

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: P387579

Luminaire Tested: **14CZ2-60HE-SQR-UNV-L935-CD1-SDWPD1-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: P387579  
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: 14CZ2-60HE-SQR-UNV-L935-CD1-SDWPD1-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: 4770.1 lumens  
Efficiency: N/A  
Efficacy: 98.8 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

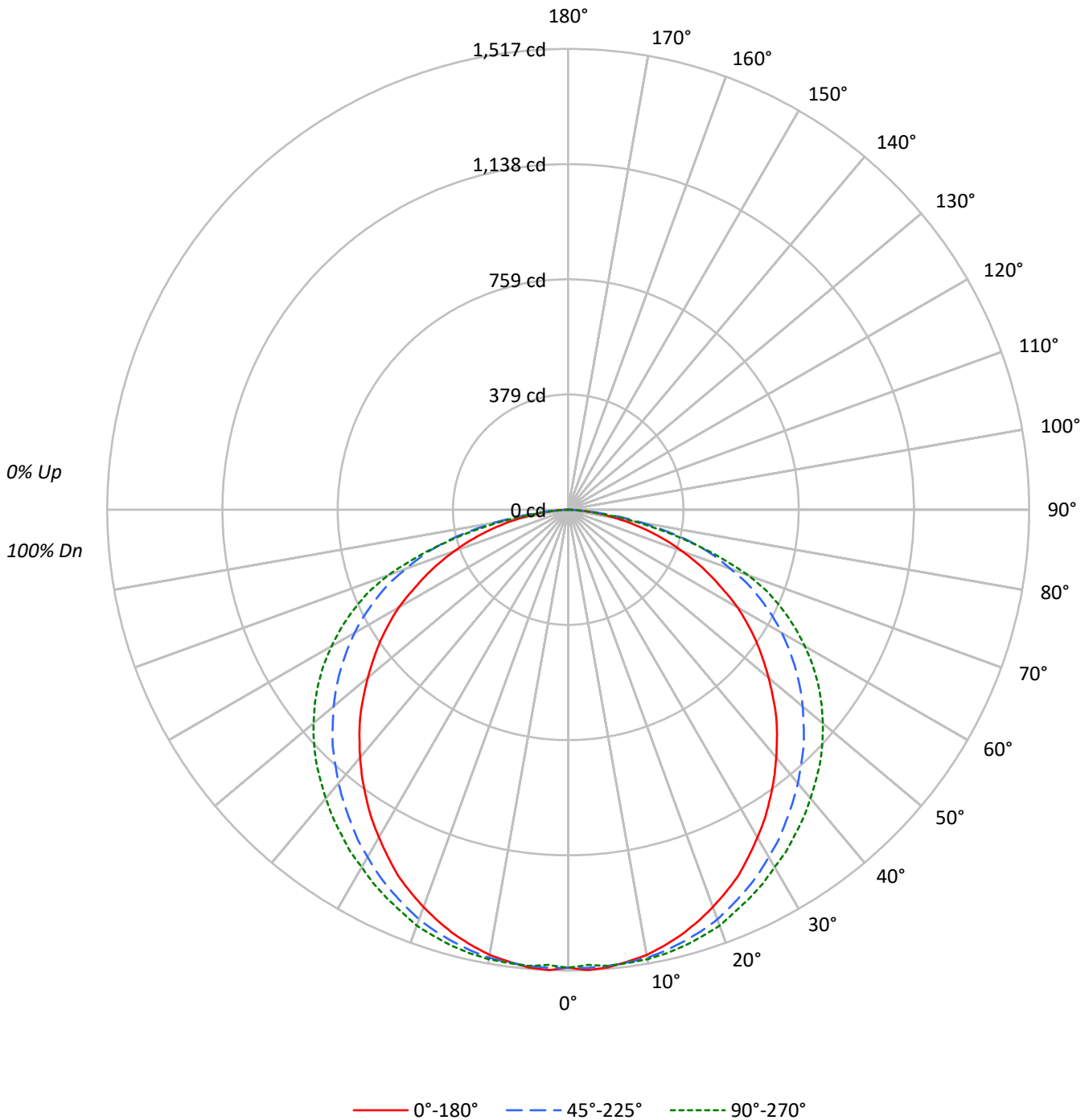
Input Watts (W): 48.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4056	4056	4056
5°	4085	4072	4072
10°	4066	4093	4106
15°	4032	4099	4139
20°	3986	4110	4172
25°	3940	4105	4190
30°	3869	4101	4221
35°	3807	4107	4280
40°	3741	4130	4358
45°	3687	4172	4465
50°	3603	4217	4580
55°	3542	4286	4715
60°	3468	4373	4839
65°	3307	4455	4960
70°	3140	4464	4956
75°	2875	4449	4374
80°	2459	3800	3391
85°	1930	2152	1263



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.3	3.0
10°-20°	413.8	8.7
20°-30°	632.9	13.3
30°-40°	775.7	16.3
40°-50°	834.3	17.5
50°-60°	801.7	16.8
60°-70°	667.5	14.0
70°-80°	409.7	8.6
80°-90°	91.3	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°	1189.9	24.9
0°-40°	1965.6	41.2
0°-60°	3601.6	75.5
0°-90°	4770.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4770.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1507	1507	1507	1507	1507	
5°	1512	1498	1507	1507	1507	143
15°	1447	1442	1471	1481	1486	408
25°	1327	1339	1382	1399	1411	610
35°	1159	1188	1250	1284	1303	725
45°	969	1012	1096	1147	1173	746
55°	755	820	914	976	1005	674
65°	519	599	700	757	779	515
75°	276	361	428	426	421	293
85°	62	94	70	48	41	75
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1507.4	1507.4	1507.4	1507.4	1507.4
2.5°	1517.0	1502.6	1509.8	1507.4	1500.2
5°	1512.2	1497.8	1507.4	1507.4	1507.4
7.5°	1500.2	1488.2	1502.6	1505.0	1505.0
10°	1488.2	1478.5	1497.8	1500.2	1502.6
12.5°	1468.9	1461.7	1485.8	1490.6	1495.4
15°	1447.3	1442.5	1471.3	1480.9	1485.8
17.5°	1420.8	1423.2	1454.5	1466.5	1471.3
20°	1392.0	1399.2	1435.3	1447.3	1456.9
22.5°	1360.7	1370.4	1408.8	1423.2	1432.9
25°	1327.1	1339.1	1382.4	1399.2	1411.2
27.5°	1286.2	1305.4	1353.5	1375.2	1387.2
30°	1245.3	1267.0	1319.9	1346.3	1358.3
32.5°	1204.5	1228.5	1288.6	1315.1	1334.3
35°	1158.8	1187.6	1250.2	1283.8	1303.0
37.5°	1113.1	1146.8	1214.1	1252.6	1274.2
40°	1065.0	1101.1	1175.6	1218.9	1240.5
42.5°	1016.9	1057.8	1134.8	1182.8	1206.9
45°	968.9	1012.1	1096.3	1146.8	1173.2
47.5°	913.6	966.5	1050.6	1108.3	1134.8
50°	860.7	918.4	1007.3	1067.4	1093.9
52.5°	807.8	867.9	961.7	1024.2	1050.6
55°	754.9	819.8	913.6	976.1	1004.9
57.5°	699.6	766.9	863.1	928.0	954.4
60°	644.3	714.0	812.6	872.7	899.1
62.5°	579.4	661.1	757.3	817.4	841.4
65°	519.3	598.6	699.6	757.3	778.9
67.5°	459.2	540.9	639.5	692.4	711.6
70°	399.1	480.8	567.4	617.9	629.9
72.5°	339.0	420.7	502.5	531.3	526.5
75°	276.5	360.6	427.9	425.5	420.7
77.5°	216.4	298.1	339.0	322.2	314.9
80°	158.7	238.0	245.2	228.4	218.8
82.5°	108.2	170.7	153.9	134.6	125.0
85°	62.5	93.8	69.7	48.1	40.9
87.5°	26.4	24.0	7.2	7.2	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)