

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: P387938

Luminaire Tested: **22CZ2-39HE-SQR-UNV-L930-CD1-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: P387938
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-L930-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3114.1 lumens
Efficiency: N/A
Efficacy: 102.8 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

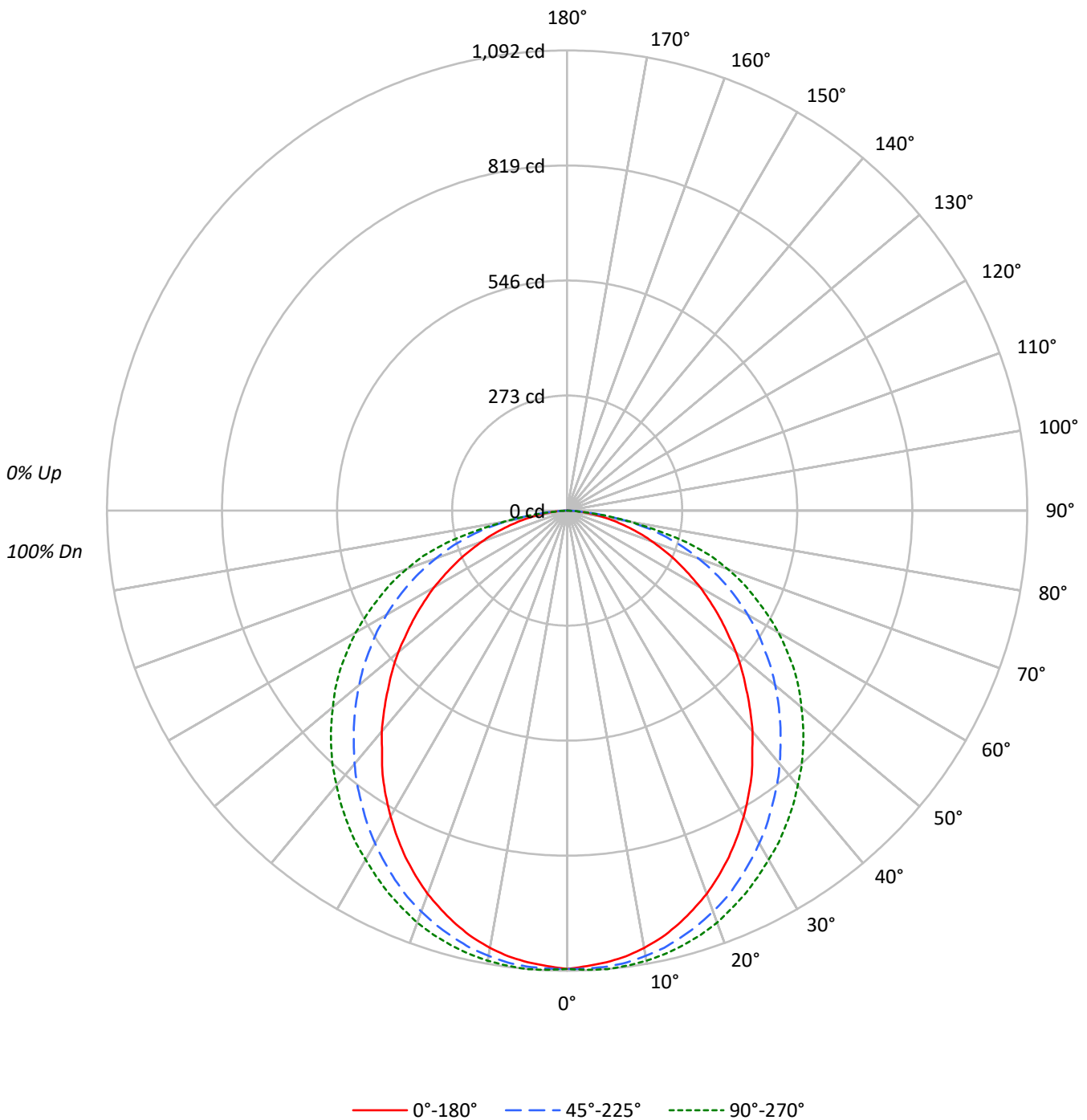
Input Watts (W): 30.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2927	2927	2927
5°	2907	2935	2951
10°	2879	2932	2964
15°	2833	2919	2973
20°	2772	2899	2980
25°	2695	2870	2975
30°	2604	2834	2971
35°	2510	2792	2981
40°	2404	2757	2990
45°	2289	2723	3015
50°	2190	2698	3038
55°	2073	2677	3086
60°	1965	2665	3118
65°	1835	2644	3144
70°	1686	2605	3186
75°	1521	2536	3073
80°	1305	2244	2314
85°	1050	1325	1050



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.1	3.3
10°-20°	294.9	9.5
20°-30°	442.8	14.2
30°-40°	528.2	17.0
40°-50°	546.1	17.5
50°-60°	502.0	16.1
60°-70°	399.7	12.8
70°-80°	244.2	7.8
80°-90°	53.1	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°	840.8	27.0
0°-40°	1369.0	44.0
0°-60°	2417.1	77.6
0°-90°	3114.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3114.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1088	1088	1088	1088	1088	
5°	1076	1079	1086	1091	1092	102
15°	1017	1029	1048	1063	1067	286
25°	908	930	967	993	1002	417
35°	764	797	850	894	908	477
45°	602	644	715	773	792	465
55°	442	491	570	636	658	395
65°	288	337	415	473	494	286
75°	146	189	244	287	296	156
85°	34	41	43	37	34	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1087.8	1087.8	1087.8	1087.8	1087.8
2.5°	1081.9	1083.4	1087.8	1090.8	1090.8
5°	1076.0	1079.0	1086.4	1090.8	1092.3
7.5°	1067.1	1071.6	1081.9	1087.8	1089.3
10°	1053.8	1059.7	1073.0	1081.9	1084.9
12.5°	1037.6	1046.4	1062.7	1074.5	1077.5
15°	1016.9	1028.7	1047.9	1062.7	1067.1
17.5°	993.2	1008.0	1031.7	1049.4	1055.3
20°	968.1	982.9	1012.5	1033.1	1040.5
22.5°	938.5	957.8	991.8	1015.4	1021.3
25°	907.5	929.7	966.6	993.2	1002.1
27.5°	873.5	900.1	940.0	972.5	979.9
30°	838.0	866.1	911.9	947.4	956.3
32.5°	801.1	833.6	882.4	922.3	934.1
35°	764.1	796.7	849.9	894.2	907.5
37.5°	721.3	759.7	818.8	864.6	880.9
40°	684.3	721.3	784.8	835.1	851.3
42.5°	642.9	682.8	749.4	804.0	823.3
45°	601.6	644.4	715.4	773.0	792.2
47.5°	563.1	606.0	679.9	740.5	759.7
50°	523.2	567.6	644.4	706.5	725.7
52.5°	480.4	529.1	608.9	671.0	693.2
55°	441.9	490.7	570.5	635.6	657.7
57.5°	402.0	452.3	535.0	597.1	617.8
60°	365.1	413.8	495.1	555.7	579.4
62.5°	325.2	375.4	455.2	514.4	536.5
65°	288.2	337.0	415.3	473.0	493.7
67.5°	251.3	300.0	373.9	428.6	452.3
70°	214.3	263.1	331.1	384.3	405.0
72.5°	181.8	224.7	289.7	338.5	357.7
75°	146.3	189.2	243.9	286.7	295.6
77.5°	113.8	152.2	198.1	217.3	220.2
80°	84.2	113.8	144.8	149.3	149.3
82.5°	56.2	78.3	90.2	91.6	90.2
85°	34.0	41.4	42.9	37.0	34.0
87.5°	11.8	11.8	7.4	4.4	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)