

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: P388392

Luminaire Tested: **22CZ2-60VHE-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: P388392
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-60VHE-UNV-L935-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5040.3 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

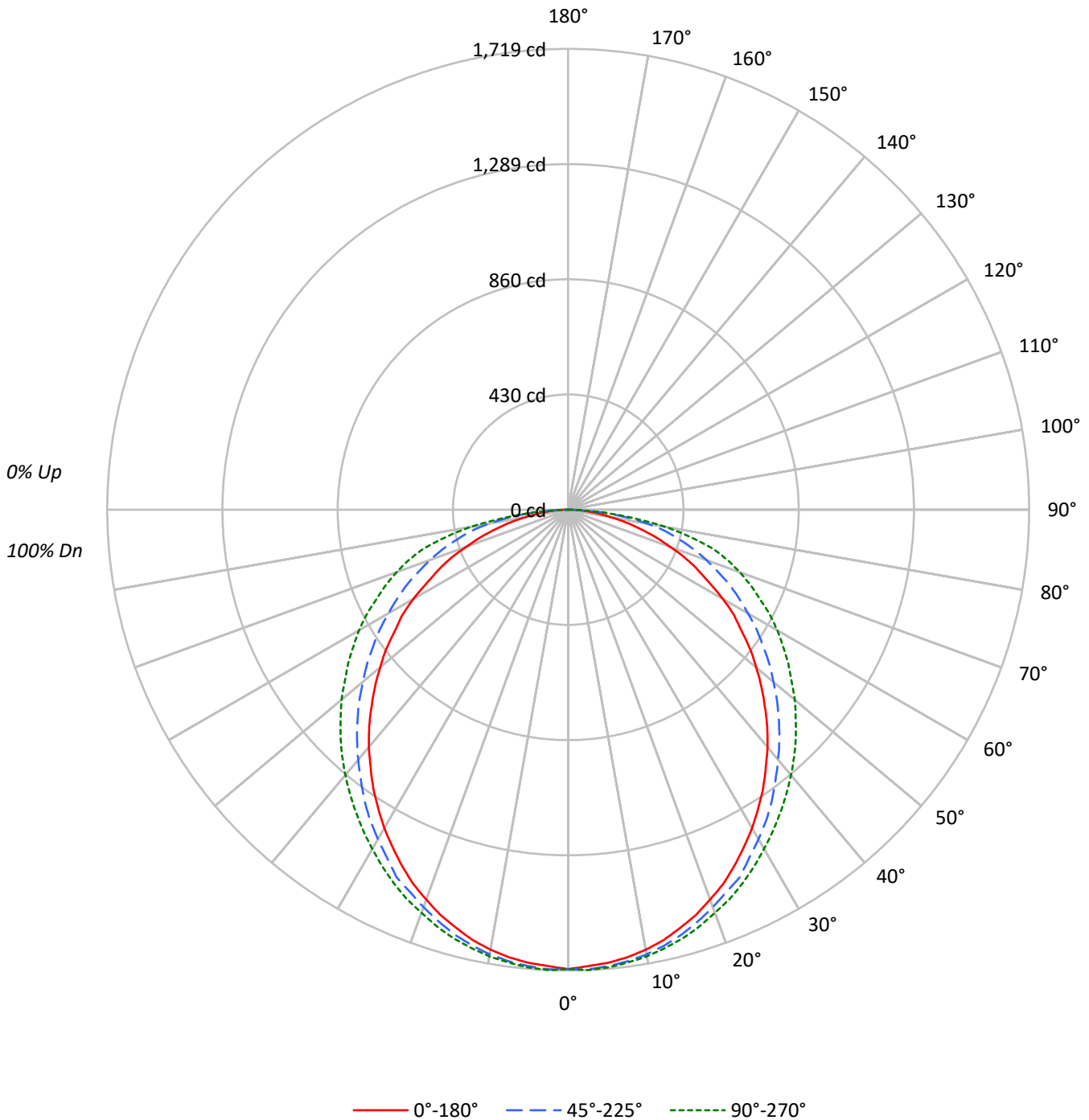
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4612	4612	4612
5°	4582	4616	4629
10°	4554	4602	4622
15°	4498	4567	4609
20°	4432	4517	4581
25°	4352	4492	4566
30°	4262	4408	4539
35°	4164	4351	4530
40°	4060	4278	4539
45°	3945	4228	4568
50°	3831	4184	4621
55°	3700	4166	4701
60°	3591	4165	4845
65°	3411	4232	5022
70°	3181	4312	5347
75°	2914	4461	5777
80°	2537	4651	5689
85°	2220	4134	4517



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.1	3.2
10°-20°	461.6	9.2
20°-30°	693.0	13.7
30°-40°	828.1	16.4
40°-50°	861.1	17.1
50°-60°	798.1	15.8
60°-70°	654.6	13.0
70°-80°	442.5	8.8
80°-90°	139.1	2.8
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°	1316.7	26.1
0°-40°	2144.8	42.6
0°-60°	3804.1	75.5
0°-90°	5040.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5040.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1714	1714	1714	1714	1714	
5°	1696	1699	1709	1711	1714	161
15°	1615	1622	1639	1649	1654	455
25°	1466	1478	1513	1530	1538	675
35°	1267	1285	1324	1364	1379	792
45°	1037	1057	1111	1176	1200	801
55°	789	814	888	967	1002	709
65°	536	566	665	752	789	530
75°	280	327	429	516	556	297
85°	72	99	134	149	146	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1713.8	1713.8	1713.8	1713.8	1713.8
2.5°	1703.9	1708.8	1716.3	1718.8	1718.8
5°	1696.4	1698.9	1708.8	1711.3	1713.8
7.5°	1684.0	1689.0	1698.9	1701.4	1703.9
10°	1666.7	1671.6	1684.0	1689.0	1691.5
12.5°	1644.4	1649.3	1664.2	1671.6	1674.1
15°	1614.6	1622.0	1639.4	1649.3	1654.3
17.5°	1584.8	1592.3	1609.6	1624.5	1629.5
20°	1547.6	1565.0	1577.4	1597.2	1599.7
22.5°	1510.4	1520.3	1542.7	1562.5	1572.4
25°	1465.8	1478.2	1512.9	1530.3	1537.7
27.5°	1418.7	1436.0	1463.3	1490.6	1500.5
30°	1371.5	1383.9	1418.7	1450.9	1460.8
32.5°	1319.4	1336.8	1374.0	1406.3	1421.1
35°	1267.4	1284.7	1324.4	1364.1	1379.0
37.5°	1210.3	1230.2	1269.8	1317.0	1336.8
40°	1155.8	1170.6	1217.8	1274.8	1292.2
42.5°	1098.7	1116.1	1165.7	1227.7	1247.5
45°	1036.7	1056.6	1111.1	1175.6	1200.4
47.5°	977.2	997.0	1056.6	1121.0	1150.8
50°	915.2	940.0	999.5	1073.9	1103.7
52.5°	855.7	878.0	944.9	1021.8	1049.1
55°	788.7	813.5	887.9	967.3	1002.0
57.5°	734.1	751.5	833.3	915.2	949.9
60°	667.2	689.5	773.8	860.6	900.3
62.5°	595.2	632.4	719.2	808.5	848.2
65°	535.7	565.5	664.7	751.5	788.7
67.5°	473.7	506.0	602.7	694.4	736.6
70°	404.3	446.4	548.1	639.9	679.6
72.5°	342.3	386.9	491.1	580.4	622.5
75°	280.3	327.4	429.1	515.9	555.6
77.5°	220.7	272.8	372.0	439.0	463.8
80°	163.7	213.3	300.1	347.2	367.1
82.5°	114.1	156.3	220.7	245.5	250.5
85°	71.9	99.2	133.9	148.8	146.3
87.5°	32.2	39.7	49.6	54.6	52.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)