

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: P387865

Luminaire Tested: **22CZ2-34HE-SQR-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: P387865  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-34HE-SQR-UNV-L930-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2649.7 lumens  
Efficiency: N/A  
Efficacy: 102.7 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

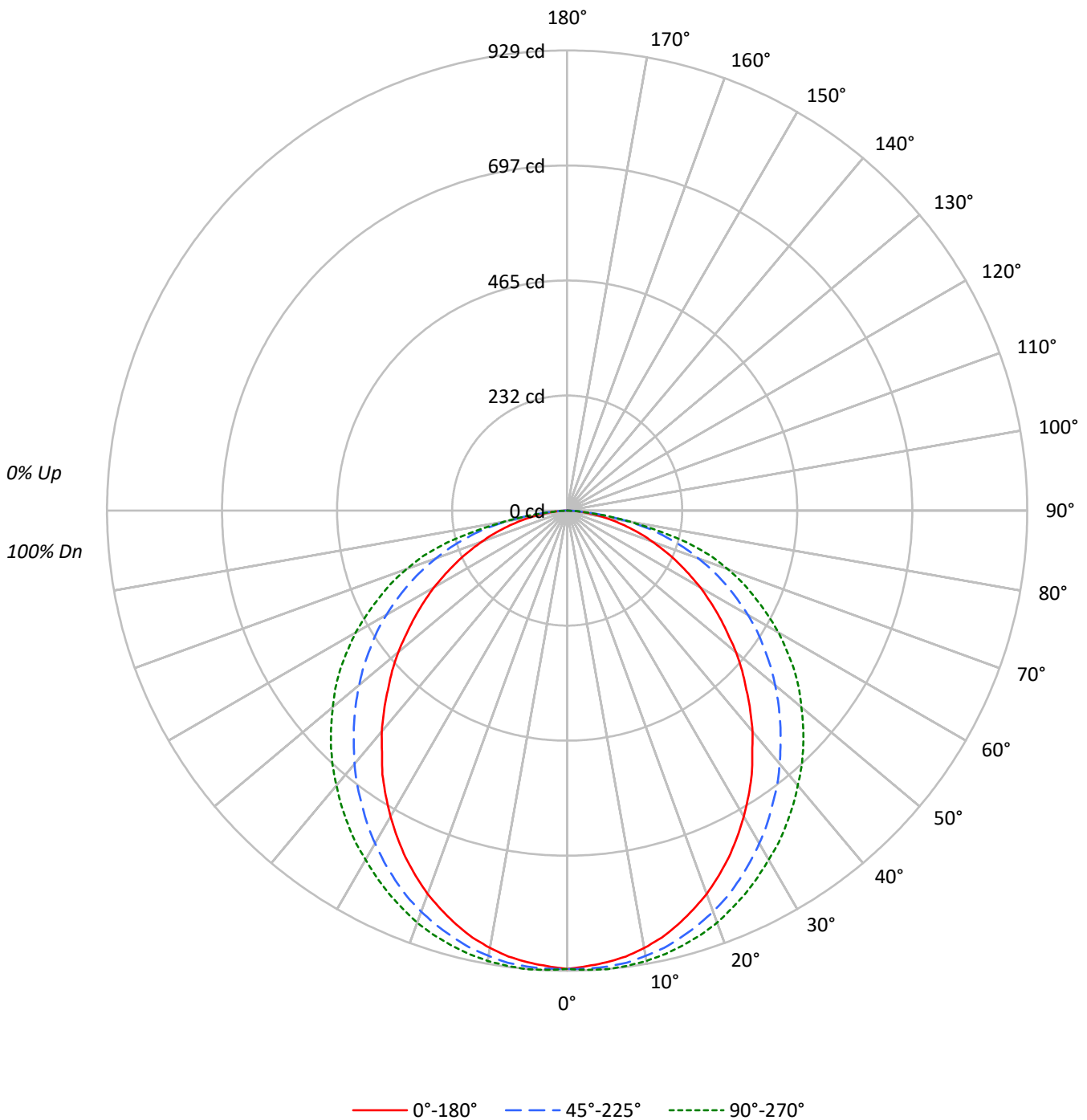
Input Watts (W): 25.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	2491	2491	2491
5°	2473	2497	2511
10°	2450	2495	2522
15°	2410	2484	2530
20°	2359	2467	2536
25°	2293	2442	2532
30°	2216	2411	2528
35°	2136	2375	2537
40°	2046	2346	2545
45°	1948	2316	2565
50°	1864	2295	2585
55°	1764	2277	2625
60°	1672	2267	2653
65°	1561	2250	2674
70°	1435	2216	2711
75°	1294	2157	2615
80°	1111	1909	1968
85°	892	1127	892



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.8	3.3
10°-20°	250.9	9.5
20°-30°	376.8	14.2
30°-40°	449.4	17.0
40°-50°	464.6	17.5
50°-60°	427.2	16.1
60°-70°	340.1	12.8
70°-80°	207.8	7.8
80°-90°	45.2	1.7
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°	715.4	27.0
0°-40°	1164.9	44.0
0°-60°	2056.7	77.6
0°-90°	2649.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2649.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	926	926	926	926	926	
5°	916	918	924	928	929	87
15°	865	875	892	904	908	244
25°	772	791	822	845	853	355
35°	650	678	723	761	772	406
45°	512	548	609	658	674	396
55°	376	418	485	541	560	336
65°	245	287	353	402	420	243
75°	124	161	208	244	252	133
85°	29	35	36	31	29	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	925.6	925.6	925.6	925.6	925.6
2.5°	920.6	921.8	925.6	928.1	928.1
5°	915.5	918.1	924.3	928.1	929.4
7.5°	908.0	911.8	920.6	925.6	926.9
10°	896.7	901.7	913.0	920.6	923.1
12.5°	882.8	890.4	904.2	914.3	916.8
15°	865.2	875.3	891.6	904.2	908.0
17.5°	845.1	857.7	877.8	892.9	897.9
20°	823.7	836.3	861.5	879.1	885.4
22.5°	798.6	814.9	843.9	864.0	869.0
25°	772.2	791.0	822.5	845.1	852.7
27.5°	743.2	765.9	799.8	827.5	833.8
30°	713.1	737.0	775.9	806.1	813.7
32.5°	681.6	709.3	750.8	784.8	794.8
35°	650.2	677.9	723.1	760.9	772.2
37.5°	613.7	646.4	696.7	735.7	749.5
40°	582.3	613.7	667.8	710.6	724.4
42.5°	547.1	581.0	637.6	684.1	700.5
45°	511.8	548.3	608.7	657.7	674.1
47.5°	479.2	515.6	578.5	630.1	646.4
50°	445.2	482.9	548.3	601.1	617.5
52.5°	408.7	450.2	518.1	571.0	589.8
55°	376.0	417.5	485.4	540.8	559.6
57.5°	342.1	384.8	455.3	508.1	525.7
60°	310.6	352.1	421.3	472.9	493.0
62.5°	276.7	319.4	387.3	437.6	456.5
65°	245.2	286.7	353.4	402.4	420.0
67.5°	213.8	255.3	318.2	364.7	384.8
70°	182.4	223.9	281.7	327.0	344.6
72.5°	154.7	191.2	246.5	288.0	304.3
75°	124.5	161.0	207.5	244.0	251.5
77.5°	96.8	129.5	168.5	184.9	187.4
80°	71.7	96.8	123.2	127.0	127.0
82.5°	47.8	66.7	76.7	78.0	76.7
85°	28.9	35.2	36.5	31.4	28.9
87.5°	10.1	10.1	6.3	3.8	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)