

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: P230593

Luminaire Tested: **22CZ-LD5-39-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230593
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-LD5-39-S-UNV-L935-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3453.0 lumens
Efficiency: N/A
Efficacy: 94.9 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

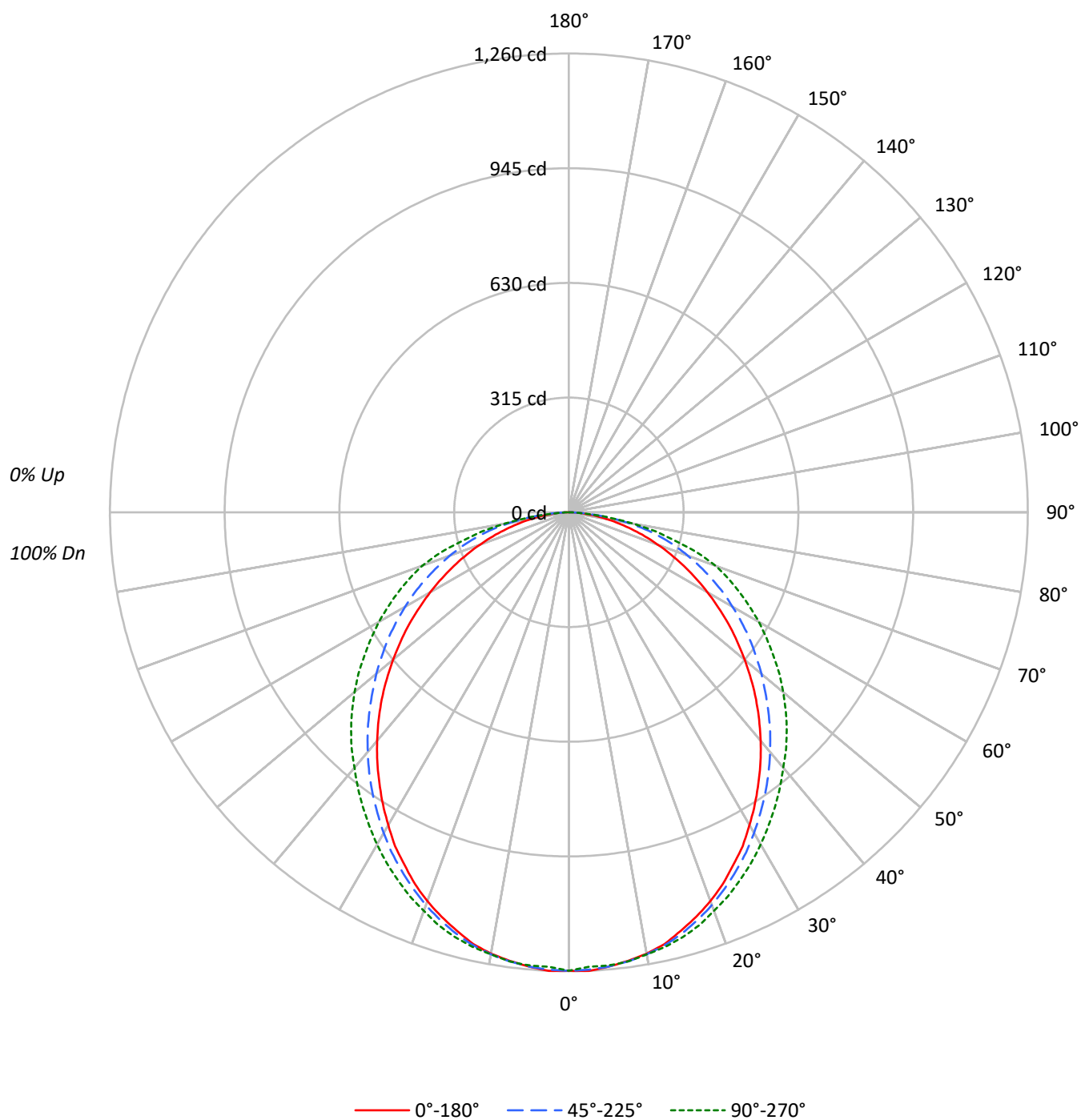
Input Watts (W): 36.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					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°	3387	3387	3387
5°	3383	3383	3374
10°	3363	3367	3367
15°	3313	3336	3364
20°	3253	3287	3334
25°	3171	3225	3304
30°	3082	3159	3273
35°	2980	3089	3242
40°	2878	3018	3216
45°	2764	2947	3219
50°	2638	2888	3215
55°	2513	2840	3214
60°	2365	2794	3240
65°	2218	2756	3284
70°	2049	2727	3367
75°	1845	2707	3121
80°	1619	2518	2724
85°	1331	1896	1689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.9	3.4
10°-20°	337.7	9.8
20°-30°	501.6	14.5
30°-40°	590.4	17.1
40°-50°	601.9	17.4
50°-60°	542.8	15.7
60°-70°	427.6	12.4
70°-80°	263.7	7.6
80°-90°	68.5	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°	958.1	27.7
0°-40°	1548.5	44.8
0°-60°	2693.2	78.0
0°-90°	3453.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3453.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1259	1259	1259	1259	1259	
5°	1252	1254	1252	1250	1249	119
15°	1189	1194	1198	1204	1207	335
25°	1068	1075	1086	1105	1113	492
35°	907	917	940	970	987	568
45°	726	738	774	821	846	560
55°	536	554	605	660	685	478
65°	348	373	433	488	516	345
75°	178	207	260	290	300	189
85°	43	55	61	58	55	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1258.8	1258.8	1258.8	1258.8	1258.8
2.5°	1260.5	1260.5	1257.2	1253.8	1248.9
5°	1252.2	1253.8	1252.2	1250.5	1248.9
7.5°	1242.2	1243.9	1243.9	1243.9	1243.9
10°	1230.6	1232.3	1232.3	1232.3	1232.3
12.5°	1214.0	1215.7	1217.4	1219.0	1222.3
15°	1189.2	1194.1	1197.5	1204.1	1207.4
17.5°	1164.3	1169.3	1174.2	1182.5	1189.2
20°	1136.1	1139.4	1147.7	1157.7	1164.3
22.5°	1104.6	1109.6	1117.8	1131.1	1141.1
25°	1068.1	1074.7	1086.3	1104.6	1112.9
27.5°	1033.3	1038.2	1053.2	1073.1	1084.7
30°	991.8	998.4	1016.7	1041.6	1053.2
32.5°	950.3	958.6	978.5	1006.7	1020.0
35°	907.2	917.2	940.4	970.2	986.8
37.5°	864.1	874.0	900.6	933.8	952.0
40°	819.3	829.3	859.1	895.6	915.5
42.5°	772.9	784.5	817.7	859.1	882.3
45°	726.4	738.0	774.5	821.0	845.8
47.5°	678.3	691.6	731.4	782.8	807.7
50°	630.2	645.2	689.9	743.0	767.9
52.5°	582.1	598.7	646.8	701.6	728.1
55°	535.7	553.9	605.4	660.1	685.0
57.5°	485.9	507.5	562.2	615.3	643.5
60°	439.5	462.7	519.1	572.2	602.0
62.5°	393.1	417.9	477.7	530.7	558.9
65°	348.3	373.2	432.9	487.6	515.8
67.5°	303.5	331.7	389.8	444.5	472.7
70°	260.4	290.2	346.6	399.7	427.9
72.5°	218.9	248.8	305.2	354.9	371.5
75°	177.5	207.3	260.4	290.2	300.2
77.5°	139.3	167.5	214.0	232.2	245.5
80°	104.5	129.4	162.5	174.1	175.8
82.5°	71.3	92.9	112.8	114.4	112.8
85°	43.1	54.7	61.4	58.0	54.7
87.5°	19.9	21.6	19.9	13.3	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)