

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: P390316

Luminaire Tested: **22CZ2-39VHE-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: P390316
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-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: 2920.2 lumens
Efficiency: N/A
Efficacy: 102.1 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

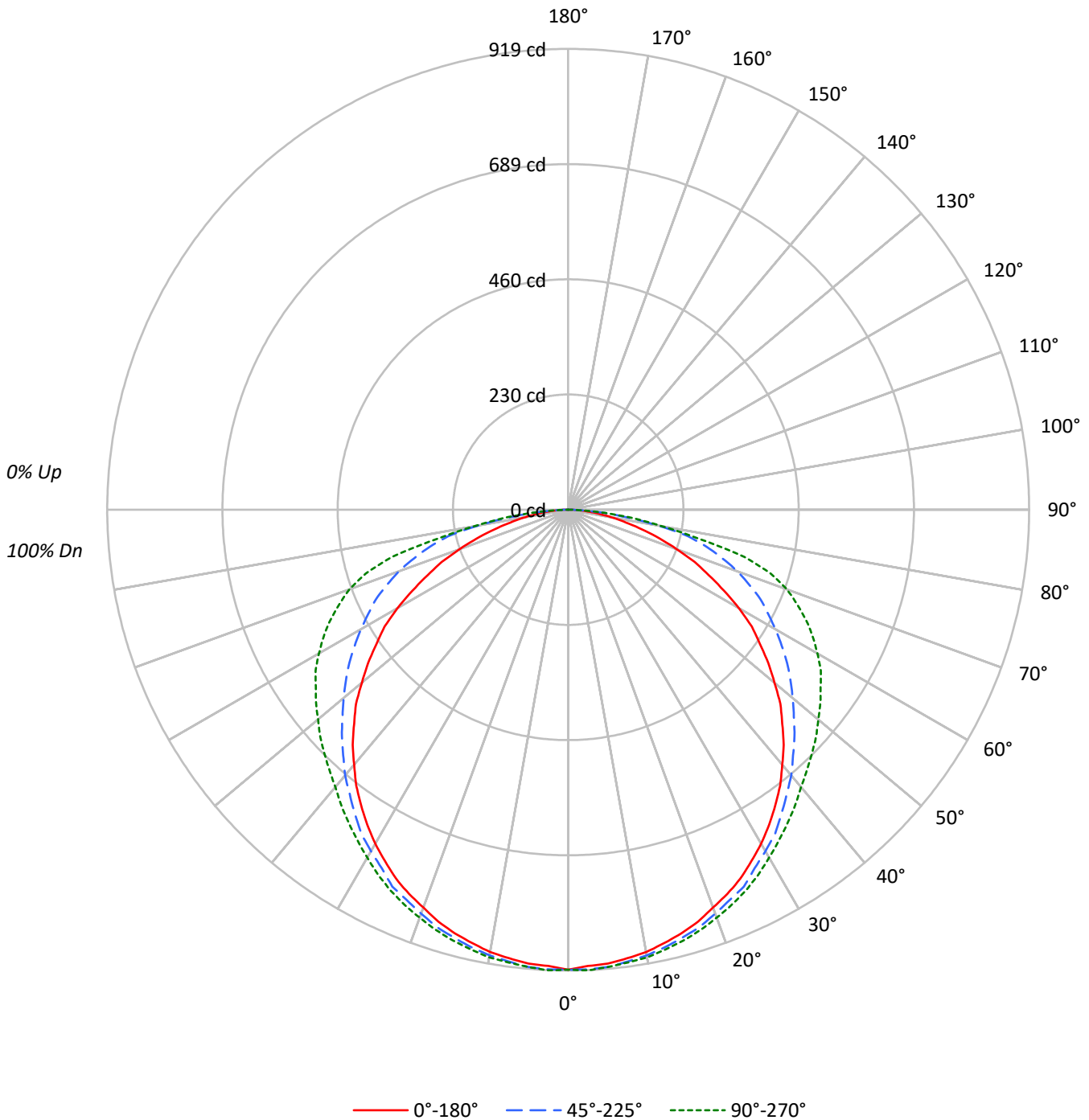
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2468	2468	2468
5°	2455	2472	2472
10°	2448	2465	2477
15°	2436	2460	2478
20°	2418	2454	2479
25°	2411	2462	2488
30°	2390	2443	2490
35°	2364	2435	2505
40°	2332	2430	2536
45°	2297	2428	2616
50°	2249	2446	2725
55°	2187	2500	2883
60°	2116	2567	3087
65°	1969	2695	3338
70°	1809	2823	3651
75°	1586	2970	3774
80°	1365	2830	2963
85°	1195	2056	2254



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.8	3.0
10°-20°	249.1	8.5
20°-30°	380.1	13.0
30°-40°	464.1	15.9
40°-50°	496.2	17.0
50°-60°	479.0	16.4
60°-70°	412.3	14.1
70°-80°	279.0	9.6
80°-90°	73.6	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°	716.0	24.5
0°-40°	1180.1	40.4
0°-60°	2155.3	73.8
0°-90°	2920.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2920.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	917	917	917	917	917	
5°	909	911	915	915	915	86
15°	874	876	883	887	889	247
25°	812	816	829	834	838	374
35°	720	726	741	756	763	450
45°	604	614	638	670	687	466
55°	466	481	533	586	614	418
65°	309	339	423	490	524	308
75°	152	202	286	344	363	164
85°	39	54	67	69	73	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	917.3	917.3	917.3	917.3	917.3
2.5°	910.8	913.0	917.3	917.3	919.4
5°	908.7	910.8	915.1	915.1	915.1
7.5°	902.2	904.4	908.7	910.8	910.8
10°	895.8	898.0	902.2	904.4	906.5
12.5°	885.1	887.2	893.7	898.0	898.0
15°	874.3	876.5	882.9	887.2	889.4
17.5°	861.4	865.7	872.2	876.5	878.6
20°	844.2	848.5	857.1	863.6	865.7
22.5°	829.2	833.5	842.1	848.5	852.8
25°	812.0	816.3	829.2	833.5	837.8
27.5°	790.5	794.8	805.6	814.2	820.6
30°	769.1	773.4	786.2	797.0	801.3
32.5°	745.4	751.9	766.9	775.5	781.9
35°	719.7	726.1	741.1	756.2	762.6
37.5°	693.9	700.3	715.4	734.7	743.3
40°	663.8	672.4	691.7	717.5	721.8
42.5°	635.9	646.6	663.8	693.9	704.6
45°	603.6	614.4	638.0	670.2	687.4
47.5°	573.6	584.3	610.1	648.8	670.2
50°	537.1	552.1	584.3	629.4	650.9
52.5°	502.7	515.6	558.5	607.9	633.7
55°	466.2	481.2	532.8	586.5	614.4
57.5°	433.9	446.8	504.8	565.0	597.2
60°	393.1	410.3	476.9	541.3	573.6
62.5°	350.2	375.9	449.0	515.6	549.9
65°	309.3	339.4	423.2	489.8	524.2
67.5°	272.8	305.0	391.0	461.9	494.1
70°	229.9	270.7	358.8	427.5	464.0
72.5°	191.2	236.3	322.2	391.0	423.2
75°	152.5	201.9	285.7	343.7	363.0
77.5°	118.2	165.4	244.9	262.1	264.2
80°	88.1	131.0	182.6	184.7	191.2
82.5°	60.1	92.4	118.2	128.9	131.0
85°	38.7	53.7	66.6	68.7	73.0
87.5°	17.2	19.3	23.6	21.5	21.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)