

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: P230596

Luminaire Tested: **22CZ-LD5-44-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230596
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-LD5-44-S-UNV-L930-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3746.0 lumens
Efficiency: N/A
Efficacy: 89.6 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

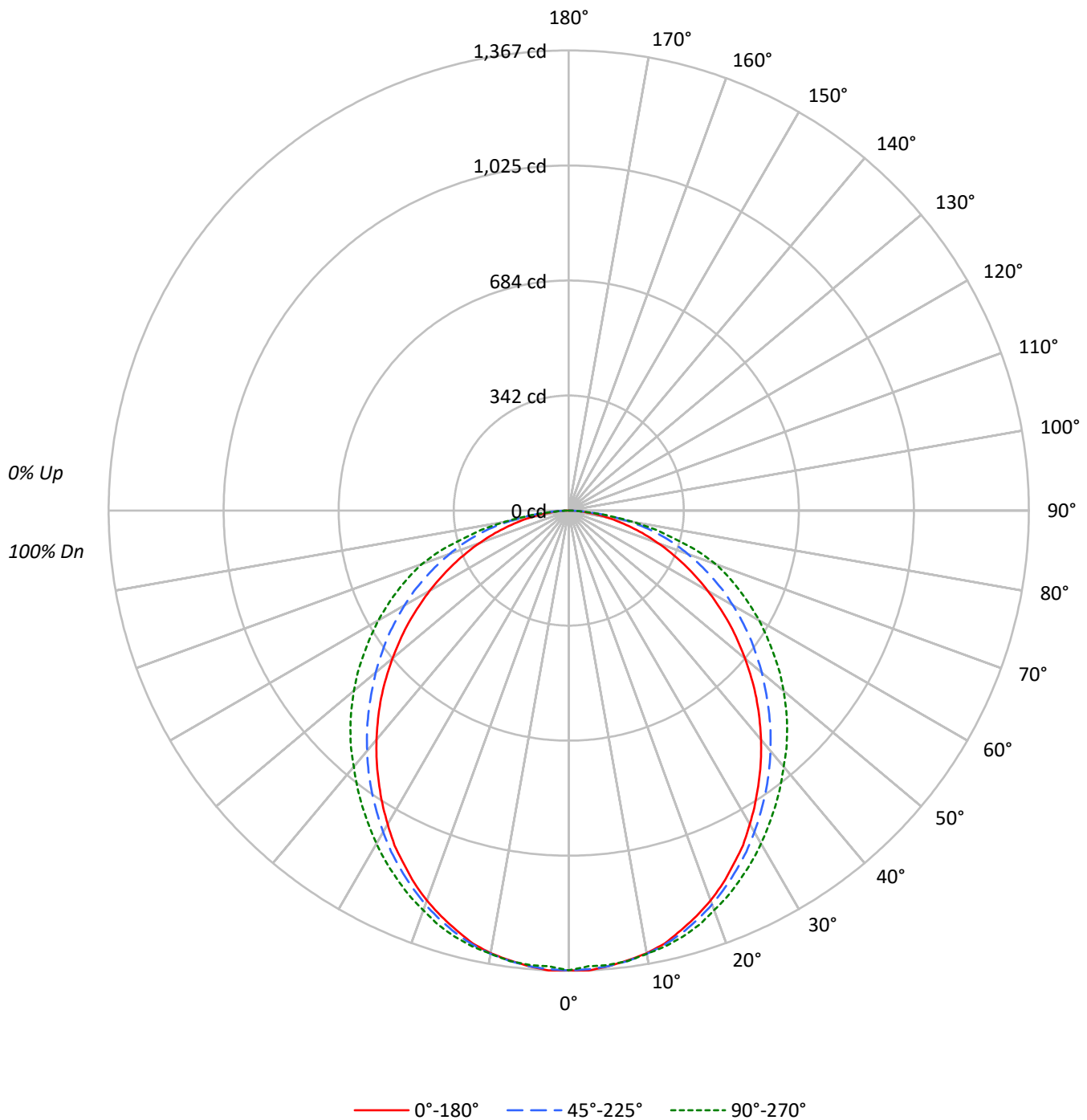
Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P230596

CATALOG NUMBER: 22CZ-LD5-44-S-UNV-L930-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P230596

CATALOG NUMBER: 22CZ-LD5-44-S-UNV-L930-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	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83		
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69		
3	90	79	71	64	87	78	70	64	75	68	63	72	66	62	69	64	60	58		
4	82	70	61	54	80	69	61	54	66	59	53	64	58	53	62	56	52	50		
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43		
6	70	56	47	41	68	56	47	41	54	46	40	52	45	40	50	44	40	38		
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33		
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30		
9	56	43	35	29	55	42	34	29	41	34	29	40	34	29	39	33	29	27		
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3675	3675	3675
5°	3669	3669	3660
10°	3648	3653	3653
15°	3594	3619	3649
20°	3529	3566	3617
25°	3440	3499	3585
30°	3343	3427	3550
35°	3233	3351	3517
40°	3122	3274	3489
45°	2999	3198	3492
50°	2862	3134	3488
55°	2727	3081	3486
60°	2566	3031	3515
65°	2406	2990	3563
70°	2223	2958	3652
75°	2001	2937	3386
80°	1757	2732	2955
85°	1445	2056	1834



TEST NUMBER: P230596

CATALOG NUMBER: 22CZ-LD5-44-S-UNV-L930-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.0	3.4
10°-20°	366.4	9.8
20°-30°	544.1	14.5
30°-40°	640.5	17.1
40°-50°	653.0	17.4
50°-60°	588.9	15.7
60°-70°	463.9	12.4
70°-80°	286.1	7.6
80°-90°	74.3	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°	1039.4	27.7
0°-40°	1679.9	44.8
0°-60°	2921.7	78.0
0°-90°	3746.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3746.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1366	1366	1366	1366	1366	
5°	1358	1360	1358	1357	1355	129
15°	1290	1296	1299	1306	1310	364
25°	1159	1166	1178	1198	1207	534
35°	984	995	1020	1053	1071	616
45°	788	801	840	891	918	607
55°	581	601	657	716	743	519
65°	378	405	470	529	560	374
75°	192	225	282	315	326	205
85°	47	59	67	63	59	55
90°	0	0	0	0	0	



TEST NUMBER: P230596

CATALOG NUMBER: 22CZ-LD5-44-S-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1365.6	1365.6	1365.6	1365.6	1365.6
2.5°	1367.4	1367.4	1363.8	1360.2	1354.8
5°	1358.4	1360.2	1358.4	1356.6	1354.8
7.5°	1347.6	1349.4	1349.4	1349.4	1349.4
10°	1335.1	1336.9	1336.9	1336.9	1336.9
12.5°	1317.1	1318.9	1320.7	1322.5	1326.1
15°	1290.1	1295.5	1299.1	1306.3	1309.9
17.5°	1263.1	1268.5	1273.9	1282.9	1290.1
20°	1232.5	1236.1	1245.1	1255.9	1263.1
22.5°	1198.3	1203.7	1212.7	1227.1	1237.9
25°	1158.7	1165.9	1178.5	1198.3	1207.3
27.5°	1120.9	1126.3	1142.5	1164.1	1176.7
30°	1076.0	1083.2	1102.9	1129.9	1142.5
32.5°	1031.0	1040.0	1061.6	1092.2	1106.5
35°	984.2	995.0	1020.2	1052.6	1070.6
37.5°	937.4	948.2	977.0	1013.0	1032.8
40°	888.8	899.6	932.0	971.6	993.2
42.5°	838.5	851.1	887.0	932.0	957.2
45°	788.1	800.7	840.3	890.6	917.6
47.5°	735.9	750.3	793.5	849.3	876.2
50°	683.7	699.9	748.5	806.1	833.1
52.5°	631.5	649.5	701.7	761.1	789.9
55°	581.2	601.0	656.7	716.1	743.1
57.5°	527.2	550.6	609.9	667.5	698.1
60°	476.8	502.0	563.2	620.7	653.1
62.5°	426.4	453.4	518.2	575.8	606.4
65°	377.8	404.8	469.6	529.0	559.6
67.5°	329.3	359.9	422.8	482.2	512.8
70°	282.5	314.9	376.0	433.6	464.2
72.5°	237.5	269.9	331.1	385.0	403.0
75°	192.5	224.9	282.5	314.9	325.7
77.5°	151.1	181.7	232.1	251.9	266.3
80°	113.4	140.3	176.3	188.9	190.7
82.5°	77.4	100.8	122.3	124.1	122.3
85°	46.8	59.4	66.6	63.0	59.4
87.5°	21.6	23.4	21.6	14.4	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)