

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: P387580

Luminaire Tested: **14CZ2-60HE-SQR-UNV-L935-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: P387580
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-SWPD1-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: 4828.3 lumens
Efficiency: N/A
Efficacy: 100.0 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

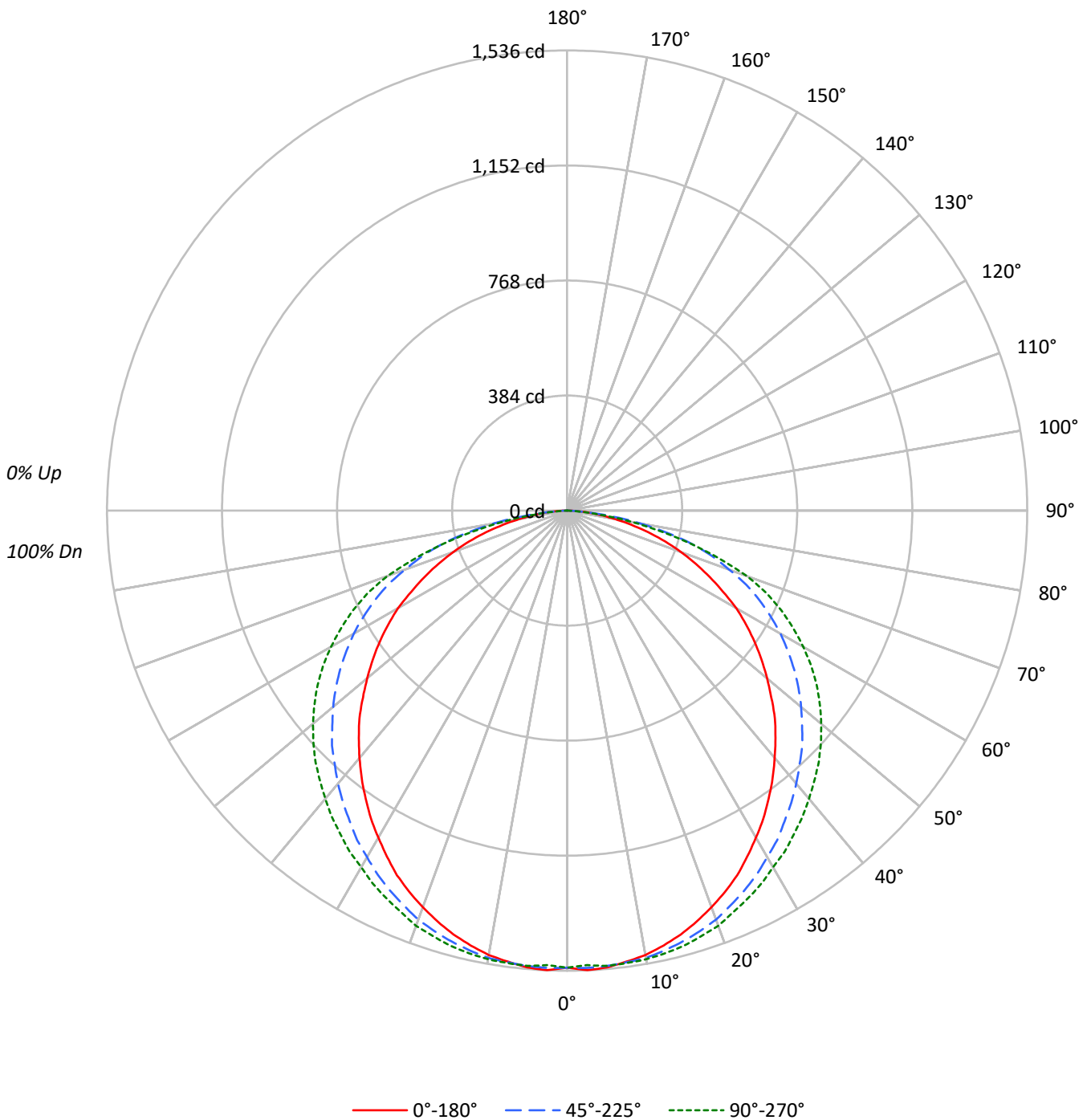
Input Watts (W): 48.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P387580

CATALOG NUMBER: 14CZ2-60HE-SQR-UNV-L935-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P387580

CATALOG NUMBER: 14CZ2-60HE-SQR-UNV-L935-CD1-SWPD1-U

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°	4106	4106	4106
5°	4135	4122	4122
10°	4116	4143	4156
15°	4081	4149	4190
20°	4035	4160	4223
25°	3988	4154	4241
30°	3917	4151	4272
35°	3853	4157	4333
40°	3787	4180	4411
45°	3732	4223	4519
50°	3647	4268	4635
55°	3585	4338	4772
60°	3510	4427	4898
65°	3347	4509	5020
70°	3179	4519	5017
75°	2909	4504	4428
80°	2489	3846	3431
85°	1954	2180	1278



TEST NUMBER: P387580

CATALOG NUMBER: 14CZ2-60HE-SQR-UNV-L935-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.0	3.0
10°-20°	418.9	8.7
20°-30°	640.6	13.3
30°-40°	785.2	16.3
40°-50°	844.4	17.5
50°-60°	811.5	16.8
60°-70°	675.7	14.0
70°-80°	414.7	8.6
80°-90°	92.4	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°	1204.4	24.9
0°-40°	1989.6	41.2
0°-60°	3645.5	75.5
0°-90°	4828.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4828.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1526	1526	1526	1526	1526	
5°	1531	1516	1526	1526	1526	145
15°	1465	1460	1489	1499	1504	413
25°	1343	1355	1399	1416	1428	618
35°	1173	1202	1265	1300	1319	734
45°	981	1024	1110	1161	1188	755
55°	764	830	925	988	1017	683
65°	526	606	708	766	788	521
75°	280	365	433	431	426	296
85°	63	95	71	49	41	76
90°	0	0	0	0	0	



TEST NUMBER: P387580

CATALOG NUMBER: 14CZ2-60HE-SQR-UNV-L935-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1525.8	1525.8	1525.8	1525.8	1525.8
2.5°	1535.5	1520.9	1528.2	1525.8	1518.5
5°	1530.7	1516.1	1525.8	1525.8	1525.8
7.5°	1518.5	1506.3	1520.9	1523.4	1523.4
10°	1506.3	1496.6	1516.1	1518.5	1520.9
12.5°	1486.8	1479.5	1503.9	1508.8	1513.6
15°	1464.9	1460.1	1489.3	1499.0	1503.9
17.5°	1438.2	1440.6	1472.2	1484.4	1489.3
20°	1409.0	1416.3	1452.8	1464.9	1474.7
22.5°	1377.3	1387.1	1426.0	1440.6	1450.3
25°	1343.3	1355.4	1399.2	1416.3	1428.4
27.5°	1301.9	1321.4	1370.0	1391.9	1404.1
30°	1260.5	1282.4	1336.0	1362.7	1374.9
32.5°	1219.2	1243.5	1304.3	1331.1	1350.6
35°	1172.9	1202.1	1265.4	1299.5	1318.9
37.5°	1126.7	1160.8	1228.9	1267.8	1289.7
40°	1078.0	1114.5	1190.0	1233.8	1255.7
42.5°	1029.4	1070.7	1148.6	1197.3	1221.6
45°	980.7	1024.5	1109.7	1160.8	1187.5
47.5°	924.7	978.3	1063.4	1121.8	1148.6
50°	871.2	929.6	1019.6	1080.5	1107.2
52.5°	817.6	878.5	973.4	1036.7	1063.4
55°	764.1	829.8	924.7	988.0	1017.2
57.5°	708.1	776.3	873.6	939.3	966.1
60°	652.2	722.7	822.5	883.3	910.1
62.5°	586.5	669.2	766.5	827.4	851.7
65°	525.6	605.9	708.1	766.5	788.4
67.5°	464.8	547.5	647.3	700.8	720.3
70°	404.0	486.7	574.3	625.4	637.6
72.5°	343.1	425.9	508.6	537.8	532.9
75°	279.8	365.0	433.2	430.7	425.9
77.5°	219.0	301.8	343.1	326.1	318.8
80°	160.6	240.9	248.2	231.2	221.4
82.5°	109.5	172.8	155.7	136.3	126.5
85°	63.3	94.9	70.6	48.7	41.4
87.5°	26.8	24.3	7.3	7.3	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)