

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: P390600

Luminaire Tested: **22CZ2-70VHE-HRP-UNV-L935-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: P390600  
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: 22CZ2-70VHE-HRP-UNV-L935-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4913.4 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

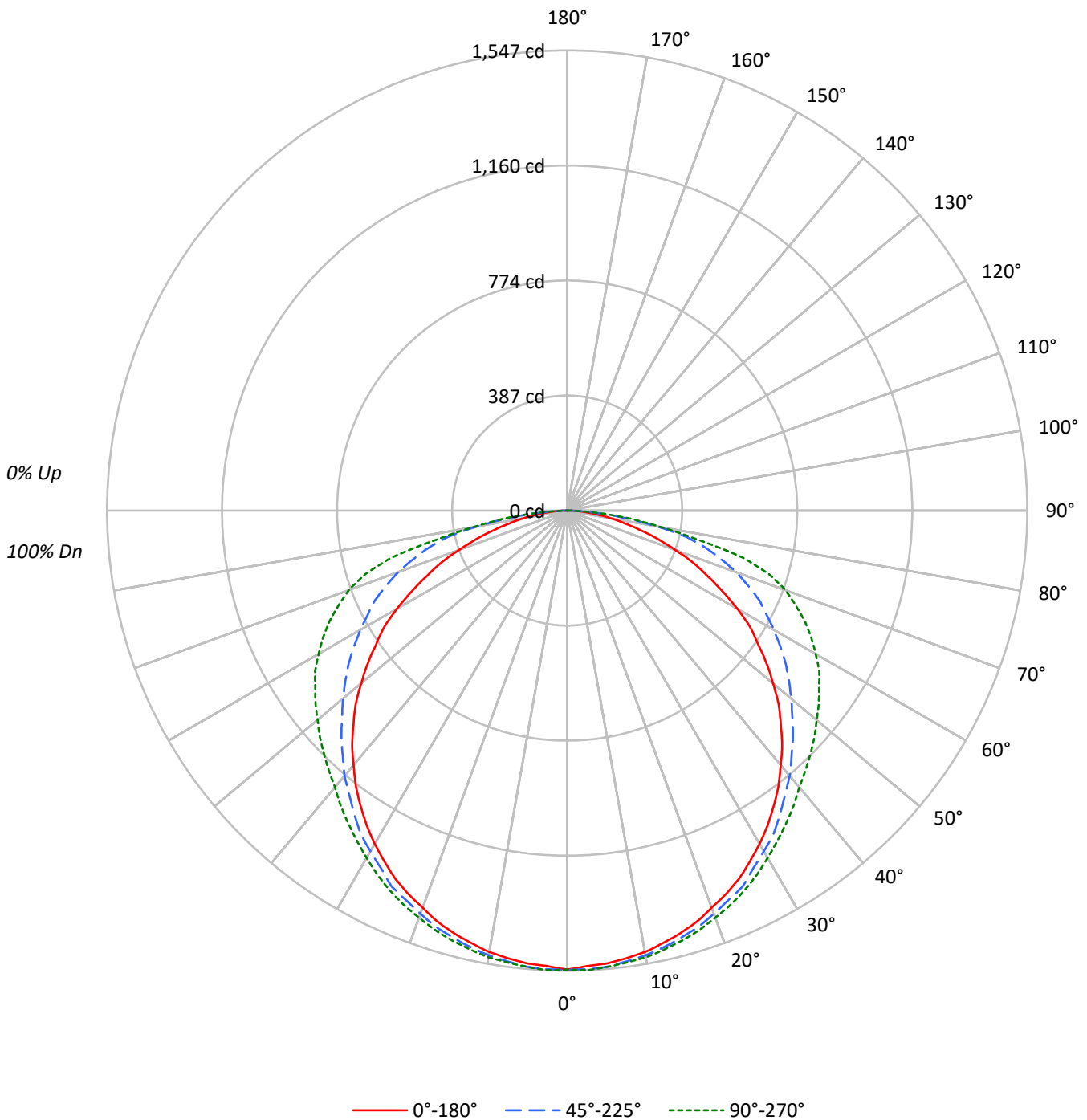
Input Watts (W): 50.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	4153	4153	4153
5°	4130	4159	4159
10°	4118	4148	4168
15°	4098	4139	4169
20°	4068	4130	4171
25°	4057	4143	4185
30°	4021	4111	4189
35°	3978	4096	4215
40°	3923	4089	4266
45°	3865	4085	4402
50°	3783	4116	4585
55°	3680	4206	4850
60°	3560	4318	5194
65°	3314	4534	5615
70°	3043	4749	6142
75°	2668	4998	6351
80°	2297	4761	4985
85°	2010	3458	3795



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.0	3.0
10°-20°	419.2	8.5
20°-30°	639.5	13.0
30°-40°	780.9	15.9
40°-50°	834.9	17.0
50°-60°	805.9	16.4
60°-70°	693.7	14.1
70°-80°	469.4	9.6
80°-90°	123.9	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°	1204.7	24.5
0°-40°	1985.6	40.4
0°-60°	3626.4	73.8
0°-90°	4913.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4913.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1543	1543	1543	1543	1543	
5°	1529	1532	1540	1540	1540	145
15°	1471	1475	1486	1493	1496	415
25°	1366	1374	1395	1402	1410	629
35°	1211	1222	1247	1272	1283	758
45°	1016	1034	1074	1128	1157	784
55°	784	810	896	987	1034	703
65°	520	571	712	824	882	518
75°	257	340	481	578	611	275
85°	65	90	112	116	123	73
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1543.4	1543.4	1543.4	1543.4	1543.4
2.5°	1532.5	1536.2	1543.4	1543.4	1547.0
5°	1528.9	1532.5	1539.8	1539.8	1539.8
7.5°	1518.1	1521.7	1528.9	1532.5	1532.5
10°	1507.2	1510.9	1518.1	1521.7	1525.3
12.5°	1489.2	1492.8	1503.6	1510.9	1510.9
15°	1471.1	1474.7	1485.6	1492.8	1496.4
17.5°	1449.4	1456.6	1467.5	1474.7	1478.3
20°	1420.5	1427.7	1442.2	1453.0	1456.6
22.5°	1395.2	1402.4	1416.9	1427.7	1434.9
25°	1366.3	1373.5	1395.2	1402.4	1409.6
27.5°	1330.1	1337.4	1355.4	1369.9	1380.7
30°	1294.0	1301.2	1322.9	1341.0	1348.2
32.5°	1254.2	1265.1	1290.4	1304.8	1315.7
35°	1210.9	1221.7	1247.0	1272.3	1283.1
37.5°	1167.5	1178.3	1203.6	1236.2	1250.6
40°	1116.9	1131.3	1163.9	1207.2	1214.5
42.5°	1069.9	1088.0	1116.9	1167.5	1185.6
45°	1015.7	1033.7	1073.5	1127.7	1156.6
47.5°	965.1	983.1	1026.5	1091.6	1127.7
50°	903.6	928.9	983.1	1059.0	1095.2
52.5°	845.8	867.5	939.8	1022.9	1066.3
55°	784.3	809.6	896.4	986.8	1033.7
57.5°	730.1	751.8	849.4	950.6	1004.8
60°	661.5	690.4	802.4	910.8	965.1
62.5°	589.2	632.5	755.4	867.5	925.3
65°	520.5	571.1	712.1	824.1	881.9
67.5°	459.0	513.3	657.8	777.1	831.3
70°	386.7	455.4	603.6	719.3	780.7
72.5°	321.7	397.6	542.2	657.8	712.1
75°	256.6	339.8	480.7	578.3	610.8
77.5°	198.8	278.3	412.1	441.0	444.6
80°	148.2	220.5	307.2	310.8	321.7
82.5°	101.2	155.4	198.8	216.9	220.5
85°	65.1	90.4	112.0	115.7	122.9
87.5°	28.9	32.5	39.8	36.1	36.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)