

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: P389786

Luminaire Tested: **24CZ2-50VHE-S-UNV-L935-CD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P389786
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50VHE-S-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4498.7 lumens
Efficiency: N/A
Efficacy: 137.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

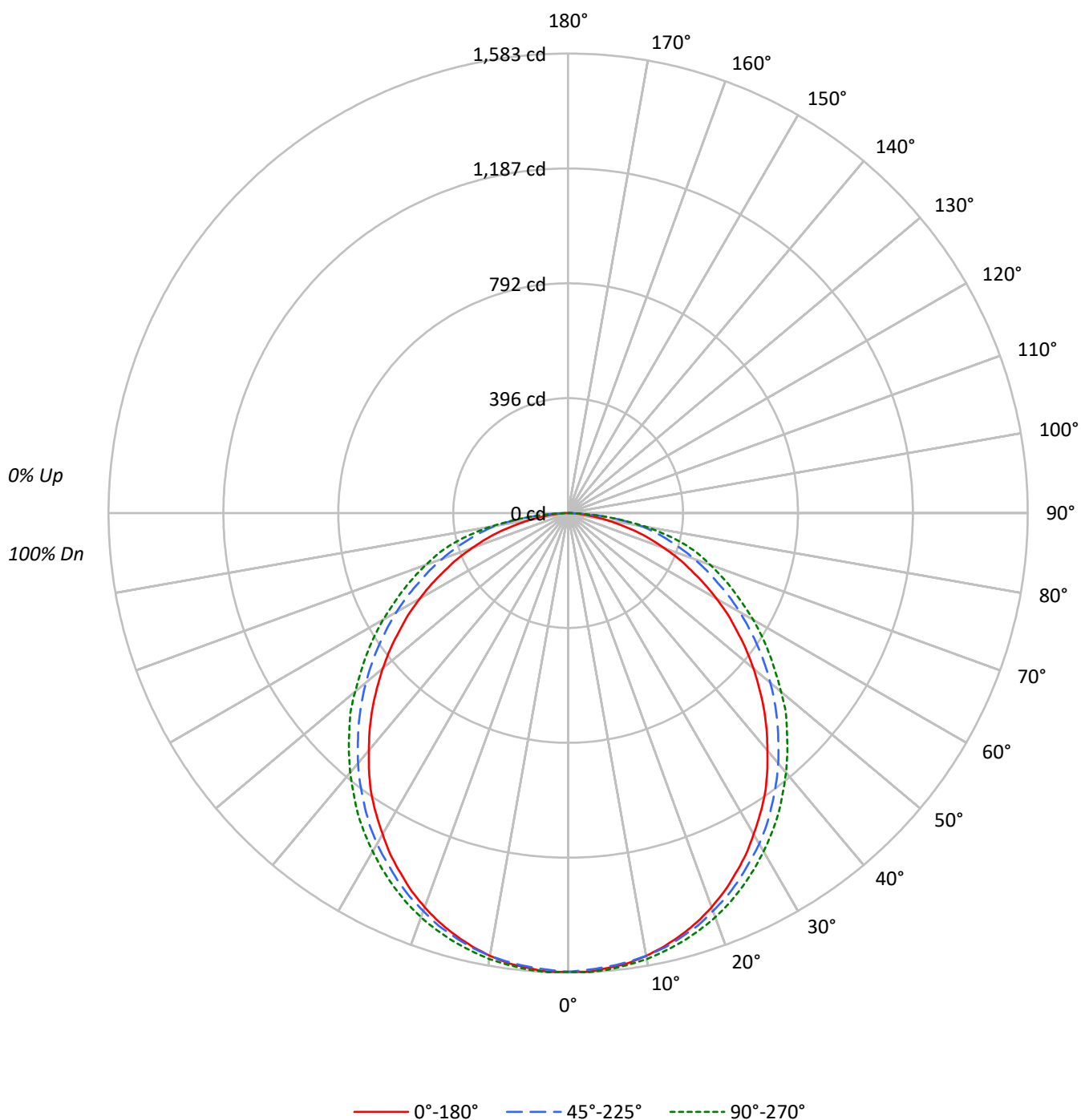
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10		50	30	10			50	30	10			50
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	108	103	99	95	106	101	97	93		97	93	90			93	90	88			89
2	98	90	83	77	96	88	81	76		84	79	74			81	76	72			78
3	89	79	70	64	87	77	69	63		74	67	62			71	66	61			69
4	82	70	61	54	80	68	60	54		66	59	53			63	57	52			61
5	75	62	53	46	73	61	53	46		59	51	46			57	50	45			55
6	70	56	47	40	68	55	47	40		53	46	40			52	45	40			50
7	64	51	42	36	63	50	42	36		48	41	35			47	40	35			46
8	60	46	38	32	58	46	37	32		44	37	32			43	36	31			42
9	56	43	34	29	55	42	34	29		41	34	28			40	33	28			39
10	53	39	31	26	51	39	31	26		38	31	26			37	30	26			36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2126	2126	2126
5°	2125	2119	2133
10°	2116	2116	2132
15°	2096	2106	2128
20°	2069	2089	2122
25°	2030	2068	2109
30°	1985	2045	2091
35°	1941	2011	2075
40°	1875	1978	2051
45°	1814	1939	2028
50°	1744	1902	2004
55°	1666	1867	1984
60°	1588	1838	1980
65°	1488	1806	1993
70°	1377	1816	2046
75°	1233	1850	2162
80°	996	1960	2115
85°	750	1721	1677



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.6	3.3
10°-20°	427.5	9.5
20°-30°	642.7	14.3
30°-40°	765.5	17.0
40°-50°	783.4	17.4
50°-60°	705.3	15.7
60°-70°	553.9	12.3
70°-80°	359.5	8.0
80°-90°	111.2	2.5
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°	1219.8	27.1
0°-40°	1985.3	44.1
0°-60°	3474.1	77.2
0°-90°	4498.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4498.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1580	1580	1580	1580	1580	
5°	1573	1576	1569	1578	1579	149
15°	1505	1509	1512	1525	1528	424
25°	1368	1379	1393	1416	1420	630
35°	1182	1196	1225	1255	1263	737
45°	953	976	1019	1057	1066	735
55°	710	742	796	837	846	637
65°	467	503	567	614	626	465
75°	237	283	356	404	416	251
85°	49	90	112	109	109	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1580.4	1580.4	1580.4	1580.4	1580.4
2.5°	1581.9	1581.9	1574.7	1581.9	1583.3
5°	1573.3	1576.1	1569.0	1577.6	1579.0
7.5°	1564.7	1564.7	1560.4	1569.0	1570.4
10°	1549.0	1550.4	1549.0	1559.0	1560.4
12.5°	1529.0	1531.8	1533.3	1543.3	1544.7
15°	1504.7	1509.0	1511.8	1524.7	1527.6
17.5°	1477.5	1481.8	1489.0	1503.3	1506.1
20°	1444.7	1450.4	1459.0	1477.5	1481.8
22.5°	1408.9	1414.7	1429.0	1446.1	1453.2
25°	1367.5	1378.9	1393.2	1416.1	1420.4
27.5°	1326.1	1336.1	1354.6	1378.9	1384.7
30°	1277.5	1293.2	1316.1	1340.4	1346.1
32.5°	1230.3	1246.0	1273.2	1298.9	1306.1
35°	1181.7	1196.0	1224.6	1254.6	1263.2
37.5°	1126.0	1144.6	1176.0	1206.0	1214.6
40°	1067.4	1090.3	1126.0	1157.5	1167.5
42.5°	1011.7	1036.0	1071.7	1106.0	1117.4
45°	953.1	976.0	1018.8	1057.4	1066.0
47.5°	893.1	918.8	964.5	1003.1	1017.4
50°	833.1	860.2	908.8	948.8	957.4
52.5°	773.1	801.6	853.1	896.0	900.2
55°	710.2	741.6	795.9	837.4	845.9
57.5°	653.0	680.2	738.8	781.6	791.6
60°	590.2	620.2	683.0	723.1	735.9
62.5°	530.1	561.6	627.3	667.3	678.8
65°	467.3	503.0	567.3	614.5	625.9
67.5°	413.0	447.3	515.9	561.6	573.0
70°	350.1	388.7	461.6	508.7	520.1
72.5°	295.8	335.8	408.7	454.4	471.6
75°	237.2	282.9	355.8	404.4	415.8
77.5°	180.0	232.9	307.2	344.4	344.4
80°	128.6	184.3	252.9	270.1	272.9
82.5°	84.3	138.6	187.2	185.8	185.8
85°	48.6	90.0	111.5	108.6	108.6
87.5°	18.6	37.2	40.0	40.0	38.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)