

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: P390248

Luminaire Tested: **22CZ2-29VHE-RDP-UNV-L950-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: P390248  
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-L950-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1899.0 lumens  
Efficiency: N/A  
Efficacy: 87.5 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

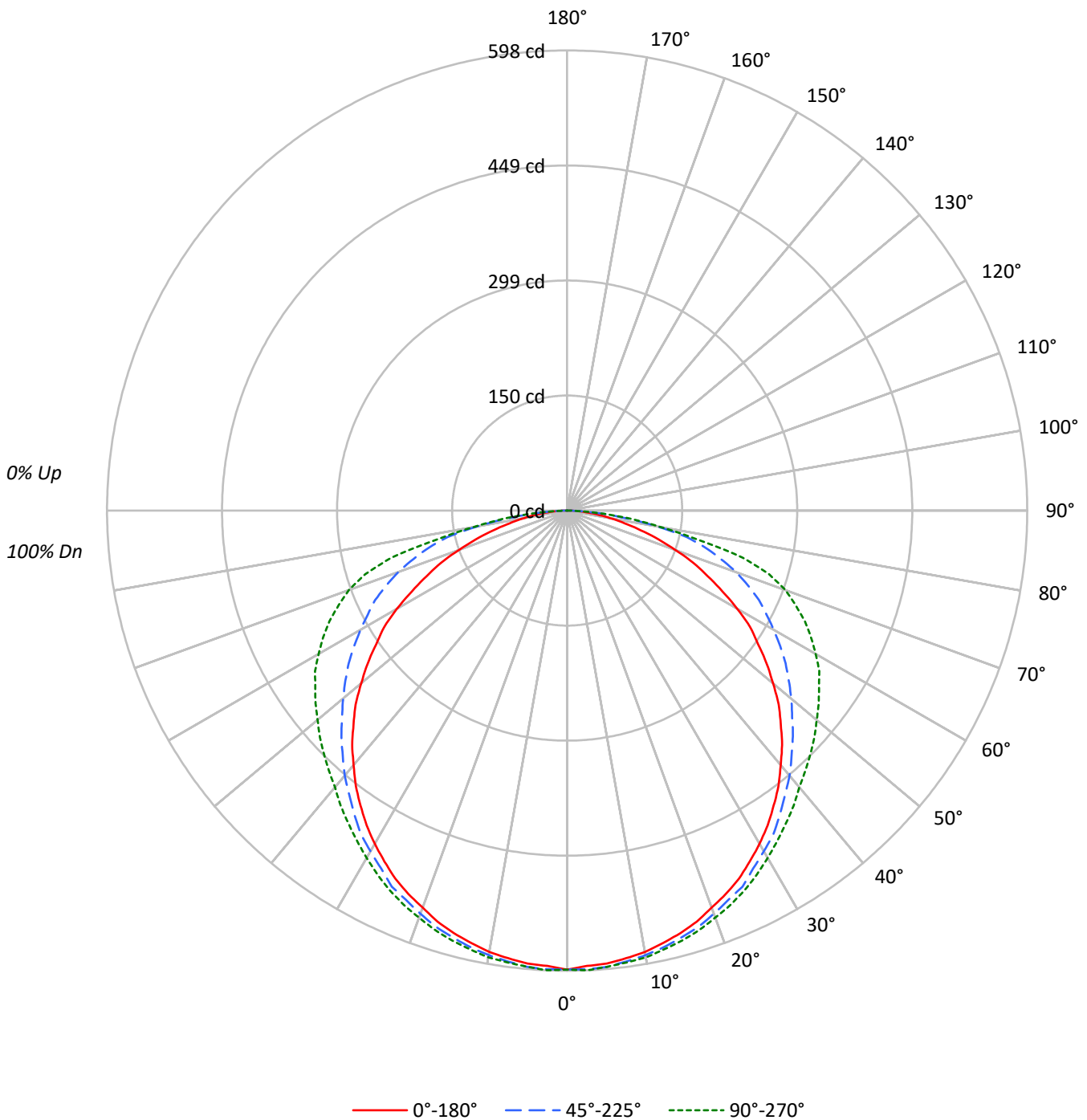
Input Watts (W): 21.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1605	1605	1605
5°	1596	1608	1608
10°	1592	1603	1611
15°	1584	1600	1611
20°	1572	1596	1612
25°	1568	1601	1618
30°	1554	1589	1619
35°	1537	1583	1629
40°	1516	1580	1649
45°	1494	1579	1701
50°	1462	1591	1772
55°	1422	1626	1874
60°	1376	1669	2007
65°	1281	1752	2171
70°	1176	1836	2374
75°	1031	1932	2455
80°	888	1839	1926
85°	775	1337	1467



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.4	3.0
10°-20°	162.0	8.5
20°-30°	247.2	13.0
30°-40°	301.8	15.9
40°-50°	322.7	17.0
50°-60°	311.5	16.4
60°-70°	268.1	14.1
70°-80°	181.4	9.6
80°-90°	47.9	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°	465.6	24.5
0°-40°	767.4	40.4
0°-60°	1401.6	73.8
0°-90°	1899.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1899.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	596	596	596	596	596	
5°	591	592	595	595	595	56
15°	569	570	574	577	578	160
25°	528	531	539	542	545	243
35°	468	472	482	492	496	293
45°	393	400	415	436	447	303
55°	303	313	346	381	400	272
65°	201	221	275	318	341	200
75°	99	131	186	224	236	106
85°	25	35	43	45	48	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	596.5	596.5	596.5	596.5	596.5
2.5°	592.3	593.7	596.5	596.5	597.9
5°	590.9	592.3	595.1	595.1	595.1
7.5°	586.7	588.1	590.9	592.3	592.3
10°	582.5	583.9	586.7	588.1	589.5
12.5°	575.6	577.0	581.1	583.9	583.9
15°	568.6	570.0	574.2	577.0	578.3
17.5°	560.2	563.0	567.2	570.0	571.4
20°	549.0	551.8	557.4	561.6	563.0
22.5°	539.2	542.0	547.6	551.8	554.6
25°	528.1	530.9	539.2	542.0	544.8
27.5°	514.1	516.9	523.9	529.5	533.6
30°	500.1	502.9	511.3	518.3	521.1
32.5°	484.8	488.9	498.7	504.3	508.5
35°	468.0	472.2	482.0	491.7	495.9
37.5°	451.2	455.4	465.2	477.8	483.4
40°	431.7	437.3	449.8	466.6	469.4
42.5°	413.5	420.5	431.7	451.2	458.2
45°	392.6	399.5	414.9	435.9	447.0
47.5°	373.0	380.0	396.7	421.9	435.9
50°	349.2	359.0	380.0	409.3	423.3
52.5°	326.9	335.3	363.2	395.3	412.1
55°	303.1	312.9	346.5	381.4	399.5
57.5°	282.2	290.6	328.3	367.4	388.4
60°	255.6	266.8	310.1	352.0	373.0
62.5°	227.7	244.5	292.0	335.3	357.6
65°	201.2	220.7	275.2	318.5	340.9
67.5°	177.4	198.4	254.2	300.3	321.3
70°	149.5	176.0	233.3	278.0	301.7
72.5°	124.3	153.7	209.5	254.2	275.2
75°	99.2	131.3	185.8	223.5	236.1
77.5°	76.8	107.6	159.3	170.4	171.8
80°	57.3	85.2	118.7	120.1	124.3
82.5°	39.1	60.1	76.8	83.8	85.2
85°	25.1	34.9	43.3	44.7	47.5
87.5°	11.2	12.6	15.4	14.0	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)