

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: P276723

Luminaire Tested: **24CZ2-50-S-UNV-L92765-W2A1-U-2700K**

Issue Date: 3/3/2020

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: P276723
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50-S-UNV-L92765-W2A1-U-2700K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3896.5 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

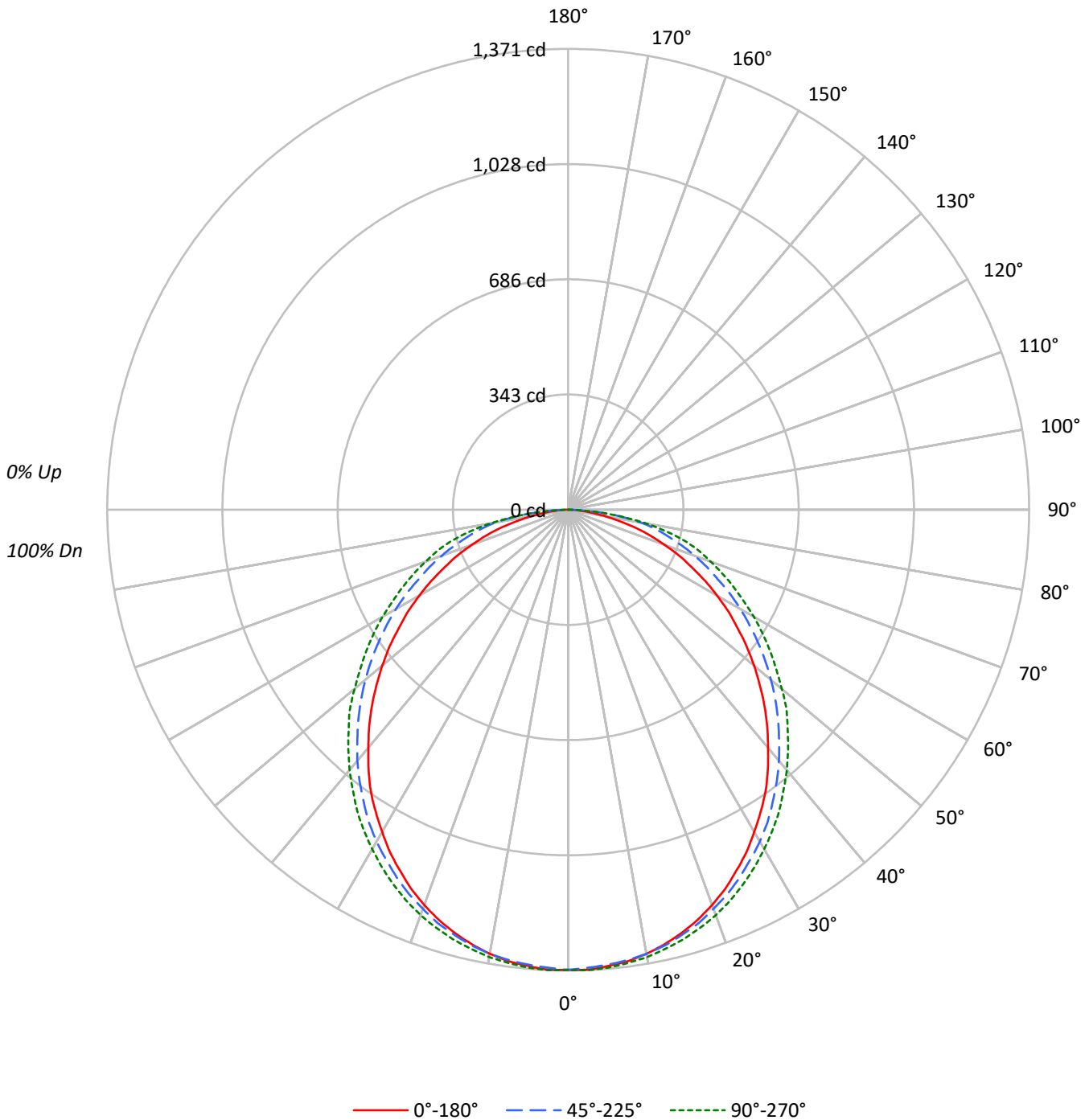
Input Watts (W): 39.618
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1842	1842	1842
5°	1841	1835	1847
10°	1833	1833	1846
15°	1815	1824	1843
20°	1792	1809	1838
25°	1758	1791	1826
30°	1719	1771	1811
35°	1681	1742	1797
40°	1624	1713	1776
45°	1571	1679	1757
50°	1510	1648	1736
55°	1443	1617	1719
60°	1376	1592	1715
65°	1288	1564	1726
70°	1193	1573	1772
75°	1068	1602	1873
80°	863	1698	1832
85°	650	1490	1453



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.6	3.3
10°-20°	370.3	9.5
20°-30°	556.6	14.3
30°-40°	663.0	17.0
40°-50°	678.6	17.4
50°-60°	610.9	15.7
60°-70°	479.8	12.3
70°-80°	311.4	8.0
80°-90°	96.3	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°	1056.5	27.1
0°-40°	1719.5	44.1
0°-60°	3009.0	77.2
0°-90°	3896.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3896.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1369	1369	1369	1369	1369	
5°	1363	1365	1359	1366	1368	129
15°	1303	1307	1309	1321	1323	367
25°	1184	1194	1207	1226	1230	546
35°	1024	1036	1061	1087	1094	639
45°	826	845	882	916	923	636
55°	615	642	689	725	733	551
65°	405	436	491	532	542	403
75°	206	245	308	350	360	217
85°	42	78	96	94	94	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1368.9	1368.9	1368.9	1368.9	1368.9
2.5°	1370.1	1370.1	1363.9	1370.1	1371.3
5°	1362.7	1365.1	1358.9	1366.4	1367.6
7.5°	1355.2	1355.2	1351.5	1358.9	1360.2
10°	1341.6	1342.9	1341.6	1350.3	1351.5
12.5°	1324.3	1326.8	1328.0	1336.7	1337.9
15°	1303.3	1307.0	1309.4	1320.6	1323.1
17.5°	1279.7	1283.5	1289.6	1302.0	1304.5
20°	1251.3	1256.2	1263.7	1279.7	1283.5
22.5°	1220.3	1225.3	1237.7	1252.5	1258.7
25°	1184.4	1194.3	1206.7	1226.5	1230.2
27.5°	1148.5	1157.2	1173.3	1194.3	1199.3
30°	1106.5	1120.1	1139.9	1160.9	1165.9
32.5°	1065.6	1079.2	1102.8	1125.0	1131.2
35°	1023.5	1035.9	1060.7	1086.7	1094.1
37.5°	975.3	991.4	1018.6	1044.6	1052.0
40°	924.5	944.3	975.3	1002.5	1011.2
42.5°	876.3	897.3	928.2	957.9	967.8
45°	825.5	845.3	882.5	915.9	923.3
47.5°	773.5	795.8	835.4	868.8	881.2
50°	721.6	745.1	787.2	821.8	829.2
52.5°	669.6	694.3	738.9	776.0	779.7
55°	615.1	642.3	689.4	725.3	732.7
57.5°	565.6	589.1	639.9	677.0	685.7
60°	511.2	537.1	591.6	626.3	637.4
62.5°	459.2	486.4	543.3	578.0	587.9
65°	404.7	435.7	491.4	532.2	542.1
67.5°	357.7	387.4	446.8	486.4	496.3
70°	303.2	336.6	399.8	440.6	450.5
72.5°	256.2	290.8	354.0	393.6	408.4
75°	205.5	245.1	308.2	350.3	360.2
77.5°	155.9	201.7	266.1	298.3	298.3
80°	111.4	159.7	219.1	233.9	236.4
82.5°	73.0	120.1	162.1	160.9	160.9
85°	42.1	78.0	96.5	94.1	94.1
87.5°	16.1	32.2	34.7	34.7	33.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)