

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: P387864

Luminaire Tested: **22CZ2-34HE-SQR-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: P387864  
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-SDWPD1-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: 2617.8 lumens  
Efficiency: N/A  
Efficacy: 101.5 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

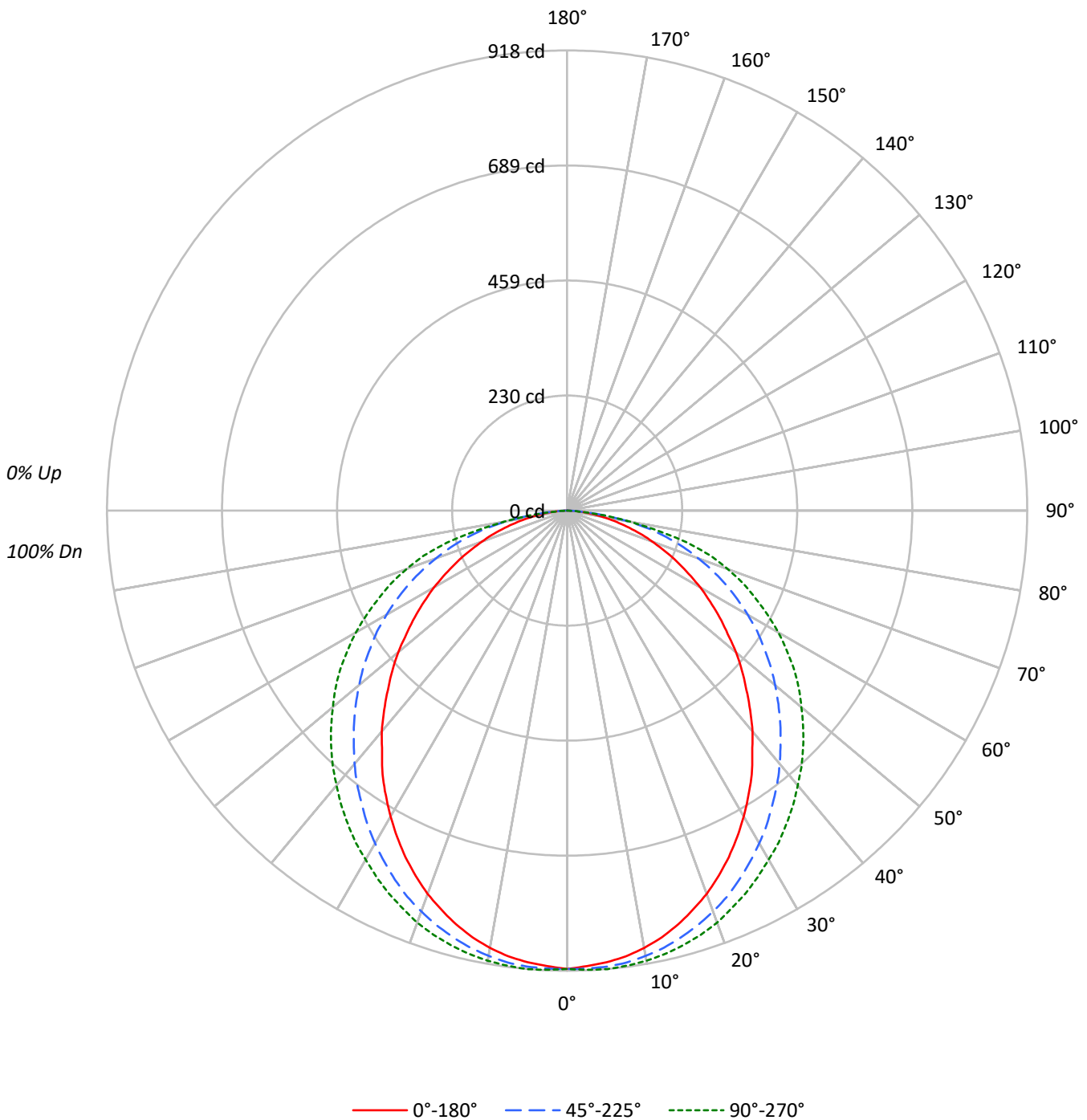
Input Watts (W): 25.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2461	2461	2461
5°	2443	2467	2480
10°	2421	2465	2492
15°	2381	2454	2499
20°	2330	2437	2505
25°	2265	2413	2501
30°	2189	2382	2498
35°	2110	2347	2506
40°	2021	2318	2514
45°	1925	2289	2535
50°	1841	2268	2554
55°	1743	2250	2594
60°	1652	2240	2621
65°	1543	2223	2642
70°	1418	2190	2678
75°	1279	2131	2584
80°	1097	1888	1945
85°	883	1112	883



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.7	3.3
10°-20°	247.9	9.5
20°-30°	372.3	14.2
30°-40°	444.0	17.0
40°-50°	459.1	17.5
50°-60°	422.1	16.1
60°-70°	336.0	12.8
70°-80°	205.3	7.8
80°-90°	44.6	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°	706.8	27.0
0°-40°	1150.8	44.0
0°-60°	2031.9	77.6
0°-90°	2617.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2617.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	914	914	914	914	914	
5°	904	907	913	917	918	86
15°	855	865	881	893	897	241
25°	763	782	813	835	842	351
35°	642	670	714	752	763	401
45°	506	542	601	650	666	391
55°	372	412	480	534	553	332
65°	242	283	349	398	415	240
75°	123	159	205	241	248	131
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°	914.5	914.5	914.5	914.5	914.5
2.5°	909.5	910.7	914.5	916.9	916.9
5°	904.5	907.0	913.2	916.9	918.2
7.5°	897.1	900.8	909.5	914.5	915.7
10°	885.9	890.9	902.0	909.5	912.0
12.5°	872.2	879.7	893.3	903.3	905.8
15°	854.8	864.8	880.9	893.3	897.1
17.5°	834.9	847.4	867.2	882.2	887.1
20°	813.8	826.2	851.1	868.5	874.7
22.5°	789.0	805.1	833.7	853.6	858.5
25°	762.9	781.5	812.6	834.9	842.4
27.5°	734.3	756.7	790.2	817.5	823.8
30°	704.5	728.1	766.6	796.4	803.9
32.5°	673.4	700.8	741.8	775.3	785.2
35°	642.4	669.7	714.4	751.7	762.9
37.5°	606.3	638.6	688.3	726.8	740.5
40°	575.3	606.3	659.8	702.0	715.7
42.5°	540.5	574.0	629.9	675.9	692.1
45°	505.7	541.7	601.4	649.8	666.0
47.5°	473.4	509.4	571.5	622.5	638.6
50°	439.8	477.1	541.7	593.9	610.1
52.5°	403.8	444.8	511.9	564.1	582.7
55°	371.5	412.5	479.6	534.3	552.9
57.5°	338.0	380.2	449.8	502.0	519.4
60°	306.9	347.9	416.2	467.2	487.0
62.5°	273.3	315.6	382.7	432.4	451.0
65°	242.3	283.3	349.1	397.6	415.0
67.5°	211.2	252.2	314.3	360.3	380.2
70°	180.2	221.2	278.3	323.0	340.4
72.5°	152.8	188.9	243.5	284.5	300.7
75°	123.0	159.0	205.0	241.0	248.5
77.5°	95.7	128.0	166.5	182.6	185.1
80°	70.8	95.7	121.8	125.5	125.5
82.5°	47.2	65.9	75.8	77.0	75.8
85°	28.6	34.8	36.0	31.1	28.6
87.5°	9.9	9.9	6.2	3.7	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)