

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: P387511

Luminaire Tested: **14CZ2-39HE-SQR-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: P387511
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-SWPD1-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: 3212.5 lumens
Efficiency: N/A
Efficacy: 109.6 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

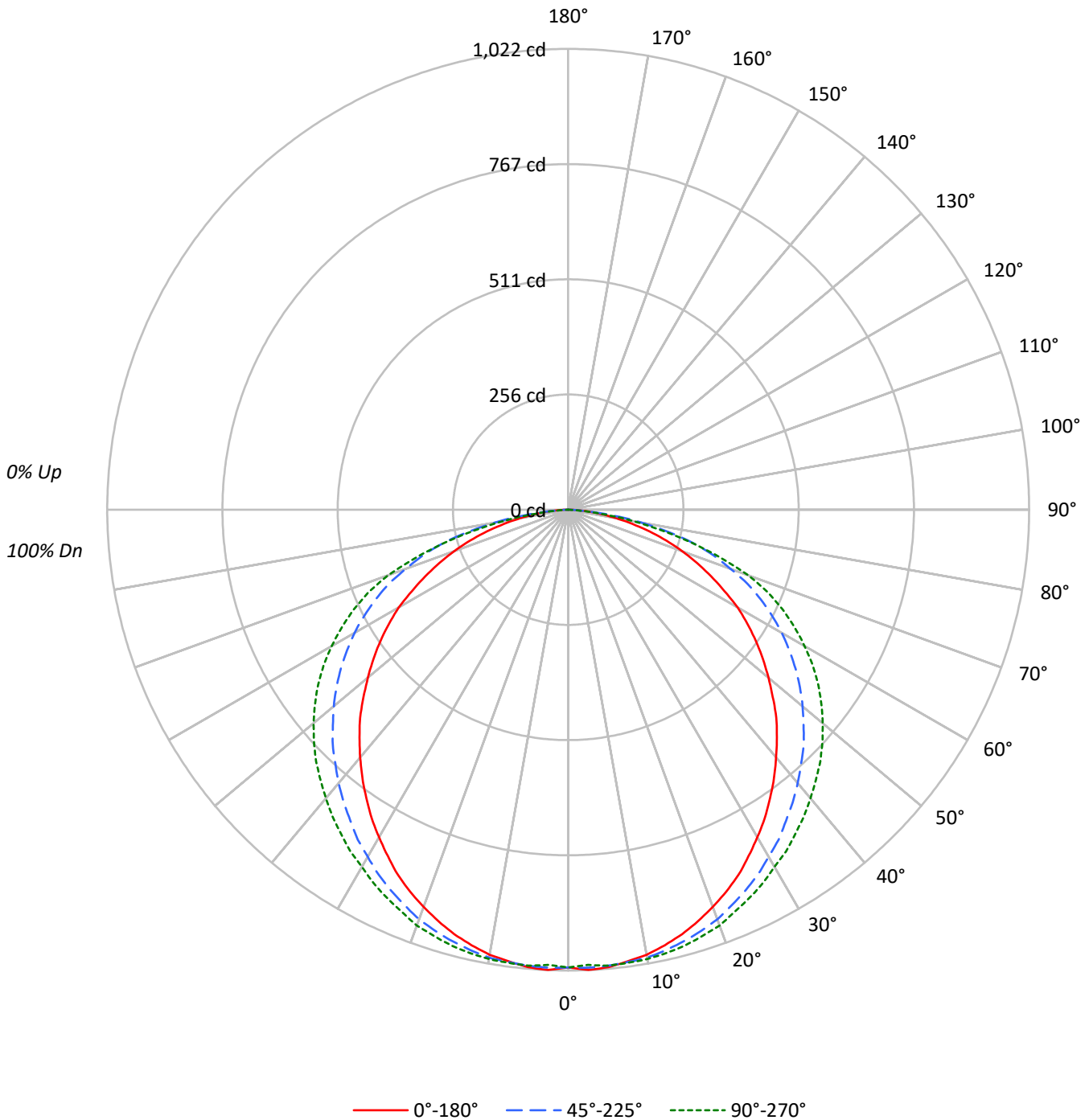
Input Watts (W): 29.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2732	2732	2732
5°	2751	2742	2742
10°	2739	2756	2765
15°	2715	2761	2788
20°	2685	2768	2810
25°	2654	2764	2822
30°	2606	2762	2843
35°	2564	2766	2883
40°	2520	2781	2935
45°	2483	2810	3007
50°	2426	2840	3084
55°	2385	2887	3175
60°	2335	2946	3259
65°	2227	3000	3340
70°	2115	3006	3338
75°	1936	2996	2946
80°	1657	2559	2283
85°	1300	1451	849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.5	3.0
10°-20°	278.7	8.7
20°-30°	426.2	13.3
30°-40°	522.4	16.3
40°-50°	561.8	17.5
50°-60°	539.9	16.8
60°-70°	449.6	14.0
70°-80°	275.9	8.6
80°-90°	61.5	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°	801.4	24.9
0°-40°	1323.8	41.2
0°-60°	2425.5	75.5
0°-90°	3212.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3212.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1015	1015	1015	1015	1015	
5°	1018	1009	1015	1015	1015	97
15°	975	972	991	997	1001	275
25°	894	902	931	942	950	411
35°	780	800	842	865	878	488
45°	652	682	738	772	790	502
55°	508	552	615	657	677	454
65°	350	403	471	510	525	346
75°	186	243	288	287	283	197
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°	1015.2	1015.2	1015.2	1015.2	1015.2
2.5°	1021.7	1011.9	1016.8	1015.2	1010.3
5°	1018.4	1008.7	1015.2	1015.2	1015.2
7.5°	1010.3	1002.2	1011.9	1013.6	1013.6
10°	1002.2	995.7	1008.7	1010.3	1011.9
12.5°	989.3	984.4	1000.6	1003.8	1007.1
15°	974.7	971.5	990.9	997.4	1000.6
17.5°	956.9	958.5	979.6	987.7	990.9
20°	937.5	942.3	966.6	974.7	981.2
22.5°	916.4	922.9	948.8	958.5	965.0
25°	893.7	901.8	931.0	942.3	950.4
27.5°	866.2	879.2	911.6	926.1	934.2
30°	838.7	853.3	888.9	906.7	914.8
32.5°	811.2	827.4	867.8	885.6	898.6
35°	780.4	799.8	841.9	864.6	877.6
37.5°	749.6	772.3	817.6	843.6	858.1
40°	717.3	741.5	791.7	820.9	835.5
42.5°	684.9	712.4	764.2	796.6	812.8
45°	652.5	681.6	738.3	772.3	790.1
47.5°	615.3	650.9	707.5	746.4	764.2
50°	579.6	618.5	678.4	718.9	736.7
52.5°	544.0	584.5	647.6	689.7	707.5
55°	508.4	552.1	615.3	657.4	676.8
57.5°	471.2	516.5	581.3	625.0	642.8
60°	433.9	480.9	547.3	587.7	605.5
62.5°	390.2	445.3	510.0	550.5	566.7
65°	349.7	403.2	471.2	510.0	524.6
67.5°	309.2	364.3	430.7	466.3	479.3
70°	268.8	323.8	382.1	416.1	424.2
72.5°	228.3	283.3	338.4	357.8	354.6
75°	186.2	242.9	288.2	286.6	283.3
77.5°	145.7	200.8	228.3	217.0	212.1
80°	106.9	160.3	165.1	153.8	147.3
82.5°	72.9	115.0	103.6	90.7	84.2
85°	42.1	63.1	47.0	32.4	27.5
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)