

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: P230614

Luminaire Tested: **22CZ-LD5-39SE-S-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230614
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25712)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ-LD5-39SE-S-UNV-L940-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SMOOTH LENS
Light Source: (56) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3564.0 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.24 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

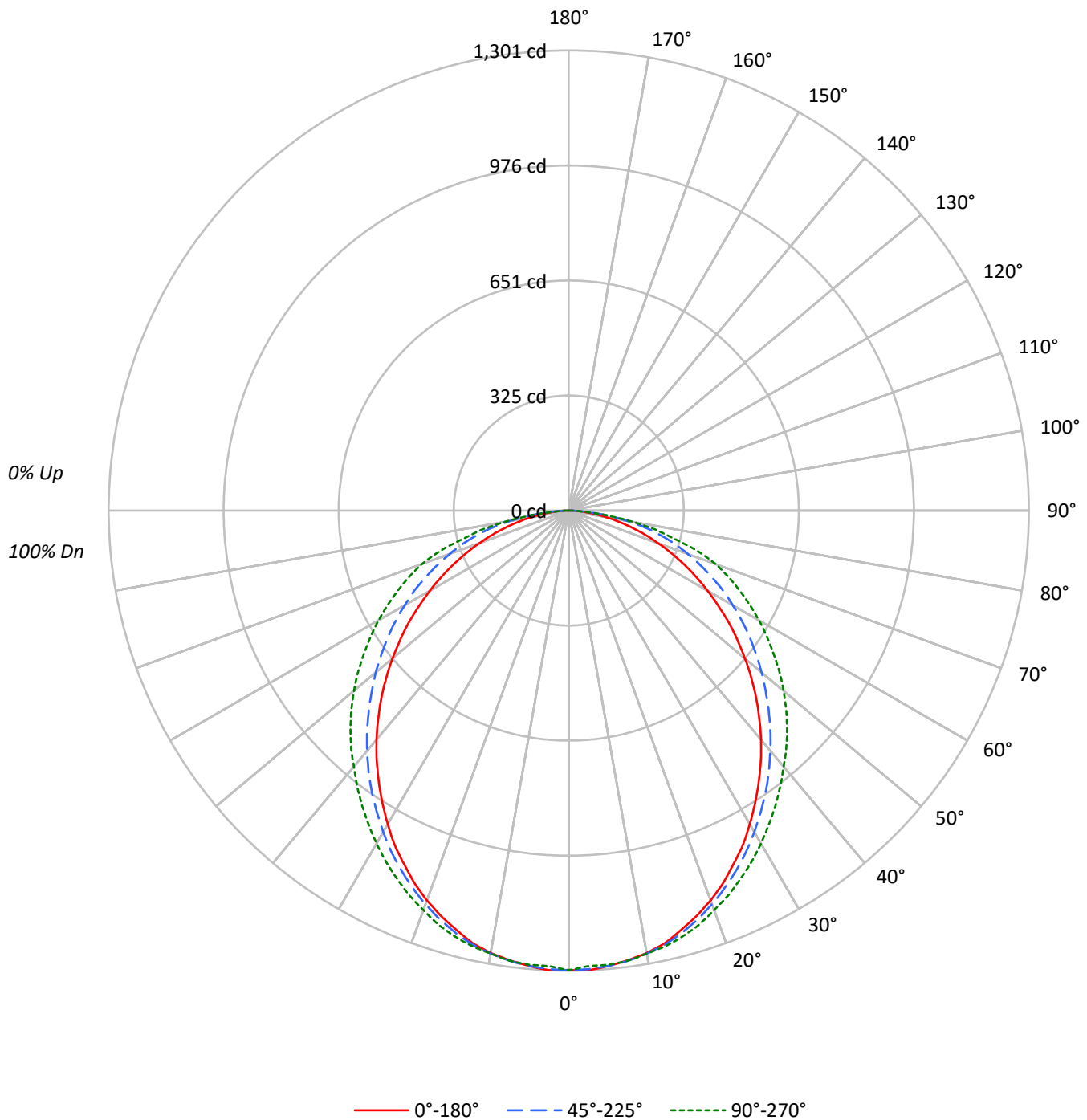
Input Watts (W): 34.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P230614

CATALOG NUMBER: 22CZ-LD5-39SE-S-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P230614

CATALOG NUMBER: 22CZ-LD5-39SE-S-UNV-L940-CD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10		50	30	10			50	30	10			50
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	109	104	99	95	106	101	97	94		97	94	91			93	91	88			90
2	99	90	83	77	96	88	82	77		85	79	75			81	77	73			78
3	90	79	71	64	87	78	70	64		75	68	63			72	66	62			69
4	82	70	61	54	80	69	61	54		66	59	53			64	58	53			62
5	76	63	54	47	74	62	53	47		59	52	46			57	51	46			56
6	70	56	47	41	68	56	47	41		54	46	40			52	45	40			50
7	65	51	42	36	63	50	42	36		49	41	36			47	41	36			46
8	60	47	38	32	59	46	38	32		45	37	32			43	37	32			42
9	56	43	35	29	55	42	34	29		41	34	29			40	34	29			39
10	53	40	32	26	52	39	32	26		38	31	26			37	31	26			36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3496	3496	3496
5°	3491	3491	3482
10°	3471	3475	3475
15°	3419	3443	3472
20°	3358	3392	3441
25°	3273	3329	3410
30°	3181	3261	3378
35°	3076	3188	3346
40°	2971	3115	3319
45°	2853	3042	3322
50°	2723	2981	3318
55°	2594	2931	3317
60°	2441	2884	3344
65°	2289	2845	3390
70°	2115	2815	3475
75°	1905	2795	3221
80°	1671	2600	2813
85°	1374	1954	1744



TEST NUMBER: P230614

CATALOG NUMBER: 22CZ-LD5-39SE-S-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.7	3.4
10°-20°	348.5	9.8
20°-30°	517.7	14.5
30°-40°	609.3	17.1
40°-50°	621.2	17.4
50°-60°	560.3	15.7
60°-70°	441.3	12.4
70°-80°	272.2	7.6
80°-90°	70.7	2.0
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°	988.9	27.7
0°-40°	1598.3	44.8
0°-60°	2779.8	78.0
0°-90°	3564.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3564.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1299	1299	1299	1299	1299	
5°	1292	1294	1292	1291	1289	123
15°	1227	1232	1236	1243	1246	346
25°	1102	1109	1121	1140	1149	508
35°	936	947	971	1001	1018	586
45°	750	762	799	847	873	578
55°	553	572	625	681	707	493
65°	360	385	447	503	532	356
75°	183	214	269	300	310	195
85°	44	56	63	60	56	52
90°	0	0	0	0	0	



TEST NUMBER: P230614

CATALOG NUMBER: 22CZ-LD5-39SE-S-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1299.3	1299.3	1299.3	1299.3	1299.3
2.5°	1301.0	1301.0	1297.6	1294.2	1289.0
5°	1292.4	1294.2	1292.4	1290.7	1289.0
7.5°	1282.2	1283.9	1283.9	1283.9	1283.9
10°	1270.2	1271.9	1271.9	1271.9	1271.9
12.5°	1253.1	1254.8	1256.5	1258.2	1261.6
15°	1227.4	1232.5	1236.0	1242.8	1246.2
17.5°	1201.7	1206.8	1212.0	1220.5	1227.4
20°	1172.6	1176.0	1184.6	1194.9	1201.7
22.5°	1140.1	1145.2	1153.8	1167.5	1177.7
25°	1102.4	1109.3	1121.3	1140.1	1148.6
27.5°	1066.5	1071.6	1087.0	1107.6	1119.5
30°	1023.7	1030.5	1049.4	1075.0	1087.0
32.5°	980.9	989.4	1010.0	1039.1	1052.8
35°	936.4	946.6	970.6	1001.4	1018.5
37.5°	891.9	902.1	929.5	963.8	982.6
40°	845.7	855.9	886.7	924.4	944.9
42.5°	797.7	809.7	843.9	886.7	910.7
45°	749.8	761.8	799.4	847.4	873.0
47.5°	700.1	713.8	754.9	808.0	833.7
50°	650.5	665.9	712.1	766.9	792.6
52.5°	600.9	618.0	667.6	724.1	751.5
55°	552.9	571.8	624.8	681.3	707.0
57.5°	501.6	523.8	580.3	635.1	664.2
60°	453.6	477.6	535.8	590.6	621.4
62.5°	405.7	431.4	493.0	547.8	576.9
65°	359.5	385.2	446.8	503.3	532.4
67.5°	313.3	342.4	402.3	458.8	487.9
70°	268.8	299.6	357.8	412.6	441.7
72.5°	226.0	256.8	315.0	366.3	383.5
75°	183.2	214.0	268.8	299.6	309.8
77.5°	143.8	172.9	220.8	239.7	253.4
80°	107.8	133.5	167.8	179.7	181.5
82.5°	73.6	95.9	116.4	118.1	116.4
85°	44.5	56.5	63.3	59.9	56.5
87.5°	20.5	22.3	20.5	13.7	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)