

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: P387533

Luminaire Tested: **14CZ2-44-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: P387533  
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: 14CZ2-44-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**

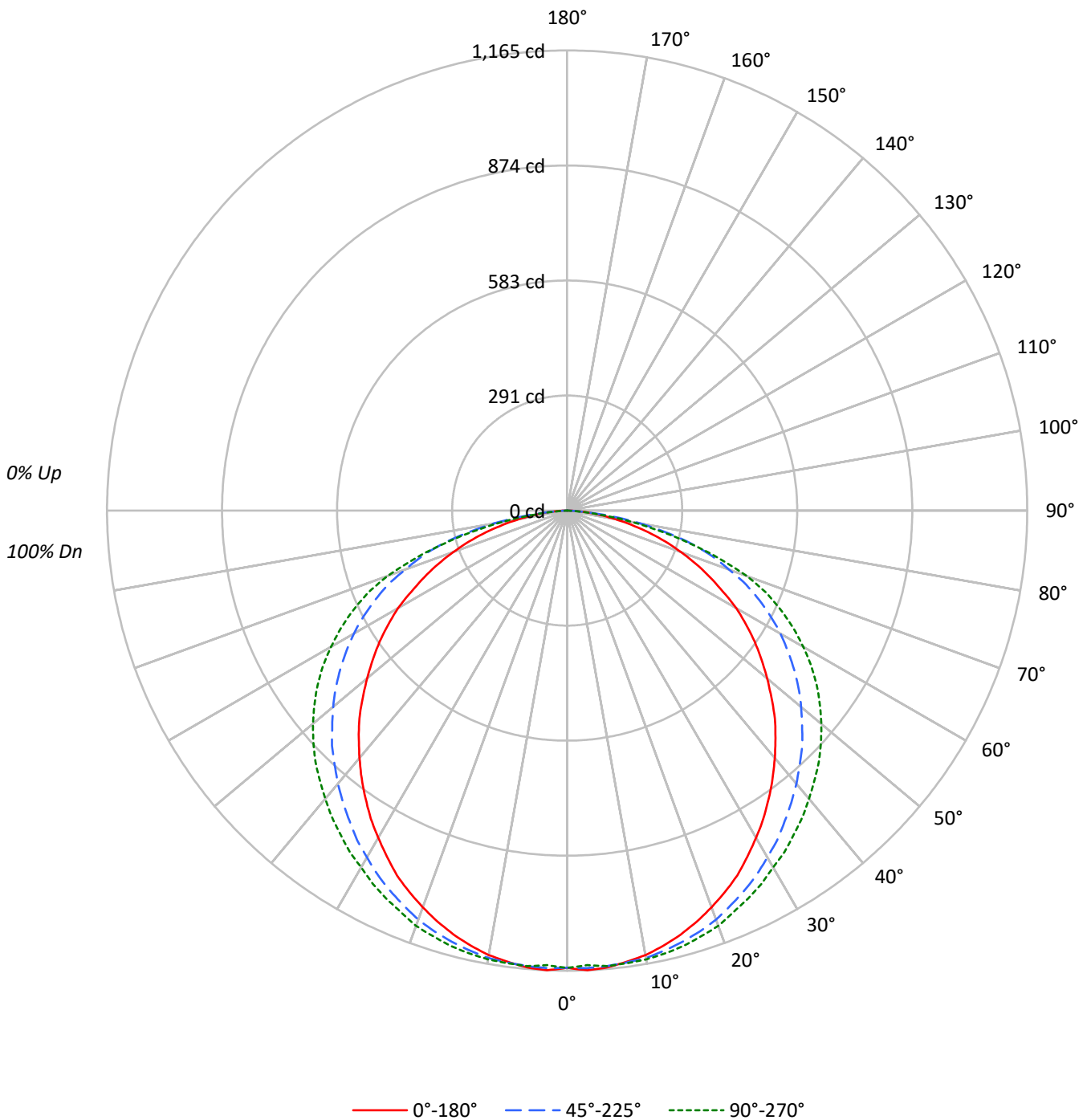
Lumens per Lamp: N/A  
Luminaire Lumens: 3662.9 lumens  
Efficiency: N/A  
Efficacy: 95.6 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 38.3  
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°	3115	3115	3115
5°	3137	3127	3127
10°	3122	3143	3153
15°	3096	3148	3178
20°	3061	3156	3204
25°	3026	3152	3218
30°	2971	3149	3241
35°	2923	3154	3287
40°	2873	3171	3346
45°	2831	3204	3428
50°	2767	3238	3517
55°	2720	3291	3620
60°	2663	3358	3716
65°	2539	3421	3808
70°	2412	3428	3806
75°	2207	3417	3359
80°	1888	2918	2603
85°	1482	1652	969



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.0	3.0
10°-20°	317.8	8.7
20°-30°	486.0	13.3
30°-40°	595.7	16.3
40°-50°	640.6	17.5
50°-60°	615.6	16.8
60°-70°	512.6	14.0
70°-80°	314.6	8.6
80°-90°	70.1	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°	913.7	24.9
0°-40°	1509.4	41.2
0°-60°	2765.6	75.5
0°-90°	3662.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3662.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1158	1158	1158	1158	1158	
5°	1161	1150	1158	1158	1158	110
15°	1111	1108	1130	1137	1141	313
25°	1019	1028	1062	1074	1084	469
35°	890	912	960	986	1001	557
45°	744	777	842	881	901	573
55°	580	630	702	750	772	518
65°	399	460	537	582	598	395
75°	212	277	329	327	323	225
85°	48	72	54	37	31	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1157.5	1157.5	1157.5	1157.5	1157.5
2.5°	1164.9	1153.8	1159.4	1157.5	1152.0
5°	1161.2	1150.1	1157.5	1157.5	1157.5
7.5°	1152.0	1142.7	1153.8	1155.7	1155.7
10°	1142.7	1135.4	1150.1	1152.0	1153.8
12.5°	1128.0	1122.4	1140.9	1144.6	1148.3
15°	1111.4	1107.7	1129.8	1137.2	1140.9
17.5°	1091.0	1092.9	1116.9	1126.1	1129.8
20°	1068.9	1074.4	1102.1	1111.4	1118.7
22.5°	1044.9	1052.3	1081.8	1092.9	1100.3
25°	1019.1	1028.3	1061.5	1074.4	1083.7
27.5°	987.7	1002.4	1039.4	1056.0	1065.2
30°	956.3	972.9	1013.5	1033.8	1043.0
32.5°	924.9	943.4	989.5	1009.8	1024.6
35°	889.8	912.0	960.0	985.8	1000.6
37.5°	854.7	880.6	932.3	961.8	978.4
40°	817.8	845.5	902.7	936.0	952.6
42.5°	780.9	812.3	871.4	908.3	926.7
45°	744.0	777.2	841.8	880.6	900.9
47.5°	701.5	742.1	806.7	851.1	871.4
50°	660.9	705.2	773.5	819.7	840.0
52.5°	620.3	666.4	738.4	786.4	806.7
55°	579.7	629.5	701.5	749.5	771.7
57.5°	537.2	588.9	662.8	712.6	732.9
60°	494.8	548.3	624.0	670.1	690.4
62.5°	444.9	507.7	581.5	627.7	646.1
65°	398.8	459.7	537.2	581.5	598.1
67.5°	352.6	415.4	491.1	531.7	546.4
70°	306.5	369.2	435.7	474.4	483.7
72.5°	260.3	323.1	385.8	408.0	404.3
75°	212.3	276.9	328.6	326.8	323.1
77.5°	166.1	228.9	260.3	247.4	241.8
80°	121.8	182.8	188.3	175.4	168.0
82.5°	83.1	131.1	118.2	103.4	96.0
85°	48.0	72.0	53.5	36.9	31.4
87.5°	20.3	18.5	5.5	5.5	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)