

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: P389238

Luminaire Tested: **22CZ2-39VHE-S-UNV-L950-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: P389238  
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: 22CZ2-39VHE-S-UNV-L950-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3790.7 lumens  
Efficiency: N/A  
Efficacy: 132.5 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

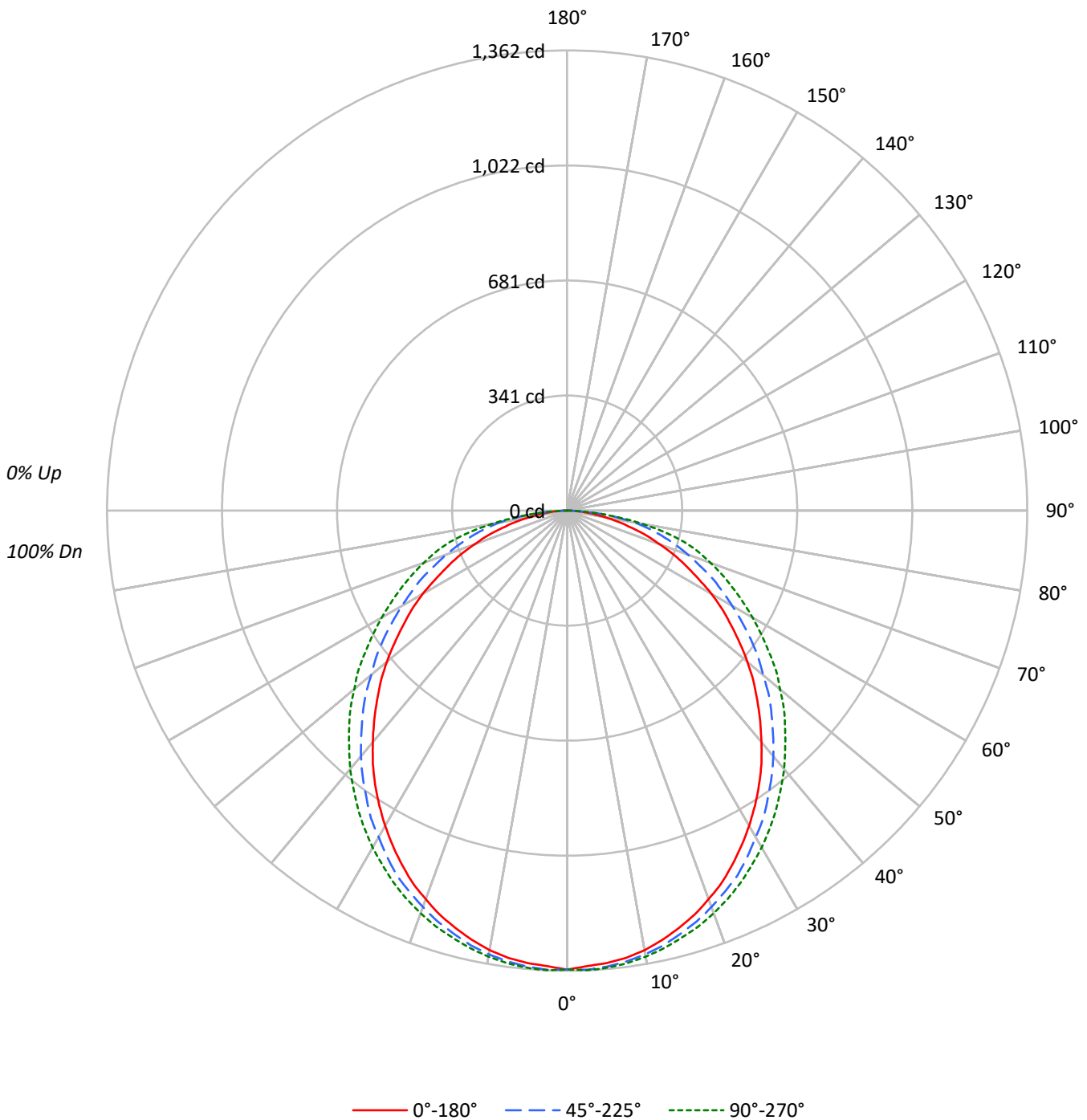
Input Watts (W): 28.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3655	3655	3655
5°	3631	3660	3669
10°	3610	3644	3663
15°	3562	3612	3646
20°	3505	3576	3631
25°	3434	3540	3608
30°	3347	3468	3578
35°	3254	3405	3544
40°	3144	3336	3510
45°	3029	3258	3473
50°	2917	3169	3443
55°	2780	3111	3419
60°	2656	3037	3408
65°	2478	3018	3446
70°	2282	2992	3548
75°	2060	3034	3733
80°	1782	3124	3508
85°	1476	2621	2621



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.5	3.4
10°-20°	365.6	9.6
20°-30°	547.0	14.4
30°-40°	647.8	17.1
40°-50°	660.1	17.4
50°-60°	591.7	15.6
60°-70°	463.2	12.2
70°-80°	298.7	7.9
80°-90°	88.2	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°	1041.0	27.5
0°-40°	1688.7	44.5
0°-60°	2940.5	77.6
0°-90°	3790.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3790.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1358	1358	1358	1358	1358	
5°	1344	1348	1355	1357	1358	128
15°	1279	1286	1296	1307	1309	361
25°	1157	1167	1192	1208	1215	532
35°	990	1003	1036	1068	1079	619
45°	796	814	856	900	913	615
55°	592	612	663	709	729	531
65°	389	412	474	520	541	387
75°	198	228	292	341	359	212
85°	48	65	85	85	85	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1358.3	1358.3	1358.3	1358.3	1358.3
2.5°	1349.5	1353.0	1360.1	1361.9	1361.9
5°	1344.2	1347.7	1354.8	1356.6	1358.3
7.5°	1335.3	1337.1	1345.9	1349.5	1351.3
10°	1321.2	1324.7	1333.6	1338.9	1340.6
12.5°	1301.7	1307.0	1317.6	1324.7	1326.5
15°	1278.7	1285.8	1296.4	1307.0	1308.8
17.5°	1254.0	1261.1	1275.2	1287.6	1291.1
20°	1223.9	1232.8	1248.7	1262.8	1268.1
22.5°	1193.8	1200.9	1220.4	1238.1	1243.4
25°	1156.7	1167.3	1192.1	1208.0	1215.1
27.5°	1117.8	1130.2	1154.9	1176.2	1183.2
30°	1077.1	1089.5	1116.0	1142.6	1151.4
32.5°	1034.7	1048.8	1080.6	1107.2	1116.0
35°	990.4	1002.8	1036.4	1068.3	1078.9
37.5°	944.5	955.1	994.0	1027.6	1038.2
40°	894.9	909.1	949.8	988.7	999.3
42.5°	845.4	861.3	902.0	944.5	955.1
45°	795.9	813.6	856.0	900.2	912.6
47.5°	748.1	762.3	810.0	852.5	870.2
50°	696.8	711.0	757.0	804.7	822.4
52.5°	643.8	663.2	712.8	758.8	780.0
55°	592.5	612.0	663.2	709.2	728.7
57.5°	544.7	560.7	613.7	661.5	680.9
60°	493.5	507.6	564.2	615.5	633.2
62.5°	438.6	459.8	518.2	566.0	587.2
65°	389.1	412.1	474.0	520.0	541.2
67.5°	343.1	364.3	424.5	474.0	497.0
70°	290.1	318.4	380.3	429.8	451.0
72.5°	247.6	272.4	336.0	385.6	408.6
75°	198.1	228.2	291.8	341.4	359.0
77.5°	157.4	187.5	247.6	286.5	295.4
80°	115.0	145.0	201.6	221.1	226.4
82.5°	77.8	106.1	145.0	150.3	152.1
85°	47.8	65.4	84.9	84.9	84.9
87.5°	23.0	26.5	30.1	28.3	28.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)