

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: P387583

Luminaire Tested: **14CZ2-60HE-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: P387583
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-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: 4878.2 lumens
Efficiency: N/A
Efficacy: 101.0 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

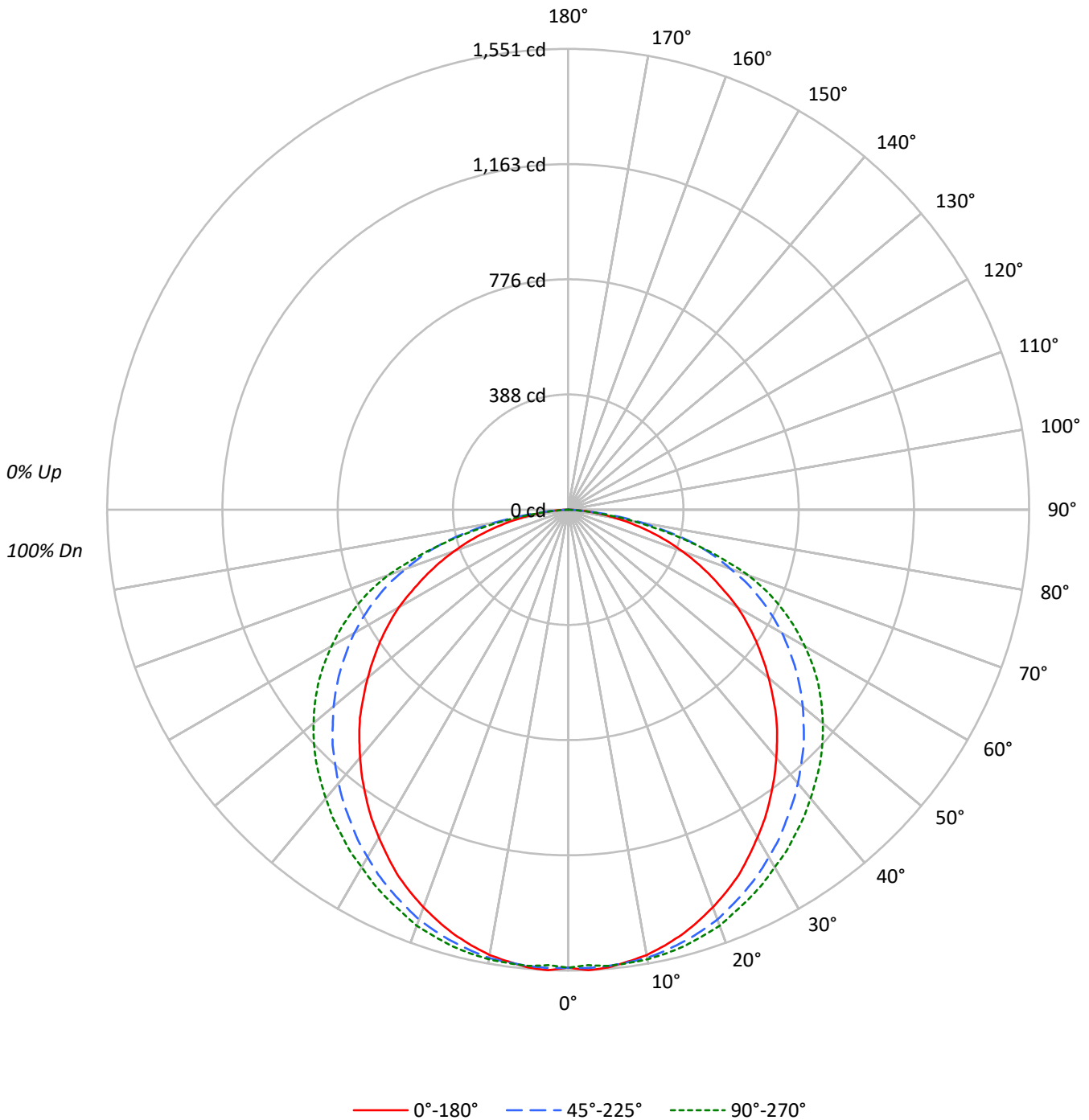
Input Watts (W): 48.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4148	4148	4148
5°	4177	4164	4164
10°	4159	4185	4199
15°	4123	4192	4233
20°	4076	4203	4267
25°	4030	4198	4285
30°	3957	4194	4316
35°	3893	4200	4378
40°	3826	4223	4456
45°	3771	4266	4566
50°	3685	4313	4683
55°	3622	4383	4822
60°	3546	4472	4949
65°	3382	4556	5072
70°	3211	4565	5068
75°	2939	4550	4474
80°	2515	3887	3467
85°	1973	2201	1291



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.5	3.0
10°-20°	423.2	8.7
20°-30°	647.2	13.3
30°-40°	793.3	16.3
40°-50°	853.2	17.5
50°-60°	819.9	16.8
60°-70°	682.7	14.0
70°-80°	419.0	8.6
80°-90°	93.4	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°	1216.9	24.9
0°-40°	2010.2	41.2
0°-60°	3683.2	75.5
0°-90°	4878.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4878.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1542	1542	1542	1542	1542	
5°	1546	1532	1542	1542	1542	147
15°	1480	1475	1505	1514	1519	417
25°	1357	1370	1414	1431	1443	624
35°	1185	1215	1278	1313	1333	742
45°	991	1035	1121	1173	1200	763
55°	772	838	934	998	1028	690
65°	531	612	716	774	797	526
75°	283	369	438	435	430	299
85°	64	96	71	49	42	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1541.6	1541.6	1541.6	1541.6	1541.6
2.5°	1551.4	1536.6	1544.0	1541.6	1534.2
5°	1546.5	1531.7	1541.6	1541.6	1541.6
7.5°	1534.2	1521.9	1536.6	1539.1	1539.1
10°	1521.9	1512.0	1531.7	1534.2	1536.6
12.5°	1502.2	1494.8	1519.4	1524.3	1529.3
15°	1480.1	1475.2	1504.7	1514.5	1519.4
17.5°	1453.0	1455.5	1487.5	1499.8	1504.7
20°	1423.5	1430.9	1467.8	1480.1	1489.9
22.5°	1391.6	1401.4	1440.8	1455.5	1465.3
25°	1357.2	1369.5	1413.7	1430.9	1443.2
27.5°	1315.4	1335.0	1384.2	1406.3	1418.6
30°	1273.6	1295.7	1349.8	1376.8	1389.1
32.5°	1231.8	1256.4	1317.8	1344.9	1364.5
35°	1185.1	1214.6	1278.5	1312.9	1332.6
37.5°	1138.3	1172.8	1241.6	1280.9	1303.1
40°	1089.2	1126.0	1202.3	1246.5	1268.6
42.5°	1040.0	1081.8	1160.5	1209.6	1234.2
45°	990.8	1035.1	1121.1	1172.8	1199.8
47.5°	934.3	988.4	1074.4	1133.4	1160.5
50°	880.2	939.2	1030.2	1091.6	1118.7
52.5°	826.1	887.6	983.4	1047.4	1074.4
55°	772.0	838.4	934.3	998.2	1027.7
57.5°	715.5	784.3	882.6	949.0	976.1
60°	658.9	730.2	831.0	892.5	919.5
62.5°	592.5	676.1	774.5	835.9	860.5
65°	531.1	612.2	715.5	774.5	796.6
67.5°	469.6	553.2	654.0	708.1	727.8
70°	408.1	491.7	580.2	631.9	644.2
72.5°	346.7	430.3	513.9	543.4	538.4
75°	282.7	368.8	437.6	435.2	430.3
77.5°	221.3	304.9	346.7	329.5	322.1
80°	162.3	243.4	250.8	233.6	223.7
82.5°	110.6	174.6	157.4	137.7	127.8
85°	63.9	95.9	71.3	49.2	41.8
87.5°	27.0	24.6	7.4	7.4	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)