

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: P388846

Luminaire Tested: **24CZ2-50VHE-UNV-L930-CD1-SWPD1-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: P388846
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50VHE-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4126.3 lumens
Efficiency: N/A
Efficacy: 126.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

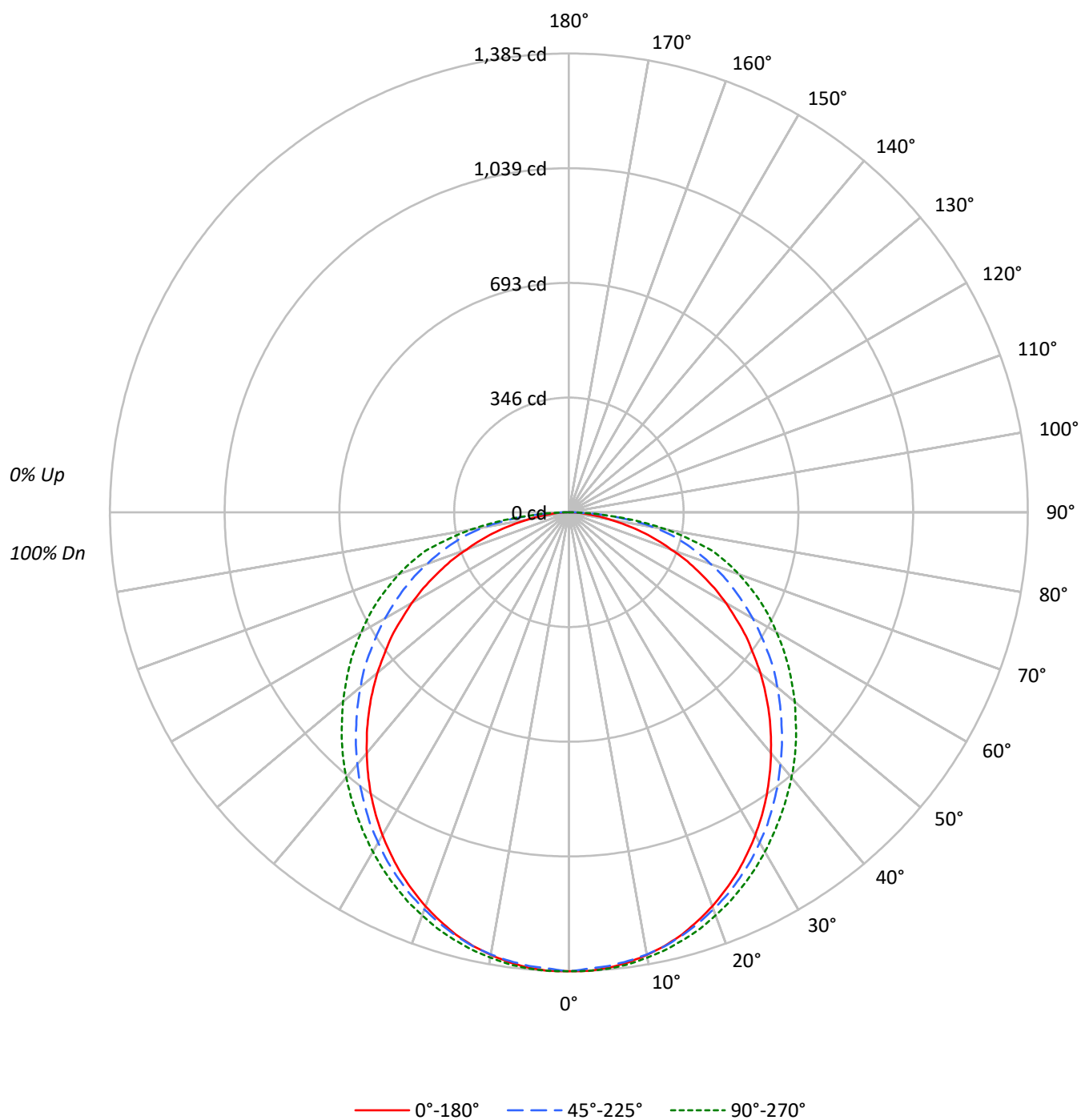
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	108	103	98	94	105	100	96	92		96	93	89		92	89	87		89	86	84
2	98	89	82	76	95	87	80	75		83	78	73		80	75	71		77	73	70
3	89	78	69	62	86	76	68	62		73	66	61		70	64	60		68	63	58
4	81	69	59	52	79	67	59	52		65	57	51		62	56	51		60	55	50
5	74	61	52	45	72	60	51	45		58	50	44		56	49	44		54	48	43
6	69	55	46	39	67	54	45	39		52	44	39		50	44	38		49	43	38
7	64	50	41	35	62	49	40	34		47	40	34		46	39	34		45	38	34
8	59	45	37	31	58	45	36	31		43	36	30		42	35	30		41	35	30
9	55	42	33	28	54	41	33	28		40	33	27		39	32	27		38	32	27
10	52	38	30	25	51	38	30	25		37	30	25		36	29	25		35	29	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1864	1864	1864
5°	1864	1856	1867
10°	1853	1851	1865
15°	1838	1841	1861
20°	1812	1826	1854
25°	1783	1809	1846
30°	1748	1789	1838
35°	1710	1767	1832
40°	1666	1744	1836
45°	1625	1727	1845
50°	1580	1718	1862
55°	1531	1715	1896
60°	1471	1723	1946
65°	1394	1749	2030
70°	1295	1793	2145
75°	1181	1883	2327
80°	971	2028	2326
85°	744	1871	1999



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.0	3.2
10°-20°	374.1	9.1
20°-30°	562.9	13.6
30°-40°	674.6	16.3
40°-50°	703.0	17.0
50°-60°	654.1	15.9
60°-70°	538.7	13.1
70°-80°	366.9	8.9
80°-90°	121.1	2.9
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°	1068.0	25.9
0°-40°	1742.6	42.2
0°-60°	3099.6	75.1
0°-90°	4126.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4126.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1385	1385	1385	1385	1385	
5°	1380	1380	1374	1381	1383	131
15°	1319	1321	1322	1334	1336	372
25°	1201	1206	1219	1239	1244	553
35°	1041	1054	1076	1104	1116	651
45°	854	872	908	953	970	658
55°	653	675	731	789	808	582
65°	438	475	550	614	638	435
75°	227	278	362	427	448	240
85°	48	94	121	130	130	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1385.4	1385.4	1385.4	1385.4	1385.4
2.5°	1385.4	1385.4	1378.5	1385.4	1385.4
5°	1379.9	1379.9	1374.4	1381.3	1382.6
7.5°	1370.2	1371.6	1366.1	1374.4	1375.8
10°	1356.5	1357.8	1355.1	1363.4	1364.7
12.5°	1339.9	1341.3	1341.3	1351.0	1352.3
15°	1319.3	1320.7	1322.0	1334.4	1335.8
17.5°	1293.1	1297.3	1300.0	1315.2	1317.9
20°	1265.6	1269.7	1275.2	1291.7	1294.5
22.5°	1233.9	1239.4	1249.1	1267.0	1271.1
25°	1200.9	1206.4	1218.8	1239.4	1243.5
27.5°	1163.7	1171.9	1187.1	1209.1	1214.6
30°	1125.1	1133.4	1151.3	1174.7	1183.0
32.5°	1083.8	1094.8	1115.5	1141.6	1149.9
35°	1041.1	1053.5	1075.5	1104.5	1115.5
37.5°	995.7	1009.4	1035.6	1067.3	1081.0
40°	948.8	965.4	992.9	1030.1	1045.2
42.5°	902.0	917.2	951.6	991.5	1008.1
45°	853.8	871.7	907.5	953.0	969.5
47.5°	804.2	822.1	864.8	913.0	928.2
50°	754.7	772.6	820.8	871.7	889.6
52.5°	701.0	724.4	779.5	830.4	848.3
55°	652.8	674.8	731.3	789.1	808.4
57.5°	597.7	623.8	685.8	746.4	767.1
60°	546.7	574.3	640.4	702.3	723.0
62.5°	494.4	524.7	594.9	658.3	681.7
65°	437.9	475.1	549.5	614.2	637.6
67.5°	387.0	425.5	504.0	570.1	590.8
70°	329.1	376.0	455.8	521.9	545.3
72.5°	279.6	326.4	410.4	475.1	498.5
75°	227.2	278.2	362.2	426.9	447.6
77.5°	174.9	231.4	315.4	364.9	371.8
80°	125.3	184.5	261.7	290.6	300.2
82.5°	88.1	141.8	192.8	212.1	217.6
85°	48.2	93.6	121.2	129.5	129.5
87.5°	20.7	39.9	48.2	49.6	51.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)