

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: P229973

Luminaire Tested: **24CZ-LD5-50-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229973
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-LD5-50-UNV-L935-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (168) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4295.0 lumens
Efficiency: N/A
Efficacy: 105.6 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

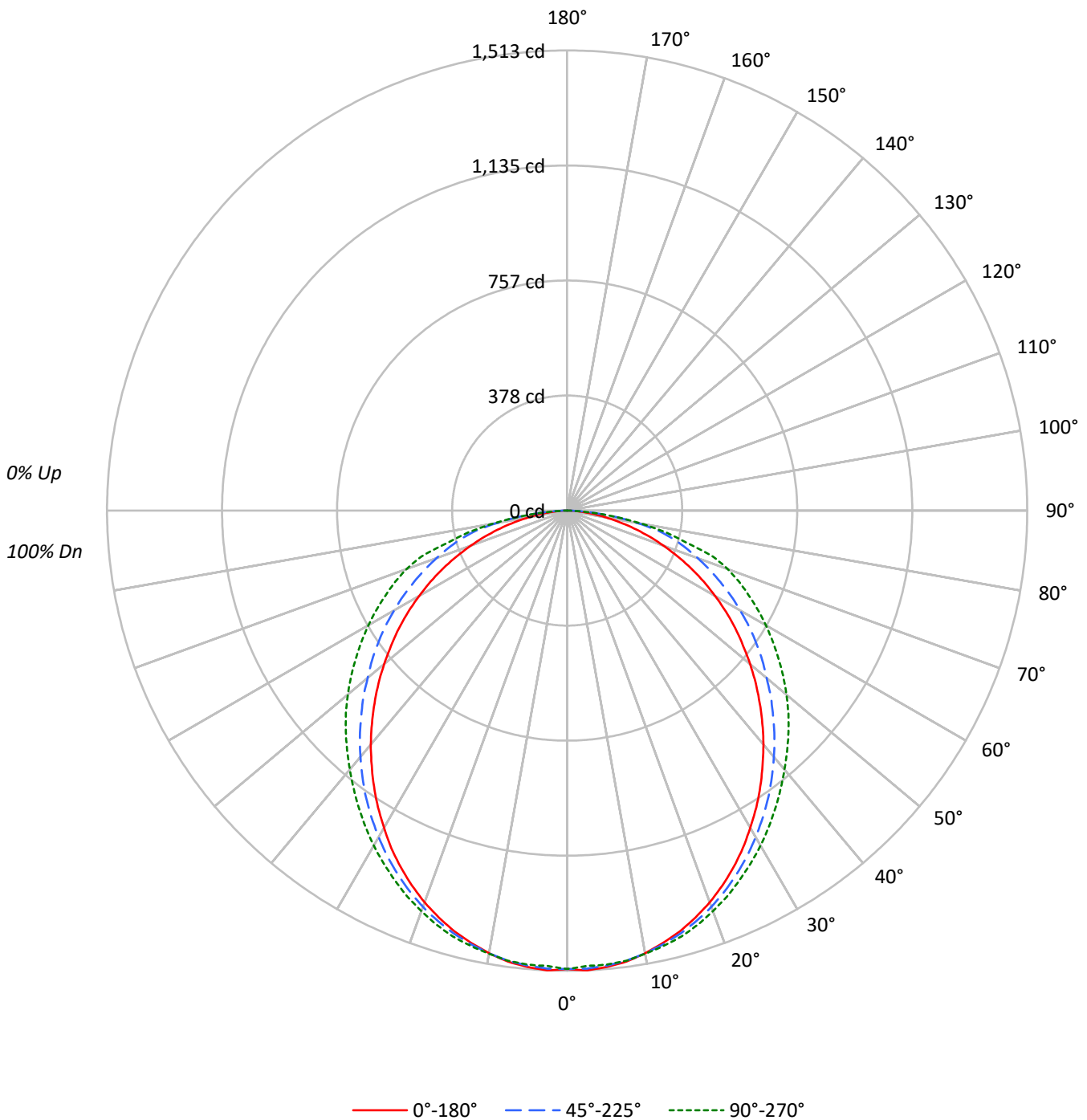
Input Watts (W): 40.68
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2028	2028	2028
5°	2034	2028	2024
10°	2019	2019	2021
15°	1995	2005	2020
20°	1962	1986	2007
25°	1921	1958	1991
30°	1871	1926	1976
35°	1819	1894	1961
40°	1764	1857	1953
45°	1704	1822	1959
50°	1644	1792	1970
55°	1583	1780	1990
60°	1512	1769	2030
65°	1433	1770	2097
70°	1325	1799	2210
75°	1185	1881	2102
80°	991	1800	1925
85°	749	1385	1317



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.4	3.3
10°-20°	405.4	9.4
20°-30°	606.0	14.1
30°-40°	719.0	16.7
40°-50°	740.0	17.2
50°-60°	678.9	15.8
60°-70°	548.9	12.8
70°-80°	356.2	8.3
80°-90°	98.2	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°	1153.9	26.9
0°-40°	1872.8	43.6
0°-60°	3291.7	76.6
0°-90°	4295.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4295.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1507	1507	1507	1507	1507	
5°	1506	1496	1501	1500	1498	143
15°	1432	1426	1440	1446	1450	403
25°	1294	1296	1319	1331	1341	596
35°	1107	1116	1153	1178	1194	692
45°	896	910	957	1003	1029	691
55°	675	696	759	821	848	603
65°	450	476	556	629	659	445
75°	228	271	362	404	404	242
85°	48	82	90	87	85	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1507.3	1507.3	1507.3	1507.3	1507.3
2.5°	1513.2	1501.4	1507.3	1505.9	1498.5
5°	1505.9	1495.6	1501.4	1500.0	1498.5
7.5°	1495.6	1485.3	1492.6	1491.1	1492.6
10°	1477.9	1469.1	1477.9	1479.4	1479.4
12.5°	1455.9	1448.5	1460.3	1463.2	1466.1
15°	1432.3	1426.4	1439.7	1445.6	1450.0
17.5°	1402.9	1398.5	1414.7	1422.0	1427.9
20°	1370.6	1369.1	1386.7	1394.1	1401.4
22.5°	1333.8	1333.8	1354.4	1363.2	1373.5
25°	1294.1	1295.6	1319.1	1330.9	1341.1
27.5°	1251.4	1252.9	1280.9	1295.6	1307.3
30°	1204.4	1210.3	1239.7	1258.8	1272.0
32.5°	1157.3	1164.7	1197.0	1219.1	1233.8
35°	1107.3	1116.2	1152.9	1177.9	1194.1
37.5°	1055.9	1066.2	1105.9	1133.8	1152.9
40°	1004.4	1016.2	1057.3	1089.7	1111.7
42.5°	950.0	963.2	1008.8	1047.0	1070.6
45°	895.6	910.3	957.3	1002.9	1029.4
47.5°	841.2	858.8	908.8	958.8	986.7
50°	785.3	802.9	855.9	913.2	941.2
52.5°	729.4	750.0	808.8	867.6	895.6
55°	675.0	695.6	758.8	820.6	848.5
57.5°	619.1	639.7	708.8	773.5	801.5
60°	561.8	585.3	657.3	723.5	754.4
62.5°	505.9	530.9	607.3	677.9	707.3
65°	450.0	476.5	555.9	629.4	658.8
67.5°	392.6	423.5	505.9	580.9	611.8
70°	336.8	370.6	457.3	532.3	561.8
72.5°	282.3	319.1	408.8	485.3	502.9
75°	227.9	270.6	361.8	404.4	404.4
77.5°	176.5	223.5	308.8	325.0	333.8
80°	127.9	179.4	232.3	251.5	248.5
82.5°	85.3	136.8	166.2	166.2	161.8
85°	48.5	82.4	89.7	86.8	85.3
87.5°	20.6	30.9	27.9	22.1	19.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)