

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: P388389

Luminaire Tested: **22CZ2-60VHE-UNV-L930-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: P388389  
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-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

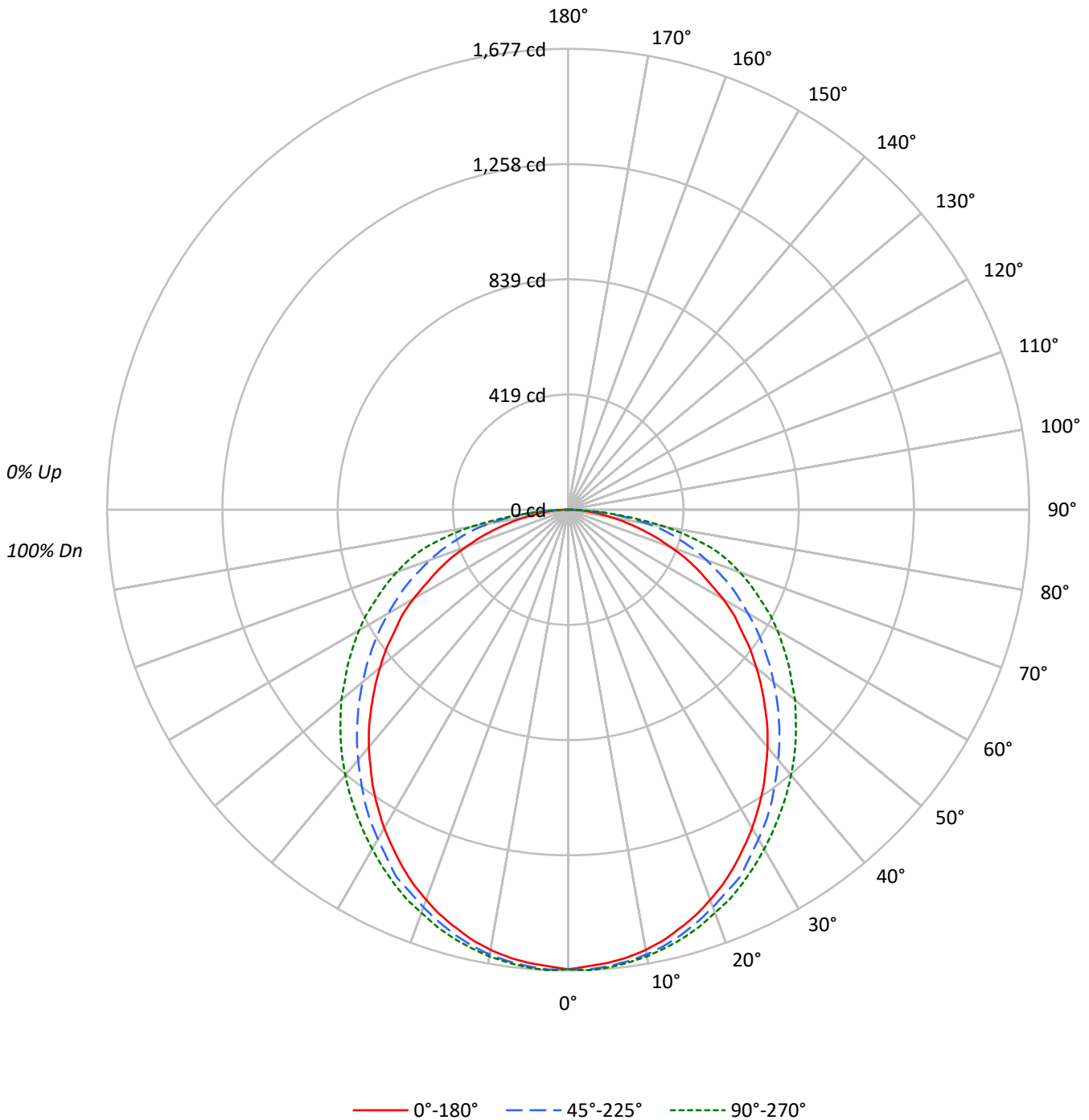
Lumens per Lamp: N/A  
Luminaire Lumens: 4918.6 lumens  
Efficiency: N/A  
Efficacy: 111.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 44.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	4500	4500	4500
5°	4472	4505	4518
10°	4444	4491	4510
15°	4389	4457	4497
20°	4325	4408	4470
25°	4247	4384	4456
30°	4159	4302	4429
35°	4063	4246	4421
40°	3962	4175	4430
45°	3850	4126	4458
50°	3739	4083	4509
55°	3611	4065	4587
60°	3504	4064	4729
65°	3329	4130	4900
70°	3104	4209	5218
75°	2844	4353	5636
80°	2475	4539	5551
85°	2167	4035	4409



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.2	3.2
10°-20°	450.5	9.2
20°-30°	676.3	13.7
30°-40°	808.1	16.4
40°-50°	840.3	17.1
50°-60°	778.8	15.8
60°-70°	638.8	13.0
70°-80°	431.8	8.8
80°-90°	135.7	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°	1285.0	26.1
0°-40°	2093.1	42.6
0°-60°	3712.2	75.5
0°-90°	4918.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4918.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1672	1672	1672	1672	1672	
5°	1656	1658	1668	1670	1672	157
15°	1576	1583	1600	1610	1614	444
25°	1430	1442	1476	1493	1501	659
35°	1237	1254	1292	1331	1346	773
45°	1012	1031	1084	1147	1171	781
55°	770	794	866	944	978	692
65°	523	552	649	733	770	517
75°	274	320	419	503	542	290
85°	70	97	131	145	143	80
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1672.4	1672.4	1672.4	1672.4	1672.4
2.5°	1662.7	1667.6	1674.8	1677.3	1677.3
5°	1655.5	1657.9	1667.6	1670.0	1672.4
7.5°	1643.4	1648.2	1657.9	1660.3	1662.7
10°	1626.4	1631.3	1643.4	1648.2	1650.6
12.5°	1604.6	1609.5	1624.0	1631.3	1633.7
15°	1575.6	1582.9	1599.8	1609.5	1614.3
17.5°	1546.6	1553.8	1570.8	1585.3	1590.1
20°	1510.3	1527.2	1539.3	1558.7	1561.1
22.5°	1474.0	1483.6	1505.4	1524.8	1534.5
25°	1430.4	1442.5	1476.4	1493.3	1500.6
27.5°	1384.4	1401.3	1428.0	1454.6	1464.3
30°	1338.4	1350.5	1384.4	1415.9	1425.5
32.5°	1287.6	1304.5	1340.8	1372.3	1386.8
35°	1236.8	1253.7	1292.4	1331.2	1345.7
37.5°	1181.1	1200.5	1239.2	1285.2	1304.5
40°	1127.9	1142.4	1188.4	1244.0	1261.0
42.5°	1072.2	1089.1	1137.5	1198.0	1217.4
45°	1011.7	1031.0	1084.3	1147.2	1171.4
47.5°	953.6	973.0	1031.0	1094.0	1123.0
50°	893.1	917.3	975.4	1048.0	1077.0
52.5°	835.0	856.8	922.1	997.2	1023.8
55°	769.6	793.9	866.5	943.9	977.8
57.5°	716.4	733.3	813.2	893.1	927.0
60°	651.1	672.8	755.1	839.8	878.6
62.5°	580.9	617.2	701.9	789.0	827.7
65°	522.8	551.8	648.6	733.3	769.6
67.5°	462.3	493.7	588.1	677.7	718.8
70°	394.5	435.7	534.9	624.4	663.2
72.5°	334.0	377.6	479.2	566.3	607.5
75°	273.5	319.5	418.7	503.4	542.1
77.5°	215.4	266.2	363.0	428.4	452.6
80°	159.7	208.1	292.9	338.8	358.2
82.5°	111.3	152.5	215.4	239.6	244.4
85°	70.2	96.8	130.7	145.2	142.8
87.5°	31.5	38.7	48.4	53.2	50.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)