

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: P390030

Luminaire Tested: **22CZ2-100VHE-HRP-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: P390030  
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: 22CZ2-100VHE-HRP-UNV-L950-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7590.3 lumens  
Efficiency: N/A  
Efficacy: 97.7 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

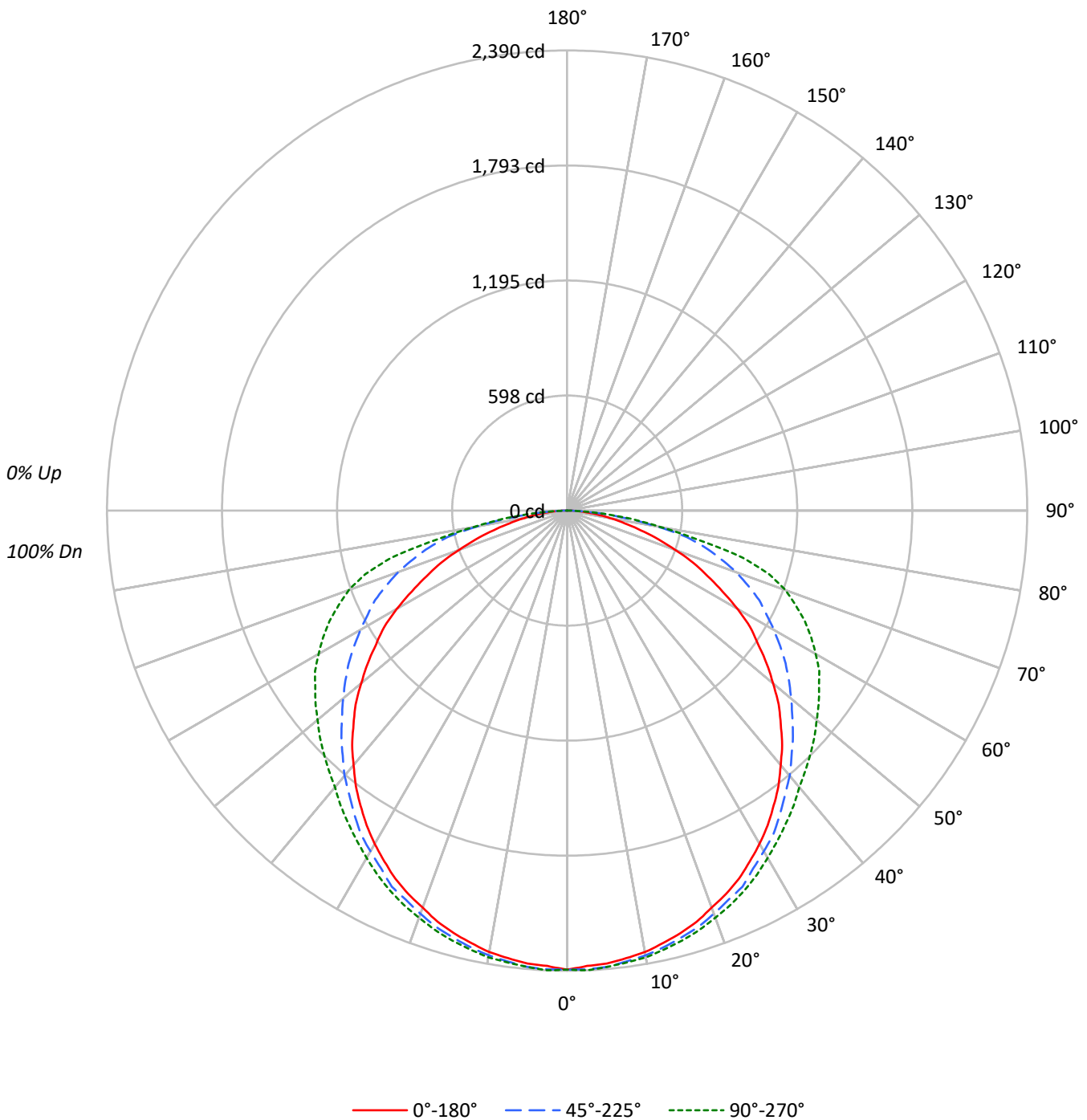
Input Watts (W): 77.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P390030

CATALOG NUMBER: 22CZ2-100VHE-HRP-UNV-L950-CD1-SDWPD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P390030

CATALOG NUMBER: 22CZ2-100VHE-HRP-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	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°	6416	6416	6416
5°	6380	6425	6425
10°	6362	6408	6439
15°	6331	6393	6440
20°	6284	6380	6444
25°	6267	6399	6466
30°	6211	6350	6472
35°	6145	6328	6512
40°	6061	6316	6590
45°	5971	6311	6800
50°	5844	6358	7083
55°	5685	6497	7492
60°	5499	6671	8024
65°	5120	7004	8675
70°	4701	7337	9489
75°	4121	7721	9811
80°	3547	7355	7702
85°	3103	5345	5860



TEST NUMBER: P390030

CATALOG NUMBER: 22CZ2-100VHE-HRP-UNV-L950-CD1-SDWPD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	225.5	3.0
10°-20°	647.6	8.5
20°-30°	988.0	13.0
30°-40°	1206.3	15.9
40°-50°	1289.8	17.0
50°-60°	1245.0	16.4
60°-70°	1071.7	14.1
70°-80°	725.1	9.6
80°-90°	191.3	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°	1861.0	24.5
0°-40°	3067.4	40.4
0°-60°	5602.2	73.8
0°-90°	7590.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7590.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2384	2384	2384	2384	2384	
5°	2362	2368	2379	2379	2379	224
15°	2273	2278	2295	2306	2312	641
25°	2111	2122	2155	2166	2178	971
35°	1870	1887	1926	1966	1982	1170
45°	1569	1597	1658	1742	1787	1211
55°	1212	1251	1385	1524	1597	1086
65°	804	882	1100	1273	1362	800
75°	396	525	743	893	944	425
85°	100	140	173	179	190	113
90°	0	0	0	0	0	



TEST NUMBER: P390030

CATALOG NUMBER: 22CZ2-100VHE-HRP-UNV-L950-CD1-SDWPD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2384.2	2384.2	2384.2	2384.2	2384.2
2.5°	2367.5	2373.1	2384.2	2384.2	2389.8
5°	2361.9	2367.5	2378.7	2378.7	2378.7
7.5°	2345.2	2350.7	2361.9	2367.5	2367.5
10°	2328.4	2334.0	2345.2	2350.7	2356.3
12.5°	2300.5	2306.1	2322.8	2334.0	2334.0
15°	2272.6	2278.2	2294.9	2306.1	2311.7
17.5°	2239.1	2250.2	2267.0	2278.2	2283.7
20°	2194.4	2205.6	2227.9	2244.7	2250.2
22.5°	2155.3	2166.5	2188.8	2205.6	2216.7
25°	2110.6	2121.8	2155.3	2166.5	2177.6
27.5°	2054.8	2066.0	2093.9	2116.2	2133.0
30°	1999.0	2010.1	2043.6	2071.6	2082.7
32.5°	1937.5	1954.3	1993.4	2015.7	2032.5
35°	1870.5	1887.3	1926.4	1965.5	1982.2
37.5°	1803.5	1820.3	1859.4	1909.6	1932.0
40°	1725.4	1747.7	1798.0	1865.0	1876.1
42.5°	1652.8	1680.7	1725.4	1803.5	1831.5
45°	1569.0	1596.9	1658.4	1742.1	1786.8
47.5°	1490.9	1518.8	1585.8	1686.3	1742.1
50°	1395.9	1435.0	1518.8	1636.0	1691.9
52.5°	1306.6	1340.1	1451.8	1580.2	1647.2
55°	1211.7	1250.8	1384.8	1524.4	1596.9
57.5°	1127.9	1161.4	1312.2	1468.5	1552.3
60°	1021.8	1066.5	1239.6	1407.1	1490.9
62.5°	910.1	977.1	1167.0	1340.1	1429.4
65°	804.1	882.2	1100.0	1273.1	1362.4
67.5°	709.1	792.9	1016.2	1200.5	1284.3
70°	597.5	703.5	932.5	1111.2	1206.1
72.5°	497.0	614.2	837.6	1016.2	1100.0
75°	396.4	524.9	742.6	893.4	943.6
77.5°	307.1	429.9	636.5	681.2	686.8
80°	228.9	340.6	474.6	480.2	497.0
82.5°	156.3	240.1	307.1	335.0	340.6
85°	100.5	139.6	173.1	178.7	189.8
87.5°	44.7	50.3	61.4	55.8	55.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)