

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: P388299

Luminaire Tested: **22CZ2-39VHE-UNV-L940-CD1-SDWPD1-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: P388299
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39VHE-UNV-L940-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3398.8 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

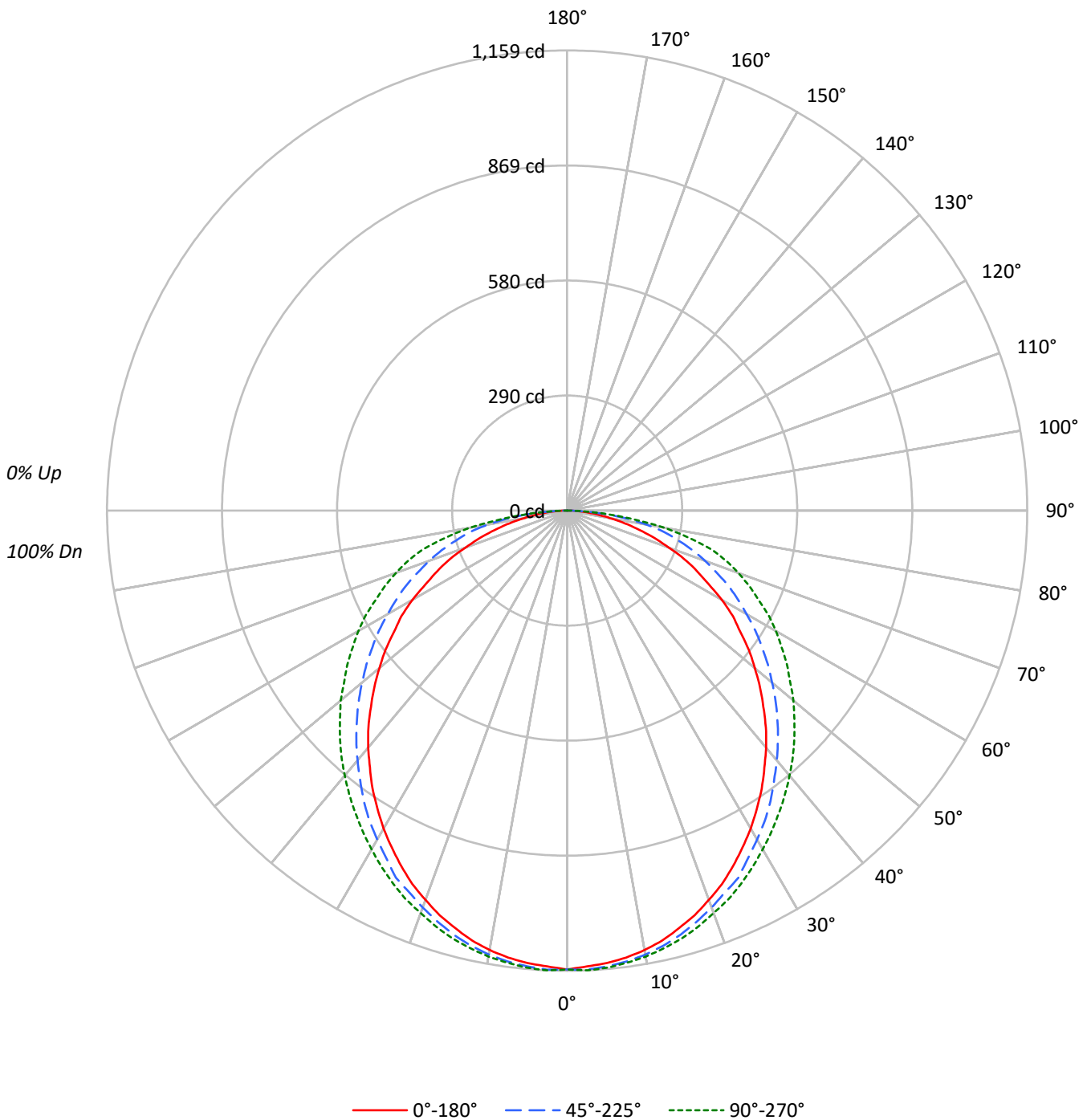
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3110	3110	3110
5°	3090	3113	3122
10°	3071	3103	3117
15°	3033	3080	3108
20°	2989	3046	3089
25°	2935	3029	3079
30°	2874	2972	3061
35°	2807	2934	3055
40°	2738	2885	3061
45°	2661	2852	3081
50°	2583	2822	3116
55°	2495	2809	3170
60°	2421	2808	3267
65°	2300	2854	3386
70°	2145	2908	3605
75°	1965	3008	3895
80°	1711	3137	3835
85°	1497	2788	3047



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.3	3.2
10°-20°	311.3	9.2
20°-30°	467.3	13.7
30°-40°	558.4	16.4
40°-50°	580.7	17.1
50°-60°	538.2	15.8
60°-70°	441.4	13.0
70°-80°	298.4	8.8
80°-90°	93.8	2.8
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°	887.9	26.1
0°-40°	1446.3	42.6
0°-60°	2565.2	75.5
0°-90°	3398.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3398.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1156	1156	1156	1156	1156	
5°	1144	1146	1152	1154	1156	109
15°	1089	1094	1106	1112	1116	307
25°	988	997	1020	1032	1037	455
35°	855	866	893	920	930	534
45°	699	712	749	793	810	540
55°	532	549	599	652	676	478
65°	361	381	448	507	532	357
75°	189	221	289	348	375	200
85°	48	67	90	100	99	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1155.7	1155.7	1155.7	1155.7	1155.7
2.5°	1149.0	1152.3	1157.3	1159.0	1159.0
5°	1143.9	1145.6	1152.3	1154.0	1155.7
7.5°	1135.6	1138.9	1145.6	1147.3	1149.0
10°	1123.9	1127.2	1135.6	1138.9	1140.6
12.5°	1108.8	1112.2	1122.2	1127.2	1128.9
15°	1088.8	1093.8	1105.5	1112.2	1115.5
17.5°	1068.7	1073.7	1085.4	1095.4	1098.8
20°	1043.6	1055.3	1063.7	1077.1	1078.7
22.5°	1018.5	1025.2	1040.3	1053.6	1060.3
25°	988.4	996.8	1020.2	1031.9	1036.9
27.5°	956.6	968.3	986.7	1005.1	1011.8
30°	924.9	933.2	956.6	978.4	985.1
32.5°	889.7	901.4	926.5	948.3	958.3
35°	854.6	866.3	893.1	919.8	929.9
37.5°	816.1	829.5	856.3	888.1	901.4
40°	779.4	789.4	821.2	859.6	871.3
42.5°	740.9	752.6	786.0	827.9	841.2
45°	699.1	712.5	749.3	792.7	809.5
47.5°	658.9	672.3	712.5	755.9	776.0
50°	617.1	633.9	674.0	724.2	744.2
52.5°	577.0	592.0	637.2	689.0	707.4
55°	531.8	548.6	598.7	652.3	675.7
57.5°	495.0	506.7	561.9	617.1	640.5
60°	449.9	464.9	521.8	580.3	607.1
62.5°	401.4	426.5	485.0	545.2	572.0
65°	361.2	381.3	448.2	506.7	531.8
67.5°	319.4	341.2	406.4	468.3	496.7
70°	272.6	301.0	369.6	431.5	458.2
72.5°	230.8	260.9	331.1	391.4	419.8
75°	189.0	220.8	289.3	347.9	374.6
77.5°	148.8	184.0	250.9	296.0	312.7
80°	110.4	143.8	202.4	234.1	247.5
82.5°	76.9	105.4	148.8	165.6	168.9
85°	48.5	66.9	90.3	100.3	98.7
87.5°	21.7	26.8	33.4	36.8	35.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)