

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: P230393

Luminaire Tested: **24CZ-LD5-35-SQP-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230393
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25695)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-35-SQP-UNV-L935-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SQP LENS
Light Source: (168) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2077.9 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.42
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

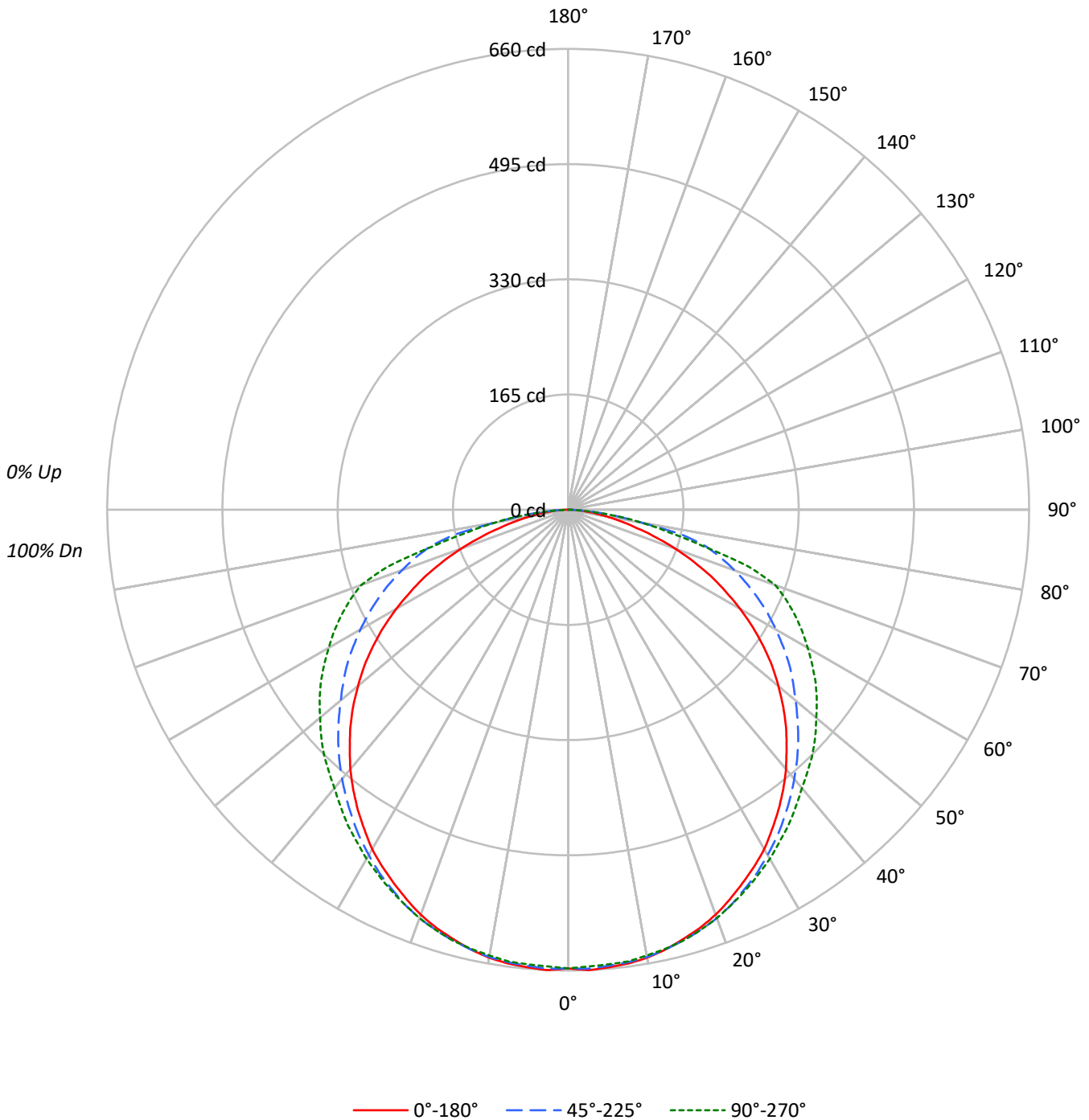
Input Watts (W): 25.32
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P230393

CATALOG NUMBER: 24CZ-LD5-35-SQP-UNV-L935-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P230393

CATALOG NUMBER: 24CZ-LD5-35-SQP-UNV-L935-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	98	94	105	101	97	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	60		70	64	59		67	63	58	56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		60	54	50	47
5	74	61	51	45	72	60	51	44	57	50	44		55	49	43		54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34		45	39	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		42	35	30		40	34	29	28
9	55	41	33	27	54	41	33	27	39	32	27		38	32	27		37	31	27	25
10	51	38	30	24	50	37	30	24	36	29	24		35	29	24		35	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	884	884	884
5°	889	886	883
10°	890	889	886
15°	887	890	890
20°	884	891	891
25°	876	889	892
30°	872	887	897
35°	862	885	904
40°	852	884	914
45°	839	886	942
50°	822	890	971
55°	801	906	1015
60°	765	924	1066
65°	718	954	1141
70°	642	996	1242
75°	530	1066	1027
80°	432	824	831
85°	347	546	514



TEST NUMBER: P230393

CATALOG NUMBER: 24CZ-LD5-35-SQP-UNV-L935-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.4	3.0
10°-20°	180.0	8.7
20°-30°	275.1	13.2
30°-40°	336.5	16.2
40°-50°	360.0	17.3
50°-60°	344.8	16.6
60°-70°	291.7	14.0
70°-80°	184.9	8.9
80°-90°	42.5	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°	517.5	24.9
0°-40°	854.0	41.1
0°-60°	1558.8	75.0
0°-90°	2077.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2077.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	657	657	657	657	657	
5°	658	655	656	655	654	63
15°	636	635	639	639	639	180
25°	590	590	599	601	601	272
35°	525	528	539	546	551	328
45°	441	449	466	485	495	340
55°	341	352	386	419	432	304
65°	225	247	300	340	358	222
75°	102	144	205	204	198	111
85°	22	34	35	32	33	27
90°	0	0	0	0	0	



TEST NUMBER: P230393

CATALOG NUMBER: 24CZ-LD5-35-SQP-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	656.9	656.9	656.9	656.9	656.9
2.5°	660.1	656.9	657.9	656.9	654.7
5°	657.9	654.7	655.8	654.7	653.7
7.5°	655.8	652.6	653.7	652.6	652.6
10°	651.5	648.3	650.4	649.4	648.3
12.5°	645.1	642.9	645.1	644.0	644.0
15°	636.5	635.4	638.6	638.6	638.6
17.5°	627.9	626.8	631.1	631.1	631.1
20°	617.2	616.1	622.5	622.5	622.5
22.5°	604.3	603.2	611.8	611.8	611.8
25°	590.3	590.3	598.9	601.1	601.1
27.5°	576.4	576.4	586.0	589.3	589.3
30°	561.3	561.3	571.0	575.3	577.4
32.5°	543.1	545.2	556.0	561.3	563.5
35°	524.9	528.1	538.8	546.3	550.6
37.5°	505.5	508.8	521.6	530.2	535.6
40°	485.1	489.4	503.4	514.1	520.6
42.5°	462.6	469.0	485.1	499.1	507.7
45°	441.1	448.6	465.8	485.1	494.8
47.5°	417.5	426.1	445.4	470.1	479.8
50°	392.8	401.4	425.0	452.9	463.7
52.5°	368.1	377.8	405.7	435.8	448.6
55°	341.3	352.0	386.4	418.6	432.5
57.5°	313.4	326.3	364.9	399.3	414.3
60°	284.4	300.5	343.5	380.0	396.1
62.5°	254.4	273.7	322.0	360.6	377.8
65°	225.4	246.9	299.5	340.2	358.5
67.5°	194.3	221.1	276.9	320.9	338.1
70°	163.1	194.3	253.3	298.4	315.6
72.5°	132.0	169.6	229.7	270.5	270.5
75°	102.0	143.8	205.0	203.9	197.5
77.5°	77.3	120.2	168.5	143.8	144.9
80°	55.8	96.6	106.3	106.3	107.3
82.5°	37.6	74.1	68.7	67.6	69.8
85°	22.5	34.3	35.4	32.2	33.3
87.5°	10.7	11.8	9.7	6.4	6.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)