

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: P388271

Luminaire Tested: **22CZ2-34VHE-UNV-L930-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: P388271  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-34VHE-UNV-L930-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

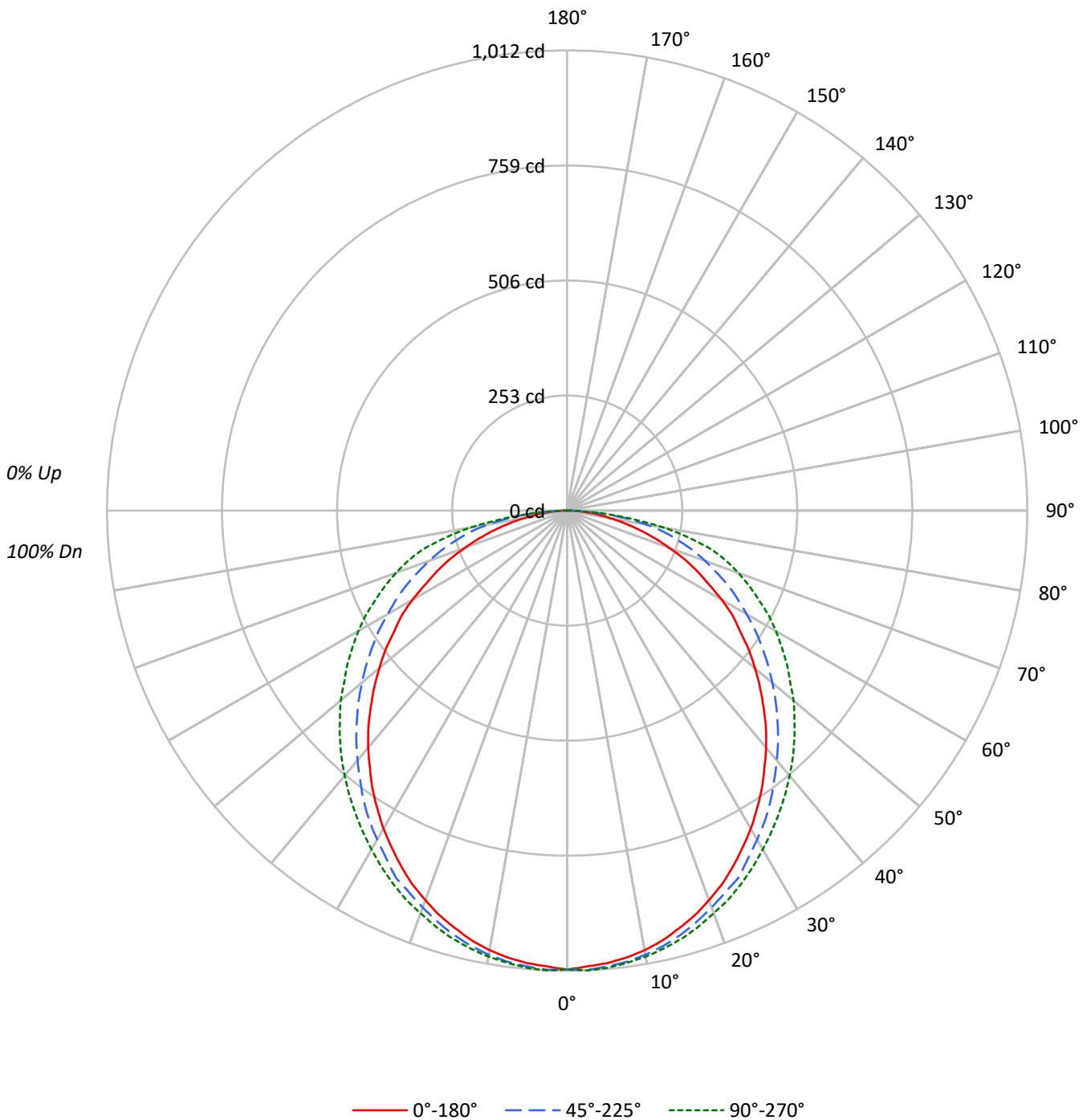
Lumens per Lamp: N/A  
Luminaire Lumens: 2968.6 lumens  
Efficiency: N/A  
Efficacy: 118.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 25.1  
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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	2716	2716	2716
5°	2699	2719	2727
10°	2682	2710	2722
15°	2649	2690	2714
20°	2610	2660	2698
25°	2563	2646	2689
30°	2510	2596	2673
35°	2452	2562	2668
40°	2391	2519	2674
45°	2324	2490	2691
50°	2256	2465	2721
55°	2179	2453	2769
60°	2115	2453	2854
65°	2009	2493	2958
70°	1873	2540	3149
75°	1717	2627	3402
80°	1494	2740	3350
85°	1309	2436	2661



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.5	3.2
10°-20°	271.9	9.2
20°-30°	408.2	13.7
30°-40°	487.7	16.4
40°-50°	507.2	17.1
50°-60°	470.1	15.8
60°-70°	385.6	13.0
70°-80°	260.6	8.8
80°-90°	81.9	2.8
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°	775.5	26.1
0°-40°	1263.2	42.6
0°-60°	2240.5	75.5
0°-90°	2968.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2968.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1009	1009	1009	1009	1009	
5°	999	1001	1006	1008	1009	95
15°	951	955	966	971	974	268
25°	863	871	891	901	906	398
35°	746	757	780	803	812	467
45°	611	622	654	692	707	471
55°	464	479	523	570	590	417
65°	316	333	392	443	464	312
75°	165	193	253	304	327	175
85°	42	58	79	88	86	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1009.4	1009.4	1009.4	1009.4	1009.4
2.5°	1003.5	1006.5	1010.8	1012.3	1012.3
5°	999.2	1000.6	1006.5	1007.9	1009.4
7.5°	991.8	994.8	1000.6	1002.1	1003.5
10°	981.6	984.5	991.8	994.8	996.2
12.5°	968.5	971.4	980.2	984.5	986.0
15°	950.9	955.3	965.6	971.4	974.3
17.5°	933.4	937.8	948.0	956.8	959.7
20°	911.5	921.7	929.0	940.7	942.2
22.5°	889.6	895.4	908.6	920.3	926.1
25°	863.3	870.6	891.1	901.3	905.7
27.5°	835.5	845.8	861.8	877.9	883.8
30°	807.8	815.1	835.5	854.5	860.4
32.5°	777.1	787.3	809.3	828.2	837.0
35°	746.4	756.7	780.0	803.4	812.2
37.5°	712.8	724.5	747.9	775.7	787.3
40°	680.7	689.5	717.2	750.8	761.1
42.5°	647.1	657.3	686.6	723.1	734.8
45°	610.6	622.3	654.4	692.4	707.0
47.5°	575.5	587.2	622.3	660.3	677.8
50°	539.0	553.6	588.7	632.5	650.0
52.5°	504.0	517.1	556.5	601.8	617.9
55°	464.5	479.1	522.9	569.7	590.1
57.5°	432.4	442.6	490.8	539.0	559.5
60°	392.9	406.1	455.8	506.9	530.3
62.5°	350.6	372.5	423.6	476.2	499.6
65°	315.5	333.1	391.5	442.6	464.5
67.5°	279.0	298.0	355.0	409.0	433.8
70°	238.1	262.9	322.8	376.9	400.2
72.5°	201.6	227.9	289.2	341.8	366.6
75°	165.1	192.8	252.7	303.8	327.2
77.5°	130.0	160.7	219.1	258.6	273.2
80°	96.4	125.6	176.8	204.5	216.2
82.5°	67.2	92.0	130.0	144.6	147.5
85°	42.4	58.4	78.9	87.6	86.2
87.5°	19.0	23.4	29.2	32.1	30.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)