

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: P230594

Luminaire Tested: **22CZ-LD5-39-S-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230594
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-L940-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3539.0 lumens
Efficiency: N/A
Efficacy: 97.2 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

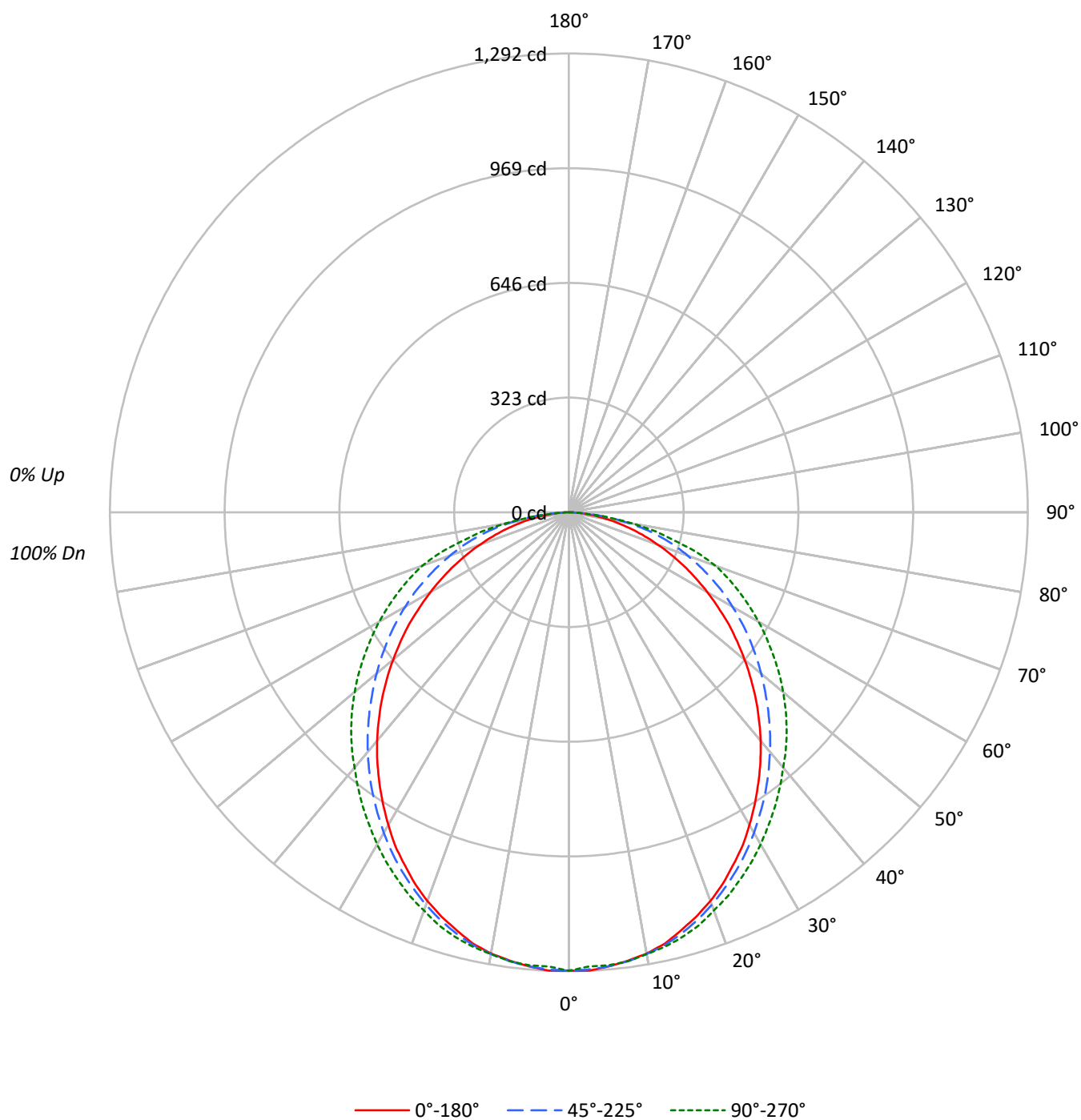
Input Watts (W): 36.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3472	3472	3472
5°	3467	3467	3458
10°	3446	3451	3451
15°	3395	3419	3448
20°	3334	3369	3417
25°	3250	3306	3387
30°	3159	3238	3354
35°	3054	3166	3323
40°	2950	3093	3296
45°	2833	3021	3299
50°	2704	2960	3295
55°	2576	2911	3293
60°	2425	2863	3321
65°	2273	2825	3366
70°	2100	2795	3451
75°	1891	2775	3199
80°	1660	2582	2793
85°	1365	1942	1732



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.8	3.4
10°-20°	346.1	9.8
20°-30°	514.1	14.5
30°-40°	605.1	17.1
40°-50°	616.9	17.4
50°-60°	556.3	15.7
60°-70°	438.3	12.4
70°-80°	270.3	7.6
80°-90°	70.2	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°	982.0	27.7
0°-40°	1587.1	44.8
0°-60°	2760.2	78.0
0°-90°	3539.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3539.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1290	1290	1290	1290	1290	
5°	1283	1285	1283	1282	1280	122
15°	1219	1224	1227	1234	1238	344
25°	1095	1102	1113	1132	1141	504
35°	930	940	964	994	1011	582
45°	744	756	794	841	867	574
55°	549	568	620	676	702	490
65°	357	382	444	500	529	354
75°	182	212	267	298	308	194
85°	44	56	63	60	56	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1290.2	1290.2	1290.2	1290.2	1290.2
2.5°	1291.9	1291.9	1288.5	1285.1	1280.0
5°	1283.4	1285.1	1283.4	1281.7	1280.0
7.5°	1273.2	1274.9	1274.9	1274.9	1274.9
10°	1261.3	1263.0	1263.0	1263.0	1263.0
12.5°	1244.3	1246.0	1247.7	1249.4	1252.8
15°	1218.8	1223.9	1227.3	1234.1	1237.5
17.5°	1193.3	1198.4	1203.5	1212.0	1218.8
20°	1164.4	1167.8	1176.3	1186.5	1193.3
22.5°	1132.1	1137.2	1145.7	1159.3	1169.5
25°	1094.7	1101.5	1113.4	1132.1	1140.6
27.5°	1059.0	1064.1	1079.4	1099.8	1111.7
30°	1016.5	1023.3	1042.0	1067.5	1079.4
32.5°	974.0	982.5	1002.9	1031.8	1045.4
35°	929.8	940.0	963.8	994.4	1011.4
37.5°	885.6	895.8	923.0	957.0	975.7
40°	839.7	849.9	880.5	917.9	938.3
42.5°	792.1	804.0	838.0	880.5	904.3
45°	744.5	756.4	793.8	841.4	866.9
47.5°	695.2	708.8	749.6	802.3	827.8
50°	645.9	661.2	707.1	761.5	787.0
52.5°	596.6	613.6	662.9	719.0	746.2
55°	549.0	567.7	620.4	676.5	702.0
57.5°	498.1	520.1	576.2	630.6	659.5
60°	450.5	474.3	532.0	586.4	617.0
62.5°	402.9	428.4	489.6	543.9	572.8
65°	357.0	382.5	443.7	499.8	528.6
67.5°	311.1	340.0	399.5	455.6	484.5
70°	266.9	297.5	355.3	409.7	438.6
72.5°	224.4	255.0	312.8	363.8	380.8
75°	181.9	212.5	266.9	297.5	307.7
77.5°	142.8	171.7	219.3	238.0	251.6
80°	107.1	132.6	166.6	178.5	180.2
82.5°	73.1	95.2	115.6	117.3	115.6
85°	44.2	56.1	62.9	59.5	56.1
87.5°	20.4	22.1	20.4	13.6	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)