

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: P390845

Luminaire Tested: **22CZ2-95VHE-HRP-UNV-L940-CD1-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: P390845  
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: 22CZ2-95VHE-HRP-UNV-L940-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6968.2 lumens  
Efficiency: N/A  
Efficacy: 95.8 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

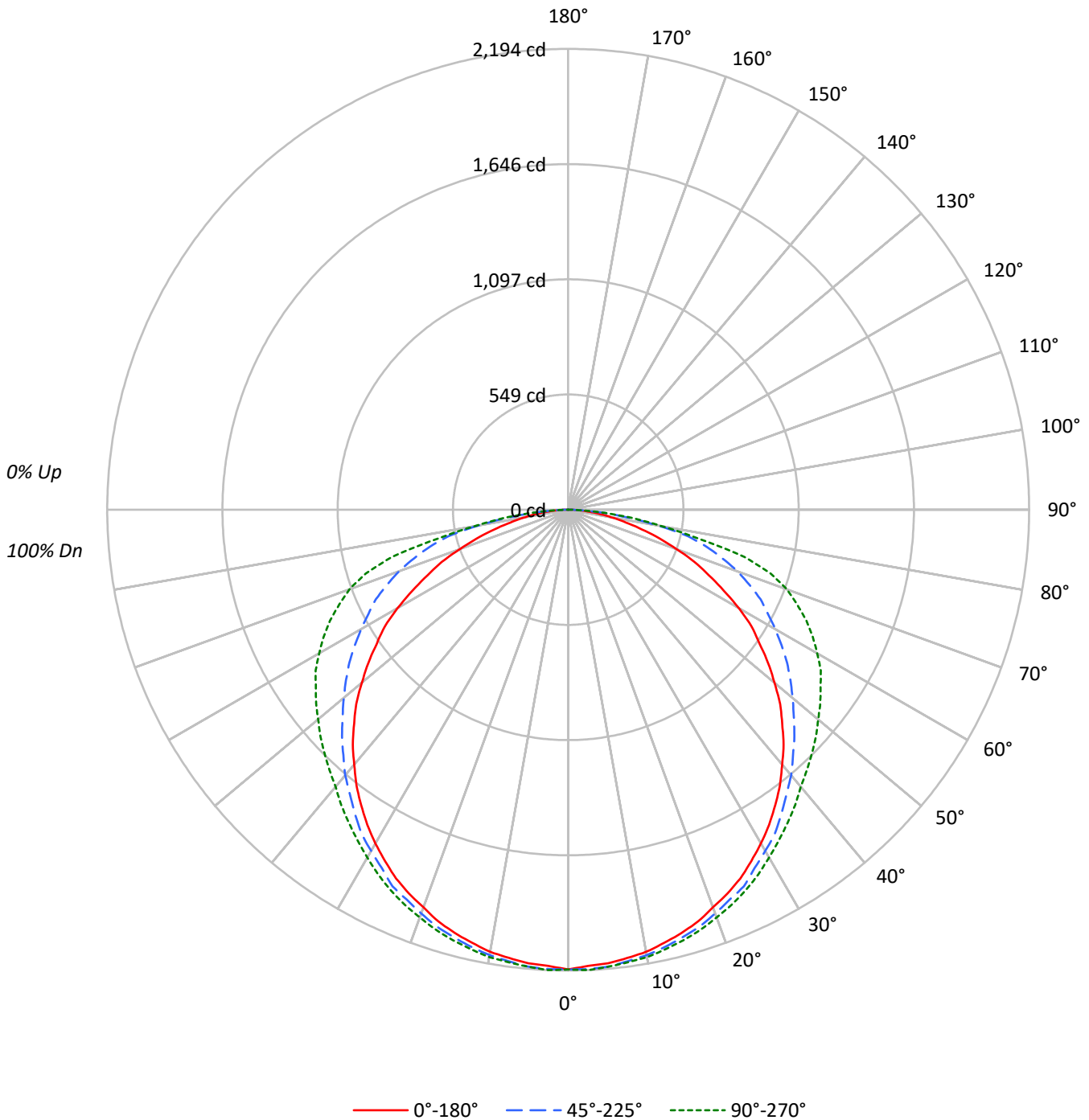
Input Watts (W): 72.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5890	5890	5890
5°	5857	5899	5899
10°	5841	5883	5911
15°	5812	5869	5912
20°	5769	5857	5916
25°	5753	5875	5936
30°	5702	5830	5941
35°	5641	5810	5978
40°	5564	5798	6050
45°	5482	5794	6242
50°	5365	5837	6502
55°	5219	5964	6878
60°	5049	6125	7366
65°	4700	6430	7964
70°	4316	6736	8711
75°	3785	7089	9007
80°	3257	6752	7070
85°	2850	4906	5382



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.0	3.0
10°-20°	594.5	8.5
20°-30°	907.0	13.0
30°-40°	1107.4	15.9
40°-50°	1184.1	17.0
50°-60°	1142.9	16.4
60°-70°	983.9	14.1
70°-80°	665.7	9.6
80°-90°	175.6	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°	1708.5	24.5
0°-40°	2816.0	40.4
0°-60°	5143.0	73.8
0°-90°	6968.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6968.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2189	2189	2189	2189	2189	
5°	2168	2174	2184	2184	2184	206
15°	2086	2091	2107	2117	2122	589
25°	1938	1948	1979	1989	1999	892
35°	1717	1733	1768	1804	1820	1074
45°	1440	1466	1522	1599	1640	1112
55°	1112	1148	1271	1399	1466	997
65°	738	810	1010	1169	1251	734
75°	364	482	682	820	866	390
85°	92	128	159	164	174	104
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2188.8	2188.8	2188.8	2188.8	2188.8
2.5°	2173.5	2178.6	2188.8	2188.8	2194.0
5°	2168.3	2173.5	2183.7	2183.7	2183.7
7.5°	2153.0	2158.1	2168.3	2173.5	2173.5
10°	2137.6	2142.7	2153.0	2158.1	2163.2
12.5°	2111.9	2117.1	2132.4	2142.7	2142.7
15°	2086.3	2091.4	2106.8	2117.1	2122.2
17.5°	2055.6	2065.8	2081.2	2091.4	2096.6
20°	2014.5	2024.8	2045.3	2060.7	2065.8
22.5°	1978.7	1988.9	2009.4	2024.8	2035.1
25°	1937.7	1947.9	1978.7	1988.9	1999.2
27.5°	1886.4	1896.6	1922.3	1942.8	1958.2
30°	1835.1	1845.4	1876.1	1901.8	1912.0
32.5°	1778.7	1794.1	1830.0	1850.5	1865.9
35°	1717.2	1732.6	1768.5	1804.4	1819.8
37.5°	1655.7	1671.1	1707.0	1753.1	1773.6
40°	1584.0	1604.5	1650.6	1712.1	1722.4
42.5°	1517.3	1542.9	1584.0	1655.7	1681.4
45°	1440.4	1466.1	1522.4	1599.3	1640.3
47.5°	1368.7	1394.3	1455.8	1548.1	1599.3
50°	1281.5	1317.4	1394.3	1501.9	1553.2
52.5°	1199.5	1230.3	1332.8	1450.7	1512.2
55°	1112.4	1148.2	1271.3	1399.4	1466.1
57.5°	1035.5	1066.2	1204.6	1348.2	1425.0
60°	938.1	979.1	1138.0	1291.8	1368.7
62.5°	835.5	897.1	1071.3	1230.3	1312.3
65°	738.2	809.9	1009.8	1168.7	1250.8
67.5°	651.0	727.9	932.9	1102.1	1179.0
70°	548.5	645.9	856.1	1020.1	1107.2
72.5°	456.2	563.9	768.9	932.9	1009.8
75°	364.0	481.9	681.8	820.2	866.3
77.5°	281.9	394.7	584.4	625.4	630.5
80°	210.2	312.7	435.7	440.8	456.2
82.5°	143.5	220.4	281.9	307.6	312.7
85°	92.3	128.2	158.9	164.0	174.3
87.5°	41.0	46.1	56.4	51.3	51.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)