

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: P230388

Luminaire Tested: **24CZ-LD5-30-SQP-UNV-L930-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230388  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25695)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-30-SQP-UNV-L930-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH SQP LENS  
Light Source: (168) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1722.2 lumens  
Efficiency: N/A  
Efficacy: 79.7 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.42  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

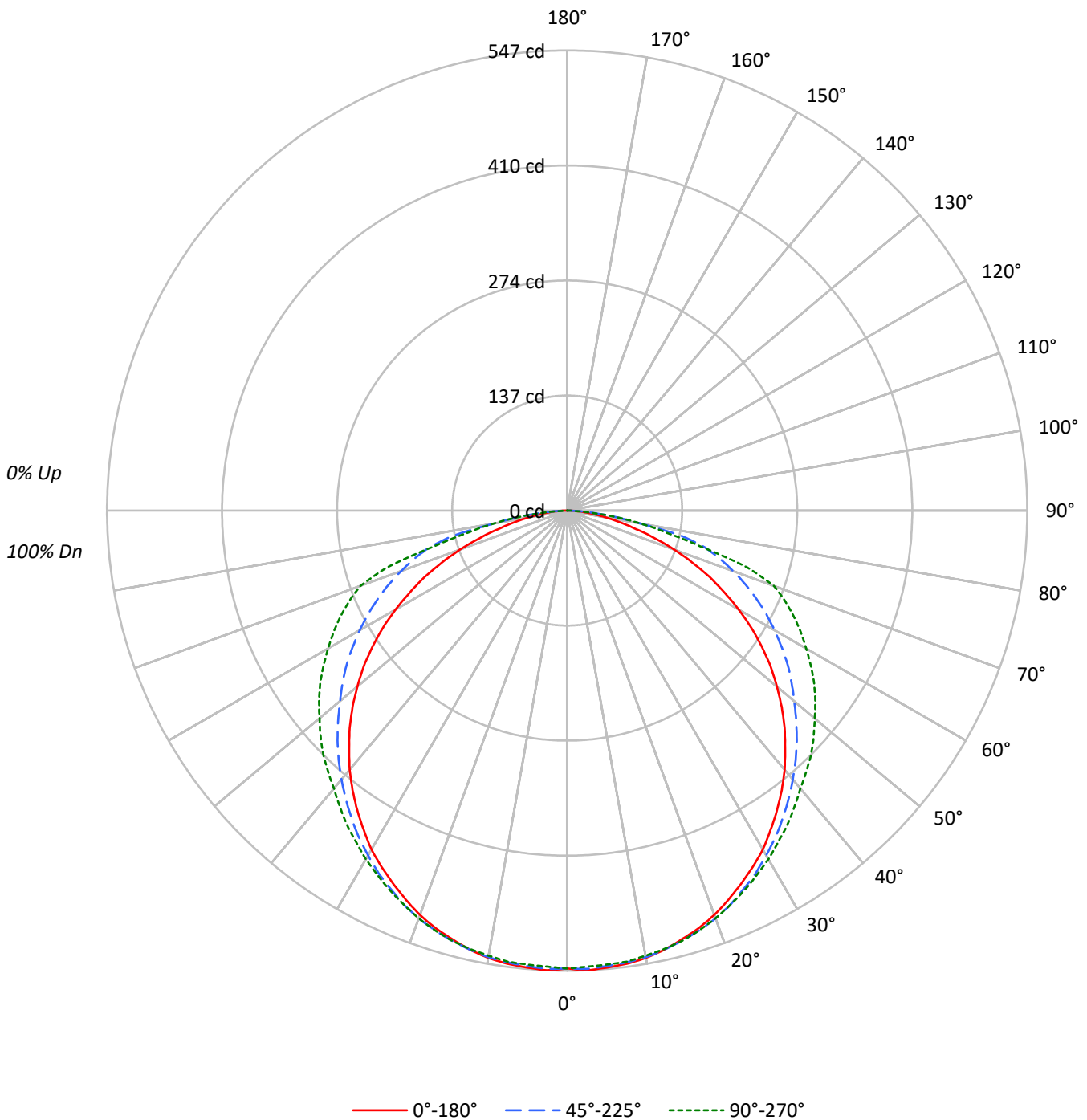
Input Watts (W): 21.62  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	97	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	60		70	64	59		67	63	58	56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		60	54	50	47
5	74	61	51	45	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	29	28
9	55	41	33	27	54	41	33	27	39	32	27		38	32	27		37	31	27	25
10	51	38	30	24	50	37	30	24	36	29	24		35	29	24		35	28	24	22

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

	0°	45°	90°
0°	732	732	732
5°	736	734	732
10°	738	737	734
15°	735	737	737
20°	732	739	739
25°	726	737	740
30°	723	735	744
35°	715	734	749
40°	706	733	758
45°	696	735	780
50°	682	737	804
55°	664	751	841
60°	634	766	883
65°	595	790	946
70°	532	826	1029
75°	439	883	851
80°	359	683	690
85°	289	454	426



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.7	3.0
10°-20°	149.2	8.7
20°-30°	228.0	13.2
30°-40°	278.9	16.2
40°-50°	298.4	17.3
50°-60°	285.7	16.6
60°-70°	241.7	14.0
70°-80°	153.2	8.9
80°-90°	35.3	2.0
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°	428.9	24.9
0°-40°	707.8	41.1
0°-60°	1292.0	75.0
0°-90°	1722.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1722.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	544	544	544	544	544	
5°	545	543	544	543	542	52
15°	528	527	529	529	529	149
25°	489	489	496	498	498	226
35°	435	438	447	453	456	272
45°	366	372	386	402	410	282
55°	283	292	320	347	358	252
65°	187	205	248	282	297	184
75°	84	119	170	169	164	92
85°	19	28	29	27	28	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	544.4	544.4	544.4	544.4	544.4
2.5°	547.1	544.4	545.3	544.4	542.6
5°	545.3	542.6	543.5	542.6	541.7
7.5°	543.5	540.9	541.7	540.9	540.9
10°	540.0	537.3	539.1	538.2	537.3
12.5°	534.6	532.8	534.6	533.7	533.7
15°	527.5	526.6	529.3	529.3	529.3
17.5°	520.4	519.5	523.1	523.1	523.1
20°	511.5	510.6	515.9	515.9	515.9
22.5°	500.8	499.9	507.0	507.0	507.0
25°	489.3	489.3	496.4	498.2	498.2
27.5°	477.7	477.7	485.7	488.4	488.4
30°	465.2	465.2	473.2	476.8	478.6
32.5°	450.1	451.9	460.8	465.2	467.0
35°	435.0	437.7	446.6	452.8	456.3
37.5°	419.0	421.6	432.3	439.4	443.9
40°	402.1	405.6	417.2	426.1	431.4
42.5°	383.4	388.7	402.1	413.6	420.8
45°	365.6	371.8	386.1	402.1	410.1
47.5°	346.0	353.2	369.2	389.6	397.6
50°	325.6	332.7	352.3	375.4	384.3
52.5°	305.1	313.1	336.3	361.2	371.8
55°	282.9	291.8	320.2	346.9	358.5
57.5°	259.8	270.4	302.4	330.9	343.4
60°	235.7	249.1	284.7	314.9	328.2
62.5°	210.8	226.8	266.9	298.9	313.1
65°	186.8	204.6	248.2	282.0	297.1
67.5°	161.0	183.2	229.5	266.0	280.2
70°	135.2	161.0	209.9	247.3	261.5
72.5°	109.4	140.5	190.4	224.2	224.2
75°	84.5	119.2	169.9	169.0	163.7
77.5°	64.0	99.6	139.7	119.2	120.1
80°	46.3	80.1	88.1	88.1	89.0
82.5°	31.1	61.4	56.9	56.0	57.8
85°	18.7	28.5	29.4	26.7	27.6
87.5°	8.9	9.8	8.0	5.3	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)