

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: P391008

Luminaire Tested: **24CZ2-120VHE-RDP-UNV-L935-CD2-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: P391008  
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: 24CZ2-120VHE-RDP-UNV-L935-CD2-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: 6774.8 lumens  
Efficiency: N/A  
Efficacy: 81.0 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

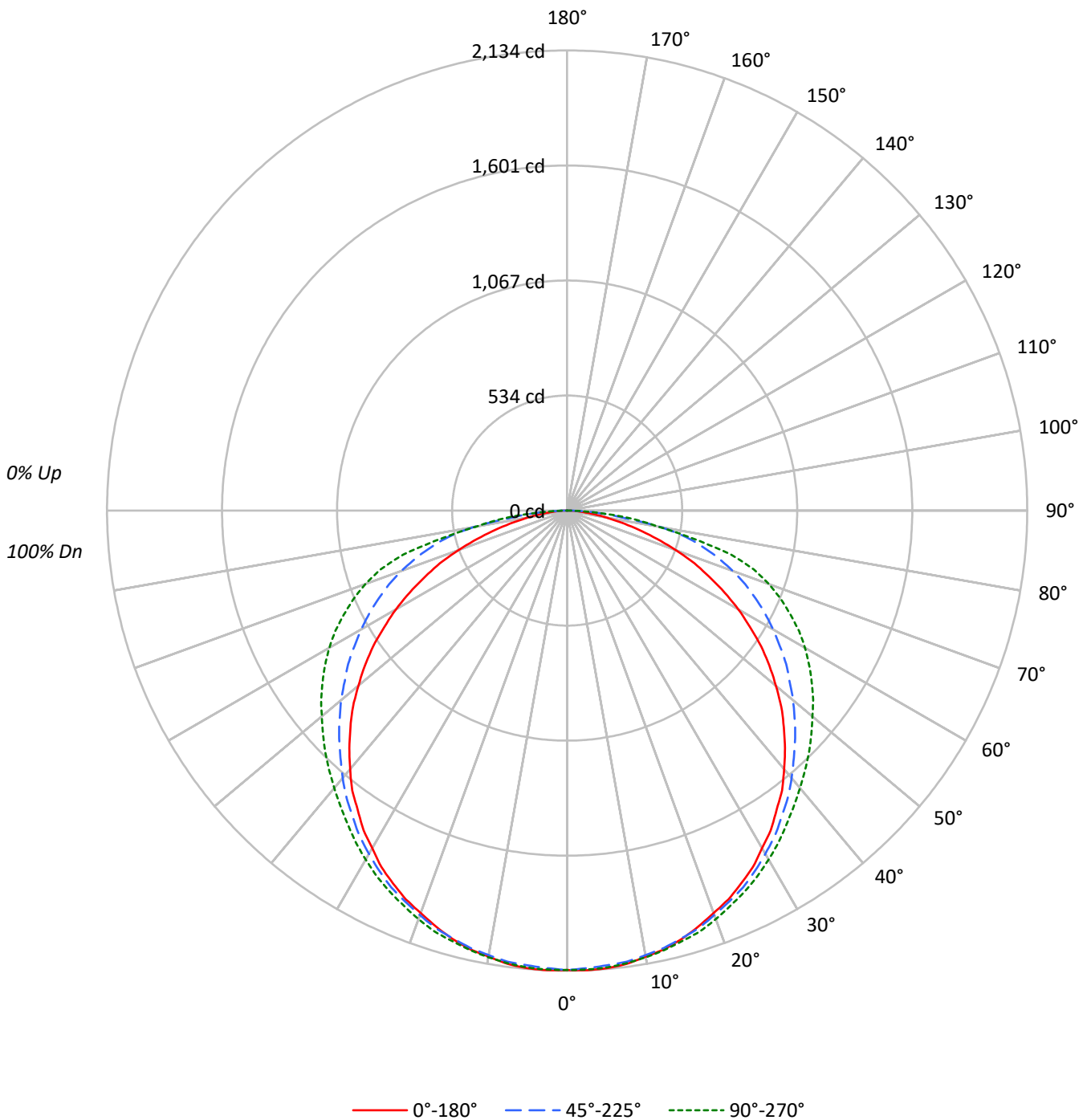
Input Watts (W): 83.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2867	2867	2867
5°	2878	2859	2873
10°	2869	2860	2874
15°	2865	2860	2879
20°	2844	2858	2887
25°	2834	2864	2893
30°	2809	2856	2903
35°	2782	2848	2914
40°	2750	2845	2951
45°	2705	2845	3018
50°	2645	2863	3109
55°	2578	2909	3248
60°	2469	2966	3427
65°	2311	3070	3637
70°	2102	3212	3913
75°	1782	3389	4088
80°	1406	3411	3307
85°	1037	2594	2905



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	202.1	3.0
10°-20°	581.6	8.6
20°-30°	889.4	13.1
30°-40°	1087.3	16.0
40°-50°	1158.9	17.1
50°-60°	1108.0	16.4
60°-70°	938.6	13.9
70°-80°	630.8	9.3
80°-90°	177.9	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°	1673.2	24.7
0°-40°	2760.5	40.7
0°-60°	5027.4	74.2
0°-90°	6774.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6774.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2130	2130	2130	2130	2130	
5°	2130	2127	2117	2127	2127	202
15°	2057	2057	2053	2070	2067	580
25°	1909	1915	1929	1946	1949	880
35°	1694	1707	1734	1768	1774	1061
45°	1421	1445	1495	1559	1586	1096
55°	1099	1139	1240	1337	1384	979
65°	726	800	964	1092	1142	721
75°	343	467	652	763	786	367
85°	67	138	168	182	188	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2130.5	2130.5	2130.5	2130.5	2130.5
2.5°	2133.8	2133.8	2123.8	2130.5	2130.5
5°	2130.5	2127.1	2117.0	2127.1	2127.1
7.5°	2120.4	2117.0	2110.3	2120.4	2117.0
10°	2100.2	2100.2	2093.5	2103.6	2103.6
12.5°	2083.4	2080.1	2076.7	2090.2	2086.8
15°	2056.6	2056.6	2053.2	2070.0	2066.6
17.5°	2022.9	2026.3	2029.7	2043.1	2046.5
20°	1986.0	1992.7	1996.1	2016.2	2016.2
22.5°	1952.4	1955.7	1962.5	1982.6	1982.6
25°	1908.7	1915.4	1928.9	1945.7	1949.0
27.5°	1865.0	1868.4	1885.2	1908.7	1912.1
30°	1807.9	1818.0	1838.1	1865.0	1868.4
32.5°	1757.5	1767.6	1791.1	1818.0	1824.7
35°	1693.6	1707.1	1734.0	1767.6	1774.3
37.5°	1636.5	1646.6	1680.2	1717.2	1727.2
40°	1565.9	1586.1	1619.7	1663.4	1680.2
42.5°	1495.4	1515.5	1555.9	1613.0	1633.1
45°	1421.4	1445.0	1495.4	1559.2	1586.1
47.5°	1347.5	1374.4	1431.5	1505.5	1535.7
50°	1263.5	1297.1	1367.7	1451.7	1485.3
52.5°	1182.9	1223.2	1300.5	1394.6	1438.2
55°	1098.8	1139.2	1240.0	1337.4	1384.5
57.5°	1004.8	1058.5	1169.4	1280.3	1330.7
60°	917.4	967.8	1102.2	1223.2	1273.6
62.5°	823.3	890.5	1035.0	1162.7	1213.1
65°	725.8	799.8	964.4	1092.1	1142.5
67.5°	638.5	719.1	893.9	1021.6	1072.0
70°	534.3	635.1	816.6	944.3	994.7
72.5°	436.8	547.7	735.9	860.3	907.3
75°	342.8	467.1	651.9	762.8	786.3
77.5°	255.4	386.4	564.5	611.6	594.8
80°	181.5	309.2	440.2	416.7	426.8
82.5°	117.6	235.2	272.2	309.2	319.2
85°	67.2	137.8	168.0	181.5	188.2
87.5°	30.2	50.4	67.2	67.2	63.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)