

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: P390820

Luminaire Tested: **22CZ2-90VHE-RDP-UNV-L940-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: P390820  
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-L940-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

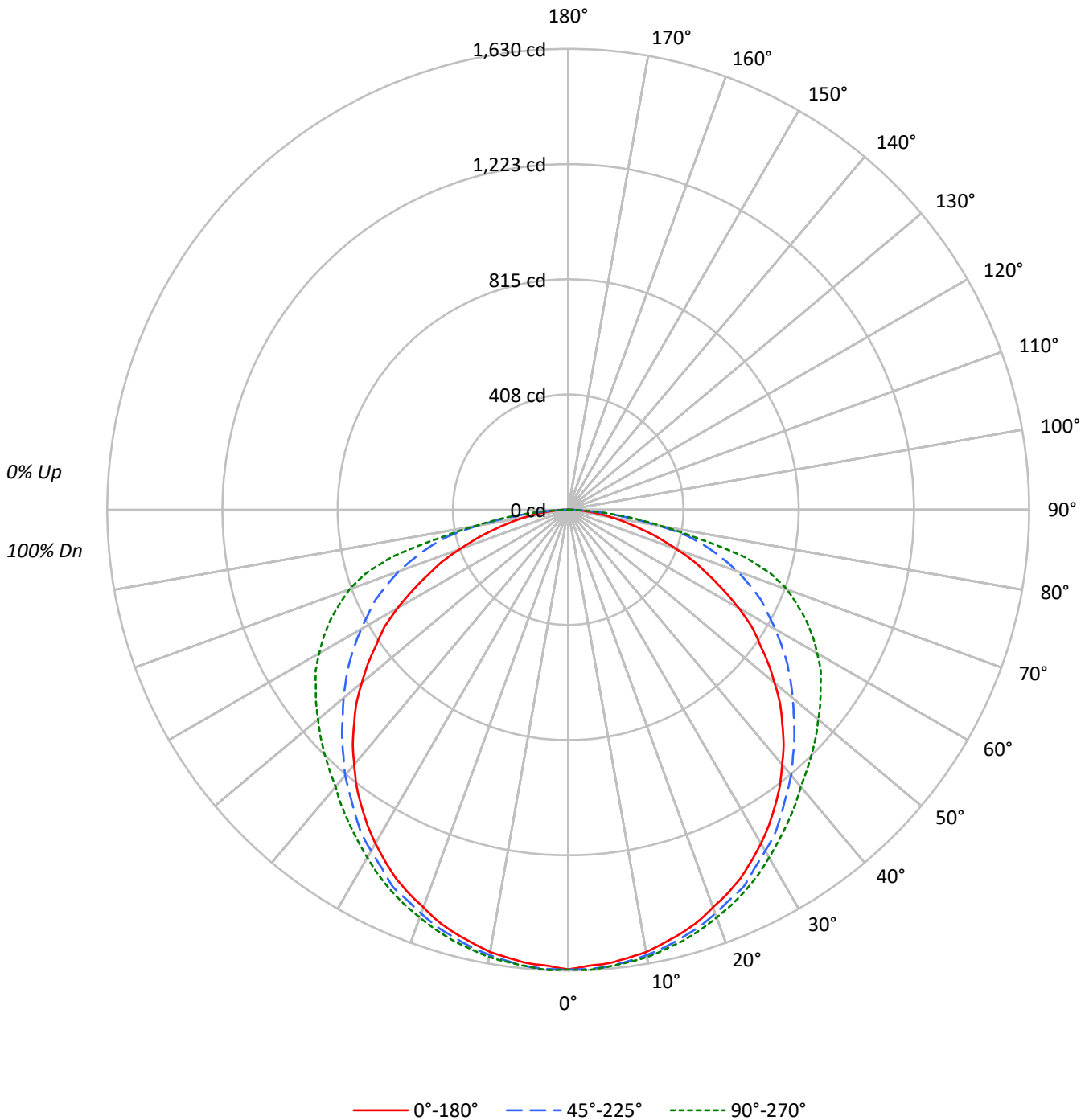
Lumens per Lamp: N/A  
Luminaire Lumens: 5177.5 lumens  
Efficiency: N/A  
Efficacy: 75.9 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 68.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	4376	4376	4376
5°	4352	4383	4383
10°	4340	4371	4392
15°	4319	4361	4393
20°	4286	4352	4395
25°	4275	4365	4410
30°	4237	4332	4415
35°	4191	4317	4442
40°	4134	4308	4495
45°	4073	4305	4638
50°	3986	4337	4832
55°	3878	4432	5111
60°	3751	4550	5473
65°	3493	4777	5917
70°	3206	5005	6473
75°	2811	5267	6693
80°	2421	5016	5253
85°	2118	3646	3998



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	153.8	3.0
10°-20°	441.7	8.5
20°-30°	673.9	13.0
30°-40°	822.9	15.9
40°-50°	879.8	17.0
50°-60°	849.2	16.4
60°-70°	731.0	14.1
70°-80°	494.6	9.6
80°-90°	130.5	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°	1269.5	24.5
0°-40°	2092.3	40.4
0°-60°	3821.4	73.8
0°-90°	5177.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5177.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1626	1626	1626	1626	1626	
5°	1611	1615	1622	1622	1622	153
15°	1550	1554	1565	1573	1577	437
25°	1440	1447	1470	1478	1485	663
35°	1276	1287	1314	1341	1352	798
45°	1070	1089	1131	1188	1219	826
55°	826	853	945	1040	1089	741
65°	548	602	750	868	929	545
75°	270	358	507	609	644	290
85°	69	95	118	122	130	77
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1626.3	1626.3	1626.3	1626.3	1626.3
2.5°	1614.9	1618.7	1626.3	1626.3	1630.2
5°	1611.1	1614.9	1622.5	1622.5	1622.5
7.5°	1599.7	1603.5	1611.1	1614.9	1614.9
10°	1588.3	1592.1	1599.7	1603.5	1607.3
12.5°	1569.2	1573.0	1584.4	1592.1	1592.1
15°	1550.2	1554.0	1565.4	1573.0	1576.8
17.5°	1527.3	1534.9	1546.4	1554.0	1557.8
20°	1496.8	1504.5	1519.7	1531.1	1534.9
22.5°	1470.2	1477.8	1493.0	1504.5	1512.1
25°	1439.7	1447.3	1470.2	1477.8	1485.4
27.5°	1401.6	1409.2	1428.3	1443.5	1454.9
30°	1363.5	1371.2	1394.0	1413.1	1420.7
32.5°	1321.6	1333.1	1359.7	1375.0	1386.4
35°	1275.9	1287.4	1314.0	1340.7	1352.1
37.5°	1230.2	1241.7	1268.3	1302.6	1317.8
40°	1176.9	1192.1	1226.4	1272.1	1279.7
42.5°	1127.4	1146.4	1176.9	1230.2	1249.3
45°	1070.3	1089.3	1131.2	1188.3	1218.8
47.5°	1016.9	1036.0	1081.7	1150.2	1188.3
50°	952.2	978.9	1036.0	1116.0	1154.1
52.5°	891.3	914.1	990.3	1077.9	1123.6
55°	826.5	853.2	944.6	1039.8	1089.3
57.5°	769.4	792.2	895.1	1001.7	1058.8
60°	697.0	727.5	845.5	959.8	1016.9
62.5°	620.8	666.5	796.0	914.1	975.0
65°	548.5	601.8	750.3	868.4	929.3
67.5°	483.7	540.8	693.2	818.9	876.0
70°	407.5	479.9	636.1	757.9	822.7
72.5°	339.0	419.0	571.3	693.2	750.3
75°	270.4	358.0	506.6	609.4	643.7
77.5°	209.5	293.3	434.2	464.7	468.5
80°	156.2	232.3	323.7	327.6	339.0
82.5°	106.6	163.8	209.5	228.5	232.3
85°	68.6	95.2	118.1	121.9	129.5
87.5°	30.5	34.3	41.9	38.1	38.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)