

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: P389260

Luminaire Tested: **22CZ2-44VHE-S-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: P389260  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-44VHE-S-UNV-L940-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4095.3 lumens  
Efficiency: N/A  
Efficacy: 125.6 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

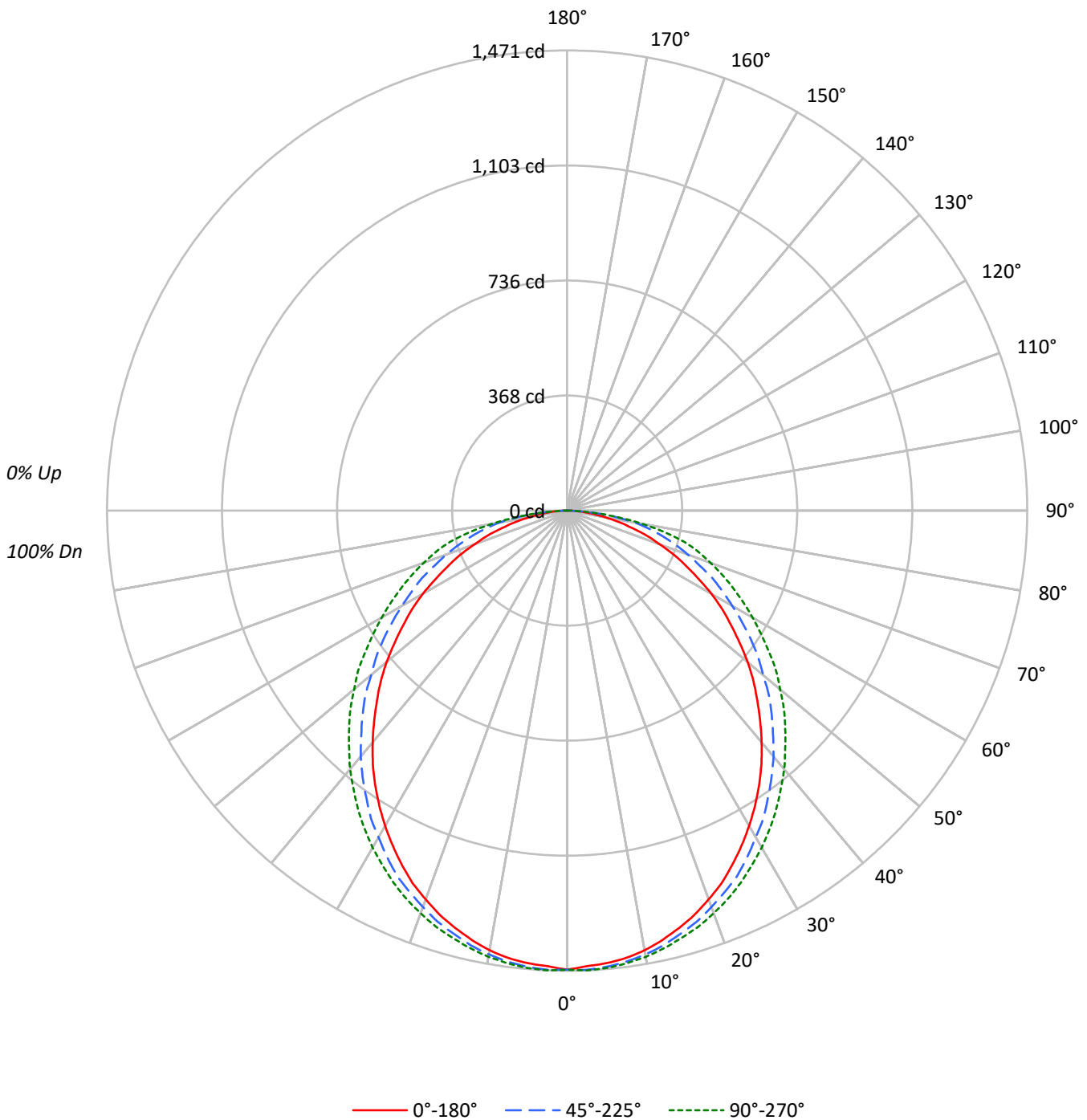
Input Watts (W): 32.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	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	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	3949	3949	3949
5°	3923	3954	3964
10°	3900	3937	3958
15°	3849	3902	3939
20°	3787	3863	3923
25°	3710	3824	3898
30°	3616	3746	3865
35°	3515	3678	3829
40°	3397	3605	3792
45°	3272	3519	3752
50°	3152	3424	3720
55°	3003	3362	3693
60°	2869	3280	3682
65°	2677	3261	3723
70°	2466	3232	3833
75°	2225	3278	4033
80°	1925	3375	3790
85°	1593	2831	2831



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.8	3.4
10°-20°	394.9	9.6
20°-30°	590.9	14.4
30°-40°	699.8	17.1
40°-50°	713.2	17.4
50°-60°	639.2	15.6
60°-70°	500.4	12.2
70°-80°	322.7	7.9
80°-90°	95.3	2.3
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°	1124.6	27.5
0°-40°	1824.4	44.5
0°-60°	3176.8	77.6
0°-90°	4095.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4095.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1468	1468	1468	1468	1468	
5°	1452	1456	1464	1466	1468	138
15°	1382	1389	1401	1412	1414	389
25°	1250	1261	1288	1305	1313	575
35°	1070	1083	1120	1154	1166	669
45°	860	879	925	973	986	664
55°	640	661	716	766	787	574
65°	420	445	512	562	585	418
75°	214	246	315	369	388	229
85°	52	71	92	92	92	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1467.5	1467.5	1467.5	1467.5	1467.5
2.5°	1457.9	1461.7	1469.4	1471.3	1471.3
5°	1452.2	1456.0	1463.7	1465.6	1467.5
7.5°	1442.6	1444.5	1454.1	1457.9	1459.8
10°	1427.3	1431.2	1440.7	1446.5	1448.4
12.5°	1406.3	1412.1	1423.5	1431.2	1433.1
15°	1381.5	1389.1	1400.6	1412.1	1414.0
17.5°	1354.7	1362.4	1377.7	1391.0	1394.9
20°	1322.3	1331.8	1349.0	1364.3	1370.0
22.5°	1289.8	1297.4	1318.4	1337.5	1343.3
25°	1249.6	1261.1	1287.9	1305.1	1312.7
27.5°	1207.6	1221.0	1247.7	1270.7	1278.3
30°	1163.7	1177.0	1205.7	1234.4	1243.9
32.5°	1117.8	1133.1	1167.5	1196.1	1205.7
35°	1070.0	1083.4	1119.7	1154.1	1165.6
37.5°	1020.4	1031.8	1073.9	1110.2	1121.6
40°	966.9	982.1	1026.1	1068.1	1079.6
42.5°	913.3	930.5	974.5	1020.4	1031.8
45°	859.8	879.0	924.8	972.6	986.0
47.5°	808.3	823.5	875.1	921.0	940.1
50°	752.8	768.1	817.8	869.4	888.5
52.5°	695.5	716.5	770.0	819.7	842.7
55°	640.1	661.1	716.5	766.2	787.2
57.5°	588.5	605.7	663.0	714.6	735.6
60°	533.1	548.4	609.5	664.9	684.1
62.5°	473.9	496.8	559.9	611.4	634.4
65°	420.4	445.2	512.1	561.8	584.7
67.5°	370.7	393.6	458.6	512.1	536.9
70°	313.4	343.9	410.8	464.3	487.2
72.5°	267.5	294.3	363.0	416.5	441.4
75°	214.0	246.5	315.3	368.8	387.9
77.5°	170.1	202.5	267.5	309.5	319.1
80°	124.2	156.7	217.8	238.8	244.6
82.5°	84.1	114.6	156.7	162.4	164.3
85°	51.6	70.7	91.7	91.7	91.7
87.5°	24.8	28.7	32.5	30.6	30.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)