

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: P388057

Luminaire Tested: **22CZ2-50VHE-SQR-UNV-L930-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: P388057
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: 22CZ2-50VHE-SQR-UNV-L930-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3987.1 lumens
Efficiency: N/A
Efficacy: 110.1 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

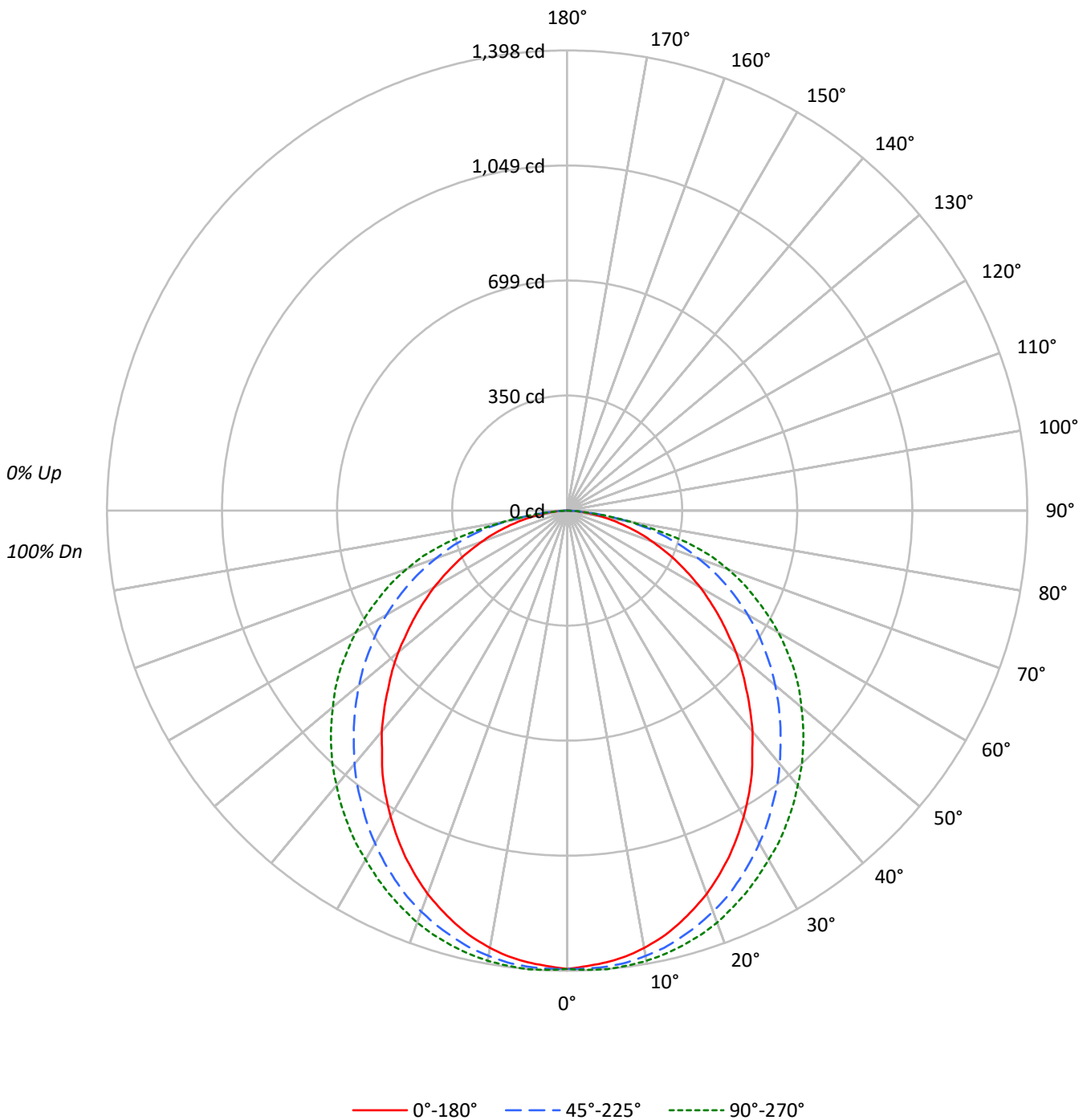
Input Watts (W): 36.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3748	3748	3748
5°	3722	3757	3778
10°	3687	3754	3795
15°	3627	3738	3806
20°	3550	3712	3815
25°	3450	3675	3809
30°	3334	3628	3805
35°	3214	3574	3817
40°	3078	3530	3829
45°	2931	3486	3860
50°	2804	3454	3890
55°	2654	3427	3951
60°	2516	3412	3992
65°	2350	3386	4025
70°	2159	3335	4080
75°	1947	3246	3935
80°	1672	2875	2961
85°	1343	1695	1343



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.0	3.3
10°-20°	377.5	9.5
20°-30°	567.0	14.2
30°-40°	676.2	17.0
40°-50°	699.2	17.5
50°-60°	642.8	16.1
60°-70°	511.7	12.8
70°-80°	312.6	7.8
80°-90°	68.0	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°	1076.6	27.0
0°-40°	1752.8	44.0
0°-60°	3094.8	77.6
0°-90°	3987.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3987.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1393	1393	1393	1393	1393	
5°	1378	1381	1391	1397	1398	131
15°	1302	1317	1342	1361	1366	367
25°	1162	1190	1238	1272	1283	534
35°	978	1020	1088	1145	1162	610
45°	770	825	916	990	1014	596
55°	566	628	730	814	842	506
65°	369	432	532	606	632	366
75°	187	242	312	367	378	200
85°	44	53	55	47	44	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1392.8	1392.8	1392.8	1392.8	1392.8
2.5°	1385.2	1387.1	1392.8	1396.6	1396.6
5°	1377.7	1381.4	1390.9	1396.6	1398.5
7.5°	1366.3	1372.0	1385.2	1392.8	1394.7
10°	1349.3	1356.8	1373.9	1385.2	1389.0
12.5°	1328.4	1339.8	1360.6	1375.8	1379.5
15°	1302.0	1317.1	1341.7	1360.6	1366.3
17.5°	1271.7	1290.6	1320.9	1343.6	1351.2
20°	1239.5	1258.4	1296.3	1322.8	1332.2
22.5°	1201.7	1226.3	1269.8	1300.1	1307.6
25°	1161.9	1190.3	1237.6	1271.7	1283.0
27.5°	1118.4	1152.5	1203.6	1245.2	1254.6
30°	1073.0	1108.9	1167.6	1213.0	1224.4
32.5°	1025.7	1067.3	1129.7	1180.8	1196.0
35°	978.4	1020.0	1088.1	1144.9	1161.9
37.5°	923.5	972.7	1048.4	1107.0	1127.9
40°	876.2	923.5	1004.9	1069.2	1090.0
42.5°	823.2	874.3	959.4	1029.5	1054.1
45°	770.2	825.1	915.9	989.7	1014.3
47.5°	721.0	775.9	870.5	948.1	972.7
50°	669.9	726.7	825.1	904.6	929.2
52.5°	615.0	677.5	779.7	859.1	887.5
55°	565.8	628.3	730.5	813.7	842.1
57.5°	514.7	579.1	685.0	764.5	791.0
60°	467.4	529.9	633.9	711.5	741.8
62.5°	416.3	480.7	582.9	658.5	686.9
65°	369.0	431.5	531.8	605.6	632.1
67.5°	321.7	384.2	478.8	548.8	579.1
70°	274.4	336.8	423.9	492.0	518.5
72.5°	232.8	287.6	370.9	433.4	458.0
75°	187.3	242.2	312.2	367.1	378.5
77.5°	145.7	194.9	253.6	278.2	282.0
80°	107.9	145.7	185.5	191.1	191.1
82.5°	71.9	100.3	115.4	117.3	115.4
85°	43.5	53.0	54.9	47.3	43.5
87.5°	15.1	15.1	9.5	5.7	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)