

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: P388341

Luminaire Tested: **22CZ2-50VHE-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: P388341  
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: 22CZ2-50VHE-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: 4101.5 lumens  
Efficiency: N/A  
Efficacy: 113.3 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

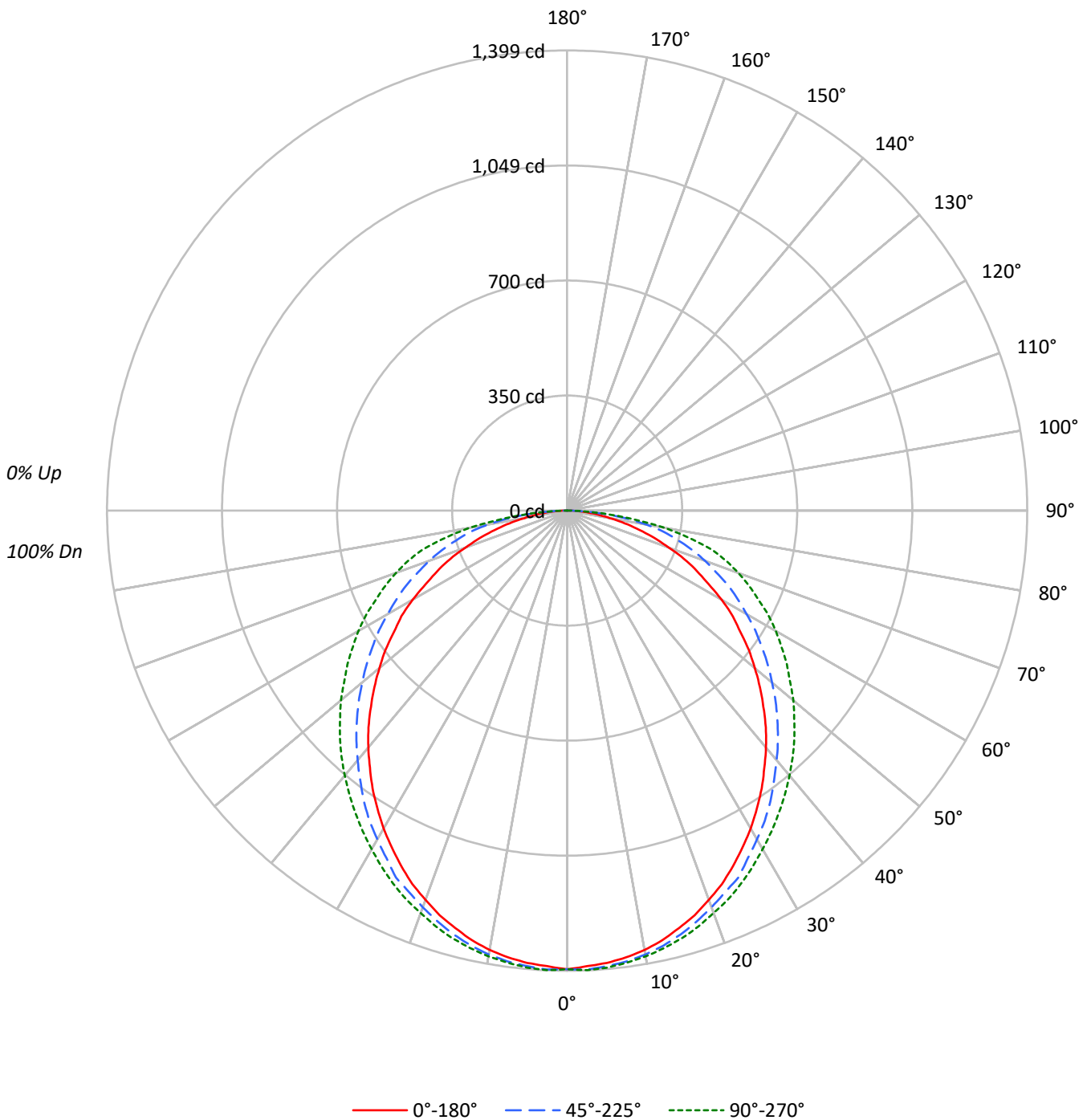
Input Watts (W): 36.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82					82			
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68					68			
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56					56			
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48					48			
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41					41			
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36					36			
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32					32			
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28					28			
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25					25			
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23					23			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3753	3753	3753
5°	3729	3756	3767
10°	3706	3745	3761
15°	3660	3716	3750
20°	3607	3676	3728
25°	3542	3655	3715
30°	3468	3587	3694
35°	3388	3540	3686
40°	3304	3481	3694
45°	3210	3441	3717
50°	3118	3405	3760
55°	3011	3390	3826
60°	2922	3389	3943
65°	2776	3444	4087
70°	2589	3509	4351
75°	2372	3631	4701
80°	2064	3784	4629
85°	1806	3365	3677



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.9	3.2
10°-20°	375.7	9.2
20°-30°	563.9	13.7
30°-40°	673.9	16.4
40°-50°	700.7	17.1
50°-60°	649.4	15.8
60°-70°	532.7	13.0
70°-80°	360.1	8.8
80°-90°	113.2	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°	1071.5	26.1
0°-40°	1745.3	42.6
0°-60°	3095.5	75.5
0°-90°	4101.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4101.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1395	1395	1395	1395	1395	
5°	1380	1382	1390	1393	1395	131
15°	1314	1320	1334	1342	1346	371
25°	1193	1203	1231	1245	1251	549
35°	1031	1045	1078	1110	1122	645
45°	844	860	904	957	977	651
55°	642	662	722	787	815	577
65°	436	460	541	612	642	431
75°	228	266	349	420	452	242
85°	58	81	109	121	119	66
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1394.6	1394.6	1394.6	1394.6	1394.6
2.5°	1386.5	1390.5	1396.6	1398.6	1398.6
5°	1380.5	1382.5	1390.5	1392.6	1394.6
7.5°	1370.4	1374.4	1382.5	1384.5	1386.5
10°	1356.2	1360.3	1370.4	1374.4	1376.4
12.5°	1338.1	1342.1	1354.2	1360.3	1362.3
15°	1313.9	1319.9	1334.0	1342.1	1346.1
17.5°	1289.6	1295.7	1309.8	1321.9	1326.0
20°	1259.4	1273.5	1283.6	1299.7	1301.7
22.5°	1229.1	1237.2	1255.3	1271.5	1279.5
25°	1192.8	1202.9	1231.1	1245.2	1251.3
27.5°	1154.4	1168.5	1190.7	1212.9	1221.0
30°	1116.1	1126.2	1154.4	1180.7	1188.7
32.5°	1073.7	1087.8	1118.1	1144.3	1156.4
35°	1031.3	1045.4	1077.7	1110.0	1122.1
37.5°	984.9	1001.0	1033.3	1071.7	1087.8
40°	940.5	952.6	990.9	1037.4	1051.5
42.5°	894.1	908.2	948.6	999.0	1015.2
45°	843.6	859.8	904.2	956.6	976.8
47.5°	795.2	811.3	859.8	912.2	936.5
50°	744.7	764.9	813.3	873.9	898.1
52.5°	696.3	714.4	768.9	831.5	853.7
55°	641.8	662.0	722.5	787.1	815.4
57.5°	597.4	611.5	678.1	744.7	773.0
60°	542.9	561.1	629.7	700.3	732.6
62.5°	484.4	514.6	585.3	657.9	690.2
65°	435.9	460.2	540.9	611.5	641.8
67.5°	385.5	411.7	490.4	565.1	599.4
70°	329.0	363.3	446.0	520.7	553.0
72.5°	278.5	314.8	399.6	472.3	506.6
75°	228.1	266.4	349.2	419.8	452.1
77.5°	179.6	222.0	302.7	357.2	377.4
80°	133.2	173.6	244.2	282.5	298.7
82.5°	92.8	127.1	179.6	199.8	203.8
85°	58.5	80.7	109.0	121.1	119.1
87.5°	26.2	32.3	40.4	44.4	42.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)