

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: P388058

Luminaire Tested: **22CZ2-50VHE-SQR-UNV-L930-CD1-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: P388058
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-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: 4037.2 lumens
Efficiency: N/A
Efficacy: 111.5 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

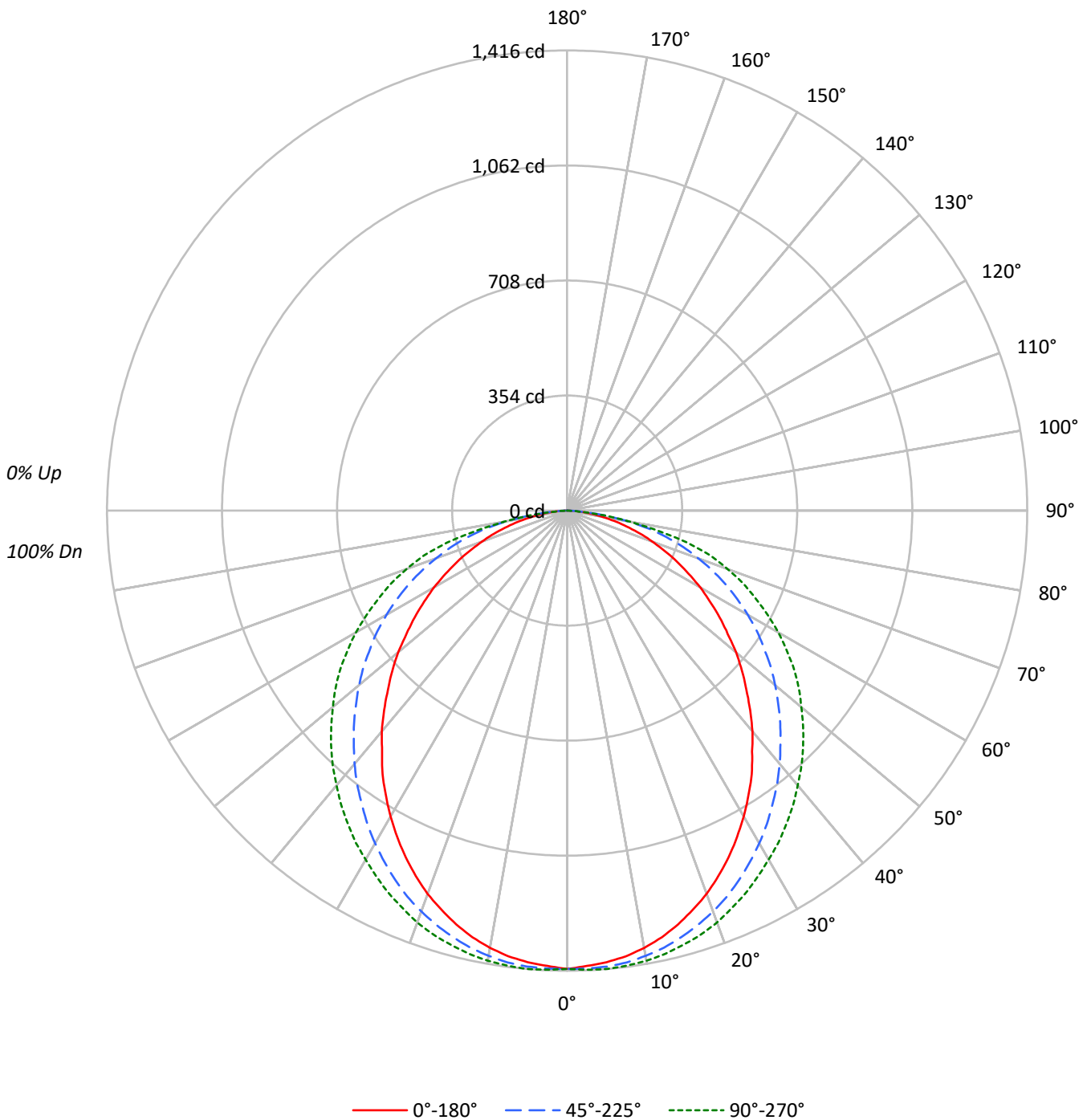
Input Watts (W): 36.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3795	3795	3795
5°	3768	3804	3825
10°	3733	3801	3843
15°	3673	3785	3854
20°	3594	3759	3863
25°	3493	3721	3858
30°	3376	3674	3852
35°	3255	3619	3865
40°	3117	3574	3877
45°	2968	3529	3909
50°	2840	3497	3939
55°	2688	3470	4001
60°	2547	3455	4042
65°	2379	3428	4075
70°	2186	3377	4131
75°	1972	3288	3984
80°	1692	2910	2999
85°	1362	1717	1362



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.7	3.3
10°-20°	382.3	9.5
20°-30°	574.1	14.2
30°-40°	684.7	17.0
40°-50°	707.9	17.5
50°-60°	650.9	16.1
60°-70°	518.2	12.8
70°-80°	316.6	7.8
80°-90°	68.8	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°	1090.1	27.0
0°-40°	1774.8	44.0
0°-60°	3133.7	77.6
0°-90°	4037.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4037.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1410	1410	1410	1410	1410	
5°	1395	1399	1408	1414	1416	132
15°	1318	1334	1359	1378	1384	371
25°	1176	1205	1253	1288	1299	541
35°	991	1033	1102	1159	1176	618
45°	780	835	927	1002	1027	603
55°	573	636	740	824	853	512
65°	374	437	538	613	640	370
75°	190	245	316	372	383	202
85°	44	54	56	48	44	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1410.3	1410.3	1410.3	1410.3	1410.3
2.5°	1402.6	1404.5	1410.3	1414.1	1414.1
5°	1395.0	1398.8	1408.4	1414.1	1416.0
7.5°	1383.5	1389.2	1402.6	1410.3	1412.2
10°	1366.2	1373.9	1391.1	1402.6	1406.5
12.5°	1345.1	1356.6	1377.7	1393.0	1396.9
15°	1318.3	1333.6	1358.6	1377.7	1383.5
17.5°	1287.7	1306.8	1337.5	1360.5	1368.1
20°	1255.1	1274.2	1312.6	1339.4	1349.0
22.5°	1216.8	1241.7	1285.7	1316.4	1324.1
25°	1176.5	1205.3	1253.2	1287.7	1299.2
27.5°	1132.4	1166.9	1218.7	1260.8	1270.4
30°	1086.5	1122.9	1182.3	1228.3	1239.8
32.5°	1038.6	1080.7	1143.9	1195.7	1211.0
35°	990.7	1032.8	1101.8	1159.3	1176.5
37.5°	935.1	984.9	1061.6	1121.0	1142.0
40°	887.2	935.1	1017.5	1082.6	1103.7
42.5°	833.5	885.3	971.5	1042.4	1067.3
45°	779.9	835.4	927.4	1002.1	1027.1
47.5°	730.1	785.6	881.4	960.0	984.9
50°	678.3	735.8	835.4	915.9	940.8
52.5°	622.8	686.0	789.5	869.9	898.7
55°	572.9	636.2	739.6	823.9	852.7
57.5°	521.2	586.3	693.6	774.1	801.0
60°	473.3	536.5	641.9	720.5	751.1
62.5°	421.6	486.7	590.2	666.8	695.6
65°	373.7	436.9	538.4	613.2	640.0
67.5°	325.7	389.0	484.8	555.7	586.3
70°	277.8	341.1	429.2	498.2	525.0
72.5°	235.7	291.3	375.6	438.8	463.7
75°	189.7	245.3	316.2	371.7	383.2
77.5°	147.5	197.4	256.8	281.7	285.5
80°	109.2	147.5	187.8	193.5	193.5
82.5°	72.8	101.6	116.9	118.8	116.9
85°	44.1	53.7	55.6	47.9	44.1
87.5°	15.3	15.3	9.6	5.7	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)