

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: P389141

Luminaire Tested: **22CZ2-20VHE-S-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: P389141
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20VHE-S-UNV-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1802.3 lumens
Efficiency: N/A
Efficacy: 126.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

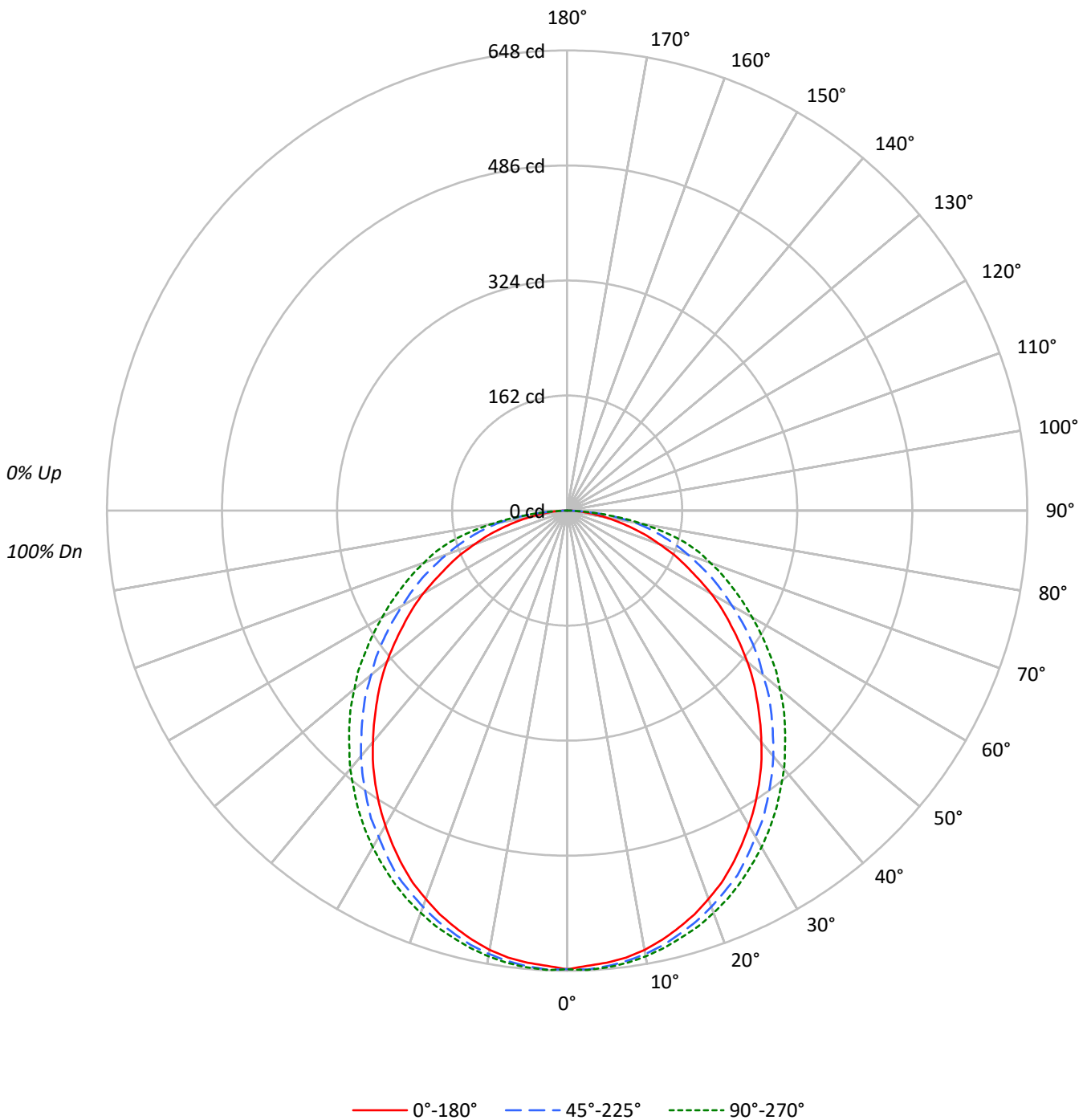
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	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	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1738	1738	1738
5°	1726	1740	1744
10°	1717	1732	1742
15°	1694	1717	1734
20°	1666	1700	1727
25°	1633	1683	1715
30°	1591	1649	1701
35°	1547	1619	1685
40°	1495	1586	1669
45°	1440	1549	1651
50°	1387	1507	1637
55°	1322	1479	1626
60°	1263	1444	1620
65°	1178	1435	1638
70°	1085	1423	1687
75°	979	1443	1775
80°	848	1486	1667
85°	701	1247	1247



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.1	3.4
10°-20°	173.8	9.6
20°-30°	260.1	14.4
30°-40°	308.0	17.1
40°-50°	313.9	17.4
50°-60°	281.3	15.6
60°-70°	220.2	12.2
70°-80°	142.0	7.9
80°-90°	42.0	2.3
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°	494.9	27.5
0°-40°	802.9	44.5
0°-60°	1398.1	77.6
0°-90°	1802.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1802.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	646	646	646	646	646	
5°	639	641	644	645	646	61
15°	608	611	616	621	622	171
25°	550	555	567	574	578	253
35°	471	477	493	508	513	294
45°	378	387	407	428	434	292
55°	282	291	315	337	346	253
65°	185	196	225	247	257	184
75°	94	108	139	162	171	101
85°	23	31	40	40	40	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	645.8	645.8	645.8	645.8	645.8
2.5°	641.6	643.3	646.7	647.5	647.5
5°	639.1	640.8	644.1	645.0	645.8
7.5°	634.9	635.7	639.9	641.6	642.5
10°	628.2	629.8	634.0	636.6	637.4
12.5°	618.9	621.4	626.5	629.8	630.7
15°	608.0	611.3	616.4	621.4	622.3
17.5°	596.2	599.6	606.3	612.2	613.9
20°	581.9	586.1	593.7	600.4	602.9
22.5°	567.6	571.0	580.2	588.6	591.2
25°	550.0	555.0	566.8	574.3	577.7
27.5°	531.5	537.3	549.1	559.2	562.6
30°	512.1	518.0	530.6	543.2	547.4
32.5°	491.9	498.7	513.8	526.4	530.6
35°	470.9	476.8	492.8	507.9	513.0
37.5°	449.0	454.1	472.6	488.6	493.6
40°	425.5	432.2	451.6	470.1	475.1
42.5°	402.0	409.5	428.9	449.0	454.1
45°	378.4	386.8	407.0	428.0	433.9
47.5°	355.7	362.4	385.1	405.3	413.7
50°	331.3	338.0	359.9	382.6	391.0
52.5°	306.1	315.3	338.9	360.8	370.8
55°	281.7	291.0	315.3	337.2	346.5
57.5°	259.0	266.6	291.8	314.5	323.8
60°	234.6	241.3	268.3	292.6	301.0
62.5°	208.5	218.6	246.4	269.1	279.2
65°	185.0	195.9	225.4	247.2	257.3
67.5°	163.1	173.2	201.8	225.4	236.3
70°	137.9	151.4	180.8	204.3	214.4
72.5°	117.7	129.5	159.8	183.3	194.3
75°	94.2	108.5	138.8	162.3	170.7
77.5°	74.8	89.1	117.7	136.2	140.4
80°	54.7	69.0	95.9	105.1	107.6
82.5°	37.0	50.5	69.0	71.5	72.3
85°	22.7	31.1	40.4	40.4	40.4
87.5°	10.9	12.6	14.3	13.5	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)