

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: P230592

Luminaire Tested: **22CZ-LD5-39-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230592
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-L930-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3322.0 lumens
Efficiency: N/A
Efficacy: 91.3 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

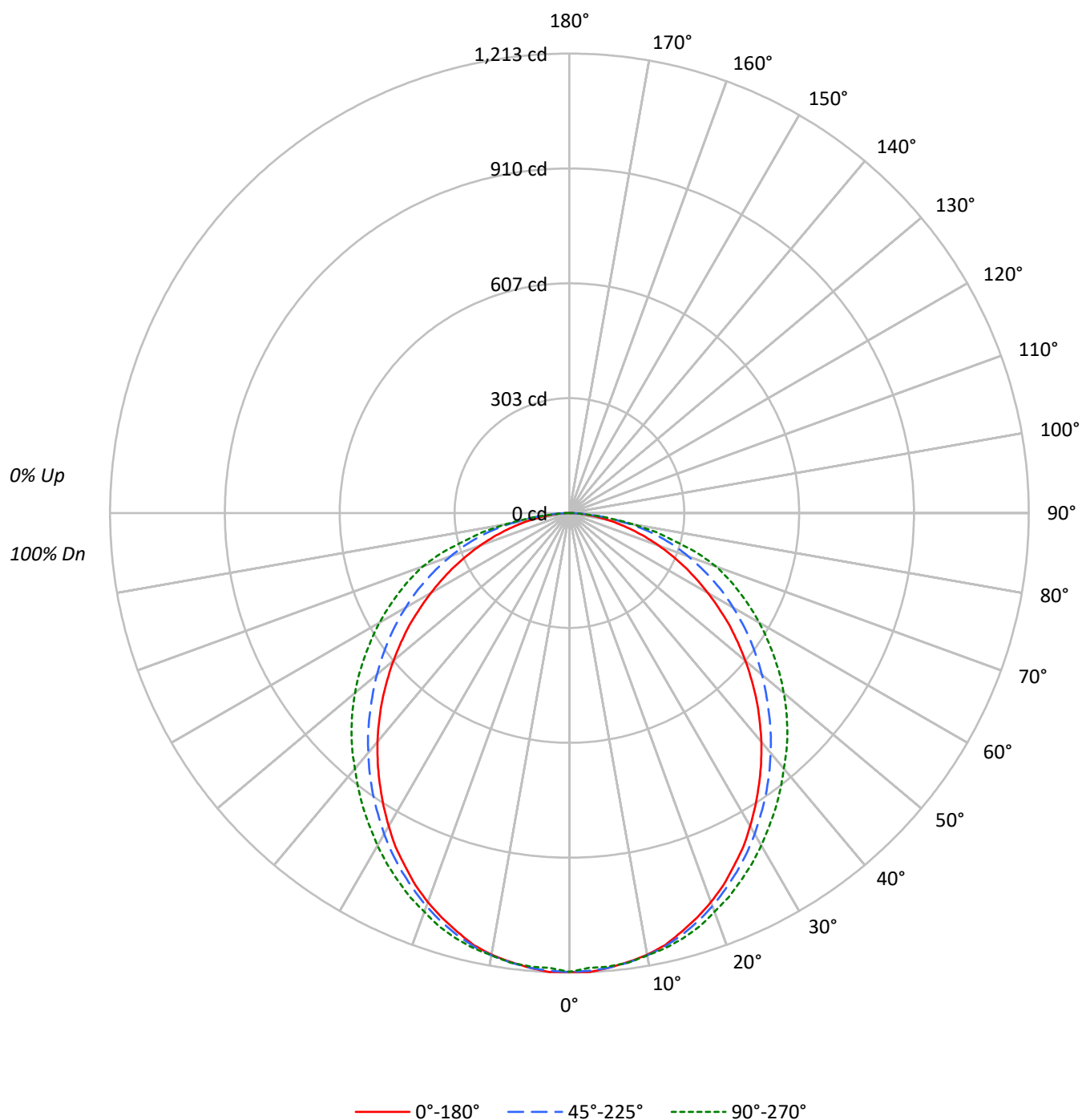
Input Watts (W): 36.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					10
RW	70	50	30	10	70	50	30	10	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	100		
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83		
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69		
3	90	79	71	64	87	78	70	64	75	68	63	72	66	62	69	64	60	58		
4	82	70	61	54	80	69	61	54	66	59	53	64	58	53	62	56	52	50		
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43		
6	70	56	47	41	68	56	47	41	54	46	40	52	45	40	50	44	40	38		
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33		
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30		
9	56	43	35	29	55	42	34	29	41	34	29	40	34	29	39	33	29	27		
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3259	3259	3259
5°	3254	3254	3246
10°	3235	3239	3239
15°	3187	3209	3236
20°	3130	3162	3208
25°	3051	3103	3179
30°	2965	3039	3148
35°	2867	2972	3119
40°	2769	2903	3094
45°	2660	2836	3097
50°	2538	2779	3093
55°	2418	2732	3092
60°	2275	2688	3117
65°	2134	2652	3160
70°	1971	2624	3239
75°	1775	2604	3003
80°	1557	2424	2620
85°	1281	1822	1627



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.4	3.4
10°-20°	324.9	9.8
20°-30°	482.5	14.5
30°-40°	568.0	17.1
40°-50°	579.0	17.4
50°-60°	522.2	15.7
60°-70°	411.4	12.4
70°-80°	253.7	7.6
80°-90°	65.9	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°	921.8	27.7
0°-40°	1489.8	44.8
0°-60°	2591.0	78.0
0°-90°	3322.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3322.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1211	1211	1211	1211	1211	
5°	1205	1206	1205	1203	1202	114
15°	1144	1149	1152	1158	1162	323
25°	1028	1034	1045	1063	1071	473
35°	873	882	905	933	949	546
45°	699	710	745	790	814	539
55°	515	533	582	635	659	460
65°	335	359	416	469	496	332
75°	171	200	250	279	289	182
85°	42	53	59	56	53	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1211.1	1211.1	1211.1	1211.1	1211.1
2.5°	1212.7	1212.7	1209.5	1206.3	1201.5
5°	1204.7	1206.3	1204.7	1203.1	1201.5
7.5°	1195.1	1196.7	1196.7	1196.7	1196.7
10°	1183.9	1185.5	1185.5	1185.5	1185.5
12.5°	1168.0	1169.6	1171.2	1172.8	1176.0
15°	1144.1	1148.8	1152.0	1158.4	1161.6
17.5°	1120.1	1124.9	1129.7	1137.7	1144.1
20°	1093.0	1096.2	1104.2	1113.7	1120.1
22.5°	1062.7	1067.5	1075.4	1088.2	1097.8
25°	1027.6	1034.0	1045.1	1062.7	1070.7
27.5°	994.1	998.8	1013.2	1032.4	1043.5
30°	954.2	960.6	978.1	1002.0	1013.2
32.5°	914.3	922.3	941.4	968.5	981.3
35°	872.8	882.4	904.7	933.4	949.4
37.5°	831.3	840.9	866.4	898.3	915.9
40°	788.2	797.8	826.5	861.6	880.8
42.5°	743.6	754.7	786.6	826.5	848.9
45°	698.9	710.0	745.1	789.8	813.8
47.5°	652.6	665.4	703.7	753.1	777.1
50°	606.3	620.7	663.8	714.8	738.8
52.5°	560.1	576.0	622.3	674.9	700.5
55°	515.4	532.9	582.4	635.1	659.0
57.5°	467.5	488.3	540.9	592.0	619.1
60°	422.8	445.2	499.4	550.5	579.2
62.5°	378.2	402.1	459.5	510.6	537.7
65°	335.1	359.0	416.5	469.1	496.2
67.5°	292.0	319.1	375.0	427.6	454.7
70°	250.5	279.2	333.5	384.5	411.7
72.5°	210.6	239.3	293.6	341.5	357.4
75°	170.7	199.5	250.5	279.2	288.8
77.5°	134.0	161.2	205.8	223.4	236.1
80°	100.5	124.5	156.4	167.5	169.1
82.5°	68.6	89.4	108.5	110.1	108.5
85°	41.5	52.7	59.0	55.8	52.7
87.5°	19.1	20.7	19.1	12.8	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)