

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: P387943

Luminaire Tested: **22CZ2-39HE-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: P387943
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: 22CZ2-39HE-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: 3184.1 lumens
Efficiency: N/A
Efficacy: 105.1 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

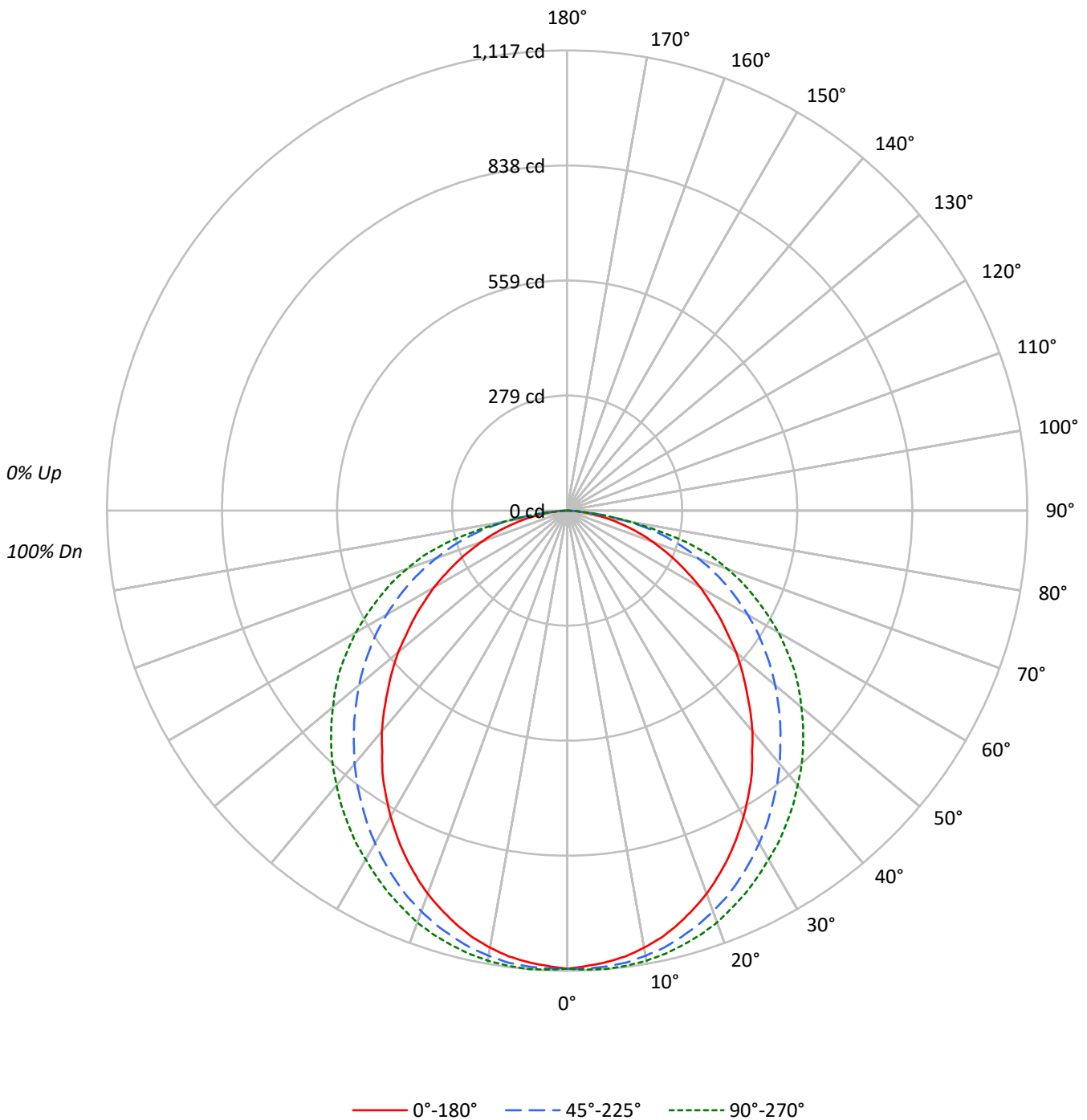
Input Watts (W): 30.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2993	2993	2993
5°	2972	3001	3017
10°	2944	2998	3031
15°	2897	2985	3040
20°	2835	2964	3047
25°	2755	2935	3042
30°	2663	2897	3038
35°	2567	2855	3048
40°	2458	2819	3058
45°	2341	2783	3083
50°	2240	2758	3106
55°	2120	2737	3155
60°	2009	2725	3188
65°	1876	2704	3214
70°	1724	2663	3258
75°	1555	2593	3143
80°	1334	2295	2365
85°	1074	1352	1074



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.4	3.3
10°-20°	301.5	9.5
20°-30°	452.8	14.2
30°-40°	540.0	17.0
40°-50°	558.4	17.5
50°-60°	513.3	16.1
60°-70°	408.7	12.8
70°-80°	249.7	7.8
80°-90°	54.3	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°	859.8	27.0
0°-40°	1399.8	44.0
0°-60°	2471.5	77.6
0°-90°	3184.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3184.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1112	1112	1112	1112	1112	
5°	1100	1103	1111	1115	1117	104
15°	1040	1052	1072	1087	1091	293
25°	928	951	988	1016	1025	427
35°	781	815	869	914	928	487
45°	615	659	731	790	810	476
55°	452	502	583	650	672	404
65°	295	345	425	484	505	292
75°	150	193	249	293	302	159
85°	35	42	44	38	35	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1112.3	1112.3	1112.3	1112.3	1112.3
2.5°	1106.2	1107.7	1112.3	1115.3	1115.3
5°	1100.2	1103.2	1110.8	1115.3	1116.8
7.5°	1091.1	1095.7	1106.2	1112.3	1113.8
10°	1077.5	1083.6	1097.2	1106.2	1109.3
12.5°	1060.9	1070.0	1086.6	1098.7	1101.7
15°	1039.7	1051.8	1071.5	1086.6	1091.1
17.5°	1015.6	1030.7	1054.9	1073.0	1079.0
20°	989.9	1005.0	1035.2	1056.4	1063.9
22.5°	959.6	979.3	1014.1	1038.2	1044.3
25°	927.9	950.6	988.4	1015.6	1024.6
27.5°	893.2	920.4	961.2	994.4	1002.0
30°	856.9	885.6	932.4	968.7	977.8
32.5°	819.1	852.3	902.2	943.0	955.1
35°	781.3	814.6	869.0	914.3	927.9
37.5°	737.5	776.8	837.2	884.1	900.7
40°	699.7	737.5	802.5	853.9	870.5
42.5°	657.4	698.2	766.2	822.1	841.8
45°	615.1	658.9	731.4	790.4	810.0
47.5°	575.8	619.6	695.2	757.1	776.8
50°	535.0	580.3	658.9	722.4	742.0
52.5°	491.2	541.0	622.6	686.1	708.8
55°	451.9	501.7	583.3	649.8	672.5
57.5°	411.1	462.4	547.1	610.5	631.7
60°	373.3	423.2	506.3	568.2	592.4
62.5°	332.5	383.9	465.5	525.9	548.6
65°	294.7	344.6	424.7	483.6	504.8
67.5°	256.9	306.8	382.3	438.3	462.4
70°	219.1	269.0	338.5	392.9	414.1
72.5°	185.9	229.7	296.2	346.1	365.7
75°	149.6	193.4	249.4	293.2	302.3
77.5°	116.4	155.7	202.5	222.2	225.2
80°	86.1	116.4	148.1	152.6	152.6
82.5°	57.4	80.1	92.2	93.7	92.2
85°	34.8	42.3	43.8	37.8	34.8
87.5°	12.1	12.1	7.6	4.5	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)