

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: P389259

Luminaire Tested: **22CZ2-44VHE-S-UNV-L940-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: P389259  
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-SDWPD1-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: 4045.9 lumens  
Efficiency: N/A  
Efficacy: 124.1 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

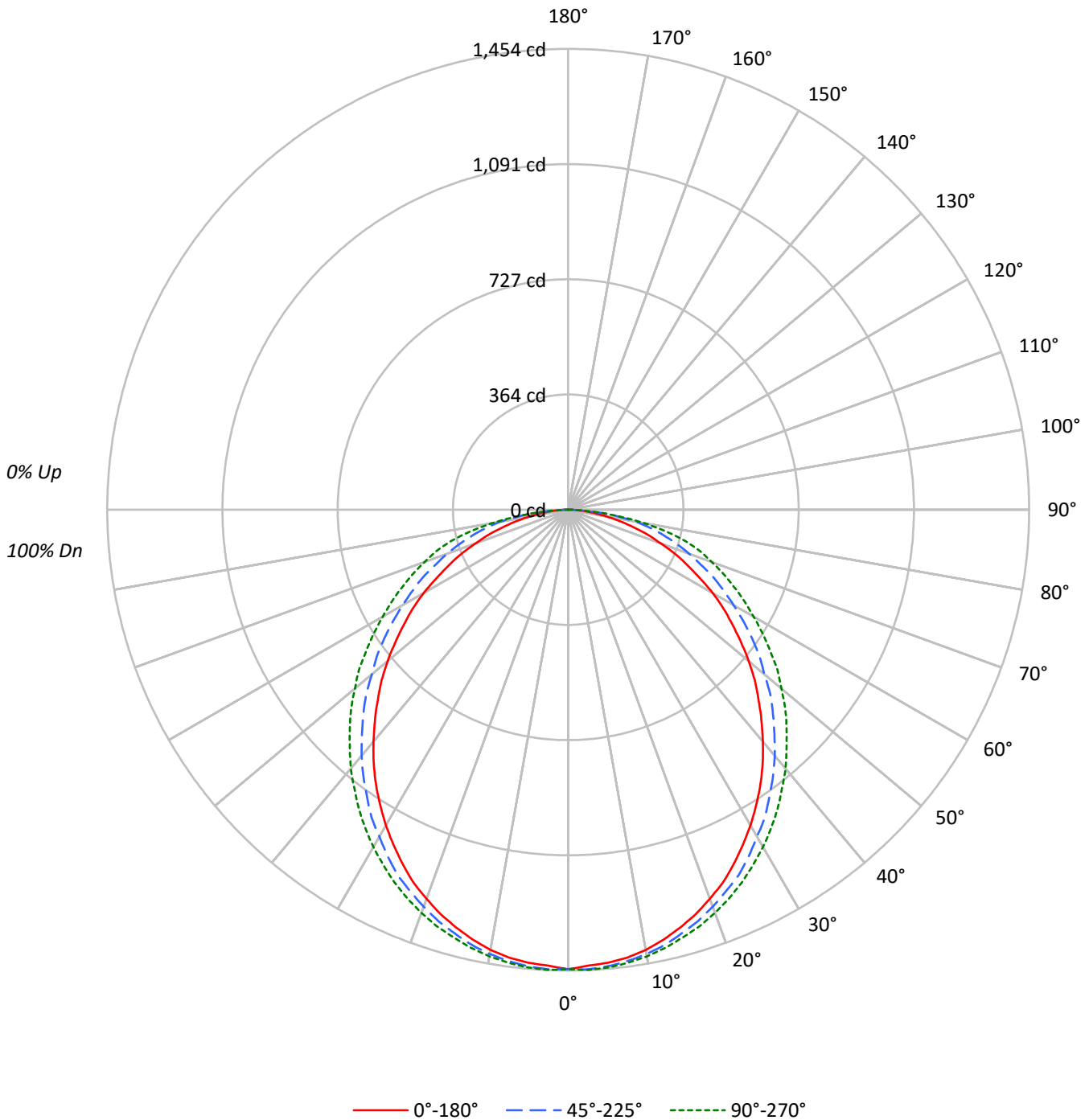
Input Watts (W): 32.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

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

	0°	45°	90°
0°	3901	3901	3901
5°	3875	3906	3916
10°	3853	3889	3910
15°	3802	3855	3892
20°	3741	3816	3876
25°	3666	3778	3851
30°	3572	3701	3819
35°	3473	3634	3783
40°	3355	3561	3747
45°	3233	3477	3707
50°	3114	3382	3675
55°	2967	3321	3649
60°	2835	3241	3637
65°	2644	3221	3678
70°	2436	3194	3788
75°	2198	3239	3984
80°	1901	3335	3744
85°	1575	2797	2797



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.1	3.4
10°-20°	390.2	9.6
20°-30°	583.8	14.4
30°-40°	691.4	17.1
40°-50°	704.6	17.4
50°-60°	631.5	15.6
60°-70°	494.4	12.2
70°-80°	318.8	7.9
80°-90°	94.2	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°	1111.1	27.5
0°-40°	1802.4	44.5
0°-60°	3138.5	77.6
0°-90°	4045.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4045.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1450	1450	1450	1450	1450	
5°	1435	1438	1446	1448	1450	136
15°	1365	1372	1384	1395	1397	385
25°	1235	1246	1272	1289	1297	568
35°	1057	1070	1106	1140	1152	661
45°	850	868	914	961	974	656
55°	632	653	708	757	778	567
65°	415	440	506	555	578	413
75°	211	244	312	364	383	227
85°	51	70	91	91	91	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1449.8	1449.8	1449.8	1449.8	1449.8
2.5°	1440.3	1444.1	1451.7	1453.5	1453.5
5°	1434.7	1438.4	1446.0	1447.9	1449.8
7.5°	1425.2	1427.1	1436.6	1440.3	1442.2
10°	1410.1	1413.9	1423.3	1429.0	1430.9
12.5°	1389.4	1395.0	1406.4	1413.9	1415.8
15°	1364.8	1372.4	1383.7	1395.0	1396.9
17.5°	1338.4	1345.9	1361.0	1374.3	1378.0
20°	1306.3	1315.7	1332.7	1347.8	1353.5
22.5°	1274.2	1281.8	1302.5	1321.4	1327.1
25°	1234.6	1245.9	1272.3	1289.3	1296.9
27.5°	1193.0	1206.3	1232.7	1255.3	1262.9
30°	1149.6	1162.8	1191.2	1219.5	1228.9
32.5°	1104.3	1119.4	1153.4	1181.7	1191.2
35°	1057.1	1070.3	1106.2	1140.2	1151.5
37.5°	1008.0	1019.4	1060.9	1096.8	1108.1
40°	955.2	970.3	1013.7	1055.2	1066.6
42.5°	902.3	919.3	962.7	1008.0	1019.4
45°	849.5	868.4	913.7	960.9	974.1
47.5°	798.5	813.6	864.6	909.9	928.8
50°	743.8	758.9	807.9	858.9	877.8
52.5°	687.1	707.9	760.8	809.8	832.5
55°	632.4	653.2	707.9	757.0	777.7
57.5°	581.4	598.4	655.0	706.0	726.8
60°	526.7	541.8	602.2	656.9	675.8
62.5°	468.2	490.8	553.1	604.1	626.7
65°	415.3	439.8	505.9	555.0	577.6
67.5°	366.2	388.9	453.1	505.9	530.5
70°	309.6	339.8	405.9	458.7	481.4
72.5°	264.3	290.7	358.7	411.5	436.1
75°	211.4	243.5	311.5	364.3	383.2
77.5°	168.0	200.1	264.3	305.8	315.2
80°	122.7	154.8	215.2	236.0	241.6
82.5°	83.1	113.3	154.8	160.5	162.3
85°	51.0	69.8	90.6	90.6	90.6
87.5°	24.5	28.3	32.1	30.2	30.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)