

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: P388398

Luminaire Tested: **22CZ2-60VHE-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: P388398
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-60VHE-UNV-L950-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5405.3 lumens
Efficiency: N/A
Efficacy: 122.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

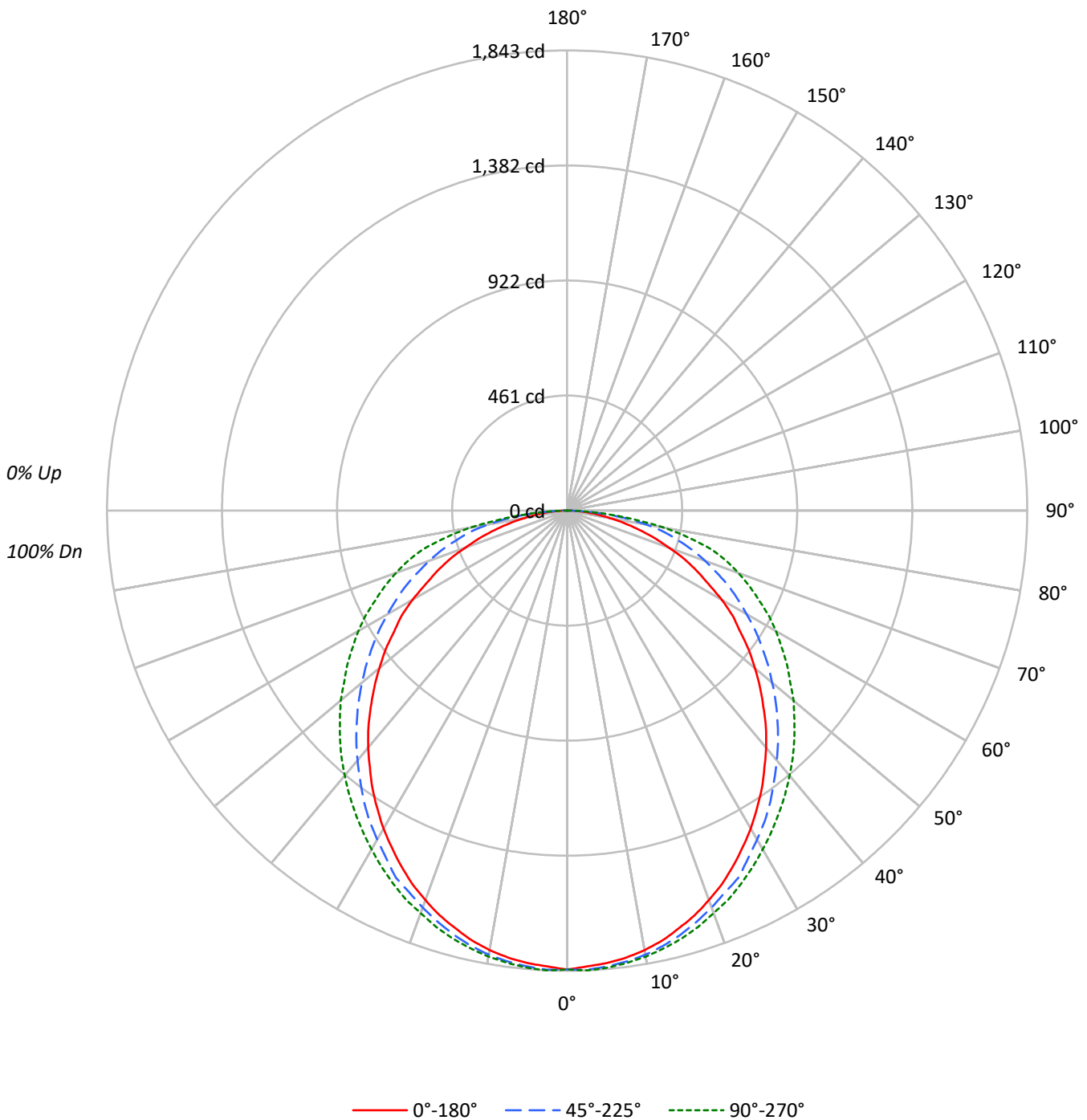
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388398

CATALOG NUMBER: 22CZ2-60VHE-UNV-L950-CD1-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388398

CATALOG NUMBER: 22CZ2-60VHE-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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4946	4946	4946
5°	4914	4950	4965
10°	4884	4935	4957
15°	4824	4898	4942
20°	4753	4844	4913
25°	4667	4817	4896
30°	4570	4727	4868
35°	4465	4666	4858
40°	4354	4587	4868
45°	4231	4535	4899
50°	4109	4487	4955
55°	3968	4467	5041
60°	3851	4466	5196
65°	3658	4539	5386
70°	3411	4625	5734
75°	3125	4784	6195
80°	2720	4987	6100
85°	2381	4434	4844



TEST NUMBER: P388398

CATALOG NUMBER: 22CZ2-60VHE-UNV-L950-CD1-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.8	3.2
10°-20°	495.1	9.2
20°-30°	743.2	13.7
30°-40°	888.1	16.4
40°-50°	923.5	17.1
50°-60°	855.9	15.8
60°-70°	702.0	13.0
70°-80°	474.6	8.8
80°-90°	149.1	2.8
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°	1412.1	26.1
0°-40°	2300.2	42.6
0°-60°	4079.5	75.5
0°-90°	5405.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5405.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1838	1838	1838	1838	1838	
5°	1819	1822	1833	1835	1838	173
15°	1732	1740	1758	1769	1774	488
25°	1572	1585	1622	1641	1649	724
35°	1359	1378	1420	1463	1479	850
45°	1112	1133	1192	1261	1287	859
55°	846	872	952	1037	1074	760
65°	574	606	713	806	846	568
75°	301	351	460	553	596	319
85°	77	106	144	160	157	88
90°	0	0	0	0	0	



TEST NUMBER: P388398

CATALOG NUMBER: 22CZ2-60VHE-UNV-L950-CD1-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1837.9	1837.9	1837.9	1837.9	1837.9
2.5°	1827.3	1832.6	1840.6	1843.2	1843.2
5°	1819.3	1821.9	1832.6	1835.2	1837.9
7.5°	1806.0	1811.3	1821.9	1824.6	1827.3
10°	1787.4	1792.7	1806.0	1811.3	1814.0
12.5°	1763.4	1768.7	1784.7	1792.7	1795.3
15°	1731.5	1739.5	1758.1	1768.7	1774.1
17.5°	1699.6	1707.6	1726.2	1742.1	1747.5
20°	1659.7	1678.3	1691.6	1712.9	1715.6
22.5°	1619.8	1630.4	1654.4	1675.7	1686.3
25°	1571.9	1585.2	1622.5	1641.1	1649.1
27.5°	1521.4	1540.0	1569.3	1598.5	1609.2
30°	1470.9	1484.2	1521.4	1556.0	1566.6
32.5°	1415.0	1433.6	1473.5	1508.1	1524.0
35°	1359.1	1377.8	1420.3	1462.9	1478.8
37.5°	1298.0	1319.2	1361.8	1412.3	1433.6
40°	1239.5	1255.4	1305.9	1367.1	1385.7
42.5°	1178.3	1196.9	1250.1	1316.6	1337.9
45°	1111.8	1133.1	1191.6	1260.7	1287.3
47.5°	1047.9	1069.2	1133.1	1202.2	1234.1
50°	981.5	1008.1	1071.9	1151.7	1183.6
52.5°	917.6	941.6	1013.4	1095.8	1125.1
55°	845.8	872.4	952.2	1037.3	1074.5
57.5°	787.3	805.9	893.7	981.5	1018.7
60°	715.5	739.4	829.8	922.9	965.5
62.5°	638.3	678.2	771.3	867.1	909.6
65°	574.5	606.4	712.8	805.9	845.8
67.5°	508.0	542.6	646.3	744.7	790.0
70°	433.5	478.8	587.8	686.2	728.8
72.5°	367.0	414.9	526.6	622.4	667.6
75°	300.6	351.1	460.1	553.2	595.8
77.5°	236.7	292.6	399.0	470.8	497.4
80°	175.5	228.7	321.8	372.4	393.6
82.5°	122.3	167.6	236.7	263.3	268.6
85°	77.1	106.4	143.6	159.6	156.9
87.5°	34.6	42.6	53.2	58.5	55.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)