

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: P388464

Luminaire Tested: **24CZ2-30-SQR-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: P388464  
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-L930-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2344.1 lumens  
Efficiency: N/A  
Efficacy: 96.9 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

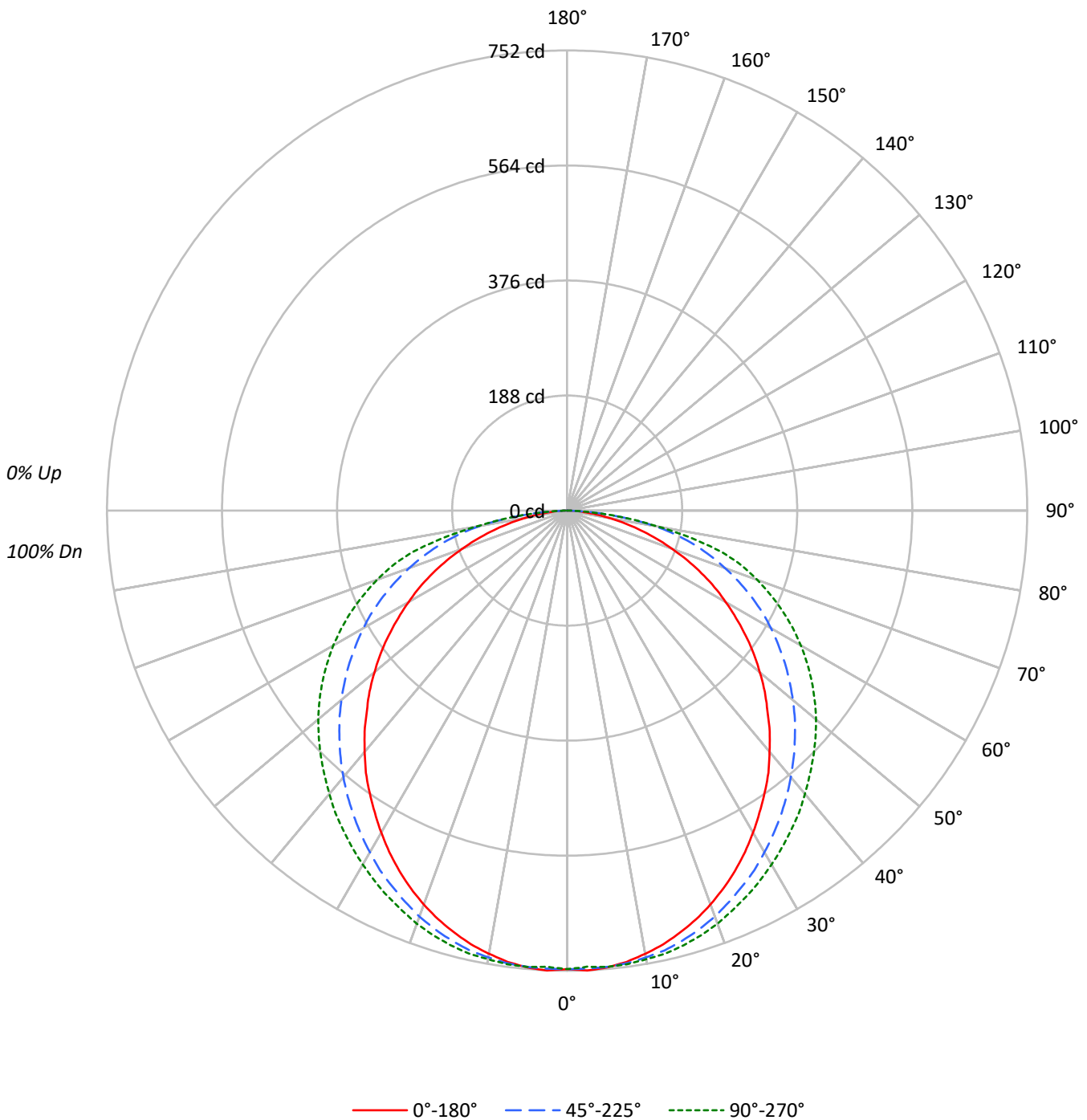
Input Watts (W): 24.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1008	1008	1008
5°	1012	1011	1011
10°	1005	1013	1017
15°	994	1014	1024
20°	981	1011	1028
25°	964	1006	1032
30°	944	1002	1038
35°	924	999	1048
40°	904	999	1062
45°	881	1002	1083
50°	860	1008	1111
55°	835	1019	1146
60°	806	1035	1187
65°	771	1055	1237
70°	716	1081	1300
75°	648	1119	1360
80°	545	1121	1169
85°	418	849	849



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.1	3.0
10°-20°	204.6	8.7
20°-30°	310.8	13.3
30°-40°	378.1	16.1
40°-50°	402.5	17.2
50°-60°	383.4	16.4
60°-70°	320.6	13.7
70°-80°	213.8	9.1
80°-90°	59.1	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°	586.6	25.0
0°-40°	964.6	41.2
0°-60°	1750.6	74.7
0°-90°	2344.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2344.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	749	749	749	749	749	
5°	749	745	748	748	748	71
15°	714	715	728	733	735	201
25°	649	658	677	689	695	299
35°	563	579	608	628	638	352
45°	463	488	526	556	569	358
55°	356	387	434	472	488	318
65°	242	278	331	372	389	239
75°	125	164	215	252	262	132
85°	27	50	55	54	55	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	749.3	749.3	749.3	749.3	749.3
2.5°	752.4	747.0	749.3	749.3	746.2
5°	749.3	744.6	748.5	748.5	748.5
7.5°	743.9	740.0	746.2	747.7	747.7
10°	735.4	733.8	741.5	743.9	744.6
12.5°	726.1	725.3	736.1	739.2	741.5
15°	713.7	715.2	727.6	733.0	735.4
17.5°	700.5	703.6	717.6	725.3	727.6
20°	685.0	689.7	705.9	713.7	718.3
22.5°	668.0	675.0	692.0	701.3	706.7
25°	649.4	657.9	677.3	688.9	695.1
27.5°	629.3	640.1	662.6	675.8	681.9
30°	607.6	620.0	644.8	660.3	668.0
32.5°	585.2	599.9	627.0	644.0	653.3
35°	562.7	579.0	608.4	628.5	637.8
37.5°	540.3	556.5	589.1	610.7	622.3
40°	514.7	534.1	568.9	592.9	604.5
42.5°	490.0	510.9	548.0	574.4	586.7
45°	462.9	487.7	526.4	555.8	568.9
47.5°	438.1	462.9	504.7	535.6	550.4
50°	411.0	437.3	481.5	515.5	531.0
52.5°	384.7	411.8	458.2	494.6	510.1
55°	356.1	387.0	434.2	472.2	488.4
57.5°	327.4	360.7	409.5	449.0	465.2
60°	299.6	333.6	384.7	424.2	441.2
62.5°	271.7	305.8	359.2	399.4	415.7
65°	242.3	277.9	331.3	372.3	388.6
67.5°	212.9	250.0	303.4	344.5	359.9
70°	181.9	221.4	274.8	315.0	330.5
72.5°	153.3	192.7	245.4	284.9	299.6
75°	124.6	164.1	215.2	251.6	261.6
77.5°	96.8	136.2	181.9	205.9	208.2
80°	70.4	107.6	144.7	151.7	150.9
82.5°	47.2	80.5	99.9	100.6	102.9
85°	27.1	50.3	55.0	54.2	55.0
87.5°	10.8	17.8	15.5	11.6	11.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)