

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: P388300

Luminaire Tested: **22CZ2-39VHE-UNV-L940-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: P388300
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-SWPD1-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: 3440.3 lumens
Efficiency: N/A
Efficacy: 120.3 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

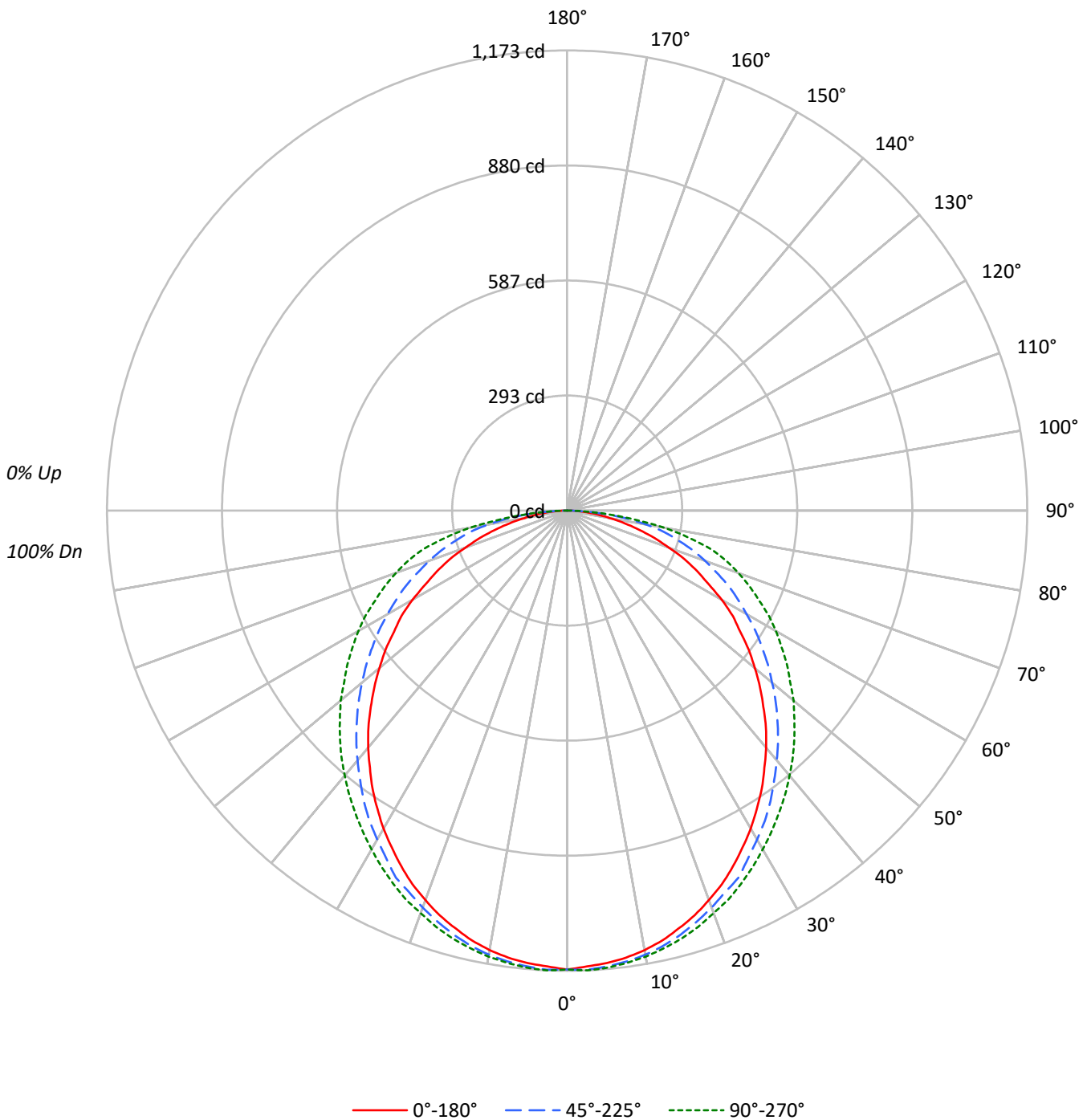
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388300

CATALOG NUMBER: 22CZ2-39VHE-UNV-L940-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388300

CATALOG NUMBER: 22CZ2-39VHE-UNV-L940-CD1-SWPD1-U

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°	3148	3148	3148
5°	3128	3151	3160
10°	3108	3141	3155
15°	3070	3117	3146
20°	3025	3083	3127
25°	2971	3066	3116
30°	2909	3009	3098
35°	2842	2970	3092
40°	2771	2920	3098
45°	2693	2886	3118
50°	2615	2856	3154
55°	2525	2843	3209
60°	2451	2843	3307
65°	2329	2889	3428
70°	2171	2943	3649
75°	1989	3045	3943
80°	1731	3174	3882
85°	1516	2822	3084



TEST NUMBER: P388300

CATALOG NUMBER: 22CZ2-39VHE-UNV-L940-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.6	3.2
10°-20°	315.1	9.2
20°-30°	473.0	13.7
30°-40°	565.2	16.4
40°-50°	587.8	17.1
50°-60°	544.8	15.8
60°-70°	446.8	13.0
70°-80°	302.1	8.8
80°-90°	94.9	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°	898.8	26.1
0°-40°	1464.0	42.6
0°-60°	2596.5	75.5
0°-90°	3440.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3440.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1170	1170	1170	1170	1170	
5°	1158	1160	1166	1168	1170	110
15°	1102	1107	1119	1126	1129	311
25°	1000	1009	1033	1044	1050	461
35°	865	877	904	931	941	541
45°	708	721	758	802	819	546
55°	538	555	606	660	684	484
65°	366	386	454	513	538	361
75°	191	224	293	352	379	203
85°	49	68	91	102	100	56
90°	0	0	0	0	0	



TEST NUMBER: P388300

CATALOG NUMBER: 22CZ2-39VHE-UNV-L940-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1169.8	1169.8	1169.8	1169.8	1169.8
2.5°	1163.0	1166.4	1171.5	1173.2	1173.2
5°	1157.9	1159.6	1166.4	1168.1	1169.8
7.5°	1149.5	1152.8	1159.6	1161.3	1163.0
10°	1137.6	1141.0	1149.5	1152.8	1154.5
12.5°	1122.4	1125.8	1135.9	1141.0	1142.7
15°	1102.1	1107.1	1119.0	1125.8	1129.1
17.5°	1081.7	1086.8	1098.7	1108.8	1112.2
20°	1056.3	1068.2	1076.7	1090.2	1091.9
22.5°	1031.0	1037.7	1053.0	1066.5	1073.3
25°	1000.5	1008.9	1032.6	1044.5	1049.6
27.5°	968.3	980.2	998.8	1017.4	1024.2
30°	936.2	944.6	968.3	990.3	997.1
32.5°	900.6	912.5	937.8	959.9	970.0
35°	865.1	876.9	904.0	931.1	941.2
37.5°	826.1	839.7	866.7	898.9	912.5
40°	788.9	799.0	831.2	870.1	882.0
42.5°	749.9	761.8	795.6	838.0	851.5
45°	707.6	721.2	758.4	802.4	819.3
47.5°	667.0	680.5	721.2	765.2	785.5
50°	624.7	641.6	682.2	733.0	753.3
52.5°	584.0	599.3	645.0	697.5	716.1
55°	538.3	555.3	606.0	660.2	683.9
57.5°	501.1	512.9	568.8	624.7	648.4
60°	455.4	470.6	528.2	587.4	614.5
62.5°	406.3	431.7	490.9	551.9	579.0
65°	365.7	386.0	453.7	512.9	538.3
67.5°	323.3	345.3	411.4	474.0	502.8
70°	275.9	304.7	374.1	436.8	463.8
72.5°	233.6	264.1	335.2	396.1	424.9
75°	191.3	223.5	292.9	352.1	379.2
77.5°	150.7	186.2	253.9	299.6	316.6
80°	111.7	145.6	204.8	237.0	250.5
82.5°	77.9	106.7	150.7	167.6	171.0
85°	49.1	67.7	91.4	101.6	99.9
87.5°	22.0	27.1	33.9	37.2	35.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)