

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: P387871

Luminaire Tested: **22CZ2-34HE-SQR-UNV-L940-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: P387871  
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-L940-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2743.4 lumens  
Efficiency: N/A  
Efficacy: 106.3 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

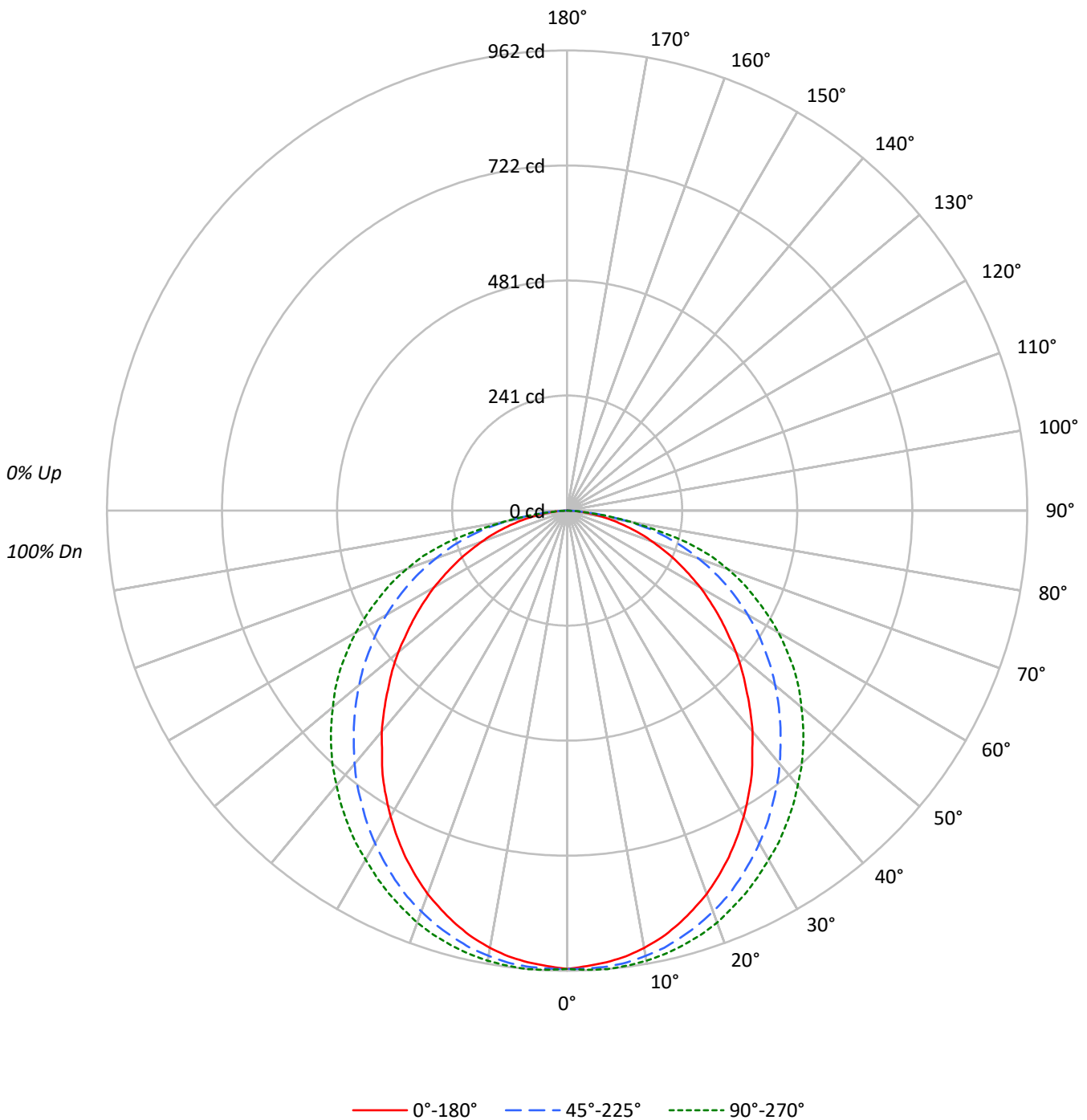
Input Watts (W): 25.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

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

	0°	45°	90°
0°	2579	2579	2579
5°	2561	2585	2599
10°	2537	2583	2611
15°	2496	2572	2619
20°	2442	2554	2625
25°	2374	2529	2621
30°	2294	2496	2618
35°	2212	2460	2626
40°	2118	2429	2635
45°	2017	2398	2656
50°	1930	2377	2676
55°	1826	2358	2718
60°	1731	2348	2747
65°	1617	2330	2769
70°	1485	2295	2807
75°	1340	2233	2707
80°	1150	1977	2038
85°	923	1167	923



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.9	3.3
10°-20°	259.8	9.5
20°-30°	390.1	14.2
30°-40°	465.3	17.0
40°-50°	481.1	17.5
50°-60°	442.3	16.1
60°-70°	352.1	12.8
70°-80°	215.1	7.8
80°-90°	46.8	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°	740.7	27.0
0°-40°	1206.0	44.0
0°-60°	2129.4	77.6
0°-90°	2743.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2743.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	958	958	958	958	958	
5°	948	950	957	961	962	90
15°	896	906	923	936	940	252
25°	800	819	852	875	883	368
35°	673	702	749	788	800	420
45°	530	568	630	681	698	410
55°	389	432	503	560	579	348
65°	254	297	366	417	435	252
75°	129	167	215	253	260	137
85°	30	36	38	33	30	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	958.3	958.3	958.3	958.3	958.3
2.5°	953.1	954.4	958.3	960.9	960.9
5°	947.9	950.5	957.0	960.9	962.2
7.5°	940.1	944.0	953.1	958.3	959.6
10°	928.4	933.6	945.3	953.1	955.7
12.5°	914.1	921.9	936.2	946.6	949.2
15°	895.8	906.3	923.2	936.2	940.1
17.5°	875.0	888.0	908.9	924.5	929.7
20°	852.9	865.9	891.9	910.2	916.7
22.5°	826.8	843.8	873.7	894.5	899.7
25°	799.5	819.0	851.6	875.0	882.8
27.5°	769.5	793.0	828.1	856.8	863.3
30°	738.3	763.0	803.4	834.6	842.5
32.5°	705.7	734.4	777.3	812.5	822.9
35°	673.2	701.8	748.7	787.8	799.5
37.5°	635.4	669.3	721.4	761.7	776.0
40°	602.9	635.4	691.4	735.7	750.0
42.5°	566.4	601.6	660.2	708.3	725.3
45°	529.9	567.7	630.2	681.0	697.9
47.5°	496.1	533.9	599.0	652.3	669.3
50°	460.9	500.0	567.7	622.4	639.3
52.5°	423.2	466.1	536.5	591.1	610.7
55°	389.3	432.3	502.6	559.9	579.4
57.5°	354.2	398.4	471.4	526.0	544.3
60°	321.6	364.6	436.2	489.6	510.4
62.5°	286.5	330.7	401.0	453.1	472.7
65°	253.9	296.9	365.9	416.7	434.9
67.5°	221.4	264.3	329.4	377.6	398.4
70°	188.8	231.8	291.7	338.5	356.8
72.5°	160.2	197.9	255.2	298.2	315.1
75°	128.9	166.7	214.8	252.6	260.4
77.5°	100.3	134.1	174.5	191.4	194.0
80°	74.2	100.3	127.6	131.5	131.5
82.5°	49.5	69.0	79.4	80.7	79.4
85°	29.9	36.5	37.8	32.6	29.9
87.5°	10.4	10.4	6.5	3.9	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)