

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: P388204

Luminaire Tested: **22CZ2-20VHE-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: P388204
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-L940-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1694.0 lumens
Efficiency: N/A
Efficacy: 119.3 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

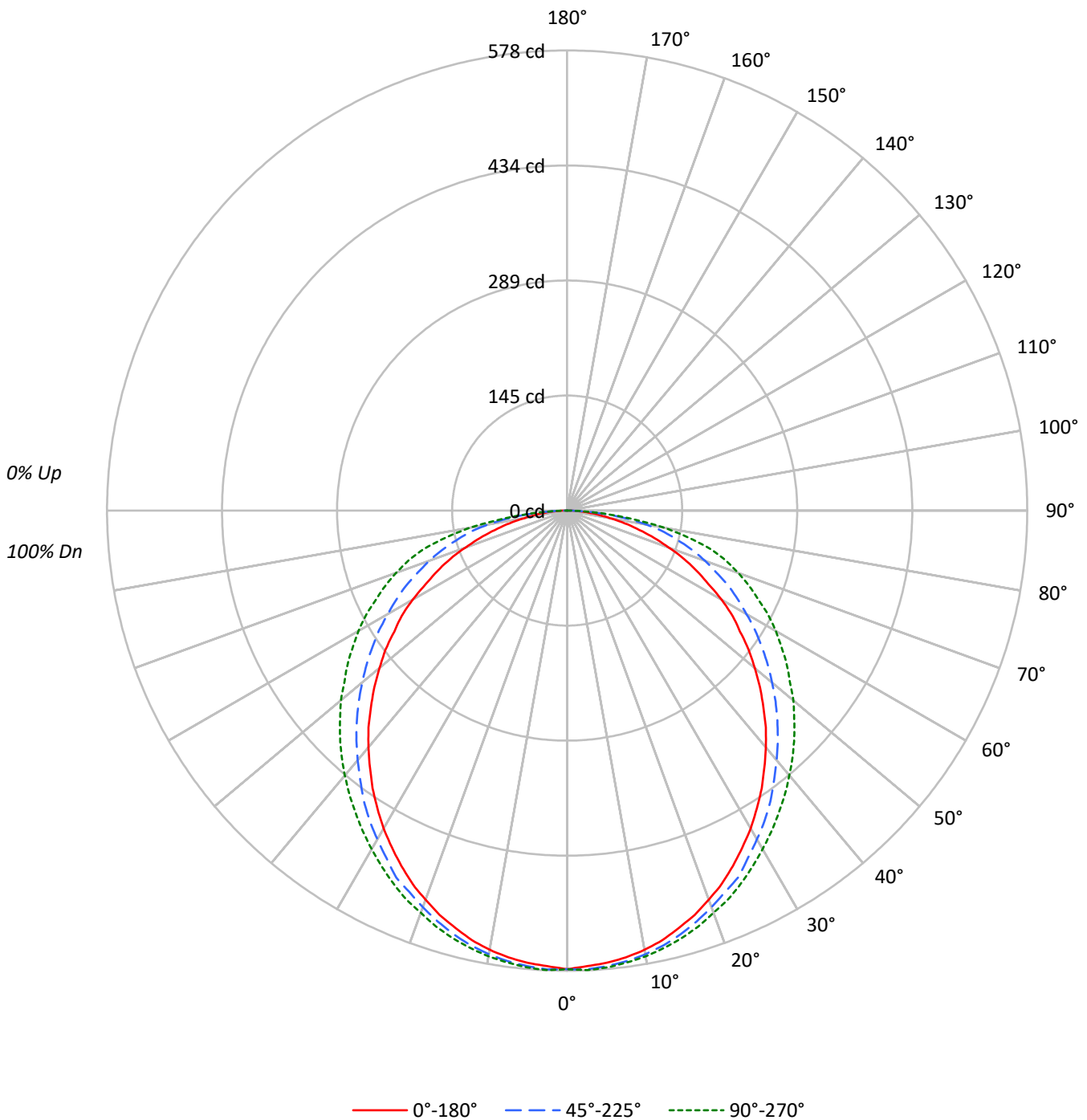
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1550	1550	1550
5°	1540	1551	1556
10°	1531	1547	1553
15°	1512	1535	1549
20°	1489	1518	1540
25°	1463	1510	1534
30°	1432	1482	1526
35°	1399	1462	1523
40°	1364	1438	1526
45°	1326	1421	1535
50°	1288	1406	1553
55°	1244	1400	1580
60°	1207	1400	1629
65°	1146	1422	1688
70°	1069	1449	1797
75°	979	1499	1941
80°	852	1564	1912
85°	747	1389	1519



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.5	3.2
10°-20°	155.2	9.2
20°-30°	232.9	13.7
30°-40°	278.3	16.4
40°-50°	289.4	17.1
50°-60°	268.2	15.8
60°-70°	220.0	13.0
70°-80°	148.7	8.8
80°-90°	46.7	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°	442.5	26.1
0°-40°	720.9	42.6
0°-60°	1278.5	75.5
0°-90°	1694.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1694.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	576	576	576	576	576	
5°	570	571	574	575	576	54
15°	543	545	551	554	556	153
25°	493	497	508	514	517	227
35°	426	432	445	458	464	266
45°	348	355	373	395	403	269
55°	265	273	298	325	337	238
65°	180	190	223	253	265	178
75°	94	110	144	173	187	100
85°	24	33	45	50	49	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	576.0	576.0	576.0	576.0	576.0
2.5°	572.7	574.3	576.8	577.7	577.7
5°	570.2	571.0	574.3	575.2	576.0
7.5°	566.0	567.7	571.0	571.8	572.7
10°	560.2	561.8	566.0	567.7	568.5
12.5°	552.7	554.3	559.3	561.8	562.7
15°	542.6	545.1	551.0	554.3	556.0
17.5°	532.6	535.1	541.0	546.0	547.7
20°	520.1	526.0	530.1	536.8	537.6
22.5°	507.6	511.0	518.5	525.1	528.5
25°	492.6	496.8	508.5	514.3	516.8
27.5°	476.8	482.6	491.8	501.0	504.3
30°	461.0	465.1	476.8	487.6	491.0
32.5°	443.5	449.3	461.8	472.6	477.6
35°	426.0	431.8	445.1	458.5	463.5
37.5°	406.8	413.4	426.8	442.6	449.3
40°	388.4	393.4	409.3	428.5	434.3
42.5°	369.3	375.1	391.8	412.6	419.3
45°	348.4	355.1	373.4	395.1	403.4
47.5°	328.4	335.1	355.1	376.8	386.8
50°	307.6	315.9	335.9	360.9	370.9
52.5°	287.6	295.1	317.6	343.4	352.6
55°	265.1	273.4	298.4	325.1	336.8
57.5°	246.7	252.6	280.1	307.6	319.3
60°	224.2	231.7	260.1	289.2	302.6
62.5°	200.1	212.6	241.7	271.7	285.1
65°	180.0	190.1	223.4	252.6	265.1
67.5°	159.2	170.0	202.6	233.4	247.6
70°	135.9	150.0	184.2	215.1	228.4
72.5°	115.0	130.0	165.0	195.1	209.2
75°	94.2	110.0	144.2	173.4	186.7
77.5°	74.2	91.7	125.0	147.5	155.9
80°	55.0	71.7	100.9	116.7	123.4
82.5°	38.3	52.5	74.2	82.5	84.2
85°	24.2	33.3	45.0	50.0	49.2
87.5°	10.8	13.3	16.7	18.3	17.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)