

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: P391006

Luminaire Tested: **24CZ2-120VHE-RDP-UNV-L930-CD2-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: P391006  
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-L930-CD2-SWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

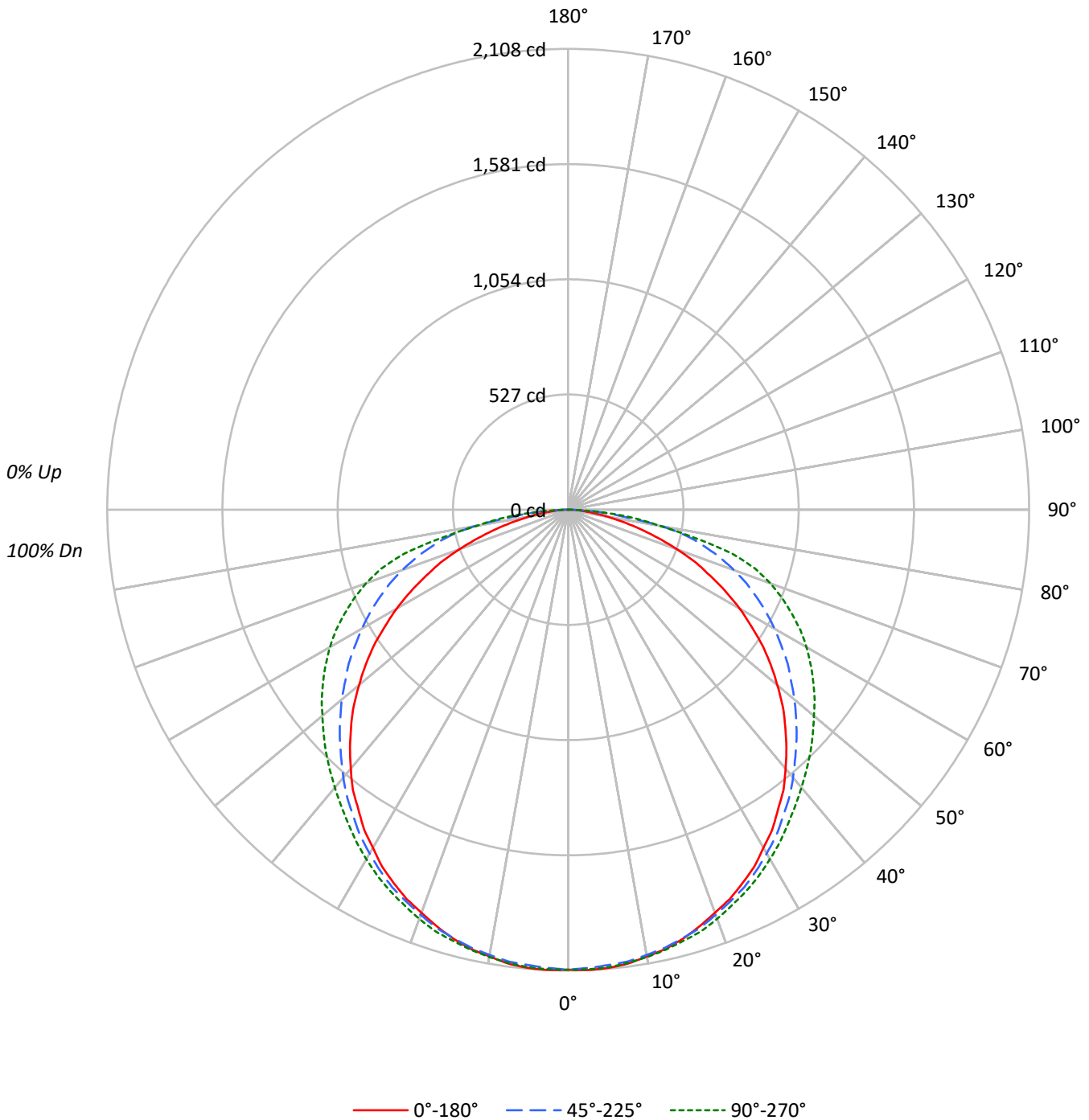
Lumens per Lamp: N/A  
Luminaire Lumens: 6692.0 lumens  
Efficiency: N/A  
Efficacy: 80.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 83.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	2831	2831	2831
5°	2842	2824	2838
10°	2834	2825	2839
15°	2830	2825	2844
20°	2809	2823	2852
25°	2799	2829	2858
30°	2774	2821	2867
35°	2748	2813	2879
40°	2717	2810	2915
45°	2672	2811	2981
50°	2613	2828	3071
55°	2546	2873	3208
60°	2439	2930	3385
65°	2283	3033	3593
70°	2076	3173	3865
75°	1760	3347	4038
80°	1389	3369	3267
85°	1025	2563	2870



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	199.6	3.0
10°-20°	574.5	8.6
20°-30°	878.6	13.1
30°-40°	1074.0	16.0
40°-50°	1144.7	17.1
50°-60°	1094.5	16.4
60°-70°	927.2	13.9
70°-80°	623.1	9.3
80°-90°	175.8	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°	1652.7	24.7
0°-40°	2726.8	40.7
0°-60°	4965.9	74.2
0°-90°	6692.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6692.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2104	2104	2104	2104	2104	
5°	2104	2101	2091	2101	2101	200
15°	2031	2031	2028	2045	2041	573
25°	1885	1892	1905	1922	1925	869
35°	1673	1686	1713	1746	1753	1048
45°	1404	1427	1477	1540	1567	1083
55°	1085	1125	1225	1321	1368	967
65°	717	790	953	1079	1129	712
75°	339	461	644	754	777	363
85°	66	136	166	179	186	82
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2104.4	2104.4	2104.4	2104.4	2104.4
2.5°	2107.8	2107.8	2097.8	2104.4	2104.4
5°	2104.4	2101.1	2091.2	2101.1	2101.1
7.5°	2094.5	2091.2	2084.5	2094.5	2091.2
10°	2074.6	2074.6	2067.9	2077.9	2077.9
12.5°	2058.0	2054.7	2051.3	2064.6	2061.3
15°	2031.4	2031.4	2028.1	2044.7	2041.4
17.5°	1998.2	2001.5	2004.9	2018.1	2021.5
20°	1961.7	1968.4	1971.7	1991.6	1991.6
22.5°	1928.5	1931.8	1938.5	1958.4	1958.4
25°	1885.4	1892.0	1905.3	1921.9	1925.2
27.5°	1842.2	1845.5	1862.1	1885.4	1888.7
30°	1785.8	1795.7	1815.7	1842.2	1845.5
32.5°	1736.0	1746.0	1769.2	1795.7	1802.4
35°	1672.9	1686.2	1712.8	1746.0	1752.6
37.5°	1616.5	1626.5	1659.7	1696.2	1706.1
40°	1546.8	1566.7	1599.9	1643.1	1659.7
42.5°	1477.1	1497.0	1536.8	1593.3	1613.2
45°	1404.1	1427.3	1477.1	1540.2	1566.7
47.5°	1331.0	1357.6	1414.0	1487.1	1516.9
50°	1248.1	1281.3	1351.0	1433.9	1467.1
52.5°	1168.4	1208.2	1284.6	1377.5	1420.7
55°	1085.4	1125.2	1224.8	1321.1	1367.6
57.5°	992.5	1045.6	1155.1	1264.7	1314.4
60°	906.2	956.0	1088.7	1208.2	1258.0
62.5°	813.2	879.6	1022.3	1148.5	1198.3
65°	717.0	790.0	952.6	1078.8	1128.6
67.5°	630.7	710.3	882.9	1009.1	1058.9
70°	527.8	627.3	806.6	932.7	982.5
72.5°	431.5	541.0	726.9	849.7	896.2
75°	338.6	461.4	643.9	753.5	776.7
77.5°	252.3	381.7	557.6	604.1	587.5
80°	179.2	305.4	434.8	411.6	421.6
82.5°	116.2	232.4	268.9	305.4	315.3
85°	66.4	136.1	166.0	179.2	185.9
87.5°	29.9	49.8	66.4	66.4	63.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)