

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: P387464

Luminaire Tested: **14CZ2-35-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: P387464  
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: 14CZ2-35-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**

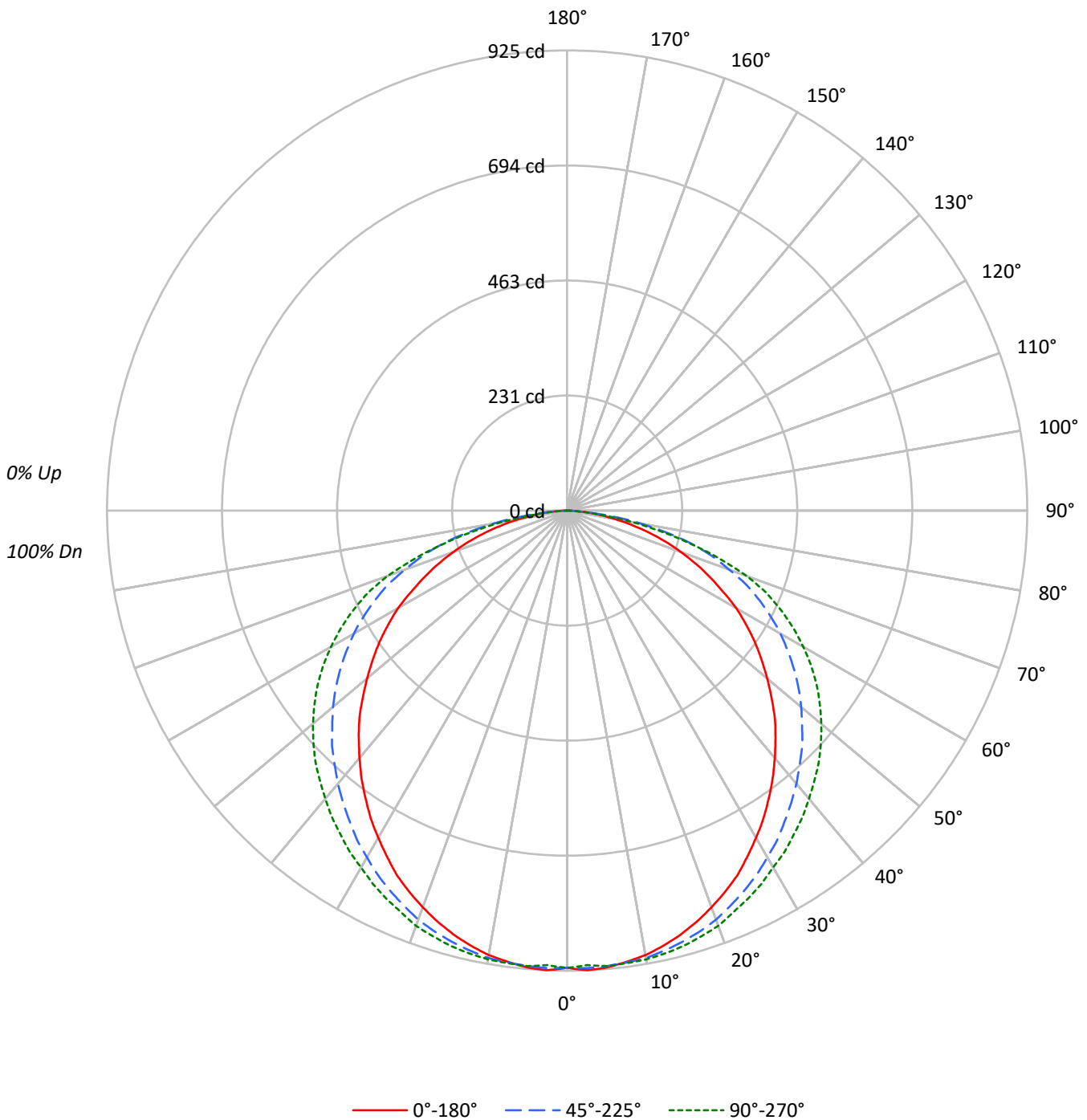
Lumens per Lamp: N/A  
Luminaire Lumens: 2908.3 lumens  
Efficiency: N/A  
Efficacy: 93.2 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 31.2  
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°	2473	2473	2473
5°	2491	2482	2482
10°	2479	2495	2503
15°	2458	2499	2524
20°	2430	2506	2544
25°	2402	2502	2555
30°	2359	2500	2573
35°	2321	2504	2610
40°	2281	2518	2657
45°	2248	2544	2722
50°	2197	2571	2792
55°	2160	2613	2875
60°	2114	2666	2950
65°	2016	2716	3024
70°	1914	2722	3021
75°	1753	2713	2667
80°	1499	2317	2067
85°	1176	1312	769



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.3	3.0
10°-20°	252.3	8.7
20°-30°	385.8	13.3
30°-40°	472.9	16.3
40°-50°	508.6	17.5
50°-60°	488.8	16.8
60°-70°	407.0	14.0
70°-80°	249.8	8.6
80°-90°	55.7	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°	725.5	24.9
0°-40°	1198.4	41.2
0°-60°	2195.9	75.5
0°-90°	2908.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2908.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	919	919	919	919	919	
5°	922	913	919	919	919	87
15°	882	880	897	903	906	249
25°	809	816	843	853	860	372
35°	706	724	762	783	794	442
45°	591	617	668	699	715	455
55°	460	500	557	595	613	411
65°	317	365	426	462	475	314
75°	169	220	261	259	256	179
85°	38	57	42	29	25	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	919.0	919.0	919.0	919.0	919.0
2.5°	924.9	916.1	920.5	919.0	914.7
5°	922.0	913.2	919.0	919.0	919.0
7.5°	914.7	907.3	916.1	917.6	917.6
10°	907.3	901.5	913.2	914.7	916.1
12.5°	895.6	891.2	905.9	908.8	911.7
15°	882.4	879.5	897.1	902.9	905.9
17.5°	866.3	867.7	886.8	894.1	897.1
20°	848.7	853.1	875.1	882.4	888.3
22.5°	829.6	835.5	859.0	867.7	873.6
25°	809.1	816.4	842.8	853.1	860.4
27.5°	784.2	795.9	825.2	838.4	845.8
30°	759.3	772.5	804.7	820.8	828.2
32.5°	734.4	749.0	785.7	801.8	813.5
35°	706.5	724.1	762.2	782.7	794.5
37.5°	678.7	699.2	740.2	763.7	776.9
40°	649.3	671.3	716.8	743.2	756.3
42.5°	620.0	644.9	691.9	721.2	735.8
45°	590.7	617.1	668.4	699.2	715.3
47.5°	557.0	589.2	640.5	675.7	691.9
50°	524.8	559.9	614.2	650.8	666.9
52.5°	492.5	529.1	586.3	624.4	640.5
55°	460.3	499.8	557.0	595.1	612.7
57.5°	426.5	467.6	526.2	565.8	581.9
60°	392.8	435.3	495.4	532.1	548.2
62.5°	353.3	403.1	461.7	498.4	513.0
65°	316.6	365.0	426.5	461.7	474.9
67.5°	280.0	329.8	389.9	422.1	433.9
70°	243.3	293.2	345.9	376.7	384.0
72.5°	206.7	256.5	306.3	323.9	321.0
75°	168.6	219.9	260.9	259.4	256.5
77.5°	131.9	181.8	206.7	196.4	192.0
80°	96.7	145.1	149.5	139.2	133.4
82.5°	66.0	104.1	93.8	82.1	76.2
85°	38.1	57.2	42.5	29.3	24.9
87.5°	16.1	14.7	4.4	4.4	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)