

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: P230608

Luminaire Tested: **22CZ-LD5-32SE-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230608
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-LD5-32SE-S-UNV-L930-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SMOOTH LENS
Light Source: (56) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2706.0 lumens
Efficiency: N/A
Efficacy: 88.7 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

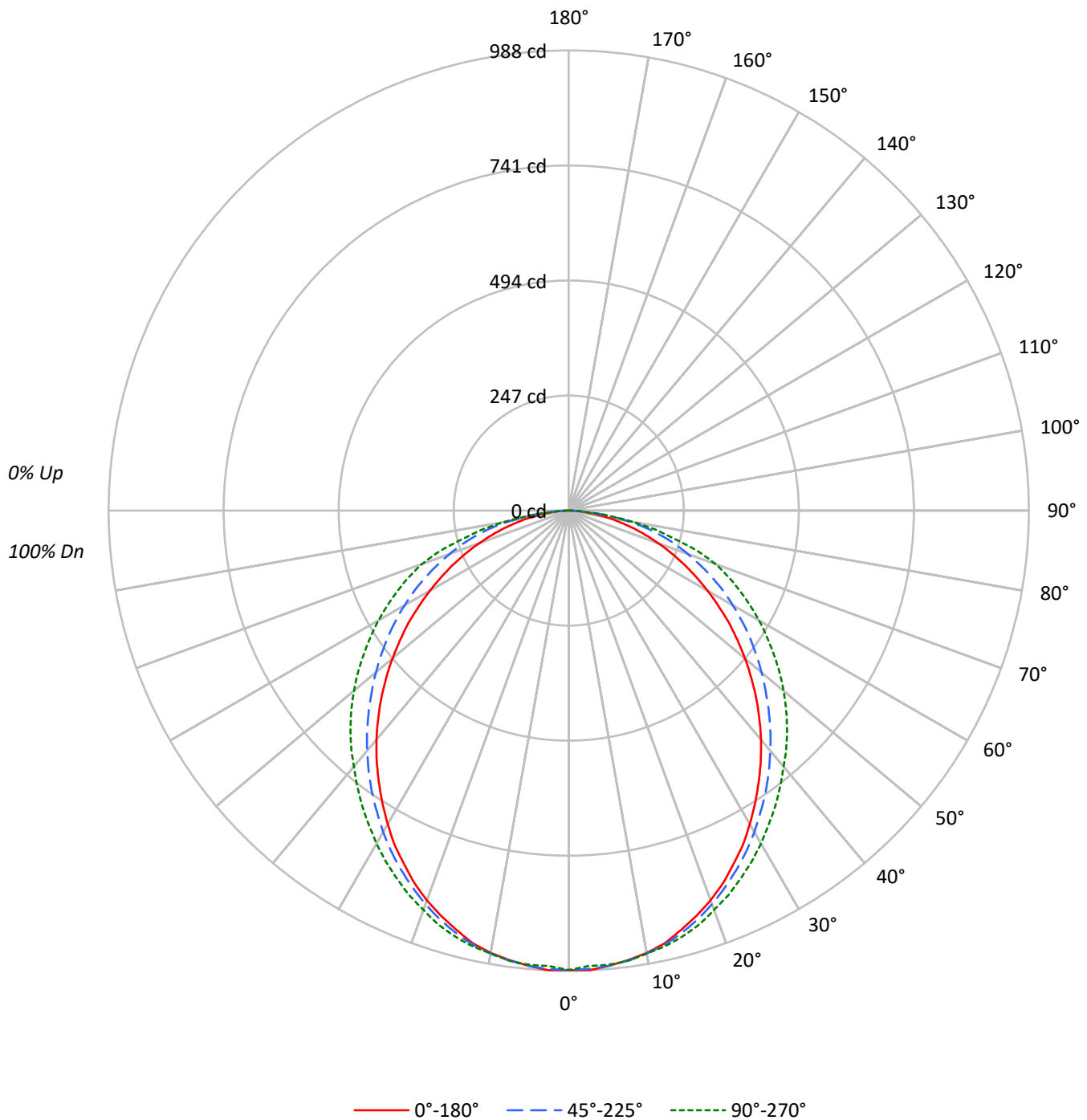
Input Watts (W): 30.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P230608

CATALOG NUMBER: 22CZ-LD5-32SE-S-UNV-L930-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P230608

CATALOG NUMBER: 22CZ-LD5-32SE-S-UNV-L930-CD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	109	104	99	95	106	101	97	94		97	94	91		93	91	88		90	87	85
2	99	90	83	77	96	88	82	77		85	79	75		81	77	73		78	75	71
3	90	79	71	64	87	78	70	64		75	68	63		72	66	62		69	64	60
4	82	70	61	54	80	69	61	54		66	59	53		64	58	53		62	56	52
5	76	63	54	47	74	62	53	47		59	52	46		57	51	46		56	50	45
6	70	56	47	41	68	56	47	41		54	46	40		52	45	40		50	44	40
7	65	51	42	36	63	50	42	36		49	41	36		47	41	36		46	40	35
8	60	47	38	32	59	46	38	32		45	37	32		43	37	32		42	36	32
9	56	43	35	29	55	42	34	29		41	34	29		40	34	29		39	33	29
10	53	40	32	26	52	39	32	26		38	31	26		37	31	26		36	30	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2655	2655	2655
5°	2651	2651	2644
10°	2635	2639	2639
15°	2596	2614	2636
20°	2550	2576	2613
25°	2485	2528	2589
30°	2415	2476	2564
35°	2336	2421	2540
40°	2256	2365	2520
45°	2167	2310	2523
50°	2068	2264	2519
55°	1970	2226	2518
60°	1854	2189	2539
65°	1738	2160	2574
70°	1606	2137	2638
75°	1446	2122	2446
80°	1269	1974	2135
85°	1044	1485	1325



TEST NUMBER: P230608

CATALOG NUMBER: 22CZ-LD5-32SE-S-UNV-L930-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.2	3.4
10°-20°	264.6	9.8
20°-30°	393.0	14.5
30°-40°	462.7	17.1
40°-50°	471.7	17.4
50°-60°	425.4	15.7
60°-70°	335.1	12.4
70°-80°	206.7	7.6
80°-90°	53.7	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°	750.8	27.7
0°-40°	1213.5	44.8
0°-60°	2110.6	78.0
0°-90°	2706.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2706.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	986	986	986	986	986	
5°	981	983	981	980	979	93
15°	932	936	938	944	946	263
25°	837	842	851	866	872	386
35°	711	719	737	760	773	445
45°	569	578	607	643	663	439
55°	420	434	474	517	537	375
65°	273	292	339	382	404	270
75°	139	162	204	228	235	148
85°	34	43	48	46	43	40
90°	0	0	0	0	0	



TEST NUMBER: P230608

CATALOG NUMBER: 22CZ-LD5-32SE-S-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	986.5	986.5	986.5	986.5	986.5
2.5°	987.8	987.8	985.2	982.6	978.7
5°	981.3	982.6	981.3	980.0	978.7
7.5°	973.5	974.8	974.8	974.8	974.8
10°	964.4	965.7	965.7	965.7	965.7
12.5°	951.4	952.7	954.0	955.3	957.9
15°	931.9	935.8	938.4	943.6	946.2
17.5°	912.4	916.3	920.2	926.7	931.9
20°	890.3	892.9	899.4	907.2	912.4
22.5°	865.6	869.5	876.0	886.4	894.2
25°	837.0	842.2	851.3	865.6	872.1
27.5°	809.7	813.6	825.3	840.9	850.0
30°	777.2	782.4	796.7	816.2	825.3
32.5°	744.7	751.2	766.8	788.9	799.3
35°	711.0	718.8	736.9	760.3	773.3
37.5°	677.2	685.0	705.8	731.7	746.0
40°	642.1	649.9	673.3	701.9	717.5
42.5°	605.7	614.8	640.8	673.3	691.5
45°	569.3	578.4	607.0	643.4	662.9
47.5°	531.6	542.0	573.2	613.5	633.0
50°	493.9	505.6	540.7	582.3	601.8
52.5°	456.2	469.2	506.9	549.8	570.6
55°	419.8	434.1	474.4	517.3	536.8
57.5°	380.8	397.7	440.6	482.2	504.3
60°	344.4	362.6	406.8	448.4	471.8
62.5°	308.0	327.5	374.3	415.9	438.0
65°	272.9	292.4	339.2	382.1	404.2
67.5°	237.9	259.9	305.4	348.3	370.4
70°	204.1	227.5	271.6	313.2	335.3
72.5°	171.6	195.0	239.2	278.1	291.1
75°	139.1	162.5	204.1	227.5	235.3
77.5°	109.2	131.3	167.7	182.0	192.4
80°	81.9	101.4	127.4	136.5	137.8
82.5°	55.9	72.8	88.4	89.7	88.4
85°	33.8	42.9	48.1	45.5	42.9
87.5°	15.6	16.9	15.6	10.4	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)