

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: P276731

Luminaire Tested: **24CZ2-50-S-UNV-L92765-W2A1-U-6500K**

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: P276731
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-6500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4718.5 lumens
Efficiency: N/A
Efficacy: 113.5 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

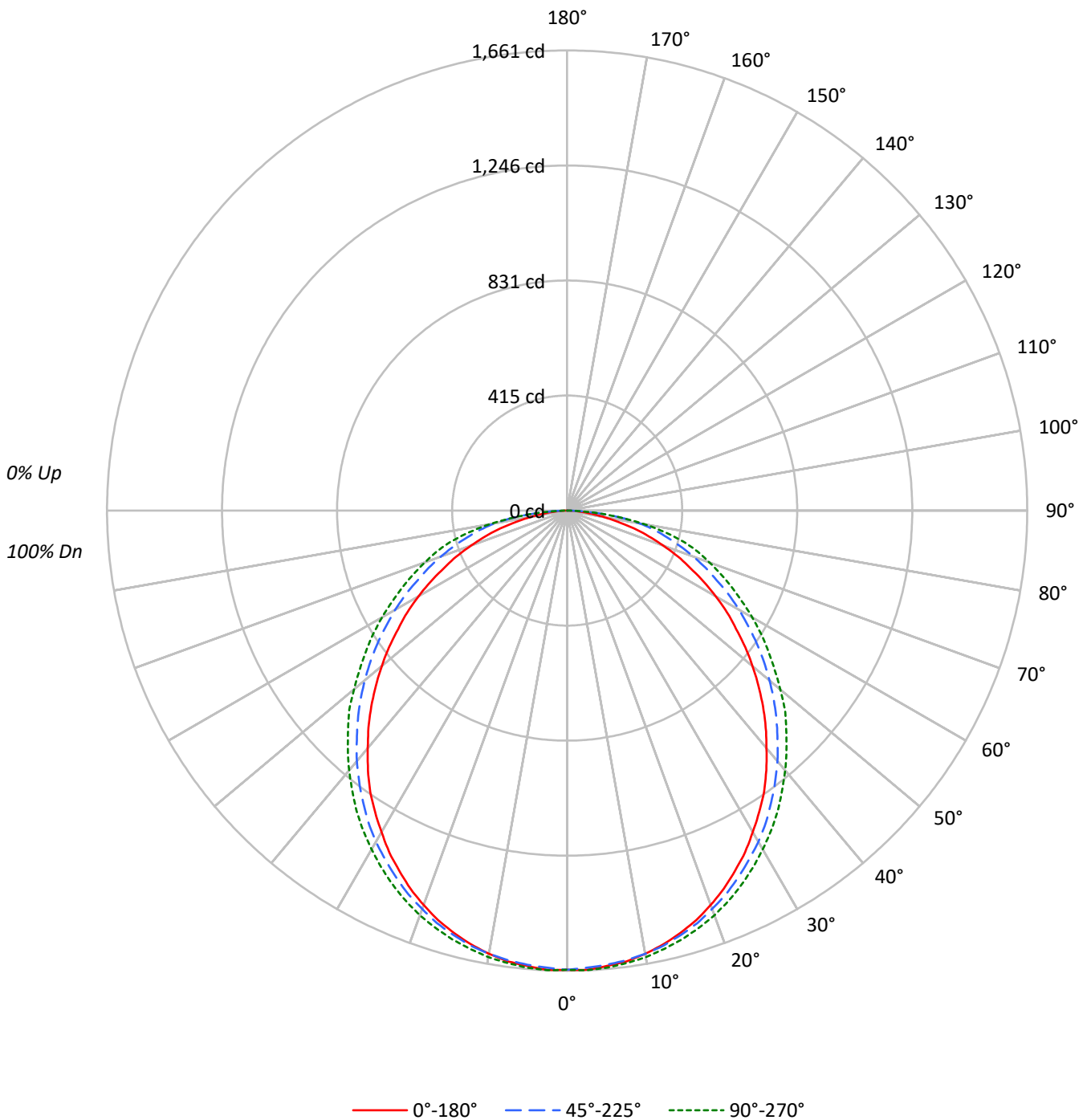
Input Watts (W): 41.571
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2230	2230	2230
5°	2229	2223	2237
10°	2220	2220	2236
15°	2198	2209	2232
20°	2170	2191	2225
25°	2129	2169	2212
30°	2082	2145	2193
35°	2036	2110	2176
40°	1966	2074	2151
45°	1902	2033	2128
50°	1829	1995	2102
55°	1747	1958	2081
60°	1666	1928	2077
65°	1560	1894	2090
70°	1445	1904	2146
75°	1293	1940	2267
80°	1045	2056	2218
85°	787	1805	1758



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.9	3.3
10°-20°	448.4	9.5
20°-30°	674.1	14.3
30°-40°	802.9	17.0
40°-50°	821.7	17.4
50°-60°	739.8	15.7
60°-70°	581.0	12.3
70°-80°	377.1	8.0
80°-90°	116.6	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°	1279.4	27.1
0°-40°	2082.3	44.1
0°-60°	3643.8	77.2
0°-90°	4718.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4718.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1658	1658	1658	1658	1658	
5°	1650	1653	1646	1655	1656	157
15°	1578	1583	1586	1599	1602	445
25°	1434	1446	1461	1485	1490	661
35°	1240	1254	1284	1316	1325	773
45°	1000	1024	1069	1109	1118	771
55°	745	778	835	878	887	668
65°	490	528	595	644	656	488
75°	249	297	373	424	436	263
85°	51	94	117	114	114	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1657.6	1657.6	1657.6	1657.6	1657.6
2.5°	1659.1	1659.1	1651.6	1659.1	1660.6
5°	1650.1	1653.1	1645.6	1654.6	1656.1
7.5°	1641.2	1641.2	1636.7	1645.6	1647.1
10°	1624.7	1626.2	1624.7	1635.2	1636.7
12.5°	1603.7	1606.7	1608.2	1618.7	1620.2
15°	1578.2	1582.7	1585.7	1599.2	1602.2
17.5°	1549.7	1554.2	1561.7	1576.7	1579.7
20°	1515.3	1521.2	1530.2	1549.7	1554.2
22.5°	1477.8	1483.8	1498.8	1516.8	1524.2
25°	1434.3	1446.3	1461.3	1485.3	1489.8
27.5°	1390.9	1401.3	1420.8	1446.3	1452.3
30°	1339.9	1356.4	1380.4	1405.8	1411.8
32.5°	1290.4	1306.9	1335.4	1362.4	1369.9
35°	1239.5	1254.5	1284.4	1315.9	1324.9
37.5°	1181.0	1200.5	1233.5	1265.0	1274.0
40°	1119.6	1143.6	1181.0	1214.0	1224.5
42.5°	1061.1	1086.6	1124.1	1160.0	1172.0
45°	999.7	1023.7	1068.6	1109.1	1118.1
47.5°	936.7	963.7	1011.7	1052.1	1067.1
50°	873.8	902.3	953.2	995.2	1004.2
52.5°	810.8	840.8	894.8	939.7	944.2
55°	744.9	777.9	834.8	878.3	887.3
57.5°	684.9	713.4	774.9	819.8	830.3
60°	619.0	650.5	716.4	758.4	771.9
62.5°	556.0	589.0	658.0	699.9	711.9
65°	490.1	527.6	595.0	644.5	656.5
67.5°	433.1	469.1	541.1	589.0	601.0
70°	367.2	407.7	484.1	533.6	545.6
72.5°	310.2	352.2	428.6	476.6	494.6
75°	248.8	296.8	373.2	424.2	436.1
77.5°	188.8	244.3	322.2	361.2	361.2
80°	134.9	193.3	265.3	283.3	286.3
82.5°	88.4	145.4	196.3	194.8	194.8
85°	51.0	94.4	116.9	113.9	113.9
87.5°	19.5	39.0	42.0	42.0	40.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)