

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: P390607

Luminaire Tested: **22CZ2-70VHE-HRP-UNV-L950-CD1-SWPD1-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: P390607  
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-L950-CD1-SWPD1-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: 5333.6 lumens  
Efficiency: N/A  
Efficacy: 106.0 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

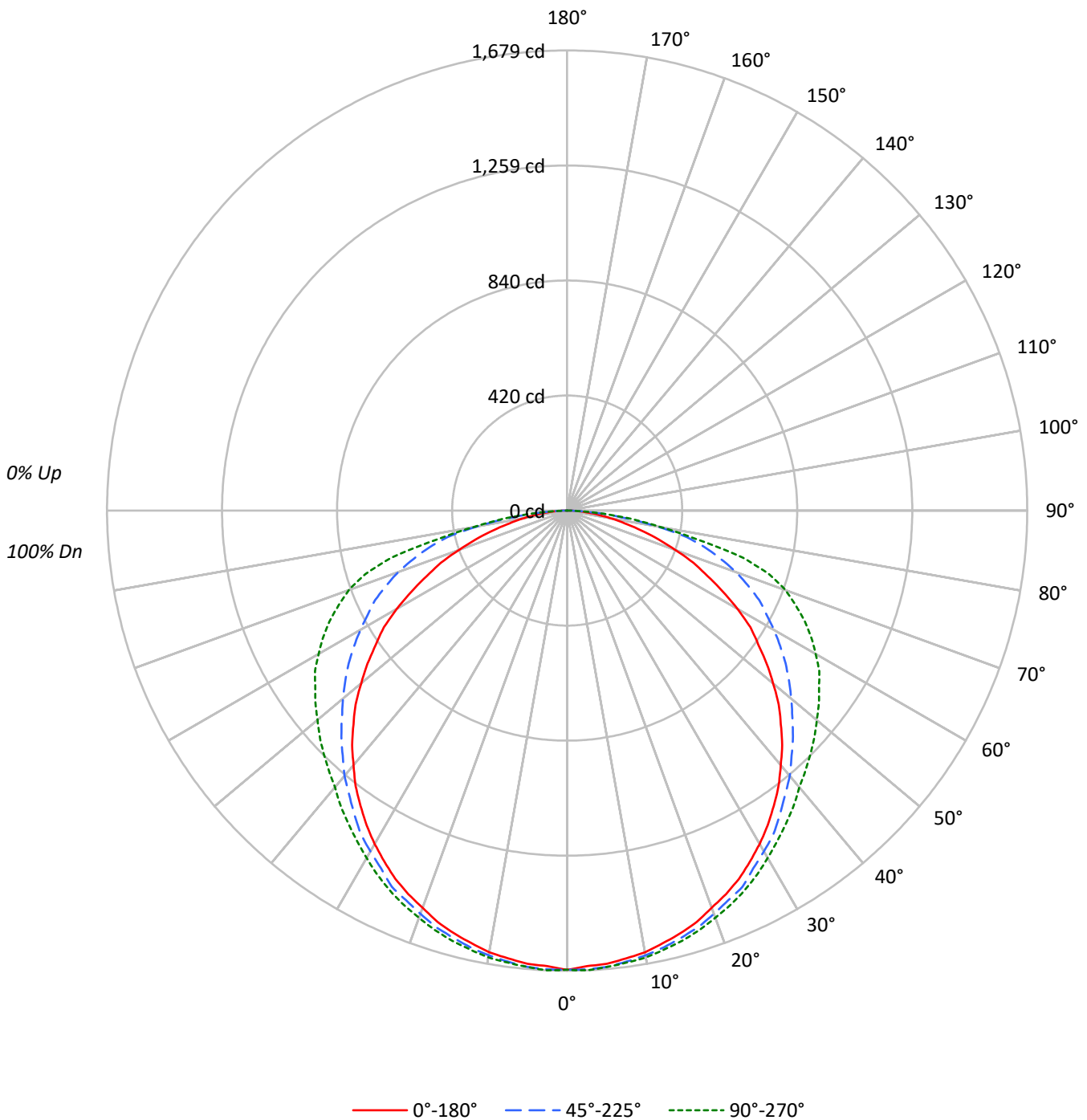
Input Watts (W): 50.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4508	4508	4508
5°	4483	4515	4515
10°	4471	4503	4524
15°	4449	4493	4525
20°	4416	4483	4528
25°	4404	4497	4543
30°	4364	4462	4547
35°	4318	4447	4576
40°	4259	4438	4631
45°	4196	4435	4778
50°	4106	4468	4977
55°	3994	4565	5264
60°	3864	4688	5638
65°	3598	4921	6096
70°	3303	5155	6668
75°	2897	5425	6894
80°	2493	5168	5411
85°	2180	3754	4119



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.5	3.0
10°-20°	455.0	8.5
20°-30°	694.2	13.0
30°-40°	847.7	15.9
40°-50°	906.3	17.0
50°-60°	874.8	16.4
60°-70°	753.1	14.1
70°-80°	509.5	9.6
80°-90°	134.4	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°	1307.7	24.5
0°-40°	2155.4	40.4
0°-60°	3936.6	73.8
0°-90°	5333.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5333.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1675	1675	1675	1675	1675	
5°	1660	1664	1672	1672	1672	158
15°	1597	1601	1613	1620	1624	451
25°	1483	1491	1514	1522	1530	683
35°	1314	1326	1354	1381	1393	822
45°	1102	1122	1165	1224	1256	851
55°	851	879	973	1071	1122	763
65°	565	620	773	895	957	562
75°	279	369	522	628	663	299
85°	71	98	122	126	133	80
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1675.4	1675.4	1675.4	1675.4	1675.4
2.5°	1663.6	1667.5	1675.4	1675.4	1679.3
5°	1659.7	1663.6	1671.5	1671.5	1671.5
7.5°	1647.9	1651.8	1659.7	1663.6	1663.6
10°	1636.1	1640.1	1647.9	1651.8	1655.8
12.5°	1616.5	1620.4	1632.2	1640.1	1640.1
15°	1596.9	1600.8	1612.6	1620.4	1624.4
17.5°	1573.4	1581.2	1593.0	1600.8	1604.8
20°	1542.0	1549.8	1565.5	1577.3	1581.2
22.5°	1514.5	1522.4	1538.1	1549.8	1557.7
25°	1483.1	1491.0	1514.5	1522.4	1530.2
27.5°	1443.9	1451.7	1471.3	1487.0	1498.8
30°	1404.6	1412.5	1436.0	1455.7	1463.5
32.5°	1361.5	1373.3	1400.7	1416.4	1428.2
35°	1314.4	1326.2	1353.6	1381.1	1392.9
37.5°	1267.3	1279.1	1306.6	1341.9	1357.6
40°	1212.4	1228.1	1263.4	1310.5	1318.3
42.5°	1161.4	1181.0	1212.4	1267.3	1286.9
45°	1102.5	1122.1	1165.3	1224.2	1255.6
47.5°	1047.6	1067.2	1114.3	1184.9	1224.2
50°	980.9	1008.4	1067.2	1149.6	1188.9
52.5°	918.1	941.7	1020.1	1110.4	1157.5
55°	851.4	878.9	973.1	1071.1	1122.1
57.5°	792.6	816.1	922.0	1031.9	1090.8
60°	718.0	749.4	871.0	988.7	1047.6
62.5°	639.5	686.6	820.0	941.7	1004.4
65°	565.0	619.9	772.9	894.6	957.4
67.5°	498.3	557.2	714.1	843.6	902.4
70°	419.8	494.4	655.2	780.8	847.5
72.5°	349.2	431.6	588.5	714.1	772.9
75°	278.6	368.8	521.8	627.8	663.1
77.5°	215.8	302.1	447.3	478.7	482.6
80°	160.9	239.3	333.5	337.4	349.2
82.5°	109.9	168.7	215.8	235.4	239.3
85°	70.6	98.1	121.6	125.6	133.4
87.5°	31.4	35.3	43.2	39.2	39.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)