

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: P230589

Luminaire Tested: **22CZ-LD5-34-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230589
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-LD5-34-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: 3071.0 lumens
Efficiency: N/A
Efficacy: 104.5 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

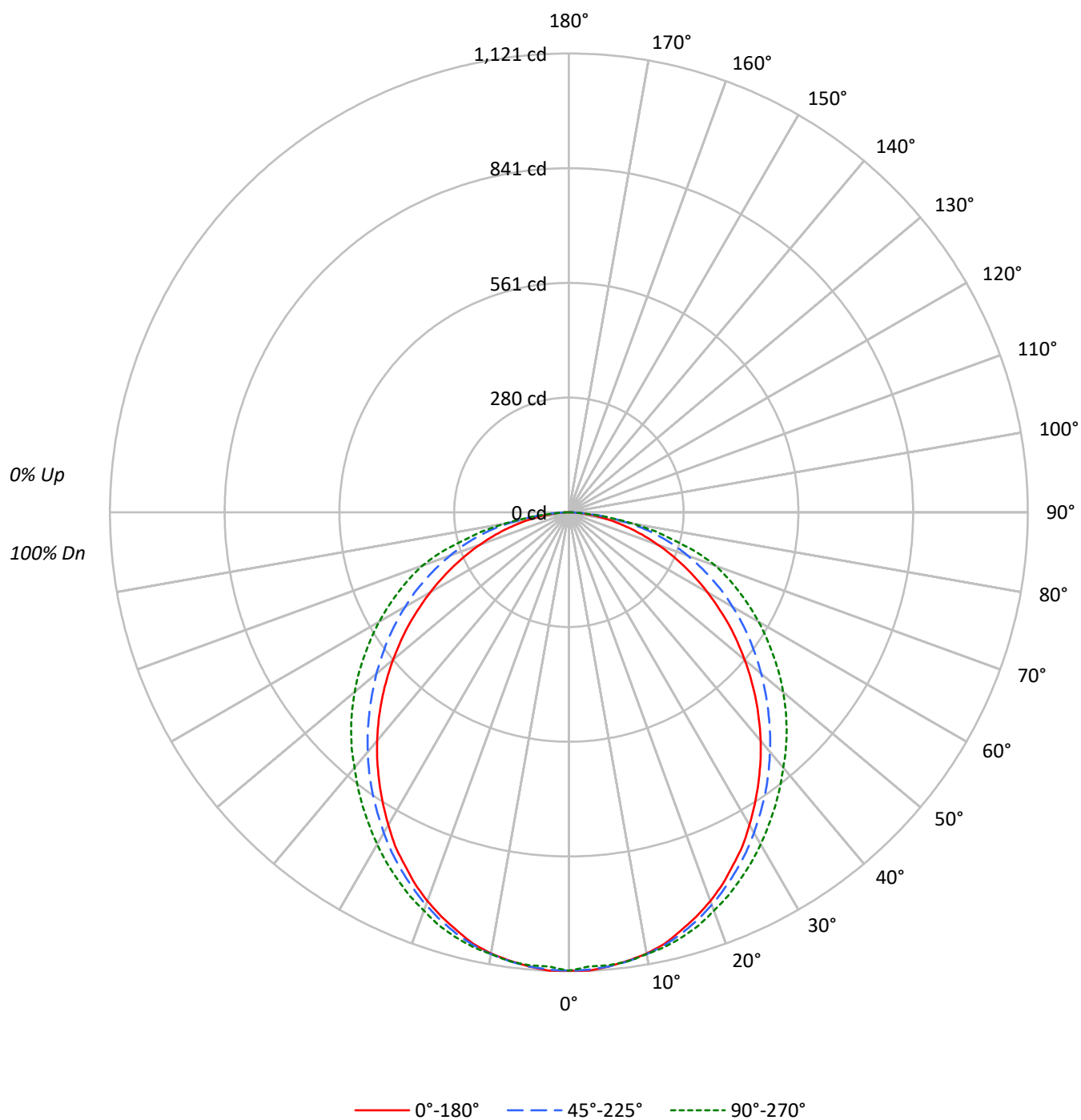
Input Watts (W): 29.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
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°	3013	3013	3013
5°	3008	3008	3000
10°	2991	2995	2995
15°	2946	2967	2992
20°	2893	2923	2965
25°	2820	2869	2939
30°	2741	2810	2911
35°	2651	2748	2883
40°	2560	2684	2860
45°	2459	2621	2863
50°	2346	2569	2859
55°	2235	2526	2858
60°	2104	2485	2882
65°	1973	2451	2921
70°	1822	2426	2995
75°	1641	2408	2776
80°	1440	2241	2424
85°	1186	1686	1504



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.7	3.4
10°-20°	300.3	9.8
20°-30°	446.1	14.5
30°-40°	525.1	17.1
40°-50°	535.3	17.4
50°-60°	482.8	15.7
60°-70°	380.3	12.4
70°-80°	234.6	7.6
80°-90°	60.9	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°	852.1	27.7
0°-40°	1377.2	44.8
0°-60°	2395.3	78.0
0°-90°	3071.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3071.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1120	1120	1120	1120	1120	
5°	1114	1115	1114	1112	1111	106
15°	1058	1062	1065	1071	1074	298
25°	950	956	966	982	990	438
35°	807	816	836	863	878	505
45°	646	656	689	730	752	498
55°	476	493	538	587	609	425
65°	310	332	385	434	459	307
75°	158	184	232	258	267	168
85°	38	49	55	52	49	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1119.6	1119.6	1119.6	1119.6	1119.6
2.5°	1121.0	1121.0	1118.1	1115.1	1110.7
5°	1113.7	1115.1	1113.7	1112.2	1110.7
7.5°	1104.8	1106.3	1106.3	1106.3	1106.3
10°	1094.5	1096.0	1096.0	1096.0	1096.0
12.5°	1079.7	1081.2	1082.7	1084.2	1087.1
15°	1057.6	1062.0	1065.0	1070.9	1073.8
17.5°	1035.5	1039.9	1044.3	1051.7	1057.6
20°	1010.4	1013.4	1020.7	1029.6	1035.5
22.5°	982.4	986.8	994.2	1006.0	1014.8
25°	949.9	955.8	966.2	982.4	989.8
27.5°	919.0	923.4	936.7	954.4	964.7
30°	882.1	888.0	904.2	926.3	936.7
32.5°	845.2	852.6	870.3	895.4	907.2
35°	806.9	815.7	836.4	862.9	877.7
37.5°	768.5	777.4	801.0	830.5	846.7
40°	728.7	737.5	764.1	796.5	814.2
42.5°	687.4	697.7	727.2	764.1	784.7
45°	646.1	656.4	688.8	730.1	752.3
47.5°	603.3	615.1	650.5	696.2	718.3
50°	560.5	573.8	613.6	660.8	682.9
52.5°	517.7	532.5	575.3	623.9	647.5
55°	476.4	492.7	538.4	587.1	609.2
57.5°	432.2	451.4	500.0	547.2	572.3
60°	390.9	411.5	461.7	508.9	535.4
62.5°	349.6	371.7	424.8	472.0	497.1
65°	309.8	331.9	385.0	433.7	458.7
67.5°	269.9	295.0	346.6	395.3	420.4
70°	231.6	258.1	308.3	355.5	380.6
72.5°	194.7	221.3	271.4	315.7	330.4
75°	157.8	184.4	231.6	258.1	267.0
77.5°	123.9	149.0	190.3	206.5	218.3
80°	92.9	115.1	144.6	154.9	156.4
82.5°	63.4	82.6	100.3	101.8	100.3
85°	38.4	48.7	54.6	51.6	48.7
87.5°	17.7	19.2	17.7	11.8	7.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)