

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: P388153

Luminaire Tested: **22CZ2-70VHE-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: P388153
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-70VHE-SQR-UNV-L930-CD1-SWPD1-U
Description: 2x2 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: 5491.2 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

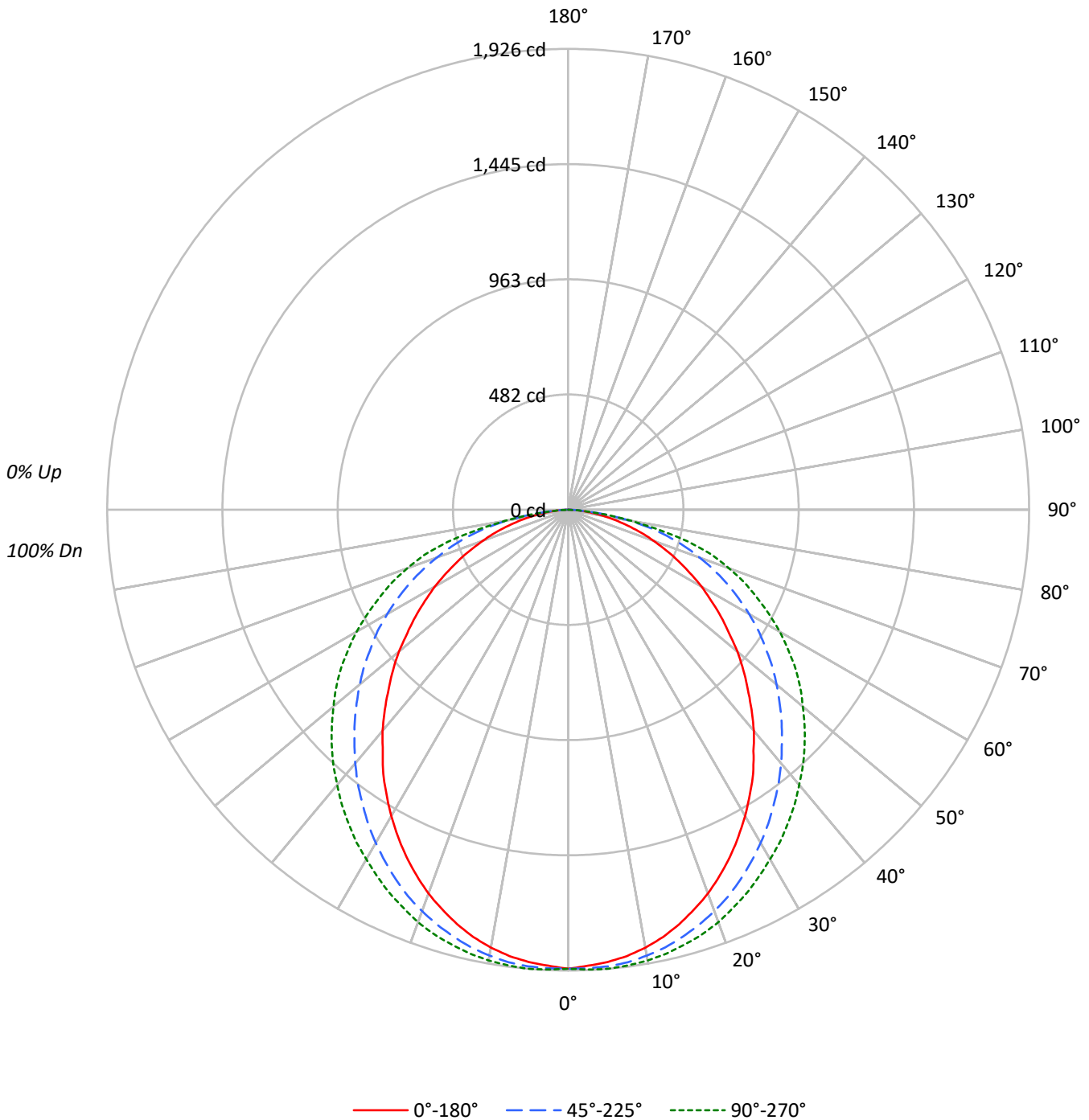
Input Watts (W): 50.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	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°	5162	5162	5162
5°	5125	5175	5203
10°	5078	5170	5227
15°	4995	5148	5242
20°	4889	5113	5254
25°	4751	5061	5247
30°	4592	4997	5240
35°	4426	4923	5257
40°	4239	4861	5273
45°	4037	4800	5316
50°	3862	4757	5357
55°	3656	4720	5441
60°	3464	4699	5499
65°	3236	4663	5543
70°	2973	4593	5618
75°	2682	4471	5420
80°	2303	3958	4079
85°	1849	2334	1849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.9	3.3
10°-20°	519.9	9.5
20°-30°	780.9	14.2
30°-40°	931.3	17.0
40°-50°	962.9	17.5
50°-60°	885.3	16.1
60°-70°	704.8	12.8
70°-80°	430.6	7.8
80°-90°	93.6	1.7
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°	1482.7	27.0
0°-40°	2414.0	44.0
0°-60°	4262.2	77.6
0°-90°	5491.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5491.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1918	1918	1918	1918	1918	
5°	1897	1903	1916	1923	1926	180
15°	1793	1814	1848	1874	1882	505
25°	1600	1639	1704	1751	1767	736
35°	1347	1405	1499	1577	1600	841
45°	1061	1136	1261	1363	1397	820
55°	779	865	1006	1121	1160	697
65°	508	594	732	834	870	503
75°	258	334	430	506	521	275
85°	60	73	76	65	60	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1918.2	1918.2	1918.2	1918.2	1918.2
2.5°	1907.8	1910.4	1918.2	1923.4	1923.4
5°	1897.4	1902.6	1915.6	1923.4	1926.0
7.5°	1881.7	1889.5	1907.8	1918.2	1920.8
10°	1858.3	1868.7	1892.1	1907.8	1913.0
12.5°	1829.6	1845.2	1873.9	1894.8	1900.0
15°	1793.1	1814.0	1847.8	1873.9	1881.7
17.5°	1751.4	1777.5	1819.2	1850.4	1860.9
20°	1707.1	1733.2	1785.3	1821.8	1834.8
22.5°	1655.0	1688.9	1748.8	1790.5	1800.9
25°	1600.2	1639.3	1704.5	1751.4	1767.0
27.5°	1540.3	1587.2	1657.6	1714.9	1728.0
30°	1477.8	1527.3	1608.1	1670.6	1686.3
32.5°	1412.6	1469.9	1555.9	1626.3	1647.2
35°	1347.4	1404.8	1498.6	1576.8	1600.2
37.5°	1271.9	1339.6	1443.9	1524.7	1553.3
40°	1206.7	1271.9	1383.9	1472.5	1501.2
42.5°	1133.7	1204.1	1321.4	1417.8	1451.7
45°	1060.7	1136.3	1261.4	1363.1	1397.0
47.5°	993.0	1068.6	1198.9	1305.7	1339.6
50°	922.6	1000.8	1136.3	1245.8	1279.7
52.5°	847.0	933.0	1073.8	1183.2	1222.3
55°	779.3	865.3	1006.0	1120.7	1159.8
57.5°	708.9	797.5	943.5	1052.9	1089.4
60°	643.7	729.8	873.1	980.0	1021.7
62.5°	573.4	662.0	802.7	907.0	946.1
65°	508.2	594.2	732.4	834.0	870.5
67.5°	443.1	529.1	659.4	755.8	797.5
70°	377.9	463.9	583.8	677.6	714.1
72.5°	320.6	396.2	510.8	596.8	630.7
75°	258.0	333.6	430.0	505.6	521.3
77.5°	200.7	268.4	349.2	383.1	388.3
80°	148.6	200.7	255.4	263.2	263.2
82.5°	99.0	138.1	159.0	161.6	159.0
85°	59.9	73.0	75.6	65.2	59.9
87.5°	20.9	20.9	13.0	7.8	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)