

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: P391849

Luminaire Tested: **24CZ2-95VHE-HRP-UNV-L935-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: P391849  
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-L935-CD1-SWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6748.2 lumens  
Efficiency: N/A  
Efficacy: 102.9 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

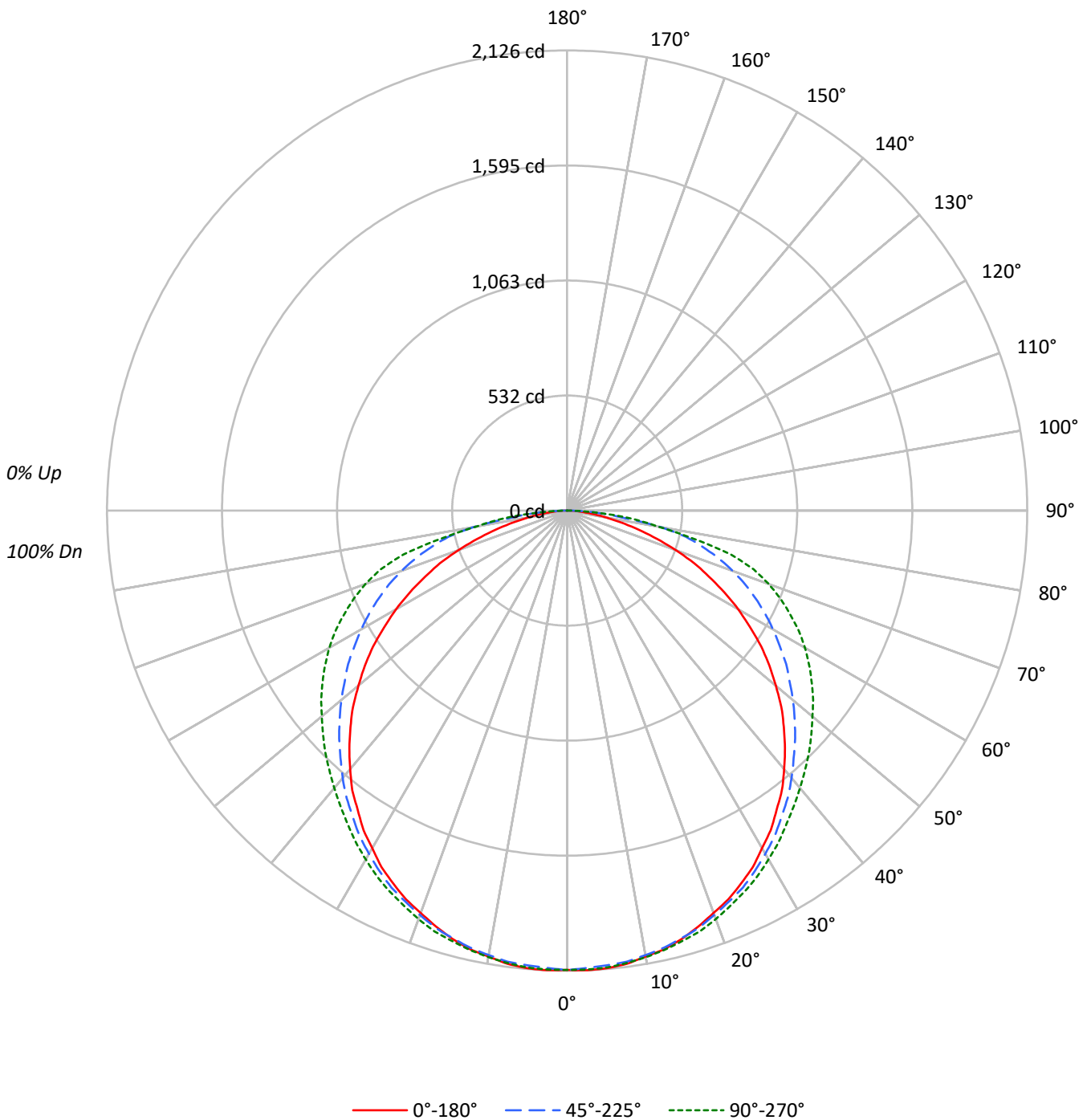
Input Watts (W): 65.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2855	2855	2855
5°	2866	2848	2862
10°	2858	2849	2863
15°	2853	2849	2867
20°	2832	2847	2876
25°	2822	2852	2882
30°	2798	2845	2891
35°	2771	2837	2903
40°	2740	2834	2940
45°	2694	2834	3006
50°	2634	2852	3097
55°	2567	2897	3235
60°	2459	2954	3414
65°	2302	3058	3623
70°	2094	3200	3898
75°	1775	3376	4072
80°	1400	3398	3294
85°	1033	2584	2893



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	201.3	3.0
10°-20°	579.3	8.6
20°-30°	885.9	13.1
30°-40°	1083.1	16.0
40°-50°	1154.3	17.1
50°-60°	1103.7	16.4
60°-70°	934.9	13.9
70°-80°	628.4	9.3
80°-90°	177.2	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°	1666.6	24.7
0°-40°	2749.6	40.7
0°-60°	5007.6	74.2
0°-90°	6748.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6748.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2122	2122	2122	2122	2122	
5°	2122	2119	2109	2119	2119	202
15°	2048	2048	2045	2062	2058	578
25°	1901	1908	1921	1938	1941	876
35°	1687	1700	1727	1761	1767	1057
45°	1416	1439	1490	1553	1580	1092
55°	1094	1135	1235	1332	1379	975
65°	723	797	961	1088	1138	718
75°	341	465	649	760	783	366
85°	67	137	167	181	187	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2122.1	2122.1	2122.1	2122.1	2122.1
2.5°	2125.5	2125.5	2115.4	2122.1	2122.1
5°	2122.1	2118.8	2108.7	2118.8	2118.8
7.5°	2112.1	2108.7	2102.0	2112.1	2108.7
10°	2092.0	2092.0	2085.3	2095.3	2095.3
12.5°	2075.3	2071.9	2068.6	2081.9	2078.6
15°	2048.5	2048.5	2045.1	2061.9	2058.5
17.5°	2015.0	2018.4	2021.7	2035.1	2038.4
20°	1978.2	1984.9	1988.2	2008.3	2008.3
22.5°	1944.7	1948.1	1954.8	1974.8	1974.8
25°	1901.2	1907.9	1921.3	1938.0	1941.4
27.5°	1857.7	1861.0	1877.8	1901.2	1904.5
30°	1800.8	1810.8	1830.9	1857.7	1861.0
32.5°	1750.6	1760.6	1784.1	1810.8	1817.5
35°	1687.0	1700.4	1727.1	1760.6	1767.3
37.5°	1630.1	1640.1	1673.6	1710.4	1720.5
40°	1559.8	1579.9	1613.3	1656.9	1673.6
42.5°	1489.5	1509.6	1549.7	1606.6	1626.7
45°	1415.9	1439.3	1489.5	1553.1	1579.9
47.5°	1342.2	1369.0	1425.9	1499.5	1529.7
50°	1258.5	1292.0	1362.3	1446.0	1479.5
52.5°	1178.2	1218.4	1295.4	1389.1	1432.6
55°	1094.5	1134.7	1235.1	1332.2	1379.0
57.5°	1000.8	1054.4	1164.8	1275.3	1325.5
60°	913.8	964.0	1097.9	1218.4	1268.6
62.5°	820.1	887.0	1030.9	1158.1	1208.3
65°	723.0	796.6	960.6	1087.8	1138.0
67.5°	636.0	716.3	890.4	1017.5	1067.8
70°	532.2	632.6	813.4	940.6	990.8
72.5°	435.1	545.6	733.0	856.9	903.7
75°	341.4	465.3	649.4	759.8	783.2
77.5°	254.4	384.9	562.3	609.2	592.5
80°	180.7	307.9	438.5	415.1	425.1
82.5°	117.2	234.3	271.1	307.9	318.0
85°	66.9	137.2	167.4	180.7	187.4
87.5°	30.1	50.2	66.9	66.9	63.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)