

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: P387578

Luminaire Tested: **14CZ2-60HE-SQR-UNV-L930-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: P387578
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-L930-CD1-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: 4770.8 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

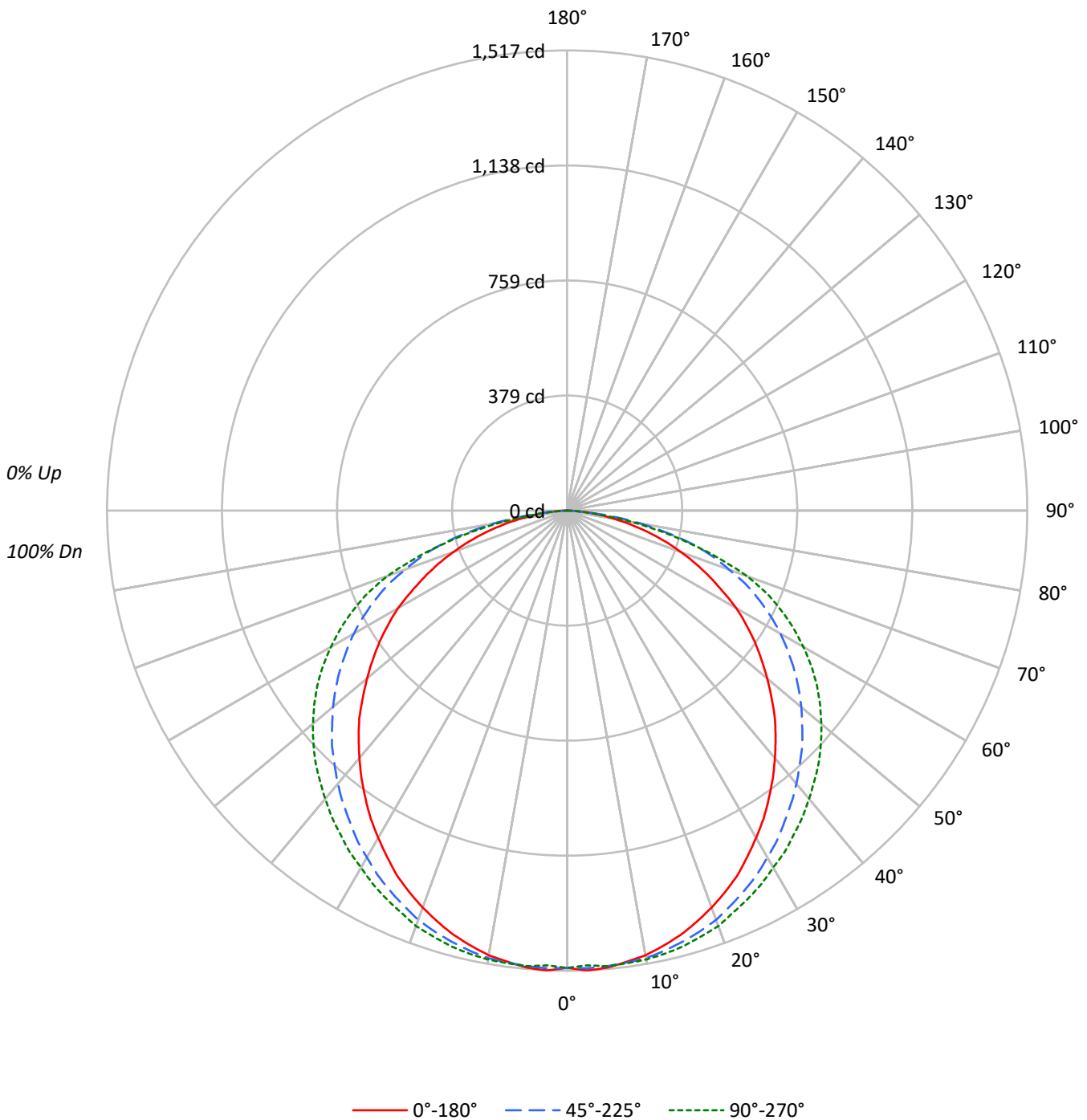
Input Watts (W): 48.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4057	4057	4057
5°	4086	4072	4072
10°	4067	4093	4106
15°	4033	4100	4140
20°	3987	4111	4173
25°	3941	4105	4191
30°	3870	4102	4222
35°	3807	4108	4281
40°	3742	4130	4358
45°	3688	4173	4466
50°	3604	4218	4580
55°	3542	4287	4716
60°	3468	4374	4840
65°	3307	4455	4961
70°	3141	4465	4957
75°	2875	4450	4375
80°	2459	3801	3391
85°	1930	2152	1263



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.3	3.0
10°-20°	413.9	8.7
20°-30°	633.0	13.3
30°-40°	775.8	16.3
40°-50°	834.4	17.5
50°-60°	801.8	16.8
60°-70°	667.6	14.0
70°-80°	409.8	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°	1190.1	24.9
0°-40°	1966.0	41.2
0°-60°	3602.2	75.5
0°-90°	4770.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4770.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1508	1508	1508	1508	1508	
5°	1512	1498	1508	1508	1508	143
15°	1448	1443	1472	1481	1486	408
25°	1327	1339	1383	1399	1412	611
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°	1507.6	1507.6	1507.6	1507.6	1507.6
2.5°	1517.3	1502.8	1510.1	1507.6	1500.4
5°	1512.5	1498.0	1507.6	1507.6	1507.6
7.5°	1500.4	1488.4	1502.8	1505.2	1505.2
10°	1488.4	1478.8	1498.0	1500.4	1502.8
12.5°	1469.2	1462.0	1486.0	1490.8	1495.6
15°	1447.5	1442.7	1471.6	1481.2	1486.0
17.5°	1421.1	1423.5	1454.7	1466.8	1471.6
20°	1392.2	1399.4	1435.5	1447.5	1457.2
22.5°	1361.0	1370.6	1409.1	1423.5	1433.1
25°	1327.3	1339.3	1382.6	1399.4	1411.5
27.5°	1286.4	1305.7	1353.8	1375.4	1387.4
30°	1245.6	1267.2	1320.1	1346.5	1358.6
32.5°	1204.7	1228.7	1288.8	1315.3	1334.5
35°	1159.0	1187.8	1250.4	1284.0	1303.3
37.5°	1113.3	1147.0	1214.3	1252.8	1274.4
40°	1065.2	1101.3	1175.8	1219.1	1240.7
42.5°	1017.1	1058.0	1134.9	1183.0	1207.1
45°	969.0	1012.3	1096.5	1147.0	1173.4
47.5°	913.7	966.6	1050.8	1108.5	1134.9
50°	860.8	918.5	1007.5	1067.6	1094.1
52.5°	807.9	868.0	961.8	1024.3	1050.8
55°	755.0	819.9	913.7	976.2	1005.1
57.5°	699.7	767.0	863.2	928.2	954.6
60°	644.4	714.1	812.7	872.8	899.3
62.5°	579.5	661.2	757.4	817.5	841.6
65°	519.4	598.7	699.7	757.4	779.1
67.5°	459.3	541.0	639.6	692.5	711.7
70°	399.2	480.9	567.5	618.0	630.0
72.5°	339.0	420.8	502.5	531.4	526.6
75°	276.5	360.7	428.0	425.6	420.8
77.5°	216.4	298.2	339.0	322.2	315.0
80°	158.7	238.0	245.3	228.4	218.8
82.5°	108.2	170.7	153.9	134.7	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)