

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: P390411

Luminaire Tested: **22CZ2-50VHE-HRP-UNV-L940-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: P390411
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-SDWPD1-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: 3604.5 lumens
Efficiency: N/A
Efficacy: 99.6 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

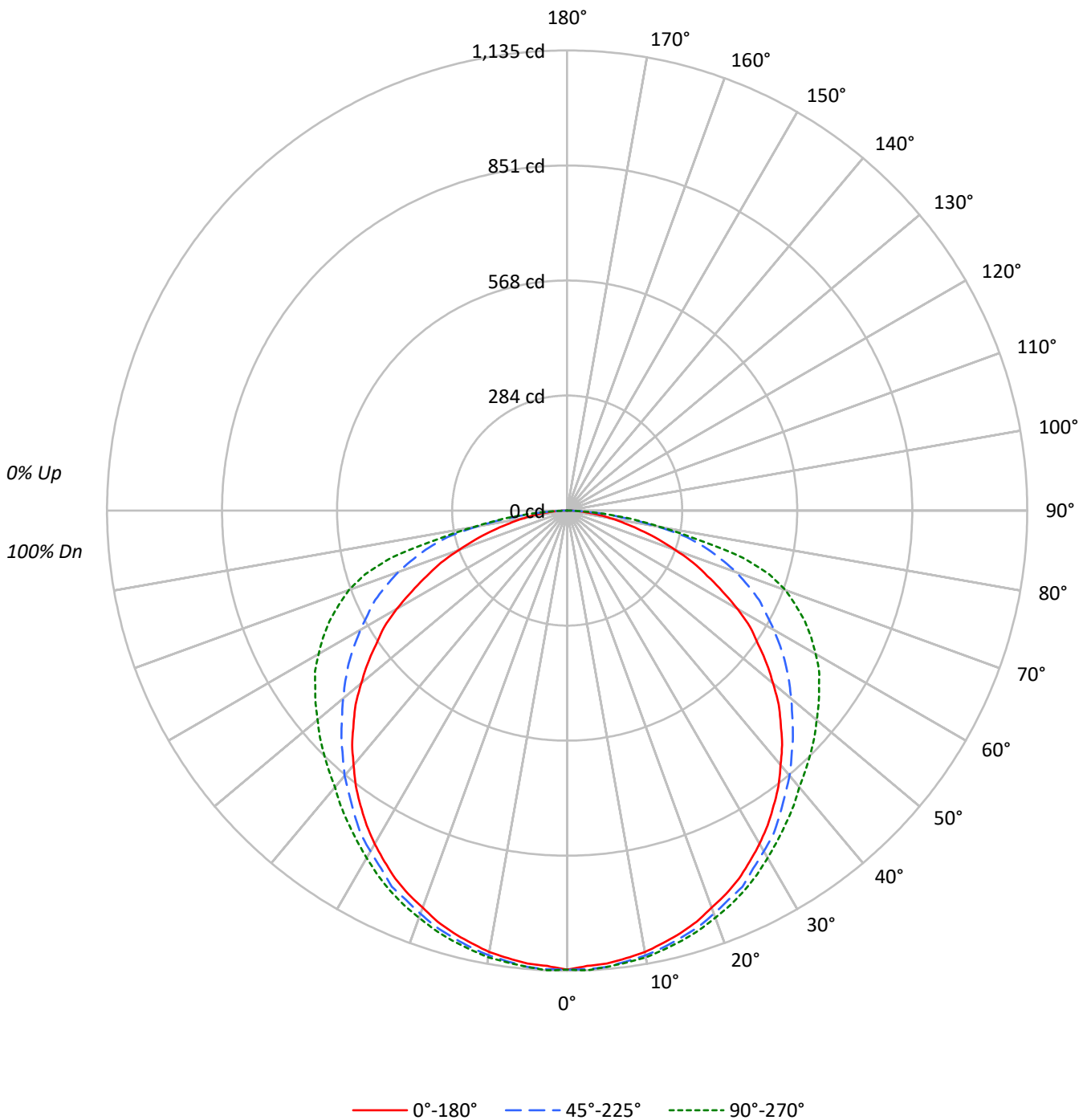
Input Watts (W): 36.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3047	3047	3047
5°	3030	3051	3051
10°	3021	3043	3058
15°	3007	3036	3058
20°	2984	3030	3060
25°	2976	3039	3070
30°	2950	3016	3073
35°	2918	3005	3092
40°	2878	2999	3130
45°	2836	2997	3229
50°	2775	3019	3363
55°	2700	3085	3558
60°	2611	3168	3810
65°	2431	3326	4120
70°	2232	3484	4506
75°	1958	3667	4659
80°	1684	3493	3657
85°	1473	2538	2785



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.1	3.0
10°-20°	307.5	8.5
20°-30°	469.2	13.0
30°-40°	572.9	15.9
40°-50°	612.5	17.0
50°-60°	591.2	16.4
60°-70°	508.9	14.1
70°-80°	344.3	9.6
80°-90°	90.9	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°	883.8	24.5
0°-40°	1456.6	40.4
0°-60°	2660.4	73.8
0°-90°	3604.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3604.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1132	1132	1132	1132	1132	
5°	1122	1124	1130	1130	1130	107
15°	1079	1082	1090	1095	1098	304
25°	1002	1008	1024	1029	1034	461
35°	888	896	915	933	941	556
45°	745	758	788	827	848	575
55°	575	594	658	724	758	516
65°	382	419	522	605	647	380
75°	188	249	353	424	448	202
85°	48	66	82	85	90	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1132.2	1132.2	1132.2	1132.2	<i>1132.2</i>
2.5°	<i>1124.3</i>	<i>1126.9</i>	<i>1132.2</i>	<i>1132.2</i>	<i>1134.9</i>
5°	1121.6	1124.3	1129.6	1129.6	<i>1129.6</i>
7.5°	1113.7	1116.3	1121.6	1124.3	<i>1124.3</i>
10°	1105.7	1108.4	1113.7	1116.3	<i>1119.0</i>
12.5°	1092.5	1095.1	1103.1	1108.4	<i>1108.4</i>
15°	1079.2	1081.9	1089.8	1095.1	<i>1097.8</i>
17.5°	1063.3	1068.6	1076.6	1081.9	<i>1084.5</i>
20°	1042.1	1047.4	1058.0	1065.9	<i>1068.6</i>
22.5°	1023.5	1028.8	1039.4	1047.4	<i>1052.7</i>
25°	1002.3	1007.6	1023.5	1028.8	<i>1034.1</i>
27.5°	975.8	981.1	994.4	1005.0	<i>1012.9</i>
30°	949.3	954.6	970.5	983.7	<i>989.0</i>
32.5°	920.1	928.1	946.6	957.2	<i>965.2</i>
35°	888.3	896.2	914.8	933.4	<i>941.3</i>
37.5°	856.5	864.4	883.0	906.8	<i>917.5</i>
40°	819.3	830.0	853.8	885.6	<i>890.9</i>
42.5°	784.9	798.1	819.3	856.5	<i>869.7</i>
45°	745.1	758.4	787.5	827.3	<i>848.5</i>
47.5°	708.0	721.2	753.1	800.8	<i>827.3</i>
50°	662.9	681.5	721.2	776.9	<i>803.4</i>
52.5°	620.5	636.4	689.4	750.4	<i>782.2</i>
55°	575.4	594.0	657.6	723.9	<i>758.4</i>
57.5°	535.6	551.5	623.1	697.4	<i>737.1</i>
60°	485.2	506.5	588.7	668.2	<i>708.0</i>
62.5°	432.2	464.0	554.2	636.4	<i>678.8</i>
65°	381.8	419.0	522.4	604.6	<i>647.0</i>
67.5°	336.8	376.5	482.6	570.1	<i>609.9</i>
70°	283.7	334.1	442.8	527.7	<i>572.7</i>
72.5°	236.0	291.7	397.7	482.6	<i>522.4</i>
75°	188.3	249.3	352.7	424.3	<i>448.1</i>
77.5°	145.8	204.2	302.3	323.5	<i>326.1</i>
80°	108.7	161.7	225.4	228.0	<i>236.0</i>
82.5°	74.2	114.0	145.8	159.1	<i>161.7</i>
85°	47.7	66.3	82.2	84.9	<i>90.2</i>
87.5°	21.2	23.9	29.2	26.5	<i>26.5</i>
90°	0.0	0.0	0.0	0.0	<i>0.0</i>

(END OF REPORT)