

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: P388491

Luminaire Tested: **24CZ2-30HE-SQR-UNV-L935-CD1-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: P388491  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-30HE-SQR-UNV-L935-CD1-SDWPD1-U  
Description: 2x4 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: 2387.8 lumens  
Efficiency: N/A  
Efficacy: 106.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

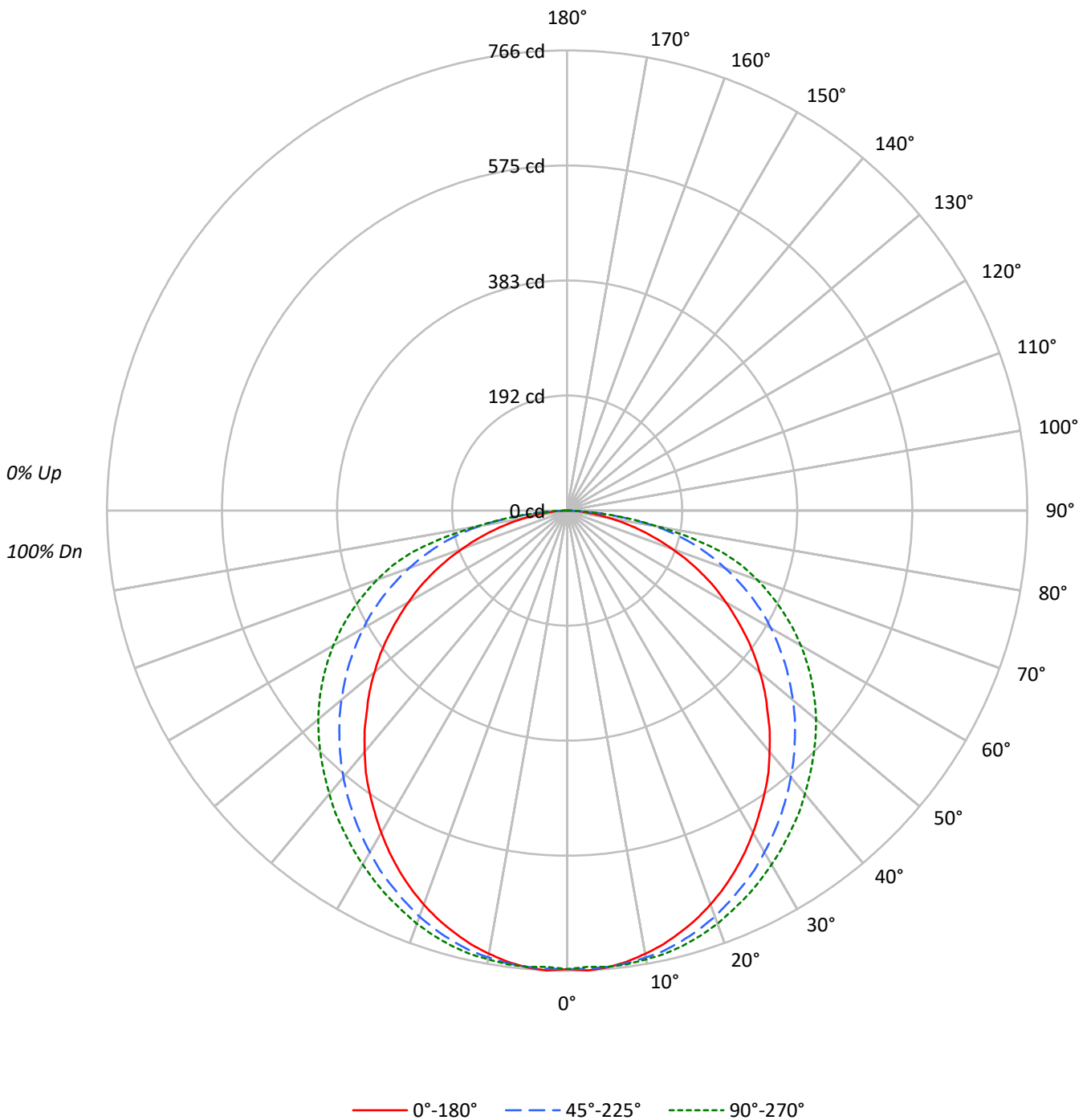
Input Watts (W): 22.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

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

	0°	45°	90°
0°	1027	1027	1027
5°	1031	1030	1030
10°	1023	1032	1036
15°	1013	1032	1043
20°	999	1030	1048
25°	982	1024	1051
30°	962	1020	1057
35°	942	1018	1067
40°	921	1018	1082
45°	897	1020	1103
50°	876	1027	1132
55°	851	1038	1167
60°	821	1055	1209
65°	786	1074	1260
70°	729	1101	1325
75°	660	1140	1385
80°	556	1142	1192
85°	426	865	865



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.5	3.0
10°-20°	208.4	8.7
20°-30°	316.6	13.3
30°-40°	385.1	16.1
40°-50°	410.0	17.2
50°-60°	390.5	16.4
60°-70°	326.6	13.7
70°-80°	217.8	9.1
80°-90°	60.2	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°	597.5	25.0
0°-40°	982.6	41.2
0°-60°	1783.2	74.7
0°-90°	2387.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2387.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	763	763	763	763	763	
5°	763	758	762	762	762	72
15°	727	729	741	747	749	205
25°	662	670	690	702	708	305
35°	573	590	620	640	650	359
45°	472	497	536	566	580	365
55°	363	394	442	481	498	324
65°	247	283	338	379	396	244
75°	127	167	219	256	266	134
85°	28	51	56	55	56	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	763.3	763.3	763.3	763.3	763.3
2.5°	766.4	760.9	763.3	763.3	760.1
5°	763.3	758.5	762.5	762.5	762.5
7.5°	757.7	753.8	760.1	761.7	761.7
10°	749.1	747.5	755.4	757.7	758.5
12.5°	739.6	738.8	749.9	753.0	755.4
15°	727.0	728.6	741.2	746.7	749.1
17.5°	713.6	716.7	730.9	738.8	741.2
20°	697.8	702.5	719.1	727.0	731.7
22.5°	680.5	687.6	704.9	714.4	719.9
25°	661.5	670.2	689.9	701.8	708.1
27.5°	641.0	652.1	674.9	688.4	694.7
30°	619.0	631.6	656.8	672.6	680.5
32.5°	596.1	611.1	638.7	656.0	665.5
35°	573.2	589.8	619.8	640.3	649.7
37.5°	550.4	566.9	600.0	622.1	633.9
40°	524.3	544.1	579.5	604.0	615.8
42.5°	499.1	520.4	558.3	585.1	597.7
45°	471.5	496.7	536.2	566.1	579.5
47.5°	446.3	471.5	514.1	545.6	560.6
50°	418.7	445.5	490.4	525.1	540.9
52.5°	391.9	419.5	466.8	503.8	519.6
55°	362.7	394.2	442.3	481.0	497.5
57.5°	333.5	367.4	417.1	457.3	473.9
60°	305.1	339.8	391.9	432.1	449.4
62.5°	276.8	311.5	365.9	406.9	423.4
65°	246.8	283.1	337.5	379.3	395.8
67.5°	216.8	254.7	309.1	350.9	366.6
70°	185.3	225.5	279.9	320.9	336.7
72.5°	156.1	196.3	250.0	290.2	305.1
75°	126.9	167.2	219.2	256.3	266.5
77.5°	98.6	138.8	185.3	209.7	212.1
80°	71.8	109.6	147.4	154.5	153.8
82.5°	48.1	82.0	101.7	102.5	104.9
85°	27.6	51.3	56.0	55.2	56.0
87.5°	11.0	18.1	15.8	11.8	11.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)