

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: P387510

Luminaire Tested: **14CZ2-39HE-SQR-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: P387510
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1911-580-2)
Test Lab: INNOVATIONS CENTER(G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-39HE-SQR-UNV-L940-CD1-SDWPD1-U
Description: 1x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3173.7 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

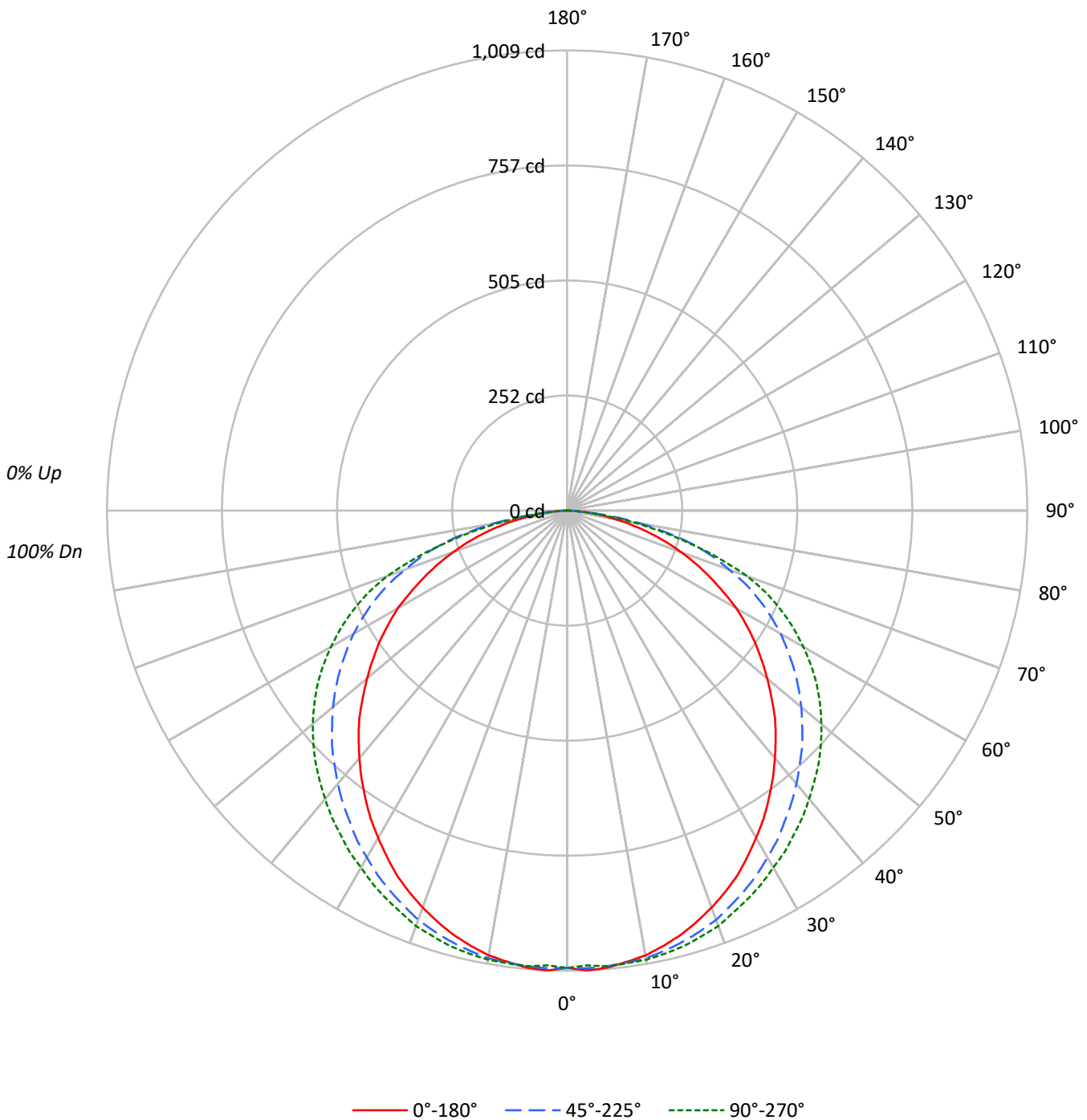
Input Watts (W): 29.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	51	60	54	50	48
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	68	55	45	39	67	54	45	39	52	44	38	50	43	38	49	42	38	35
7	63	49	40	34	62	49	40	34	47	39	34	46	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2699	2699	2699
5°	2718	2709	2709
10°	2705	2723	2732
15°	2683	2727	2754
20°	2652	2735	2776
25°	2622	2731	2788
30°	2575	2729	2808
35°	2533	2733	2848
40°	2489	2748	2899
45°	2453	2776	2971
50°	2397	2806	3047
55°	2357	2852	3137
60°	2307	2909	3219
65°	2200	2964	3300
70°	2089	2970	3297
75°	1912	2960	2910
80°	1636	2529	2256
85°	1284	1433	840



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.3	3.0
10°-20°	275.3	8.7
20°-30°	421.0	13.3
30°-40°	516.1	16.3
40°-50°	555.1	17.5
50°-60°	533.4	16.8
60°-70°	444.1	14.0
70°-80°	272.6	8.6
80°-90°	60.7	1.9
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°	791.7	24.9
0°-40°	1307.8	41.2
0°-60°	2396.2	75.5
0°-90°	3173.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3173.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1003	1003	1003	1003	1003	
5°	1006	996	1003	1003	1003	95
15°	963	960	979	985	988	271
25°	883	891	920	931	939	406
35°	771	790	832	854	867	482
45°	645	673	729	763	781	496
55°	502	545	608	649	669	449
65°	346	398	466	504	518	342
75°	184	240	285	283	280	195
85°	42	62	46	32	27	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1002.9	1002.9	1002.9	1002.9	1002.9
2.5°	1009.3	999.7	1004.5	1002.9	998.1
5°	1006.1	996.5	1002.9	1002.9	1002.9
7.5°	998.1	990.1	999.7	1001.3	1001.3
10°	990.1	983.7	996.5	998.1	999.7
12.5°	977.3	972.5	988.5	991.7	994.9
15°	962.9	959.7	978.9	985.3	988.5
17.5°	945.3	946.9	967.7	975.7	978.9
20°	926.1	930.9	954.9	962.9	969.3
22.5°	905.3	911.7	937.3	946.9	953.3
25°	883.0	890.9	919.7	930.9	938.9
27.5°	855.8	868.6	900.5	914.9	922.9
30°	828.6	843.0	878.2	895.7	903.7
32.5°	801.4	817.4	857.4	875.0	887.7
35°	771.0	790.2	831.8	854.2	867.0
37.5°	740.6	763.0	807.8	833.4	847.8
40°	708.6	732.6	782.2	811.0	825.4
42.5°	676.6	703.8	755.0	787.0	803.0
45°	644.6	673.4	729.4	763.0	780.6
47.5°	607.8	643.0	699.0	737.4	755.0
50°	572.6	611.0	670.2	710.2	727.8
52.5°	537.4	577.4	639.8	681.4	699.0
55°	502.3	545.4	607.8	649.4	668.6
57.5°	465.5	510.3	574.2	617.4	635.0
60°	428.7	475.1	540.6	580.6	598.2
62.5°	385.5	439.9	503.9	543.8	559.8
65°	345.5	398.3	465.5	503.9	518.3
67.5°	305.5	359.9	425.5	460.7	473.5
70°	265.5	319.9	377.5	411.1	419.1
72.5°	225.5	279.9	334.3	353.5	350.3
75°	183.9	239.9	284.7	283.1	279.9
77.5°	144.0	198.3	225.5	214.3	209.5
80°	105.6	158.4	163.2	152.0	145.6
82.5°	72.0	113.6	102.4	89.6	83.2
85°	41.6	62.4	46.4	32.0	27.2
87.5°	17.6	16.0	4.8	4.8	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)