

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: P391585

Luminaire Tested: **24CZ2-65VHE-RDP-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: P391585  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-65VHE-RDP-UNV-L935-CD1-SWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3686.8 lumens  
Efficiency: N/A  
Efficacy: 87.4 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

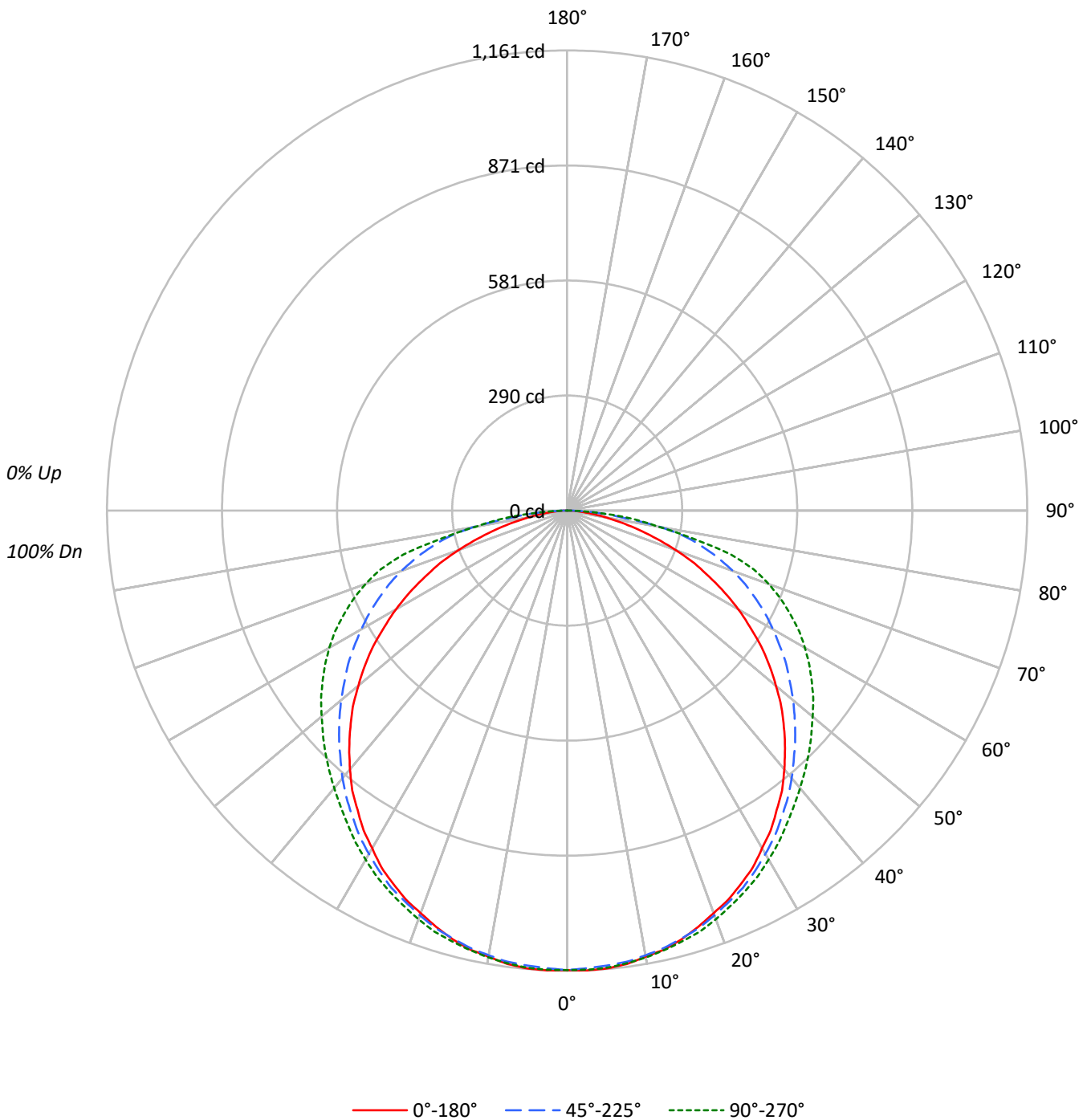
Input Watts (W): 42.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	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°	1560	1560	1560
5°	1566	1556	1563
10°	1561	1557	1564
15°	1559	1556	1567
20°	1548	1555	1571
25°	1542	1558	1575
30°	1528	1554	1580
35°	1514	1550	1586
40°	1497	1548	1606
45°	1472	1549	1642
50°	1439	1558	1692
55°	1403	1583	1767
60°	1343	1614	1865
65°	1258	1671	1980
70°	1144	1748	2129
75°	970	1844	2224
80°	765	1857	1799
85°	565	1411	1581



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.0	3.0
10°-20°	316.5	8.6
20°-30°	484.0	13.1
30°-40°	591.7	16.0
40°-50°	630.6	17.1
50°-60°	603.0	16.4
60°-70°	510.8	13.9
70°-80°	343.3	9.3
80°-90°	96.8	2.6
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°	910.5	24.7
0°-40°	1502.2	40.7
0°-60°	2735.9	74.2
0°-90°	3686.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3686.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1159	1159	1159	1159	1159	
5°	1159	1158	1152	1158	1158	110
15°	1119	1119	1117	1126	1125	316
25°	1039	1042	1050	1059	1061	479
35°	922	929	944	962	966	577
45°	774	786	814	848	863	597
55°	598	620	675	728	753	533
65°	395	435	525	594	622	392
75°	186	254	355	415	428	200
85°	37	75	91	99	102	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1159.4	1159.4	1159.4	1159.4	1159.4
2.5°	1161.2	1161.2	1155.7	1159.4	1159.4
5°	1159.4	1157.6	1152.1	1157.6	1157.6
7.5°	1153.9	1152.1	1148.4	1153.9	1152.1
10°	1142.9	1142.9	1139.3	1144.8	1144.8
12.5°	1133.8	1132.0	1130.1	1137.4	1135.6
15°	1119.2	1119.2	1117.3	1126.5	1124.6
17.5°	1100.9	1102.7	1104.5	1111.8	1113.7
20°	1080.8	1084.4	1086.2	1097.2	1097.2
22.5°	1062.5	1064.3	1068.0	1078.9	1078.9
25°	1038.7	1042.4	1049.7	1058.8	1060.6
27.5°	1014.9	1016.8	1025.9	1038.7	1040.5
30°	983.8	989.3	1000.3	1014.9	1016.8
32.5°	956.4	961.9	974.7	989.3	993.0
35°	921.7	929.0	943.6	961.9	965.6
37.5°	890.6	896.1	914.3	934.5	939.9
40°	852.2	863.1	881.4	905.2	914.3
42.5°	813.8	824.7	846.7	877.8	888.7
45°	773.5	786.3	813.8	848.5	863.1
47.5°	733.3	747.9	779.0	819.3	835.7
50°	687.6	705.9	744.3	790.0	808.3
52.5°	643.7	665.6	707.7	758.9	782.7
55°	598.0	619.9	674.8	727.8	753.4
57.5°	546.8	576.0	636.4	696.7	724.2
60°	499.2	526.7	599.8	665.6	693.1
62.5°	448.0	484.6	563.2	632.7	660.2
65°	395.0	435.2	524.8	594.3	621.8
67.5°	347.5	391.3	486.4	555.9	583.4
70°	290.8	345.6	444.4	513.9	541.3
72.5°	237.7	298.1	400.5	468.1	493.7
75°	186.5	254.2	354.8	415.1	427.9
77.5°	139.0	210.3	307.2	332.8	323.7
80°	98.7	168.2	239.6	226.8	232.2
82.5°	64.0	128.0	148.1	168.2	173.7
85°	36.6	75.0	91.4	98.7	102.4
87.5°	16.5	27.4	36.6	36.6	34.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)