

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: P387505

Luminaire Tested: **14CZ2-39HE-SQR-UNV-L930-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: P387505
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-L930-CD1-SWPD1-U
Description: 1x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3102.8 lumens
Efficiency: N/A
Efficacy: 105.9 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

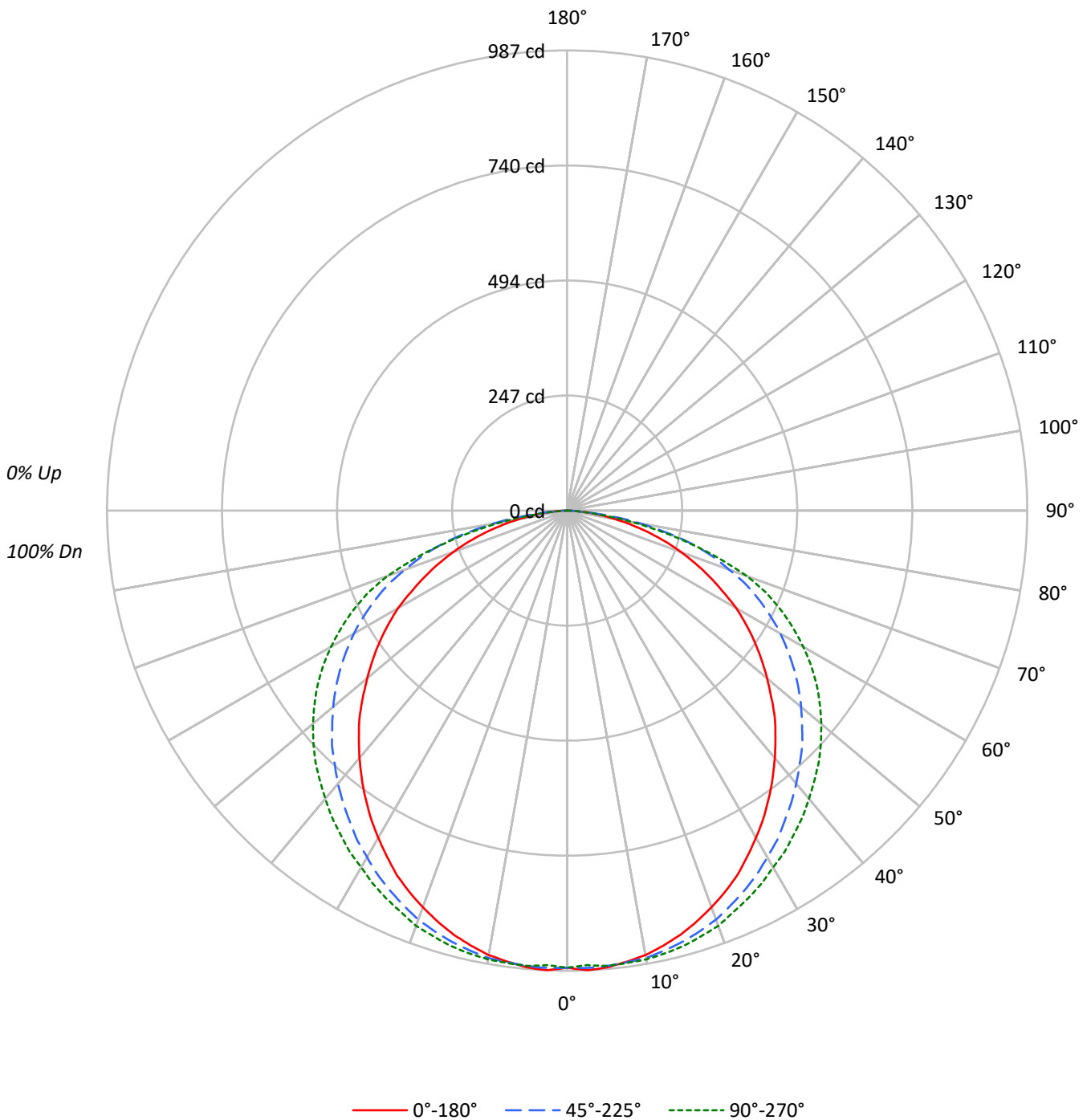
Input Watts (W): 29.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2639	2639	2639
5°	2657	2649	2649
10°	2645	2662	2671
15°	2623	2666	2692
20°	2593	2674	2714
25°	2563	2670	2726
30°	2517	2668	2746
35°	2476	2671	2784
40°	2434	2686	2834
45°	2398	2714	2904
50°	2344	2743	2979
55°	2304	2788	3067
60°	2256	2845	3148
65°	2151	2898	3226
70°	2043	2904	3223
75°	1869	2895	2846
80°	1599	2472	2205
85°	1257	1402	821



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.2	3.0
10°-20°	269.2	8.7
20°-30°	411.6	13.3
30°-40°	504.6	16.3
40°-50°	542.7	17.5
50°-60°	521.5	16.8
60°-70°	434.2	14.0
70°-80°	266.5	8.6
80°-90°	59.4	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°	774.0	24.9
0°-40°	1278.6	41.2
0°-60°	2342.7	75.5
0°-90°	3102.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3102.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	980	980	980	980	980	
5°	984	974	980	980	980	93
15°	941	938	957	963	966	265
25°	863	871	899	910	918	397
35°	754	772	813	835	848	472
45°	630	658	713	746	763	485
55°	491	533	594	635	654	439
65°	338	389	455	493	507	335
75°	180	235	278	277	274	190
85°	41	61	45	31	27	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	980.5	980.5	980.5	980.5	980.5
2.5°	986.8	977.4	982.1	980.5	975.8
5°	983.6	974.3	980.5	980.5	980.5
7.5°	975.8	968.0	977.4	978.9	978.9
10°	968.0	961.7	974.3	975.8	977.4
12.5°	955.5	950.8	966.4	969.6	972.7
15°	941.4	938.3	957.1	963.3	966.4
17.5°	924.2	925.8	946.1	953.9	957.1
20°	905.4	910.1	933.6	941.4	947.7
22.5°	885.1	891.4	916.4	925.8	932.0
25°	863.2	871.0	899.2	910.1	918.0
27.5°	836.6	849.2	880.4	894.5	902.3
30°	810.1	824.1	858.5	875.7	883.6
32.5°	783.5	799.1	838.2	855.4	867.9
35°	753.8	772.5	813.2	835.1	847.6
37.5°	724.0	745.9	789.7	814.7	828.8
40°	692.8	716.2	764.7	792.9	806.9
42.5°	661.5	688.1	738.1	769.4	785.0
45°	630.2	658.4	713.1	745.9	763.1
47.5°	594.2	628.7	683.4	720.9	738.1
50°	559.8	597.4	655.2	694.3	711.5
52.5°	525.4	564.5	625.5	666.2	683.4
55°	491.0	533.3	594.2	634.9	653.7
57.5°	455.1	498.9	561.4	603.6	620.8
60°	419.1	464.5	528.6	567.7	584.9
62.5°	376.9	430.0	492.6	531.7	547.3
65°	337.8	389.4	455.1	492.6	506.7
67.5°	298.7	351.9	416.0	450.4	462.9
70°	259.6	312.8	369.1	401.9	409.7
72.5°	220.5	273.7	326.8	345.6	342.5
75°	179.8	234.6	278.4	276.8	273.7
77.5°	140.7	193.9	220.5	209.6	204.9
80°	103.2	154.8	159.5	148.6	142.3
82.5°	70.4	111.0	100.1	87.6	81.3
85°	40.7	61.0	45.4	31.3	26.6
87.5°	17.2	15.6	4.7	4.7	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)