

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: P388152

Luminaire Tested: **22CZ2-70VHE-SQR-UNV-L930-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: P388152
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-SDWPD1-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: 5425.0 lumens
Efficiency: N/A
Efficacy: 107.9 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

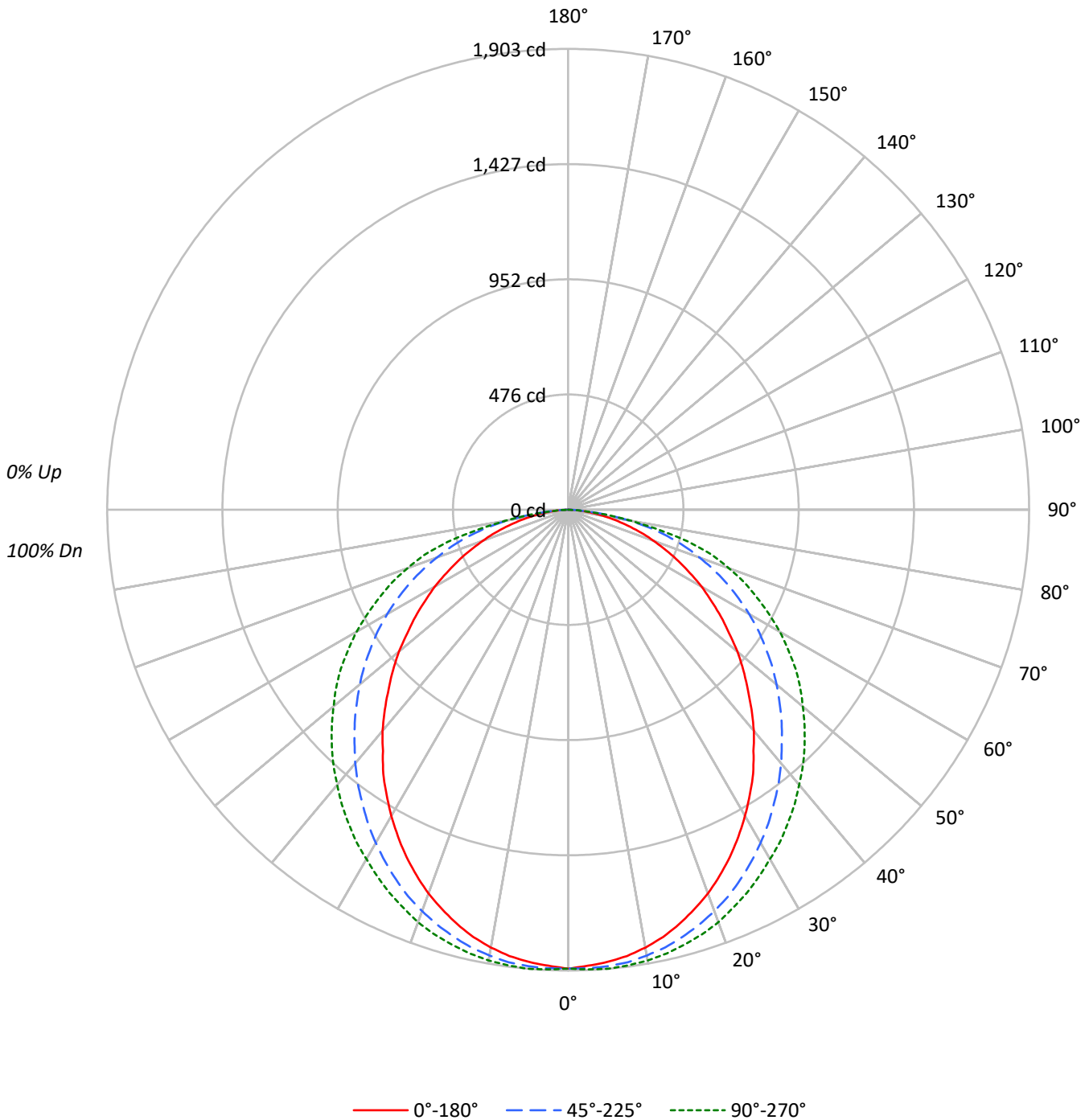
Input Watts (W): 50.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5100	5100	5100
5°	5064	5112	5140
10°	5017	5108	5164
15°	4935	5086	5179
20°	4830	5051	5191
25°	4694	5000	5183
30°	4536	4937	5176
35°	4373	4864	5194
40°	4188	4803	5210
45°	3988	4743	5252
50°	3816	4700	5292
55°	3612	4663	5376
60°	3423	4642	5432
65°	3197	4607	5476
70°	2938	4538	5551
75°	2650	4417	5355
80°	2275	3910	4031
85°	1828	2306	1828



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.7	3.3
10°-20°	513.7	9.5
20°-30°	771.5	14.2
30°-40°	920.1	17.0
40°-50°	951.3	17.5
50°-60°	874.6	16.1
60°-70°	696.3	12.8
70°-80°	425.4	7.8
80°-90°	92.5	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°	1464.8	27.0
0°-40°	2384.9	44.0
0°-60°	4210.8	77.6
0°-90°	5425.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5425.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1895	1895	1895	1895	1895	
5°	1874	1880	1892	1900	1903	178
15°	1772	1792	1826	1851	1859	499
25°	1581	1620	1684	1730	1746	727
35°	1331	1388	1480	1558	1581	831
45°	1048	1123	1246	1347	1380	810
55°	770	855	994	1107	1146	689
65°	502	587	724	824	860	497
75°	255	330	425	500	515	272
85°	59	72	75	64	59	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1895.1	1895.1	1895.1	1895.1	1895.1
2.5°	1884.8	1887.4	1895.1	1900.2	1900.2
5°	1874.5	1879.6	1892.5	1900.2	1902.8
7.5°	1859.0	1866.8	1884.8	1895.1	1897.7
10°	1835.9	1846.2	1869.3	1884.8	1889.9
12.5°	1807.5	1823.0	1851.3	1871.9	1877.1
15°	1771.5	1792.1	1825.6	1851.3	1859.0
17.5°	1730.3	1756.0	1797.2	1828.1	1838.4
20°	1686.5	1712.3	1763.8	1799.8	1812.7
22.5°	1635.0	1668.5	1727.7	1768.9	1779.2
25°	1581.0	1619.6	1683.9	1730.3	1745.7
27.5°	1521.7	1568.1	1637.6	1694.2	1707.1
30°	1459.9	1508.9	1588.7	1650.5	1665.9
32.5°	1395.6	1452.2	1537.2	1606.7	1627.3
35°	1331.2	1387.8	1480.5	1557.8	1581.0
37.5°	1256.5	1323.5	1426.5	1506.3	1534.6
40°	1192.2	1256.5	1367.2	1454.8	1483.1
42.5°	1120.1	1189.6	1305.4	1400.7	1434.2
45°	1048.0	1122.6	1246.2	1346.6	1380.1
47.5°	981.0	1055.7	1184.4	1290.0	1323.5
50°	911.5	988.7	1122.6	1230.8	1264.2
52.5°	836.8	921.8	1060.8	1169.0	1207.6
55°	769.9	854.8	993.9	1107.2	1145.8
57.5°	700.4	787.9	932.1	1040.2	1076.3
60°	636.0	721.0	862.6	968.1	1009.3
62.5°	566.5	654.0	793.1	896.0	934.7
65°	502.1	587.1	723.5	823.9	860.0
67.5°	437.7	522.7	651.4	746.7	787.9
70°	373.4	458.3	576.8	669.5	705.5
72.5°	316.7	391.4	504.7	589.6	623.1
75°	254.9	329.6	424.8	499.5	515.0
77.5°	198.3	265.2	345.0	378.5	383.7
80°	146.8	198.3	252.3	260.1	260.1
82.5°	97.8	136.5	157.1	159.6	157.1
85°	59.2	72.1	74.7	64.4	59.2
87.5°	20.6	20.6	12.9	7.7	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)