

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: P387391

Luminaire Tested: **14CZ2-20-SQR-UNV-L940-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: P387391
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-L940-CD1-SWPD1-U
Description: 1x4 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: 1626.9 lumens
Efficiency: N/A
Efficacy: 99.8 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

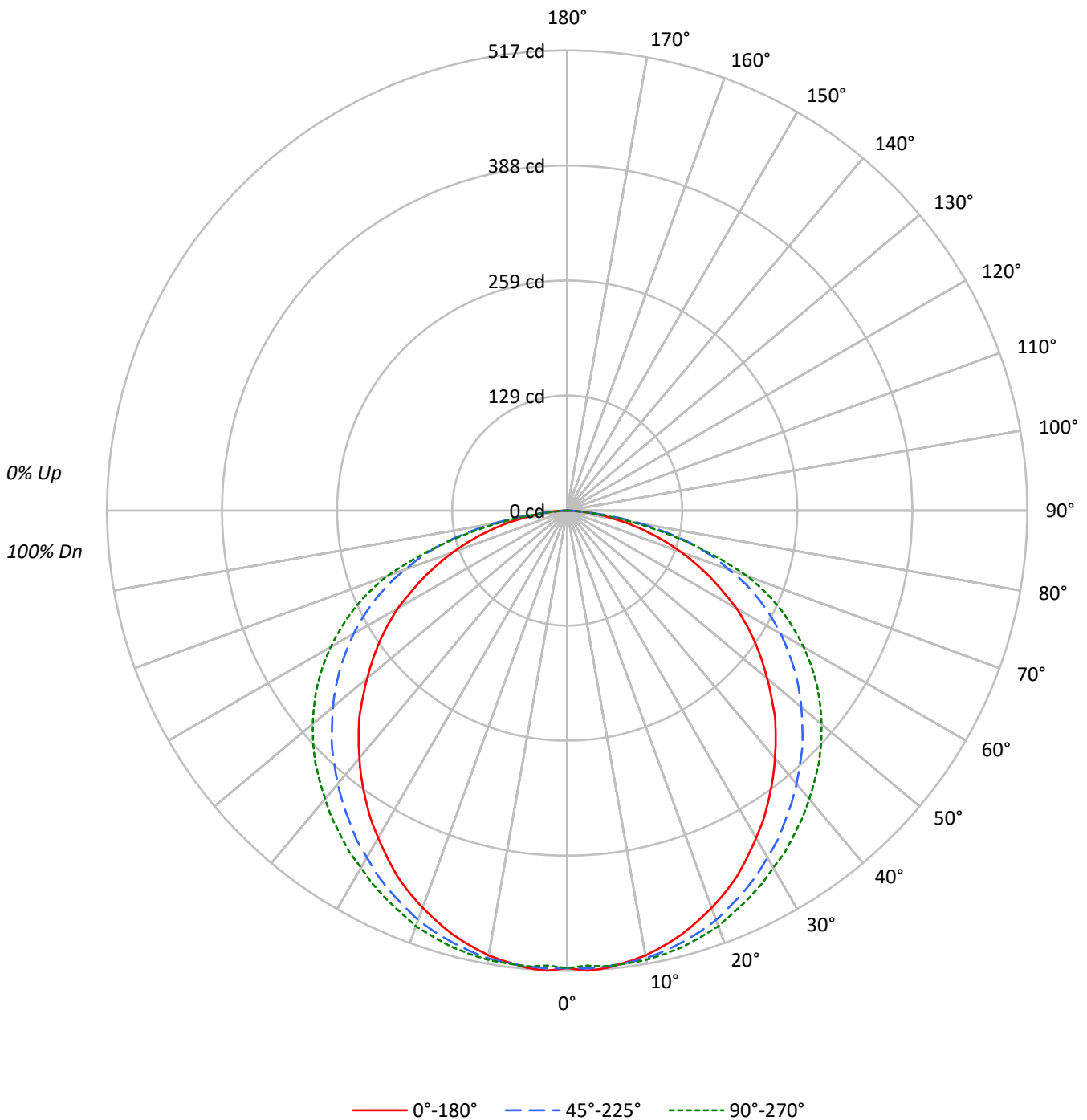
Input Watts (W): 16.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1383	1383	1383
5°	1393	1389	1389
10°	1387	1396	1400
15°	1375	1398	1412
20°	1360	1402	1423
25°	1344	1400	1429
30°	1320	1399	1440
35°	1298	1401	1460
40°	1276	1409	1486
45°	1257	1423	1523
50°	1229	1438	1562
55°	1208	1462	1608
60°	1182	1491	1651
65°	1128	1519	1692
70°	1071	1522	1690
75°	980	1518	1492
80°	838	1296	1156
85°	658	735	429



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.9	3.0
10°-20°	141.1	8.7
20°-30°	215.8	13.3
30°-40°	264.6	16.3
40°-50°	284.5	17.5
50°-60°	273.4	16.8
60°-70°	227.7	14.0
70°-80°	139.7	8.6
80°-90°	31.1	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°	405.8	24.9
0°-40°	670.4	41.2
0°-60°	1228.4	75.5
0°-90°	1626.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1626.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	514	514	514	514	514	
5°	516	511	514	514	514	49
15°	494	492	502	505	507	139
25°	453	457	472	477	481	208
35°	395	405	426	438	444	247
45°	330	345	374	391	400	254
55°	258	280	312	333	343	230
65°	177	204	239	258	266	175
75°	94	123	146	145	144	100
85°	21	32	24	16	14	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	514.1	514.1	514.1	514.1	514.1
2.5°	517.4	512.5	514.9	514.1	511.7
5°	515.8	510.8	514.1	514.1	514.1
7.5°	511.7	507.6	512.5	513.3	513.3
10°	507.6	504.3	510.8	511.7	512.5
12.5°	501.0	498.5	506.7	508.4	510.0
15°	493.6	492.0	501.8	505.1	506.7
17.5°	484.6	485.4	496.1	500.2	501.8
20°	474.8	477.2	489.5	493.6	496.9
22.5°	464.1	467.4	480.5	485.4	488.7
25°	452.6	456.7	471.5	477.2	481.3
27.5°	438.7	445.2	461.6	469.0	473.1
30°	424.7	432.1	450.2	459.2	463.3
32.5°	410.8	419.0	439.5	448.5	455.1
35°	395.2	405.1	426.4	437.9	444.4
37.5°	379.6	391.1	414.1	427.2	434.6
40°	363.2	375.5	401.0	415.7	423.1
42.5°	346.8	360.8	387.0	403.4	411.6
45°	330.4	345.2	373.9	391.1	400.1
47.5°	311.6	329.6	358.3	378.0	387.0
50°	293.5	313.2	343.6	364.1	373.1
52.5°	275.5	296.0	328.0	349.3	358.3
55°	257.5	279.6	311.6	332.9	342.7
57.5°	238.6	261.6	294.4	316.5	325.5
60°	219.7	243.5	277.1	297.6	306.7
62.5°	197.6	225.5	258.3	278.8	287.0
65°	177.1	204.2	238.6	258.3	265.7
67.5°	156.6	184.5	218.1	236.1	242.7
70°	136.1	164.0	193.5	210.7	214.8
72.5°	115.6	143.5	171.4	181.2	179.6
75°	94.3	123.0	146.0	145.1	143.5
77.5°	73.8	101.7	115.6	109.9	107.4
80°	54.1	81.2	83.6	77.9	74.6
82.5°	36.9	58.2	52.5	45.9	42.6
85°	21.3	32.0	23.8	16.4	13.9
87.5°	9.0	8.2	2.5	2.5	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)