

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: P387967

Luminaire Tested: **22CZ2-39VHE-SQR-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: P387967
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-L940-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3304.0 lumens
Efficiency: N/A
Efficacy: 115.5 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

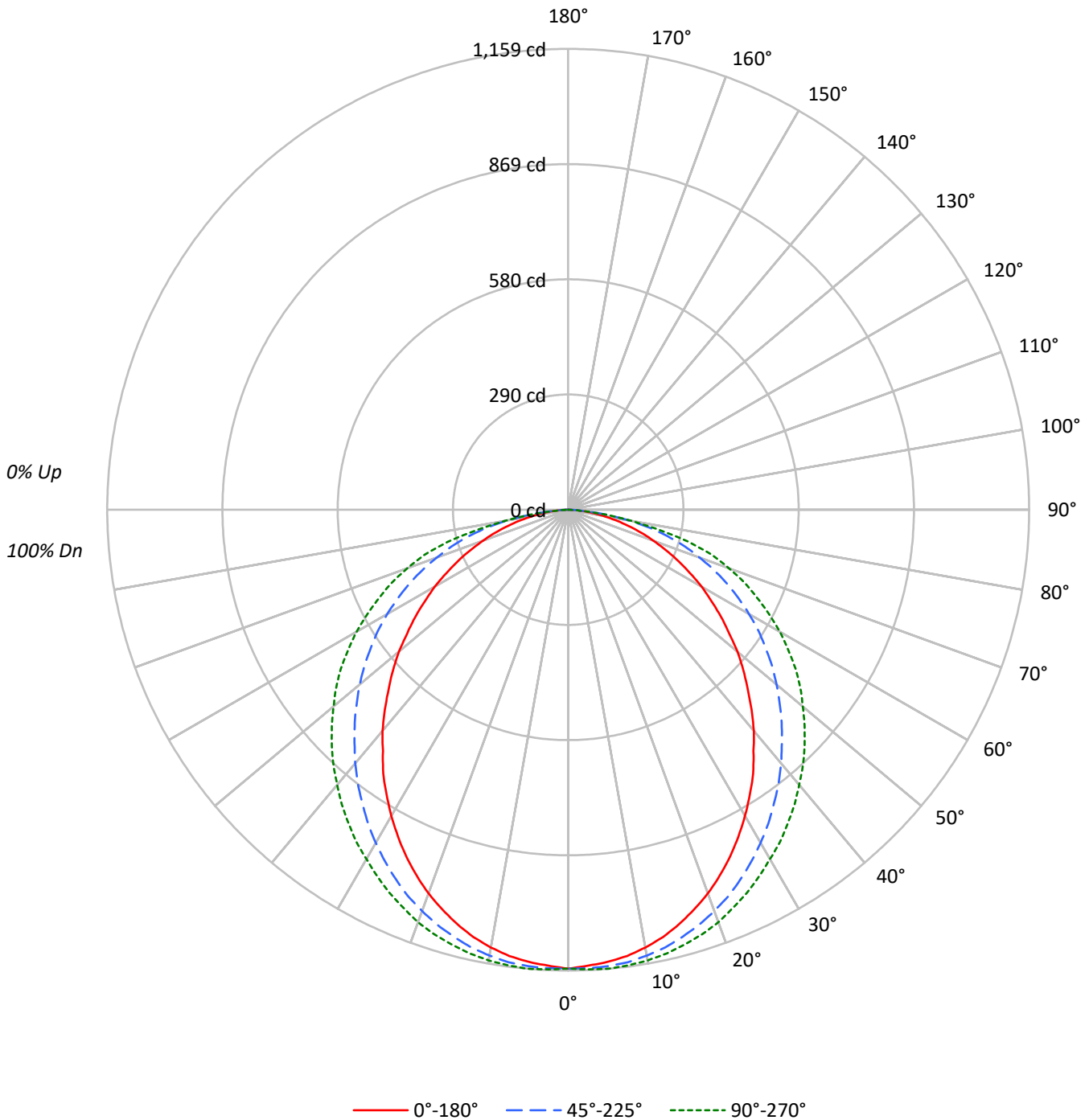
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3106	3106	3106
5°	3084	3113	3130
10°	3055	3111	3145
15°	3006	3097	3154
20°	2941	3076	3162
25°	2859	3045	3157
30°	2763	3007	3153
35°	2663	2962	3163
40°	2551	2925	3173
45°	2429	2888	3199
50°	2324	2862	3224
55°	2200	2840	3274
60°	2084	2827	3308
65°	1947	2806	3335
70°	1789	2764	3381
75°	1614	2690	3261
80°	1385	2382	2455
85°	1115	1405	1115



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.4	3.3
10°-20°	312.8	9.5
20°-30°	469.9	14.2
30°-40°	560.4	17.0
40°-50°	579.4	17.5
50°-60°	532.7	16.1
60°-70°	424.1	12.8
70°-80°	259.1	7.8
80°-90°	56.3	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°	892.1	27.0
0°-40°	1452.5	44.0
0°-60°	2564.5	77.6
0°-90°	3304.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3304.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1154	1154	1154	1154	1154	
5°	1142	1145	1153	1157	1159	108
15°	1079	1091	1112	1128	1132	304
25°	963	986	1026	1054	1063	443
35°	811	845	902	949	963	506
45°	638	684	759	820	840	494
55°	469	521	605	674	698	419
65°	306	358	441	502	524	303
75°	155	201	259	304	314	165
85°	36	44	46	39	36	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1154.2	1154.2	1154.2	1154.2	1154.2
2.5°	1147.9	1149.5	1154.2	1157.3	1157.3
5°	1141.6	1144.8	1152.6	1157.3	1158.9
7.5°	1132.2	1136.9	1147.9	1154.2	1155.7
10°	1118.1	1124.4	1138.5	1147.9	1151.0
12.5°	1100.8	1110.3	1127.5	1140.1	1143.2
15°	1078.9	1091.4	1111.8	1127.5	1132.2
17.5°	1053.8	1069.5	1094.6	1113.4	1119.7
20°	1027.1	1042.8	1074.2	1096.1	1104.0
22.5°	995.8	1016.2	1052.2	1077.3	1083.6
25°	962.9	986.4	1025.6	1053.8	1063.2
27.5°	926.8	955.0	997.4	1031.9	1039.7
30°	889.1	918.9	967.6	1005.2	1014.6
32.5°	849.9	884.4	936.2	978.5	991.1
35°	810.7	845.2	901.7	948.7	962.9
37.5°	765.3	806.0	868.8	917.4	934.6
40°	726.1	765.3	832.7	886.0	903.3
42.5°	682.2	724.5	795.1	853.1	873.5
45°	638.2	683.7	759.0	820.1	840.5
47.5°	597.5	642.9	721.4	785.6	806.0
50°	555.1	602.2	683.7	749.6	770.0
52.5°	509.7	561.4	646.1	711.9	735.5
55°	468.9	520.6	605.3	674.3	697.8
57.5°	426.5	479.9	567.7	633.5	655.5
60°	387.3	439.1	525.3	589.6	614.7
62.5°	345.0	398.3	483.0	545.7	569.2
65°	305.8	357.5	440.7	501.8	523.8
67.5°	266.6	318.3	396.7	454.8	479.9
70°	227.4	279.1	351.3	407.7	429.7
72.5°	192.9	238.4	307.4	359.1	379.5
75°	155.2	200.7	258.7	304.2	313.6
77.5°	120.7	161.5	210.1	230.5	233.7
80°	89.4	120.7	153.7	158.4	158.4
82.5°	59.6	83.1	95.7	97.2	95.7
85°	36.1	43.9	45.5	39.2	36.1
87.5°	12.5	12.5	7.8	4.7	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)