

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: P387869

Luminaire Tested: **22CZ2-34HE-SQR-UNV-L935-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: P387869  
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-L935-CD1-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: 2749.4 lumens  
Efficiency: N/A  
Efficacy: 106.6 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

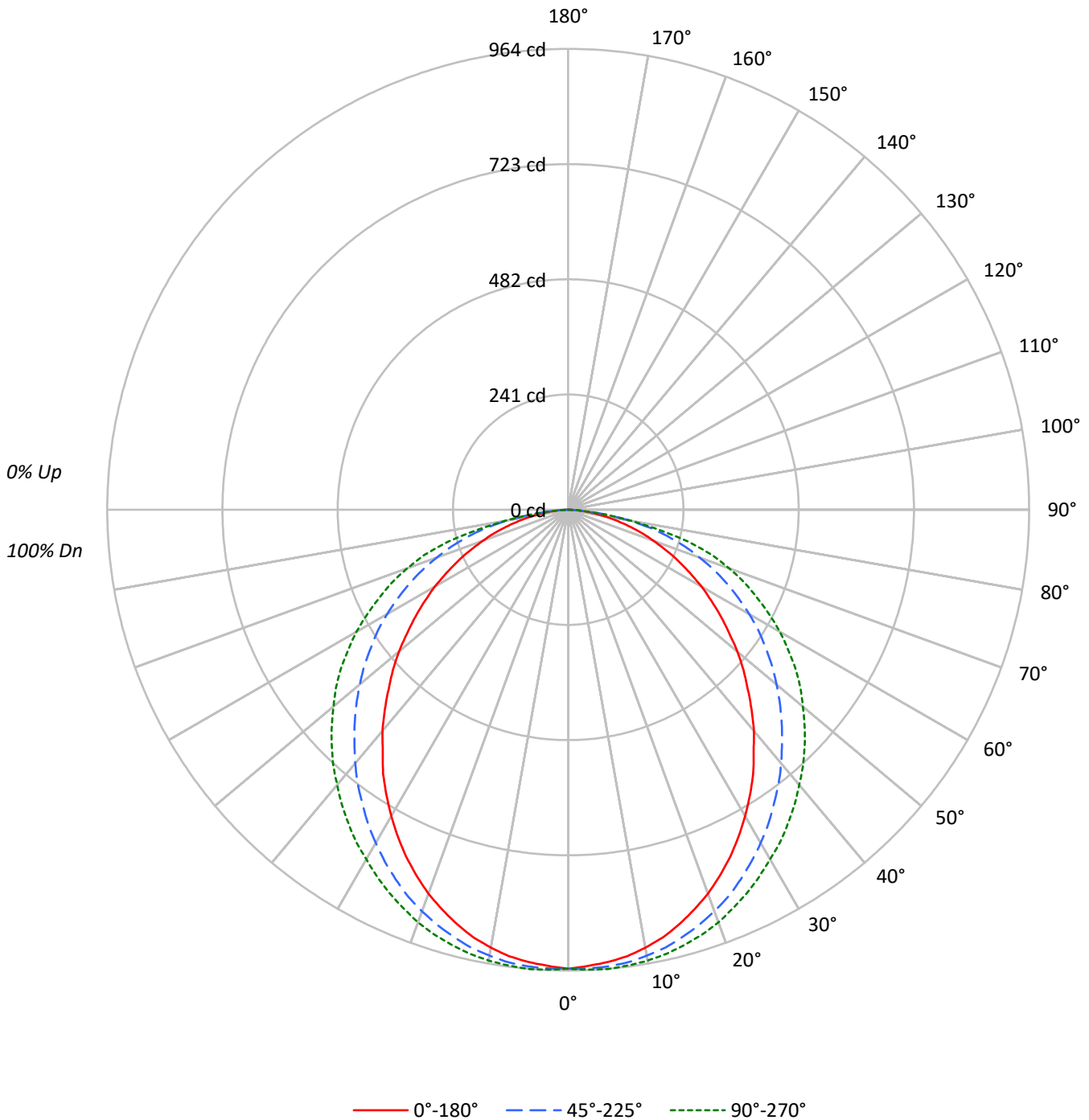
Input Watts (W): 25.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2584	2584	2584
5°	2566	2591	2605
10°	2542	2589	2617
15°	2501	2578	2625
20°	2448	2560	2631
25°	2379	2534	2627
30°	2299	2502	2623
35°	2216	2465	2632
40°	2122	2434	2640
45°	2021	2404	2662
50°	1934	2382	2682
55°	1831	2363	2724
60°	1735	2353	2753
65°	1621	2335	2775
70°	1489	2300	2814
75°	1343	2239	2714
80°	1153	1982	2042
85°	926	1167	926



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.1	3.3
10°-20°	260.3	9.5
20°-30°	391.0	14.2
30°-40°	466.3	17.0
40°-50°	482.1	17.5
50°-60°	443.3	16.1
60°-70°	352.9	12.8
70°-80°	215.6	7.8
80°-90°	46.9	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°	742.4	27.0
0°-40°	1208.7	44.0
0°-60°	2134.1	77.6
0°-90°	2749.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2749.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	960	960	960	960	960	
5°	950	953	959	963	964	90
15°	898	908	925	938	942	253
25°	801	821	853	877	885	369
35°	675	703	750	790	801	421
45°	531	569	632	682	699	411
55°	390	433	504	561	581	349
65°	254	298	367	418	436	252
75°	129	167	215	253	261	138
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°	960.4	960.4	960.4	960.4	960.4
2.5°	955.2	956.5	960.4	963.0	963.0
5°	950.0	952.6	959.1	963.0	964.3
7.5°	942.2	946.1	955.2	960.4	961.7
10°	930.4	935.6	947.4	955.2	957.8
12.5°	916.1	923.9	938.2	948.7	951.3
15°	897.8	908.2	925.2	938.2	942.2
17.5°	876.9	890.0	910.8	926.5	931.7
20°	854.7	867.8	893.9	912.1	918.7
22.5°	828.6	845.6	875.6	896.5	901.7
25°	801.2	820.8	853.4	876.9	884.7
27.5°	771.2	794.7	829.9	858.6	865.2
30°	739.9	764.7	805.1	836.5	844.3
32.5°	707.3	736.0	779.0	814.3	824.7
35°	674.7	703.4	750.3	789.5	801.2
37.5°	636.8	670.7	722.9	763.4	777.7
40°	604.2	636.8	692.9	737.3	751.6
42.5°	567.6	602.9	661.6	709.9	726.8
45°	531.1	569.0	631.6	682.5	699.4
47.5°	497.2	535.0	600.3	653.8	670.7
50°	461.9	501.1	569.0	623.8	640.7
52.5°	424.1	467.2	537.6	592.4	612.0
55°	390.2	433.2	503.7	561.1	580.7
57.5°	354.9	399.3	472.4	527.2	545.5
60°	322.3	365.4	437.2	490.7	511.5
62.5°	287.1	331.5	401.9	454.1	473.7
65°	254.5	297.5	366.7	417.6	435.8
67.5°	221.8	264.9	330.1	378.4	399.3
70°	189.2	232.3	292.3	339.3	357.6
72.5°	160.5	198.4	255.8	298.8	315.8
75°	129.2	167.0	215.3	253.2	261.0
77.5°	100.5	134.4	174.9	191.8	194.4
80°	74.4	100.5	127.9	131.8	131.8
82.5°	49.6	69.2	79.6	80.9	79.6
85°	30.0	36.5	37.8	32.6	30.0
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)