

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: P390799

Luminaire Tested: **22CZ2-90VHE-HRP-UNV-L950-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: P390799
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: 22CZ2-90VHE-HRP-UNV-L950-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6935.8 lumens
Efficiency: N/A
Efficacy: 101.7 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

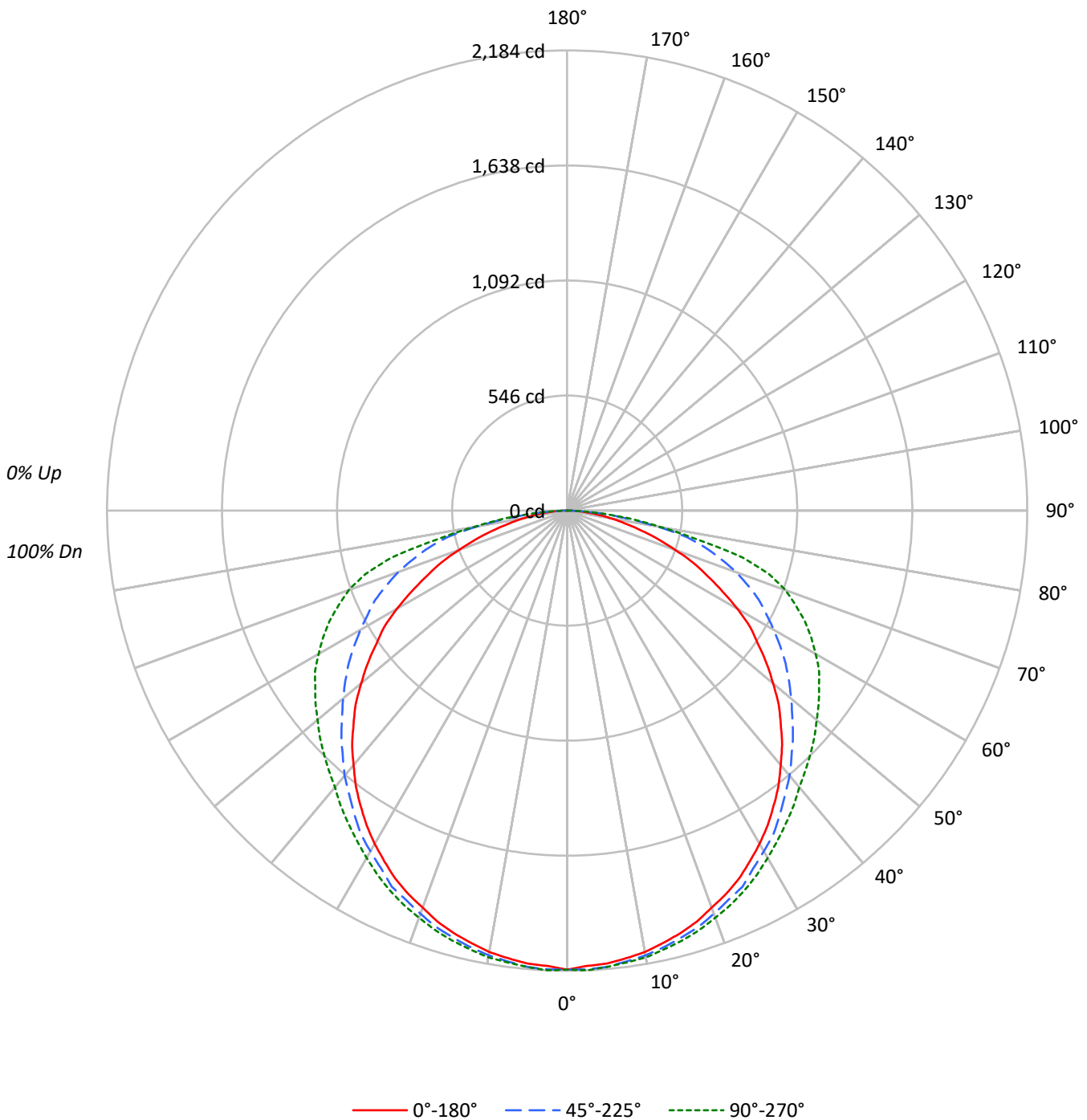
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5863	5863	5863
5°	5830	5871	5871
10°	5814	5855	5883
15°	5785	5842	5885
20°	5742	5830	5888
25°	5726	5848	5908
30°	5676	5803	5913
35°	5615	5783	5950
40°	5538	5771	6022
45°	5456	5767	6213
50°	5340	5810	6472
55°	5195	5937	6846
60°	5025	6096	7332
65°	4678	6400	7927
70°	4295	6704	8671
75°	3767	7056	8965
80°	3242	6721	7037
85°	2834	4885	5357



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.1	3.0
10°-20°	591.7	8.5
20°-30°	902.8	13.0
30°-40°	1102.3	15.9
40°-50°	1178.6	17.0
50°-60°	1137.6	16.4
60°-70°	979.3	14.1
70°-80°	662.6	9.6
80°-90°	174.8	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°	1700.6	24.5
0°-40°	2802.9	40.4
0°-60°	5119.1	73.8
0°-90°	6935.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6935.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2179	2179	2179	2179	2179	
5°	2158	2163	2174	2174	2174	205
15°	2077	2082	2097	2107	2112	586
25°	1929	1939	1970	1980	1990	888
35°	1709	1725	1760	1796	1811	1070
45°	1434	1459	1515	1592	1633	1107
55°	1107	1143	1265	1393	1459	992
65°	735	806	1005	1163	1245	731
75°	362	480	679	816	862	389
85°	92	128	158	163	174	103
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2178.7	2178.7	2178.7	2178.7	2178.7
2.5°	2163.3	2168.5	2178.7	2178.7	2183.8
5°	2158.2	2163.3	2173.6	2173.6	2173.6
7.5°	2142.9	2148.0	2158.2	2163.3	2163.3
10°	2127.6	2132.7	2142.9	2148.0	2153.1
12.5°	2102.1	2107.2	2122.5	2132.7	2132.7
15°	2076.6	2081.7	2097.0	2107.2	2112.3
17.5°	2046.0	2056.2	2071.5	2081.7	2086.8
20°	2005.2	2015.4	2035.8	2051.1	2056.2
22.5°	1969.5	1979.7	2000.1	2015.4	2025.6
25°	1928.6	1938.9	1969.5	1979.7	1989.9
27.5°	1877.6	1887.8	1913.3	1933.7	1949.1
30°	1826.6	1836.8	1867.4	1892.9	1903.1
32.5°	1770.5	1785.8	1821.5	1841.9	1857.2
35°	1709.2	1724.6	1760.3	1796.0	1811.3
37.5°	1648.0	1663.3	1699.0	1745.0	1765.4
40°	1576.6	1597.0	1642.9	1704.1	1714.4
42.5°	1510.3	1535.8	1576.6	1648.0	1673.5
45°	1433.7	1459.2	1515.4	1591.9	1632.7
47.5°	1362.3	1387.8	1449.0	1540.9	1591.9
50°	1275.6	1311.3	1387.8	1495.0	1546.0
52.5°	1193.9	1224.5	1326.6	1443.9	1505.2
55°	1107.2	1142.9	1265.4	1392.9	1459.2
57.5°	1030.7	1061.3	1199.0	1341.9	1418.4
60°	933.7	974.5	1132.7	1285.8	1362.3
62.5°	831.7	892.9	1066.4	1224.5	1306.2
65°	734.7	806.2	1005.1	1163.3	1244.9
67.5°	648.0	724.5	928.6	1097.0	1173.5
70°	545.9	642.9	852.1	1015.3	1102.1
72.5°	454.1	561.2	765.3	928.6	1005.1
75°	362.3	479.6	678.6	816.4	862.3
77.5°	280.6	392.9	581.7	622.5	627.6
80°	209.2	311.2	433.7	438.8	454.1
82.5°	142.9	219.4	280.6	306.1	311.2
85°	91.8	127.6	158.2	163.3	173.5
87.5°	40.8	45.9	56.1	51.0	51.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)