

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: P229972

Luminaire Tested: **24CZ-LD5-50-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229972
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-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: 4132.0 lumens
Efficiency: N/A
Efficacy: 101.6 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

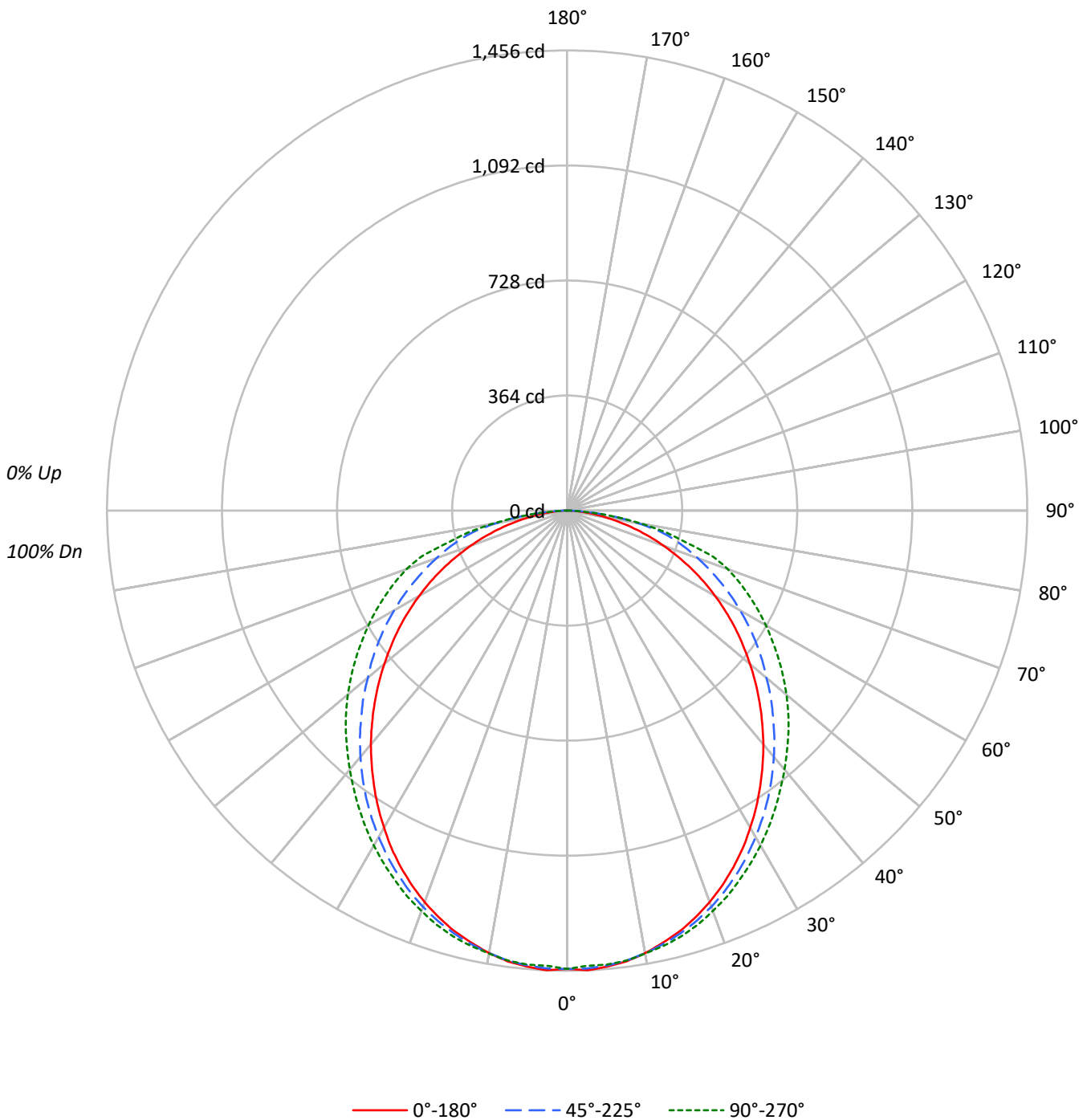
Input Watts (W): 40.68
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1951	1951	1951
5°	1957	1951	1947
10°	1943	1943	1944
15°	1919	1929	1943
20°	1888	1910	1931
25°	1848	1884	1916
30°	1800	1853	1901
35°	1750	1822	1887
40°	1697	1787	1878
45°	1639	1752	1884
50°	1581	1724	1895
55°	1523	1712	1915
60°	1454	1702	1953
65°	1378	1703	2018
70°	1275	1731	2126
75°	1140	1809	2023
80°	954	1732	1853
85°	721	1332	1267



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.0	3.3
10°-20°	390.0	9.4
20°-30°	583.0	14.1
30°-40°	691.7	16.7
40°-50°	711.9	17.2
50°-60°	653.1	15.8
60°-70°	528.0	12.8
70°-80°	342.7	8.3
80°-90°	94.5	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°	1110.1	26.9
0°-40°	1801.8	43.6
0°-60°	3166.8	76.6
0°-90°	4132.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4132.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1450	1450	1450	1450	1450	
5°	1449	1439	1444	1443	1442	137
15°	1378	1372	1385	1391	1395	388
25°	1245	1246	1269	1280	1290	573
35°	1065	1074	1109	1133	1149	666
45°	862	876	921	965	990	665
55°	649	669	730	789	816	580
65°	433	458	535	606	634	428
75°	219	260	348	389	389	233
85°	47	79	86	84	82	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1450.1	1450.1	1450.1	1450.1	1450.1
2.5°	1455.8	1444.5	1450.1	1448.7	1441.6
5°	1448.7	1438.8	1444.5	1443.0	1441.6
7.5°	1438.8	1428.9	1436.0	1434.6	1436.0
10°	1421.8	1413.3	1421.8	1423.2	1423.2
12.5°	1400.6	1393.5	1404.8	1407.7	1410.5
15°	1378.0	1372.3	1385.0	1390.7	1394.9
17.5°	1349.7	1345.4	1361.0	1368.1	1373.7
20°	1318.5	1317.1	1334.1	1341.2	1348.3
22.5°	1283.2	1283.2	1303.0	1311.5	1321.4
25°	1245.0	1246.4	1269.0	1280.3	1290.3
27.5°	1204.0	1205.4	1232.2	1246.4	1257.7
30°	1158.7	1164.3	1192.6	1211.0	1223.8
32.5°	1113.4	1120.5	1151.6	1172.8	1187.0
35°	1065.3	1073.8	1109.2	1133.2	1148.8
37.5°	1015.8	1025.7	1063.9	1090.8	1109.2
40°	966.3	977.6	1017.2	1048.3	1069.5
42.5°	913.9	926.7	970.5	1007.3	1029.9
45°	861.6	875.7	921.0	964.9	990.3
47.5°	809.2	826.2	874.3	922.4	949.3
50°	755.5	772.5	823.4	878.6	905.4
52.5°	701.7	721.5	778.1	834.7	861.6
55°	649.4	669.2	730.0	789.4	816.3
57.5°	595.6	615.4	681.9	744.2	771.0
60°	540.4	563.1	632.4	696.1	725.8
62.5°	486.7	510.7	584.3	652.2	680.5
65°	432.9	458.4	534.8	605.5	633.8
67.5°	377.7	407.4	486.7	558.8	588.5
70°	324.0	356.5	440.0	512.1	540.4
72.5°	271.6	307.0	393.3	466.9	483.8
75°	219.3	260.3	348.0	389.1	389.1
77.5°	169.8	215.0	297.1	312.7	321.1
80°	123.1	172.6	223.5	241.9	239.1
82.5°	82.1	131.6	159.9	159.9	155.6
85°	46.7	79.2	86.3	83.5	82.1
87.5°	19.8	29.7	26.9	21.2	18.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)