

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: P388201

Luminaire Tested: **22CZ2-20VHE-UNV-L935-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: P388201
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-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1676.7 lumens
Efficiency: N/A
Efficacy: 118.1 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

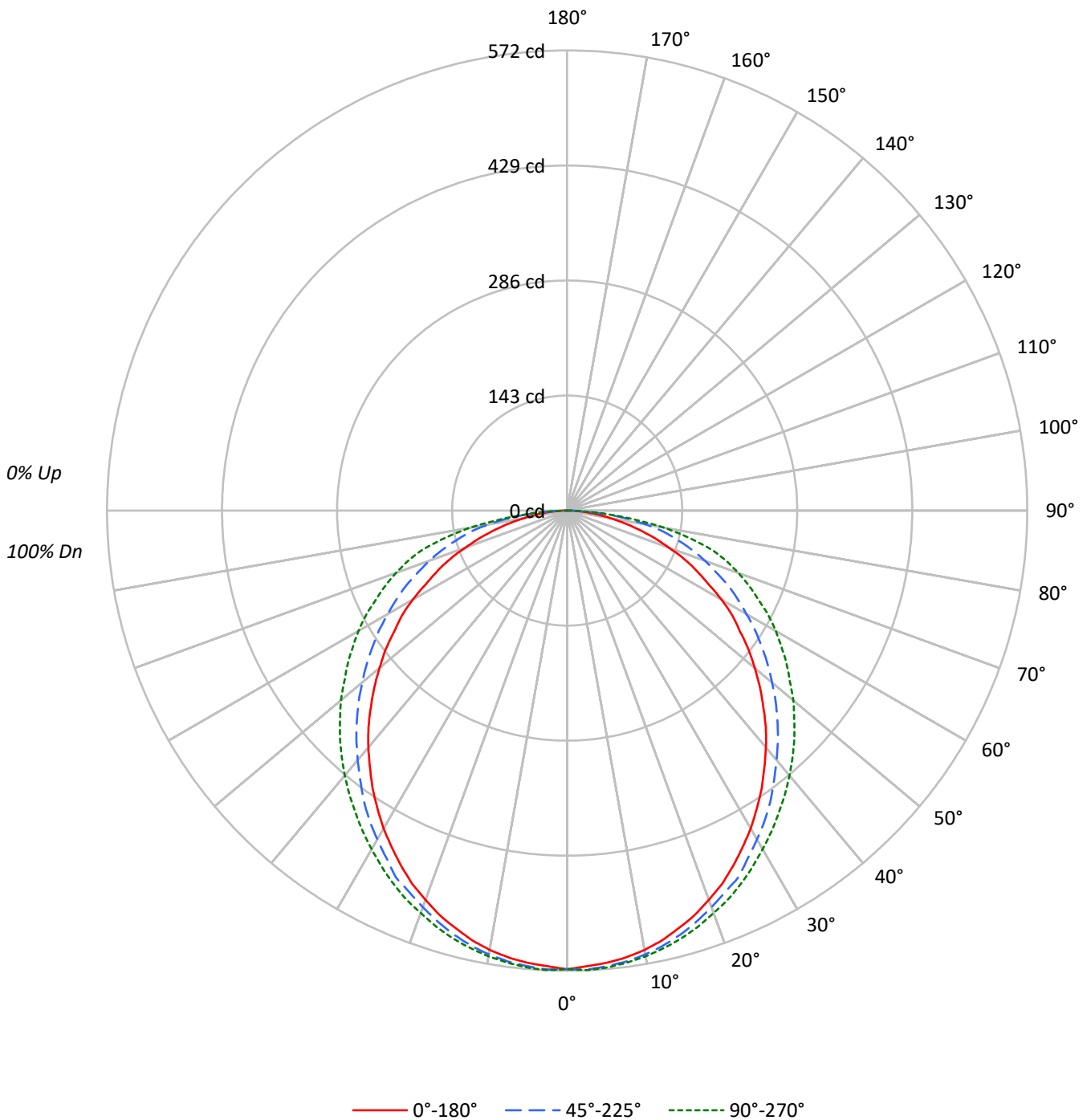
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1534	1534	1534
5°	1524	1536	1540
10°	1515	1531	1538
15°	1496	1519	1533
20°	1474	1503	1524
25°	1448	1494	1519
30°	1418	1466	1510
35°	1385	1447	1507
40°	1351	1423	1510
45°	1313	1407	1520
50°	1274	1392	1537
55°	1231	1386	1564
60°	1194	1385	1612
65°	1135	1408	1671
70°	1058	1434	1779
75°	969	1484	1921
80°	845	1547	1892
85°	738	1377	1504



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.9	3.2
10°-20°	153.6	9.2
20°-30°	230.5	13.7
30°-40°	275.5	16.4
40°-50°	286.5	17.1
50°-60°	265.5	15.8
60°-70°	217.8	13.0
70°-80°	147.2	8.8
80°-90°	46.3	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°	438.0	26.1
0°-40°	713.5	42.6
0°-60°	1265.5	75.5
0°-90°	1676.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1676.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	570	570	570	570	570	
5°	564	565	568	569	570	54
15°	537	540	545	549	550	152
25°	488	492	503	509	512	225
35°	422	427	441	454	459	264
45°	345	352	370	391	399	266
55°	262	271	295	322	333	236
65°	178	188	221	250	262	176
75°	93	109	143	172	185	99
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°	570.1	570.1	570.1	570.1	570.1
2.5°	566.8	568.5	570.9	571.8	571.8
5°	564.3	565.2	568.5	569.3	570.1
7.5°	560.2	561.9	565.2	566.0	566.8
10°	554.4	556.1	560.2	561.9	562.7
12.5°	547.0	548.7	553.6	556.1	556.9
15°	537.1	539.6	545.4	548.7	550.3
17.5°	527.2	529.7	535.5	540.4	542.1
20°	514.8	520.6	524.7	531.3	532.2
22.5°	502.5	505.8	513.2	519.8	523.1
25°	487.6	491.7	503.3	509.1	511.5
27.5°	471.9	477.7	486.8	495.9	499.2
30°	456.3	460.4	471.9	482.7	486.0
32.5°	438.9	444.7	457.1	467.8	472.8
35°	421.6	427.4	440.6	453.8	458.7
37.5°	402.6	409.2	422.4	438.1	444.7
40°	384.5	389.4	405.1	424.1	429.9
42.5°	365.5	371.3	387.8	408.4	415.0
45°	344.9	351.5	369.6	391.1	399.3
47.5°	325.1	331.7	351.5	372.9	382.8
50°	304.4	312.7	332.5	357.2	367.1
52.5°	284.6	292.1	314.3	339.9	349.0
55°	262.4	270.6	295.4	321.8	333.3
57.5°	244.2	250.0	277.2	304.4	316.0
60°	221.9	229.4	257.4	286.3	299.5
62.5°	198.0	210.4	239.3	269.0	282.2
65°	178.2	188.1	221.1	250.0	262.4
67.5°	157.6	168.3	200.5	231.0	245.0
70°	134.5	148.5	182.3	212.9	226.1
72.5°	113.9	128.7	163.4	193.1	207.1
75°	93.2	108.9	142.7	171.6	184.8
77.5°	73.4	90.8	123.8	146.0	154.3
80°	54.5	71.0	99.8	115.5	122.1
82.5°	38.0	52.0	73.4	81.7	83.3
85°	23.9	33.0	44.6	49.5	48.7
87.5°	10.7	13.2	16.5	18.2	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)