

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: P388467

Luminaire Tested: **24CZ2-30-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: P388467  
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: 24CZ2-30-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: 2402.1 lumens  
Efficiency: N/A  
Efficacy: 99.3 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

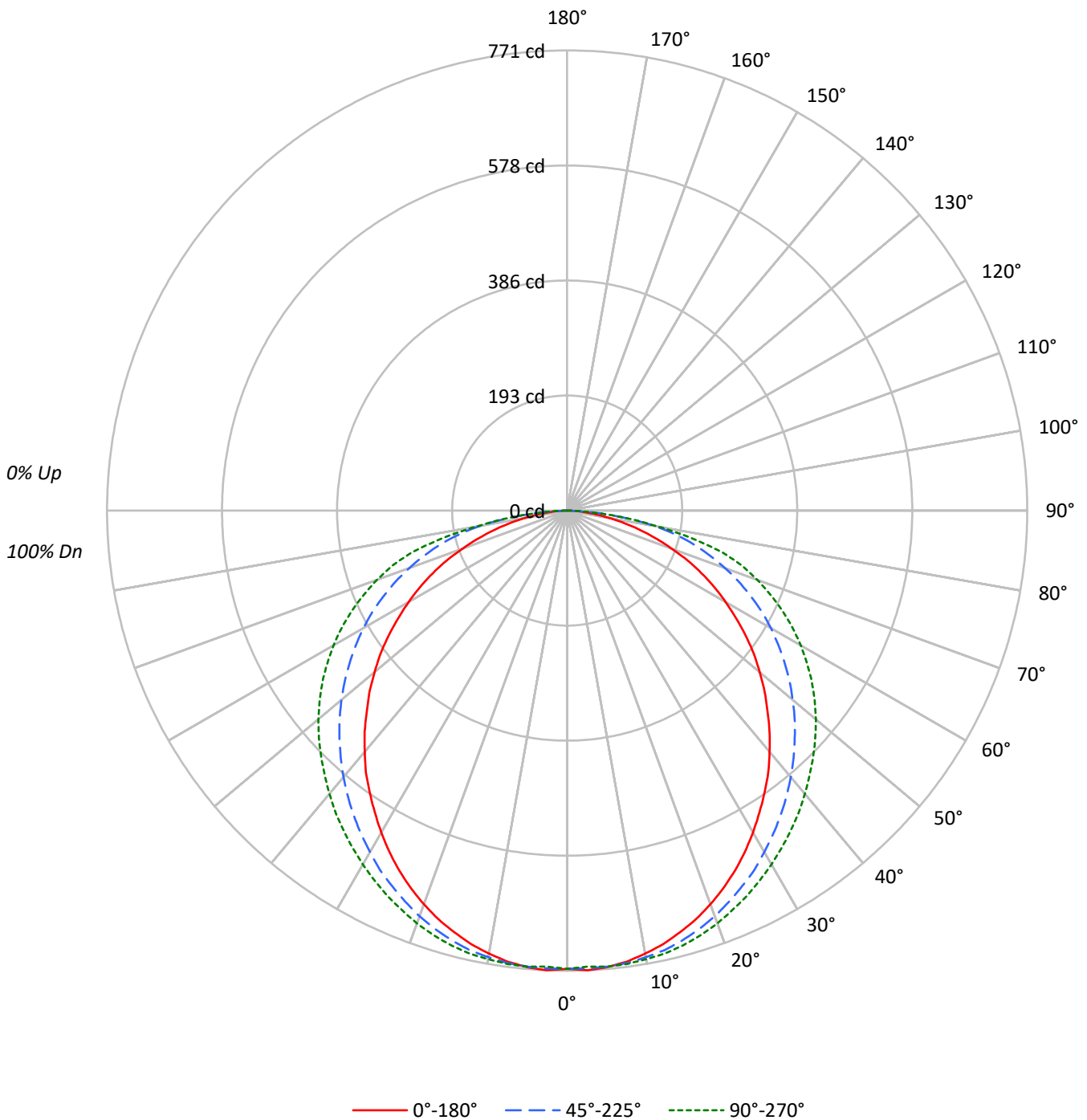
Input Watts (W): 24.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20			20				20			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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82	82	
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67	67	
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56	56	
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47	47	
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41	41	
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35	35	
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31	31	
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28	28	
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25	25	
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22	22	

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

	0°	45°	90°
0°	1033	1033	1033
5°	1037	1036	1036
10°	1030	1038	1043
15°	1019	1039	1050
20°	1005	1036	1054
25°	988	1030	1057
30°	967	1026	1063
35°	947	1024	1074
40°	927	1024	1088
45°	903	1026	1109
50°	882	1033	1139
55°	856	1044	1174
60°	826	1061	1217
65°	791	1081	1268
70°	733	1108	1332
75°	664	1146	1394
80°	559	1149	1199
85°	429	869	869



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.9	3.0
10°-20°	209.7	8.7
20°-30°	318.5	13.3
30°-40°	387.4	16.1
40°-50°	412.5	17.2
50°-60°	392.9	16.4
60°-70°	328.5	13.7
70°-80°	219.1	9.1
80°-90°	60.6	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°	601.1	25.0
0°-40°	988.5	41.2
0°-60°	1793.9	74.7
0°-90°	2402.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2402.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	768	763	767	767	767	73
15°	731	733	746	751	754	206
25°	666	674	694	706	712	306
35°	577	593	624	644	654	361
45°	474	500	539	570	583	367
55°	365	397	445	484	500	326
65°	248	285	340	382	398	245
75°	128	168	220	258	268	135
85°	28	52	56	56	56	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	767.8	767.8	767.8	767.8	767.8
2.5°	771.0	765.4	767.8	767.8	764.7
5°	767.8	763.1	767.0	767.0	767.0
7.5°	762.3	758.3	764.7	766.2	766.2
10°	753.6	752.0	759.9	762.3	763.1
12.5°	744.0	743.2	754.3	757.5	759.9
15°	731.3	732.9	745.6	751.2	753.6
17.5°	717.9	721.0	735.3	743.2	745.6
20°	702.0	706.8	723.4	731.3	736.1
22.5°	684.5	691.7	709.1	718.6	724.2
25°	665.5	674.2	694.1	706.0	712.3
27.5°	644.9	656.0	679.0	692.5	698.8
30°	622.7	635.4	660.7	676.6	684.5
32.5°	599.7	614.7	642.5	660.0	669.5
35°	576.7	593.3	623.5	644.1	653.6
37.5°	553.7	570.3	603.6	625.8	637.7
40°	527.5	547.3	583.0	607.6	619.5
42.5°	502.1	523.5	561.6	588.6	601.3
45°	474.3	499.7	539.4	569.5	583.0
47.5°	449.0	474.3	517.2	548.9	564.0
50°	421.2	448.2	493.4	528.3	544.1
52.5°	394.2	422.0	469.6	506.9	522.7
55°	364.9	396.6	445.0	483.9	500.5
57.5°	335.5	369.6	419.6	460.1	476.7
60°	307.0	341.9	394.2	434.7	452.1
62.5°	278.4	313.3	368.0	409.3	426.0
65°	248.3	284.8	339.5	381.5	398.2
67.5°	218.1	256.2	310.9	353.0	368.8
70°	186.4	226.9	281.6	322.8	338.7
72.5°	157.1	197.5	251.4	291.9	307.0
75°	127.7	168.2	220.5	257.8	268.1
77.5°	99.2	139.6	186.4	211.0	213.4
80°	72.2	110.3	148.3	155.5	154.7
82.5°	48.4	82.5	102.3	103.1	105.5
85°	27.8	51.6	56.3	55.5	56.3
87.5°	11.1	18.2	15.9	11.9	11.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)