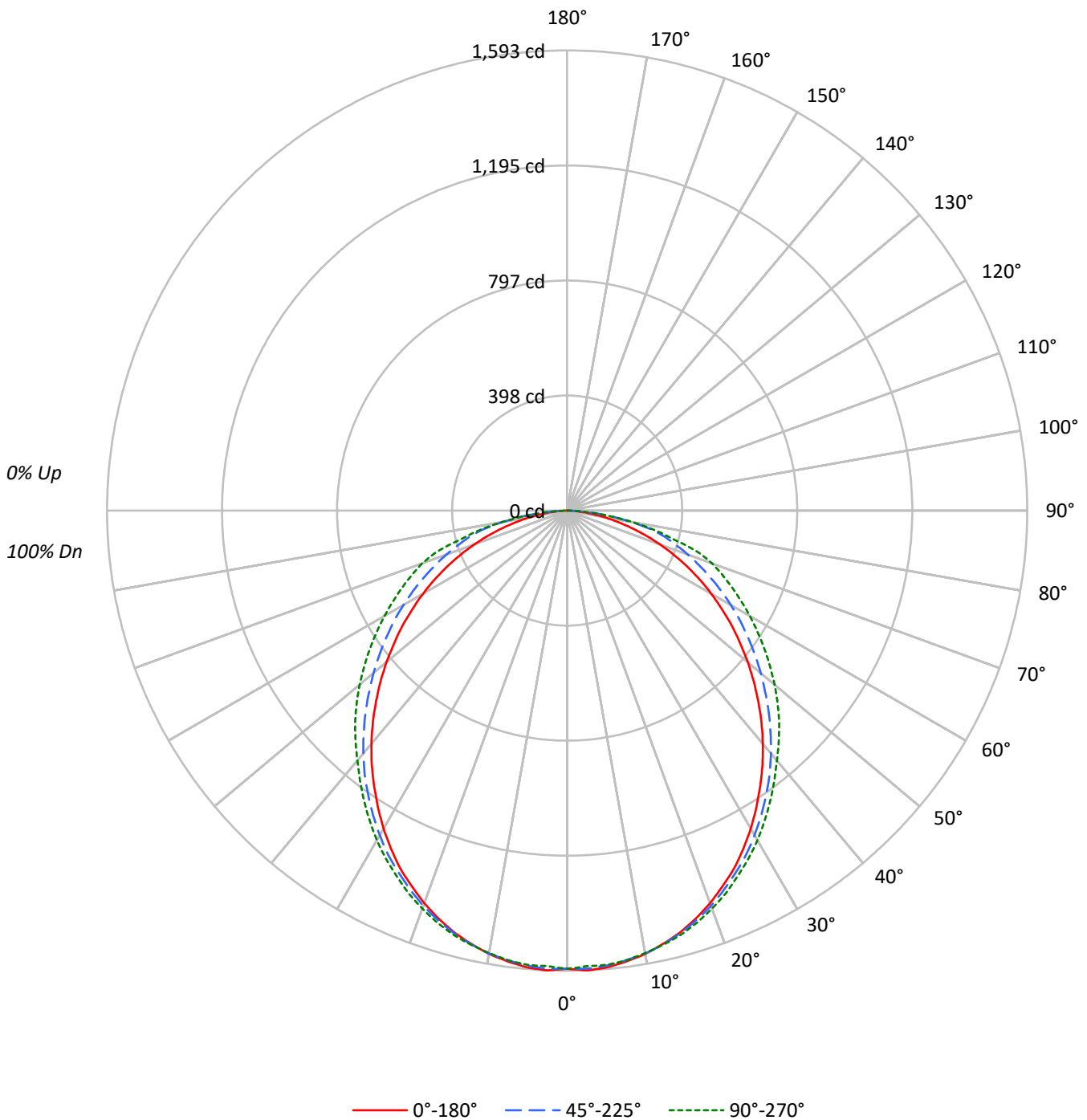
Input Watts (W): 40.68
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2134	2134	2134
5°	2144	2136	2132
10°	2129	2127	2125
15°	2106	2110	2118
20°	2071	2085	2100
25°	2030	2052	2073
30°	1975	2016	2047
35°	1913	1973	2014
40°	1851	1928	1984
45°	1781	1878	1975
50°	1709	1831	1962
55°	1635	1792	1956
60°	1549	1761	1965
65°	1457	1740	2005
70°	1342	1749	2099
75°	1190	1811	1955
80°	994	1717	1762
85°	743	1372	1260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.9	3.4
10°-20°	426.5	9.7
20°-30°	635.5	14.5
30°-40°	748.1	17.1
40°-50°	760.3	17.4
50°-60°	683.5	15.6
60°-70°	540.0	12.3
70°-80°	342.6	7.8
80°-90°	94.6	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°	1212.0	27.7
0°-40°	1960.1	44.7
0°-60°	3403.9	77.7
0°-90°	4381.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4381.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1586	1586	1586	1586	1586	
5°	1588	1574	1582	1579	1579	151
15°	1512	1504	1515	1519	1520	426
25°	1367	1366	1382	1391	1396	629
35°	1165	1172	1201	1214	1226	729
45°	936	949	987	1016	1038	722
55°	697	714	764	813	834	622
65°	458	481	547	606	630	453
75°	229	268	348	379	376	244
85°	48	83	89	82	82	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1586.0	1586.0	1586.0	1586.0	1586.0
2.5°	1593.3	1581.6	1587.5	1584.5	1578.7
5°	1587.5	1574.3	1581.6	1578.7	1578.7
7.5°	1574.3	1564.1	1570.0	1568.5	1570.0
10°	1558.3	1548.1	1556.8	1556.8	1555.4
12.5°	1536.4	1527.7	1537.9	1537.9	1539.4
15°	1511.7	1504.4	1514.6	1518.9	1520.4
17.5°	1481.0	1473.8	1486.9	1491.3	1495.6
20°	1446.1	1443.1	1456.3	1460.6	1466.5
22.5°	1406.7	1406.7	1419.8	1425.7	1434.4
25°	1367.3	1365.9	1381.9	1390.7	1396.5
27.5°	1320.7	1322.2	1342.6	1351.3	1358.6
30°	1271.1	1274.0	1297.4	1307.6	1317.8
32.5°	1218.7	1224.5	1250.7	1262.4	1272.6
35°	1164.7	1172.0	1201.2	1214.3	1225.9
37.5°	1110.8	1121.0	1151.6	1164.7	1177.8
40°	1053.9	1062.7	1097.7	1113.7	1129.7
42.5°	995.6	1007.3	1042.3	1065.6	1084.5
45°	935.9	949.0	986.9	1016.0	1037.9
47.5°	876.1	893.6	930.0	969.4	988.3
50°	816.3	833.8	874.6	918.4	937.3
52.5°	755.1	772.6	819.2	864.4	884.8
55°	696.8	714.3	763.8	813.4	833.8
57.5°	635.6	654.5	709.9	760.9	781.3
60°	575.8	594.8	654.5	708.5	730.3
62.5°	517.5	537.9	600.6	657.4	679.3
65°	457.7	481.0	546.6	606.4	629.7
67.5°	399.4	425.7	494.2	556.9	581.6
70°	341.1	371.7	444.6	508.7	533.5
72.5°	284.3	317.8	395.0	459.2	472.3
75°	228.9	268.2	348.4	379.0	376.1
77.5°	176.4	220.1	295.9	301.7	310.5
80°	128.3	176.4	221.6	233.2	227.4
82.5°	84.5	132.7	158.9	153.1	151.6
85°	48.1	83.1	88.9	81.6	81.6
87.5°	20.4	33.5	29.2	21.9	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)