

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: P387936

Luminaire Tested: **22CZ2-39HE-SQR-UNV-L930-CD1-SDWPD1-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: P387936
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-SDWPD1-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: 3038.3 lumens
Efficiency: N/A
Efficacy: 100.3 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

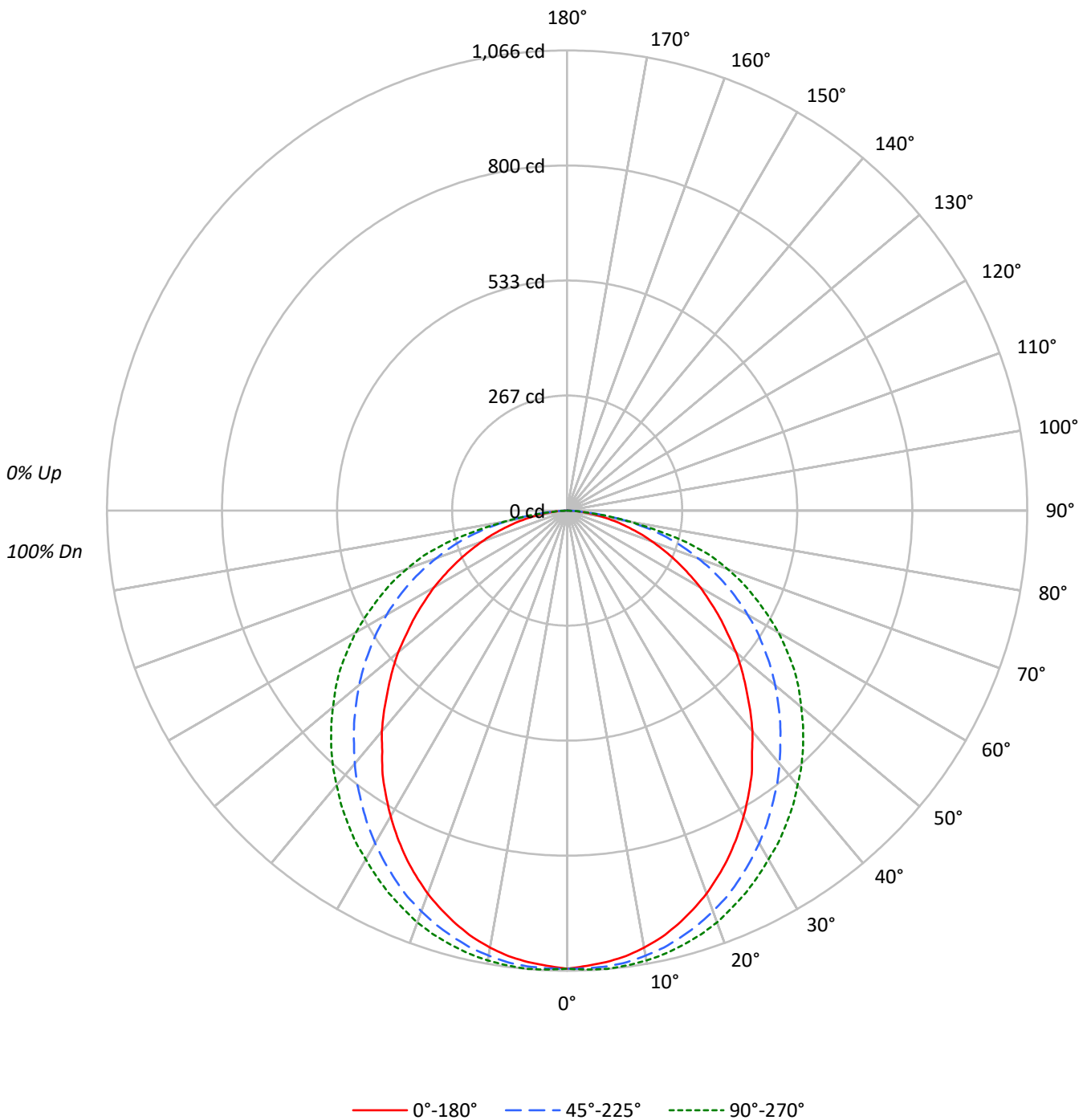
Input Watts (W): 30.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2856	2856	2856
5°	2836	2863	2879
10°	2810	2861	2892
15°	2764	2848	2901
20°	2705	2829	2907
25°	2629	2800	2903
30°	2541	2765	2899
35°	2449	2724	2909
40°	2346	2690	2918
45°	2234	2656	2941
50°	2137	2632	2964
55°	2023	2611	3011
60°	1917	2600	3042
65°	1791	2580	3067
70°	1645	2541	3109
75°	1485	2473	2999
80°	1274	2190	2256
85°	1025	1291	1025



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.6	3.3
10°-20°	287.7	9.5
20°-30°	432.1	14.2
30°-40°	515.3	17.0
40°-50°	532.8	17.5
50°-60°	489.8	16.1
60°-70°	390.0	12.8
70°-80°	238.2	7.8
80°-90°	51.8	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°	820.4	27.0
0°-40°	1335.7	44.0
0°-60°	2358.3	77.6
0°-90°	3038.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3038.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1061	1061	1061	1061	1061	
5°	1050	1053	1060	1064	1066	100
15°	992	1004	1022	1037	1041	279
25°	885	907	943	969	978	407
35°	746	777	829	872	885	465
45°	587	629	698	754	773	454
55°	431	479	557	620	642	386
65°	281	329	405	462	482	279
75°	143	185	238	280	288	152
85°	33	40	42	36	33	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1061.4	1061.4	1061.4	1061.4	1061.4
2.5°	1055.6	1057.0	1061.4	1064.2	1064.2
5°	1049.8	1052.7	1059.9	1064.2	1065.7
7.5°	1041.2	1045.5	1055.6	1061.4	1062.8
10°	1028.2	1034.0	1046.9	1055.6	1058.5
12.5°	1012.3	1021.0	1036.8	1048.4	1051.3
15°	992.1	1003.7	1022.4	1036.8	1041.2
17.5°	969.1	983.5	1006.6	1023.9	1029.6
20°	944.5	959.0	987.8	1008.0	1015.2
22.5°	915.7	934.5	967.6	990.7	996.5
25°	885.4	907.1	943.1	969.1	977.7
27.5°	852.3	878.2	917.1	948.9	956.1
30°	817.6	845.0	889.7	924.4	933.0
32.5°	781.6	813.3	860.9	899.8	911.4
35°	745.5	777.3	829.2	872.4	885.4
37.5°	703.7	741.2	798.9	843.6	859.5
40°	667.7	703.7	765.7	814.8	830.6
42.5°	627.3	666.2	731.1	784.5	803.2
45°	586.9	628.7	698.0	754.2	772.9
47.5°	549.4	591.2	663.3	722.5	741.2
50°	510.5	553.7	628.7	689.3	708.0
52.5°	468.7	516.3	594.1	654.7	676.3
55°	431.2	478.8	556.6	620.1	641.7
57.5°	392.2	441.3	522.0	582.6	602.8
60°	356.2	403.8	483.1	542.2	565.3
62.5°	317.3	366.3	444.2	501.8	523.5
65°	281.2	328.8	405.2	461.5	481.6
67.5°	245.1	292.7	364.8	418.2	441.3
70°	209.1	256.7	323.0	374.9	395.1
72.5°	177.4	219.2	282.6	330.2	349.0
75°	142.8	184.6	237.9	279.8	288.4
77.5°	111.0	148.5	193.2	212.0	214.9
80°	82.2	111.0	141.3	145.6	145.6
82.5°	54.8	76.4	88.0	89.4	88.0
85°	33.2	40.4	41.8	36.1	33.2
87.5°	11.5	11.5	7.2	4.3	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)