

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: P276459

Luminaire Tested: **24CZ2-50-S-UNV-L93050-W2A1-U-4000K**

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: P276459
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-L93050-W2A1-U-4000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4564.3 lumens
Efficiency: N/A
Efficacy: 112.0 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

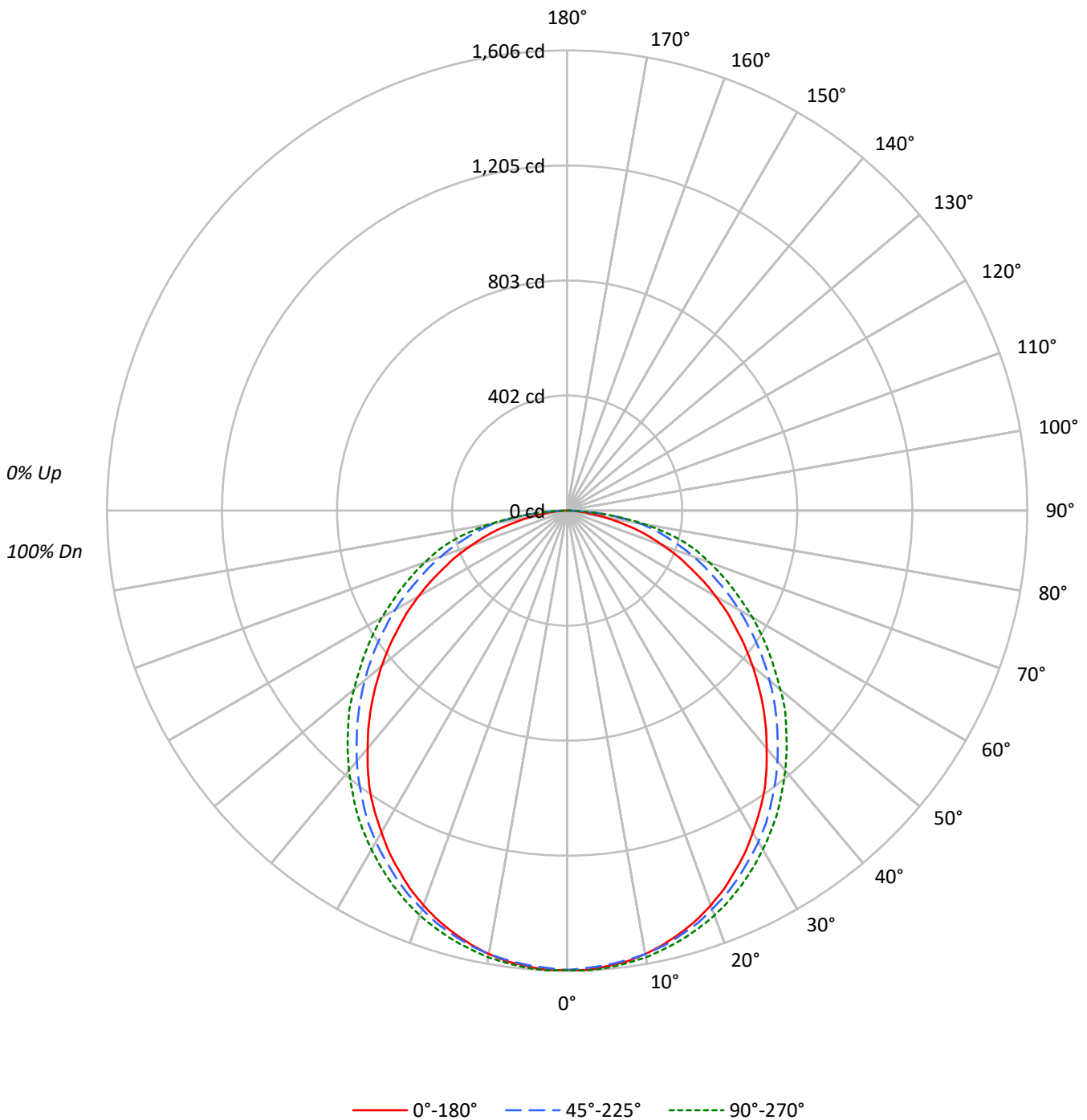
Input Watts (W): 40.743486
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2157	2157	2157
5°	2156	2150	2164
10°	2147	2147	2163
15°	2126	2137	2159
20°	2099	2119	2153
25°	2060	2098	2139
30°	2014	2074	2122
35°	1969	2041	2105
40°	1902	2007	2080
45°	1840	1967	2058
50°	1769	1930	2033
55°	1690	1894	2013
60°	1611	1865	2009
65°	1509	1833	2022
70°	1397	1842	2076
75°	1251	1877	2193
80°	1011	1988	2146
85°	761	1746	1701



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.8	3.3
10°-20°	433.8	9.5
20°-30°	652.0	14.3
30°-40°	776.7	17.0
40°-50°	794.9	17.4
50°-60°	715.6	15.7
60°-70°	562.0	12.3
70°-80°	364.7	8.0
80°-90°	112.8	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°	1237.6	27.1
0°-40°	2014.2	44.1
0°-60°	3524.7	77.2
0°-90°	4564.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4564.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1604	1604	1604	1604	1604	
5°	1596	1599	1592	1601	1602	152
15°	1527	1531	1534	1547	1550	430
25°	1387	1399	1414	1437	1441	639
35°	1199	1214	1242	1273	1282	748
45°	967	990	1034	1073	1082	746
55°	720	752	808	850	858	646
65°	474	510	576	623	635	472
75°	241	287	361	410	422	255
85°	49	91	113	110	110	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1603.5	1603.5	1603.5	1603.5	1603.5
2.5°	1604.9	1604.9	1597.7	1604.9	1606.4
5°	1596.2	1599.1	1591.9	1600.6	1602.0
7.5°	1587.5	1587.5	1583.2	1591.9	1593.3
10°	1571.6	1573.0	1571.6	1581.7	1583.2
12.5°	1551.3	1554.2	1555.6	1565.8	1567.2
15°	1526.6	1531.0	1533.9	1546.9	1549.8
17.5°	1499.1	1503.4	1510.7	1525.2	1528.1
20°	1465.7	1471.5	1480.2	1499.1	1503.4
22.5°	1429.5	1435.3	1449.8	1467.2	1474.4
25°	1387.4	1399.0	1413.5	1436.7	1441.1
27.5°	1345.4	1355.5	1374.4	1399.0	1404.8
30°	1296.1	1312.0	1335.2	1359.9	1365.7
32.5°	1248.3	1264.2	1291.8	1317.8	1325.1
35°	1199.0	1213.5	1242.5	1272.9	1281.6
37.5°	1142.4	1161.3	1193.2	1223.6	1232.3
40°	1083.0	1106.2	1142.4	1174.3	1184.5
42.5°	1026.4	1051.1	1087.3	1122.1	1133.7
45°	967.0	990.2	1033.7	1072.8	1081.5
47.5°	906.1	932.2	978.6	1017.7	1032.2
50°	845.2	872.8	922.1	962.7	971.4
52.5°	784.3	813.3	865.5	909.0	913.4
55°	720.5	752.4	807.5	849.6	858.3
57.5°	662.5	690.1	749.5	793.0	803.2
60°	598.8	629.2	693.0	733.6	746.6
62.5°	537.9	569.8	636.5	677.0	688.6
65°	474.1	510.3	575.6	623.4	635.0
67.5°	419.0	453.8	523.4	569.8	581.4
70°	355.2	394.3	468.3	516.1	527.7
72.5°	300.1	340.7	414.6	461.0	478.4
75°	240.7	287.1	361.0	410.3	421.9
77.5°	182.7	236.3	311.7	349.4	349.4
80°	130.5	187.0	256.6	274.0	276.9
82.5°	85.5	140.6	189.9	188.5	188.5
85°	49.3	91.3	113.1	110.2	110.2
87.5°	18.8	37.7	40.6	40.6	39.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)