

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: P387387

Luminaire Tested: **14CZ2-20-SQR-UNV-L935-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: P387387
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1911-580-2)
Test Lab: INNOVATIONS CENTER(G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-20-SQR-UNV-L935-CD1-SDWPD1-U
Description: 1x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1590.8 lumens
Efficiency: N/A
Efficacy: 97.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

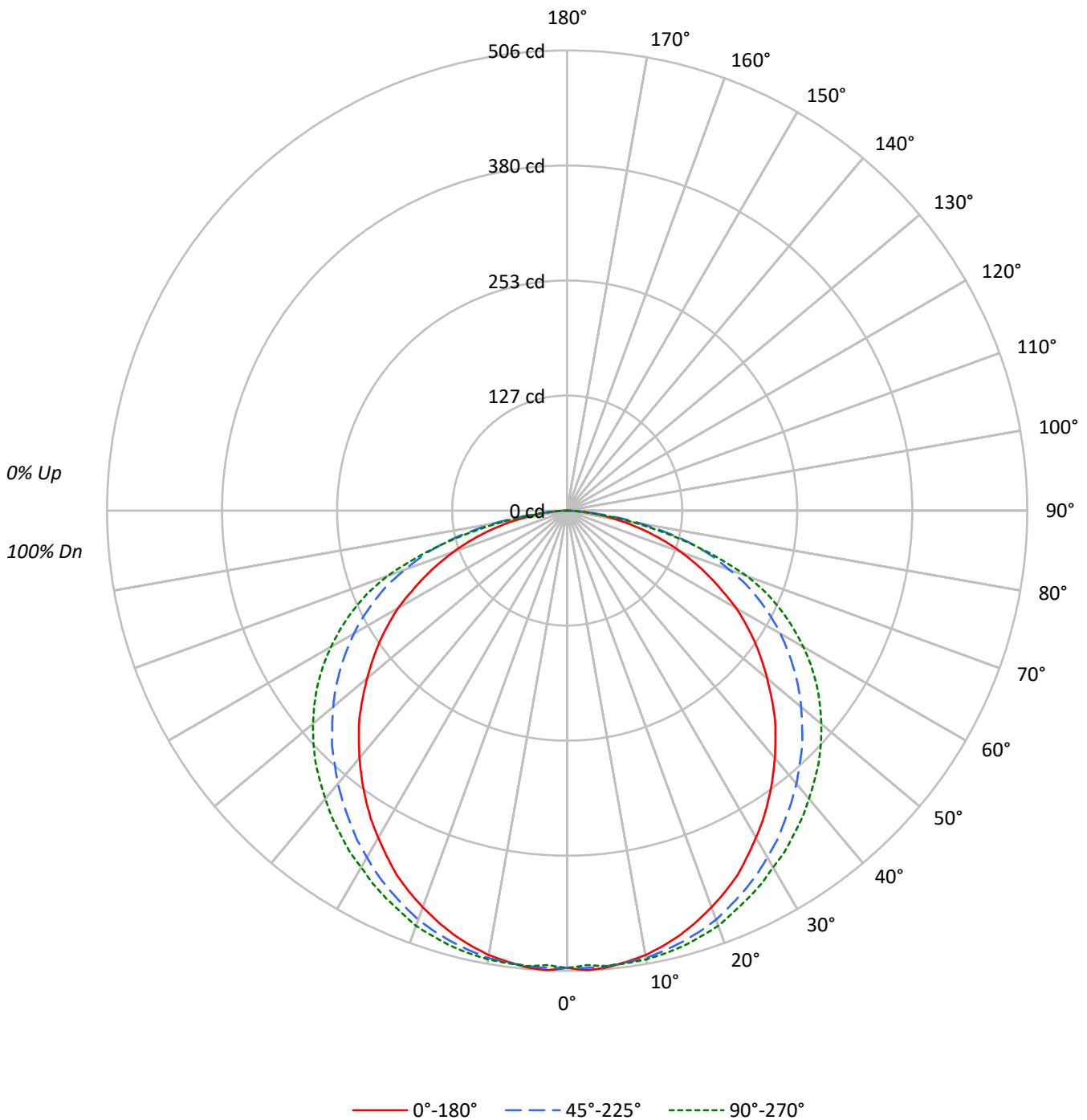
Input Watts (W): 16.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P387387

CATALOG NUMBER: 14CZ2-20-SQR-UNV-L935-CD1-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P387387

CATALOG NUMBER: 14CZ2-20-SQR-UNV-L935-CD1-SDWPD1-U

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	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	51	60	54	50	48
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	68	55	45	39	67	54	45	39	52	44	38	50	43	38	49	42	38	35
7	63	49	40	34	62	49	40	34	47	39	34	46	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1353	1353	1353
5°	1362	1358	1358
10°	1356	1365	1369
15°	1345	1367	1380
20°	1329	1371	1391
25°	1314	1369	1397
30°	1290	1368	1408
35°	1270	1370	1428
40°	1248	1377	1453
45°	1230	1391	1489
50°	1202	1406	1527
55°	1181	1430	1572
60°	1157	1459	1614
65°	1103	1486	1654
70°	1047	1489	1653
75°	959	1484	1459
80°	820	1268	1131
85°	642	719	420



TEST NUMBER: P387387

CATALOG NUMBER: 14CZ2-20-SQR-UNV-L935-CD1-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.8	3.0
10°-20°	138.0	8.7
20°-30°	211.1	13.3
30°-40°	258.7	16.3
40°-50°	278.2	17.5
50°-60°	267.4	16.8
60°-70°	222.6	14.0
70°-80°	136.6	8.6
80°-90°	30.4	1.9
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°	396.8	24.9
0°-40°	655.5	41.2
0°-60°	1201.1	75.5
0°-90°	1590.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1590.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	503	503	503	503	503	
5°	504	500	503	503	503	48
15°	483	481	491	494	496	136
25°	443	447	461	467	471	204
35°	386	396	417	428	435	242
45°	323	338	366	382	391	249
55°	252	273	305	326	335	225
65°	173	200	233	253	260	172
75°	92	120	143	142	140	98
85°	21	31	23	16	14	25
90°	0	0	0	0	0	



TEST NUMBER: P387387

CATALOG NUMBER: 14CZ2-20-SQR-UNV-L935-CD1-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	502.7	502.7	502.7	502.7	502.7
2.5°	505.9	501.1	503.5	502.7	500.3
5°	504.3	499.5	502.7	502.7	502.7
7.5°	500.3	496.3	501.1	501.9	501.9
10°	496.3	493.1	499.5	500.3	501.1
12.5°	489.9	487.5	495.5	497.1	498.7
15°	482.7	481.1	490.7	493.9	495.5
17.5°	473.8	474.6	485.1	489.1	490.7
20°	464.2	466.6	478.7	482.7	485.9
22.5°	453.8	457.0	469.8	474.6	477.9
25°	442.6	446.6	461.0	466.6	470.6
27.5°	428.9	435.4	451.4	458.6	462.6
30°	415.3	422.5	440.2	449.0	453.0
32.5°	401.7	409.7	429.7	438.6	445.0
35°	386.5	396.1	416.9	428.1	434.6
37.5°	371.2	382.4	404.9	417.7	424.9
40°	355.2	367.2	392.1	406.5	413.7
42.5°	339.1	352.8	378.4	394.5	402.5
45°	323.1	337.5	365.6	382.4	391.3
47.5°	304.7	322.3	350.4	369.6	378.4
50°	287.0	306.3	335.9	356.0	364.8
52.5°	269.4	289.4	320.7	341.6	350.4
55°	251.8	273.4	304.7	325.5	335.1
57.5°	233.3	255.8	287.8	309.5	318.3
60°	214.9	238.1	271.0	291.0	299.9
62.5°	193.2	220.5	252.6	272.6	280.6
65°	173.2	199.6	233.3	252.6	259.8
67.5°	153.1	180.4	213.3	230.9	237.3
70°	133.1	160.4	189.2	206.1	210.1
72.5°	113.0	140.3	167.6	177.2	175.6
75°	92.2	120.3	142.7	141.9	140.3
77.5°	72.2	99.4	113.0	107.4	105.0
80°	52.9	79.4	81.8	76.2	73.0
82.5°	36.1	56.9	51.3	44.9	41.7
85°	20.8	31.3	23.3	16.0	13.6
87.5°	8.8	8.0	2.4	2.4	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)