

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: P388810

Luminaire Tested: **24CZ2-50VHE-SQR-UNV-L950-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: P388810
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50VHE-SQR-UNV-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4354.9 lumens
Efficiency: N/A
Efficacy: 133.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

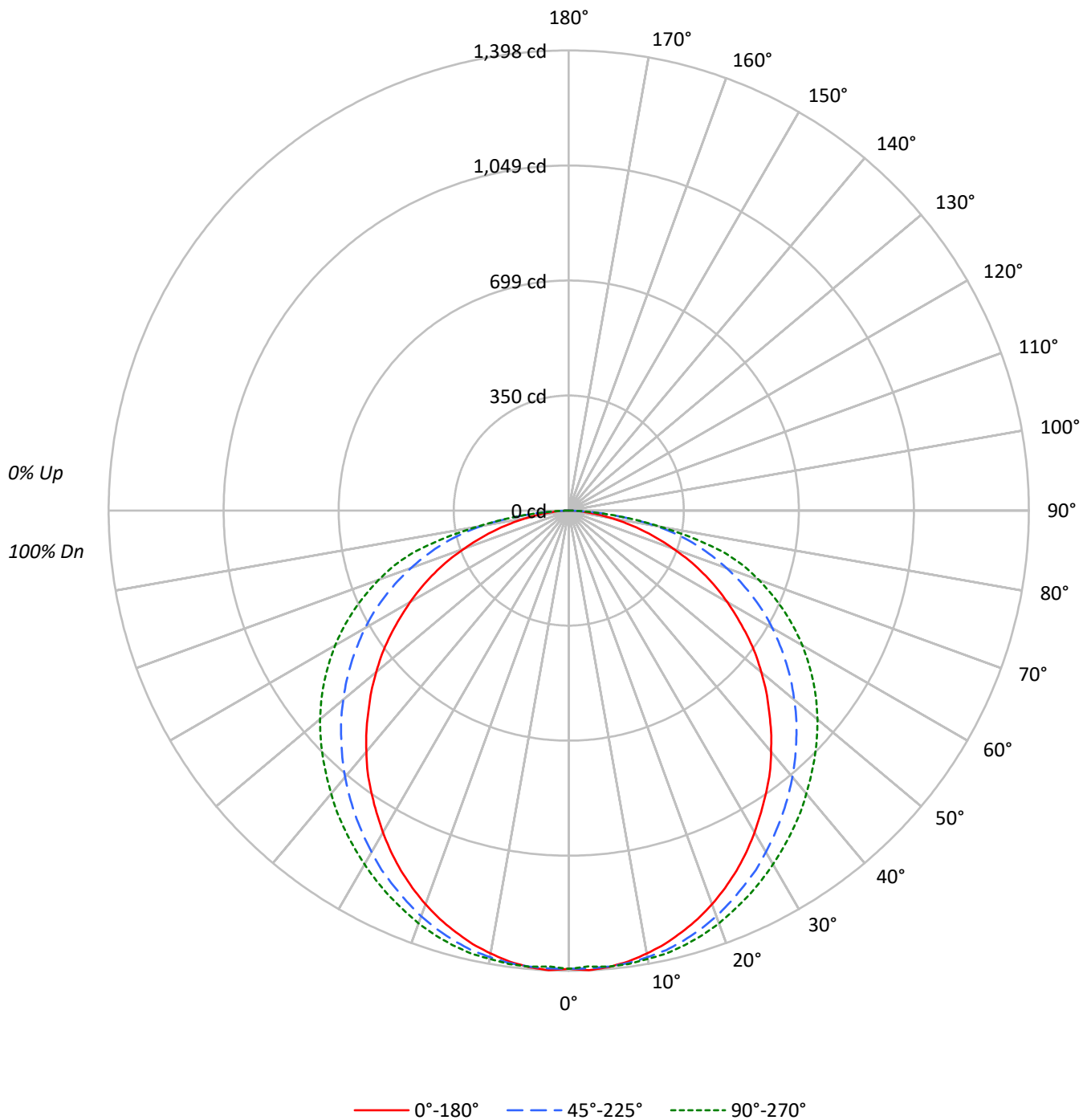
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
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	81	75	95	87	80	74		83	78	73		80	75	71		77	73	69
3	89	77	69	62	86	76	68	61		73	66	60		70	64	59		67	62	58
4	81	68	59	52	78	67	58	52		64	57	51		62	55	50		60	54	49
5	74	61	51	44	72	60	51	44		57	50	44		55	49	43		54	48	43
6	68	55	45	39	66	54	45	38		52	44	38		50	43	38		48	42	37
7	63	49	40	34	62	49	40	34		47	39	34		45	39	33		44	38	33
8	59	45	36	30	57	44	36	30		43	35	30		42	35	30		40	34	30
9	55	41	33	27	54	41	33	27		39	32	27		38	32	27		37	31	27
10	52	38	30	25	50	37	30	24		36	29	24		36	29	24		35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1873	1873	1873
5°	1880	1878	1878
10°	1867	1882	1890
15°	1847	1883	1903
20°	1822	1878	1911
25°	1791	1868	1917
30°	1754	1861	1928
35°	1717	1857	1946
40°	1680	1857	1973
45°	1636	1861	2011
50°	1598	1872	2065
55°	1552	1892	2129
60°	1498	1923	2206
65°	1433	1960	2298
70°	1329	2008	2415
75°	1203	2078	2527
80°	1014	2084	2173
85°	777	1576	1576



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.1	3.0
10°-20°	380.2	8.7
20°-30°	577.5	13.3
30°-40°	702.4	16.1
40°-50°	747.8	17.2
50°-60°	712.3	16.4
60°-70°	595.7	13.7
70°-80°	397.1	9.1
80°-90°	109.9	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°	1089.8	25.0
0°-40°	1792.2	41.2
0°-60°	3252.2	74.7
0°-90°	4354.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4354.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1392	1392	1392	1392	1392	
5°	1392	1383	1391	1391	1391	132
15°	1326	1329	1352	1362	1366	374
25°	1206	1222	1258	1280	1291	556
35°	1046	1076	1130	1168	1185	654
45°	860	906	978	1032	1057	665
55°	662	719	807	877	907	591
65°	450	516	616	692	722	445
75°	232	305	400	467	486	245
85°	50	94	102	101	102	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1392.0	1392.0	1392.0	1392.0	1392.0
2.5°	1397.8	1387.7	1392.0	1392.0	1386.3
5°	1392.0	1383.4	1390.6	1390.6	1390.6
7.5°	1382.0	1374.8	1386.3	1389.2	1389.2
10°	1366.2	1363.3	1377.7	1382.0	1383.4
12.5°	1348.9	1347.5	1367.6	1373.3	1377.7
15°	1325.9	1328.8	1351.8	1361.8	1366.2
17.5°	1301.4	1307.2	1333.1	1347.5	1351.8
20°	1272.7	1281.3	1311.5	1325.9	1334.5
22.5°	1241.0	1254.0	1285.6	1302.9	1312.9
25°	1206.5	1222.3	1258.3	1279.9	1291.4
27.5°	1169.1	1189.3	1231.0	1255.4	1266.9
30°	1128.9	1151.9	1197.9	1226.7	1241.0
32.5°	1087.2	1114.5	1164.8	1196.5	1213.7
35°	1045.5	1075.7	1130.3	1167.7	1185.0
37.5°	1003.8	1034.0	1094.4	1134.6	1156.2
40°	956.3	992.3	1057.0	1101.6	1123.1
42.5°	910.3	949.1	1018.1	1067.0	1090.0
45°	860.0	906.0	977.9	1032.5	1057.0
47.5°	813.9	860.0	937.6	995.1	1022.5
50°	763.6	812.5	894.5	957.7	986.5
52.5°	714.7	765.0	851.3	918.9	947.7
55°	661.5	719.0	806.7	877.2	907.4
57.5°	608.3	670.1	760.7	834.1	864.3
60°	556.5	619.8	714.7	788.1	819.7
62.5°	504.8	568.0	667.3	742.0	772.2
65°	450.1	516.3	615.5	691.7	721.9
67.5°	395.5	464.5	563.7	639.9	668.7
70°	337.9	411.3	510.5	585.3	614.0
72.5°	284.7	358.1	455.9	529.2	556.5
75°	231.5	304.9	399.8	467.4	486.1
77.5°	179.8	253.1	337.9	382.5	386.8
80°	130.9	199.9	268.9	281.9	280.4
82.5°	87.7	149.6	185.5	186.9	191.3
85°	50.3	93.5	102.1	100.7	102.1
87.5°	20.1	33.1	28.8	21.6	21.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)