

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: P230006

Luminaire Tested: **24CZ-LD5-40SE-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230006
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-L940-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3546.0 lumens
Efficiency: N/A
Efficacy: 108.9 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

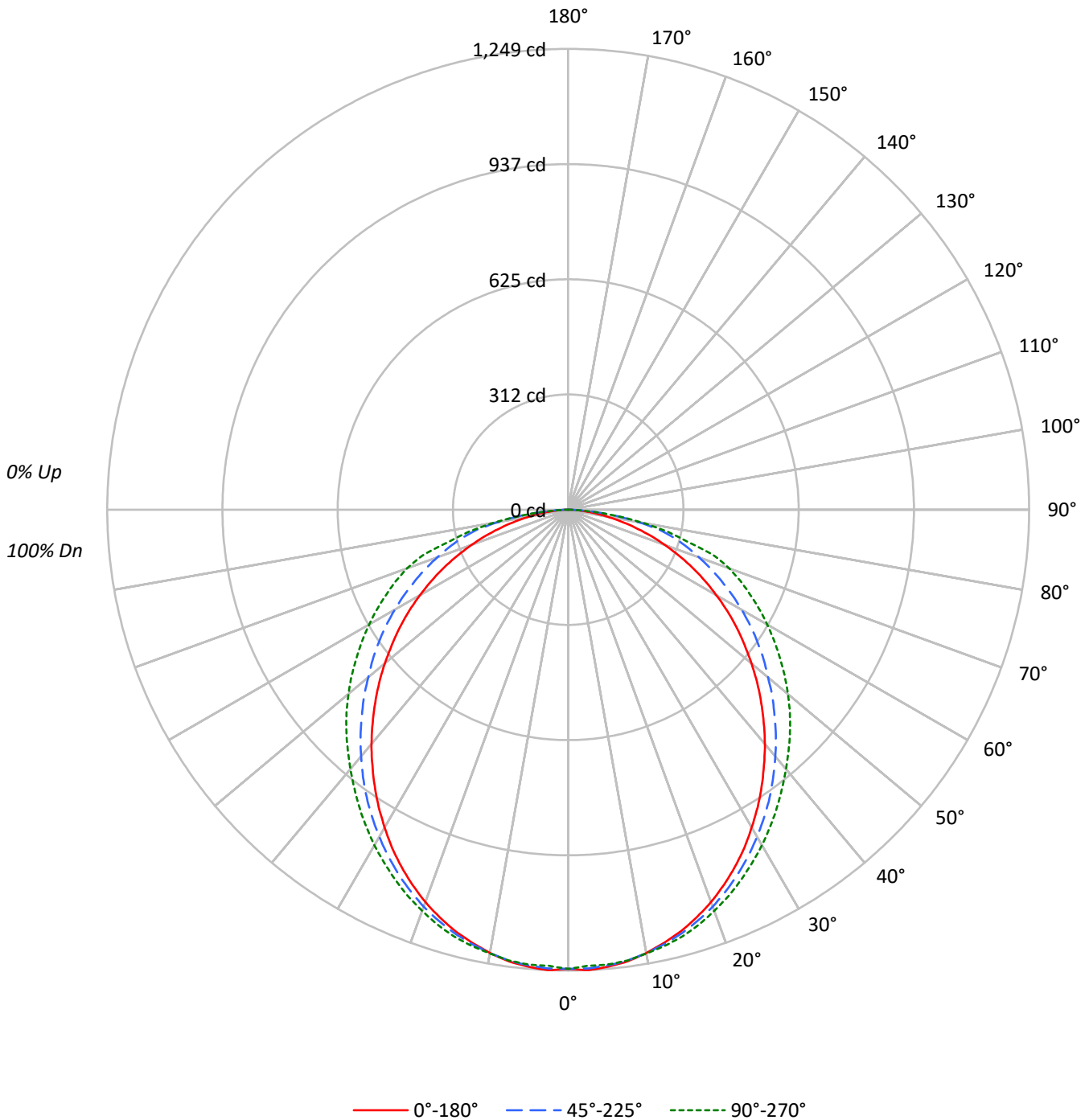
Input Watts (W): 32.55
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1674	1674	1674
5°	1679	1674	1671
10°	1667	1667	1669
15°	1647	1656	1668
20°	1620	1639	1657
25°	1586	1617	1644
30°	1545	1590	1632
35°	1502	1564	1619
40°	1456	1533	1612
45°	1407	1504	1617
50°	1357	1479	1626
55°	1307	1470	1643
60°	1248	1460	1676
65°	1183	1461	1732
70°	1094	1485	1825
75°	978	1553	1736
80°	818	1486	1590
85°	619	1144	1087



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.6	3.3
10°-20°	334.7	9.4
20°-30°	500.4	14.1
30°-40°	593.6	16.7
40°-50°	610.9	17.2
50°-60°	560.5	15.8
60°-70°	453.2	12.8
70°-80°	294.1	8.3
80°-90°	81.1	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°	952.6	26.9
0°-40°	1546.2	43.6
0°-60°	2717.6	76.6
0°-90°	3546.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3546.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1244	1244	1244	1244	1244	
5°	1243	1235	1240	1238	1237	118
15°	1182	1178	1189	1194	1197	333
25°	1068	1070	1089	1099	1107	492
35°	914	922	952	972	986	572
45°	739	752	790	828	850	571
55°	557	574	626	678	700	498
65°	372	393	459	520	544	367
75°	188	223	299	334	334	200
85°	40	68	74	72	70	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1244.5	1244.5	1244.5	1244.5	1244.5
2.5°	1249.3	1239.6	1244.5	1243.2	1237.2
5°	1243.2	1234.7	1239.6	1238.4	1237.2
7.5°	1234.7	1226.2	1232.3	1231.1	1232.3
10°	1220.2	1212.9	1220.2	1221.4	1221.4
12.5°	1202.0	1195.9	1205.6	1208.0	1210.5
15°	1182.5	1177.7	1188.6	1193.5	1197.1
17.5°	1158.3	1154.6	1168.0	1174.0	1178.9
20°	1131.5	1130.3	1144.9	1151.0	1157.0
22.5°	1101.2	1101.2	1118.2	1125.5	1134.0
25°	1068.4	1069.6	1089.1	1098.8	1107.3
27.5°	1033.2	1034.4	1057.5	1069.6	1079.3
30°	994.4	999.2	1023.5	1039.3	1050.2
32.5°	955.5	961.6	988.3	1006.5	1018.6
35°	914.2	921.5	951.9	972.5	985.9
37.5°	871.7	880.2	913.0	936.1	951.9
40°	829.2	838.9	872.9	899.7	917.9
42.5°	784.3	795.2	832.9	864.4	883.9
45°	739.4	751.5	790.4	828.0	849.9
47.5°	694.5	709.0	750.3	791.6	814.7
50°	648.3	662.9	706.6	754.0	777.0
52.5°	602.2	619.2	667.8	716.3	739.4
55°	557.3	574.3	626.5	677.5	700.5
57.5°	511.1	528.1	585.2	638.6	661.7
60°	463.8	483.2	542.7	597.3	622.8
62.5°	417.7	438.3	501.4	559.7	584.0
65°	371.5	393.4	458.9	519.6	543.9
67.5°	324.2	349.7	417.7	479.6	505.1
70°	278.0	306.0	377.6	439.5	463.8
72.5°	233.1	263.5	337.5	400.7	415.2
75°	188.2	223.4	298.7	333.9	333.9
77.5°	145.7	184.5	255.0	268.3	275.6
80°	105.6	148.1	191.8	207.6	205.2
82.5°	70.4	112.9	137.2	137.2	133.6
85°	40.1	68.0	74.1	71.6	70.4
87.5°	17.0	25.5	23.1	18.2	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)