

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: P391295

Luminaire Tested: **24CZ2-35VHE-RDP-UNV-L930-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: P391295  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-35VHE-RDP-UNV-L930-CD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1956.6 lumens  
Efficiency: N/A  
Efficacy: 85.8 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

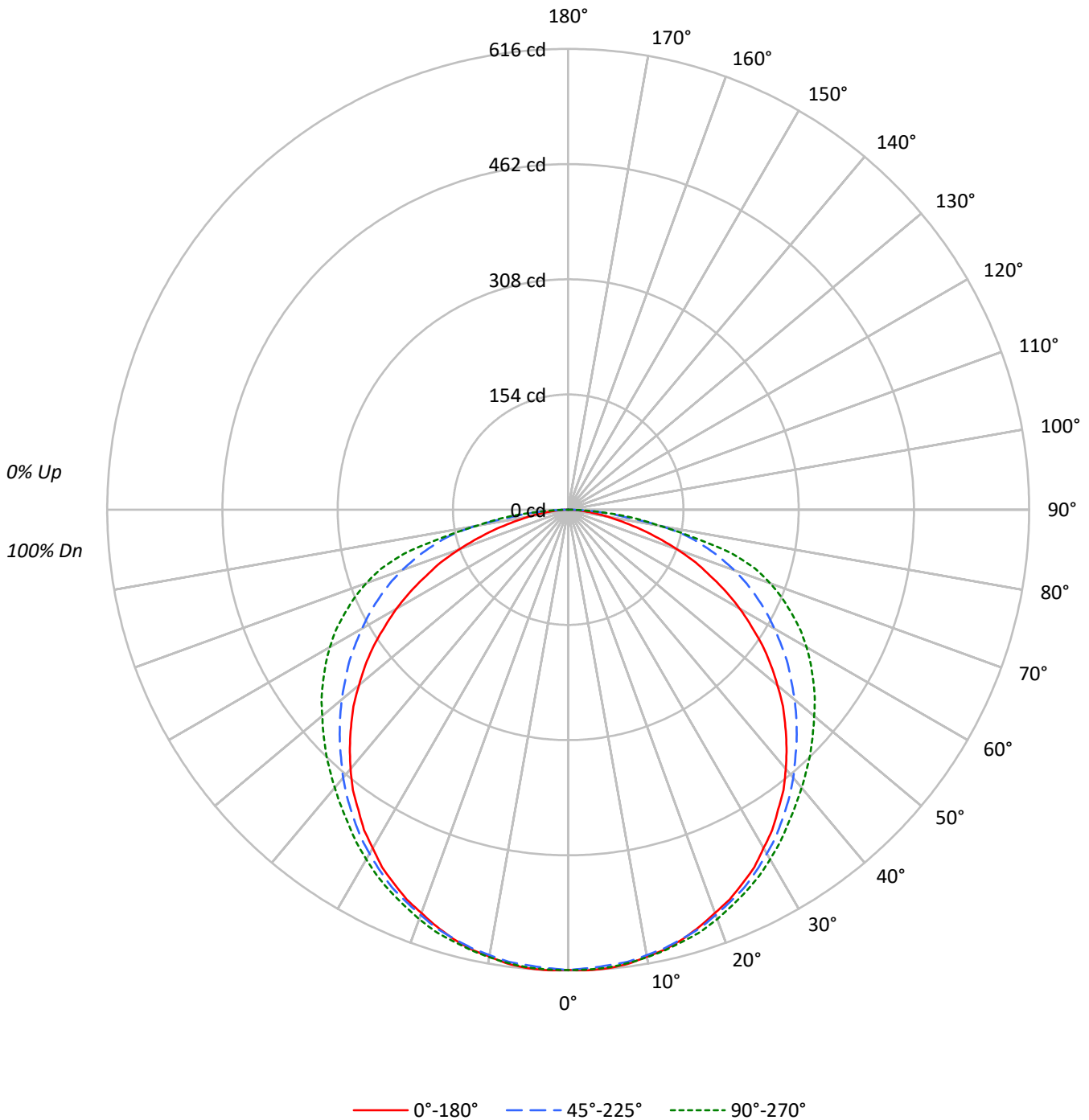
Input Watts (W): 22.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	89		92	89	87		88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		34	28	24	22

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

	0°	45°	90°
0°	828	828	828
5°	831	826	830
10°	829	826	830
15°	827	826	831
20°	821	825	834
25°	818	827	836
30°	811	825	838
35°	803	823	842
40°	794	822	852
45°	781	822	872
50°	764	827	898
55°	745	840	938
60°	713	857	990
65°	667	887	1051
70°	607	928	1130
75°	515	979	1181
80°	406	985	955
85°	299	749	838



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.4	3.0
10°-20°	168.0	8.6
20°-30°	256.9	13.1
30°-40°	314.0	16.0
40°-50°	334.7	17.1
50°-60°	320.0	16.4
60°-70°	271.1	13.9
70°-80°	182.2	9.3
80°-90°	51.4	2.6
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°	483.2	24.7
0°-40°	797.2	40.7
0°-60°	1451.9	74.2
0°-90°	1956.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1956.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	615	615	615	615	615	
5°	615	614	611	614	614	58
15°	594	594	593	598	597	167
25°	551	553	557	562	563	254
35°	489	493	501	510	512	306
45°	410	417	432	450	458	317
55°	317	329	358	386	400	283
65°	210	231	278	315	330	208
75°	99	135	188	220	227	106
85°	19	40	48	52	54	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	615.3	615.3	615.3	615.3	615.3
2.5°	616.3	616.3	613.4	615.3	615.3
5°	615.3	614.3	611.4	614.3	614.3
7.5°	612.4	611.4	609.5	612.4	611.4
10°	606.6	606.6	604.6	607.5	607.5
12.5°	601.7	600.7	599.8	603.6	602.7
15°	593.9	593.9	593.0	597.8	596.9
17.5°	584.2	585.2	586.2	590.1	591.0
20°	573.6	575.5	576.5	582.3	582.3
22.5°	563.9	564.8	566.8	572.6	572.6
25°	551.2	553.2	557.1	561.9	562.9
27.5°	538.6	539.6	544.4	551.2	552.2
30°	522.1	525.0	530.9	538.6	539.6
32.5°	507.6	510.5	517.3	525.0	527.0
35°	489.1	493.0	500.8	510.5	512.4
37.5°	472.6	475.5	485.2	495.9	498.8
40°	452.3	458.1	467.8	480.4	485.2
42.5°	431.9	437.7	449.3	465.8	471.7
45°	410.5	417.3	431.9	450.3	458.1
47.5°	389.2	396.9	413.4	434.8	443.5
50°	364.9	374.6	395.0	419.3	429.0
52.5°	341.6	353.3	375.6	402.8	415.4
55°	317.4	329.0	358.1	386.3	399.8
57.5°	290.2	305.7	337.7	369.8	384.3
60°	264.9	279.5	318.3	353.3	367.8
62.5°	237.8	257.2	298.9	335.8	350.3
65°	209.6	231.0	278.5	315.4	330.0
67.5°	184.4	207.7	258.2	295.0	309.6
70°	154.3	183.4	235.8	272.7	287.3
72.5°	126.2	158.2	212.5	248.4	262.0
75°	99.0	134.9	188.3	220.3	227.1
77.5°	73.8	111.6	163.0	176.6	171.8
80°	52.4	89.3	127.1	120.3	123.3
82.5°	34.0	67.9	78.6	89.3	92.2
85°	19.4	39.8	48.5	52.4	54.3
87.5°	8.7	14.6	19.4	19.4	18.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)