

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: P387964

Luminaire Tested: **22CZ2-39VHE-SQR-UNV-L935-CD1-SWPD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P387964
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39VHE-SQR-UNV-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3270.2 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

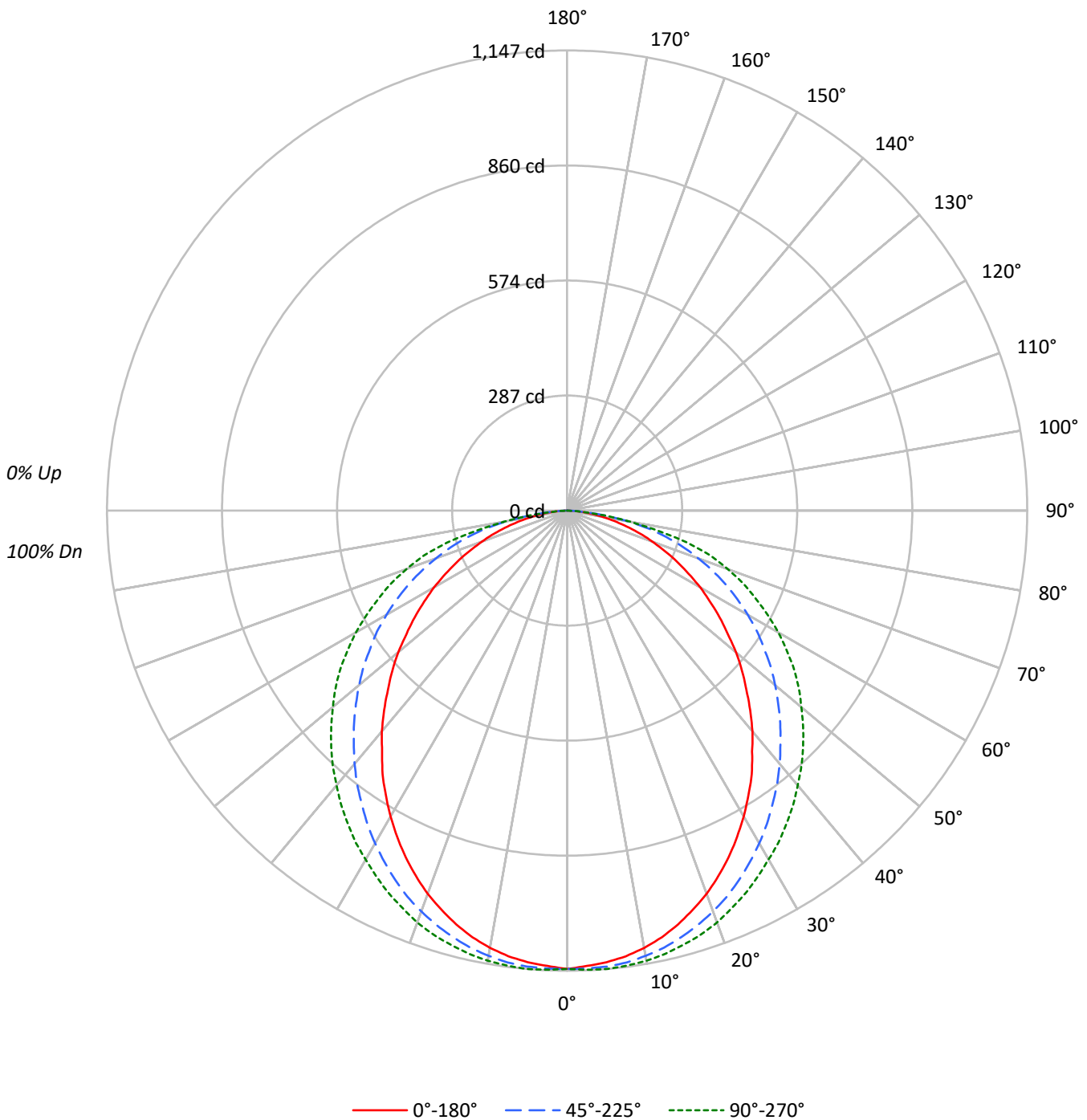
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
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	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3074	3074	3074
5°	3052	3082	3098
10°	3024	3079	3113
15°	2975	3066	3122
20°	2911	3045	3129
25°	2830	3014	3124
30°	2735	2976	3120
35°	2636	2932	3131
40°	2524	2895	3140
45°	2404	2859	3166
50°	2300	2833	3190
55°	2177	2811	3240
60°	2063	2799	3274
65°	1927	2777	3301
70°	1771	2736	3346
75°	1598	2663	3227
80°	1371	2357	2430
85°	1102	1389	1102



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.3	3.3
10°-20°	309.6	9.5
20°-30°	465.1	14.2
30°-40°	554.6	17.0
40°-50°	573.5	17.5
50°-60°	527.2	16.1
60°-70°	419.7	12.8
70°-80°	256.4	7.8
80°-90°	55.8	1.7
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°	883.0	27.0
0°-40°	1437.6	44.0
0°-60°	2538.3	77.6
0°-90°	3270.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3270.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1142	1142	1142	1142	1142	
5°	1130	1133	1141	1146	1147	107
15°	1068	1080	1100	1116	1121	301
25°	953	976	1015	1043	1052	438
35°	802	837	892	939	953	501
45°	632	677	751	812	832	489
55°	464	515	599	667	691	415
65°	303	354	436	497	518	300
75°	154	199	256	301	310	164
85°	36	44	45	39	36	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1142.4	1142.4	1142.4	1142.4	1142.4
2.5°	1136.2	1137.7	1142.4	1145.5	1145.5
5°	1129.9	1133.0	1140.8	1145.5	1147.0
7.5°	1120.6	1125.3	1136.2	1142.4	1143.9
10°	1106.7	1112.9	1126.8	1136.2	1139.3
12.5°	1089.6	1098.9	1116.0	1128.4	1131.5
15°	1067.9	1080.3	1100.5	1116.0	1120.6
17.5°	1043.0	1058.5	1083.4	1102.0	1108.2
20°	1016.6	1032.2	1063.2	1084.9	1092.7
22.5°	985.6	1005.8	1041.5	1066.3	1072.5
25°	953.0	976.3	1015.1	1043.0	1052.3
27.5°	917.3	945.2	987.1	1021.3	1029.1
30°	880.1	909.5	957.7	994.9	1004.2
32.5°	841.2	875.4	926.6	968.5	980.9
35°	802.4	836.6	892.5	939.0	953.0
37.5°	757.4	797.8	859.9	908.0	925.1
40°	718.6	757.4	824.2	876.9	894.0
42.5°	675.2	717.1	786.9	844.4	864.5
45°	631.7	676.7	751.2	811.8	831.9
47.5°	591.4	636.4	714.0	777.6	797.8
50°	549.5	596.0	676.7	741.9	762.1
52.5°	504.4	555.7	639.5	704.7	727.9
55°	464.1	515.3	599.1	667.4	690.7
57.5°	422.2	474.9	561.9	627.1	648.8
60°	383.4	434.6	520.0	583.6	608.4
62.5°	341.5	394.2	478.1	540.1	563.4
65°	302.7	353.9	436.1	496.7	518.4
67.5°	263.9	315.1	392.7	450.1	474.9
70°	225.1	276.3	347.7	403.6	425.3
72.5°	190.9	235.9	304.2	355.4	375.6
75°	153.7	198.7	256.1	301.1	310.4
77.5°	119.5	159.9	208.0	228.2	231.3
80°	88.5	119.5	152.1	156.8	156.8
82.5°	59.0	82.3	94.7	96.2	94.7
85°	35.7	43.5	45.0	38.8	35.7
87.5°	12.4	12.4	7.8	4.7	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)