

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: P390021

Luminaire Tested: **22CZ2-100VHE-HRP-UNV-L930-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: P390021  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-100VHE-HRP-UNV-L930-CD1-SDWPD1-U  
Description: 2x2 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: 6907.0 lumens  
Efficiency: N/A  
Efficacy: 88.9 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

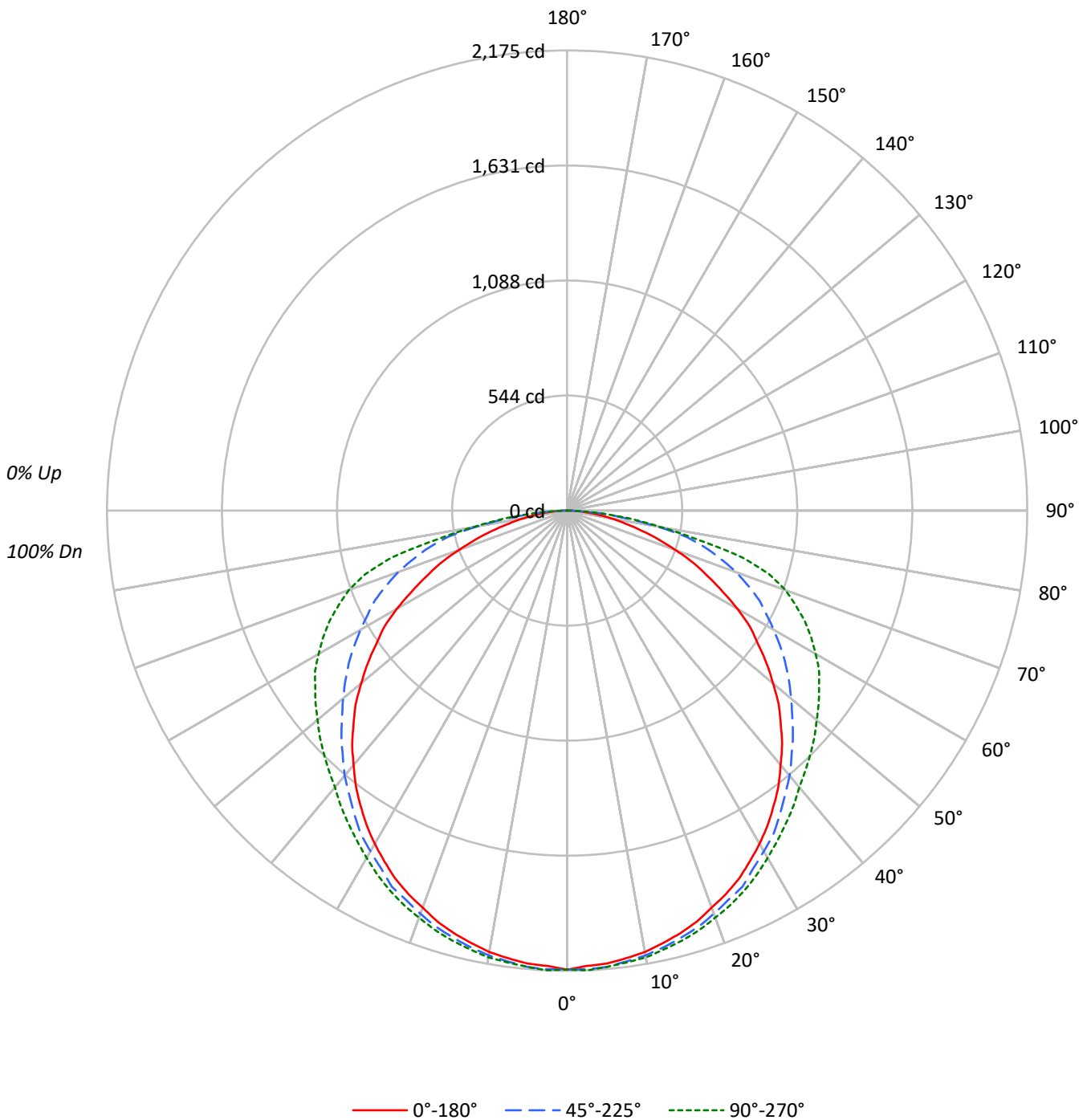
Input Watts (W): 77.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	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°	5838	5838	5838
5°	5806	5847	5847
10°	5790	5831	5859
15°	5761	5818	5860
20°	5718	5806	5864
25°	5703	5823	5884
30°	5652	5779	5889
35°	5592	5759	5926
40°	5515	5747	5997
45°	5434	5743	6188
50°	5318	5786	6445
55°	5173	5912	6818
60°	5004	6071	7301
65°	4659	6374	7894
70°	4278	6676	8635
75°	3751	7026	8928
80°	3228	6693	7008
85°	2825	4863	5335



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	205.2	3.0
10°-20°	589.3	8.5
20°-30°	899.0	13.0
30°-40°	1097.7	15.9
40°-50°	1173.7	17.0
50°-60°	1132.9	16.4
60°-70°	975.2	14.1
70°-80°	659.8	9.6
80°-90°	174.1	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°	1693.5	24.5
0°-40°	2791.2	40.4
0°-60°	5097.8	73.8
0°-90°	6907.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6907.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2170	2170	2170	2170	2170	
5°	2149	2154	2164	2164	2164	204
15°	2068	2073	2088	2098	2104	583
25°	1921	1931	1961	1971	1982	884
35°	1702	1717	1753	1788	1804	1065
45°	1428	1453	1509	1585	1626	1102
55°	1103	1138	1260	1387	1453	988
65°	732	803	1001	1158	1240	728
75°	361	478	676	813	859	387
85°	92	127	158	163	173	103
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2169.6	2169.6	2169.6	2169.6	2169.6
2.5°	2154.4	2159.4	2169.6	2169.6	2174.7
5°	2149.3	2154.4	2164.5	2164.5	2164.5
7.5°	2134.0	2139.1	2149.3	2154.4	2154.4
10°	2118.8	2123.9	2134.0	2139.1	2144.2
12.5°	2093.4	2098.5	2113.7	2123.9	2123.9
15°	2068.0	2073.1	2088.3	2098.5	2103.6
17.5°	2037.5	2047.7	2062.9	2073.1	2078.2
20°	1996.9	2007.0	2027.3	2042.6	2047.7
22.5°	1961.3	1971.4	1991.8	2007.0	2017.2
25°	1920.6	1930.8	1961.3	1971.4	1981.6
27.5°	1869.8	1880.0	1905.4	1925.7	1941.0
30°	1819.0	1829.2	1859.7	1885.1	1895.2
32.5°	1763.1	1778.4	1813.9	1834.3	1849.5
35°	1702.2	1717.4	1753.0	1788.5	1803.8
37.5°	1641.2	1656.4	1692.0	1737.7	1758.0
40°	1570.0	1590.4	1636.1	1697.1	1707.2
42.5°	1504.0	1529.4	1570.0	1641.2	1666.6
45°	1427.8	1453.2	1509.1	1585.3	1625.9
47.5°	1356.6	1382.0	1443.0	1534.5	1585.3
50°	1270.3	1305.8	1382.0	1488.7	1539.6
52.5°	1189.0	1219.5	1321.1	1437.9	1498.9
55°	1102.6	1138.2	1260.1	1387.1	1453.2
57.5°	1026.4	1056.9	1194.0	1336.3	1412.5
60°	929.8	970.5	1128.0	1280.4	1356.6
62.5°	828.2	889.2	1061.9	1219.5	1300.7
65°	731.7	802.8	1001.0	1158.5	1239.8
67.5°	645.3	721.5	924.8	1092.4	1168.6
70°	543.7	640.2	848.5	1011.1	1097.5
72.5°	452.2	558.9	762.2	924.8	1001.0
75°	360.8	477.6	675.8	813.0	858.7
77.5°	279.5	391.2	579.2	619.9	625.0
80°	208.3	309.9	431.9	437.0	452.2
82.5°	142.3	218.5	279.5	304.9	309.9
85°	91.5	127.0	157.5	162.6	172.8
87.5°	40.6	45.7	55.9	50.8	50.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)