

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: P388391

Luminaire Tested: **22CZ2-60VHE-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: P388391  
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-L930-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

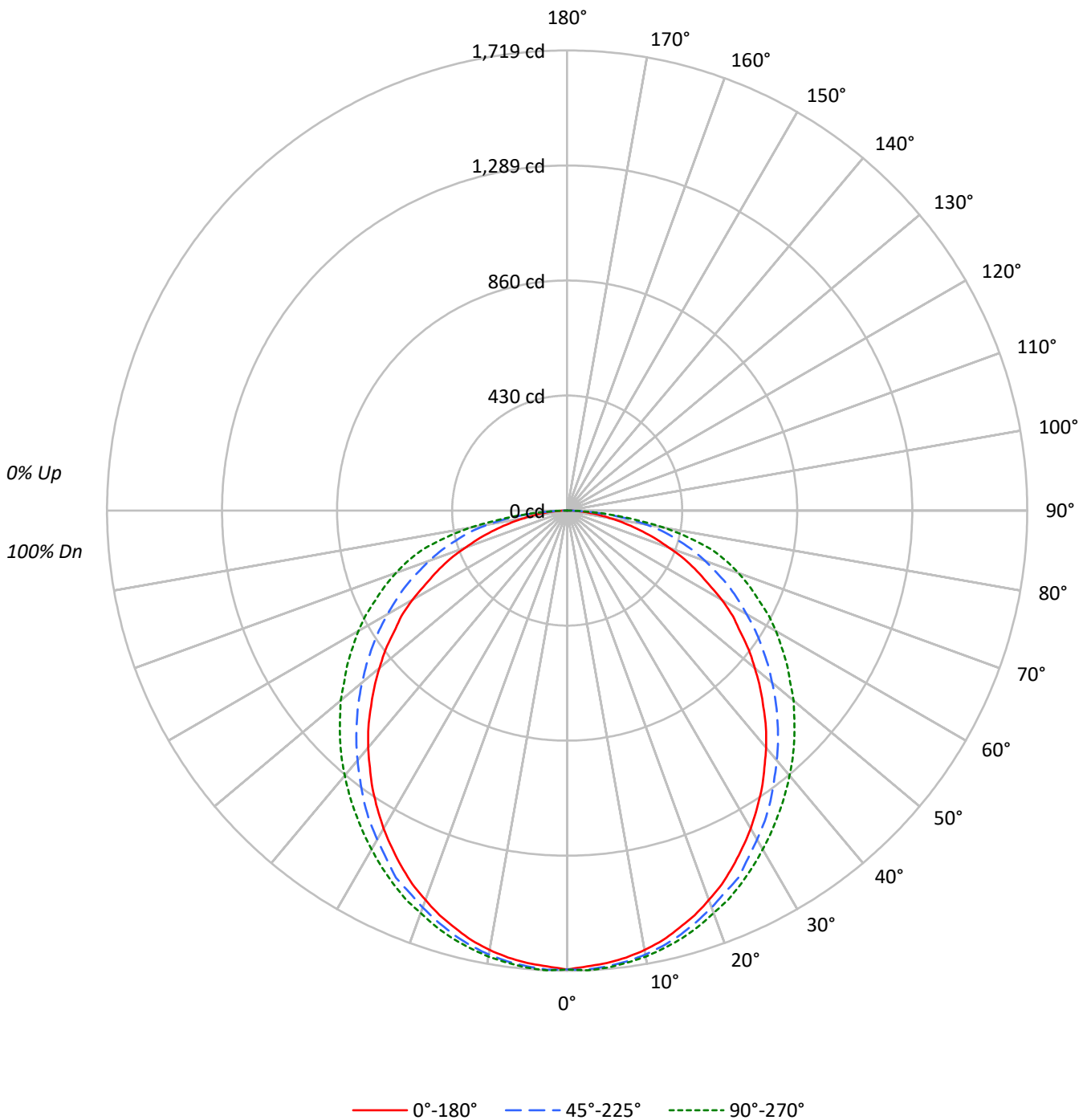
Lumens per Lamp: N/A  
Luminaire Lumens: 5041.2 lumens  
Efficiency: N/A  
Efficacy: 114.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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°	4613	4613	4613
5°	4583	4617	4630
10°	4555	4602	4623
15°	4499	4568	4610
20°	4433	4518	4582
25°	4353	4493	4567
30°	4263	4409	4540
35°	4164	4351	4531
40°	4061	4279	4540
45°	3946	4229	4569
50°	3832	4185	4621
55°	3701	4167	4702
60°	3591	4166	4846
65°	3412	4233	5023
70°	3181	4313	5348
75°	2914	4461	5778
80°	2537	4652	5689
85°	2220	4137	4520



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.1	3.2
10°-20°	461.7	9.2
20°-30°	693.2	13.7
30°-40°	828.2	16.4
40°-50°	861.2	17.1
50°-60°	798.2	15.8
60°-70°	654.8	13.0
70°-80°	442.6	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°	1317.0	26.1
0°-40°	2145.2	42.6
0°-60°	3804.7	75.5
0°-90°	5041.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5041.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1714	1714	1714	1714	1714	
5°	1697	1699	1709	1712	1714	161
15°	1615	1622	1640	1650	1655	456
25°	1466	1478	1513	1530	1538	675
35°	1268	1285	1325	1364	1379	792
45°	1037	1057	1111	1176	1201	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°	1714.1	1714.1	1714.1	1714.1	1714.1
2.5°	1704.2	1709.1	1716.6	1719.1	1719.1
5°	1696.7	1699.2	1709.1	1711.6	1714.1
7.5°	1684.3	1689.3	1699.2	1701.7	1704.2
10°	1667.0	1671.9	1684.3	1689.3	1691.8
12.5°	1644.6	1649.6	1664.5	1671.9	1674.4
15°	1614.9	1622.3	1639.7	1649.6	1654.6
17.5°	1585.1	1592.6	1609.9	1624.8	1629.8
20°	1547.9	1565.3	1577.7	1597.5	1600.0
22.5°	1510.7	1520.6	1542.9	1562.8	1572.7
25°	1466.0	1478.4	1513.2	1530.5	1538.0
27.5°	1418.9	1436.3	1463.6	1490.8	1500.8
30°	1371.8	1384.2	1418.9	1451.2	1461.1
32.5°	1319.7	1337.0	1374.3	1406.5	1421.4
35°	1267.6	1285.0	1324.6	1364.3	1379.2
37.5°	1210.5	1230.4	1270.1	1317.2	1337.0
40°	1156.0	1170.8	1218.0	1275.0	1292.4
42.5°	1098.9	1116.3	1165.9	1227.9	1247.7
45°	1036.9	1056.7	1111.3	1175.8	1200.6
47.5°	977.4	997.2	1056.7	1121.2	1151.0
50°	915.3	940.2	999.7	1074.1	1103.9
52.5°	855.8	878.1	945.1	1022.0	1049.3
55°	788.8	813.6	888.1	967.4	1002.2
57.5°	734.3	751.6	833.5	915.3	950.1
60°	667.3	689.6	774.0	860.8	900.5
62.5°	595.3	632.6	719.4	808.7	848.4
65°	535.8	565.6	664.8	751.6	788.8
67.5°	473.8	506.0	602.8	694.6	736.7
70°	404.3	446.5	548.2	640.0	679.7
72.5°	342.3	387.0	491.2	580.5	622.6
75°	280.3	327.4	429.1	516.0	555.7
77.5°	220.8	272.9	372.1	439.1	463.9
80°	163.7	213.3	300.2	347.3	367.1
82.5°	114.1	156.3	220.8	245.6	250.5
85°	71.9	99.2	134.0	148.8	146.4
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)