

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: P389041

Luminaire Tested: **24CZ2-70HE-SQR-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: P389041
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: 24CZ2-70HE-SQR-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5492.0 lumens
Efficiency: N/A
Efficacy: 107.7 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

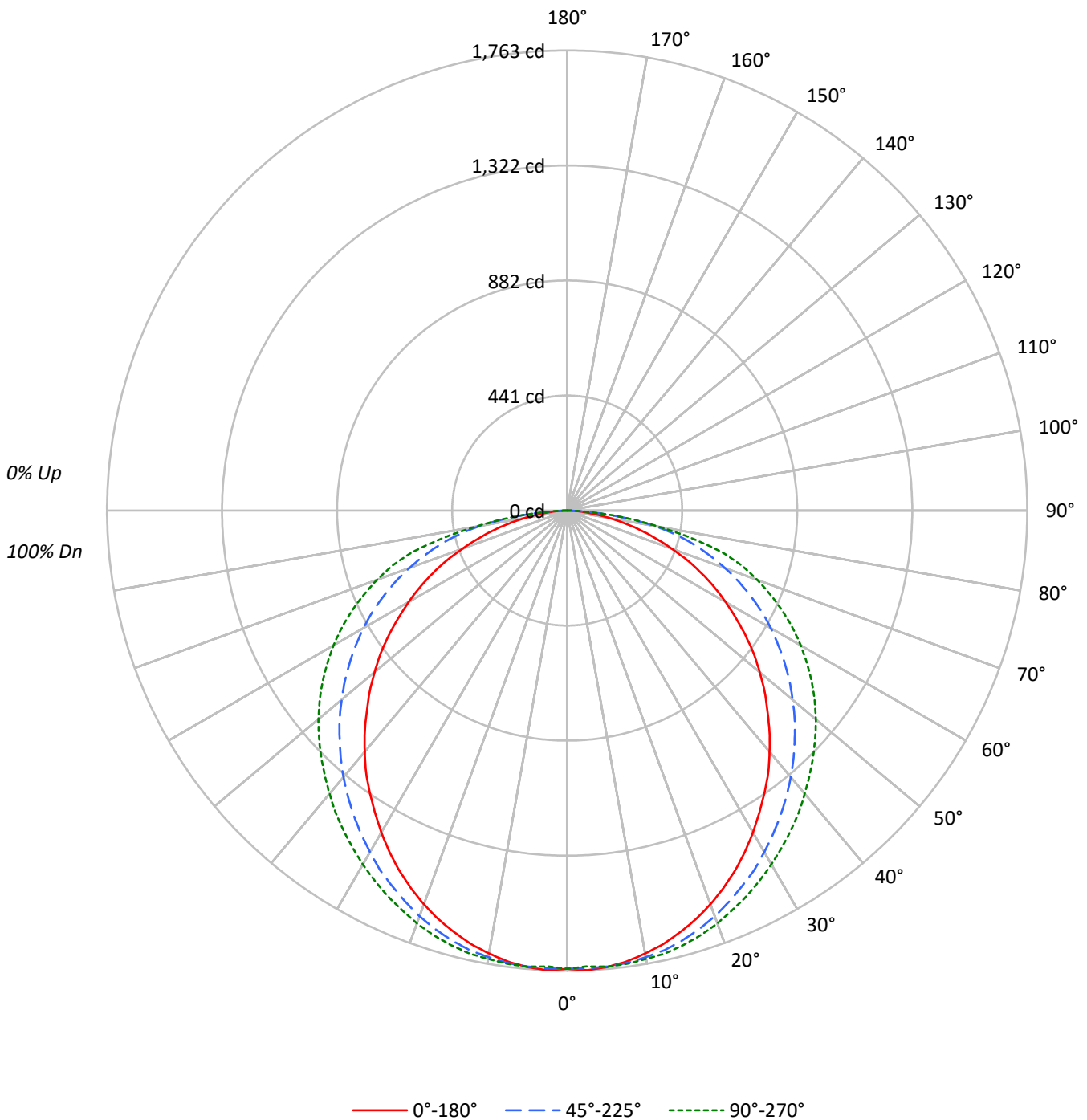
Input Watts (W): 51
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2362	2362	2362
5°	2371	2369	2369
10°	2354	2374	2384
15°	2329	2375	2400
20°	2298	2368	2410
25°	2259	2356	2418
30°	2212	2347	2432
35°	2166	2341	2455
40°	2118	2341	2488
45°	2064	2347	2536
50°	2016	2361	2604
55°	1957	2387	2684
60°	1889	2425	2782
65°	1807	2471	2898
70°	1677	2533	3046
75°	1518	2621	3187
80°	1278	2627	2740
85°	980	1988	1988



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.6	3.0
10°-20°	479.4	8.7
20°-30°	728.2	13.3
30°-40°	885.8	16.1
40°-50°	943.1	17.2
50°-60°	898.2	16.4
60°-70°	751.2	13.7
70°-80°	500.8	9.1
80°-90°	138.6	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°	1374.3	25.0
0°-40°	2260.1	41.2
0°-60°	4101.4	74.7
0°-90°	5492.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5492.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1756	1756	1756	1756	1756	
5°	1756	1745	1754	1754	1754	167
15°	1672	1676	1705	1717	1723	472
25°	1522	1542	1587	1614	1629	701
35°	1318	1356	1425	1473	1494	825
45°	1084	1142	1233	1302	1333	838
55°	834	907	1017	1106	1144	746
65°	568	651	776	872	910	561
75°	292	384	504	589	613	309
85°	64	118	129	127	129	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1755.5	1755.5	1755.5	1755.5	1755.5
2.5°	1762.8	1750.1	1755.5	1755.5	1748.3
5°	1755.5	1744.6	1753.7	1753.7	1753.7
7.5°	1742.8	1733.7	1748.3	1751.9	1751.9
10°	1722.9	1719.2	1737.4	1742.8	1744.6
12.5°	1701.1	1699.3	1724.7	1731.9	1737.4
15°	1672.1	1675.7	1704.7	1717.4	1722.9
17.5°	1641.3	1648.5	1681.2	1699.3	1704.7
20°	1605.0	1615.9	1654.0	1672.1	1683.0
22.5°	1565.1	1581.4	1621.3	1643.1	1655.8
25°	1521.6	1541.5	1586.9	1614.1	1628.6
27.5°	1474.4	1499.8	1552.4	1583.2	1597.7
30°	1423.6	1452.6	1510.7	1547.0	1565.1
32.5°	1371.0	1405.5	1469.0	1508.9	1530.6
35°	1318.4	1356.5	1425.4	1472.6	1494.4
37.5°	1265.9	1303.9	1380.1	1430.9	1458.1
40°	1206.0	1251.3	1333.0	1389.2	1416.4
42.5°	1148.0	1196.9	1284.0	1345.6	1374.7
45°	1084.5	1142.5	1233.2	1302.1	1333.0
47.5°	1026.5	1084.5	1182.4	1255.0	1289.4
50°	963.0	1024.7	1128.0	1207.8	1244.1
52.5°	901.3	964.8	1073.6	1158.9	1195.1
55°	834.2	906.8	1017.4	1106.3	1144.3
57.5°	767.1	845.1	959.4	1051.9	1089.9
60°	701.8	781.6	901.3	993.8	1033.7
62.5°	636.6	716.3	841.5	935.8	973.9
65°	567.6	651.1	776.2	872.3	910.4
67.5°	498.7	585.8	710.9	807.0	843.3
70°	426.2	518.7	643.8	738.1	774.4
72.5°	359.1	451.6	574.9	667.4	701.8
75°	292.0	384.5	504.2	589.4	613.0
77.5°	226.7	319.2	426.2	482.4	487.8
80°	165.0	252.1	339.1	355.5	353.6
82.5°	110.6	188.6	233.9	235.8	241.2
85°	63.5	117.9	128.8	126.9	128.8
87.5°	25.4	41.7	36.3	27.2	27.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)