

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: P389230

Luminaire Tested: **22CZ2-39VHE-S-UNV-L930-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: P389230
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39VHE-S-UNV-L930-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3491.5 lumens
Efficiency: N/A
Efficacy: 122.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

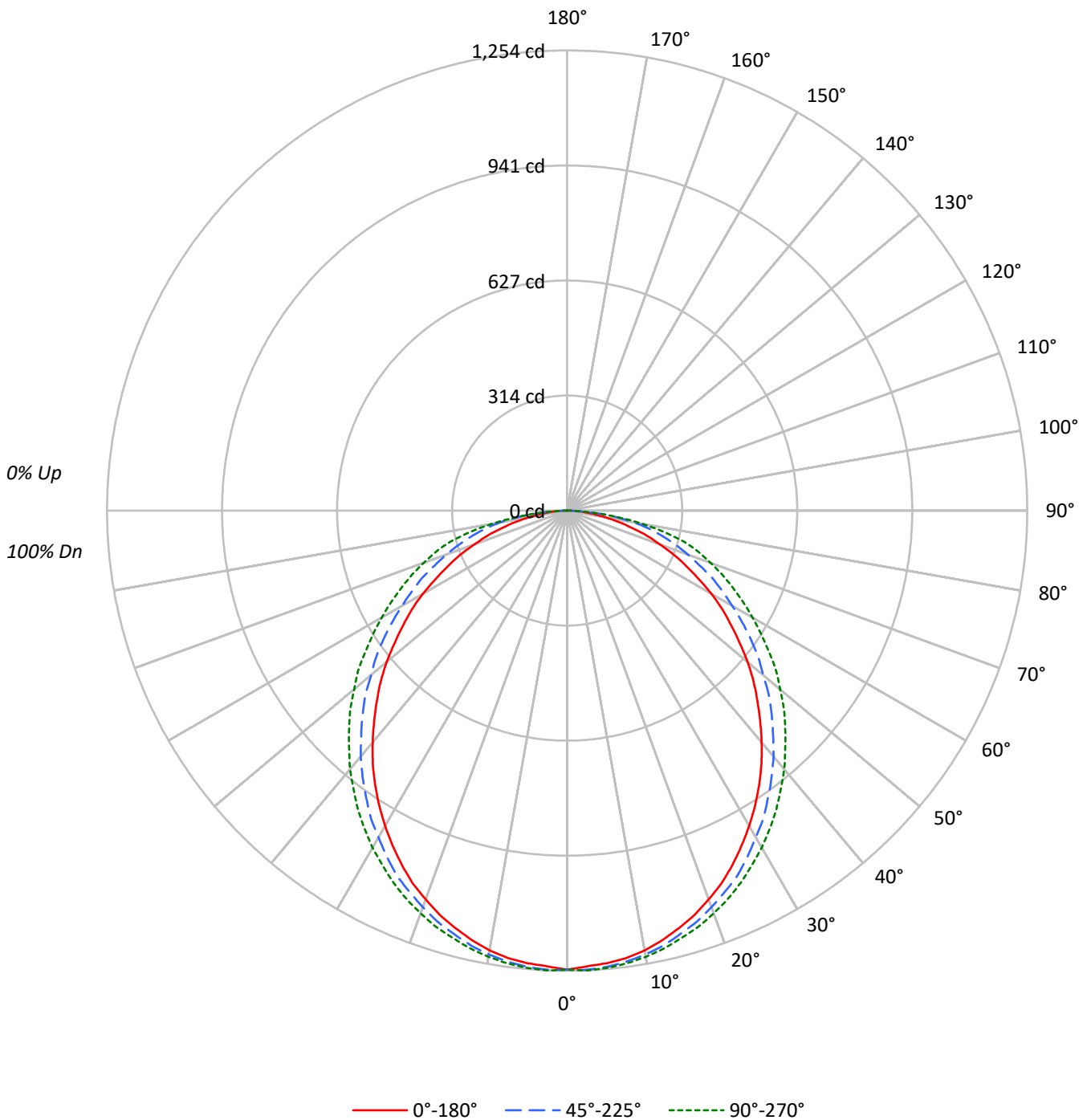
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	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	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3367	3367	3367
5°	3344	3371	3380
10°	3325	3356	3374
15°	3281	3327	3358
20°	3228	3294	3345
25°	3163	3260	3323
30°	3083	3194	3295
35°	2997	3136	3264
40°	2896	3073	3233
45°	2790	3001	3199
50°	2687	2919	3171
55°	2560	2866	3149
60°	2446	2797	3139
65°	2282	2780	3174
70°	2102	2755	3268
75°	1897	2795	3438
80°	1641	2878	3231
85°	1359	2414	2414



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.3	3.4
10°-20°	336.7	9.6
20°-30°	503.8	14.4
30°-40°	596.6	17.1
40°-50°	608.0	17.4
50°-60°	545.0	15.6
60°-70°	426.7	12.2
70°-80°	275.1	7.9
80°-90°	81.3	2.3
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°	958.8	27.5
0°-40°	1555.4	44.5
0°-60°	2708.4	77.6
0°-90°	3491.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3491.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1251	1251	1251	1251	1251	
5°	1238	1241	1248	1250	1251	118
15°	1178	1184	1194	1204	1206	332
25°	1065	1075	1098	1113	1119	490
35°	912	924	955	984	994	570
45°	733	749	788	829	841	566
55°	546	564	611	653	671	489
65°	358	380	437	479	498	356
75°	182	210	269	314	331	196
85°	44	60	78	78	78	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1251.1	1251.1	1251.1	1251.1	1251.1
2.5°	1243.0	1246.2	1252.7	1254.4	1254.4
5°	1238.1	1241.3	1247.9	1249.5	1251.1
7.5°	1229.9	1231.6	1239.7	1243.0	1244.6
10°	1216.9	1220.2	1228.3	1233.2	1234.8
12.5°	1199.0	1203.9	1213.6	1220.2	1221.8
15°	1177.8	1184.3	1194.1	1203.9	1205.5
17.5°	1155.0	1161.5	1174.5	1186.0	1189.2
20°	1127.3	1135.5	1150.1	1163.1	1168.0
22.5°	1099.6	1106.1	1124.0	1140.3	1145.2
25°	1065.4	1075.2	1098.0	1112.6	1119.2
27.5°	1029.6	1041.0	1063.8	1083.3	1089.8
30°	992.1	1003.5	1027.9	1052.4	1060.5
32.5°	953.0	966.0	995.4	1019.8	1027.9
35°	912.3	923.7	954.6	983.9	993.7
37.5°	869.9	879.7	915.5	946.5	956.3
40°	824.3	837.3	874.8	910.6	920.4
42.5°	778.7	793.3	830.8	869.9	879.7
45°	733.1	749.4	788.5	829.2	840.6
47.5°	689.1	702.1	746.1	785.2	801.5
50°	641.8	654.9	697.2	741.2	757.5
52.5°	593.0	610.9	656.5	698.9	718.4
55°	545.7	563.7	610.9	653.3	671.2
57.5°	501.7	516.4	565.3	609.3	627.2
60°	454.5	467.5	519.7	566.9	583.2
62.5°	404.0	423.6	477.3	521.3	540.8
65°	358.4	379.6	436.6	478.9	498.5
67.5°	316.0	335.6	391.0	436.6	457.8
70°	267.2	293.2	350.2	395.9	415.4
72.5°	228.1	250.9	309.5	355.1	376.3
75°	182.5	210.1	268.8	314.4	330.7
77.5°	145.0	172.7	228.1	263.9	272.1
80°	105.9	133.6	185.7	203.6	208.5
82.5°	71.7	97.7	133.6	138.5	140.1
85°	44.0	60.3	78.2	78.2	78.2
87.5°	21.2	24.4	27.7	26.1	26.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)