

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: P389685

Luminaire Tested: **24CZ2-30VHE-S-UNV-L930-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: P389685  
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: 24CZ2-30VHE-S-UNV-L930-CD1-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: 2546.9 lumens  
Efficiency: N/A  
Efficacy: 124.8 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

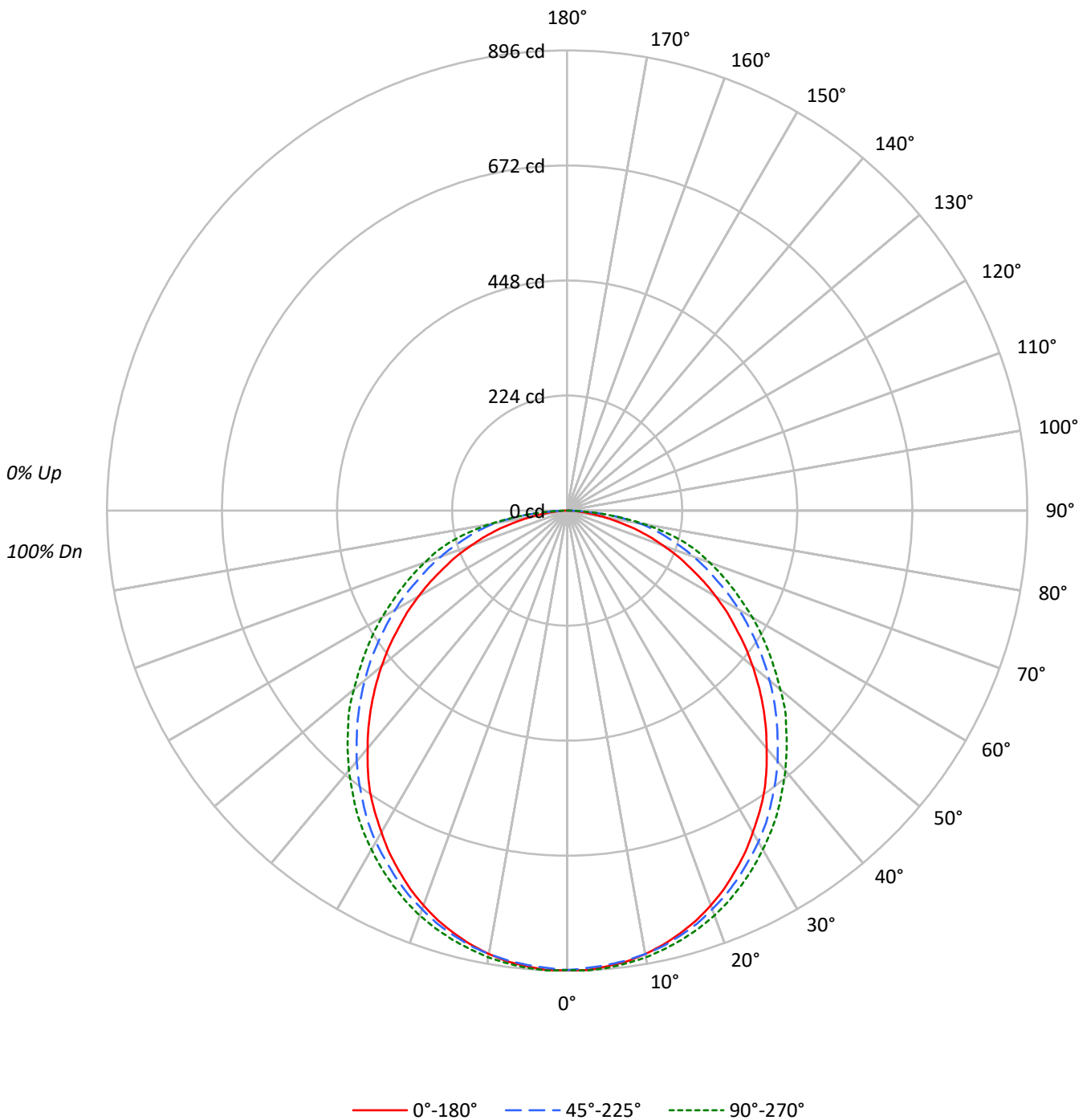
Input Watts (W): 20.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1204	1204	1204
5°	1203	1200	1207
10°	1198	1198	1207
15°	1187	1192	1205
20°	1171	1183	1201
25°	1149	1171	1194
30°	1124	1158	1184
35°	1099	1139	1175
40°	1061	1120	1161
45°	1027	1098	1148
50°	987	1077	1135
55°	943	1057	1123
60°	899	1041	1121
65°	842	1023	1128
70°	780	1028	1159
75°	698	1047	1224
80°	564	1110	1197
85°	425	974	949



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.7	3.3
10°-20°	242.0	9.5
20°-30°	363.8	14.3
30°-40°	433.4	17.0
40°-50°	443.5	17.4
50°-60°	399.3	15.7
60°-70°	313.6	12.3
70°-80°	203.5	8.0
80°-90°	63.0	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°	690.6	27.1
0°-40°	1124.0	44.1
0°-60°	1966.8	77.2
0°-90°	2546.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2546.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	895	895	895	895	895	
5°	891	892	888	893	894	85
15°	852	854	856	863	865	240
25°	774	781	789	802	804	357
35°	669	677	693	710	715	417
45°	540	552	577	599	604	416
55°	402	420	451	474	479	360
65°	264	285	321	348	354	263
75°	134	160	201	229	235	142
85°	28	51	63	62	62	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	894.7	894.7	894.7	894.7	894.7
2.5°	895.6	895.6	891.5	895.6	896.4
5°	890.7	892.3	888.3	893.1	893.9
7.5°	885.8	885.8	883.4	888.3	889.1
10°	876.9	877.8	876.9	882.6	883.4
12.5°	865.6	867.2	868.0	873.7	874.5
15°	851.9	854.3	855.9	863.2	864.8
17.5°	836.5	838.9	843.0	851.1	852.7
20°	817.9	821.1	826.0	836.5	838.9
22.5°	797.7	800.9	809.0	818.7	822.7
25°	774.2	780.7	788.8	801.7	804.1
27.5°	750.7	756.4	766.9	780.7	783.9
30°	723.2	732.1	745.1	758.8	762.1
32.5°	696.5	705.4	720.8	735.4	739.4
35°	669.0	677.1	693.3	710.3	715.1
37.5°	637.5	648.0	665.8	682.8	687.6
40°	604.3	617.3	637.5	655.3	660.9
42.5°	572.8	586.5	606.7	626.2	632.6
45°	539.6	552.5	576.8	598.7	603.5
47.5°	505.6	520.2	546.1	567.9	576.0
50°	471.6	487.0	514.5	537.2	542.0
52.5°	437.7	453.8	483.0	507.2	509.7
55°	402.1	419.9	450.6	474.1	478.9
57.5°	369.7	385.1	418.2	442.5	448.2
60°	334.1	351.1	386.7	409.3	416.6
62.5°	300.1	317.9	355.1	377.8	384.3
65°	264.5	284.8	321.2	347.9	354.3
67.5°	233.8	253.2	292.0	317.9	324.4
70°	198.2	220.0	261.3	288.0	294.5
72.5°	167.5	190.1	231.4	257.3	267.0
75°	134.3	160.2	201.4	228.9	235.4
77.5°	101.9	131.9	173.9	195.0	195.0
80°	72.8	104.4	143.2	152.9	154.5
82.5°	47.7	78.5	106.0	105.2	105.2
85°	27.5	51.0	63.1	61.5	61.5
87.5°	10.5	21.0	22.7	22.7	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)