

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: P390816

Luminaire Tested: **22CZ2-90VHE-RDP-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: P390816  
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-RDP-UNV-L935-CD1-SDWPD1-U  
Description: 2x2 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: 5062.7 lumens  
Efficiency: N/A  
Efficacy: 74.2 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

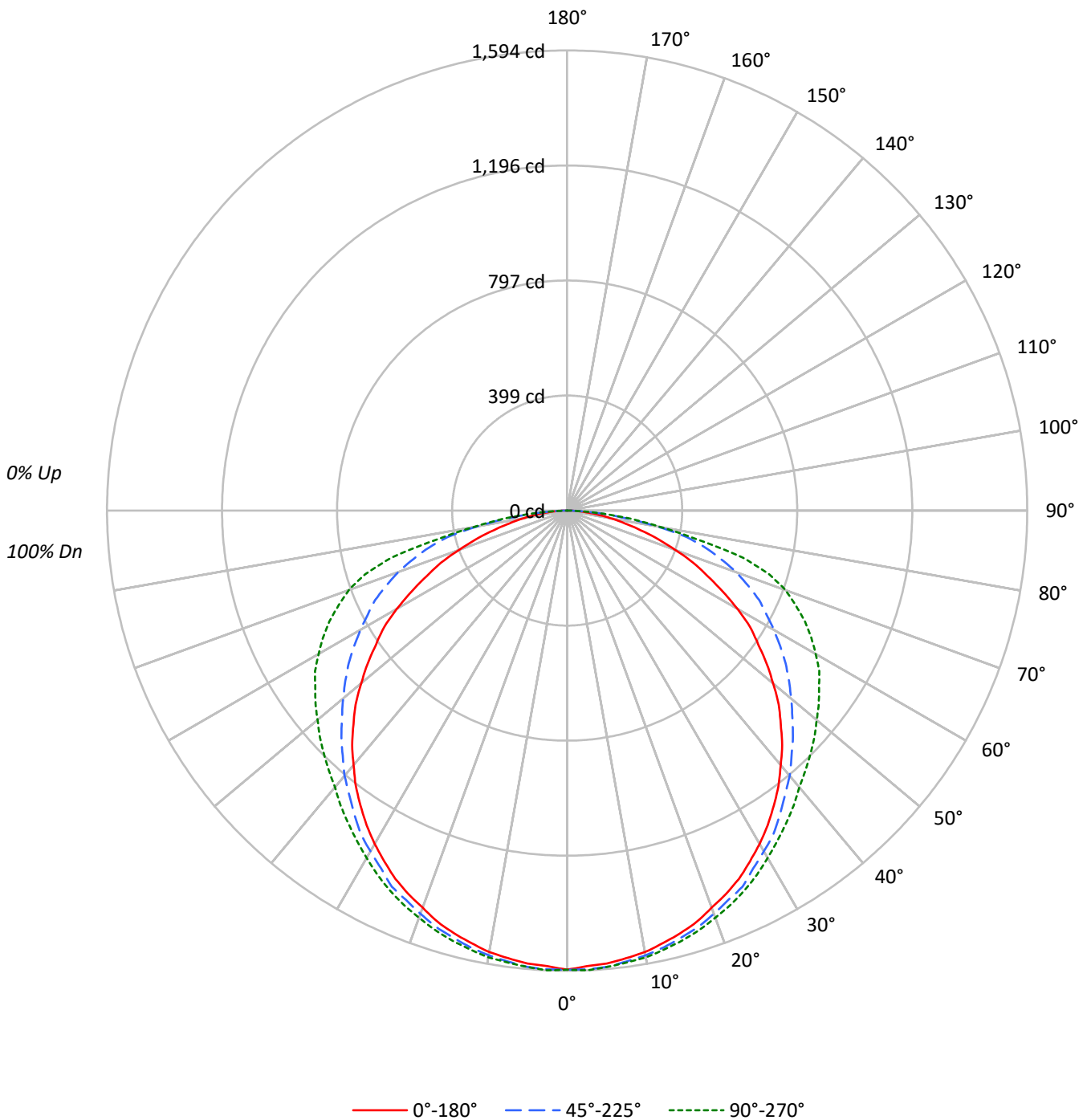
Input Watts (W): 68.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4279	4279	4279
5°	4256	4286	4286
10°	4244	4274	4295
15°	4223	4264	4296
20°	4192	4255	4298
25°	4180	4268	4313
30°	4143	4236	4317
35°	4098	4221	4343
40°	4043	4213	4396
45°	3983	4209	4536
50°	3898	4241	4724
55°	3792	4333	4997
60°	3668	4450	5352
65°	3415	4672	5786
70°	3135	4894	6330
75°	2749	5150	6544
80°	2366	4906	5137
85°	2069	3566	3909



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.4	3.0
10°-20°	431.9	8.5
20°-30°	659.0	13.0
30°-40°	804.6	15.9
40°-50°	860.3	17.0
50°-60°	830.4	16.4
60°-70°	714.8	14.1
70°-80°	483.6	9.6
80°-90°	127.6	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°	1241.3	24.5
0°-40°	2045.9	40.4
0°-60°	3736.6	73.8
0°-90°	5062.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5062.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1590	1590	1590	1590	1590	
5°	1575	1579	1587	1587	1587	150
15°	1516	1520	1531	1538	1542	428
25°	1408	1415	1438	1445	1452	648
35°	1248	1259	1285	1311	1322	781
45°	1046	1065	1106	1162	1192	808
55°	808	834	924	1017	1065	724
65°	536	588	734	849	909	533
75°	264	350	495	596	629	284
85°	67	93	116	119	127	75
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1590.3	1590.3	1590.3	1590.3	1590.3
2.5°	1579.1	1582.8	1590.3	1590.3	1594.0
5°	1575.4	1579.1	1586.6	1586.6	1586.6
7.5°	1564.2	1567.9	1575.4	1579.1	1579.1
10°	1553.0	1556.8	1564.2	1567.9	1571.7
12.5°	1534.4	1538.1	1549.3	1556.8	1556.8
15°	1515.8	1519.5	1530.7	1538.1	1541.9
17.5°	1493.5	1500.9	1512.1	1519.5	1523.2
20°	1463.7	1471.1	1486.0	1497.2	1500.9
22.5°	1437.6	1445.0	1459.9	1471.1	1478.6
25°	1407.8	1415.2	1437.6	1445.0	1452.5
27.5°	1370.5	1378.0	1396.6	1411.5	1422.7
30°	1333.3	1340.8	1363.1	1381.7	1389.2
32.5°	1292.3	1303.5	1329.6	1344.5	1355.7
35°	1247.6	1258.8	1284.9	1311.0	1322.1
37.5°	1203.0	1214.1	1240.2	1273.7	1288.6
40°	1150.8	1165.7	1199.2	1243.9	1251.4
42.5°	1102.4	1121.0	1150.8	1203.0	1221.6
45°	1046.5	1065.2	1106.1	1162.0	1191.8
47.5°	994.4	1013.0	1057.7	1124.7	1162.0
50°	931.1	957.1	1013.0	1091.2	1128.5
52.5°	871.5	893.8	968.3	1054.0	1098.7
55°	808.2	834.2	923.6	1016.7	1065.2
57.5°	752.3	774.7	875.2	979.5	1035.4
60°	681.5	711.3	826.8	938.5	994.4
62.5°	607.1	651.8	778.4	893.8	953.4
65°	536.3	588.4	733.7	849.1	908.7
67.5°	473.0	528.9	677.8	800.7	856.6
70°	398.5	469.3	622.0	741.1	804.5
72.5°	331.5	409.7	558.6	677.8	733.7
75°	264.4	350.1	495.3	595.9	629.4
77.5°	204.8	286.8	424.6	454.4	458.1
80°	152.7	227.2	316.6	320.3	331.5
82.5°	104.3	160.1	204.8	223.5	227.2
85°	67.0	93.1	115.5	119.2	126.6
87.5°	29.8	33.5	41.0	37.2	37.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)