

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: P390412

Luminaire Tested: **22CZ2-50VHE-HRP-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: P390412
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-L940-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3648.5 lumens
Efficiency: N/A
Efficacy: 100.8 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

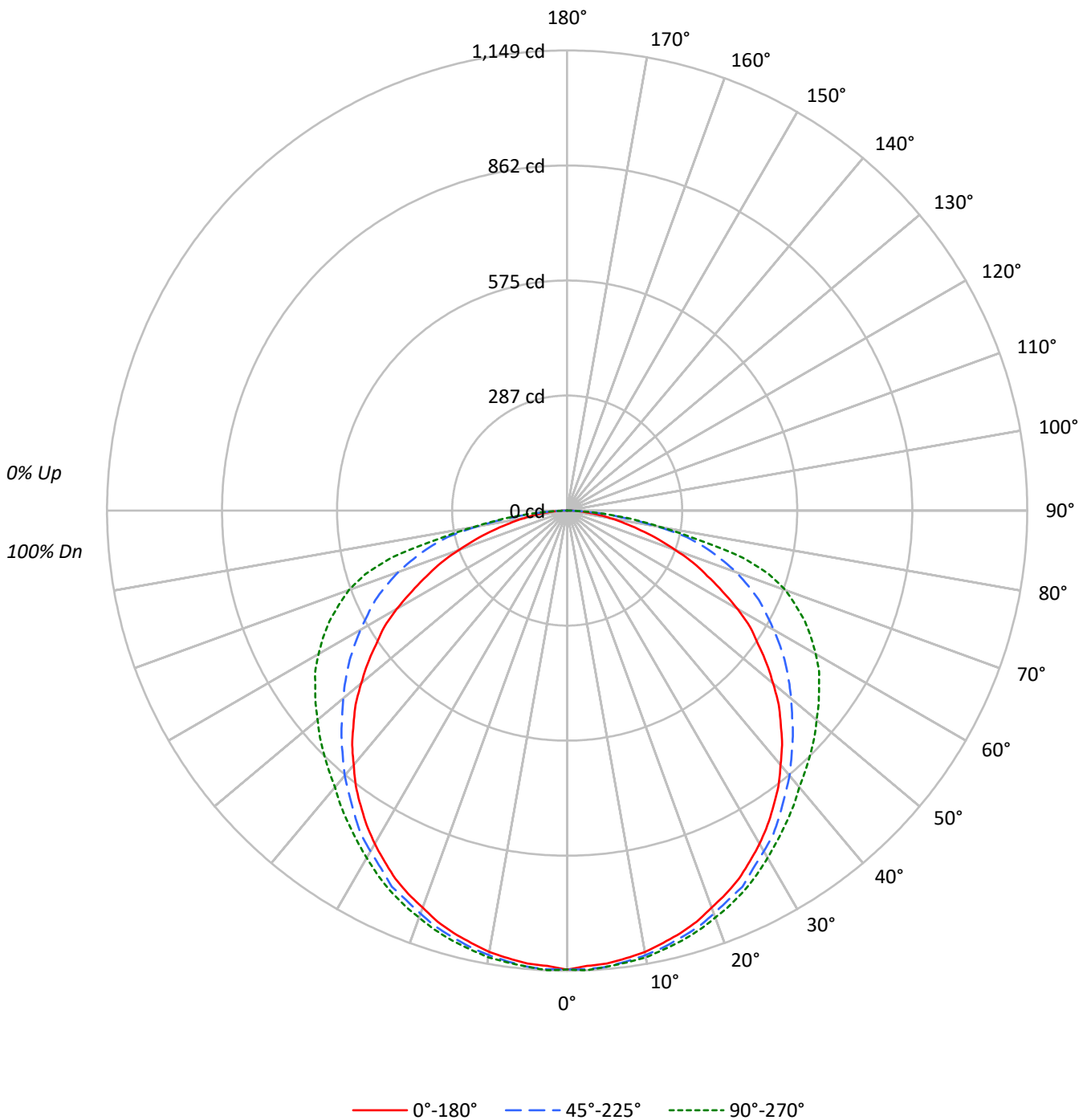
Input Watts (W): 36.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3084	3084	3084
5°	3067	3089	3089
10°	3058	3080	3095
15°	3043	3073	3096
20°	3021	3067	3097
25°	3012	3076	3108
30°	2986	3052	3111
35°	2954	3042	3130
40°	2913	3036	3168
45°	2870	3033	3269
50°	2809	3056	3404
55°	2732	3123	3601
60°	2644	3207	3857
65°	2461	3366	4170
70°	2260	3526	4561
75°	1982	3712	4716
80°	1705	3535	3702
85°	1491	2569	2819



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.4	3.0
10°-20°	311.3	8.5
20°-30°	474.9	13.0
30°-40°	579.9	15.9
40°-50°	620.0	17.0
50°-60°	598.4	16.4
60°-70°	515.1	14.1
70°-80°	348.5	9.6
80°-90°	92.0	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°	894.6	24.5
0°-40°	1474.4	40.4
0°-60°	2692.8	73.8
0°-90°	3648.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3648.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1146	1146	1146	1146	1146	
5°	1135	1138	1143	1143	1143	108
15°	1092	1095	1103	1108	1111	308
25°	1014	1020	1036	1041	1047	467
35°	899	907	926	945	953	563
45°	754	768	797	837	859	582
55°	582	601	666	733	768	522
65°	386	424	529	612	655	384
75°	191	252	357	429	454	204
85°	48	67	83	86	91	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1146.1	1146.1	1146.1	1146.1	1146.1
2.5°	1138.0	1140.7	1146.1	1146.1	1148.7
5°	1135.3	1138.0	1143.4	1143.4	1143.4
7.5°	1127.3	1130.0	1135.3	1138.0	1138.0
10°	1119.2	1121.9	1127.3	1130.0	1132.6
12.5°	1105.8	1108.5	1116.5	1121.9	1121.9
15°	1092.4	1095.1	1103.1	1108.5	1111.2
17.5°	1076.3	1081.6	1089.7	1095.1	1097.7
20°	1054.8	1060.2	1070.9	1079.0	1081.6
22.5°	1036.0	1041.4	1052.1	1060.2	1065.5
25°	1014.5	1019.9	1036.0	1041.4	1046.8
27.5°	987.7	993.1	1006.5	1017.2	1025.3
30°	960.9	966.2	982.3	995.8	1001.1
32.5°	931.3	939.4	958.2	968.9	977.0
35°	899.1	907.2	926.0	944.8	952.8
37.5°	866.9	875.0	893.8	917.9	928.7
40°	829.3	840.1	864.2	896.4	901.8
42.5°	794.5	807.9	829.3	866.9	880.3
45°	754.2	767.6	797.1	837.4	858.9
47.5°	716.6	730.0	762.2	810.6	837.4
50°	671.0	689.8	730.0	786.4	813.2
52.5°	628.1	644.2	697.8	759.6	791.8
55°	582.4	601.2	665.6	732.7	767.6
57.5°	542.2	558.3	630.7	705.9	746.1
60°	491.2	512.6	595.8	676.4	716.6
62.5°	437.5	469.7	561.0	644.2	687.1
65°	386.5	424.1	528.7	611.9	654.9
67.5°	340.9	381.1	488.5	577.1	617.3
70°	287.2	338.2	448.2	534.1	579.7
72.5°	238.9	295.2	402.6	488.5	528.7
75°	190.6	252.3	357.0	429.4	453.6
77.5°	147.6	206.7	306.0	327.4	330.1
80°	110.0	163.7	228.1	230.8	238.9
82.5°	75.2	115.4	147.6	161.0	163.7
85°	48.3	67.1	83.2	85.9	91.3
87.5°	21.5	24.2	29.5	26.8	26.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)