

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: P230400

Luminaire Tested: **24CZ-LD5-45-SQP-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230400
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-LD5-45-SQP-UNV-L930-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SQP LENS
Light Source: (168) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2557.3 lumens
Efficiency: N/A
Efficacy: 71.7 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

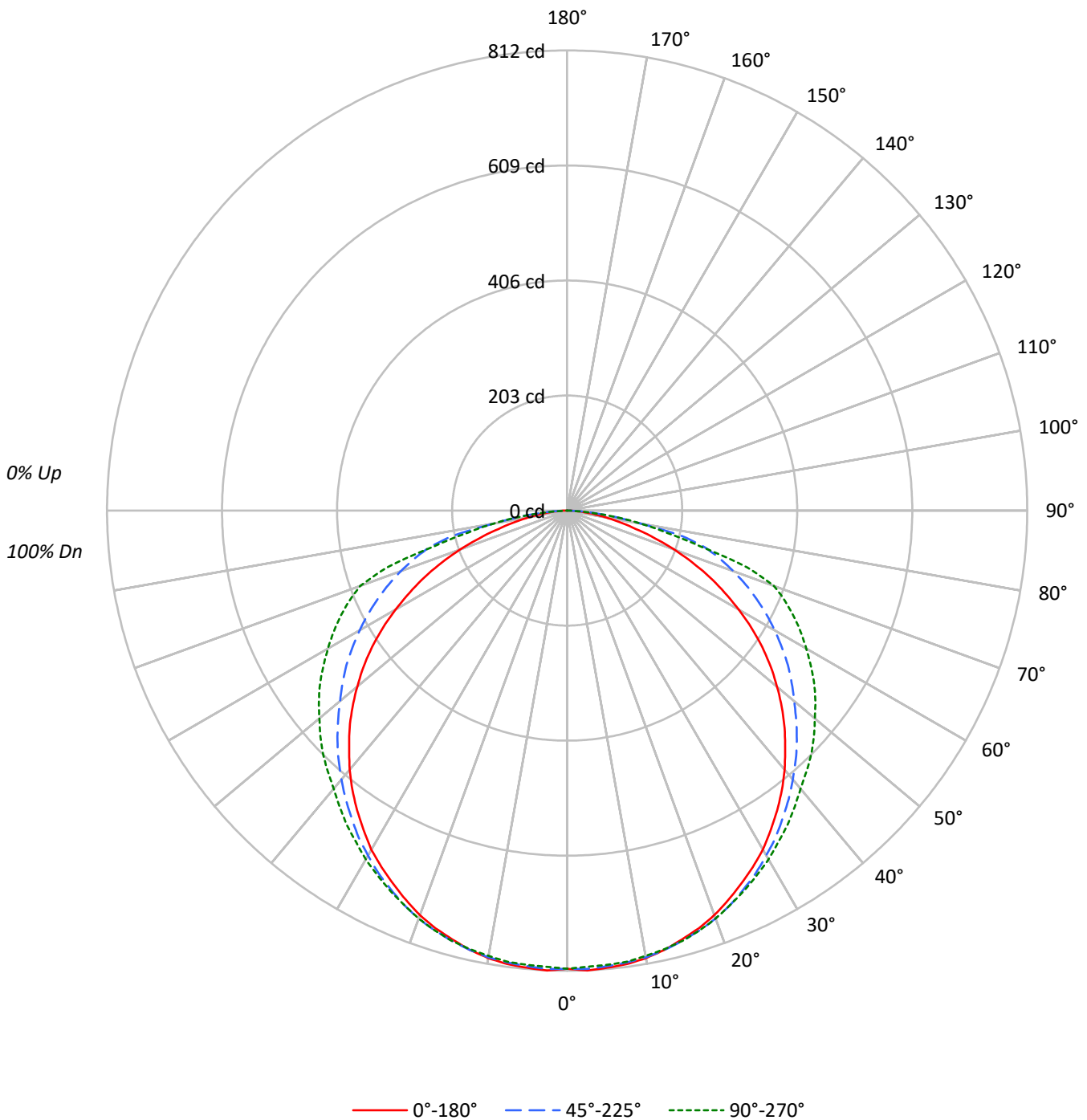
Input Watts (W): 35.69
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	1088	1088	1088
5°	1094	1090	1087
10°	1095	1094	1090
15°	1091	1095	1095
20°	1087	1097	1097
25°	1079	1094	1098
30°	1073	1092	1104
35°	1061	1089	1113
40°	1049	1088	1125
45°	1033	1091	1159
50°	1012	1095	1195
55°	985	1115	1249
60°	942	1137	1312
65°	883	1173	1405
70°	790	1226	1528
75°	652	1312	1264
80°	532	1013	1024
85°	428	673	631



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.8	3.0
10°-20°	221.6	8.7
20°-30°	338.6	13.2
30°-40°	414.1	16.2
40°-50°	443.1	17.3
50°-60°	424.3	16.6
60°-70°	358.9	14.0
70°-80°	227.5	8.9
80°-90°	52.3	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
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0°-30°	636.9	24.9
0°-40°	1051.1	41.1
0°-60°	1918.5	75.0
0°-90°	2557.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2557.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	808	808	808	808	808	
5°	810	806	807	806	804	77
15°	783	782	786	786	786	221
25°	726	726	737	740	740	335
35°	646	650	663	672	678	404
45°	543	552	573	597	609	418
55°	420	433	476	515	532	375
65°	277	304	368	419	441	273
75°	126	177	252	251	243	136
85°	28	42	44	40	41	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	808.4	808.4	808.4	808.4	808.4
2.5°	812.4	808.4	809.7	808.4	805.8
5°	809.7	805.8	807.1	805.8	804.5
7.5°	807.1	803.1	804.5	803.1	803.1
10°	801.8	797.9	800.5	799.2	797.9
12.5°	793.9	791.3	793.9	792.6	792.6
15°	783.3	782.0	786.0	786.0	786.0
17.5°	772.8	771.4	776.7	776.7	776.7
20°	759.5	758.2	766.2	766.2	766.2
22.5°	743.7	742.4	752.9	752.9	752.9
25°	726.5	726.5	737.1	739.7	739.7
27.5°	709.4	709.4	721.2	725.2	725.2
30°	690.9	690.9	702.7	708.0	710.7
32.5°	668.4	671.0	684.3	690.9	693.5
35°	645.9	649.9	663.1	672.4	677.6
37.5°	622.2	626.1	642.0	652.6	659.2
40°	597.1	602.4	619.5	632.7	640.7
42.5°	569.3	577.3	597.1	614.2	624.8
45°	542.9	552.2	573.3	597.1	609.0
47.5°	513.9	524.4	548.2	578.6	590.5
50°	483.5	494.0	523.1	557.4	570.7
52.5°	453.1	465.0	499.3	536.3	552.2
55°	420.1	433.3	475.5	515.2	532.3
57.5°	385.7	401.6	449.1	491.4	509.9
60°	350.1	369.9	422.7	467.6	487.4
62.5°	313.1	336.8	396.3	443.8	465.0
65°	277.4	303.8	368.5	418.7	441.2
67.5°	239.1	272.1	340.8	395.0	416.1
70°	200.8	239.1	311.7	367.2	388.4
72.5°	162.5	208.7	282.7	332.9	332.9
75°	125.5	177.0	252.3	251.0	243.1
77.5°	95.1	147.9	207.4	177.0	178.3
80°	68.7	118.9	130.8	130.8	132.1
82.5°	46.2	91.1	84.5	83.2	85.9
85°	27.7	42.3	43.6	39.6	40.9
87.5°	13.2	14.5	11.9	7.9	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)