

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: P230612

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230612
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-LD5-39SE-S-UNV-L930-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SMOOTH LENS
Light Source: (56) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3346.0 lumens
Efficiency: N/A
Efficacy: 95.9 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

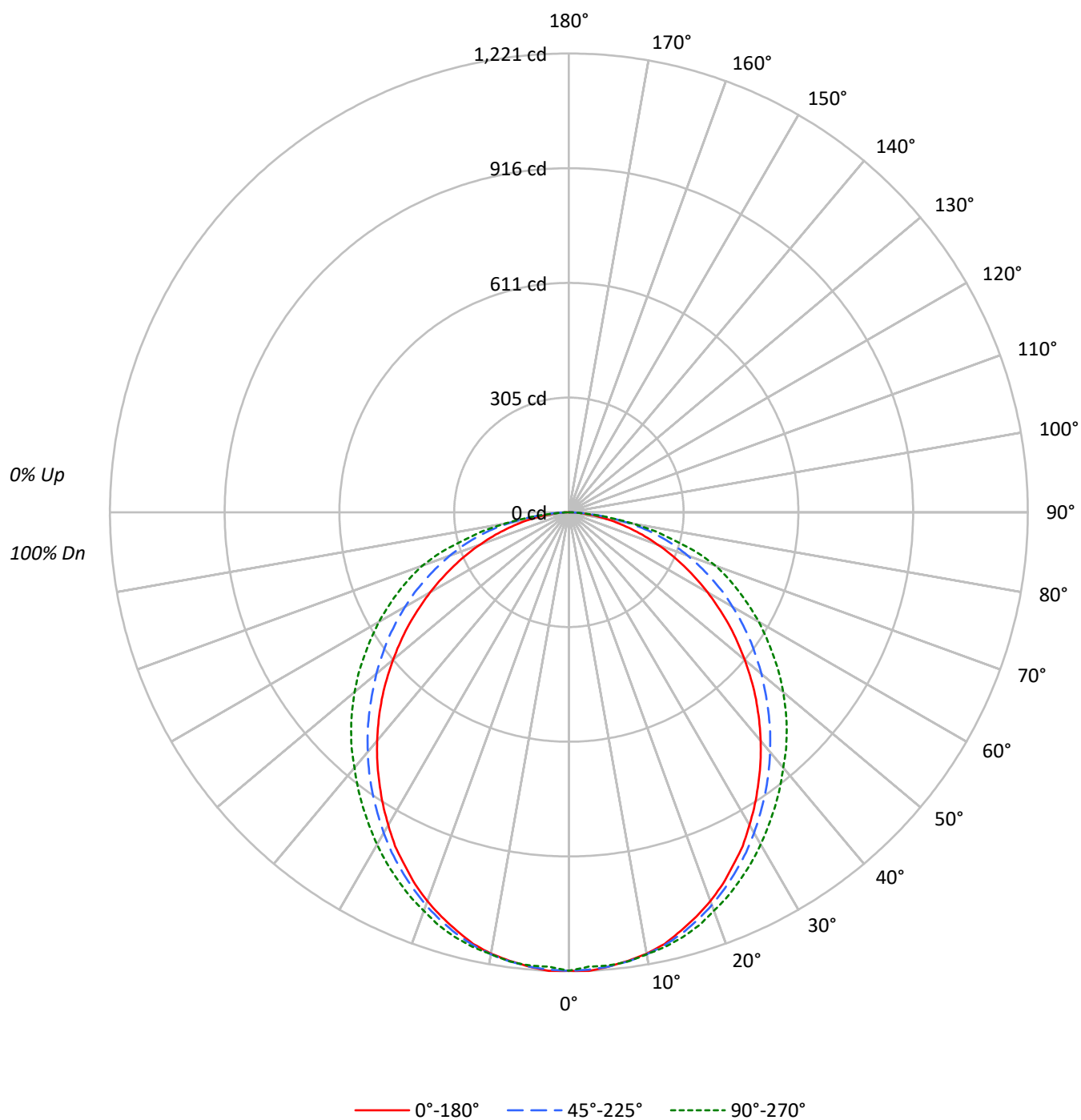
Input Watts (W): 34.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3282	3282	3282
5°	3278	3278	3269
10°	3258	3263	3263
15°	3210	3233	3260
20°	3153	3185	3231
25°	3073	3126	3202
30°	2986	3061	3171
35°	2888	2993	3141
40°	2789	2924	3116
45°	2679	2856	3119
50°	2557	2799	3115
55°	2435	2752	3114
60°	2292	2707	3140
65°	2149	2671	3182
70°	1985	2643	3262
75°	1788	2623	3025
80°	1568	2441	2641
85°	1291	1837	1636



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.2	3.4
10°-20°	327.2	9.8
20°-30°	486.0	14.5
30°-40°	572.1	17.1
40°-50°	583.2	17.4
50°-60°	526.0	15.7
60°-70°	414.3	12.4
70°-80°	255.6	7.6
80°-90°	66.3	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
0°-30°	928.4	27.7
0°-40°	1500.5	44.8
0°-60°	2609.8	78.0
0°-90°	3346.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3346.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1220	1220	1220	1220	1220	
5°	1213	1215	1213	1212	1210	115
15°	1152	1157	1160	1167	1170	325
25°	1035	1041	1053	1070	1078	477
35°	879	889	911	940	956	550
45°	704	715	750	796	820	543
55°	519	537	587	640	664	463
65°	338	362	420	472	500	334
75°	172	201	252	281	291	183
85°	42	53	60	56	53	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1219.8	1219.8	1219.8	1219.8	1219.8
2.5°	1221.4	1221.4	1218.2	1215.0	1210.2
5°	1213.4	1215.0	1213.4	1211.8	1210.2
7.5°	1203.7	1205.4	1205.4	1205.4	1205.4
10°	1192.5	1194.1	1194.1	1194.1	1194.1
12.5°	1176.4	1178.0	1179.6	1181.2	1184.5
15°	1152.3	1157.1	1160.4	1166.8	1170.0
17.5°	1128.2	1133.0	1137.9	1145.9	1152.3
20°	1100.9	1104.1	1112.1	1121.8	1128.2
22.5°	1070.4	1075.2	1083.2	1096.1	1105.7
25°	1035.0	1041.4	1052.7	1070.4	1078.4
27.5°	1001.2	1006.1	1020.5	1039.8	1051.1
30°	961.1	967.5	985.2	1009.3	1020.5
32.5°	920.9	928.9	948.2	975.5	988.4
35°	879.1	888.7	911.2	940.2	956.2
37.5°	837.3	847.0	872.7	904.8	922.5
40°	793.9	803.6	832.5	867.9	887.1
42.5°	748.9	760.2	792.3	832.5	855.0
45°	703.9	715.2	750.5	795.5	819.6
47.5°	657.3	670.2	708.7	758.6	782.7
50°	610.7	625.2	668.6	720.0	744.1
52.5°	564.1	580.2	626.8	679.8	705.5
55°	519.1	536.8	586.6	639.6	663.7
57.5°	470.9	491.8	544.8	596.2	623.6
60°	425.9	448.4	503.0	554.5	583.4
62.5°	380.9	405.0	462.9	514.3	541.6
65°	337.5	361.6	419.5	472.5	499.8
67.5°	294.1	321.4	377.7	430.7	458.0
70°	252.3	281.2	335.9	387.3	414.6
72.5°	212.1	241.1	295.7	343.9	360.0
75°	172.0	200.9	252.3	281.2	290.9
77.5°	135.0	162.3	207.3	225.0	237.9
80°	101.2	125.4	157.5	168.7	170.4
82.5°	69.1	90.0	109.3	110.9	109.3
85°	41.8	53.0	59.5	56.2	53.0
87.5°	19.3	20.9	19.3	12.9	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)