

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: P388297

Luminaire Tested: **22CZ2-39VHE-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: P388297
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-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3405.1 lumens
Efficiency: N/A
Efficacy: 119.1 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

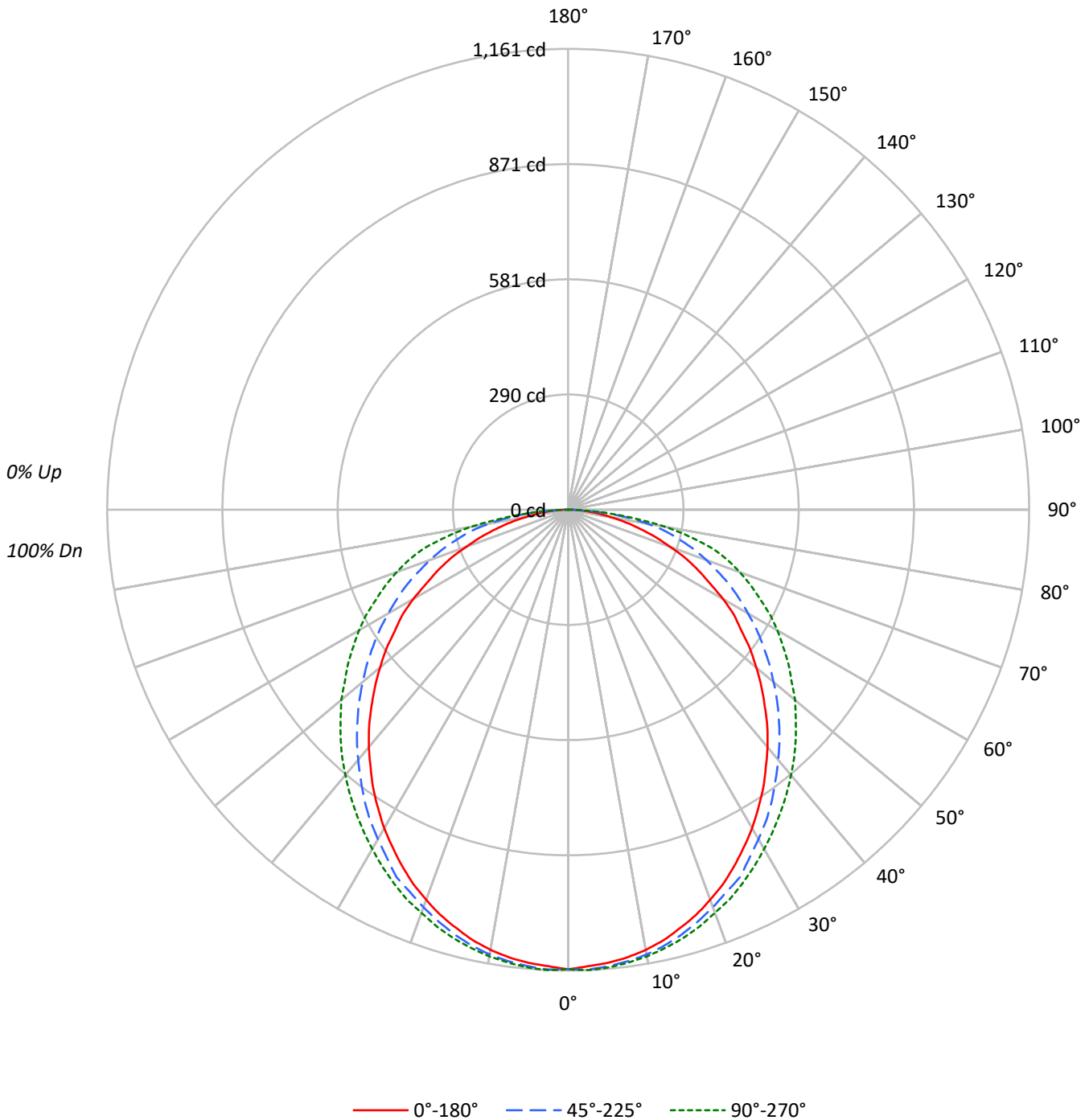
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3116	3116	3116
5°	3096	3118	3128
10°	3077	3109	3122
15°	3039	3085	3114
20°	2994	3052	3095
25°	2940	3035	3084
30°	2879	2978	3067
35°	2813	2939	3060
40°	2743	2890	3067
45°	2665	2856	3086
50°	2588	2827	3121
55°	2500	2814	3176
60°	2426	2814	3273
65°	2304	2859	3393
70°	2149	2913	3612
75°	1968	3014	3902
80°	1714	3141	3843
85°	1501	2794	3054



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.5	3.2
10°-20°	311.9	9.2
20°-30°	468.2	13.7
30°-40°	559.4	16.4
40°-50°	581.7	17.1
50°-60°	539.2	15.8
60°-70°	442.3	13.0
70°-80°	299.0	8.8
80°-90°	93.9	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°	889.6	26.1
0°-40°	1449.0	42.6
0°-60°	2569.9	75.5
0°-90°	3405.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3405.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1158	1158	1158	1158	1158	
5°	1146	1148	1154	1156	1158	109
15°	1091	1096	1108	1114	1118	308
25°	990	999	1022	1034	1039	456
35°	856	868	895	922	932	535
45°	700	714	751	794	811	541
55°	533	550	600	654	677	479
65°	362	382	449	508	533	358
75°	189	221	290	348	375	201
85°	49	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°	1157.8	1157.8	1157.8	1157.8	1157.8
2.5°	1151.1	1154.4	1159.5	1161.1	1161.1
5°	1146.1	1147.7	1154.4	1156.1	1157.8
7.5°	1137.7	1141.0	1147.7	1149.4	1151.1
10°	1126.0	1129.3	1137.7	1141.0	1142.7
12.5°	1110.9	1114.2	1124.3	1129.3	1131.0
15°	1090.8	1095.8	1107.5	1114.2	1117.6
17.5°	1070.7	1075.7	1087.4	1097.5	1100.8
20°	1045.5	1057.3	1065.6	1079.0	1080.7
22.5°	1020.4	1027.1	1042.2	1055.6	1062.3
25°	990.2	998.6	1022.1	1033.8	1038.8
27.5°	958.4	970.1	988.6	1007.0	1013.7
30°	926.6	935.0	958.4	980.2	986.9
32.5°	891.4	903.1	928.2	950.0	960.1
35°	856.2	867.9	894.7	921.5	931.6
37.5°	817.7	831.1	857.9	889.7	903.1
40°	780.8	790.9	822.7	861.2	873.0
42.5°	742.3	754.0	787.5	829.4	842.8
45°	700.4	713.8	750.6	794.2	811.0
47.5°	660.2	673.6	713.8	757.3	777.4
50°	618.3	635.0	675.2	725.5	745.6
52.5°	578.1	593.1	638.4	690.3	708.8
55°	532.8	549.6	599.8	653.5	676.9
57.5°	496.0	507.7	563.0	618.3	641.7
60°	450.7	465.8	522.8	581.4	608.2
62.5°	402.1	427.3	485.9	546.2	573.0
65°	361.9	382.0	449.0	507.7	532.8
67.5°	320.0	341.8	407.2	469.2	497.6
70°	273.1	301.6	370.3	432.3	459.1
72.5°	231.2	261.4	331.8	392.1	420.6
75°	189.3	221.2	289.9	348.5	375.3
77.5°	149.1	184.3	251.3	296.6	313.3
80°	110.6	144.1	202.7	234.6	248.0
82.5°	77.1	105.6	149.1	165.9	169.2
85°	48.6	67.0	90.5	100.5	98.9
87.5°	21.8	26.8	33.5	36.9	35.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)