

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: P230825

Luminaire Tested: **22CZ-LD5-24SE-SQP-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230825
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25713)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ-LD5-24SE-SQP-UNV-L935-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SQP LENS
Light Source: (56) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1467.0 lumens
Efficiency: N/A
Efficacy: 69.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.31 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

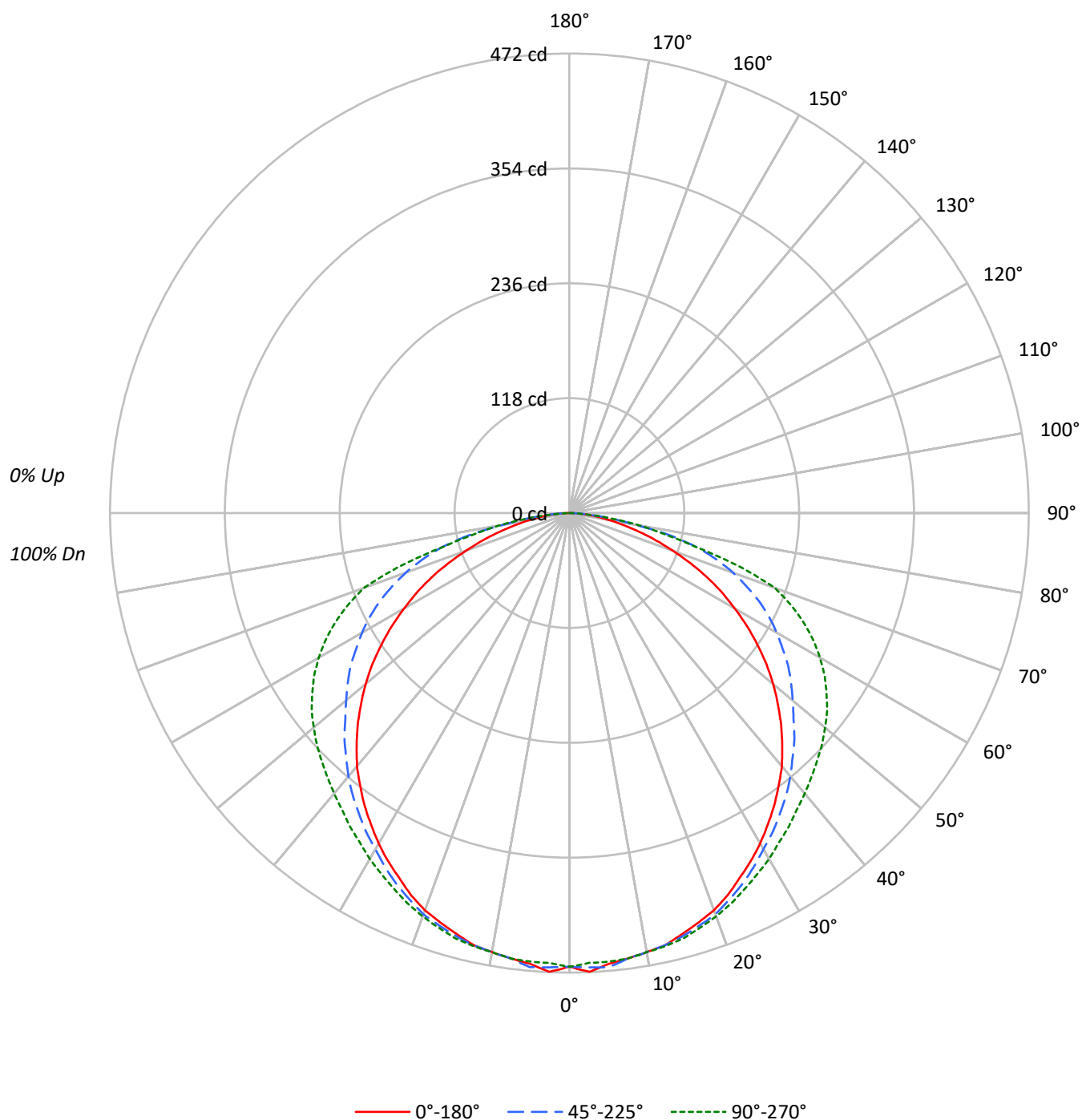
Input Watts (W): 21.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P230825

CATALOG NUMBER: 22CZ-LD5-24SE-SQP-UNV-L935-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P230825

CATALOG NUMBER: 22CZ-LD5-24SE-SQP-UNV-L935-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
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	108	103	99	95	105	101	97	93		97	93	90		93	90	87		89	87	85
2	98	89	82	76	95	87	81	75		84	78	73		80	76	71		77	73	70
3	89	78	69	62	86	76	68	62		73	66	61		70	64	59		68	63	58
4	81	68	59	52	79	67	58	52		64	57	51		62	56	50		60	54	50
5	74	61	52	45	72	60	51	44		58	50	44		56	49	43		54	48	43
6	68	55	45	39	66	54	45	39		52	44	38		50	43	38		48	42	37
7	63	49	40	34	62	49	40	34		47	39	34		45	39	33		44	38	33
8	59	45	36	30	57	44	36	30		43	35	30		42	35	30		40	34	29
9	55	41	33	27	54	41	33	27		39	32	27		38	32	27		37	31	27
10	51	38	30	24	50	37	30	24		36	29	24		35	29	24		35	28	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1254	1254	1254
5°	1256	1265	1249
10°	1251	1251	1251
15°	1247	1254	1260
20°	1243	1256	1263
25°	1228	1248	1265
30°	1218	1239	1274
35°	1205	1239	1291
40°	1193	1241	1321
45°	1171	1244	1370
50°	1145	1254	1436
55°	1106	1288	1513
60°	1055	1324	1600
65°	994	1371	1690
70°	887	1408	1766
75°	770	1410	1397
80°	654	1041	1130
85°	562	704	633



TEST NUMBER: P230825

CATALOG NUMBER: 22CZ-LD5-24SE-SQP-UNV-L935-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.2	3.0
10°-20°	127.1	8.7
20°-30°	193.6	13.2
30°-40°	236.9	16.1
40°-50°	254.9	17.4
50°-60°	246.9	16.8
60°-70°	209.2	14.3
70°-80°	126.4	8.6
80°-90°	27.8	1.9
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°	364.9	24.9
0°-40°	601.8	41.0
0°-60°	1103.6	75.2
0°-90°	1467.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1467.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	466	466	466	466	466	
5°	465	465	468	466	462	44
15°	448	449	450	451	452	126
25°	414	416	420	424	426	191
35°	367	369	377	387	393	229
45°	308	313	327	348	360	237
55°	236	246	275	306	322	211
65°	156	173	215	250	265	154
75°	74	100	136	138	134	80
85°	18	22	23	22	20	21
90°	0	0	0	0	0	



TEST NUMBER: P230825

CATALOG NUMBER: 22CZ-LD5-24SE-SQP-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	466.0	466.0	466.0	466.0	466.0
2.5°	471.7	470.5	467.1	464.8	462.5
5°	464.8	464.8	468.2	466.0	462.5
7.5°	461.4	461.4	461.4	467.1	461.4
10°	458.0	459.1	458.0	462.5	458.0
12.5°	454.6	454.6	454.6	455.7	455.7
15°	447.7	448.9	450.0	451.1	452.3
17.5°	440.9	442.0	444.3	445.5	446.6
20°	434.1	435.2	438.6	438.6	440.9
22.5°	424.9	424.9	429.5	430.6	434.1
25°	413.6	415.8	420.4	423.8	426.1
27.5°	403.3	405.6	410.1	414.7	418.1
30°	391.9	394.2	398.7	405.6	410.1
32.5°	379.4	381.7	388.5	396.5	401.0
35°	366.8	369.1	377.1	387.3	393.0
37.5°	353.2	356.6	365.7	377.1	383.9
40°	339.5	342.9	353.2	365.7	376.0
42.5°	323.6	328.1	339.5	356.6	368.0
45°	307.6	313.3	327.0	347.5	360.0
47.5°	290.5	296.2	312.2	338.4	352.0
50°	273.4	280.3	299.6	328.1	342.9
52.5°	255.2	262.0	287.1	317.9	333.8
55°	235.8	246.1	274.6	306.5	322.4
57.5°	216.5	227.9	259.8	293.9	311.0
60°	196.0	209.6	246.1	280.3	297.3
62.5°	176.6	191.4	231.3	265.4	282.5
65°	156.1	173.2	215.3	249.5	265.4
67.5°	134.4	156.1	197.1	230.1	246.1
70°	112.8	137.9	178.9	209.6	224.4
72.5°	93.4	119.6	158.4	184.6	184.6
75°	74.1	100.3	135.6	137.9	134.4
77.5°	57.0	82.0	106.0	96.8	99.1
80°	42.2	62.7	67.2	70.6	72.9
82.5°	28.5	42.2	43.3	45.6	45.6
85°	18.2	21.6	22.8	21.6	20.5
87.5°	8.0	9.1	6.8	4.6	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)