

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: P229968

Luminaire Tested: **24CZ-LD5-45-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229968
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-45-UNV-L930-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (168) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3702.0 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

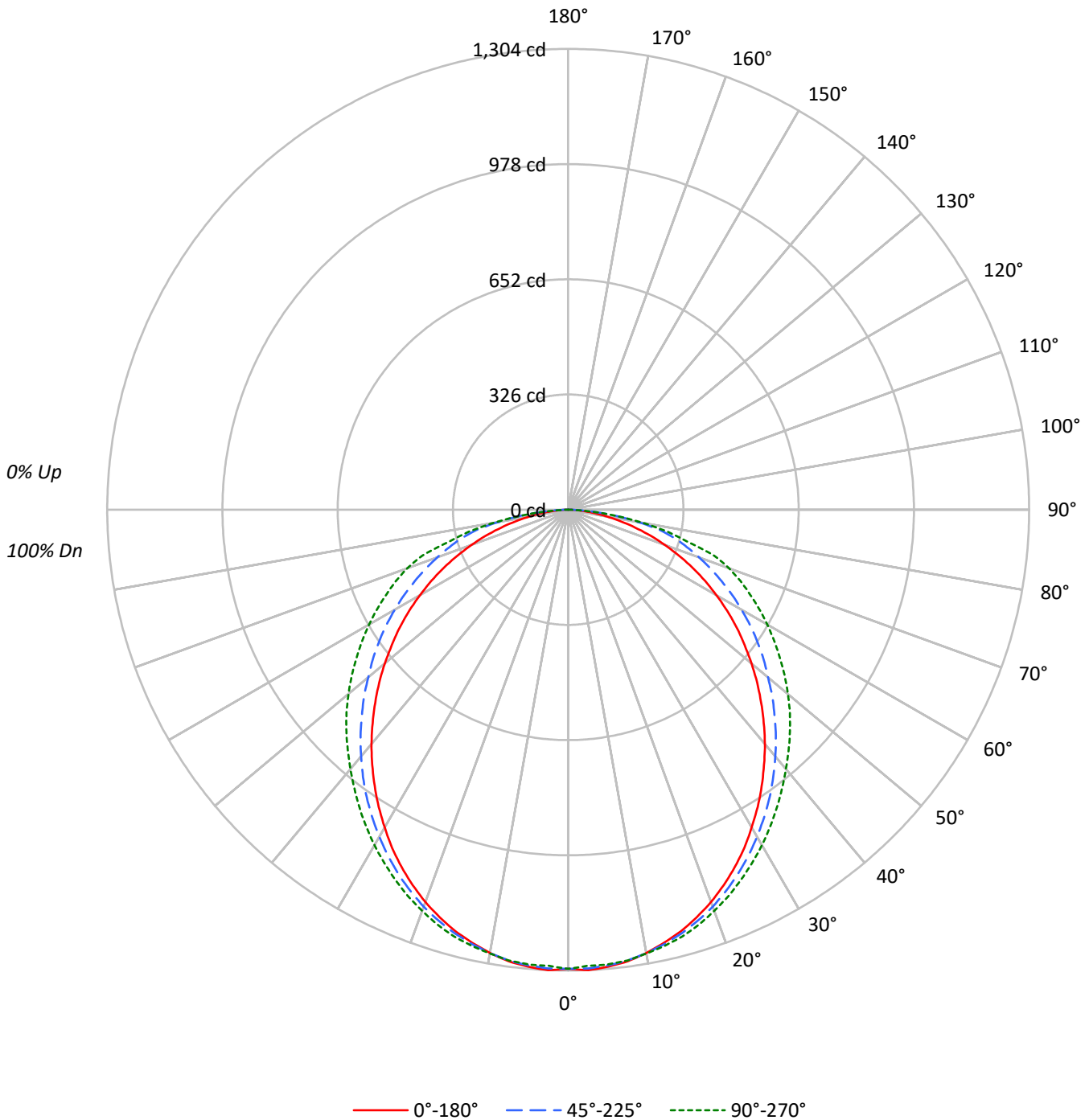
Input Watts (W): 35.69
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90		93	90	88		89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74		81	76	72		78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62		71	65	61		68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52		63	57	52		61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28		40	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26		37	30	25		36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1748	1748	1748
5°	1753	1748	1744
10°	1740	1740	1742
15°	1720	1729	1741
20°	1691	1711	1730
25°	1656	1688	1716
30°	1613	1660	1703
35°	1568	1632	1691
40°	1521	1601	1683
45°	1469	1570	1688
50°	1417	1544	1698
55°	1365	1534	1716
60°	1303	1525	1750
65°	1235	1525	1808
70°	1142	1551	1905
75°	1022	1621	1812
80°	855	1552	1660
85°	645	1193	1135



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.8	3.3
10°-20°	349.4	9.4
20°-30°	522.4	14.1
30°-40°	619.7	16.7
40°-50°	637.8	17.2
50°-60°	585.1	15.8
60°-70°	473.1	12.8
70°-80°	307.0	8.3
80°-90°	84.7	2.3
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°	994.6	26.9
0°-40°	1614.3	43.6
0°-60°	2837.2	76.6
0°-90°	3702.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3702.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1299	1299	1299	1299	1299	
5°	1298	1289	1294	1293	1292	123
15°	1235	1230	1241	1246	1250	348
25°	1115	1117	1137	1147	1156	513
35°	954	962	994	1015	1029	597
45°	772	785	825	864	887	596
55°	582	600	654	707	731	520
65°	388	411	479	542	568	383
75°	196	233	312	349	349	209
85°	42	71	77	75	74	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1299.2	1299.2	1299.2	1299.2	1299.2
2.5°	1304.3	1294.1	1299.2	1297.9	1291.6
5°	1297.9	1289.1	1294.1	1292.9	1291.6
7.5°	1289.1	1280.2	1286.5	1285.3	1286.5
10°	1273.9	1266.3	1273.9	1275.1	1275.1
12.5°	1254.8	1248.5	1258.6	1261.2	1263.7
15°	1234.6	1229.5	1240.9	1246.0	1249.8
17.5°	1209.2	1205.4	1219.4	1225.7	1230.8
20°	1181.3	1180.1	1195.3	1201.6	1207.9
22.5°	1149.6	1149.6	1167.4	1175.0	1183.9
25°	1115.4	1116.7	1137.0	1147.1	1156.0
27.5°	1078.7	1079.9	1104.0	1116.7	1126.8
30°	1038.1	1043.2	1068.5	1085.0	1096.4
32.5°	997.5	1003.9	1031.8	1050.8	1063.5
35°	954.4	962.0	993.7	1015.3	1029.2
37.5°	910.1	919.0	953.2	977.3	993.7
40°	865.7	875.9	911.3	939.2	958.2
42.5°	818.8	830.2	869.5	902.5	922.8
45°	771.9	784.6	825.2	864.4	887.3
47.5°	725.0	740.2	783.3	826.4	850.5
50°	676.9	692.1	737.7	787.1	811.2
52.5°	628.7	646.4	697.1	747.8	771.9
55°	581.8	599.5	654.0	707.3	731.4
57.5°	533.6	551.4	610.9	666.7	690.8
60°	484.2	504.5	566.6	623.6	650.2
62.5°	436.0	457.6	523.5	584.3	609.7
65°	387.9	410.7	479.1	542.5	567.8
67.5°	338.4	365.0	436.0	500.7	527.3
70°	290.3	319.4	394.2	458.8	484.2
72.5°	243.4	275.1	352.4	418.3	433.5
75°	196.5	233.2	311.8	348.6	348.6
77.5°	152.1	192.7	266.2	280.1	287.7
80°	110.3	154.6	200.3	216.7	214.2
82.5°	73.5	117.9	143.2	143.2	139.4
85°	41.8	71.0	77.3	74.8	73.5
87.5°	17.7	26.6	24.1	19.0	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)