

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: P391680

Luminaire Tested: **24CZ2-75VHE-RDP-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: P391680  
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: 24CZ2-75VHE-RDP-UNV-L935-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4251.0 lumens  
Efficiency: N/A  
Efficacy: 85.2 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

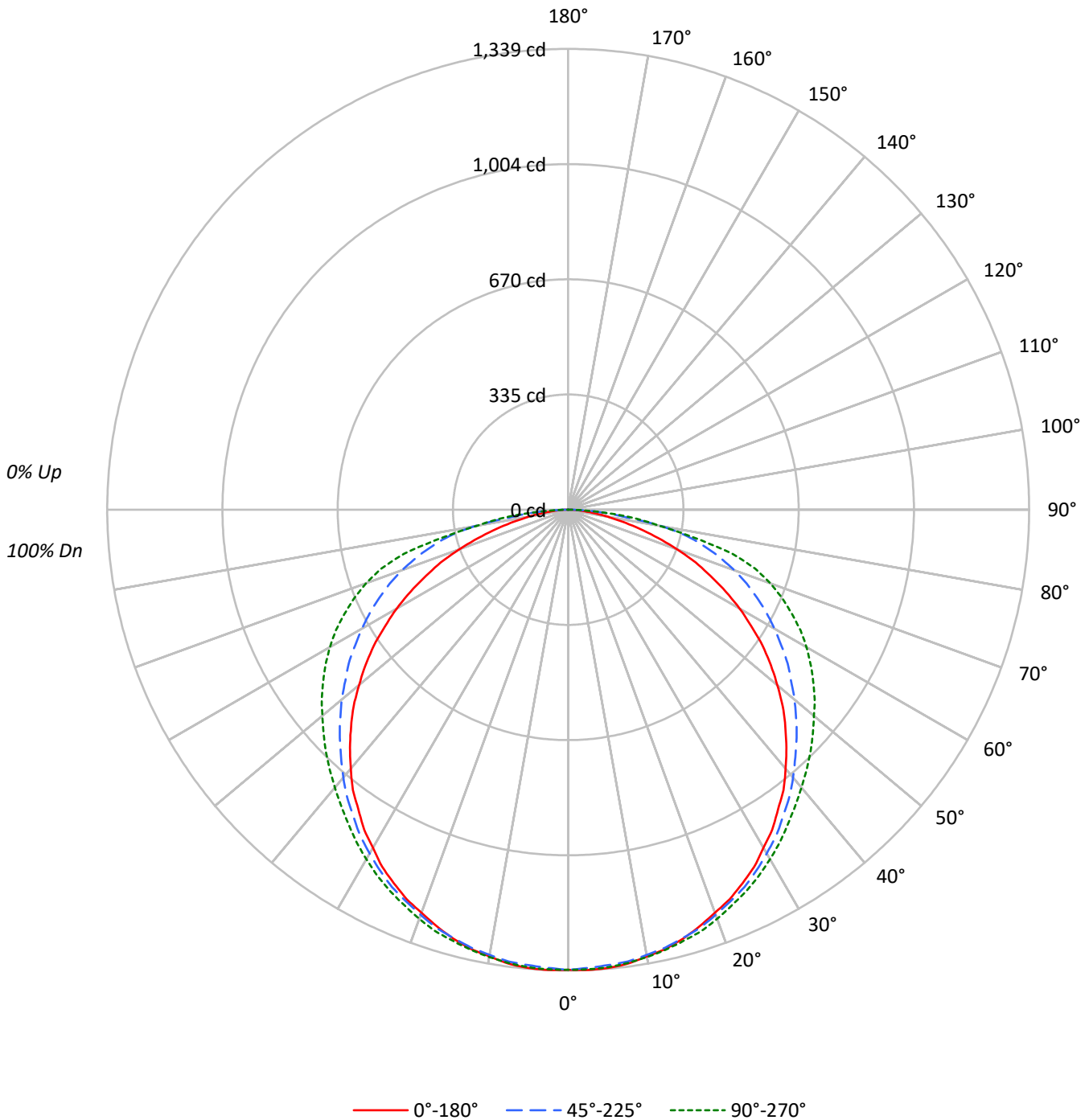
Input Watts (W): 49.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1799	1799	1799
5°	1806	1794	1803
10°	1800	1795	1803
15°	1797	1795	1806
20°	1784	1793	1811
25°	1778	1797	1816
30°	1762	1792	1821
35°	1746	1787	1829
40°	1726	1785	1852
45°	1697	1785	1894
50°	1659	1796	1951
55°	1617	1825	2038
60°	1549	1861	2150
65°	1450	1927	2282
70°	1319	2016	2455
75°	1118	2127	2565
80°	883	2140	2075
85°	651	1627	1823



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.8	3.0
10°-20°	365.0	8.6
20°-30°	558.1	13.1
30°-40°	682.3	16.0
40°-50°	727.2	17.1
50°-60°	695.3	16.4
60°-70°	589.0	13.9
70°-80°	395.8	9.3
80°-90°	111.7	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°	1049.9	24.7
0°-40°	1732.1	40.7
0°-60°	3154.6	74.2
0°-90°	4251.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4251.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1337	1337	1337	1337	1337	
5°	1337	1335	1328	1335	1335	127
15°	1290	1290	1288	1299	1297	364
25°	1198	1202	1210	1221	1223	552
35°	1063	1071	1088	1109	1113	666
45°	892	907	938	978	995	688
55°	690	715	778	839	869	614
65°	455	502	605	685	717	452
75°	215	293	409	479	493	230
85°	42	86	105	114	118	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1336.8	1336.8	1336.8	1336.8	1336.8
2.5°	1338.9	1338.9	1332.6	1336.8	1336.8
5°	1336.8	1334.7	1328.4	1334.7	1334.7
7.5°	1330.5	1328.4	1324.2	1330.5	1328.4
10°	1317.8	1317.8	1313.6	1319.9	1319.9
12.5°	1307.3	1305.2	1303.1	1311.5	1309.4
15°	1290.4	1290.4	1288.3	1298.9	1296.8
17.5°	1269.3	1271.5	1273.6	1282.0	1284.1
20°	1246.2	1250.4	1252.5	1265.1	1265.1
22.5°	1225.1	1227.2	1231.4	1244.0	1244.0
25°	1197.7	1201.9	1210.3	1220.8	1223.0
27.5°	1170.2	1172.4	1182.9	1197.7	1199.8
30°	1134.4	1140.7	1153.4	1170.2	1172.4
32.5°	1102.8	1109.1	1123.9	1140.7	1144.9
35°	1062.7	1071.1	1088.0	1109.1	1113.3
37.5°	1026.9	1033.2	1054.3	1077.5	1083.8
40°	982.6	995.2	1016.3	1043.7	1054.3
42.5°	938.3	951.0	976.3	1012.1	1024.8
45°	891.9	906.7	938.3	978.4	995.2
47.5°	845.5	862.4	898.2	944.6	963.6
50°	792.8	813.9	858.2	910.9	932.0
52.5°	742.2	767.5	816.0	875.0	902.5
55°	689.5	714.8	778.1	839.2	868.7
57.5°	630.5	664.2	733.8	803.4	835.0
60°	575.6	607.3	691.6	767.5	799.1
62.5°	516.6	558.8	649.4	729.6	761.2
65°	455.4	501.8	605.2	685.3	716.9
67.5°	400.6	451.2	560.9	641.0	672.6
70°	335.3	398.5	512.4	592.5	624.1
72.5°	274.1	343.7	461.8	539.8	569.3
75°	215.1	293.1	409.1	478.6	493.4
77.5°	160.2	242.5	354.2	383.8	373.2
80°	113.9	194.0	276.2	261.5	267.8
82.5°	73.8	147.6	170.8	194.0	200.3
85°	42.2	86.5	105.4	113.9	118.1
87.5°	19.0	31.6	42.2	42.2	40.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)