

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: P387892

Luminaire Tested: **22CZ2-34VHE-SQR-UNV-L935-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: P387892  
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: 22CZ2-34VHE-SQR-UNV-L935-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2885.3 lumens  
Efficiency: N/A  
Efficacy: 115.0 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

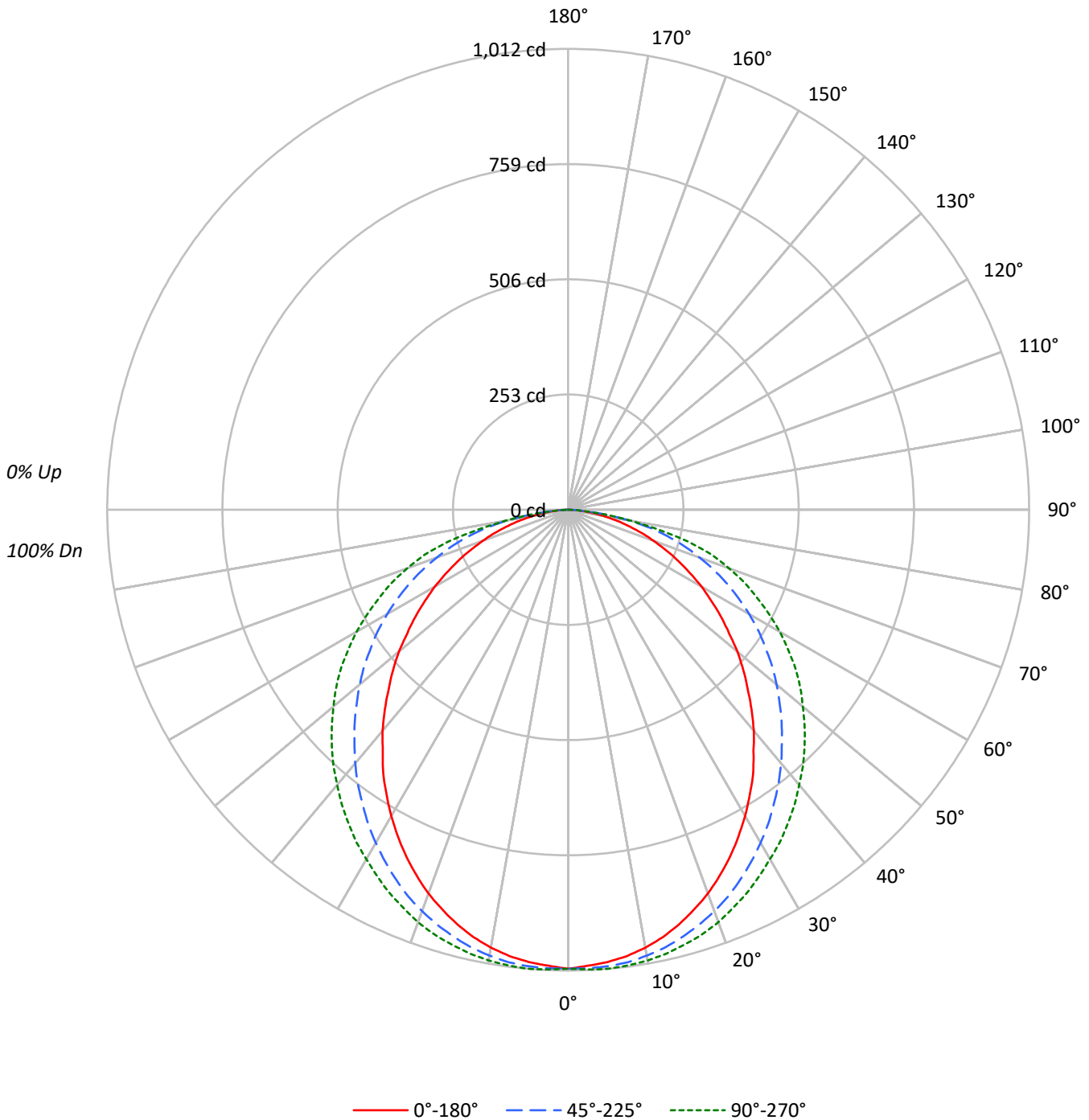
Input Watts (W): 25.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2712	2712	2712
5°	2693	2719	2734
10°	2668	2717	2747
15°	2625	2705	2754
20°	2569	2686	2761
25°	2496	2659	2757
30°	2413	2625	2753
35°	2326	2587	2762
40°	2227	2555	2771
45°	2121	2522	2793
50°	2030	2500	2815
55°	1921	2480	2859
60°	1821	2469	2889
65°	1700	2450	2912
70°	1563	2414	2952
75°	1410	2350	2848
80°	1210	2080	2143
85°	973	1226	973



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.6	3.3
10°-20°	273.2	9.5
20°-30°	410.3	14.2
30°-40°	489.4	17.0
40°-50°	506.0	17.5
50°-60°	465.2	16.1
60°-70°	370.3	12.8
70°-80°	226.3	7.8
80°-90°	49.2	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°	779.1	27.0
0°-40°	1268.4	44.0
0°-60°	2239.6	77.6
0°-90°	2885.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2885.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1008	1008	1008	1008	1008	
5°	997	1000	1006	1011	1012	95
15°	942	953	971	985	989	265
25°	841	861	896	920	928	387
35°	708	738	787	828	841	442
45°	557	597	663	716	734	431
55°	410	455	529	589	609	366
65°	267	312	385	438	457	265
75°	136	175	226	266	274	144
85°	32	38	40	34	32	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1007.9	1007.9	1007.9	1007.9	1007.9
2.5°	1002.4	1003.8	1007.9	1010.6	1010.6
5°	996.9	999.7	1006.5	1010.6	1012.0
7.5°	988.7	992.8	1002.4	1007.9	1009.3
10°	976.4	981.9	994.2	1002.4	1005.2
12.5°	961.3	969.6	984.6	995.6	998.3
15°	942.2	953.1	970.9	984.6	988.7
17.5°	920.3	934.0	955.9	972.3	977.8
20°	897.0	910.7	938.1	957.2	964.1
22.5°	869.6	887.4	918.9	940.8	946.3
25°	840.8	861.4	895.6	920.3	928.5
27.5°	809.3	834.0	871.0	901.1	907.9
30°	776.5	802.5	844.9	877.8	886.0
32.5°	742.2	772.4	817.6	854.5	865.5
35°	708.0	738.1	787.4	828.5	840.8
37.5°	668.3	703.9	758.7	801.1	816.2
40°	634.0	668.3	727.2	773.7	788.8
42.5°	595.7	632.7	694.3	745.0	762.8
45°	557.4	597.1	662.8	716.2	734.0
47.5°	521.8	561.5	629.9	686.1	703.9
50°	484.8	525.9	597.1	654.6	672.4
52.5°	445.1	490.3	564.2	621.7	642.3
55°	409.5	454.7	528.6	588.9	609.4
57.5°	372.5	419.0	495.7	553.3	572.4
60°	338.3	383.4	458.8	514.9	536.8
62.5°	301.3	347.8	421.8	476.6	497.1
65°	267.0	312.2	384.8	438.2	457.4
67.5°	232.8	278.0	346.5	397.1	419.0
70°	198.6	243.8	306.8	356.1	375.2
72.5°	168.4	208.2	268.4	313.6	331.4
75°	135.6	175.3	226.0	265.7	273.9
77.5°	105.4	141.1	183.5	201.3	204.0
80°	78.1	105.4	134.2	138.3	138.3
82.5°	52.0	72.6	83.5	84.9	83.5
85°	31.5	38.3	39.7	34.2	31.5
87.5°	11.0	11.0	6.8	4.1	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)