

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: P389592

Luminaire Tested: **24CZ2-130VHE-S-UNV-L935-CD2-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: P389592  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-130VHE-S-UNV-L935-CD2-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11502.9 lumens  
Efficiency: N/A  
Efficacy: 126.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

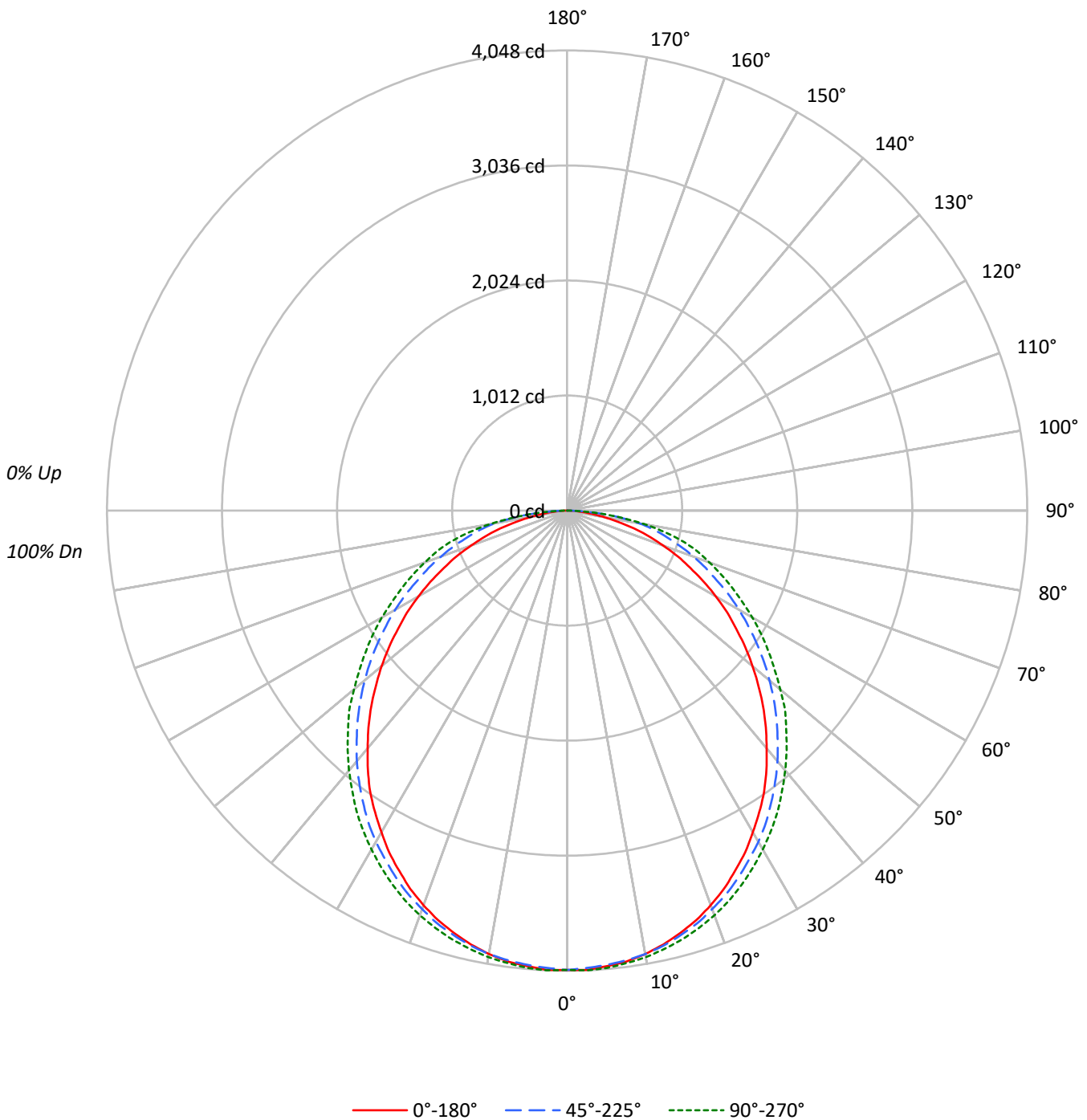
Input Watts (W): 90.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	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°	5437	5437	5437
5°	5433	5418	5453
10°	5411	5411	5451
15°	5359	5385	5441
20°	5289	5341	5425
25°	5191	5289	5392
30°	5075	5228	5347
35°	4963	5143	5305
40°	4794	5057	5243
45°	4637	4957	5186
50°	4459	4864	5124
55°	4260	4774	5074
60°	4061	4700	5064
65°	3804	4618	5095
70°	3522	4643	5232
75°	3153	4730	5527
80°	2548	5011	5408
85°	1917	4400	4287



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	382.6	3.3
10°-20°	1093.1	9.5
20°-30°	1643.2	14.3
30°-40°	1957.4	17.0
40°-50°	2003.3	17.4
50°-60°	1803.5	15.7
60°-70°	1416.3	12.3
70°-80°	919.2	8.0
80°-90°	284.3	2.5
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°	3118.9	27.1
0°-40°	5076.3	44.1
0°-60°	8883.1	77.2
0°-90°	11502.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11502.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4041	4041	4041	4041	4041	
5°	4023	4030	4012	4034	4037	382
15°	3847	3858	3866	3898	3906	1085
25°	3497	3526	3562	3621	3632	1611
35°	3022	3058	3131	3208	3230	1885
45°	2437	2496	2605	2704	2726	1879
55°	1816	1896	2035	2141	2163	1628
65°	1195	1286	1450	1571	1600	1189
75°	606	723	910	1034	1063	642
85°	124	230	285	278	278	150
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4041.0	4041.0	4041.0	4041.0	4041.0
2.5°	4044.7	4044.7	4026.4	4044.7	4048.4
5°	4022.8	4030.1	4011.8	4033.7	4037.4
7.5°	4000.9	4000.9	3989.9	4011.8	4015.5
10°	3960.7	3964.3	3960.7	3986.2	3989.9
12.5°	3909.5	3916.8	3920.5	3946.0	3949.7
15°	3847.4	3858.4	3865.7	3898.5	3905.9
17.5°	3778.0	3788.9	3807.2	3843.7	3851.0
20°	3693.9	3708.6	3730.5	3778.0	3788.9
22.5°	3602.6	3617.2	3653.7	3697.6	3715.9
25°	3496.6	3525.9	3562.4	3620.9	3631.8
27.5°	3390.7	3416.3	3463.8	3525.9	3540.5
30°	3266.4	3306.6	3365.1	3427.2	3441.8
32.5°	3145.9	3186.1	3255.5	3321.3	3339.5
35°	3021.6	3058.2	3131.3	3208.0	3229.9
37.5°	2879.2	2926.7	3007.0	3083.8	3105.7
40°	2729.3	2787.8	2879.2	2959.5	2985.1
42.5°	2586.9	2649.0	2740.3	2828.0	2857.2
45°	2437.0	2495.5	2605.1	2703.8	2725.7
47.5°	2283.6	2349.4	2466.3	2564.9	2601.5
50°	2130.1	2199.6	2323.8	2426.1	2448.0
52.5°	1976.7	2049.8	2181.3	2290.9	2301.9
55°	1815.9	1896.3	2035.1	2141.1	2163.0
57.5°	1669.8	1739.2	1889.0	1998.6	2024.2
60°	1509.0	1585.7	1746.5	1848.8	1881.7
62.5°	1355.5	1435.9	1604.0	1706.3	1735.5
65°	1194.8	1286.1	1450.5	1571.1	1600.3
67.5°	1055.9	1143.6	1319.0	1435.9	1465.2
70°	895.2	993.8	1180.2	1300.7	1330.0
72.5°	756.3	858.6	1045.0	1161.9	1205.7
75°	606.5	723.4	909.8	1034.0	1063.2
77.5°	460.4	595.6	785.6	880.6	880.6
80°	328.8	471.3	646.7	690.6	697.9
82.5°	215.6	354.4	478.6	475.0	475.0
85°	124.2	230.2	285.0	277.7	277.7
87.5°	47.5	95.0	102.3	102.3	98.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)