

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: P390024

Luminaire Tested: **22CZ2-100VHE-HRP-UNV-L935-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: P390024  
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-L935-CD1-SDWPD1-U  
Description: 2x2 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: 7077.8 lumens  
Efficiency: N/A  
Efficacy: 91.1 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

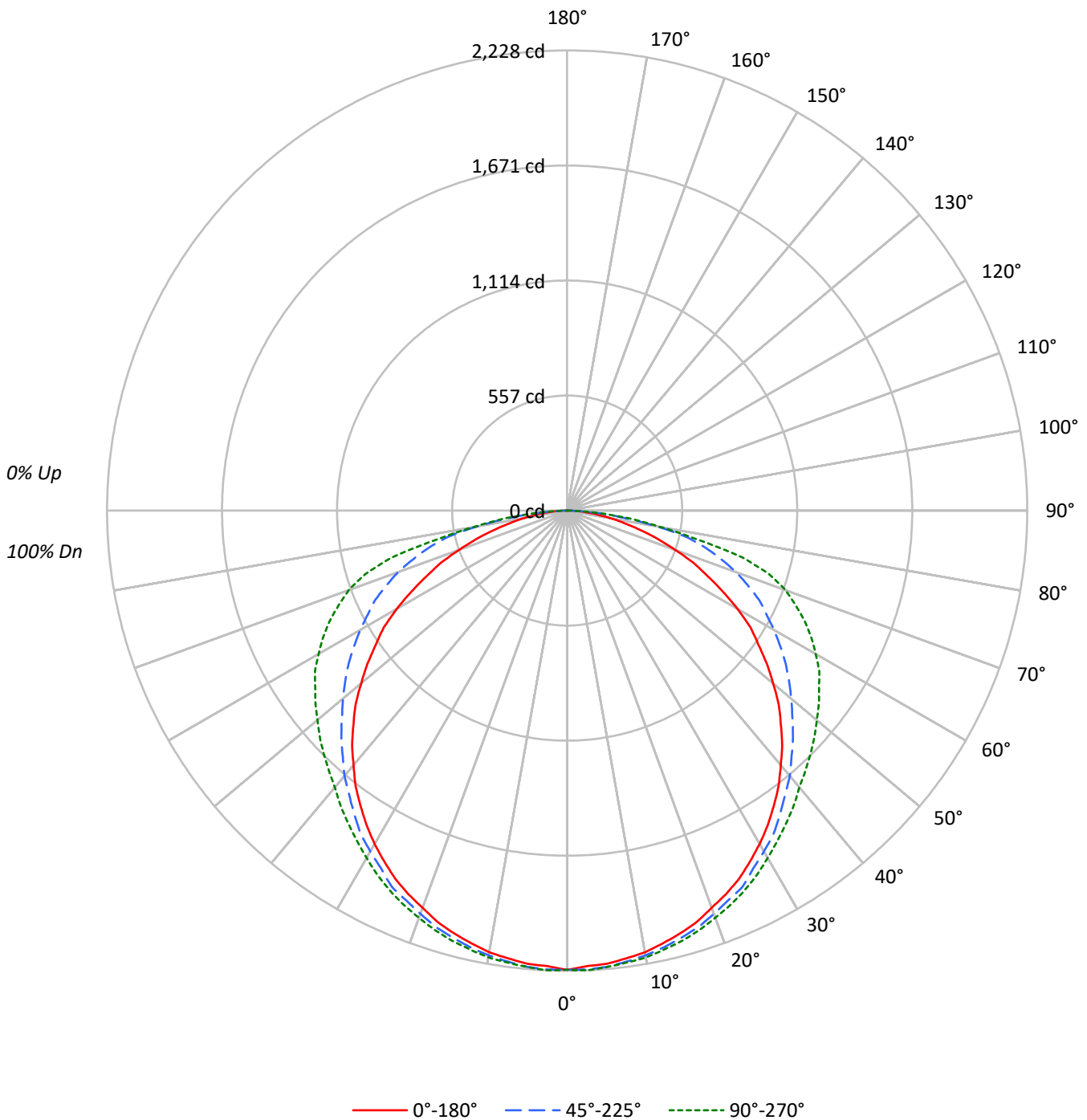
Input Watts (W): 77.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5983	5983	5983
5°	5949	5992	5992
10°	5933	5975	6004
15°	5904	5962	6005
20°	5860	5949	6009
25°	5844	5967	6029
30°	5792	5922	6035
35°	5730	5901	6072
40°	5652	5890	6146
45°	5568	5885	6341
50°	5449	5929	6604
55°	5301	6058	6986
60°	5128	6221	7482
65°	4774	6531	8089
70°	4383	6841	8848
75°	3844	7200	9148
80°	3309	6859	7181
85°	2893	4983	5465



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.3	3.0
10°-20°	603.8	8.5
20°-30°	921.3	13.0
30°-40°	1124.9	15.9
40°-50°	1202.7	17.0
50°-60°	1160.9	16.4
60°-70°	999.3	14.1
70°-80°	676.1	9.6
80°-90°	178.4	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°	1735.4	24.5
0°-40°	2860.3	40.4
0°-60°	5223.9	73.8
0°-90°	7077.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7077.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2223	2223	2223	2223	2223	
5°	2202	2208	2218	2218	2218	209
15°	2119	2124	2140	2150	2156	598
25°	1968	1978	2010	2020	2031	906
35°	1744	1760	1796	1833	1848	1091
45°	1463	1489	1546	1624	1666	1129
55°	1130	1166	1291	1421	1489	1013
65°	750	823	1026	1187	1270	746
75°	370	489	692	833	880	397
85°	94	130	161	167	177	106
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2223.3	2223.3	2223.3	2223.3	2223.3
2.5°	2207.6	2212.8	2223.3	2223.3	2228.5
5°	2202.4	2207.6	2218.1	2218.1	2218.1
7.5°	2186.8	2192.0	2202.4	2207.6	2207.6
10°	2171.2	2176.4	2186.8	2192.0	2197.2
12.5°	2145.2	2150.4	2166.0	2176.4	2176.4
15°	2119.1	2124.3	2140.0	2150.4	2155.6
17.5°	2087.9	2098.3	2113.9	2124.3	2129.5
20°	2046.2	2056.6	2077.5	2093.1	2098.3
22.5°	2009.8	2020.2	2041.0	2056.6	2067.1
25°	1968.1	1978.5	2009.8	2020.2	2030.6
27.5°	1916.1	1926.5	1952.5	1973.3	1989.0
30°	1864.0	1874.4	1905.7	1931.7	1942.1
32.5°	1806.7	1822.3	1858.8	1879.6	1895.2
35°	1744.2	1759.9	1796.3	1832.8	1848.4
37.5°	1681.8	1697.4	1733.8	1780.7	1801.5
40°	1608.9	1629.7	1676.6	1739.0	1749.5
42.5°	1541.2	1567.2	1608.9	1681.8	1707.8
45°	1463.1	1489.1	1546.4	1624.5	1666.1
47.5°	1390.2	1416.2	1478.7	1572.4	1624.5
50°	1301.7	1338.1	1416.2	1525.6	1577.6
52.5°	1218.4	1249.6	1353.7	1473.5	1536.0
55°	1129.9	1166.3	1291.3	1421.4	1489.1
57.5°	1051.8	1083.0	1223.6	1369.4	1447.5
60°	952.8	994.5	1155.9	1312.1	1390.2
62.5°	848.7	911.2	1088.2	1249.6	1332.9
65°	749.8	822.7	1025.7	1187.1	1270.4
67.5°	661.3	739.4	947.6	1119.4	1197.5
70°	557.1	656.0	869.5	1036.1	1124.6
72.5°	463.4	572.7	781.0	947.6	1025.7
75°	369.7	489.4	692.5	833.1	879.9
77.5°	286.4	400.9	593.6	635.2	640.4
80°	213.5	317.6	442.6	447.8	463.4
82.5°	145.8	223.9	286.4	312.4	317.6
85°	93.7	130.2	161.4	166.6	177.0
87.5°	41.7	46.9	57.3	52.1	52.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)