

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: P387512

Luminaire Tested: **14CZ2-39HE-SQR-UNV-L940-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: P387512
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-U
Description: 1x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

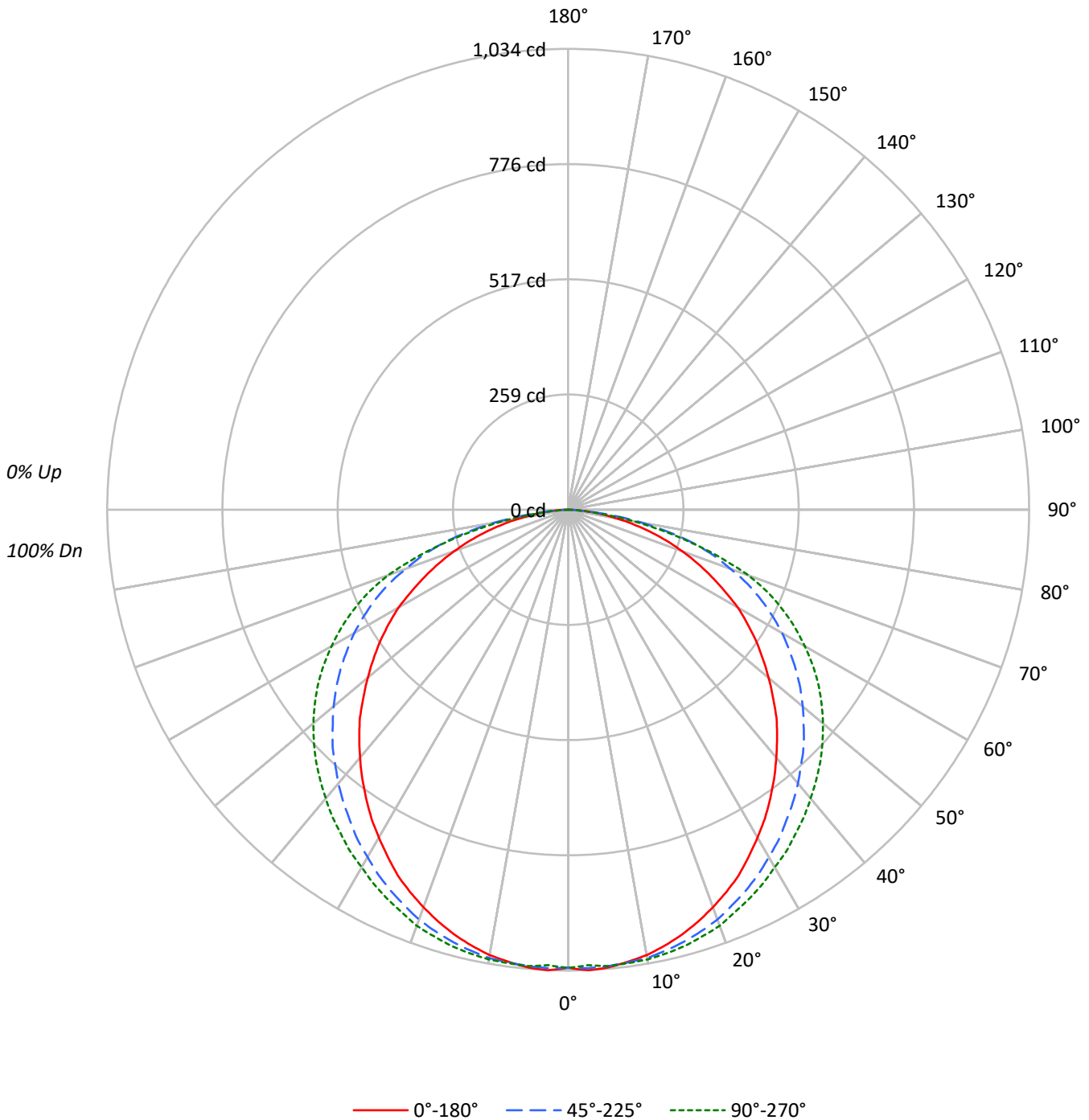
Lumens per Lamp: N/A
Luminaire Lumens: 3252.8 lumens
Efficiency: N/A
Efficacy: 111.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2766	2766	2766
5°	2786	2777	2777
10°	2773	2791	2800
15°	2749	2795	2823
20°	2718	2803	2845
25°	2687	2799	2857
30°	2639	2797	2878
35°	2596	2801	2919
40°	2551	2816	2971
45°	2514	2845	3044
50°	2457	2876	3123
55°	2415	2923	3215
60°	2365	2982	3300
65°	2255	3038	3382
70°	2141	3044	3379
75°	1960	3034	2983
80°	1677	2591	2312
85°	1315	1467	861



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.7	3.0
10°-20°	282.2	8.7
20°-30°	431.6	13.3
30°-40°	529.0	16.3
40°-50°	568.9	17.5
50°-60°	546.7	16.8
60°-70°	455.2	14.0
70°-80°	279.4	8.6
80°-90°	62.2	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°	811.4	24.9
0°-40°	1340.4	41.2
0°-60°	2456.0	75.5
0°-90°	3252.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3252.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1028	1028	1028	1028	1028	
5°	1031	1021	1028	1028	1028	98
15°	987	984	1003	1010	1013	278
25°	905	913	943	954	962	416
35°	790	810	852	875	889	494
45°	661	690	748	782	800	508
55°	515	559	623	666	685	460
65°	354	408	477	516	531	351
75°	188	246	292	290	287	200
85°	43	64	48	33	28	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1027.9	1027.9	1027.9	1027.9	1027.9
2.5°	1034.5	1024.6	1029.6	1027.9	1023.0
5°	1031.2	1021.4	1027.9	1027.9	1027.9
7.5°	1023.0	1014.8	1024.6	1026.3	1026.3
10°	1014.8	1008.2	1021.4	1023.0	1024.6
12.5°	1001.7	996.8	1013.2	1016.4	1019.7
15°	986.9	983.6	1003.3	1009.9	1013.2
17.5°	968.9	970.5	991.8	1000.0	1003.3
20°	949.2	954.1	978.7	986.9	993.5
22.5°	927.9	934.5	960.7	970.5	977.1
25°	905.0	913.2	942.7	954.1	962.3
27.5°	877.1	890.2	923.0	937.7	945.9
30°	849.2	864.0	900.0	918.1	926.3
32.5°	821.3	837.7	878.7	896.8	909.9
35°	790.2	809.9	852.5	875.4	888.6
37.5°	759.0	782.0	827.9	854.1	868.9
40°	726.3	750.9	801.7	831.2	845.9
42.5°	693.5	721.3	773.8	806.6	823.0
45°	660.7	690.2	747.6	782.0	800.0
47.5°	623.0	659.0	716.4	755.8	773.8
50°	586.9	626.3	686.9	727.9	745.9
52.5°	550.8	591.8	655.8	698.4	716.4
55°	514.8	559.0	623.0	665.6	685.3
57.5°	477.1	523.0	588.5	632.8	650.8
60°	439.4	486.9	554.1	595.1	613.1
62.5°	395.1	450.8	516.4	557.4	573.8
65°	354.1	408.2	477.1	516.4	531.2
67.5°	313.1	368.9	436.1	472.2	485.3
70°	272.1	327.9	386.9	421.3	429.5
72.5°	231.2	286.9	342.6	362.3	359.0
75°	188.5	245.9	291.8	290.2	286.9
77.5°	147.5	203.3	231.2	219.7	214.8
80°	108.2	162.3	167.2	155.7	149.2
82.5°	73.8	116.4	104.9	91.8	85.2
85°	42.6	63.9	47.5	32.8	27.9
87.5°	18.0	16.4	4.9	4.9	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)