

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: P388154

Luminaire Tested: **22CZ2-70VHE-SQR-UNV-L930-CD1-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: P388154
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-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: 5560.2 lumens
Efficiency: N/A
Efficacy: 110.5 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

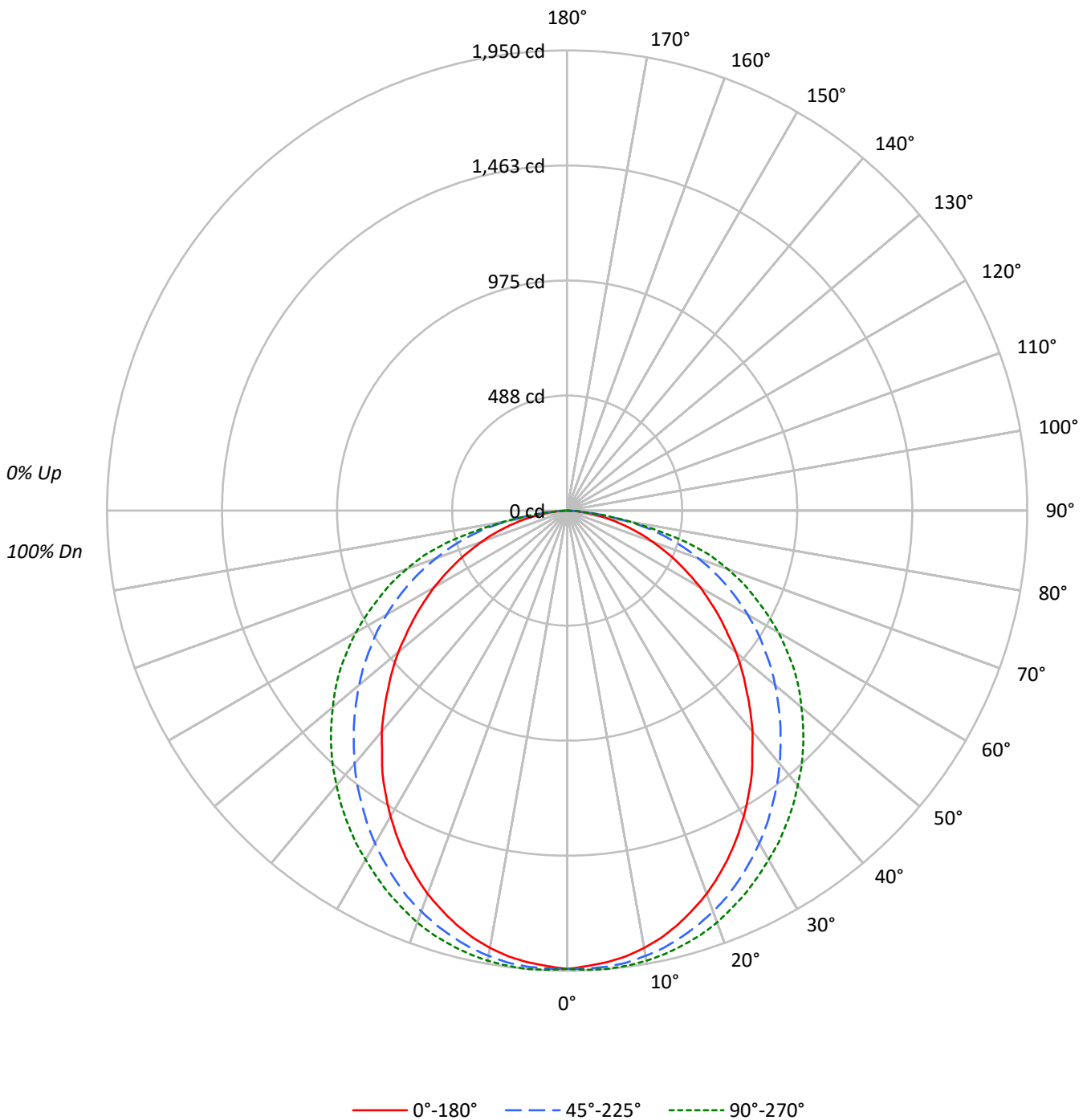
Input Watts (W): 50.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5227	5227	5227
5°	5190	5240	5268
10°	5141	5235	5293
15°	5058	5213	5308
20°	4950	5177	5320
25°	4811	5124	5312
30°	4649	5060	5305
35°	4482	4985	5323
40°	4292	4923	5340
45°	4088	4861	5383
50°	3911	4817	5425
55°	3702	4779	5510
60°	3508	4758	5568
65°	3277	4722	5612
70°	3011	4651	5689
75°	2717	4527	5488
80°	2331	4007	4130
85°	1874	2362	1874



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.1	3.3
10°-20°	526.5	9.5
20°-30°	790.7	14.2
30°-40°	943.0	17.0
40°-50°	975.0	17.5
50°-60°	896.4	16.1
60°-70°	713.6	12.8
70°-80°	436.0	7.8
80°-90°	94.8	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°	1501.3	27.0
0°-40°	2444.4	44.0
0°-60°	4315.8	77.6
0°-90°	5560.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5560.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1942	1942	1942	1942	1942	
5°	1921	1926	1940	1948	1950	182
15°	1816	1837	1871	1897	1905	511
25°	1620	1660	1726	1773	1789	745
35°	1364	1422	1517	1597	1620	851
45°	1074	1151	1277	1380	1414	831
55°	789	876	1019	1135	1174	706
65°	515	602	742	844	881	510
75°	261	338	435	512	528	278
85°	61	74	76	66	61	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1942.3	1942.3	1942.3	1942.3	1942.3
2.5°	1931.8	1934.4	1942.3	1947.6	1947.6
5°	1921.2	1926.5	1939.7	1947.6	1950.2
7.5°	1905.4	1913.3	1931.8	1942.3	1945.0
10°	1881.6	1892.2	1915.9	1931.8	1937.0
12.5°	1852.6	1868.4	1897.4	1918.6	1923.8
15°	1815.6	1836.8	1871.1	1897.4	1905.4
17.5°	1773.4	1799.8	1842.0	1873.7	1884.3
20°	1728.6	1754.9	1807.7	1844.7	1857.9
22.5°	1675.8	1710.1	1770.8	1813.0	1823.6
25°	1620.4	1659.9	1725.9	1773.4	1789.2
27.5°	1559.7	1607.2	1678.4	1736.5	1749.7
30°	1496.3	1546.5	1628.3	1691.6	1707.4
32.5°	1430.3	1488.4	1575.5	1646.7	1667.9
35°	1364.4	1422.4	1517.4	1596.6	1620.4
37.5°	1287.8	1356.5	1462.0	1543.8	1572.9
40°	1221.9	1287.8	1401.3	1491.0	1520.1
42.5°	1148.0	1219.2	1338.0	1435.6	1469.9
45°	1074.1	1150.6	1277.3	1380.2	1414.5
47.5°	1005.5	1082.0	1213.9	1322.1	1356.5
50°	934.2	1013.4	1150.6	1261.4	1295.8
52.5°	857.7	944.8	1087.3	1198.1	1237.7
55°	789.1	876.2	1018.7	1134.8	1174.4
57.5°	717.8	807.5	955.3	1066.2	1103.1
60°	651.8	738.9	884.1	992.3	1034.5
62.5°	580.6	670.3	812.8	918.4	958.0
65°	514.6	601.7	741.6	844.5	881.4
67.5°	448.6	535.7	667.7	765.3	807.5
70°	382.7	469.7	591.1	686.1	723.1
72.5°	324.6	401.1	517.2	604.3	638.6
75°	261.3	337.8	435.4	512.0	527.8
77.5°	203.2	271.8	353.6	387.9	393.2
80°	150.4	203.2	258.6	266.5	266.5
82.5°	100.3	139.9	161.0	163.6	161.0
85°	60.7	73.9	76.5	66.0	60.7
87.5°	21.1	21.1	13.2	7.9	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)