

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: P388088

Luminaire Tested: **22CZ2-55VHE-SQR-UNV-L940-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: P388088
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-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: 4536.7 lumens
Efficiency: N/A
Efficacy: 115.1 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

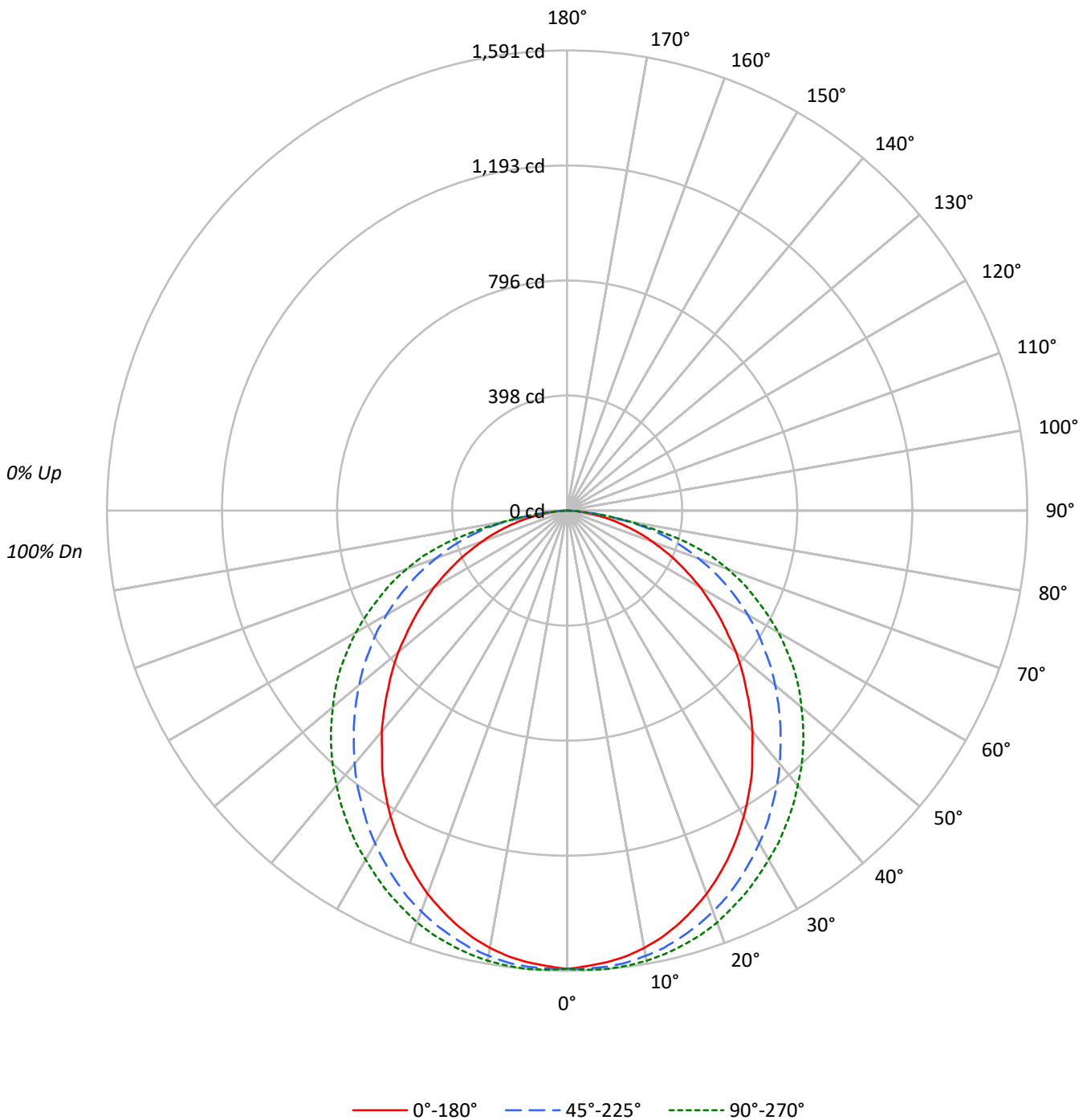
Input Watts (W): 39.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4265	4265	4265
5°	4234	4275	4298
10°	4195	4271	4319
15°	4127	4253	4331
20°	4039	4224	4341
25°	3926	4181	4335
30°	3794	4128	4329
35°	3657	4067	4343
40°	3502	4017	4357
45°	3335	3966	4392
50°	3191	3930	4426
55°	3020	3899	4495
60°	2862	3882	4543
65°	2674	3853	4579
70°	2456	3795	4642
75°	2217	3694	4477
80°	1901	3270	3371
85°	1528	1927	1528



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.2	3.3
10°-20°	429.6	9.5
20°-30°	645.2	14.2
30°-40°	769.4	17.0
40°-50°	795.6	17.5
50°-60°	731.4	16.1
60°-70°	582.3	12.8
70°-80°	355.7	7.8
80°-90°	77.3	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°	1225.0	27.0
0°-40°	1994.4	44.0
0°-60°	3521.4	77.6
0°-90°	4536.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4536.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1585	1585	1585	1585	1585	
5°	1568	1572	1583	1589	1591	149
15°	1481	1499	1527	1548	1555	417
25°	1322	1354	1408	1447	1460	608
35°	1113	1161	1238	1303	1322	695
45°	876	939	1042	1126	1154	678
55°	644	715	831	926	958	576
65°	420	491	605	689	719	416
75°	213	276	355	418	431	227
85°	50	60	62	54	50	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1584.8	1584.8	1584.8	1584.8	1584.8
2.5°	1576.2	1578.3	1584.8	1589.1	1589.1
5°	1567.6	1571.9	1582.6	1589.1	1591.2
7.5°	1554.6	1561.1	1576.2	1584.8	1586.9
10°	1535.3	1543.9	1563.2	1576.2	1580.5
12.5°	1511.6	1524.5	1548.2	1565.4	1569.7
15°	1481.4	1498.6	1526.6	1548.2	1554.6
17.5°	1447.0	1468.5	1503.0	1528.8	1537.4
20°	1410.4	1431.9	1475.0	1505.1	1515.9
22.5°	1367.3	1395.3	1444.8	1479.3	1487.9
25°	1322.1	1354.4	1408.2	1447.0	1459.9
27.5°	1272.6	1311.3	1369.5	1416.8	1427.6
30°	1220.9	1261.8	1328.5	1380.2	1393.1
32.5°	1167.1	1214.4	1285.5	1343.6	1360.8
35°	1113.2	1160.6	1238.1	1302.7	1322.1
37.5°	1050.8	1106.8	1192.9	1259.6	1283.3
40°	996.9	1050.8	1143.4	1216.6	1240.3
42.5°	936.7	994.8	1091.7	1171.4	1199.4
45°	876.4	938.8	1042.2	1126.1	1154.1
47.5°	820.4	882.8	990.5	1078.8	1106.8
50°	762.2	826.8	938.8	1029.2	1057.2
52.5°	699.8	770.9	887.1	977.6	1009.9
55°	643.8	714.9	831.1	925.9	958.2
57.5°	585.7	658.9	779.5	869.9	900.1
60°	531.8	602.9	721.3	809.6	844.1
62.5°	473.7	546.9	663.2	749.3	781.6
65°	419.9	490.9	605.1	689.0	719.2
67.5°	366.0	437.1	544.8	624.4	658.9
70°	312.2	383.3	482.3	559.8	590.0
72.5°	264.8	327.3	422.0	493.1	521.1
75°	213.2	275.6	355.3	417.7	430.6
77.5°	165.8	221.8	288.5	316.5	320.8
80°	122.7	165.8	211.0	217.5	217.5
82.5°	81.8	114.1	131.3	133.5	131.3
85°	49.5	60.3	62.4	53.8	49.5
87.5°	17.2	17.2	10.8	6.5	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)