

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: P389068

Luminaire Tested: **24CZ2-70VHE-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: P389068
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: 24CZ2-70VHE-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: 5660.7 lumens
Efficiency: N/A
Efficacy: 123.9 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

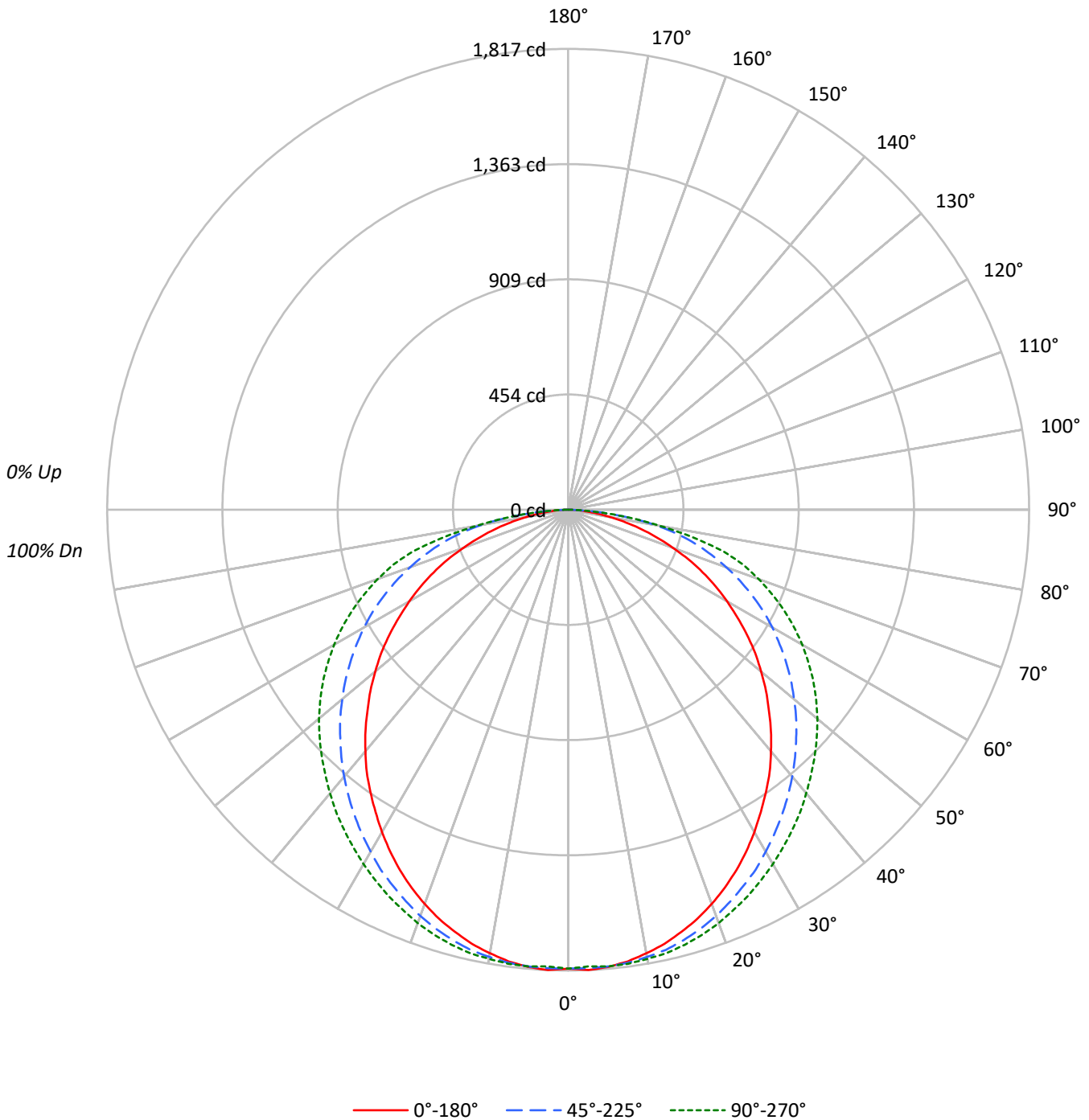
Input Watts (W): 45.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2435	2435	2435
5°	2444	2441	2441
10°	2426	2447	2457
15°	2401	2448	2474
20°	2369	2441	2484
25°	2328	2428	2492
30°	2280	2419	2506
35°	2232	2413	2530
40°	2183	2413	2564
45°	2127	2419	2614
50°	2078	2434	2684
55°	2017	2460	2767
60°	1947	2500	2867
65°	1863	2547	2988
70°	1728	2611	3140
75°	1564	2702	3284
80°	1318	2708	2824
85°	1010	2049	2049



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.8	3.0
10°-20°	494.2	8.7
20°-30°	750.6	13.3
30°-40°	913.0	16.1
40°-50°	972.0	17.2
50°-60°	925.8	16.4
60°-70°	774.3	13.7
70°-80°	516.2	9.1
80°-90°	142.8	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°	1416.5	25.0
0°-40°	2329.5	41.2
0°-60°	4227.4	74.7
0°-90°	5660.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5660.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1809	1809	1809	1809	1809	
5°	1809	1798	1808	1808	1808	172
15°	1723	1727	1757	1770	1776	486
25°	1568	1589	1636	1664	1679	722
35°	1359	1398	1469	1518	1540	850
45°	1118	1178	1271	1342	1374	864
55°	860	935	1049	1140	1180	769
65°	585	671	800	899	938	578
75°	301	396	520	608	632	319
85°	65	122	133	131	133	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1809.4	1809.4	1809.4	1809.4	1809.4
2.5°	1816.9	1803.8	1809.4	1809.4	1802.0
5°	1809.4	1798.2	1807.6	1807.6	1807.6
7.5°	1796.4	1787.0	1802.0	1805.7	1805.7
10°	1775.8	1772.1	1790.7	1796.4	1798.2
12.5°	1753.4	1751.5	1777.7	1785.1	1790.7
15°	1723.4	1727.2	1757.1	1770.2	1775.8
17.5°	1691.7	1699.1	1732.8	1751.5	1757.1
20°	1654.3	1665.5	1704.8	1723.4	1734.7
22.5°	1613.2	1630.0	1671.1	1693.5	1706.6
25°	1568.3	1588.9	1635.6	1663.6	1678.6
27.5°	1519.7	1545.9	1600.1	1631.9	1646.8
30°	1467.4	1497.3	1557.1	1594.5	1613.2
32.5°	1413.2	1448.7	1514.1	1555.2	1577.6
35°	1358.9	1398.2	1469.2	1517.8	1540.3
37.5°	1304.7	1344.0	1422.5	1474.8	1502.9
40°	1243.1	1289.8	1373.9	1431.8	1459.9
42.5°	1183.2	1233.7	1323.4	1387.0	1416.9
45°	1117.8	1177.6	1271.1	1342.1	1373.9
47.5°	1058.0	1117.8	1218.8	1293.5	1329.0
50°	992.6	1056.1	1162.7	1244.9	1282.3
52.5°	929.0	994.4	1106.6	1194.5	1231.8
55°	859.9	934.6	1048.6	1140.2	1179.5
57.5°	790.7	871.1	988.8	1084.2	1123.4
60°	723.4	805.6	929.0	1024.3	1065.5
62.5°	656.1	738.4	867.3	964.5	1003.8
65°	585.1	671.1	800.0	899.1	938.4
67.5°	514.0	603.8	732.7	831.8	869.2
70°	439.3	534.6	663.6	760.8	798.2
72.5°	370.1	465.4	592.6	687.9	723.4
75°	300.9	396.3	519.7	607.5	631.8
77.5°	233.7	329.0	439.3	497.2	502.8
80°	170.1	259.8	349.5	366.4	364.5
82.5°	114.0	194.4	241.1	243.0	248.6
85°	65.4	121.5	132.7	130.8	132.7
87.5°	26.2	43.0	37.4	28.0	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)