

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: P387509

Luminaire Tested: **14CZ2-39HE-SQR-UNV-L935-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: P387509
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-L935-CD1-U
Description: 1x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3219.5 lumens
Efficiency: N/A
Efficacy: 109.9 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

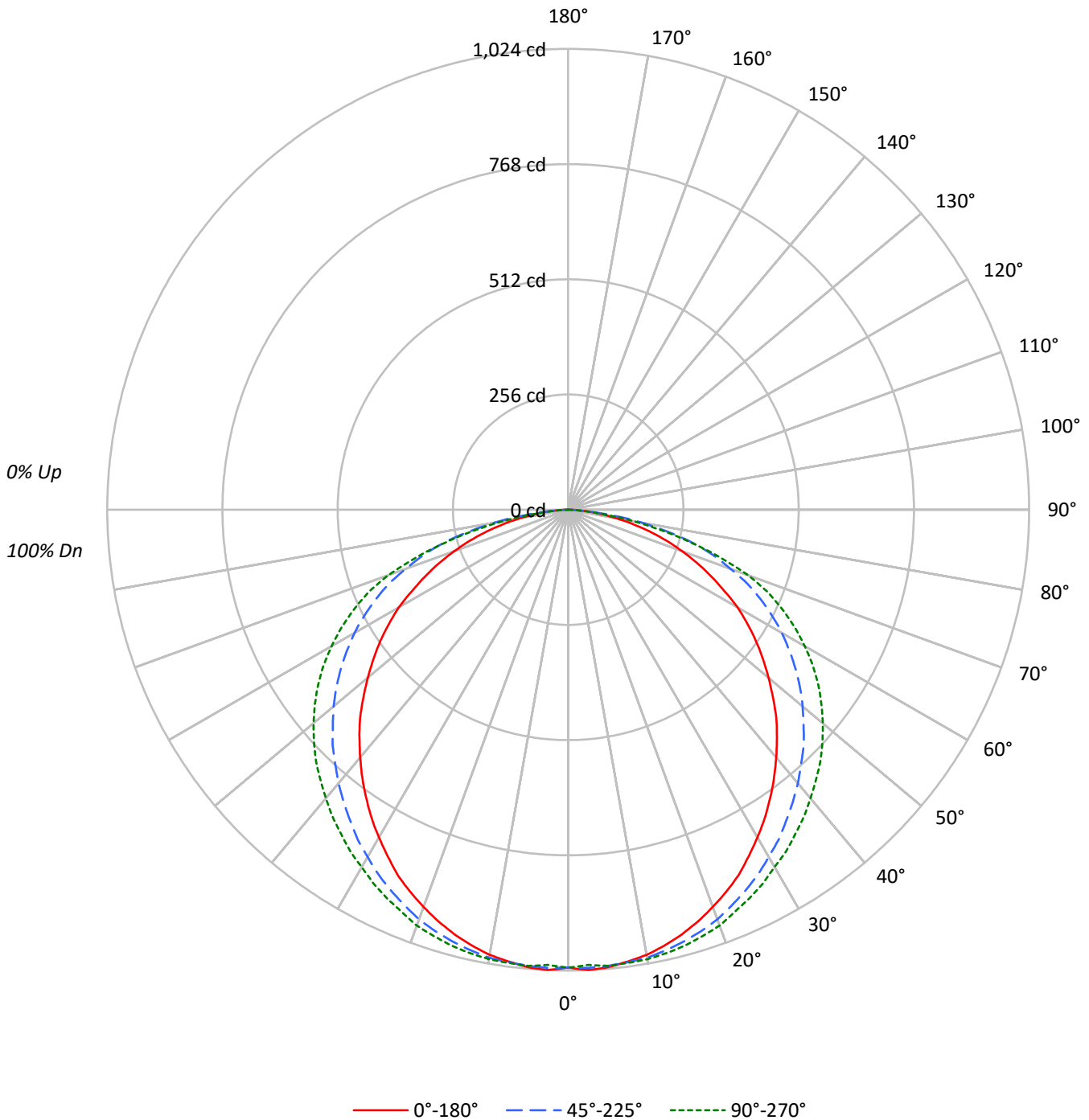
Input Watts (W): 29.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2738	2738	2738
5°	2757	2748	2748
10°	2745	2762	2771
15°	2721	2767	2794
20°	2690	2774	2816
25°	2659	2770	2828
30°	2612	2768	2849
35°	2569	2772	2889
40°	2525	2787	2941
45°	2488	2816	3013
50°	2432	2846	3091
55°	2390	2893	3182
60°	2341	2951	3266
65°	2232	3007	3347
70°	2120	3013	3345
75°	1940	3003	2953
80°	1660	2565	2289
85°	1303	1454	852



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.7	3.0
10°-20°	279.3	8.7
20°-30°	427.1	13.3
30°-40°	523.6	16.3
40°-50°	563.1	17.5
50°-60°	541.1	16.8
60°-70°	450.5	14.0
70°-80°	276.5	8.6
80°-90°	61.6	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°	803.1	24.9
0°-40°	1326.7	41.2
0°-60°	2430.8	75.5
0°-90°	3219.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3219.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1017	1017	1017	1017	1017	
5°	1021	1011	1017	1017	1017	97
15°	977	974	993	1000	1003	275
25°	896	904	933	944	952	412
35°	782	802	844	866	880	489
45°	654	683	740	774	792	503
55°	510	553	617	659	678	455
65°	350	404	472	511	526	347
75°	187	243	289	287	284	198
85°	42	63	47	32	28	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1017.4	1017.4	1017.4	1017.4	1017.4
2.5°	1023.9	1014.1	1019.0	1017.4	1012.5
5°	1020.6	1010.9	1017.4	1017.4	1017.4
7.5°	1012.5	1004.4	1014.1	1015.8	1015.8
10°	1004.4	997.9	1010.9	1012.5	1014.1
12.5°	991.4	986.6	1002.8	1006.0	1009.3
15°	976.8	973.6	993.1	999.5	1002.8
17.5°	959.0	960.6	981.7	989.8	993.1
20°	939.5	944.4	968.7	976.8	983.3
22.5°	918.4	924.9	950.9	960.6	967.1
25°	895.7	903.8	933.0	944.4	952.5
27.5°	868.1	881.1	913.5	928.1	936.3
30°	840.5	855.1	890.8	908.7	916.8
32.5°	812.9	829.2	869.7	887.6	900.6
35°	782.1	801.6	843.8	866.5	879.5
37.5°	751.3	774.0	819.4	845.4	860.0
40°	718.8	743.2	793.5	822.7	837.3
42.5°	686.4	714.0	765.9	798.3	814.6
45°	653.9	683.1	739.9	774.0	791.8
47.5°	616.6	652.3	709.1	748.0	765.9
50°	580.9	619.8	679.9	720.4	738.3
52.5°	545.2	585.8	649.1	691.2	709.1
55°	509.5	553.3	616.6	658.8	678.3
57.5°	472.2	517.6	582.5	626.3	644.2
60°	434.9	481.9	548.4	589.0	606.9
62.5°	391.1	446.2	511.1	551.7	567.9
65°	350.5	404.0	472.2	511.1	525.7
67.5°	309.9	365.1	431.6	467.3	480.3
70°	269.4	324.5	382.9	417.0	425.1
72.5°	228.8	284.0	339.1	358.6	355.4
75°	186.6	243.4	288.8	287.2	284.0
77.5°	146.0	201.2	228.8	217.4	212.6
80°	107.1	160.6	165.5	154.1	147.7
82.5°	73.0	115.2	103.8	90.9	84.4
85°	42.2	63.3	47.1	32.5	27.6
87.5°	17.8	16.2	4.9	4.9	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)