

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: P388157

Luminaire Tested: **22CZ2-70VHE-SQR-UNV-L935-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: P388157
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-L935-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5697.7 lumens
Efficiency: N/A
Efficacy: 113.3 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

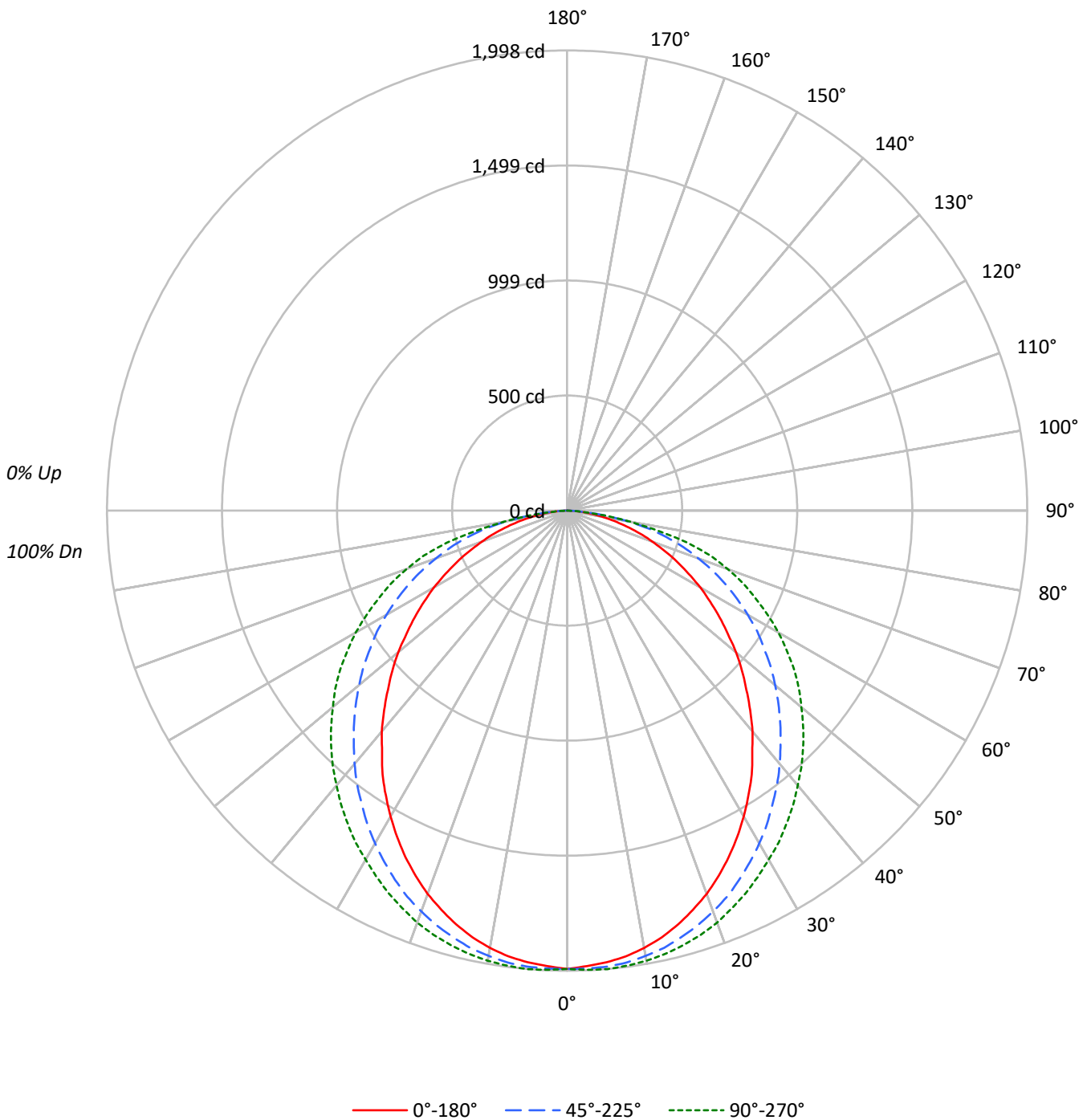
Input Watts (W): 50.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5356	5356	5356
5°	5318	5369	5398
10°	5269	5365	5424
15°	5183	5341	5439
20°	5072	5305	5452
25°	4930	5251	5444
30°	4764	5184	5437
35°	4593	5108	5455
40°	4398	5044	5472
45°	4188	4981	5516
50°	4008	4936	5559
55°	3794	4897	5646
60°	3595	4876	5705
65°	3358	4839	5751
70°	3085	4766	5830
75°	2783	4639	5624
80°	2388	4107	4232
85°	1920	2421	1920



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.7	3.3
10°-20°	539.5	9.5
20°-30°	810.3	14.2
30°-40°	966.4	17.0
40°-50°	999.1	17.5
50°-60°	918.6	16.1
60°-70°	731.3	12.8
70°-80°	446.8	7.8
80°-90°	97.1	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°	1538.4	27.0
0°-40°	2504.8	44.0
0°-60°	4422.5	77.6
0°-90°	5697.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5697.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1990	1990	1990	1990	1990	
5°	1969	1974	1988	1996	1998	187
15°	1860	1882	1917	1944	1952	524
25°	1660	1701	1769	1817	1834	764
35°	1398	1458	1555	1636	1660	872
45°	1101	1179	1309	1414	1450	851
55°	809	898	1044	1163	1203	723
65°	527	617	760	865	903	522
75°	268	346	446	525	541	285
85°	62	76	78	68	62	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1990.3	1990.3	1990.3	1990.3	1990.3
2.5°	1979.5	1982.2	1990.3	1995.8	1995.8
5°	1968.7	1974.1	1987.6	1995.8	1998.5
7.5°	1952.5	1960.6	1979.5	1990.3	1993.0
10°	1928.1	1939.0	1963.3	1979.5	1984.9
12.5°	1898.4	1914.6	1944.4	1966.0	1971.4
15°	1860.5	1882.2	1917.3	1944.4	1952.5
17.5°	1817.3	1844.3	1887.6	1920.0	1930.8
20°	1771.3	1798.3	1852.4	1890.3	1903.8
22.5°	1717.2	1752.4	1814.6	1857.8	1868.7
25°	1660.4	1701.0	1768.6	1817.3	1833.5
27.5°	1598.2	1646.9	1719.9	1779.4	1792.9
30°	1533.3	1584.7	1668.5	1733.4	1749.7
32.5°	1465.7	1525.2	1614.5	1687.5	1709.1
35°	1398.1	1457.6	1555.0	1636.1	1660.4
37.5°	1319.7	1390.0	1498.2	1582.0	1611.7
40°	1252.1	1319.7	1436.0	1527.9	1557.7
42.5°	1176.4	1249.4	1371.1	1471.1	1506.3
45°	1100.6	1179.1	1308.9	1414.3	1449.5
47.5°	1030.3	1108.8	1244.0	1354.8	1390.0
50°	957.3	1038.4	1179.1	1292.6	1327.8
52.5°	878.9	968.1	1114.2	1227.7	1268.3
55°	808.6	897.8	1043.8	1162.8	1203.4
57.5°	735.6	827.5	978.9	1092.5	1130.4
60°	668.0	757.2	905.9	1016.8	1060.1
62.5°	594.9	686.9	832.9	941.1	981.7
65°	527.3	616.6	759.9	865.4	903.2
67.5°	459.7	549.0	684.2	784.2	827.5
70°	392.1	481.4	605.8	703.1	741.0
72.5°	332.6	411.0	530.0	619.3	654.4
75°	267.7	346.1	446.2	524.6	540.9
77.5°	208.2	278.5	362.4	397.5	402.9
80°	154.1	208.2	265.0	273.1	273.1
82.5°	102.8	143.3	165.0	167.7	165.0
85°	62.2	75.7	78.4	67.6	62.2
87.5°	21.6	21.6	13.5	8.1	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)