

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: P230002

Luminaire Tested: **24CZ-LD5-35SE-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230002
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-LD5-35SE-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: 3115.0 lumens
Efficiency: N/A
Efficacy: 109.0 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

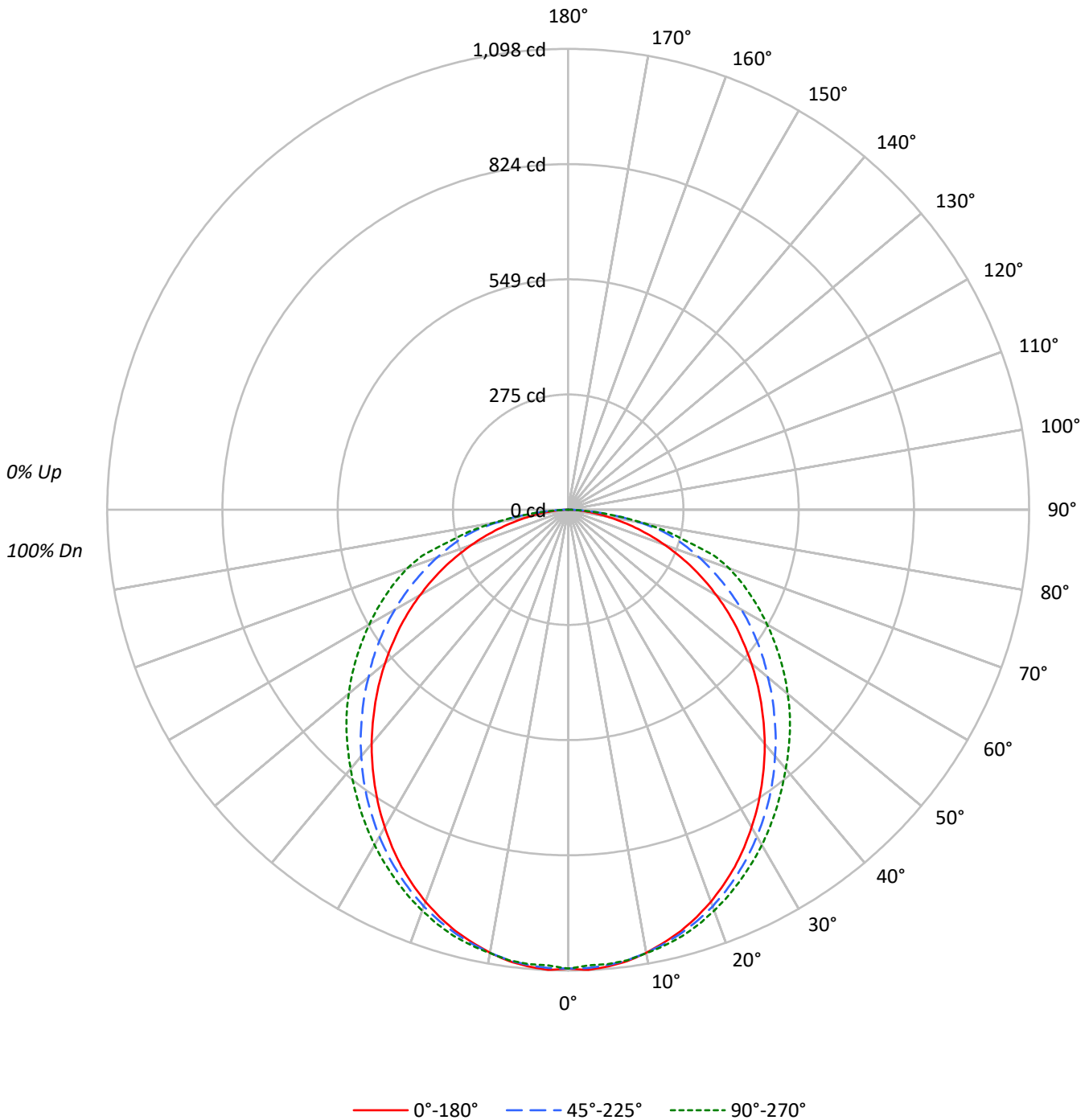
Input Watts (W): 28.57
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P230002

CATALOG NUMBER: 24CZ-LD5-35SE-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P230002

CATALOG NUMBER: 24CZ-LD5-35SE-UNV-L940-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°	1471	1471	1471
5°	1475	1471	1468
10°	1464	1464	1466
15°	1447	1454	1465
20°	1423	1440	1455
25°	1393	1420	1444
30°	1357	1397	1433
35°	1319	1373	1422
40°	1279	1347	1416
45°	1236	1321	1421
50°	1192	1299	1429
55°	1148	1291	1444
60°	1096	1283	1472
65°	1039	1284	1521
70°	961	1305	1603
75°	859	1364	1525
80°	719	1306	1396
85°	543	1005	956



TEST NUMBER: P230002

CATALOG NUMBER: 24CZ-LD5-35SE-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.3	3.3
10°-20°	294.0	9.4
20°-30°	439.5	14.1
30°-40°	521.4	16.7
40°-50°	536.7	17.2
50°-60°	492.3	15.8
60°-70°	398.1	12.8
70°-80°	258.4	8.3
80°-90°	71.2	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°	836.9	26.9
0°-40°	1358.3	43.6
0°-60°	2387.3	76.6
0°-90°	3115.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3115.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1093	1093	1093	1093	1093	
5°	1092	1085	1089	1088	1087	104
15°	1039	1034	1044	1048	1052	293
25°	939	940	957	965	973	432
35°	803	810	836	854	866	502
45°	650	660	694	727	747	501
55°	490	504	550	595	615	437
65°	326	346	403	456	478	323
75°	165	196	262	293	293	176
85°	35	60	65	63	62	43
90°	0	0	0	0	0	



TEST NUMBER: P230002

CATALOG NUMBER: 24CZ-LD5-35SE-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1093.2	1093.2	1093.2	1093.2	1093.2
2.5°	1097.5	1088.9	1093.2	1092.1	1086.8
5°	1092.1	1084.7	1088.9	1087.9	1086.8
7.5°	1084.7	1077.2	1082.5	1081.5	1082.5
10°	1071.9	1065.5	1071.9	1072.9	1072.9
12.5°	1055.9	1050.5	1059.1	1061.2	1063.3
15°	1038.8	1034.5	1044.1	1048.4	1051.6
17.5°	1017.5	1014.3	1026.0	1031.3	1035.6
20°	994.0	992.9	1005.7	1011.1	1016.4
22.5°	967.4	967.4	982.3	988.7	996.1
25°	938.6	939.6	956.7	965.2	972.7
27.5°	907.6	908.7	929.0	939.6	948.2
30°	873.5	877.8	899.1	913.0	922.6
32.5°	839.4	844.7	868.2	884.2	894.8
35°	803.1	809.5	836.2	854.3	866.0
37.5°	765.8	773.2	802.0	822.3	836.2
40°	728.4	737.0	766.8	790.3	806.3
42.5°	689.0	698.6	731.6	759.4	776.4
45°	649.5	660.2	694.3	727.4	746.6
47.5°	610.1	622.9	659.1	695.4	715.6
50°	569.5	582.3	620.7	662.3	682.6
52.5°	529.0	543.9	586.6	629.3	649.5
55°	489.5	504.5	550.3	595.1	615.4
57.5°	449.0	463.9	514.1	561.0	581.3
60°	407.4	424.5	476.7	524.7	547.1
62.5°	366.9	385.0	440.5	491.7	513.0
65°	326.4	345.6	403.2	456.5	477.8
67.5°	284.8	307.2	366.9	421.3	443.7
70°	244.2	268.8	331.7	386.1	407.4
72.5°	204.8	231.4	296.5	352.0	364.8
75°	165.3	196.2	262.4	293.3	293.3
77.5°	128.0	162.1	224.0	235.7	242.1
80°	92.8	130.1	168.5	182.4	180.2
82.5°	61.9	99.2	120.5	120.5	117.3
85°	35.2	59.7	65.1	62.9	61.9
87.5°	14.9	22.4	20.3	16.0	13.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)