

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: P230430

Luminaire Tested: **24CZ-LD5-30SE-SQP-UNV-L940-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230430  
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-LD5-30SE-SQP-UNV-L940-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH SQP LENS  
Light Source: (84) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1863.1 lumens  
Efficiency: N/A  
Efficacy: 79.3 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

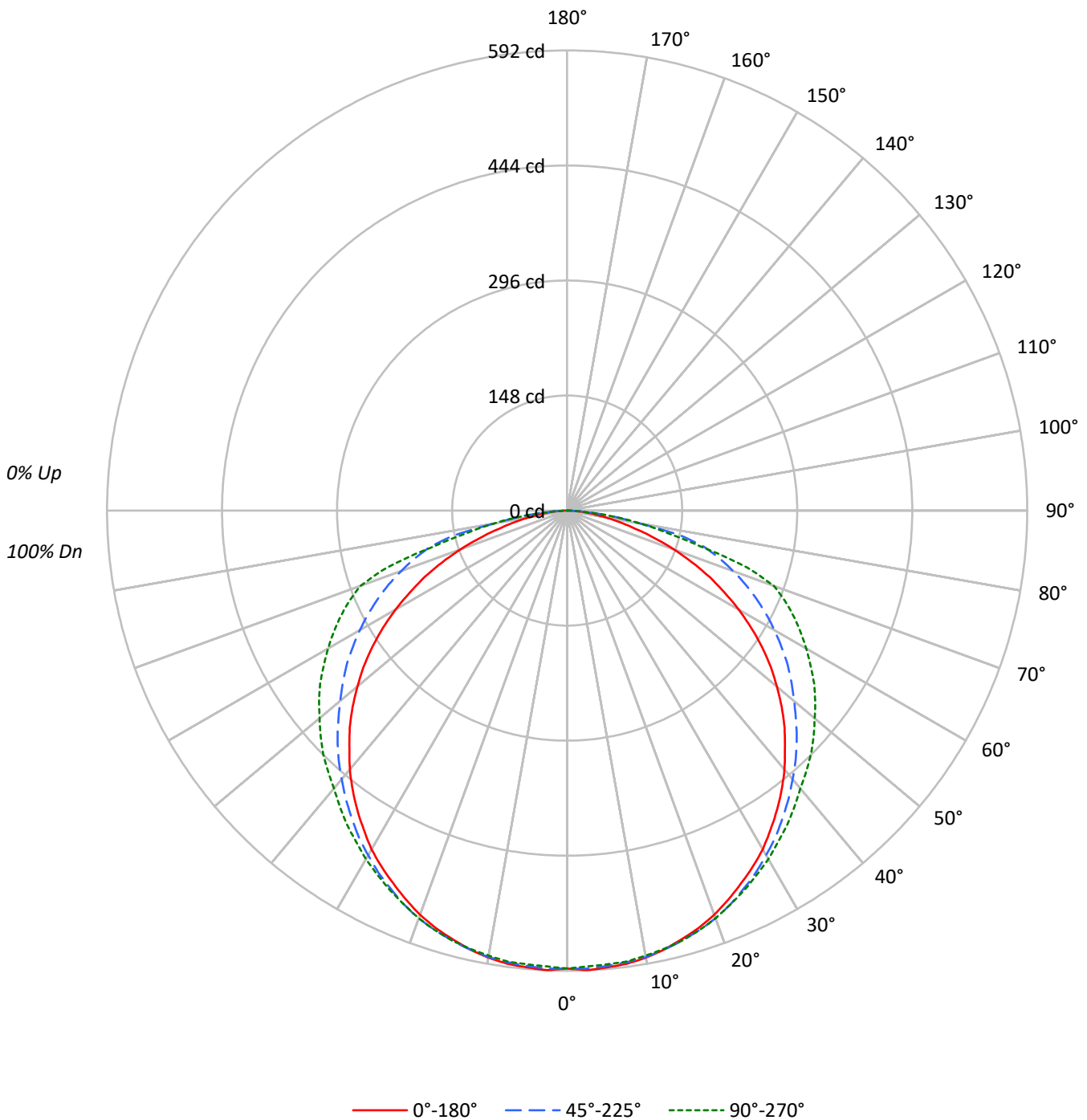
Input Watts (W): 23.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	792	792	792
5°	797	794	792
10°	798	797	794
15°	795	798	798
20°	792	799	799
25°	786	797	800
30°	782	795	804
35°	773	794	811
40°	764	793	820
45°	753	795	844
50°	737	798	870
55°	718	813	910
60°	686	829	956
65°	643	855	1023
70°	576	893	1113
75°	475	955	921
80°	387	738	745
85°	312	491	460



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.9	3.0
10°-20°	161.4	8.7
20°-30°	246.7	13.2
30°-40°	301.7	16.2
40°-50°	322.8	17.3
50°-60°	309.1	16.6
60°-70°	261.5	14.0
70°-80°	165.8	8.9
80°-90°	38.1	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°	464.0	24.9
0°-40°	765.7	41.1
0°-60°	1397.7	75.0
0°-90°	1863.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1863.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	589	589	589	589	589	
5°	590	587	588	587	586	56
15°	571	570	573	573	573	161
25°	529	529	537	539	539	244
35°	471	474	483	490	494	294
45°	396	402	418	435	444	305
55°	306	316	346	375	388	273
65°	202	221	268	305	321	199
75°	91	129	184	183	177	99
85°	20	31	32	29	30	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	589.0	589.0	589.0	589.0	589.0
2.5°	591.8	589.0	589.9	589.0	587.0
5°	589.9	587.0	588.0	587.0	586.1
7.5°	588.0	585.1	586.1	585.1	585.1
10°	584.1	581.3	583.2	582.2	581.3
12.5°	578.4	576.4	578.4	577.4	577.4
15°	570.7	569.7	572.6	572.6	572.6
17.5°	563.0	562.0	565.9	565.9	565.9
20°	553.4	552.4	558.2	558.2	558.2
22.5°	541.8	540.8	548.5	548.5	548.5
25°	529.3	529.3	537.0	538.9	538.9
27.5°	516.8	516.8	525.4	528.3	528.3
30°	503.3	503.3	512.0	515.8	517.7
32.5°	486.9	488.9	498.5	503.3	505.2
35°	470.6	473.5	483.1	489.8	493.7
37.5°	453.3	456.2	467.7	475.4	480.2
40°	435.0	438.8	451.3	461.0	466.7
42.5°	414.8	420.5	435.0	447.5	455.2
45°	395.5	402.3	417.7	435.0	443.6
47.5°	374.4	382.1	399.4	421.5	430.2
50°	352.2	359.9	381.1	406.1	415.7
52.5°	330.1	338.7	363.8	390.7	402.3
55°	306.0	315.7	346.4	375.3	387.8
57.5°	281.0	292.6	327.2	358.0	371.5
60°	255.0	269.5	308.0	340.7	355.1
62.5°	228.1	245.4	288.7	323.3	338.7
65°	202.1	221.3	268.5	305.1	321.4
67.5°	174.2	198.2	248.3	287.7	303.1
70°	146.3	174.2	227.1	267.5	282.9
72.5°	118.4	152.1	205.9	242.5	242.5
75°	91.4	129.0	183.8	182.8	177.1
77.5°	69.3	107.8	151.1	129.0	129.9
80°	50.0	86.6	95.3	95.3	96.2
82.5°	33.7	66.4	61.6	60.6	62.6
85°	20.2	30.8	31.8	28.9	29.8
87.5°	9.6	10.6	8.7	5.8	5.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)