

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: P388416

Luminaire Tested: **22CZ2-65VHE-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: P388416  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-65VHE-UNV-L935-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

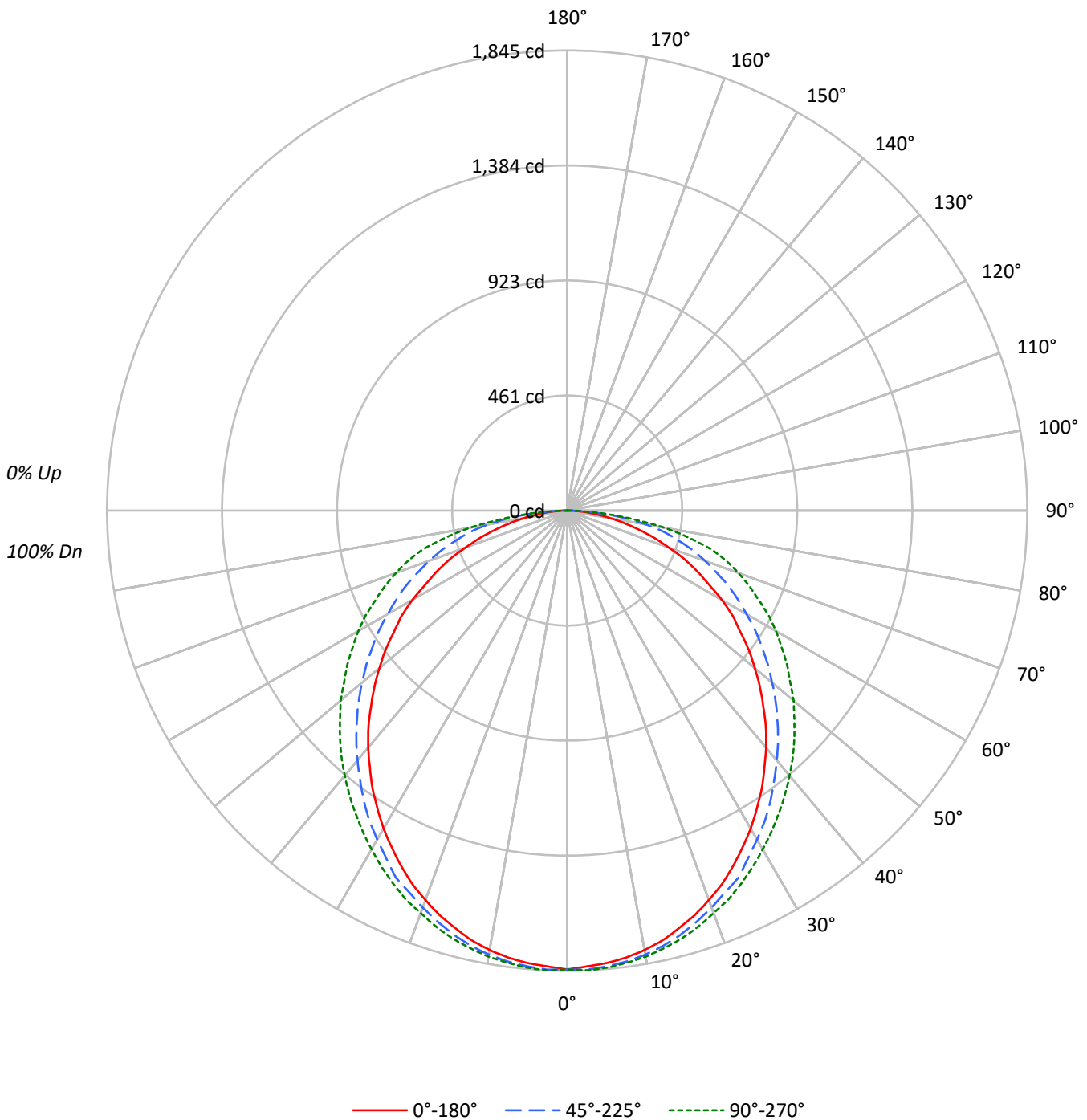
Lumens per Lamp: N/A  
Luminaire Lumens: 5410.7 lumens  
Efficiency: N/A  
Efficacy: 113.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 47.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	4951	4951	4951
5°	4919	4955	4970
10°	4889	4940	4962
15°	4829	4903	4947
20°	4758	4849	4918
25°	4672	4822	4901
30°	4575	4732	4873
35°	4469	4670	4863
40°	4358	4592	4873
45°	4235	4539	4904
50°	4113	4492	4960
55°	3972	4472	5046
60°	3855	4471	5202
65°	3662	4543	5391
70°	3415	4629	5740
75°	3129	4789	6201
80°	2723	4993	6106
85°	2384	4440	4851



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	174.0	3.2
10°-20°	495.6	9.2
20°-30°	744.0	13.7
30°-40°	889.0	16.4
40°-50°	924.4	17.1
50°-60°	856.8	15.8
60°-70°	702.8	13.0
70°-80°	475.1	8.8
80°-90°	149.3	2.8
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°	1413.5	26.1
0°-40°	2302.5	42.6
0°-60°	4083.6	75.5
0°-90°	5410.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5410.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1840	1840	1840	1840	1840	
5°	1821	1824	1834	1837	1840	173
15°	1733	1741	1760	1770	1776	489
25°	1574	1587	1624	1643	1651	725
35°	1360	1379	1422	1464	1480	850
45°	1113	1134	1193	1262	1289	859
55°	847	873	953	1038	1076	761
65°	575	607	714	807	847	568
75°	301	351	461	554	596	319
85°	77	106	144	160	157	88
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1839.7	1839.7	1839.7	1839.7	1839.7
2.5°	1829.1	1834.4	1842.4	1845.1	1845.1
5°	1821.1	1823.8	1834.4	1837.1	1839.7
7.5°	1807.8	1813.1	1823.8	1826.4	1829.1
10°	1789.2	1794.5	1807.8	1813.1	1815.8
12.5°	1765.2	1770.5	1786.5	1794.5	1797.1
15°	1733.2	1741.2	1759.9	1770.5	1775.8
17.5°	1701.3	1709.3	1727.9	1743.9	1749.2
20°	1661.4	1680.0	1693.3	1714.6	1717.3
22.5°	1621.4	1632.1	1656.0	1677.3	1688.0
25°	1573.5	1586.8	1624.1	1642.7	1650.7
27.5°	1522.9	1541.5	1570.8	1600.1	1610.8
30°	1472.3	1485.6	1522.9	1557.5	1568.2
32.5°	1416.4	1435.0	1475.0	1509.6	1525.6
35°	1360.5	1379.1	1421.7	1464.3	1480.3
37.5°	1299.3	1320.6	1363.2	1413.7	1435.0
40°	1240.7	1256.7	1307.3	1368.5	1387.1
42.5°	1179.5	1198.1	1251.3	1317.9	1339.2
45°	1112.9	1134.2	1192.8	1262.0	1288.6
47.5°	1049.0	1070.3	1134.2	1203.4	1235.4
50°	982.4	1009.1	1073.0	1152.8	1184.8
52.5°	918.5	942.5	1014.4	1096.9	1126.2
55°	846.7	873.3	953.1	1038.3	1075.6
57.5°	788.1	806.7	894.6	982.4	1019.7
60°	716.2	740.2	830.7	923.9	966.5
62.5°	639.0	678.9	772.1	868.0	910.6
65°	575.1	607.0	713.5	806.7	846.7
67.5°	508.5	543.1	647.0	745.5	790.7
70°	434.0	479.2	588.4	686.9	729.5
72.5°	367.4	415.3	527.2	623.0	668.3
75°	300.9	351.4	460.6	553.8	596.4
77.5°	237.0	292.9	399.4	471.2	497.9
80°	175.7	229.0	322.2	372.7	394.0
82.5°	122.5	167.7	237.0	263.6	268.9
85°	77.2	106.5	143.8	159.7	157.1
87.5°	34.6	42.6	53.2	58.6	55.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)