

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: P259231

Luminaire Tested: **22CZ-LD5-39-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P259231
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25706)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ-LD5-39-UNV-L83050-W2A1-U-4500K
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (168) 80 CRI LEDS TUNED AT 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4174.0 lumens
Efficiency: N/A
Efficacy: 132.0 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

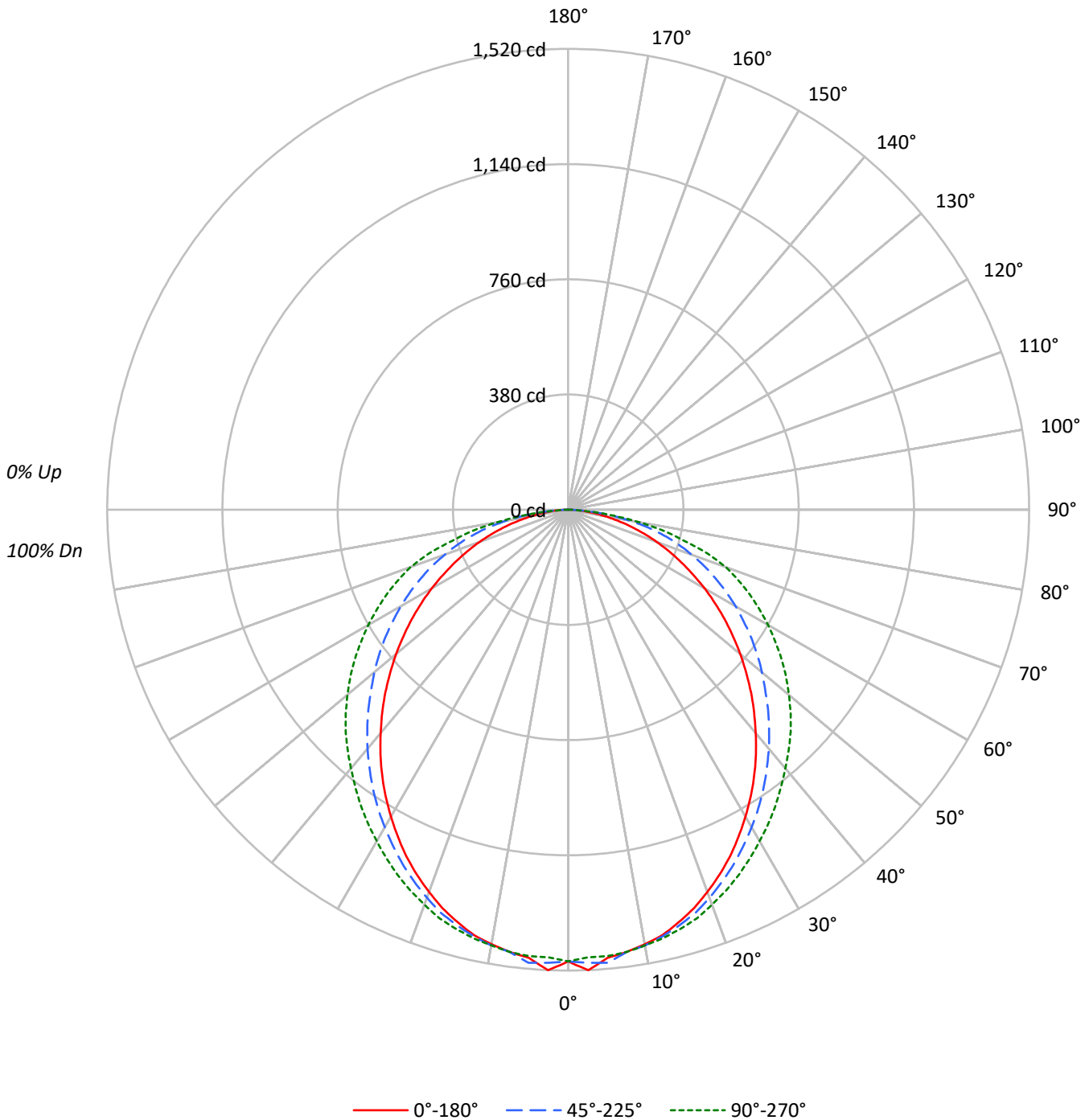
Input Watts (W): 31.62
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4009	4009	4009
5°	4008	4052	3992
10°	3977	3988	3988
15°	3925	3953	3987
20°	3842	3900	3970
25°	3749	3833	3948
30°	3633	3759	3923
35°	3514	3688	3914
40°	3380	3615	3914
45°	3244	3546	3947
50°	3102	3492	3977
55°	2952	3457	4028
60°	2796	3430	4097
65°	2623	3412	4201
70°	2444	3401	4344
75°	2216	3398	4115
80°	1918	3146	3649
85°	1630	2381	2319



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.3	3.4
10°-20°	400.3	9.6
20°-30°	595.4	14.3
30°-40°	704.2	16.9
40°-50°	723.8	17.3
50°-60°	661.4	15.8
60°-70°	529.1	12.7
70°-80°	332.0	8.0
80°-90°	86.5	2.1
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°	1137.0	27.2
0°-40°	1841.2	44.1
0°-60°	3226.4	77.3
0°-90°	4174.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4174.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1490	1490	1490	1490	1490	
5°	1484	1484	1500	1490	1478	141
15°	1409	1411	1419	1427	1431	397
25°	1262	1271	1291	1313	1330	580
35°	1070	1084	1122	1165	1192	668
45°	852	875	932	1001	1037	657
55°	629	660	737	818	859	563
65°	412	449	536	617	660	409
75°	213	254	327	376	396	226
85°	53	67	77	75	75	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1489.8	1489.8	1489.8	1489.8	1489.8
2.5°	1520.3	1514.2	1495.9	1483.8	1477.7
5°	1483.8	1483.8	1500.0	1489.8	1477.7
7.5°	1471.6	1471.6	1471.6	1502.0	1471.6
10°	1455.3	1457.4	1459.4	1471.6	1459.4
12.5°	1437.1	1437.1	1441.1	1445.2	1447.2
15°	1408.7	1410.7	1418.8	1426.9	1431.0
17.5°	1378.2	1384.3	1394.4	1404.6	1412.7
20°	1341.7	1349.8	1362.0	1378.2	1386.3
22.5°	1303.1	1311.2	1327.5	1345.7	1359.9
25°	1262.5	1270.6	1290.9	1313.3	1329.5
27.5°	1215.8	1226.0	1250.3	1280.8	1297.0
30°	1169.1	1181.3	1209.7	1244.2	1262.5
32.5°	1120.4	1134.6	1167.1	1205.7	1228.0
35°	1069.7	1083.9	1122.5	1165.1	1191.5
37.5°	1016.9	1033.1	1075.8	1124.5	1152.9
40°	962.1	980.4	1029.1	1081.9	1114.3
42.5°	907.3	927.6	980.4	1043.3	1075.8
45°	852.5	874.8	931.7	1000.7	1037.2
47.5°	795.7	822.1	880.9	958.0	994.6
50°	740.9	767.2	834.2	913.4	949.9
52.5°	684.0	714.5	785.5	866.7	905.3
55°	629.2	659.7	736.8	818.0	858.6
57.5°	574.4	604.9	686.1	769.3	809.9
60°	519.6	552.1	637.3	718.5	761.2
62.5°	464.8	499.3	586.6	669.8	710.4
65°	412.0	448.6	535.9	617.0	659.7
67.5°	361.3	399.9	485.1	564.3	606.9
70°	310.6	349.1	432.3	509.5	552.1
72.5°	261.8	300.4	381.6	450.6	483.1
75°	213.1	253.7	326.8	375.5	395.8
77.5°	166.4	207.0	270.0	302.4	324.8
80°	123.8	158.3	203.0	227.3	235.5
82.5°	85.2	113.7	142.1	148.2	152.2
85°	52.8	67.0	77.1	75.1	75.1
87.5°	24.4	26.4	22.3	16.2	10.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)