

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: P388197

Luminaire Tested: **22CZ2-20VHE-UNV-L930-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: P388197
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-SDWPD1-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: 1616.5 lumens
Efficiency: N/A
Efficacy: 113.8 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

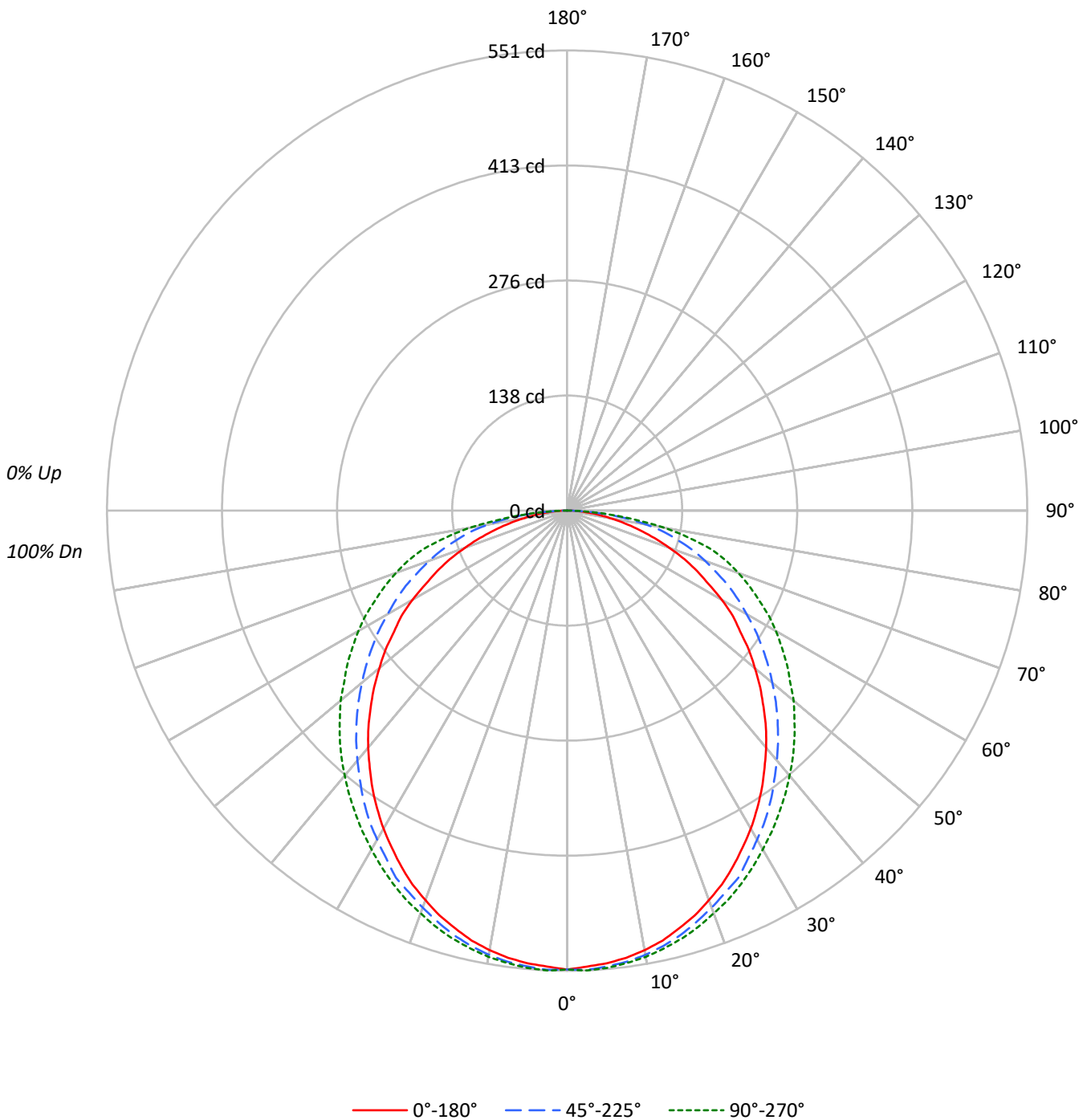
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1479	1479	1479
5°	1470	1480	1485
10°	1461	1476	1482
15°	1443	1465	1478
20°	1421	1449	1469
25°	1396	1441	1464
30°	1367	1414	1456
35°	1335	1396	1453
40°	1302	1372	1456
45°	1265	1356	1465
50°	1229	1342	1482
55°	1187	1336	1508
60°	1152	1336	1554
65°	1094	1358	1610
70°	1020	1383	1714
75°	935	1431	1853
80°	814	1491	1824
85°	713	1328	1448



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.0	3.2
10°-20°	148.1	9.2
20°-30°	222.3	13.7
30°-40°	265.6	16.4
40°-50°	276.2	17.1
50°-60°	256.0	15.8
60°-70°	210.0	13.0
70°-80°	141.9	8.8
80°-90°	44.6	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°	422.3	26.1
0°-40°	687.9	42.6
0°-60°	1220.0	75.5
0°-90°	1616.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1616.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	544	545	548	549	550	52
15°	518	520	526	529	530	146
25°	470	474	485	491	493	216
35°	406	412	425	438	442	254
45°	332	339	356	377	385	257
55°	253	261	285	310	321	227
65°	172	181	213	241	253	170
75°	90	105	138	165	178	95
85°	23	32	43	48	47	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	549.6	549.6	549.6	549.6	549.6
2.5°	546.5	548.0	550.4	551.2	551.2
5°	544.1	544.9	548.0	548.8	549.6
7.5°	540.1	541.7	544.9	545.7	546.5
10°	534.5	536.1	540.1	541.7	542.5
12.5°	527.4	529.0	533.7	536.1	536.9
15°	517.8	520.2	525.8	529.0	530.5
17.5°	508.3	510.7	516.2	521.0	522.6
20°	496.3	501.9	505.9	512.3	513.1
22.5°	484.4	487.6	494.8	501.1	504.3
25°	470.1	474.1	485.2	490.8	493.2
27.5°	455.0	460.6	469.3	478.1	481.2
30°	439.9	443.8	455.0	465.3	468.5
32.5°	423.2	428.7	440.7	451.0	455.8
35°	406.5	412.0	424.8	437.5	442.3
37.5°	388.2	394.5	407.3	422.4	428.7
40°	370.7	375.4	390.6	408.8	414.4
42.5°	352.4	357.9	373.9	393.7	400.1
45°	332.5	338.9	356.4	377.0	385.0
47.5°	313.4	319.8	338.9	359.5	369.1
50°	293.5	301.5	320.6	344.4	354.0
52.5°	274.4	281.6	303.1	327.7	336.5
55°	252.9	260.9	284.8	310.2	321.4
57.5°	235.4	241.0	267.3	293.5	304.6
60°	214.0	221.1	248.2	276.0	288.7
62.5°	190.9	202.8	230.7	259.3	272.0
65°	171.8	181.4	213.2	241.0	252.9
67.5°	151.9	162.3	193.3	222.7	236.2
70°	129.7	143.2	175.8	205.2	217.9
72.5°	109.8	124.1	157.5	186.1	199.7
75°	89.9	105.0	137.6	165.4	178.2
77.5°	70.8	87.5	119.3	140.8	148.7
80°	52.5	68.4	96.2	111.4	117.7
82.5°	36.6	50.1	70.8	78.7	80.3
85°	23.1	31.8	43.0	47.7	46.9
87.5°	10.3	12.7	15.9	17.5	16.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)