

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: P388198

Luminaire Tested: **22CZ2-20VHE-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: P388198
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20VHE-UNV-L930-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1636.2 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

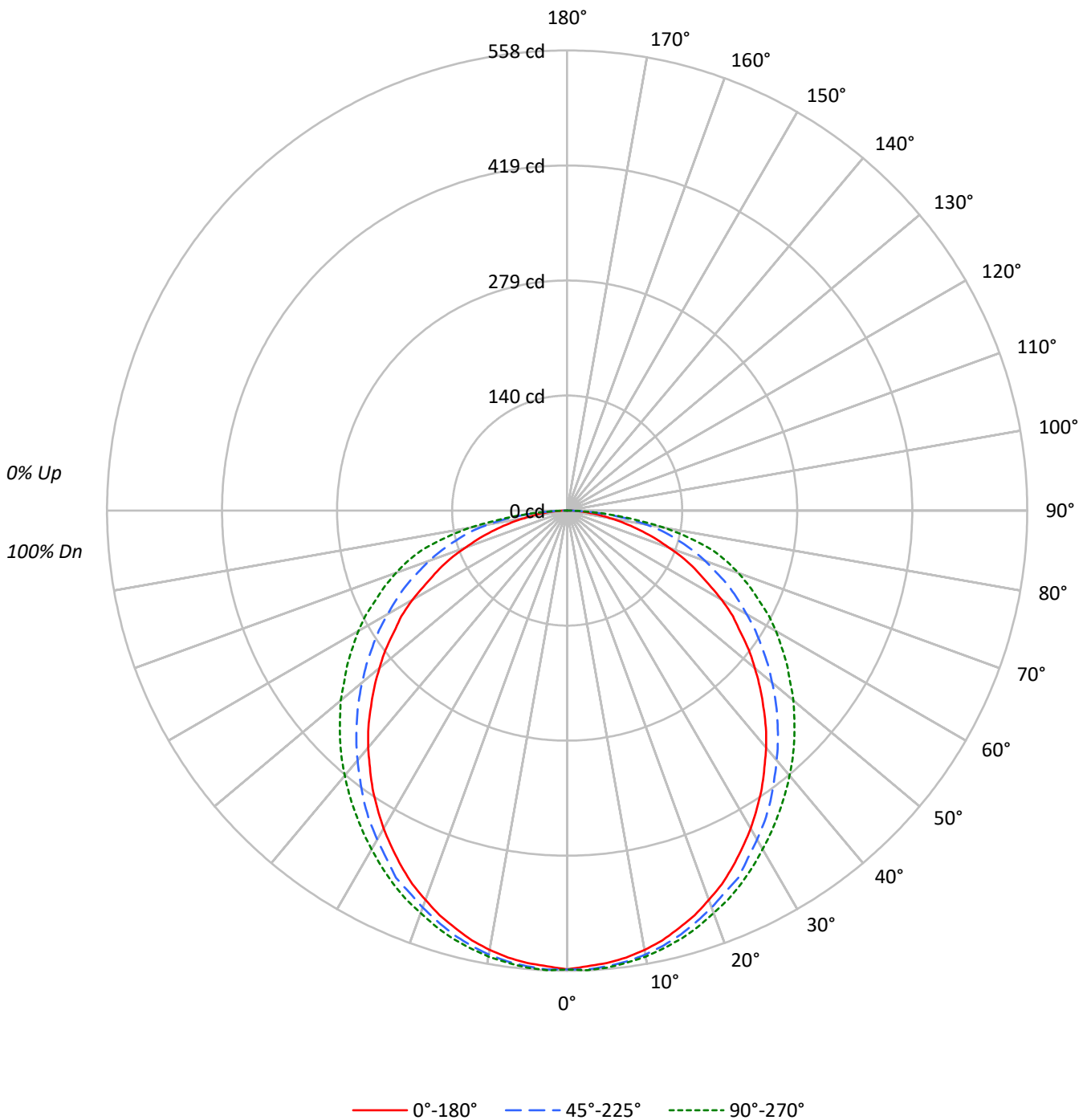
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1497	1497	1497
5°	1488	1498	1503
10°	1478	1494	1500
15°	1460	1483	1496
20°	1439	1466	1487
25°	1413	1458	1482
30°	1383	1431	1473
35°	1351	1412	1470
40°	1318	1389	1474
45°	1281	1373	1483
50°	1244	1358	1500
55°	1201	1352	1526
60°	1166	1352	1573
65°	1107	1374	1630
70°	1032	1400	1736
75°	946	1448	1875
80°	823	1509	1847
85°	719	1343	1467



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.6	3.2
10°-20°	149.9	9.2
20°-30°	225.0	13.7
30°-40°	268.8	16.4
40°-50°	279.5	17.1
50°-60°	259.1	15.8
60°-70°	212.5	13.0
70°-80°	143.7	8.8
80°-90°	45.1	2.8
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°	427.4	26.1
0°-40°	696.3	42.6
0°-60°	1234.9	75.5
0°-90°	1636.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1636.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	556	556	556	556	556	
5°	551	552	555	556	556	52
15°	524	526	532	535	537	148
25°	476	480	491	497	499	219
35°	411	417	430	443	448	257
45°	336	343	361	382	390	260
55°	256	264	288	314	325	230
65°	174	184	216	244	256	172
75°	91	106	139	168	180	96
85°	23	32	44	48	48	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	556.3	556.3	556.3	556.3	556.3
2.5°	553.1	554.7	557.1	557.9	557.9
5°	550.7	551.5	554.7	555.5	556.3
7.5°	546.7	548.3	551.5	552.3	553.1
10°	541.0	542.7	546.7	548.3	549.1
12.5°	533.8	535.4	540.2	542.7	543.5
15°	524.1	526.5	532.2	535.4	537.0
17.5°	514.5	516.9	522.5	527.4	529.0
20°	502.4	508.0	512.1	518.5	519.3
22.5°	490.3	493.5	500.8	507.2	510.4
25°	475.8	479.9	491.1	496.8	499.2
27.5°	460.5	466.2	475.0	483.9	487.1
30°	445.2	449.3	460.5	471.0	474.2
32.5°	428.3	434.0	446.0	456.5	461.3
35°	411.4	417.1	429.9	442.8	447.6
37.5°	392.9	399.3	412.2	427.5	434.0
40°	375.2	380.0	395.3	413.8	419.5
42.5°	356.7	362.3	378.4	398.5	405.0
45°	336.5	343.0	360.7	381.6	389.7
47.5°	317.2	323.7	343.0	363.9	373.6
50°	297.1	305.1	324.5	348.6	358.3
52.5°	277.8	285.0	306.8	331.7	340.6
55°	256.0	264.1	288.2	314.0	325.3
57.5°	238.3	244.0	270.5	297.1	308.4
60°	216.6	223.8	251.2	279.4	292.3
62.5°	193.2	205.3	233.5	262.5	275.4
65°	173.9	183.6	215.8	244.0	256.0
67.5°	153.8	164.2	195.6	225.4	239.1
70°	131.2	144.9	177.9	207.7	220.6
72.5°	111.1	125.6	159.4	188.4	202.1
75°	91.0	106.3	139.3	167.5	180.3
77.5°	71.7	88.6	120.8	142.5	150.6
80°	53.1	69.2	97.4	112.7	119.2
82.5°	37.0	50.7	71.7	79.7	81.3
85°	23.3	32.2	43.5	48.3	47.5
87.5°	10.5	12.9	16.1	17.7	16.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)