

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: P388086

Luminaire Tested: **22CZ2-55VHE-SQR-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: P388086  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-55VHE-SQR-UNV-L940-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4426.4 lumens  
Efficiency: N/A  
Efficacy: 112.3 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

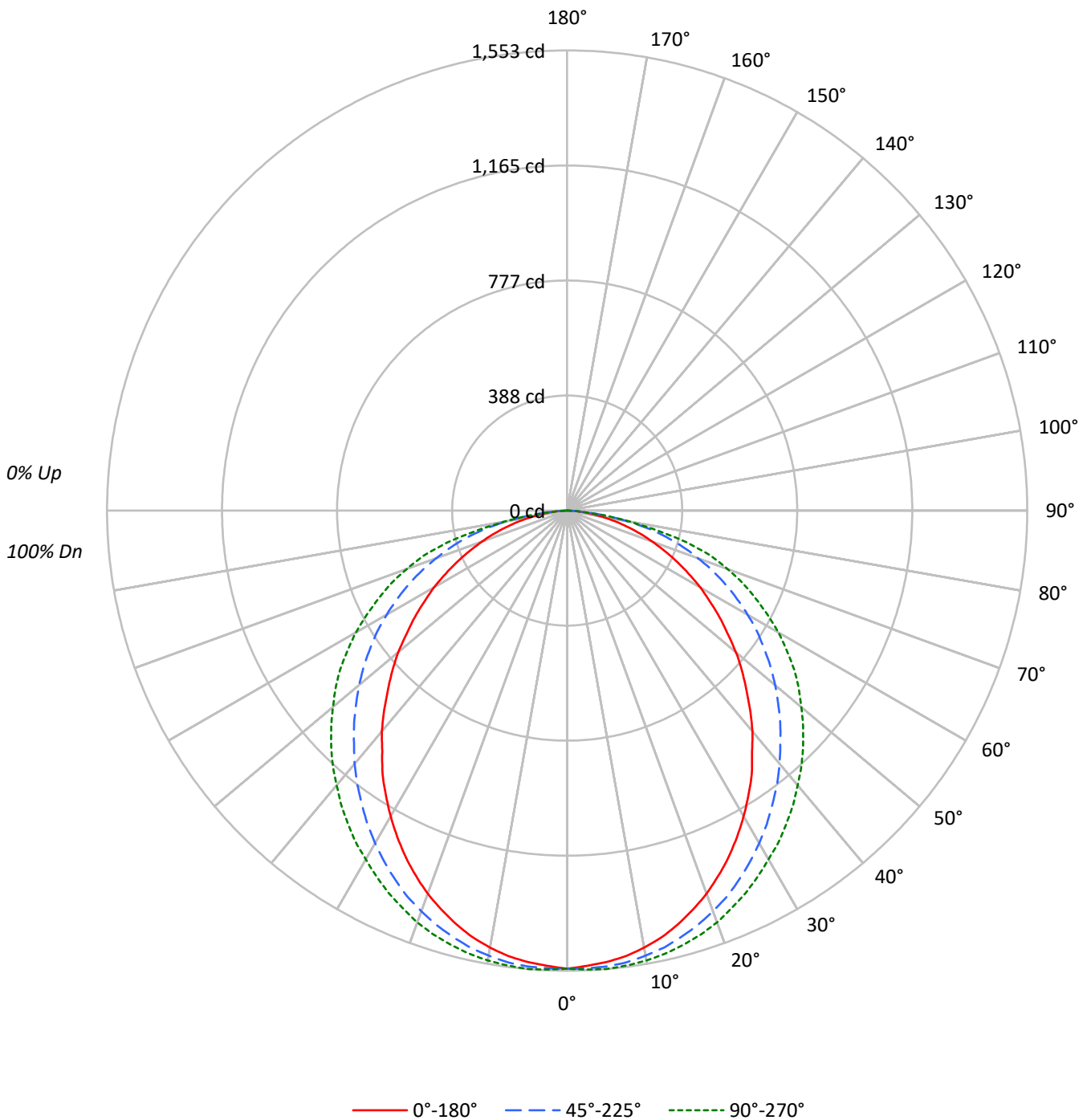
Input Watts (W): 39.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	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	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	4161	4161	4161
5°	4131	4171	4194
10°	4093	4168	4214
15°	4027	4150	4226
20°	3941	4121	4235
25°	3830	4080	4229
30°	3701	4028	4224
35°	3568	3968	4237
40°	3417	3919	4251
45°	3254	3870	4286
50°	3113	3835	4318
55°	2947	3804	4386
60°	2793	3788	4432
65°	2609	3759	4468
70°	2397	3703	4529
75°	2163	3604	4369
80°	1857	3191	3288
85°	1491	1880	1491



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.6	3.3
10°-20°	419.1	9.5
20°-30°	629.5	14.2
30°-40°	750.7	17.0
40°-50°	776.2	17.5
50°-60°	713.6	16.1
60°-70°	568.1	12.8
70°-80°	347.1	7.8
80°-90°	75.4	1.7
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°	1195.2	27.0
0°-40°	1945.9	44.0
0°-60°	3435.7	77.6
0°-90°	4426.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4426.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1546	1546	1546	1546	1546	
5°	1529	1534	1544	1550	1553	145
15°	1445	1462	1490	1510	1517	407
25°	1290	1322	1374	1412	1424	593
35°	1086	1132	1208	1271	1290	678
45°	855	916	1017	1099	1126	661
55°	628	698	811	903	935	562
65°	410	479	590	672	702	406
75°	208	269	347	408	420	222
85°	48	59	61	52	48	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1546.2	1546.2	1546.2	1546.2	1546.2
2.5°	1537.8	1539.9	1546.2	1550.4	1550.4
5°	1529.4	1533.6	1544.1	1550.4	1552.6
7.5°	1516.8	1523.1	1537.8	1546.2	1548.3
10°	1497.9	1506.3	1525.2	1537.8	1542.0
12.5°	1474.8	1487.4	1510.5	1527.3	1531.5
15°	1445.4	1462.2	1489.5	1510.5	1516.8
17.5°	1411.8	1432.8	1466.4	1491.6	1500.0
20°	1376.1	1397.1	1439.1	1468.5	1479.0
22.5°	1334.1	1361.4	1409.7	1443.3	1451.7
25°	1289.9	1321.5	1374.0	1411.8	1424.4
27.5°	1241.6	1279.4	1336.2	1382.4	1392.9
30°	1191.2	1231.1	1296.2	1346.7	1359.3
32.5°	1138.7	1184.9	1254.2	1310.9	1327.8
35°	1086.2	1132.4	1208.0	1271.0	1289.9
37.5°	1025.2	1079.9	1163.9	1229.0	1252.1
40°	972.7	1025.2	1115.6	1187.0	1210.1
42.5°	913.9	970.6	1065.1	1142.9	1170.2
45°	855.1	916.0	1016.8	1098.8	1126.1
47.5°	800.4	861.4	966.4	1052.5	1079.9
50°	743.7	806.7	916.0	1004.2	1031.5
52.5°	682.8	752.1	865.6	953.8	985.3
55°	628.2	697.5	810.9	903.4	934.9
57.5°	571.4	642.9	760.5	848.8	878.2
60°	518.9	588.2	703.8	789.9	823.5
62.5°	462.2	533.6	647.1	731.1	762.6
65°	409.7	479.0	590.3	672.3	701.7
67.5°	357.1	426.5	531.5	609.3	642.9
70°	304.6	374.0	470.6	546.2	575.6
72.5°	258.4	319.3	411.8	481.1	508.4
75°	208.0	268.9	346.6	407.6	420.2
77.5°	161.8	216.4	281.5	308.8	313.0
80°	119.8	161.8	205.9	212.2	212.2
82.5°	79.8	111.3	128.2	130.3	128.2
85°	48.3	58.8	60.9	52.5	48.3
87.5°	16.8	16.8	10.5	6.3	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)