

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: P390244

Luminaire Tested: **22CZ2-29VHE-RDP-UNV-L940-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: P390244  
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: 22CZ2-29VHE-RDP-UNV-L940-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1766.9 lumens  
Efficiency: N/A  
Efficacy: 81.4 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

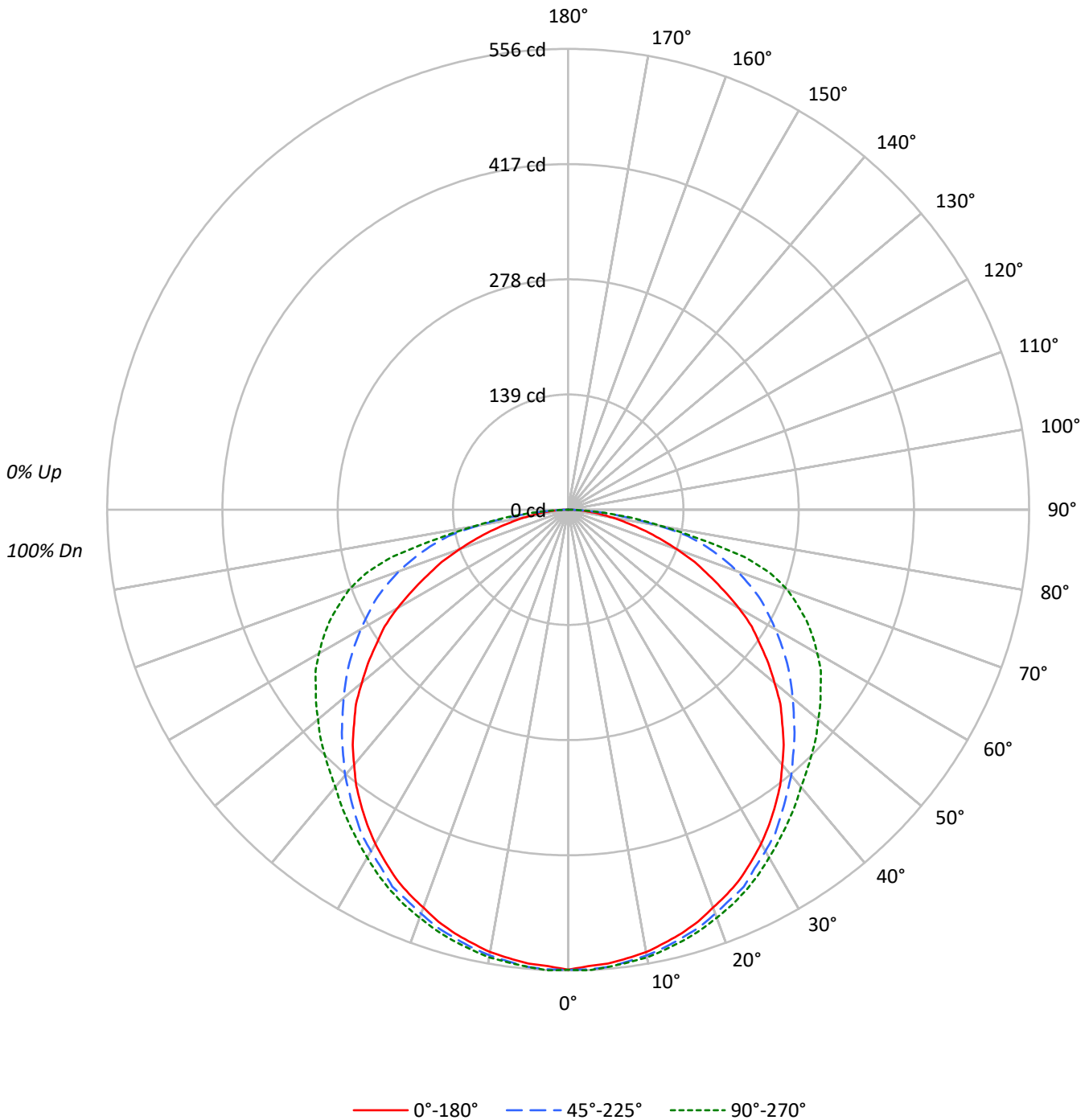
Input Watts (W): 21.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1493	1493	1493
5°	1485	1496	1496
10°	1481	1492	1499
15°	1474	1488	1499
20°	1463	1485	1500
25°	1459	1490	1505
30°	1446	1478	1506
35°	1430	1473	1516
40°	1411	1470	1534
45°	1390	1469	1583
50°	1360	1480	1649
55°	1323	1513	1744
60°	1280	1553	1868
65°	1192	1631	2020
70°	1094	1708	2209
75°	960	1798	2284
80°	826	1712	1793
85°	722	1244	1365



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.5	3.0
10°-20°	150.7	8.5
20°-30°	230.0	13.0
30°-40°	280.8	15.9
40°-50°	300.2	17.0
50°-60°	289.8	16.4
60°-70°	249.5	14.1
70°-80°	168.8	9.6
80°-90°	44.5	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°	433.2	24.5
0°-40°	714.0	40.4
0°-60°	1304.0	73.8
0°-90°	1766.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1766.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	555	555	555	555	555	
5°	550	551	554	554	554	52
15°	529	530	534	537	538	149
25°	491	494	502	504	507	226
35°	435	439	448	458	461	272
45°	365	372	386	406	416	282
55°	282	291	322	355	372	253
65°	187	205	256	296	317	186
75°	92	122	173	208	220	99
85°	23	32	40	42	44	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	555.0	555.0	555.0	555.0	555.0
2.5°	551.1	552.4	555.0	555.0	556.3
5°	549.8	551.1	553.7	553.7	553.7
7.5°	545.9	547.2	549.8	551.1	551.1
10°	542.0	543.3	545.9	547.2	548.5
12.5°	535.5	536.8	540.7	543.3	543.3
15°	529.0	530.3	534.2	536.8	538.1
17.5°	521.2	523.8	527.7	530.3	531.6
20°	510.8	513.4	518.6	522.5	523.8
22.5°	501.7	504.3	509.5	513.4	516.0
25°	491.3	493.9	501.7	504.3	506.9
27.5°	478.3	480.9	487.4	492.6	496.5
30°	465.3	467.9	475.7	482.2	484.8
32.5°	451.0	454.9	464.0	469.2	473.1
35°	435.4	439.3	448.4	457.5	461.4
37.5°	419.8	423.7	432.8	444.5	449.7
40°	401.6	406.8	418.5	434.1	436.7
42.5°	384.7	391.2	401.6	419.8	426.3
45°	365.2	371.7	386.0	405.5	415.9
47.5°	347.0	353.5	369.1	392.5	405.5
50°	324.9	334.0	353.5	380.8	393.8
52.5°	304.2	312.0	337.9	367.8	383.4
55°	282.1	291.2	322.4	354.8	371.7
57.5°	262.6	270.4	305.5	341.8	361.3
60°	237.9	248.3	288.6	327.5	347.0
62.5°	211.9	227.5	271.7	312.0	332.7
65°	187.2	205.4	256.1	296.4	317.2
67.5°	165.1	184.6	236.6	279.5	299.0
70°	139.1	163.8	217.1	258.7	280.8
72.5°	115.7	143.0	195.0	236.6	256.1
75°	92.3	122.2	172.9	208.0	219.7
77.5°	71.5	100.1	148.2	158.6	159.9
80°	53.3	79.3	110.5	111.8	115.7
82.5°	36.4	55.9	71.5	78.0	79.3
85°	23.4	32.5	40.3	41.6	44.2
87.5°	10.4	11.7	14.3	13.0	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)