

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: P390718

Luminaire Tested: **22CZ2-80VHE-RDP-UNV-L930-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: P390718  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-80VHE-RDP-UNV-L930-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4434.7 lumens  
Efficiency: N/A  
Efficacy: 75.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

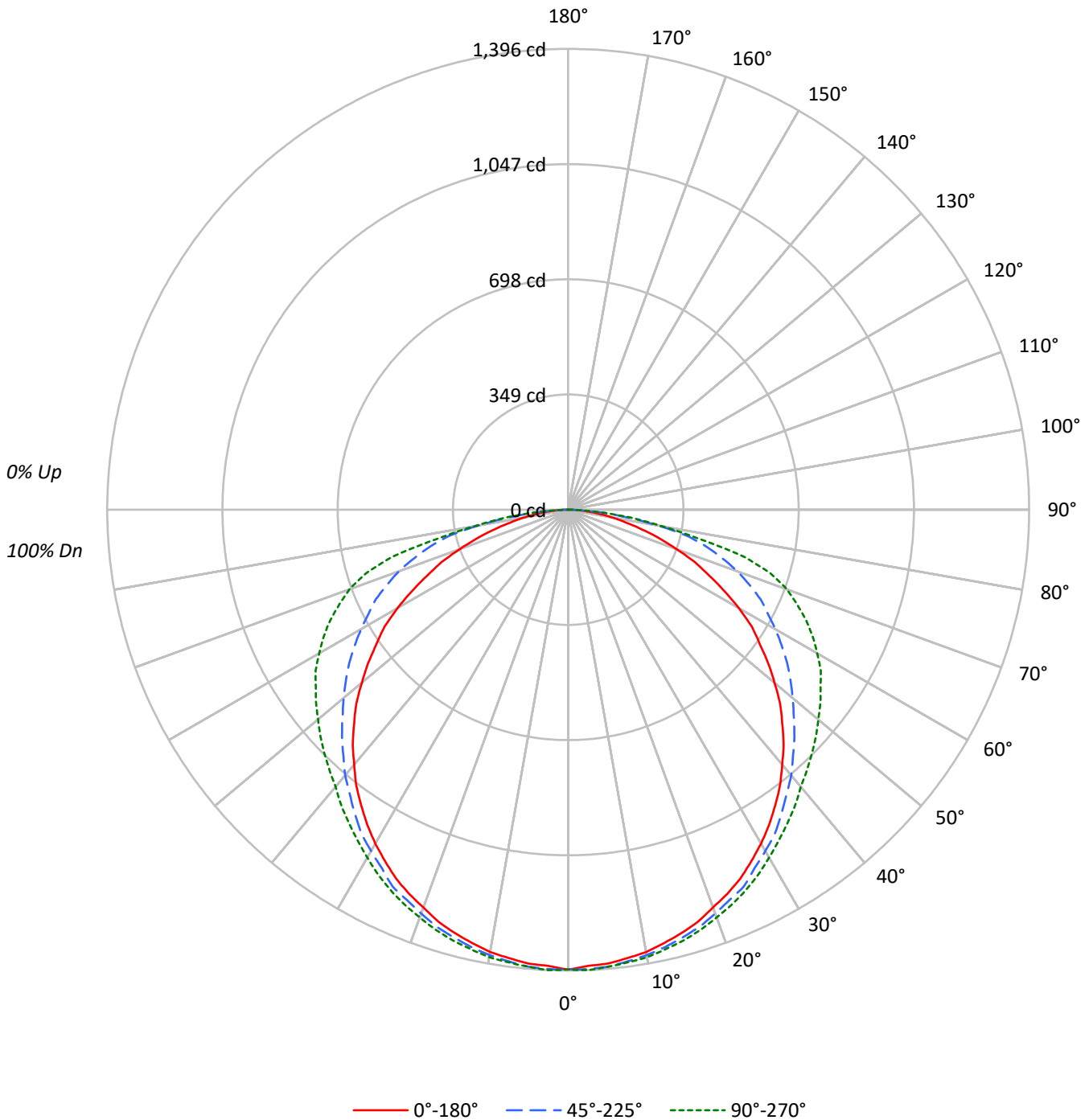
Input Watts (W): 59.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	3749	3749	3749
5°	3728	3754	3754
10°	3717	3744	3762
15°	3699	3735	3763
20°	3672	3728	3765
25°	3662	3739	3778
30°	3629	3710	3781
35°	3590	3697	3804
40°	3541	3690	3850
45°	3489	3687	3973
50°	3414	3715	4138
55°	3321	3796	4377
60°	3213	3898	4688
65°	2991	4092	5068
70°	2747	4286	5545
75°	2408	4511	5732
80°	2073	4297	4499
85°	1812	3122	3424



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.8	3.0
10°-20°	378.3	8.5
20°-30°	577.2	13.0
30°-40°	704.8	15.9
40°-50°	753.6	17.0
50°-60°	727.4	16.4
60°-70°	626.2	14.1
70°-80°	423.7	9.6
80°-90°	111.8	2.5
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°	1087.3	24.5
0°-40°	1792.1	40.4
0°-60°	3273.1	73.8
0°-90°	4434.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4434.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1393	1393	1393	1393	1393	
5°	1380	1383	1390	1390	1390	131
15°	1328	1331	1341	1347	1351	375
25°	1233	1240	1259	1266	1272	568
35°	1093	1103	1126	1148	1158	684
45°	917	933	969	1018	1044	708
55°	708	731	809	891	933	634
65°	470	515	643	744	796	467
75°	232	307	434	522	551	248
85°	59	82	101	104	111	66
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1393.0	1393.0	1393.0	1393.0	<i>1393.0</i>
2.5°	<i>1383.2</i>	<i>1386.5</i>	<i>1393.0</i>	<i>1393.0</i>	<i>1396.3</i>
5°	1380.0	1383.2	1389.8	1389.8	<i>1389.8</i>
7.5°	1370.2	1373.4	1380.0	1383.2	<i>1383.2</i>
10°	1360.4	1363.7	1370.2	1373.4	<i>1376.7</i>
12.5°	1344.1	1347.3	1357.1	1363.7	<i>1363.7</i>
15°	1327.8	1331.0	1340.8	1347.3	<i>1350.6</i>
17.5°	1308.2	1314.7	1324.5	1331.0	<i>1334.3</i>
20°	1282.1	1288.6	1301.7	1311.5	<i>1314.7</i>
22.5°	1259.3	1265.8	1278.8	1288.6	<i>1295.1</i>
25°	1233.2	1239.7	1259.3	1265.8	<i>1272.3</i>
27.5°	1200.5	1207.1	1223.4	1236.4	<i>1246.2</i>
30°	1167.9	1174.4	1194.0	1210.3	<i>1216.9</i>
32.5°	1132.0	1141.8	1164.7	1177.7	<i>1187.5</i>
35°	1092.9	1102.7	1125.5	1148.3	<i>1158.1</i>
37.5°	1053.7	1063.5	1086.4	1115.7	<i>1128.8</i>
40°	1008.1	1021.1	1050.5	1089.6	<i>1096.1</i>
42.5°	965.7	982.0	1008.1	1053.7	<i>1070.0</i>
45°	916.7	933.0	968.9	1017.8	<i>1043.9</i>
47.5°	871.0	887.4	926.5	985.2	<i>1017.8</i>
50°	815.6	838.4	887.4	955.9	<i>988.5</i>
52.5°	763.4	783.0	848.2	923.2	<i>962.4</i>
55°	707.9	730.8	809.1	890.6	<i>933.0</i>
57.5°	659.0	678.6	766.6	858.0	<i>906.9</i>
60°	597.0	623.1	724.2	822.1	<i>871.0</i>
62.5°	531.8	570.9	681.8	783.0	<i>835.2</i>
65°	469.8	515.4	642.7	743.8	<i>796.0</i>
67.5°	414.3	463.3	593.7	701.4	<i>750.3</i>
70°	349.1	411.1	544.8	649.2	<i>704.7</i>
72.5°	290.3	358.9	489.4	593.7	<i>642.7</i>
75°	231.6	306.7	433.9	522.0	<i>551.3</i>
77.5°	179.4	251.2	371.9	398.0	<i>401.3</i>
80°	133.8	199.0	277.3	280.6	<i>290.3</i>
82.5°	91.3	140.3	179.4	195.7	<i>199.0</i>
85°	58.7	81.6	101.1	104.4	<i>110.9</i>
87.5°	26.1	29.4	35.9	32.6	<i>32.6</i>
90°	0.0	0.0	0.0	0.0	<i>0.0</i>

(END OF REPORT)