

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: P388468

Luminaire Tested: **24CZ2-30-SQR-UNV-L935-CD1-SWPD1-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: P388468
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-SWPD1-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: 2431.4 lumens
Efficiency: N/A
Efficacy: 100.5 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

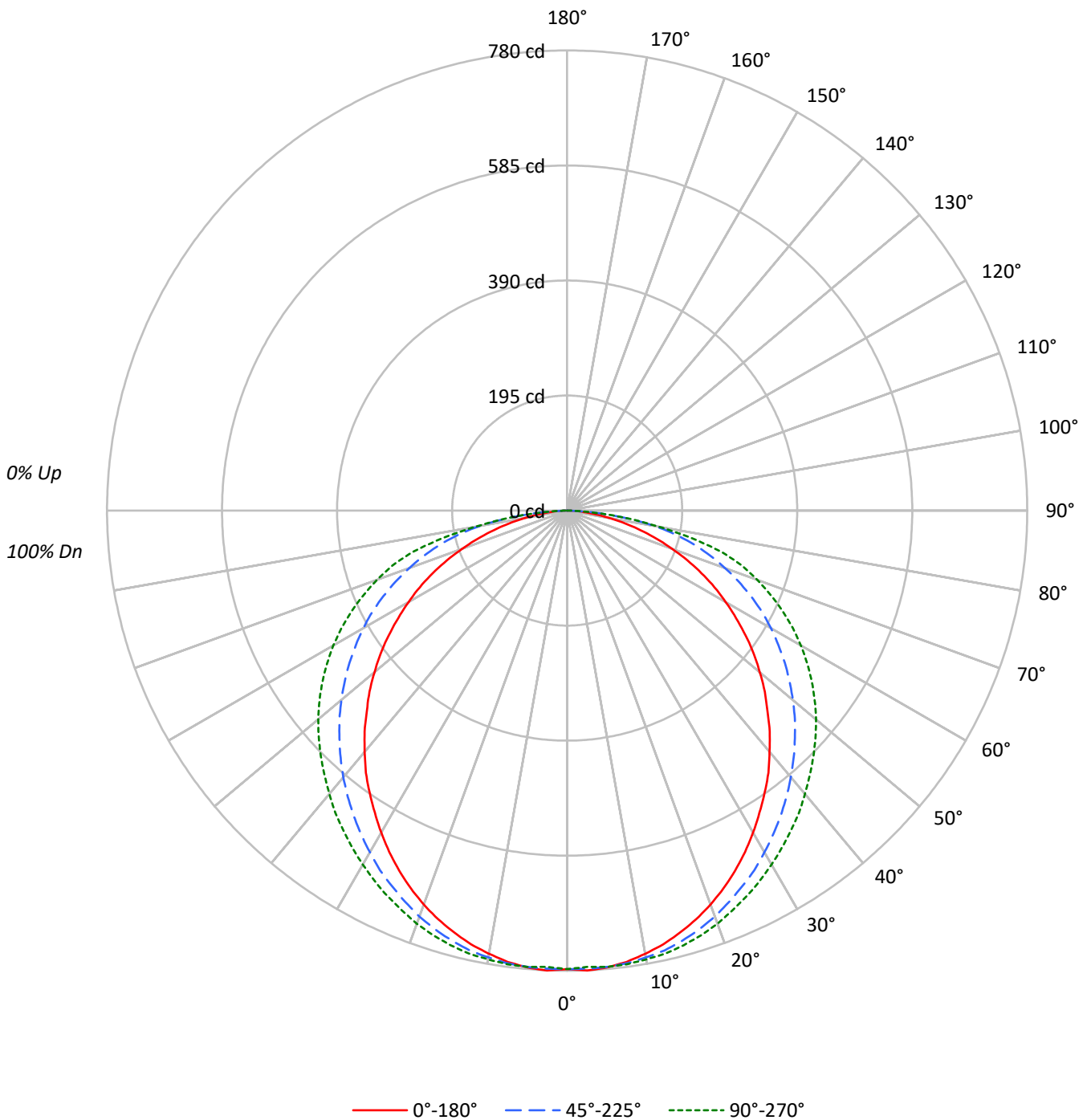
Input Watts (W): 24.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
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°	1046	1046	1046
5°	1050	1049	1049
10°	1042	1051	1055
15°	1031	1051	1062
20°	1017	1048	1067
25°	1000	1043	1070
30°	979	1039	1077
35°	959	1037	1087
40°	938	1036	1101
45°	914	1039	1123
50°	892	1045	1153
55°	866	1057	1188
60°	836	1074	1231
65°	800	1094	1283
70°	742	1121	1349
75°	672	1160	1411
80°	566	1163	1213
85°	434	880	880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.8	3.0
10°-20°	212.3	8.7
20°-30°	322.4	13.3
30°-40°	392.2	16.1
40°-50°	417.5	17.2
50°-60°	397.6	16.4
60°-70°	332.5	13.7
70°-80°	221.7	9.1
80°-90°	61.4	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°	608.4	25.0
0°-40°	1000.6	41.2
0°-60°	1815.7	74.7
0°-90°	2431.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2431.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	777	777	777	777	777	
5°	777	772	776	776	776	74
15°	740	742	755	760	763	209
25°	674	682	702	715	721	310
35°	584	601	631	652	662	365
45°	480	506	546	576	590	371
55°	369	401	450	490	507	330
65°	251	288	344	386	403	248
75°	129	170	223	261	271	137
85°	28	52	57	56	57	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	777.2	777.2	777.2	777.2	777.2
2.5°	780.4	774.8	777.2	777.2	774.0
5°	777.2	772.4	776.4	776.4	776.4
7.5°	771.6	767.6	774.0	775.6	775.6
10°	762.7	761.1	769.2	771.6	772.4
12.5°	753.1	752.3	763.5	766.8	769.2
15°	740.3	741.9	754.7	760.3	762.7
17.5°	726.6	729.8	744.3	752.3	754.7
20°	710.6	715.4	732.2	740.3	745.1
22.5°	692.9	700.1	717.8	727.4	733.0
25°	673.6	682.5	702.5	714.6	721.0
27.5°	652.7	664.0	687.3	700.9	707.3
30°	630.3	643.1	668.8	684.9	692.9
32.5°	607.0	622.2	650.3	668.0	677.6
35°	583.7	600.6	631.1	651.9	661.6
37.5°	560.4	577.3	611.0	633.5	645.5
40°	533.9	554.0	590.1	615.0	627.1
42.5°	508.2	529.9	568.4	595.7	608.6
45°	480.1	505.8	546.0	576.5	590.1
47.5°	454.4	480.1	523.5	555.6	570.9
50°	426.3	453.6	499.4	534.7	550.8
52.5°	399.0	427.1	475.3	513.0	529.1
55°	369.3	401.4	450.4	489.8	506.6
57.5°	339.6	374.1	424.7	465.7	482.5
60°	310.7	346.0	399.0	440.0	457.6
62.5°	281.8	317.1	372.5	414.3	431.1
65°	251.3	288.2	343.6	386.2	403.0
67.5°	220.8	259.3	314.7	357.3	373.3
70°	188.7	229.6	285.0	326.8	342.8
72.5°	159.0	199.9	254.5	295.5	310.7
75°	129.3	170.2	223.2	260.9	271.4
77.5°	100.4	141.3	188.7	213.6	216.0
80°	73.1	111.6	150.1	157.4	156.6
82.5°	49.0	83.5	103.6	104.4	106.8
85°	28.1	52.2	57.0	56.2	57.0
87.5°	11.2	18.5	16.1	12.0	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)