

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: P230447

Luminaire Tested: **24CZ-LD5-50SE-SQP-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230447
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-LD5-50SE-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: 3372.5 lumens
Efficiency: N/A
Efficacy: 72.4 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

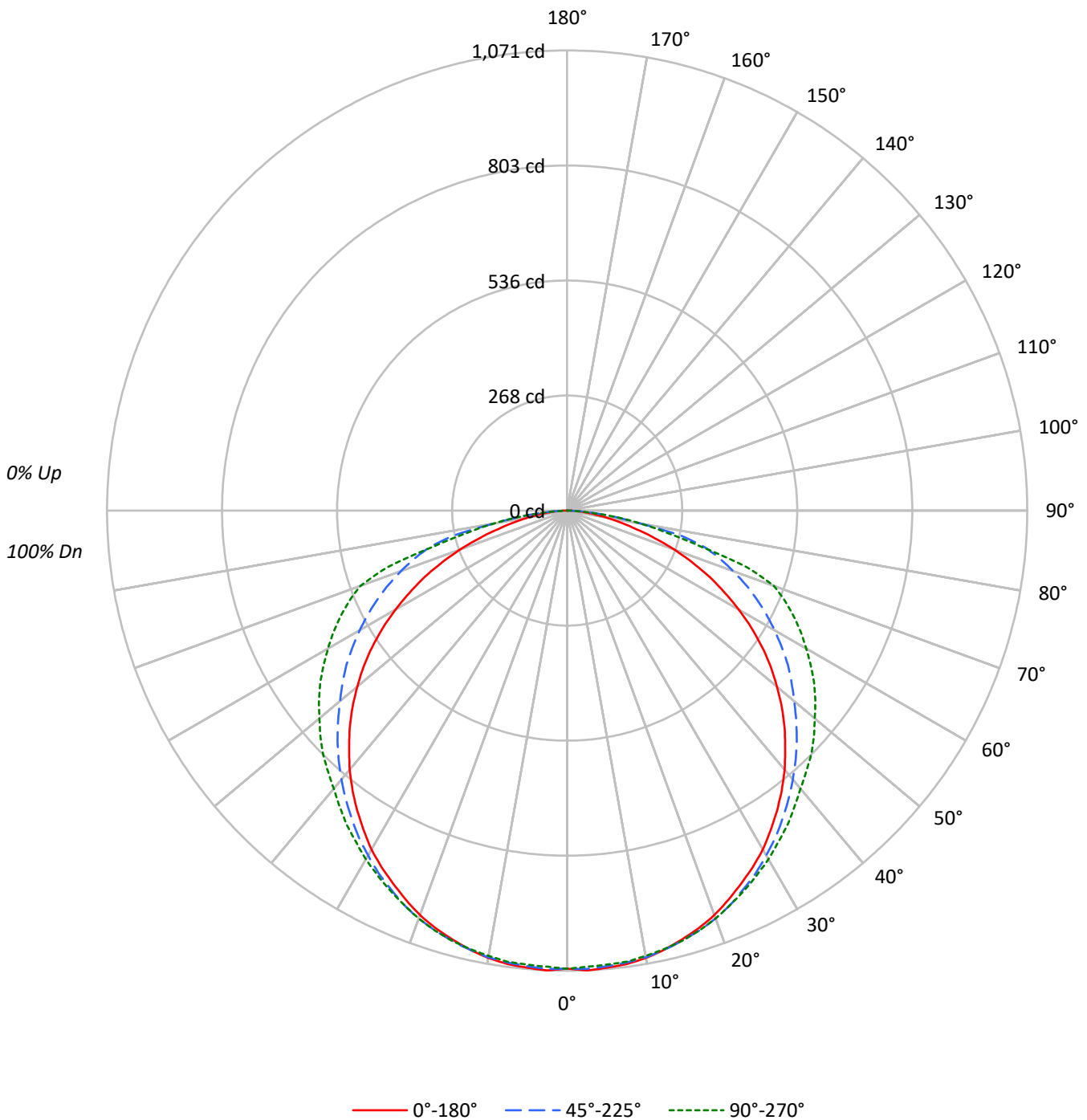
Input Watts (W): 46.56
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1434	1434	1434
5°	1442	1438	1433
10°	1445	1442	1438
15°	1439	1444	1444
20°	1434	1447	1447
25°	1422	1443	1448
30°	1416	1440	1456
35°	1399	1436	1468
40°	1383	1435	1484
45°	1362	1439	1528
50°	1335	1444	1575
55°	1300	1471	1647
60°	1242	1500	1730
65°	1165	1547	1852
70°	1042	1617	2015
75°	860	1730	1666
80°	702	1337	1350
85°	565	888	834



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.3	3.0
10°-20°	292.2	8.7
20°-30°	446.5	13.2
30°-40°	546.1	16.2
40°-50°	584.4	17.3
50°-60°	559.6	16.6
60°-70°	473.4	14.0
70°-80°	300.1	8.9
80°-90°	69.0	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°	840.0	24.9
0°-40°	1386.1	41.1
0°-60°	2530.1	75.0
0°-90°	3372.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3372.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1066	1066	1066	1066	1066	
5°	1068	1063	1064	1063	1061	102
15°	1033	1031	1036	1036	1036	292
25°	958	958	972	976	976	442
35°	852	857	874	887	894	533
45°	716	728	756	787	803	552
55°	554	571	627	679	702	494
65°	366	401	486	552	582	360
75°	166	233	333	331	320	180
85°	37	56	58	52	54	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1066.1	1066.1	1066.1	1066.1	1066.1
2.5°	1071.3	1066.1	1067.8	1066.1	1062.6
5°	1067.8	1062.6	1064.4	1062.6	1060.9
7.5°	1064.4	1059.1	1060.9	1059.1	1059.1
10°	1057.4	1052.2	1055.7	1053.9	1052.2
12.5°	1046.9	1043.5	1046.9	1045.2	1045.2
15°	1033.0	1031.3	1036.5	1036.5	1036.5
17.5°	1019.1	1017.3	1024.3	1024.3	1024.3
20°	1001.7	999.9	1010.4	1010.4	1010.4
22.5°	980.7	979.0	992.9	992.9	992.9
25°	958.1	958.1	972.0	975.5	975.5
27.5°	935.5	935.5	951.1	956.4	956.4
30°	911.1	911.1	926.7	933.7	937.2
32.5°	881.5	884.9	902.4	911.1	914.6
35°	851.8	857.1	874.5	886.7	893.6
37.5°	820.5	825.7	846.6	860.5	869.3
40°	787.4	794.4	817.0	834.4	844.9
42.5°	750.8	761.3	787.4	810.0	824.0
45°	716.0	728.2	756.0	787.4	803.1
47.5°	677.6	691.6	722.9	763.0	778.7
50°	637.6	651.5	689.8	735.1	752.5
52.5°	597.5	613.2	658.5	707.3	728.2
55°	554.0	571.4	627.1	679.4	702.0
57.5°	508.7	529.6	592.3	648.0	672.4
60°	461.6	487.8	557.4	616.7	642.8
62.5°	412.9	444.2	522.6	585.3	613.2
65°	365.8	400.7	486.0	552.2	581.8
67.5°	315.3	358.9	449.4	520.9	548.7
70°	264.8	315.3	411.1	484.3	512.1
72.5°	214.3	275.2	372.8	439.0	439.0
75°	165.5	233.4	332.7	331.0	320.5
77.5°	125.4	195.1	273.5	233.4	235.2
80°	90.6	156.8	172.5	172.5	174.2
82.5°	61.0	120.2	111.5	109.7	113.2
85°	36.6	55.7	57.5	52.3	54.0
87.5°	17.4	19.2	15.7	10.5	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)