

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: P388158

Luminaire Tested: **22CZ2-70VHE-SQR-UNV-L940-CD1-SDWPD1-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: P388158
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-L940-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5616.6 lumens
Efficiency: N/A
Efficacy: 111.7 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

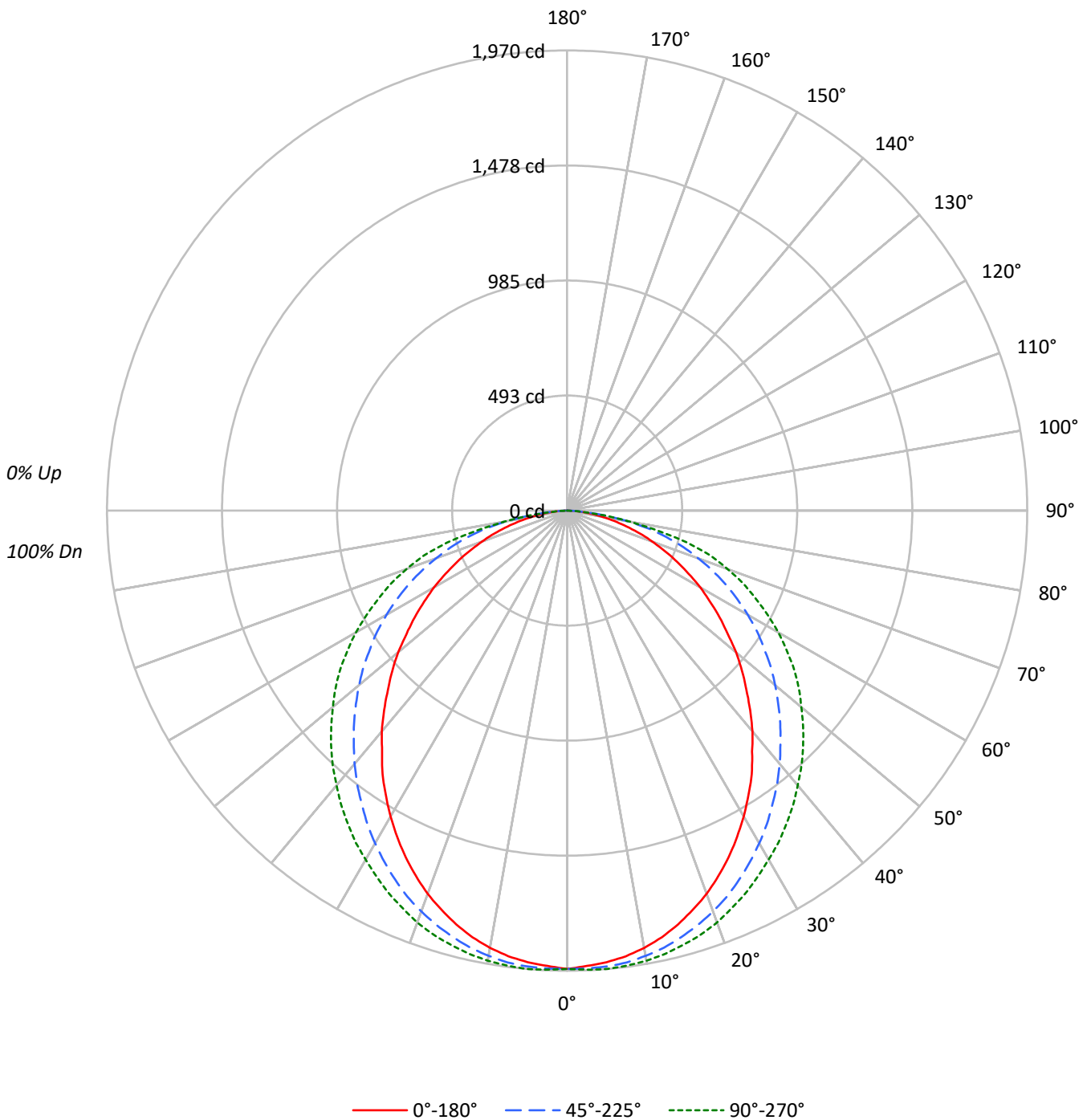
Input Watts (W): 50.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5280	5280	5280
5°	5242	5293	5321
10°	5194	5288	5347
15°	5110	5265	5362
20°	5000	5229	5374
25°	4860	5176	5366
30°	4697	5111	5359
35°	4527	5035	5377
40°	4336	4972	5394
45°	4129	4910	5438
50°	3951	4866	5480
55°	3740	4828	5566
60°	3543	4806	5624
65°	3310	4770	5670
70°	3041	4698	5747
75°	2744	4574	5544
80°	2354	4048	4172
85°	1893	2387	1893



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.0	3.3
10°-20°	531.8	9.5
20°-30°	798.7	14.2
30°-40°	952.6	17.0
40°-50°	984.9	17.5
50°-60°	905.5	16.1
60°-70°	720.9	12.8
70°-80°	440.4	7.8
80°-90°	95.7	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°	1516.5	27.0
0°-40°	2469.2	44.0
0°-60°	4359.6	77.6
0°-90°	5616.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5616.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1962	1962	1962	1962	1962	
5°	1941	1946	1959	1967	1970	184
15°	1834	1855	1890	1917	1925	517
25°	1637	1677	1743	1791	1807	753
35°	1378	1437	1533	1613	1637	860
45°	1085	1162	1290	1394	1429	839
55°	797	885	1029	1146	1186	713
65°	520	608	749	853	890	515
75°	264	341	440	517	533	281
85°	61	75	77	67	61	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1962.0	1962.0	1962.0	1962.0	1962.0
2.5°	1951.4	1954.0	1962.0	1967.3	1967.3
5°	1940.7	1946.0	1959.3	1967.3	1970.0
7.5°	1924.7	1932.7	1951.4	1962.0	1964.7
10°	1900.7	1911.4	1935.4	1951.4	1956.7
12.5°	1871.4	1887.4	1916.7	1938.0	1943.4
15°	1834.1	1855.4	1890.0	1916.7	1924.7
17.5°	1791.4	1818.1	1860.7	1892.7	1903.4
20°	1746.1	1772.7	1826.1	1863.4	1876.7
22.5°	1692.8	1727.4	1788.7	1831.4	1842.1
25°	1636.8	1676.8	1743.4	1791.4	1807.4
27.5°	1575.5	1623.5	1695.4	1754.1	1767.4
30°	1511.5	1562.1	1644.8	1708.8	1724.8
32.5°	1444.9	1503.5	1591.5	1663.4	1684.8
35°	1378.2	1436.9	1532.8	1612.8	1636.8
37.5°	1300.9	1370.2	1476.8	1559.5	1588.8
40°	1234.3	1300.9	1415.5	1506.2	1535.5
42.5°	1159.6	1231.6	1351.6	1450.2	1484.8
45°	1085.0	1162.3	1290.2	1394.2	1428.9
47.5°	1015.7	1093.0	1226.3	1335.6	1370.2
50°	943.7	1023.7	1162.3	1274.2	1308.9
52.5°	866.4	954.3	1098.3	1210.3	1250.3
55°	797.1	885.0	1029.0	1146.3	1186.3
57.5°	725.1	815.7	965.0	1077.0	1114.3
60°	658.4	746.4	893.0	1002.3	1045.0
62.5°	586.5	677.1	821.1	927.7	967.7
65°	519.8	607.8	749.1	853.0	890.4
67.5°	453.2	541.2	674.4	773.1	815.7
70°	386.5	474.5	597.1	693.1	730.4
72.5°	327.9	405.2	522.5	610.5	645.1
75°	263.9	341.2	439.9	517.2	533.2
77.5°	205.3	274.6	357.2	391.9	397.2
80°	151.9	205.3	261.2	269.2	269.2
82.5°	101.3	141.3	162.6	165.3	162.6
85°	61.3	74.6	77.3	66.6	61.3
87.5°	21.3	21.3	13.3	8.0	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)