

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: P388444

Luminaire Tested: **22CZ2-70VHE-UNV-L940-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: P388444
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-70VHE-UNV-L940-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5919.7 lumens
Efficiency: N/A
Efficacy: 117.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

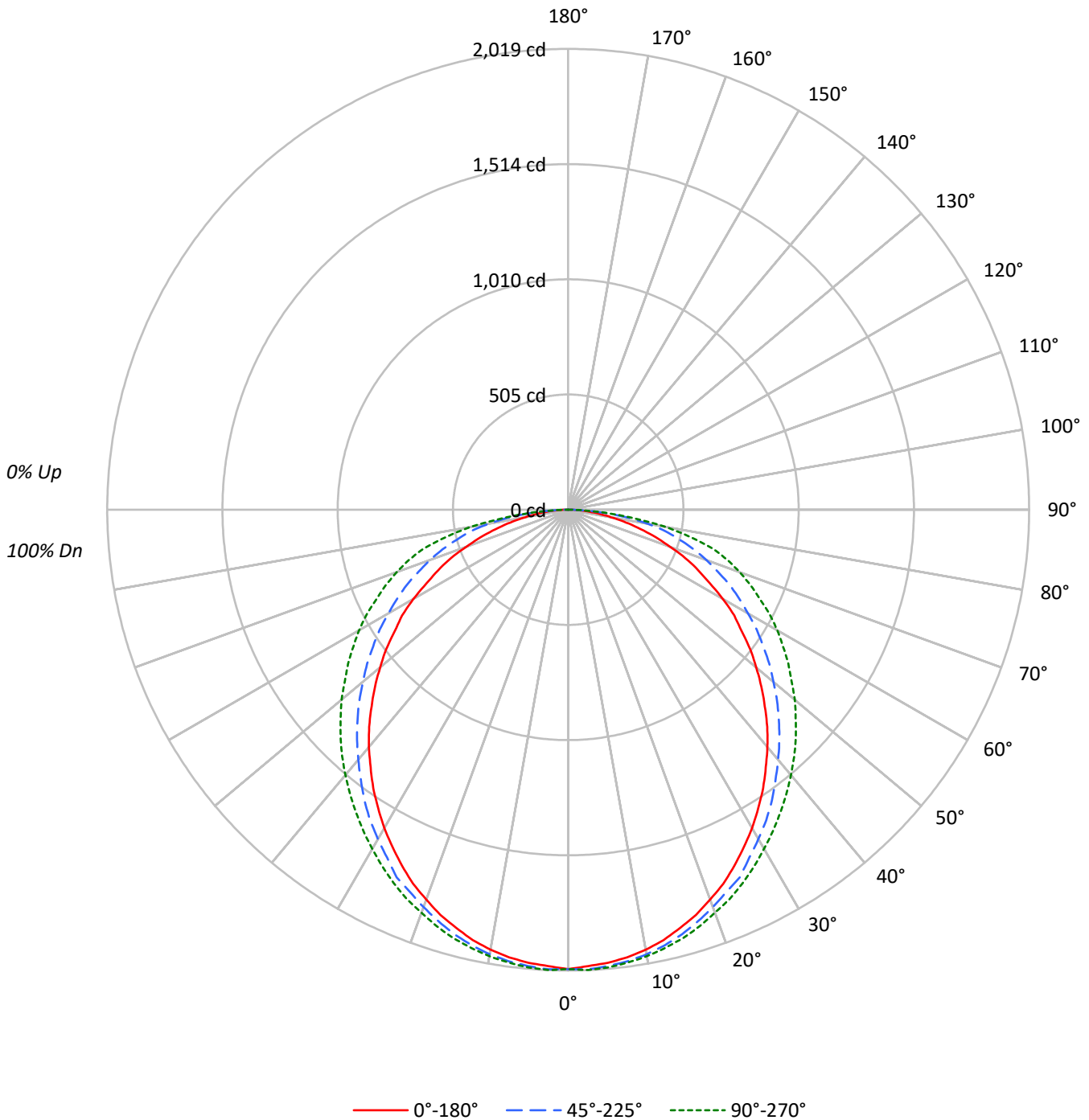
Input Watts (W): 50.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5416	5416	5416
5°	5382	5421	5437
10°	5349	5405	5428
15°	5283	5364	5413
20°	5205	5305	5380
25°	5111	5276	5362
30°	5005	5177	5331
35°	4890	5110	5321
40°	4768	5024	5331
45°	4634	4966	5365
50°	4500	4914	5426
55°	4346	4892	5521
60°	4217	4891	5691
65°	4006	4971	5898
70°	3736	5065	6279
75°	3423	5239	6784
80°	2980	5463	6681
85°	2609	4857	5308



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.4	3.2
10°-20°	542.2	9.2
20°-30°	813.9	13.7
30°-40°	972.6	16.4
40°-50°	1011.3	17.1
50°-60°	937.4	15.8
60°-70°	768.9	13.0
70°-80°	519.7	8.8
80°-90°	163.3	2.8
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°	1546.5	26.1
0°-40°	2519.1	42.6
0°-60°	4467.8	75.5
0°-90°	5919.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5919.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2013	2013	2013	2013	2013	
5°	1992	1995	2007	2010	2013	189
15°	1896	1905	1925	1937	1943	535
25°	1722	1736	1777	1797	1806	793
35°	1488	1509	1556	1602	1620	930
45°	1218	1241	1305	1381	1410	940
55°	926	955	1043	1136	1177	832
65°	629	664	781	883	926	622
75°	329	384	504	606	652	349
85°	84	116	157	175	172	96
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2012.8	2012.8	2012.8	2012.8	2012.8
2.5°	2001.2	2007.0	2015.7	2018.6	2018.6
5°	1992.4	1995.3	2007.0	2009.9	2012.8
7.5°	1977.9	1983.7	1995.3	1998.2	2001.2
10°	1957.5	1963.3	1977.9	1983.7	1986.6
12.5°	1931.2	1937.1	1954.5	1963.3	1966.2
15°	1896.3	1905.0	1925.4	1937.1	1942.9
17.5°	1861.3	1870.1	1890.5	1907.9	1913.8
20°	1817.6	1838.0	1852.6	1875.9	1878.8
22.5°	1774.0	1785.6	1811.8	1835.1	1846.8
25°	1721.5	1736.1	1776.9	1797.3	1806.0
27.5°	1666.2	1686.6	1718.6	1750.6	1762.3
30°	1610.8	1625.4	1666.2	1704.0	1715.7
32.5°	1549.7	1570.0	1613.7	1651.6	1669.1
35°	1488.5	1508.9	1555.5	1602.1	1619.6
37.5°	1421.5	1444.8	1491.4	1546.7	1570.0
40°	1357.4	1374.9	1430.2	1497.2	1517.6
42.5°	1290.4	1310.8	1369.1	1441.9	1465.2
45°	1217.6	1240.9	1305.0	1380.7	1409.8
47.5°	1147.7	1171.0	1240.9	1316.6	1351.6
50°	1074.9	1104.0	1173.9	1261.3	1296.2
52.5°	1004.9	1031.2	1109.8	1200.1	1232.2
55°	926.3	955.4	1042.8	1136.0	1176.8
57.5°	862.2	882.6	978.7	1074.9	1115.6
60°	783.6	809.8	908.8	1010.8	1057.4
62.5°	699.1	742.8	844.7	949.6	996.2
65°	629.2	664.1	780.7	882.6	926.3
67.5°	556.4	594.2	707.8	815.6	865.1
70°	474.8	524.3	643.7	751.5	798.1
72.5°	402.0	454.4	576.8	681.6	731.1
75°	329.2	384.5	503.9	605.9	652.5
77.5°	259.2	320.4	436.9	515.6	544.7
80°	192.3	250.5	352.5	407.8	431.1
82.5°	134.0	183.5	259.2	288.4	294.2
85°	84.5	116.5	157.3	174.8	171.9
87.5°	37.9	46.6	58.3	64.1	61.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)