

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: P390701

Luminaire Tested: **22CZ2-80VHE-HRP-UNV-L940-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: P390701
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-80VHE-HRP-UNV-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5867.5 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

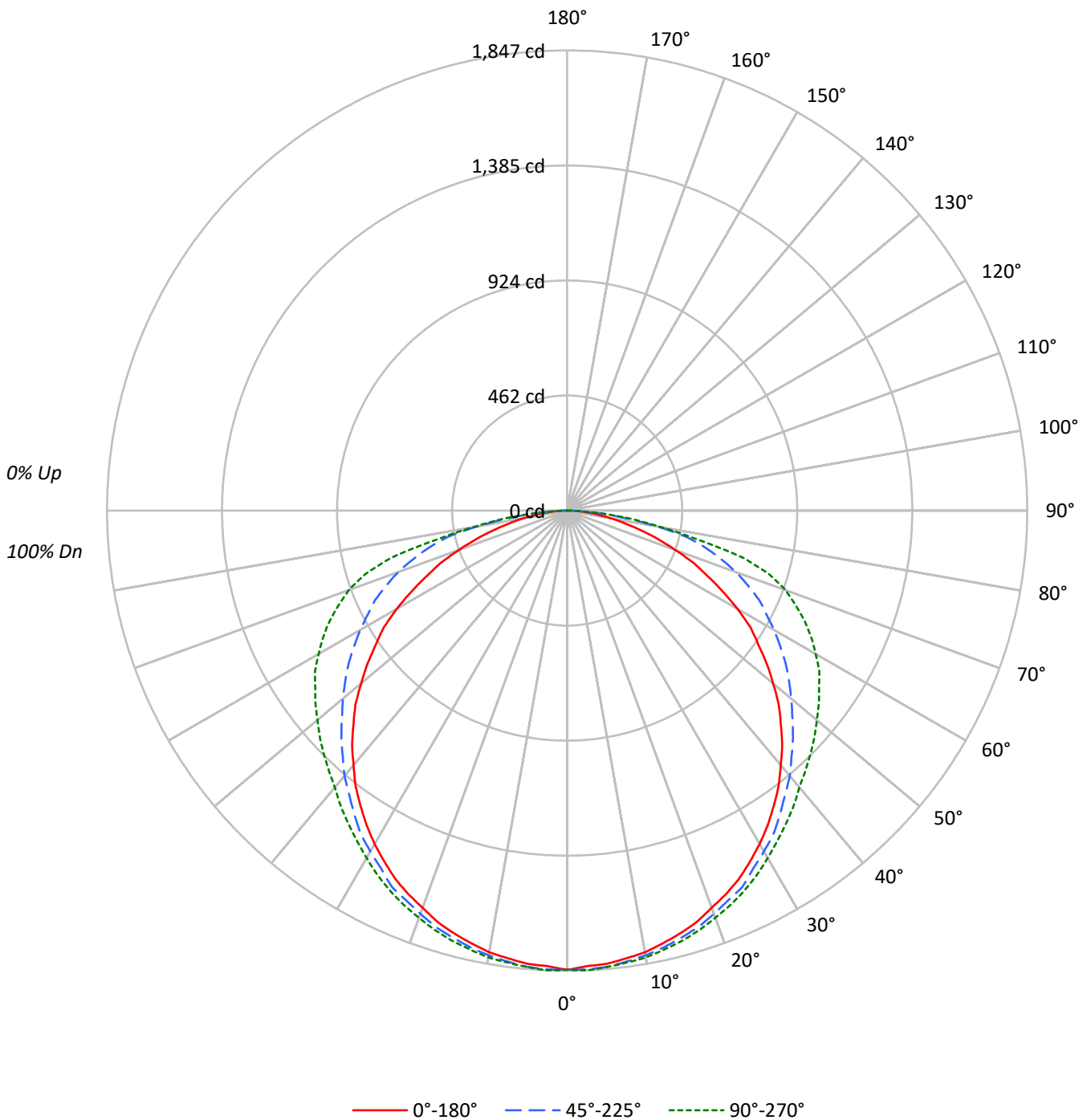
Input Watts (W): 59.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P390701

CATALOG NUMBER: 22CZ2-80VHE-HRP-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P390701

CATALOG NUMBER: 22CZ2-80VHE-HRP-UNV-L940-CD1-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	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4960	4960	4960
5°	4932	4967	4967
10°	4918	4954	4977
15°	4894	4942	4978
20°	4858	4932	4981
25°	4844	4947	4998
30°	4802	4909	5003
35°	4750	4892	5034
40°	4685	4882	5095
45°	4616	4879	5256
50°	4518	4915	5475
55°	4394	5022	5792
60°	4251	5157	6203
65°	3958	5414	6706
70°	3634	5671	7335
75°	3187	5969	7585
80°	2743	5686	5954
85°	2399	4131	4533



TEST NUMBER: P390701

CATALOG NUMBER: 22CZ2-80VHE-HRP-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.3	3.0
10°-20°	500.6	8.5
20°-30°	763.7	13.0
30°-40°	932.5	15.9
40°-50°	997.1	17.0
50°-60°	962.4	16.4
60°-70°	828.5	14.1
70°-80°	560.5	9.6
80°-90°	147.9	2.5
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°	1438.6	24.5
0°-40°	2371.2	40.4
0°-60°	4330.6	73.8
0°-90°	5867.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5867.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1843	1843	1843	1843	1843	
5°	1826	1830	1839	1839	1839	173
15°	1757	1761	1774	1783	1787	496
25°	1632	1640	1666	1675	1683	751
35°	1446	1459	1489	1519	1532	905
45°	1213	1234	1282	1347	1381	936
55°	937	967	1070	1178	1234	839
65°	622	682	850	984	1053	618
75°	306	406	574	691	730	329
85°	78	108	134	138	147	87
90°	0	0	0	0	0	



TEST NUMBER: P390701

CATALOG NUMBER: 22CZ2-80VHE-HRP-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1843.1	1843.1	1843.1	1843.1	1843.1
2.5°	1830.1	1834.5	1843.1	1843.1	1847.4
5°	1825.8	1830.1	1838.8	1838.8	1838.8
7.5°	1812.9	1817.2	1825.8	1830.1	1830.1
10°	1799.9	1804.2	1812.9	1817.2	1821.5
12.5°	1778.3	1782.7	1795.6	1804.2	1804.2
15°	1756.8	1761.1	1774.0	1782.7	1787.0
17.5°	1730.9	1739.5	1752.4	1761.1	1765.4
20°	1696.3	1705.0	1722.2	1735.2	1739.5
22.5°	1666.1	1674.7	1692.0	1705.0	1713.6
25°	1631.6	1640.2	1666.1	1674.7	1683.4
27.5°	1588.4	1597.1	1618.6	1635.9	1648.8
30°	1545.3	1553.9	1579.8	1601.4	1610.0
32.5°	1497.8	1510.7	1540.9	1558.2	1571.2
35°	1446.0	1458.9	1489.1	1519.4	1532.3
37.5°	1394.2	1407.1	1437.3	1476.2	1493.5
40°	1333.8	1351.0	1389.9	1441.7	1450.3
42.5°	1277.6	1299.2	1333.8	1394.2	1415.8
45°	1212.9	1234.5	1282.0	1346.7	1381.2
47.5°	1152.5	1174.0	1225.8	1303.5	1346.7
50°	1079.1	1109.3	1174.0	1264.7	1307.9
52.5°	1010.0	1035.9	1122.3	1221.5	1273.3
55°	936.6	966.9	1070.5	1178.4	1234.5
57.5°	871.9	897.8	1014.3	1135.2	1199.9
60°	789.9	824.4	958.2	1087.7	1152.5
62.5°	703.6	755.4	902.1	1035.9	1105.0
65°	621.6	682.0	850.3	984.1	1053.2
67.5°	548.2	612.9	785.6	928.0	992.8
70°	461.9	543.9	720.8	859.0	932.3
72.5°	384.2	474.8	647.5	785.6	850.3
75°	306.5	405.7	574.1	690.6	729.5
77.5°	237.4	332.4	492.1	526.6	530.9
80°	177.0	263.3	366.9	371.2	384.2
82.5°	120.9	185.6	237.4	259.0	263.3
85°	77.7	107.9	133.8	138.1	146.8
87.5°	34.5	38.8	47.5	43.2	43.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)