

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: P388161

Luminaire Tested: **22CZ2-70VHE-SQR-UNV-L950-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: P388161
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-L950-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5961.7 lumens
Efficiency: N/A
Efficacy: 118.5 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

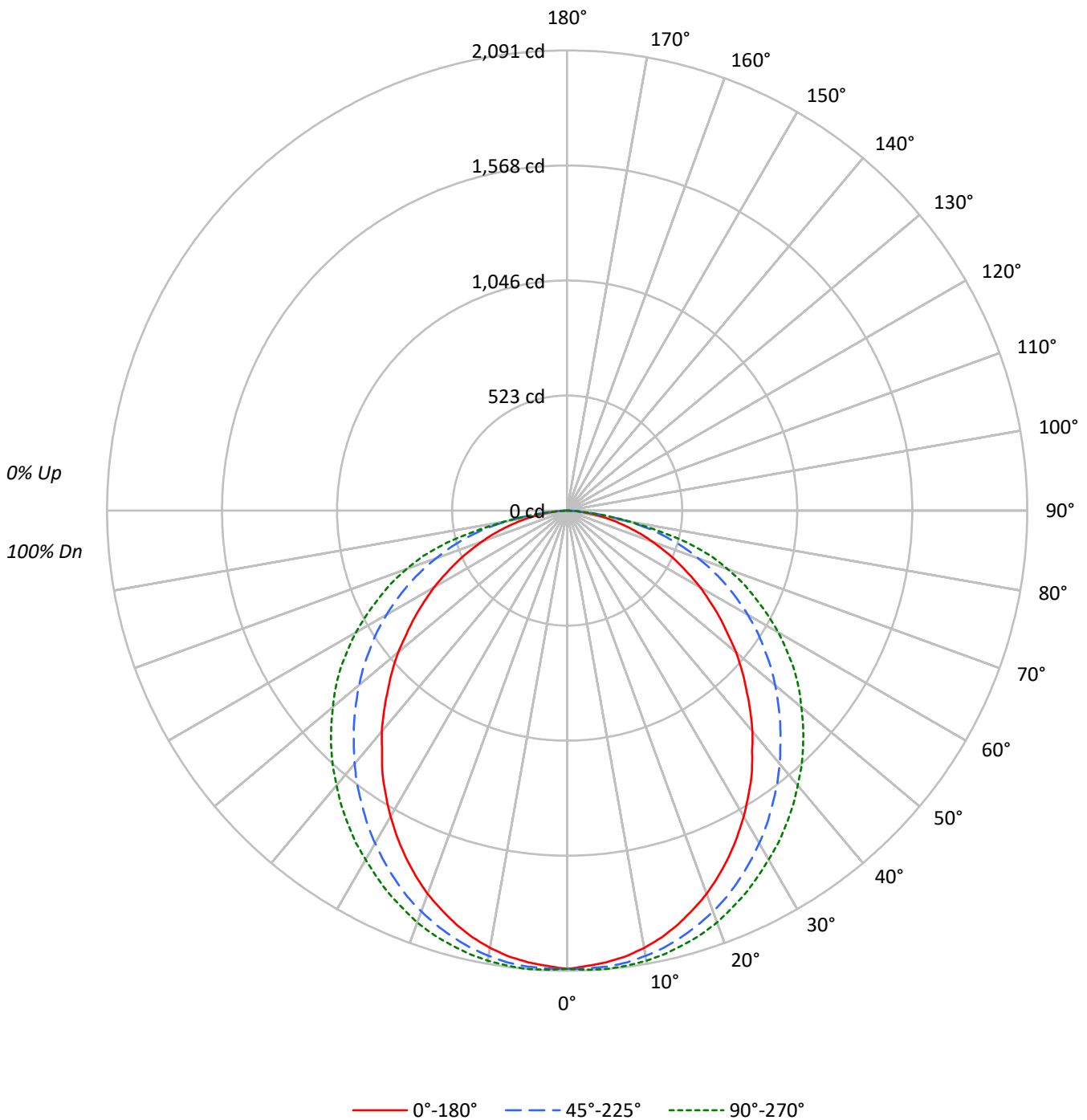
Input Watts (W): 50.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388161

CATALOG NUMBER: 22CZ2-70VHE-SQR-UNV-L950-CD1-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388161

CATALOG NUMBER: 22CZ2-70VHE-SQR-UNV-L950-CD1-SDWPD1-U

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°	5604	5604	5604
5°	5564	5618	5649
10°	5513	5613	5675
15°	5423	5589	5692
20°	5308	5551	5704
25°	5159	5494	5696
30°	4985	5425	5688
35°	4806	5345	5707
40°	4602	5278	5725
45°	4383	5212	5772
50°	4194	5165	5816
55°	3969	5124	5908
60°	3761	5102	5970
65°	3514	5063	6018
70°	3228	4987	6100
75°	2912	4854	5884
80°	2500	4297	4429
85°	2010	2535	2010



TEST NUMBER: P388161

CATALOG NUMBER: 22CZ2-70VHE-SQR-UNV-L950-CD1-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.4	3.3
10°-20°	564.5	9.5
20°-30°	847.8	14.2
30°-40°	1011.1	17.0
40°-50°	1045.4	17.5
50°-60°	961.1	16.1
60°-70°	765.2	12.8
70°-80°	467.5	7.8
80°-90°	101.6	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°	1609.7	27.0
0°-40°	2620.9	44.0
0°-60°	4627.4	77.6
0°-90°	5961.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5961.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2083	2083	2083	2083	2083	
5°	2060	2066	2080	2088	2091	195
15°	1947	1969	2006	2034	2043	548
25°	1737	1780	1850	1902	1918	799
35°	1463	1525	1627	1712	1737	913
45°	1152	1234	1370	1480	1517	891
55°	846	939	1092	1217	1259	757
65°	552	645	795	906	945	547
75°	280	362	467	549	566	298
85°	65	79	82	71	65	75
90°	0	0	0	0	0	



TEST NUMBER: P388161

CATALOG NUMBER: 22CZ2-70VHE-SQR-UNV-L950-CD1-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2082.6	2082.6	2082.6	2082.6	2082.6
2.5°	2071.2	2074.1	2082.6	2088.2	2088.2
5°	2059.9	2065.6	2079.7	2088.2	2091.1
7.5°	2043.0	2051.4	2071.2	2082.6	2085.4
10°	2017.5	2028.8	2054.3	2071.2	2076.9
12.5°	1986.4	2003.3	2034.5	2057.1	2062.8
15°	1946.7	1969.4	2006.2	2034.5	2043.0
17.5°	1901.5	1929.8	1975.0	2009.0	2020.3
20°	1853.4	1881.7	1938.3	1977.9	1992.0
22.5°	1796.8	1833.6	1898.6	1943.9	1955.2
25°	1737.4	1779.8	1850.5	1901.5	1918.5
27.5°	1672.3	1723.2	1799.6	1861.9	1876.0
30°	1604.4	1658.1	1745.8	1813.8	1830.7
32.5°	1533.6	1595.9	1689.3	1765.7	1788.3
35°	1462.9	1525.1	1627.0	1711.9	1737.4
37.5°	1380.8	1454.4	1567.6	1655.3	1686.4
40°	1310.1	1380.8	1502.5	1598.7	1629.8
42.5°	1230.9	1307.3	1434.6	1539.3	1576.1
45°	1151.6	1233.7	1369.5	1479.9	1516.7
47.5°	1078.1	1160.1	1301.6	1417.6	1454.4
50°	1001.7	1086.6	1233.7	1352.5	1389.3
52.5°	919.6	1013.0	1165.8	1284.6	1327.1
55°	846.0	939.4	1092.2	1216.7	1259.2
57.5°	769.6	865.8	1024.3	1143.1	1182.8
60°	698.9	792.3	947.9	1063.9	1109.2
62.5°	622.5	718.7	871.5	984.7	1027.1
65°	551.8	645.1	795.1	905.5	945.1
67.5°	481.0	574.4	715.9	820.6	865.8
70°	410.3	503.7	633.8	735.7	775.3
72.5°	348.0	430.1	554.6	648.0	684.8
75°	280.1	362.2	466.9	548.9	565.9
77.5°	217.9	291.4	379.2	415.9	421.6
80°	161.3	217.9	277.3	285.8	285.8
82.5°	107.5	150.0	172.6	175.4	172.6
85°	65.1	79.2	82.1	70.7	65.1
87.5°	22.6	22.6	14.1	8.5	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)