

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: P230431

Luminaire Tested: **24CZ-LD5-30SE-SQP-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230431
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-L950-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SQP LENS
Light Source: (84) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2026.8 lumens
Efficiency: N/A
Efficacy: 86.2 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

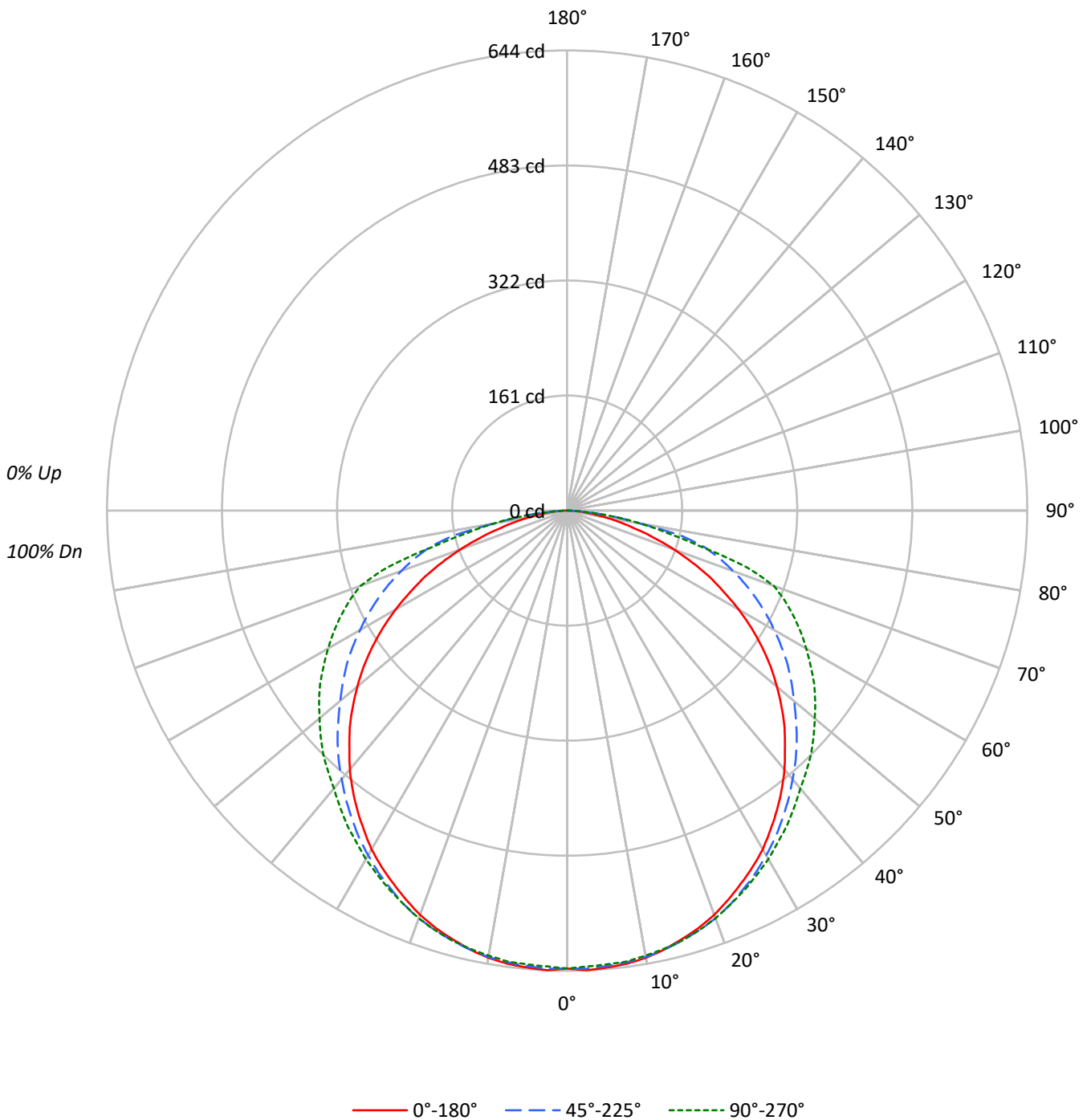
Input Watts (W): 23.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	862	862	862
5°	867	864	861
10°	868	867	864
15°	865	868	868
20°	862	869	869
25°	855	867	870
30°	851	865	875
35°	841	863	882
40°	831	862	892
45°	819	865	918
50°	802	868	947
55°	781	884	990
60°	746	901	1040
65°	700	930	1113
70°	626	972	1211
75°	517	1040	1001
80°	422	803	811
85°	340	533	502



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.9	3.0
10°-20°	175.6	8.7
20°-30°	268.4	13.2
30°-40°	328.2	16.2
40°-50°	351.2	17.3
50°-60°	336.3	16.6
60°-70°	284.5	14.0
70°-80°	180.3	8.9
80°-90°	41.5	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°	504.8	24.9
0°-40°	833.0	41.1
0°-60°	1520.5	75.0
0°-90°	2026.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2026.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	641	641	641	641	641	
5°	642	639	640	639	638	61
15°	621	620	623	623	623	175
25°	576	576	584	586	586	266
35°	512	515	526	533	537	320
45°	430	438	454	473	483	331
55°	333	343	377	408	422	297
65°	220	241	292	332	350	217
75°	100	140	200	199	193	108
85°	22	34	34	31	32	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	640.7	640.7	640.7	640.7	640.7
2.5°	643.9	640.7	641.8	640.7	638.6
5°	641.8	638.6	639.7	638.6	637.6
7.5°	639.7	636.5	637.6	636.5	636.5
10°	635.5	632.3	634.4	633.4	632.3
12.5°	629.2	627.1	629.2	628.1	628.1
15°	620.8	619.8	622.9	622.9	622.9
17.5°	612.4	611.4	615.6	615.6	615.6
20°	602.0	600.9	607.2	607.2	607.2
22.5°	589.4	588.4	596.7	596.7	596.7
25°	575.8	575.8	584.2	586.3	586.3
27.5°	562.2	562.2	571.6	574.8	574.8
30°	547.5	547.5	557.0	561.1	563.2
32.5°	529.7	531.8	542.3	547.5	549.6
35°	511.9	515.1	525.6	532.9	537.1
37.5°	493.1	496.2	508.8	517.2	522.4
40°	473.2	477.4	491.0	501.5	507.8
42.5°	451.2	457.5	473.2	486.8	495.2
45°	430.3	437.6	454.4	473.2	482.6
47.5°	407.2	415.6	434.5	458.5	468.0
50°	383.2	391.5	414.6	441.8	452.3
52.5°	359.1	368.5	395.7	425.0	437.6
55°	332.9	343.4	376.9	408.3	421.9
57.5°	305.7	318.3	356.0	389.5	404.1
60°	277.4	293.1	335.0	370.6	386.3
62.5°	248.1	267.0	314.1	351.8	368.5
65°	219.9	240.8	292.1	331.9	349.7
67.5°	189.5	215.7	270.1	313.0	329.8
70°	159.1	189.5	247.1	291.0	307.8
72.5°	128.8	165.4	224.0	263.8	263.8
75°	99.5	140.3	200.0	198.9	192.6
77.5°	75.4	117.3	164.4	140.3	141.3
80°	54.4	94.2	103.6	103.6	104.7
82.5°	36.6	72.2	67.0	66.0	68.0
85°	22.0	33.5	34.5	31.4	32.5
87.5°	10.5	11.5	9.4	6.3	6.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)