

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: P391638

Luminaire Tested: **24CZ2-70VHE-RDP-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: P391638  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-70VHE-RDP-UNV-L950-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4200.0 lumens  
Efficiency: N/A  
Efficacy: 91.9 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

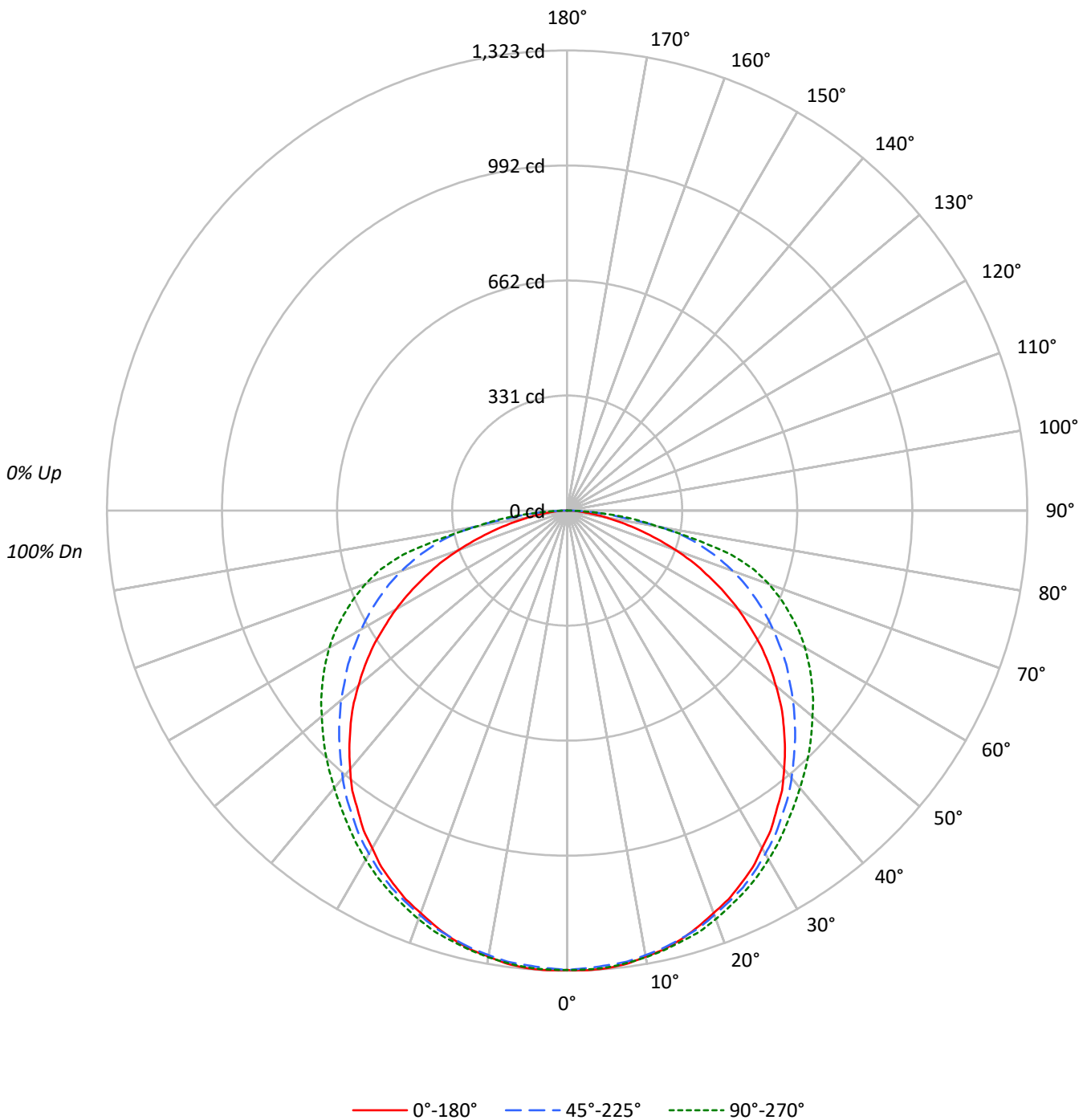
Input Watts (W): 45.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	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°	1777	1777	1777
5°	1784	1773	1781
10°	1779	1773	1782
15°	1776	1773	1785
20°	1763	1772	1790
25°	1757	1775	1794
30°	1741	1770	1800
35°	1725	1766	1807
40°	1705	1764	1829
45°	1677	1764	1871
50°	1640	1775	1927
55°	1598	1803	2013
60°	1530	1839	2125
65°	1433	1904	2255
70°	1303	1991	2426
75°	1105	2101	2534
80°	872	2115	2050
85°	644	1609	1802



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.3	3.0
10°-20°	360.6	8.6
20°-30°	551.4	13.1
30°-40°	674.1	16.0
40°-50°	718.4	17.1
50°-60°	686.9	16.4
60°-70°	581.9	13.9
70°-80°	391.1	9.3
80°-90°	110.3	2.6
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°	1037.3	24.7
0°-40°	1711.3	40.7
0°-60°	3116.7	74.2
0°-90°	4200.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4200.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1321	1321	1321	1321	1321	
5°	1321	1319	1312	1319	1319	125
15°	1275	1275	1273	1283	1281	359
25°	1183	1188	1196	1206	1208	545
35°	1050	1058	1075	1096	1100	658
45°	881	896	927	967	983	680
55°	681	706	769	829	858	607
65°	450	496	598	677	708	447
75°	212	290	404	473	488	228
85°	42	85	104	112	117	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1320.8	1320.8	1320.8	1320.8	1320.8
2.5°	1322.9	1322.9	1316.6	1320.8	1320.8
5°	1320.8	1318.7	1312.4	1318.7	1318.7
7.5°	1314.5	1312.4	1308.3	1314.5	1312.4
10°	1302.0	1302.0	1297.9	1304.1	1304.1
12.5°	1291.6	1289.5	1287.4	1295.8	1293.7
15°	1274.9	1274.9	1272.9	1283.3	1281.2
17.5°	1254.1	1256.2	1258.3	1266.6	1268.7
20°	1231.2	1235.4	1237.5	1249.9	1249.9
22.5°	1210.4	1212.5	1216.6	1229.1	1229.1
25°	1183.3	1187.5	1195.8	1206.2	1208.3
27.5°	1156.2	1158.3	1168.7	1183.3	1185.4
30°	1120.8	1127.0	1139.5	1156.2	1158.3
32.5°	1089.5	1095.8	1110.4	1127.0	1131.2
35°	1050.0	1058.3	1075.0	1095.8	1100.0
37.5°	1014.5	1020.8	1041.6	1064.5	1070.8
40°	970.8	983.3	1004.1	1031.2	1041.6
42.5°	927.0	939.5	964.5	1000.0	1012.5
45°	881.2	895.8	927.0	966.6	983.3
47.5°	835.4	852.0	887.5	933.3	952.0
50°	783.3	804.1	847.9	900.0	920.8
52.5°	733.3	758.3	806.2	864.5	891.6
55°	681.2	706.2	768.7	829.1	858.3
57.5°	622.9	656.2	725.0	793.7	825.0
60°	568.7	600.0	683.3	758.3	789.6
62.5°	510.4	552.1	641.6	720.8	752.1
65°	450.0	495.8	597.9	677.1	708.3
67.5°	395.8	445.8	554.1	633.3	664.6
70°	331.2	393.7	506.2	585.4	616.6
72.5°	270.8	339.6	456.2	533.3	562.5
75°	212.5	289.6	404.2	472.9	487.5
77.5°	158.3	239.6	350.0	379.2	368.7
80°	112.5	191.7	272.9	258.3	264.6
82.5°	72.9	145.8	168.7	191.7	197.9
85°	41.7	85.4	104.2	112.5	116.7
87.5°	18.7	31.2	41.7	41.7	39.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)