

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: P390406

Luminaire Tested: **22CZ2-50VHE-HRP-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: P390406
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-50VHE-HRP-UNV-L930-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3524.0 lumens
Efficiency: N/A
Efficacy: 97.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

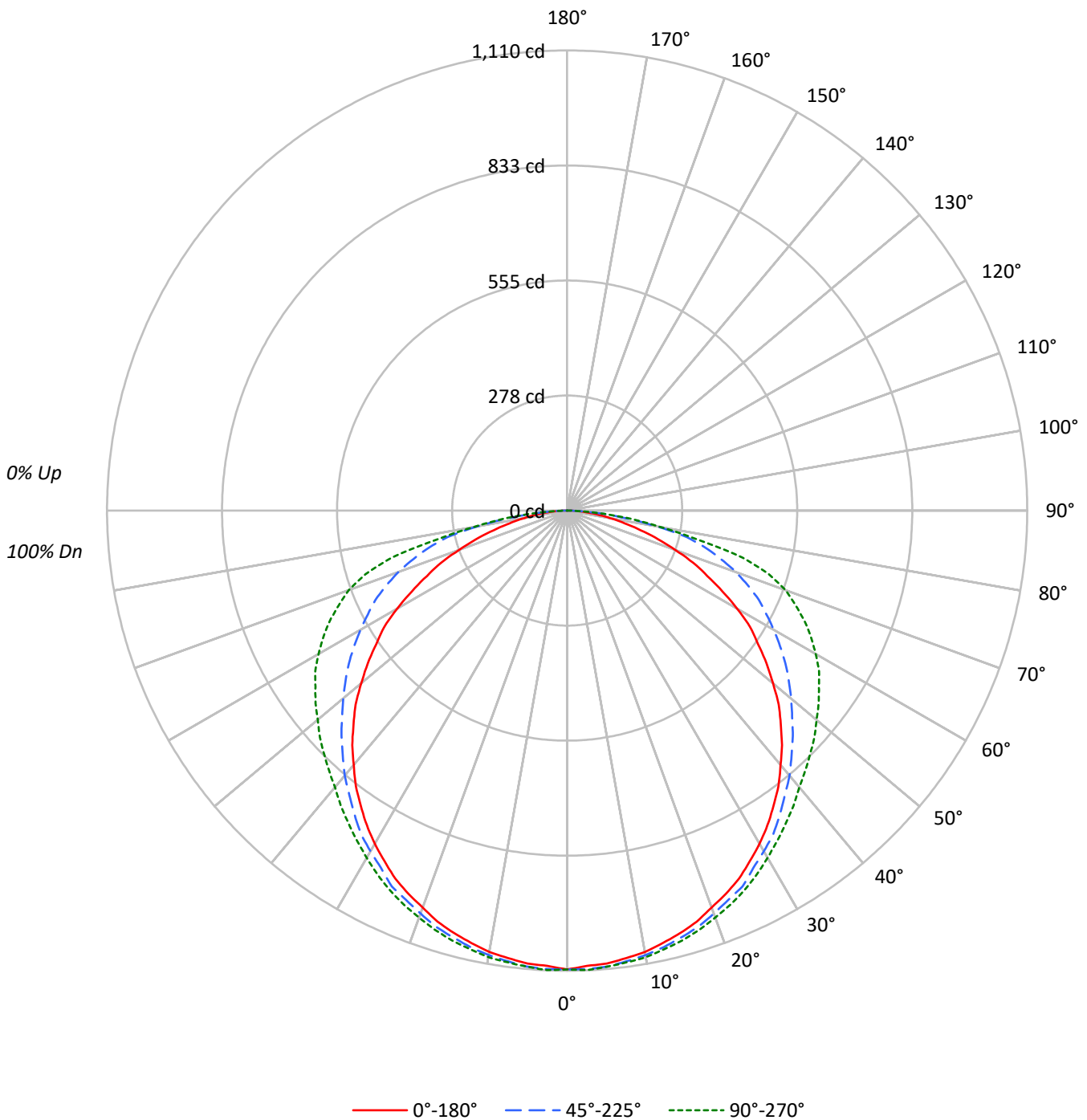
Input Watts (W): 36.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2979	2979	2979
5°	2962	2983	2983
10°	2954	2975	2989
15°	2939	2968	2990
20°	2918	2962	2992
25°	2909	2971	3002
30°	2884	2948	3005
35°	2853	2938	3023
40°	2814	2932	3060
45°	2772	2930	3157
50°	2713	2952	3288
55°	2639	3016	3478
60°	2553	3097	3725
65°	2377	3252	4027
70°	2183	3406	4406
75°	1914	3585	4555
80°	1647	3415	3575
85°	1442	2482	2720



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.7	3.0
10°-20°	300.6	8.5
20°-30°	458.7	13.0
30°-40°	560.1	15.9
40°-50°	598.8	17.0
50°-60°	578.0	16.4
60°-70°	497.6	14.1
70°-80°	336.7	9.6
80°-90°	88.8	2.5
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°	864.0	24.5
0°-40°	1424.1	40.4
0°-60°	2600.9	73.8
0°-90°	3524.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3524.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1107	1107	1107	1107	1107	
5°	1097	1099	1104	1104	1104	104
15°	1055	1058	1066	1071	1073	298
25°	980	985	1001	1006	1011	451
35°	868	876	894	912	920	543
45°	728	741	770	809	830	562
55°	562	581	643	708	741	504
65°	373	410	511	591	632	371
75°	184	244	345	415	438	197
85°	47	65	80	83	88	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1106.9	1106.9	1106.9	1106.9	1106.9
2.5°	1099.2	1101.8	1106.9	1106.9	1109.5
5°	1096.6	1099.2	1104.4	1104.4	1104.4
7.5°	1088.8	1091.4	1096.6	1099.2	1099.2
10°	1081.0	1083.6	1088.8	1091.4	1094.0
12.5°	1068.1	1070.7	1078.4	1083.6	1083.6
15°	1055.1	1057.7	1065.5	1070.7	1073.2
17.5°	1039.5	1044.7	1052.5	1057.7	1060.3
20°	1018.8	1024.0	1034.4	1042.1	1044.7
22.5°	1000.7	1005.8	1016.2	1024.0	1029.2
25°	979.9	985.1	1000.7	1005.8	1011.0
27.5°	954.0	959.2	972.1	982.5	990.3
30°	928.1	933.3	948.8	961.8	967.0
32.5°	899.6	907.3	925.5	935.9	943.6
35°	868.5	876.2	894.4	912.5	920.3
37.5°	837.3	845.1	863.3	886.6	897.0
40°	801.0	811.4	834.7	865.9	871.0
42.5°	767.3	780.3	801.0	837.3	850.3
45°	728.5	741.4	769.9	808.8	829.6
47.5°	692.2	705.1	736.2	782.9	808.8
50°	648.1	666.2	705.1	759.6	785.5
52.5°	606.6	622.2	674.0	733.6	764.8
55°	562.5	580.7	642.9	707.7	741.4
57.5°	523.7	539.2	609.2	681.8	720.7
60°	474.4	495.1	575.5	653.3	692.2
62.5°	422.6	453.7	541.8	622.2	663.7
65°	373.3	409.6	510.7	591.1	632.5
67.5°	329.2	368.1	471.8	557.4	596.2
70°	277.4	326.6	432.9	515.9	560.0
72.5°	230.7	285.2	388.9	471.8	510.7
75°	184.1	243.7	344.8	414.8	438.1
77.5°	142.6	199.6	295.5	316.3	318.9
80°	106.3	158.1	220.4	222.9	230.7
82.5°	72.6	111.5	142.6	155.5	158.1
85°	46.7	64.8	80.4	83.0	88.1
87.5°	20.7	23.3	28.5	25.9	25.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)