

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: P388132

Luminaire Tested: **22CZ2-65VHE-SQR-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: P388132  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-65VHE-SQR-UNV-L935-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5259.7 lumens  
Efficiency: N/A  
Efficacy: 109.8 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

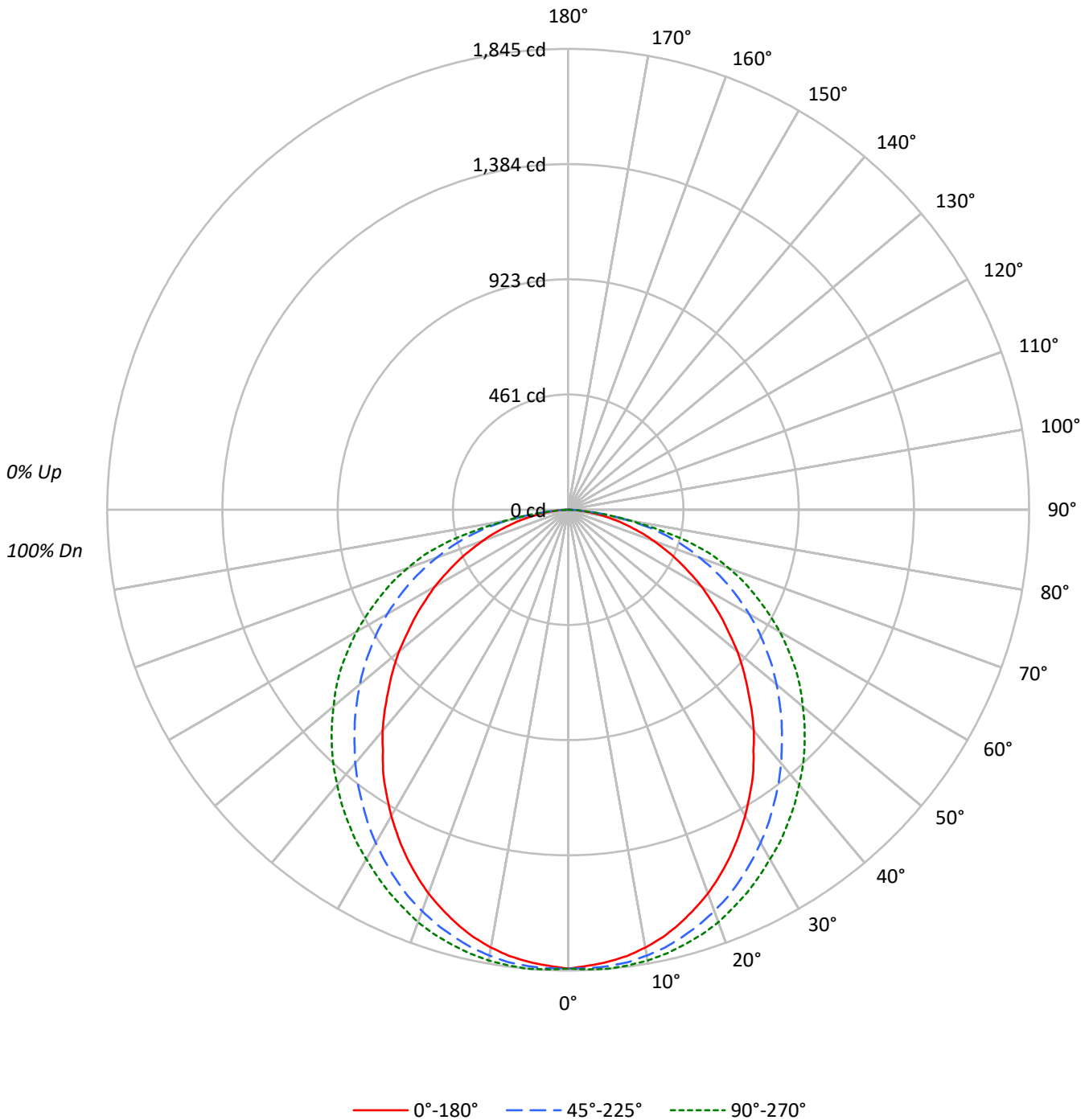
Input Watts (W): 47.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4944	4944	4944
5°	4909	4956	4983
10°	4864	4952	5007
15°	4785	4931	5021
20°	4682	4897	5033
25°	4551	4847	5025
30°	4398	4786	5019
35°	4240	4715	5035
40°	4060	4657	5051
45°	3867	4598	5092
50°	3700	4556	5131
55°	3502	4521	5212
60°	3319	4501	5267
65°	3100	4467	5309
70°	2848	4400	5382
75°	2569	4283	5191
80°	2205	3790	3907
85°	1772	2235	1772



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	174.2	3.3
10°-20°	498.0	9.5
20°-30°	748.0	14.2
30°-40°	892.1	17.0
40°-50°	922.3	17.5
50°-60°	848.0	16.1
60°-70°	675.1	12.8
70°-80°	412.4	7.8
80°-90°	89.7	1.7
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°	1420.2	27.0
0°-40°	2312.2	44.0
0°-60°	4082.5	77.6
0°-90°	5259.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5259.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1837	1837	1837	1837	1837	
5°	1817	1822	1835	1842	1845	172
15°	1718	1738	1770	1795	1802	484
25°	1533	1570	1633	1678	1692	705
35°	1291	1346	1435	1510	1533	805
45°	1016	1088	1208	1306	1338	786
55°	746	829	964	1073	1111	668
65°	487	569	702	799	834	482
75°	247	320	412	484	499	263
85°	57	70	72	62	57	66
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1837.3	1837.3	1837.3	1837.3	1837.3
2.5°	1827.4	1829.9	1837.3	1842.3	1842.3
5°	1817.4	1822.4	1834.8	1842.3	1844.8
7.5°	1802.4	1809.9	1827.4	1837.3	1839.8
10°	1779.9	1789.9	1812.4	1827.4	1832.3
12.5°	1752.5	1767.4	1794.9	1814.9	1819.9
15°	1717.5	1737.5	1769.9	1794.9	1802.4
17.5°	1677.6	1702.5	1742.5	1772.4	1782.4
20°	1635.1	1660.1	1710.0	1745.0	1757.5
22.5°	1585.2	1617.7	1675.1	1715.0	1725.0
25°	1532.8	1570.2	1632.6	1677.6	1692.5
27.5°	1475.4	1520.3	1587.7	1642.6	1655.1
30°	1415.5	1462.9	1540.3	1600.2	1615.2
32.5°	1353.0	1408.0	1490.3	1557.7	1577.7
35°	1290.6	1345.6	1435.4	1510.3	1532.8
37.5°	1218.2	1283.1	1383.0	1460.4	1487.8
40°	1155.8	1218.2	1325.6	1410.5	1437.9
42.5°	1085.9	1153.3	1265.7	1358.0	1390.5
45°	1016.0	1088.4	1208.3	1305.6	1338.1
47.5°	951.1	1023.5	1148.3	1250.7	1283.1
50°	883.7	958.6	1088.4	1193.3	1225.7
52.5°	811.3	893.7	1028.5	1133.4	1170.8
55°	746.4	828.8	963.6	1073.4	1110.9
57.5°	679.0	763.9	903.7	1008.5	1043.5
60°	616.6	699.0	836.3	938.6	978.6
62.5°	549.2	634.1	768.9	868.7	906.2
65°	486.8	569.2	701.5	798.8	833.8
67.5°	424.4	506.8	631.6	724.0	763.9
70°	362.0	444.4	559.2	649.1	684.0
72.5°	307.1	379.5	489.3	571.7	604.1
75°	247.1	319.5	411.9	484.3	499.3
77.5°	192.2	257.1	334.5	367.0	372.0
80°	142.3	192.2	244.6	252.1	252.1
82.5°	94.9	132.3	152.3	154.8	152.3
85°	57.4	69.9	72.4	62.4	57.4
87.5°	20.0	20.0	12.5	7.5	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)