

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: P230005

Luminaire Tested: **24CZ-LD5-40SE-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230005
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-LD5-40SE-UNV-L935-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (84) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3460.0 lumens
Efficiency: N/A
Efficacy: 106.3 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

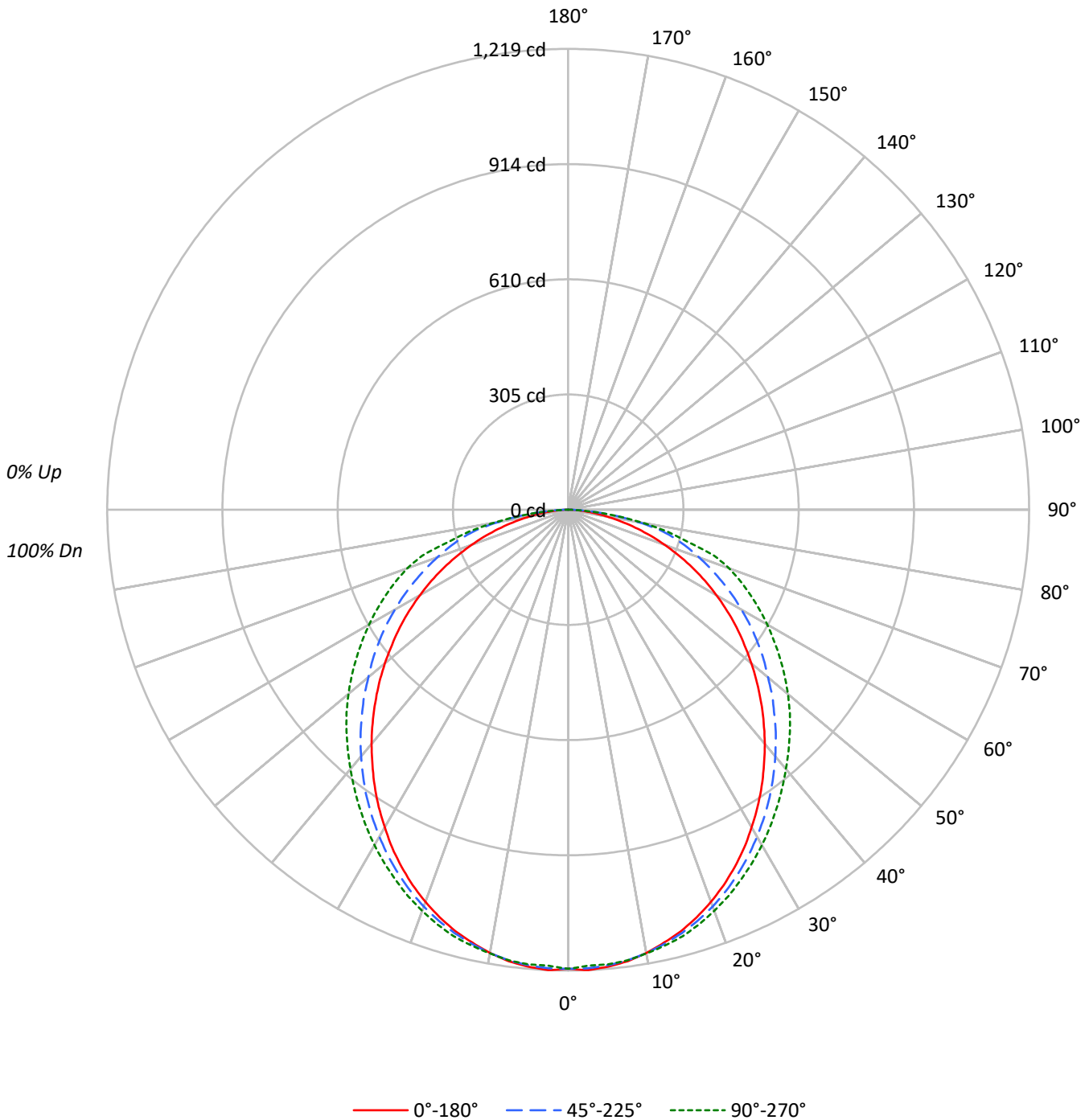
Input Watts (W): 32.55
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P230005

CATALOG NUMBER: 24CZ-LD5-40SE-UNV-L935-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P230005

CATALOG NUMBER: 24CZ-LD5-40SE-UNV-L935-CD1-U

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°	1634	1634	1634
5°	1638	1634	1630
10°	1627	1627	1628
15°	1607	1616	1627
20°	1581	1600	1617
25°	1548	1578	1604
30°	1507	1552	1592
35°	1465	1526	1580
40°	1421	1496	1573
45°	1373	1467	1578
50°	1324	1443	1587
55°	1276	1434	1604
60°	1218	1425	1635
65°	1154	1426	1690
70°	1067	1449	1780
75°	954	1515	1694
80°	799	1450	1551
85°	604	1116	1061



TEST NUMBER: P230005

CATALOG NUMBER: 24CZ-LD5-40SE-UNV-L935-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.7	3.3
10°-20°	326.6	9.4
20°-30°	488.2	14.1
30°-40°	579.2	16.7
40°-50°	596.1	17.2
50°-60°	546.9	15.8
60°-70°	442.2	12.8
70°-80°	287.0	8.3
80°-90°	79.1	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°	929.5	26.9
0°-40°	1508.7	43.6
0°-60°	2651.7	76.6
0°-90°	3460.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3460.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1214	1214	1214	1214	1214	
5°	1213	1205	1210	1208	1207	115
15°	1154	1149	1160	1164	1168	325
25°	1042	1044	1063	1072	1080	480
35°	892	899	929	949	962	558
45°	722	733	771	808	829	557
55°	544	560	611	661	684	486
65°	362	384	448	507	531	358
75°	184	218	291	326	326	195
85°	39	66	72	70	69	48
90°	0	0	0	0	0	



TEST NUMBER: P230005

CATALOG NUMBER: 24CZ-LD5-40SE-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1214.3	1214.3	1214.3	1214.3	1214.3
2.5°	1219.0	1209.5	1214.3	1213.1	1207.2
5°	1213.1	1204.8	1209.5	1208.4	1207.2
7.5°	1204.8	1196.5	1202.4	1201.2	1202.4
10°	1190.6	1183.5	1190.6	1191.8	1191.8
12.5°	1172.8	1166.9	1176.4	1178.7	1181.1
15°	1153.9	1149.1	1159.8	1164.5	1168.1
17.5°	1130.2	1126.6	1139.6	1145.6	1150.3
20°	1104.1	1102.9	1117.1	1123.1	1129.0
22.5°	1074.5	1074.5	1091.1	1098.2	1106.5
25°	1042.5	1043.7	1062.6	1072.1	1080.4
27.5°	1008.1	1009.3	1031.8	1043.7	1053.2
30°	970.2	975.0	998.7	1014.1	1024.7
32.5°	932.3	938.3	964.3	982.1	993.9
35°	892.1	899.2	928.8	948.9	961.9
37.5°	850.6	858.9	890.9	913.4	928.8
40°	809.1	818.6	851.8	877.8	895.6
42.5°	765.3	776.0	812.7	843.5	862.4
45°	721.5	733.3	771.2	807.9	829.3
47.5°	677.6	691.8	732.1	772.4	794.9
50°	632.6	646.8	689.5	735.7	758.2
52.5°	587.6	604.2	651.6	699.0	721.5
55°	543.8	560.3	611.3	661.0	683.6
57.5°	498.7	515.3	571.0	623.1	645.6
60°	452.5	471.5	529.5	582.9	607.7
62.5°	407.5	427.7	489.3	546.1	569.8
65°	362.5	383.8	447.8	507.0	530.7
67.5°	316.3	341.2	407.5	467.9	492.8
70°	271.3	298.5	368.4	428.8	452.5
72.5°	227.5	257.1	329.3	390.9	405.2
75°	183.6	218.0	291.4	325.8	325.8
77.5°	142.2	180.1	248.8	261.8	268.9
80°	103.1	144.5	187.2	202.6	200.2
82.5°	68.7	110.2	133.9	133.9	130.3
85°	39.1	66.3	72.3	69.9	68.7
87.5°	16.6	24.9	22.5	17.8	15.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)