

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: P391846

Luminaire Tested: **24CZ2-95VHE-HRP-UNV-L930-CD1-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: P391846  
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: 24CZ2-95VHE-HRP-UNV-L930-CD1-SWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6585.3 lumens  
Efficiency: N/A  
Efficacy: 100.4 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

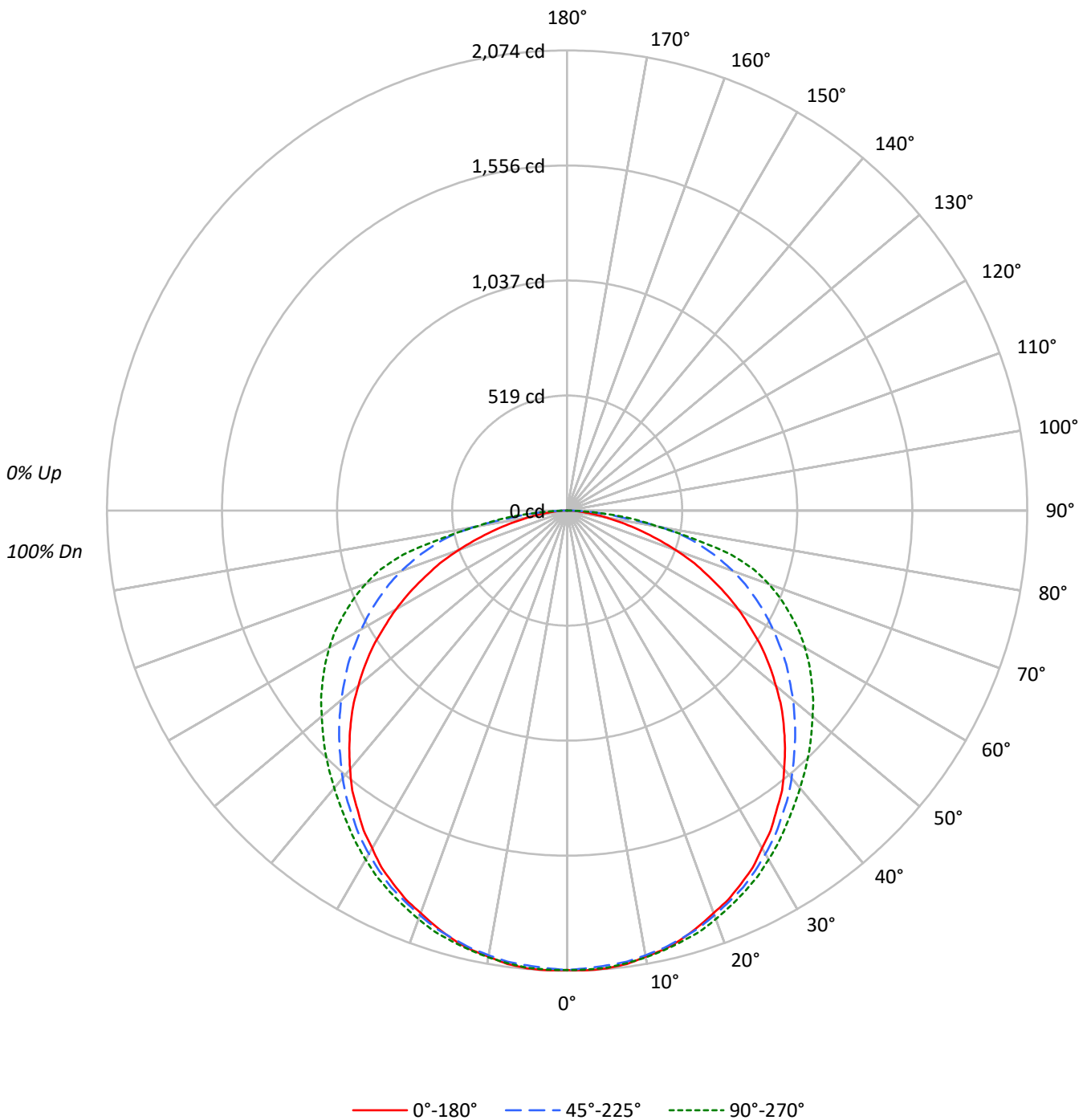
Input Watts (W): 65.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2786	2786	2786
5°	2797	2779	2793
10°	2789	2780	2794
15°	2785	2780	2798
20°	2764	2778	2806
25°	2754	2783	2813
30°	2730	2776	2822
35°	2704	2768	2833
40°	2673	2765	2869
45°	2629	2766	2934
50°	2571	2783	3022
55°	2506	2827	3157
60°	2400	2883	3331
65°	2246	2985	3536
70°	2043	3122	3804
75°	1732	3294	3973
80°	1367	3316	3214
85°	1008	2521	2824



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	196.4	3.0
10°-20°	565.4	8.6
20°-30°	864.6	13.1
30°-40°	1056.9	16.0
40°-50°	1126.4	17.1
50°-60°	1077.0	16.4
60°-70°	912.4	13.9
70°-80°	613.2	9.3
80°-90°	173.0	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°	1626.4	24.7
0°-40°	2683.3	40.7
0°-60°	4886.7	74.2
0°-90°	6585.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6585.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2071	2071	2071	2071	2071	
5°	2071	2068	2058	2068	2068	197
15°	1999	1999	1996	2012	2009	564
25°	1855	1862	1875	1891	1894	855
35°	1646	1659	1686	1718	1725	1031
45°	1382	1404	1454	1516	1542	1066
55°	1068	1107	1205	1300	1346	951
65°	706	777	938	1062	1111	700
75°	333	454	634	742	764	357
85°	65	134	163	176	183	81
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2070.9	2070.9	2070.9	2070.9	2070.9
2.5°	2074.2	2074.2	2064.4	2070.9	2070.9
5°	2070.9	2067.6	2057.8	2067.6	2067.6
7.5°	2061.1	2057.8	2051.3	2061.1	2057.8
10°	2041.5	2041.5	2035.0	2044.8	2044.8
12.5°	2025.2	2021.9	2018.6	2031.7	2028.4
15°	1999.0	1999.0	1995.8	2012.1	2008.8
17.5°	1966.4	1969.6	1972.9	1986.0	1989.2
20°	1930.4	1937.0	1940.2	1959.8	1959.8
22.5°	1897.8	1901.0	1907.6	1927.2	1927.2
25°	1855.3	1861.8	1874.9	1891.2	1894.5
27.5°	1812.8	1816.1	1832.4	1855.3	1858.6
30°	1757.3	1767.1	1786.7	1812.8	1816.1
32.5°	1708.3	1718.1	1741.0	1767.1	1773.6
35°	1646.3	1659.3	1685.5	1718.1	1724.7
37.5°	1590.7	1600.5	1633.2	1669.1	1678.9
40°	1522.1	1541.7	1574.4	1616.9	1633.2
42.5°	1453.5	1473.1	1512.3	1567.9	1587.5
45°	1381.7	1404.5	1453.5	1515.6	1541.7
47.5°	1309.8	1336.0	1391.5	1463.3	1492.7
50°	1228.2	1260.8	1329.4	1411.1	1443.7
52.5°	1149.8	1189.0	1264.1	1355.6	1398.0
55°	1068.1	1107.3	1205.3	1300.0	1345.8
57.5°	976.6	1028.9	1136.7	1244.5	1293.5
60°	891.7	940.7	1071.4	1189.0	1238.0
62.5°	800.3	865.6	1006.0	1130.2	1179.2
65°	705.5	777.4	937.5	1061.6	1110.6
67.5°	620.6	699.0	868.9	993.0	1042.0
70°	519.4	617.3	793.7	917.9	966.9
72.5°	424.6	532.4	715.3	836.2	881.9
75°	333.2	454.0	633.7	741.5	764.3
77.5°	248.2	375.6	548.8	594.5	578.2
80°	176.4	300.5	427.9	405.0	414.8
82.5°	114.3	228.6	264.6	300.5	310.3
85°	65.3	133.9	163.3	176.4	182.9
87.5°	29.4	49.0	65.3	65.3	62.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)