

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: P230079

Luminaire Tested: **24CZ-LD5-40SE-S-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230079
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-40SE-S-UNV-L950-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3935.0 lumens
Efficiency: N/A
Efficacy: 120.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

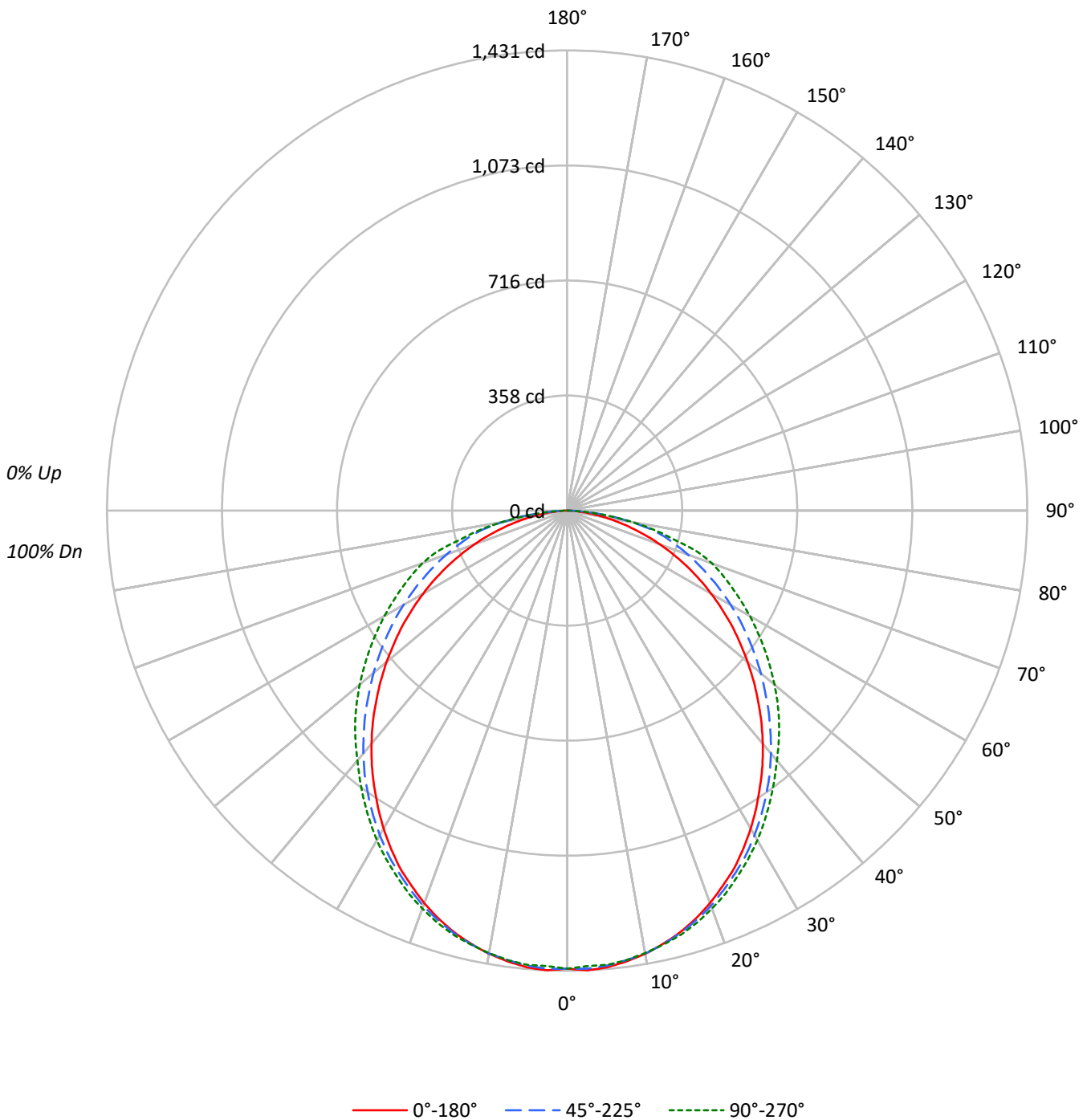
Input Watts (W): 32.55
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1917	1917	1917
5°	1926	1919	1915
10°	1912	1911	1909
15°	1891	1895	1902
20°	1860	1873	1886
25°	1823	1843	1862
30°	1774	1810	1839
35°	1718	1772	1809
40°	1663	1732	1782
45°	1600	1687	1774
50°	1535	1644	1762
55°	1468	1609	1757
60°	1392	1582	1765
65°	1309	1563	1801
70°	1205	1571	1885
75°	1069	1627	1756
80°	893	1542	1583
85°	667	1233	1132



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.7	3.4
10°-20°	383.0	9.7
20°-30°	570.8	14.5
30°-40°	672.0	17.1
40°-50°	682.9	17.4
50°-60°	613.9	15.6
60°-70°	485.0	12.3
70°-80°	307.7	7.8
80°-90°	84.9	2.2
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°	1088.6	27.7
0°-40°	1760.5	44.7
0°-60°	3057.3	77.7
0°-90°	3935.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3935.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1424	1424	1424	1424	1424	
5°	1426	1414	1421	1418	1418	135
15°	1358	1351	1360	1364	1366	382
25°	1228	1227	1241	1249	1254	565
35°	1046	1053	1079	1091	1101	654
45°	841	852	886	913	932	649
55°	626	642	686	731	749	559
65°	411	432	491	545	566	407
75°	206	241	313	340	338	219
85°	43	75	80	73	73	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1424.5	1424.5	1424.5	1424.5	1424.5
2.5°	1431.1	1420.6	1425.9	1423.2	1418.0
5°	1425.9	1414.1	1420.6	1418.0	1418.0
7.5°	1414.1	1404.9	1410.1	1408.8	1410.1
10°	1399.7	1390.5	1398.4	1398.4	1397.0
12.5°	1380.0	1372.2	1381.3	1381.3	1382.6
15°	1357.8	1351.2	1360.4	1364.3	1365.6
17.5°	1330.3	1323.7	1335.5	1339.4	1343.4
20°	1298.8	1296.2	1308.0	1311.9	1317.2
22.5°	1263.5	1263.5	1275.3	1280.5	1288.4
25°	1228.1	1226.8	1241.2	1249.1	1254.3
27.5°	1186.2	1187.6	1205.9	1213.7	1220.3
30°	1141.7	1144.3	1165.3	1174.5	1183.6
32.5°	1094.6	1099.8	1123.4	1133.9	1143.0
35°	1046.1	1052.7	1078.9	1090.7	1101.1
37.5°	997.7	1006.9	1034.4	1046.1	1057.9
40°	946.6	954.5	985.9	1000.3	1014.7
42.5°	894.3	904.7	936.2	957.1	974.1
45°	840.6	852.4	886.4	912.6	932.2
47.5°	786.9	802.6	835.3	870.7	887.7
50°	733.2	748.9	785.6	824.9	841.9
52.5°	678.2	693.9	735.8	776.4	794.8
55°	625.9	641.6	686.1	730.6	748.9
57.5°	570.9	587.9	637.6	683.5	701.8
60°	517.2	534.2	587.9	636.3	656.0
62.5°	464.8	483.1	539.4	590.5	610.1
65°	411.1	432.1	491.0	544.7	565.6
67.5°	358.8	382.3	443.9	500.2	522.4
70°	306.4	333.9	399.3	457.0	479.2
72.5°	255.3	285.4	354.8	412.4	424.2
75°	205.6	240.9	312.9	340.4	337.8
77.5°	158.4	197.7	265.8	271.0	278.9
80°	115.2	158.4	199.0	209.5	204.3
82.5°	75.9	119.1	142.7	137.5	136.2
85°	43.2	74.6	79.9	73.3	73.3
87.5°	18.3	30.1	26.2	19.6	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)