

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: P389044

Luminaire Tested: **24CZ2-70HE-SQR-UNV-L935-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: P389044
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-L935-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5627.8 lumens
Efficiency: N/A
Efficacy: 110.3 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

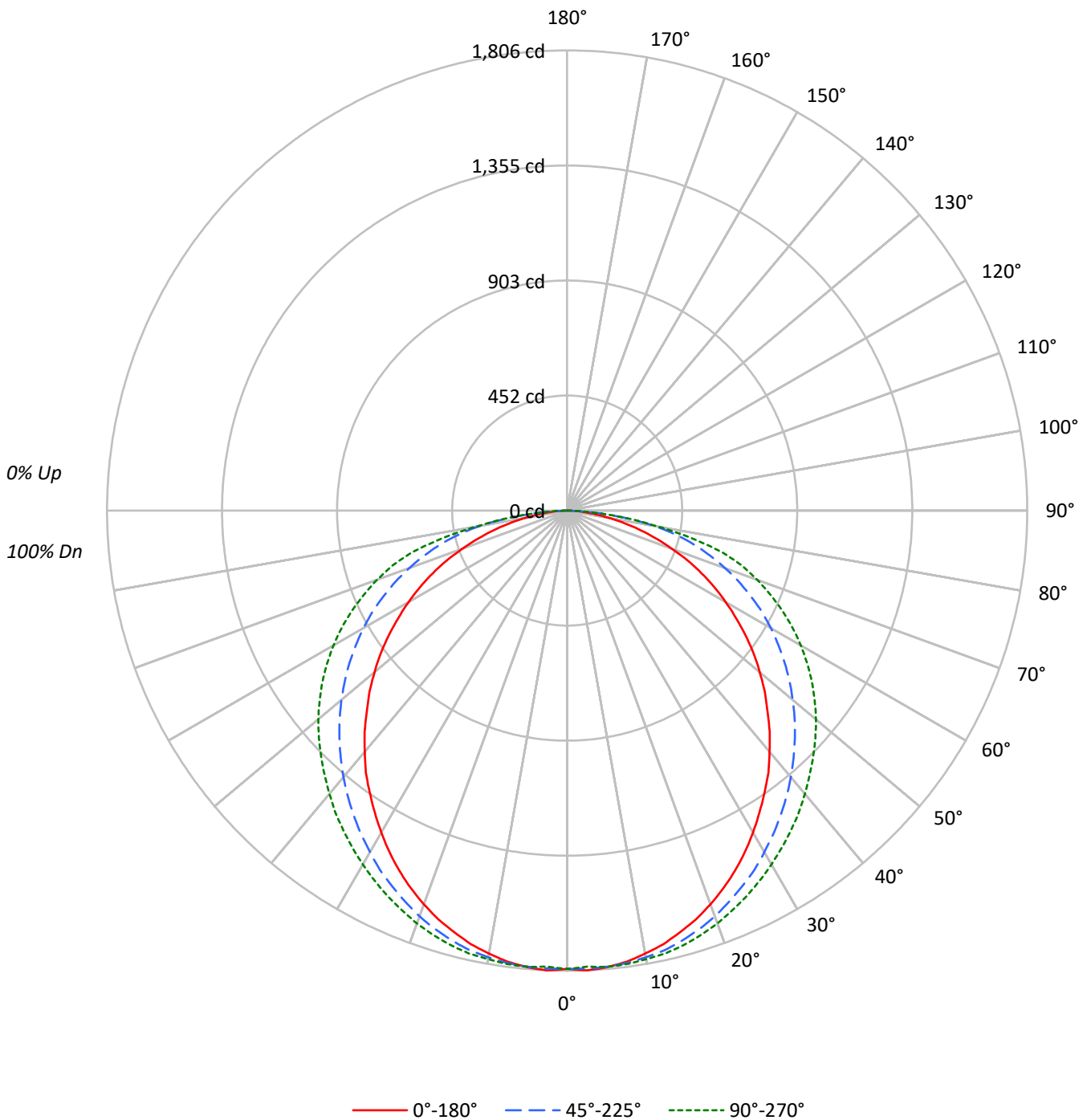
Input Watts (W): 51
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
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°	2420	2420	2420
5°	2430	2427	2427
10°	2412	2432	2443
15°	2387	2433	2459
20°	2355	2427	2469
25°	2315	2414	2477
30°	2266	2405	2492
35°	2219	2399	2515
40°	2171	2399	2549
45°	2115	2405	2599
50°	2066	2420	2669
55°	2005	2446	2751
60°	1935	2485	2851
65°	1852	2532	2970
70°	1718	2595	3122
75°	1555	2686	3265
80°	1310	2693	2808
85°	1003	2036	2036



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.8	3.0
10°-20°	491.3	8.7
20°-30°	746.2	13.3
30°-40°	907.7	16.1
40°-50°	966.4	17.2
50°-60°	920.5	16.4
60°-70°	769.8	13.7
70°-80°	513.2	9.1
80°-90°	142.0	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°	1408.3	25.0
0°-40°	2316.0	41.2
0°-60°	4202.8	74.7
0°-90°	5627.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5627.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1799	1799	1799	1799	1799	
5°	1799	1788	1797	1797	1797	171
15°	1713	1717	1747	1760	1766	483
25°	1559	1580	1626	1654	1669	718
35°	1351	1390	1461	1509	1531	845
45°	1111	1171	1264	1334	1366	859
55°	855	929	1043	1134	1173	764
65°	582	667	795	894	933	575
75°	299	394	517	604	628	317
85°	65	121	132	130	132	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1798.9	1798.9	1798.9	1798.9	1798.9
2.5°	1806.4	1793.3	1798.9	1798.9	1791.5
5°	1798.9	1787.8	1797.1	1797.1	1797.1
7.5°	1785.9	1776.6	1791.5	1795.2	1795.2
10°	1765.5	1761.8	1780.3	1785.9	1787.8
12.5°	1743.2	1741.3	1767.3	1774.8	1780.3
15°	1713.4	1717.1	1746.9	1759.9	1765.5
17.5°	1681.8	1689.3	1722.7	1741.3	1746.9
20°	1644.7	1655.8	1694.8	1713.4	1724.6
22.5°	1603.8	1620.5	1661.4	1683.7	1696.7
25°	1559.2	1579.6	1626.1	1654.0	1668.8
27.5°	1510.9	1536.9	1590.8	1622.4	1637.2
30°	1458.8	1488.6	1548.0	1585.2	1603.8
32.5°	1404.9	1440.3	1505.3	1546.2	1568.5
35°	1351.0	1390.1	1460.7	1509.0	1531.3
37.5°	1297.2	1336.2	1414.2	1466.3	1494.1
40°	1235.8	1282.3	1365.9	1423.5	1451.4
42.5°	1176.4	1226.5	1315.7	1378.9	1408.7
45°	1111.3	1170.8	1263.7	1334.3	1365.9
47.5°	1051.8	1111.3	1211.7	1286.0	1321.3
50°	986.8	1050.0	1155.9	1237.7	1274.9
52.5°	923.6	988.7	1100.2	1187.5	1224.7
55°	854.9	929.2	1042.6	1133.6	1172.6
57.5°	786.1	866.0	983.1	1077.9	1116.9
60°	719.2	801.0	923.6	1018.4	1059.3
62.5°	652.3	734.1	862.3	958.9	998.0
65°	581.7	667.2	795.4	893.9	932.9
67.5°	511.1	600.3	728.5	827.0	864.2
70°	436.7	531.5	659.7	756.4	793.5
72.5°	368.0	462.7	589.1	683.9	719.2
75°	299.2	394.0	516.6	604.0	628.1
77.5°	232.3	327.1	436.7	494.3	499.9
80°	169.1	258.3	347.5	364.2	362.4
82.5°	113.4	193.3	239.7	241.6	247.2
85°	65.0	120.8	131.9	130.1	131.9
87.5°	26.0	42.7	37.2	27.9	27.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)