

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: P390320

Luminaire Tested: **22CZ2-39VHE-HRP-UNV-L950-CD1-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: P390320
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: 22CZ2-39VHE-HRP-UNV-L950-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3138.6 lumens
Efficiency: N/A
Efficacy: 109.7 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

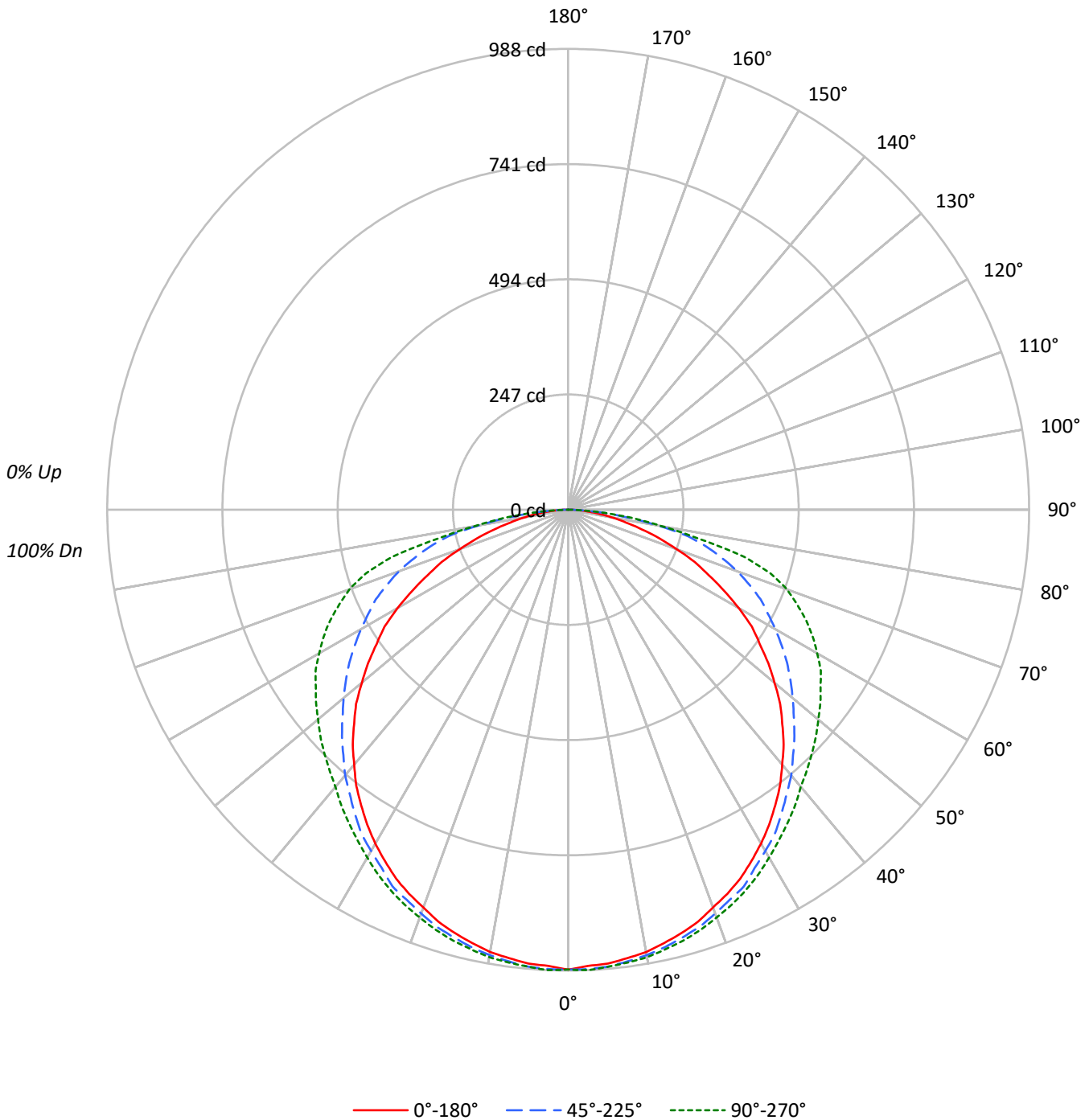
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82					82			
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67					67			
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55					55			
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35					35			
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31					31			
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27					27			
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2653	2653	2653
5°	2638	2657	2657
10°	2631	2650	2662
15°	2618	2644	2663
20°	2599	2638	2665
25°	2591	2646	2674
30°	2568	2626	2676
35°	2541	2617	2693
40°	2506	2612	2725
45°	2469	2610	2812
50°	2416	2629	2929
55°	2350	2686	3098
60°	2274	2759	3318
65°	2117	2896	3587
70°	1943	3034	3924
75°	1704	3193	4057
80°	1468	3042	3185
85°	1284	2211	2424



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.3	3.0
10°-20°	267.8	8.5
20°-30°	408.5	13.0
30°-40°	498.8	15.9
40°-50°	533.3	17.0
50°-60°	514.8	16.4
60°-70°	443.2	14.1
70°-80°	299.8	9.6
80°-90°	79.1	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°	769.5	24.5
0°-40°	1268.4	40.4
0°-60°	2316.5	73.8
0°-90°	3138.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3138.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	986	986	986	986	986	
5°	977	979	984	984	984	93
15°	940	942	949	954	956	265
25°	873	877	891	896	900	402
35°	774	780	797	813	820	484
45°	649	660	686	720	739	501
55°	501	517	573	630	660	449
65°	332	365	455	526	563	331
75°	164	217	307	369	390	176
85°	42	58	72	74	78	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	985.9	985.9	985.9	985.9	985.9
2.5°	979.0	981.3	985.9	985.9	988.2
5°	976.7	979.0	983.6	983.6	983.6
7.5°	969.7	972.0	976.7	979.0	979.0
10°	962.8	965.1	969.7	972.0	974.3
12.5°	951.3	953.6	960.5	965.1	965.1
15°	939.7	942.0	948.9	953.6	955.9
17.5°	925.9	930.5	937.4	942.0	944.3
20°	907.4	912.0	921.2	928.2	930.5
22.5°	891.2	895.8	905.1	912.0	916.6
25°	872.8	877.4	891.2	895.8	900.5
27.5°	849.7	854.3	865.8	875.1	882.0
30°	826.6	831.2	845.0	856.6	861.2
32.5°	801.2	808.1	824.3	833.5	840.4
35°	773.5	780.4	796.6	812.7	819.7
37.5°	745.8	752.7	768.9	789.6	798.9
40°	713.4	722.7	743.5	771.2	775.8
42.5°	683.4	695.0	713.4	745.8	757.3
45°	648.8	660.3	685.7	720.4	738.8
47.5°	616.5	628.0	655.7	697.3	720.4
50°	577.2	593.4	628.0	676.5	699.6
52.5°	540.3	554.1	600.3	653.4	681.1
55°	501.0	517.2	572.6	630.3	660.3
57.5°	466.4	480.2	542.6	607.2	641.9
60°	422.5	441.0	512.6	581.8	616.5
62.5°	376.3	404.1	482.6	554.1	591.1
65°	332.5	364.8	454.8	526.4	563.4
67.5°	293.2	327.9	420.2	496.4	531.0
70°	247.0	290.9	385.6	459.5	498.7
72.5°	205.5	254.0	346.3	420.2	454.8
75°	163.9	217.0	307.1	369.4	390.2
77.5°	127.0	177.8	263.2	281.7	284.0
80°	94.7	140.8	196.3	198.6	205.5
82.5°	64.6	99.3	127.0	138.5	140.8
85°	41.6	57.7	71.6	73.9	78.5
87.5°	18.5	20.8	25.4	23.1	23.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)