

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: P389589

Luminaire Tested: **24CZ2-130VHE-S-UNV-L930-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: P389589  
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-L930-CD2-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11225.3 lumens  
Efficiency: N/A  
Efficacy: 123.8 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

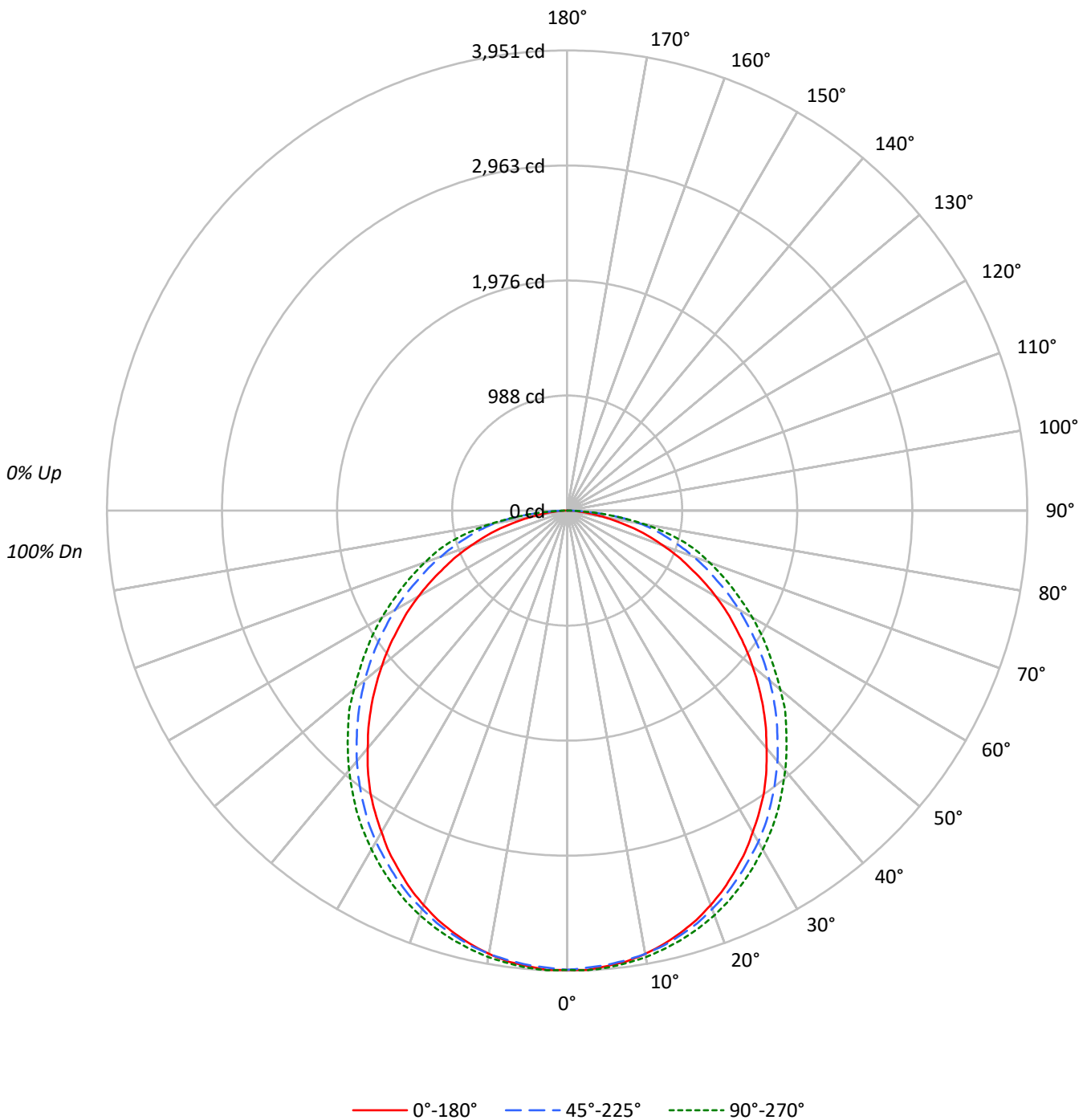
Input Watts (W): 90.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5306	5306	5306
5°	5302	5288	5321
10°	5281	5281	5320
15°	5230	5255	5309
20°	5161	5212	5294
25°	5066	5161	5262
30°	4952	5102	5218
35°	4843	5019	5177
40°	4678	4935	5117
45°	4525	4838	5061
50°	4351	4747	5000
55°	4157	4659	4951
60°	3963	4586	4941
65°	3712	4507	4972
70°	3437	4531	5106
75°	3077	4615	5394
80°	2486	4890	5277
85°	1871	4293	4184



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	373.3	3.3
10°-20°	1066.8	9.5
20°-30°	1603.6	14.3
30°-40°	1910.1	17.0
40°-50°	1954.9	17.4
50°-60°	1760.0	15.7
60°-70°	1382.2	12.3
70°-80°	897.1	8.0
80°-90°	277.4	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°	3043.7	27.1
0°-40°	4953.8	44.1
0°-60°	8668.7	77.2
0°-90°	11225.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11225.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3944	3944	3944	3944	3944	
5°	3926	3933	3915	3936	3940	373
15°	3754	3765	3772	3804	3812	1059
25°	3412	3441	3476	3534	3544	1572
35°	2949	2984	3056	3131	3152	1840
45°	2378	2435	2542	2638	2660	1834
55°	1772	1850	1986	2089	2111	1589
65°	1166	1255	1416	1533	1562	1161
75°	592	706	888	1009	1038	626
85°	121	225	278	271	271	146
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3943.5	3943.5	3943.5	3943.5	3943.5
2.5°	3947.1	3947.1	3929.3	3947.1	3950.7
5°	3925.7	3932.8	3915.0	3936.4	3940.0
7.5°	3904.3	3904.3	3893.6	3915.0	3918.6
10°	3865.1	3868.6	3865.1	3890.0	3893.6
12.5°	3815.2	3822.3	3825.9	3850.8	3854.4
15°	3754.5	3765.2	3772.4	3804.5	3811.6
17.5°	3686.8	3697.5	3715.3	3751.0	3758.1
20°	3604.8	3619.1	3640.4	3686.8	3697.5
22.5°	3515.7	3529.9	3565.6	3608.4	3626.2
25°	3412.3	3440.8	3476.4	3533.5	3544.2
27.5°	3308.8	3333.8	3380.2	3440.8	3455.0
30°	3187.6	3226.8	3283.9	3344.5	3358.8
32.5°	3070.0	3109.2	3176.9	3241.1	3258.9
35°	2948.7	2984.4	3055.7	3130.6	3152.0
37.5°	2809.7	2856.0	2934.5	3009.3	3030.7
40°	2663.5	2720.5	2809.7	2888.1	2913.1
42.5°	2524.4	2585.0	2674.2	2759.8	2788.3
45°	2378.2	2435.3	2542.3	2638.5	2659.9
47.5°	2228.5	2292.7	2406.8	2503.0	2538.7
50°	2078.7	2146.5	2267.7	2367.5	2388.9
52.5°	1929.0	2000.3	2128.6	2235.6	2246.3
55°	1772.1	1850.5	1986.0	2089.4	2110.8
57.5°	1629.5	1697.2	1843.4	1950.4	1975.3
60°	1472.6	1547.5	1704.3	1804.2	1836.3
62.5°	1322.8	1401.3	1565.3	1665.1	1693.6
65°	1165.9	1255.1	1415.5	1533.2	1561.7
67.5°	1030.4	1116.0	1287.2	1401.3	1429.8
70°	873.6	969.8	1151.7	1269.3	1297.9
72.5°	738.1	837.9	1019.8	1133.9	1176.6
75°	591.9	706.0	887.8	1009.1	1037.6
77.5°	449.3	581.2	766.6	859.3	859.3
80°	320.9	460.0	631.1	673.9	681.0
82.5°	210.4	345.9	467.1	463.5	463.5
85°	121.2	224.6	278.1	271.0	271.0
87.5°	46.4	92.7	99.8	99.8	96.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)