

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: P389904

Luminaire Tested: **24CZ2-75VHE-S-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: P389904  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-75VHE-S-UNV-L935-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6641.2 lumens  
Efficiency: N/A  
Efficacy: 133.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

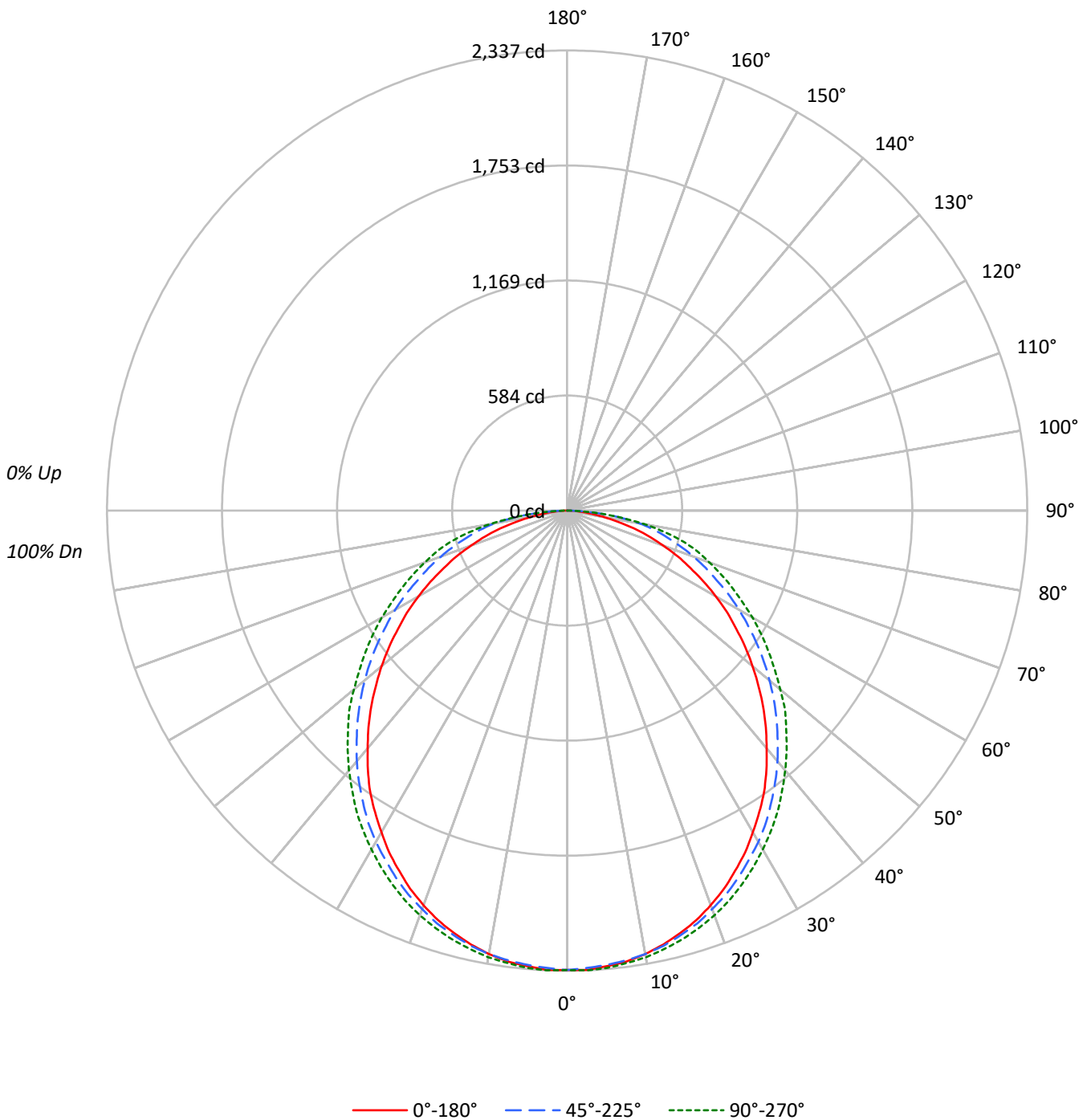
Input Watts (W): 49.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3139	3139	3139
5°	3137	3128	3148
10°	3124	3124	3147
15°	3094	3109	3141
20°	3054	3084	3132
25°	2997	3053	3113
30°	2930	3018	3087
35°	2865	2969	3063
40°	2768	2920	3027
45°	2677	2862	2994
50°	2574	2808	2959
55°	2459	2756	2929
60°	2344	2713	2923
65°	2196	2666	2942
70°	2033	2681	3021
75°	1821	2731	3191
80°	1471	2893	3122
85°	1107	2540	2475



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	220.9	3.3
10°-20°	631.1	9.5
20°-30°	948.7	14.3
30°-40°	1130.1	17.0
40°-50°	1156.6	17.4
50°-60°	1041.3	15.7
60°-70°	817.7	12.3
70°-80°	530.7	8.0
80°-90°	164.1	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°	1800.7	27.1
0°-40°	2930.8	44.1
0°-60°	5128.6	77.2
0°-90°	6641.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6641.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2333	2333	2333	2333	2333	
5°	2322	2327	2316	2329	2331	221
15°	2221	2228	2232	2251	2255	626
25°	2019	2036	2057	2090	2097	930
35°	1744	1766	1808	1852	1865	1088
45°	1407	1441	1504	1561	1574	1085
55°	1048	1095	1175	1236	1249	940
65°	690	742	838	907	924	687
75°	350	418	525	597	614	371
85°	72	133	164	160	160	87
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2333.1	2333.1	2333.1	2333.1	2333.1
2.5°	2335.2	2335.2	2324.7	2335.2	2337.3
5°	2322.5	2326.8	2316.2	2328.9	2331.0
7.5°	2309.9	2309.9	2303.6	2316.2	2318.3
10°	2286.7	2288.8	2286.7	2301.5	2303.6
12.5°	2257.2	2261.4	2263.5	2278.3	2280.4
15°	2221.3	2227.6	2231.8	2250.8	2255.0
17.5°	2181.2	2187.5	2198.1	2219.2	2223.4
20°	2132.7	2141.1	2153.8	2181.2	2187.5
22.5°	2080.0	2088.4	2109.5	2134.8	2145.4
25°	2018.8	2035.7	2056.8	2090.5	2096.8
27.5°	1957.6	1972.4	1999.8	2035.7	2044.1
30°	1885.9	1909.1	1942.8	1978.7	1987.1
32.5°	1816.3	1839.5	1879.6	1917.5	1928.1
35°	1744.5	1765.6	1807.8	1852.1	1864.8
37.5°	1662.3	1689.7	1736.1	1780.4	1793.1
40°	1575.8	1609.5	1662.3	1708.7	1723.5
42.5°	1493.5	1529.4	1582.1	1632.7	1649.6
45°	1407.0	1440.8	1504.1	1561.0	1573.7
47.5°	1318.4	1356.4	1423.9	1480.9	1502.0
50°	1229.8	1269.9	1341.6	1400.7	1413.4
52.5°	1141.2	1183.4	1259.4	1322.7	1329.0
55°	1048.4	1094.8	1175.0	1236.2	1248.8
57.5°	964.0	1004.1	1090.6	1153.9	1168.7
60°	871.2	915.5	1008.3	1067.4	1086.4
62.5°	782.6	829.0	926.1	985.1	1002.0
65°	689.8	742.5	837.5	907.1	924.0
67.5°	609.6	660.3	761.5	829.0	845.9
70°	516.8	573.8	681.4	751.0	767.9
72.5°	436.7	495.7	603.3	670.8	696.1
75°	350.2	417.7	525.3	597.0	613.9
77.5°	265.8	343.8	453.5	508.4	508.4
80°	189.9	272.1	373.4	398.7	402.9
82.5°	124.5	204.6	276.3	274.2	274.2
85°	71.7	132.9	164.5	160.3	160.3
87.5°	27.4	54.8	59.1	59.1	57.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)