

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: P389229

Luminaire Tested: **22CZ2-39VHE-S-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: P389229
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-SDWPD1-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: 3449.4 lumens
Efficiency: N/A
Efficacy: 120.6 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

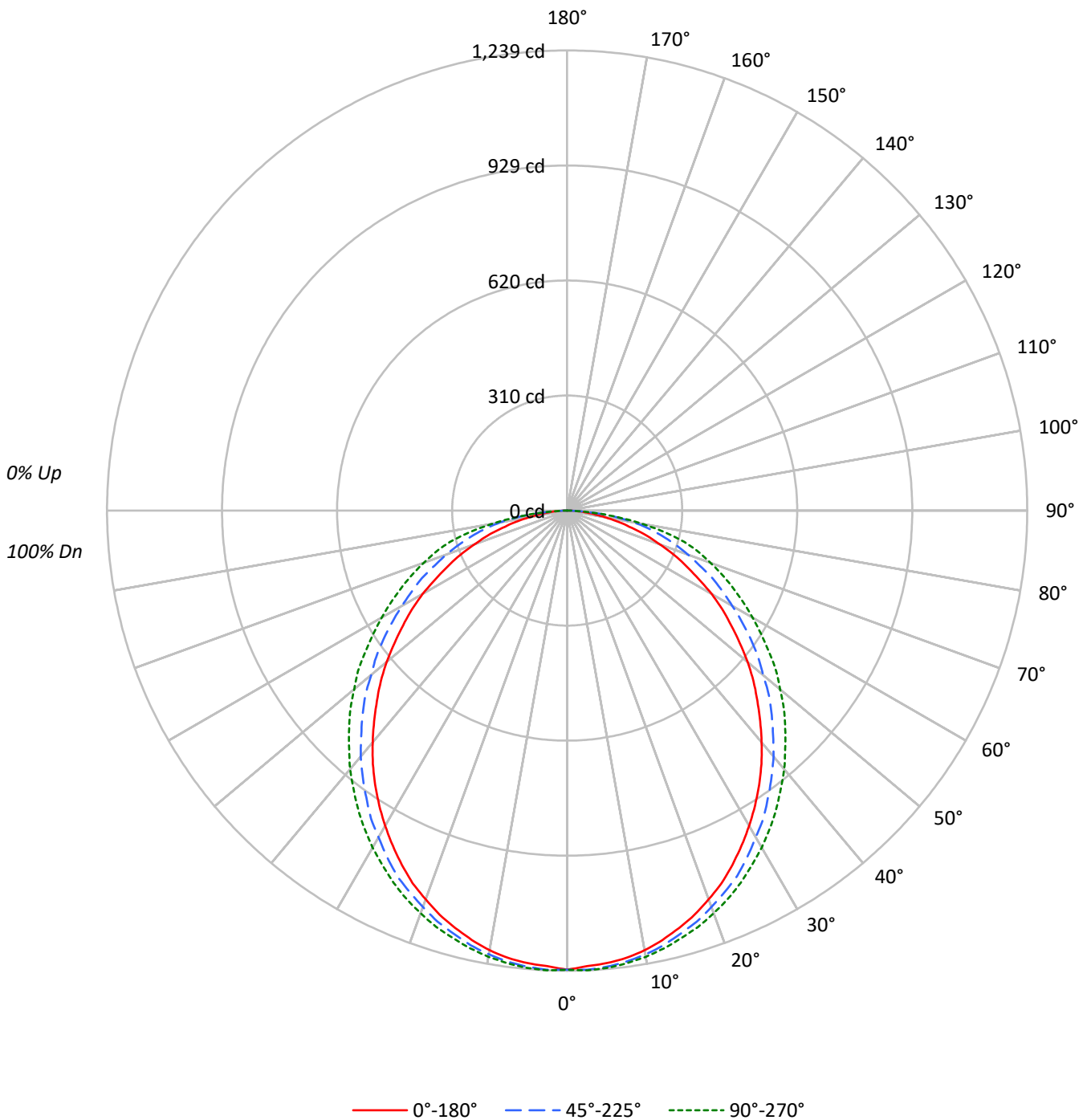
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3326	3326	3326
5°	3304	3330	3339
10°	3285	3316	3333
15°	3242	3287	3318
20°	3189	3254	3304
25°	3125	3221	3283
30°	3045	3155	3255
35°	2961	3098	3225
40°	2861	3036	3194
45°	2756	2965	3161
50°	2655	2884	3133
55°	2530	2831	3111
60°	2416	2763	3101
65°	2255	2746	3136
70°	2076	2722	3229
75°	1875	2761	3397
80°	1621	2844	3192
85°	1343	2387	2387



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.9	3.4
10°-20°	332.6	9.6
20°-30°	497.7	14.4
30°-40°	589.4	17.1
40°-50°	600.7	17.4
50°-60°	538.4	15.6
60°-70°	421.5	12.2
70°-80°	271.8	7.9
80°-90°	80.3	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°	947.3	27.5
0°-40°	1536.7	44.5
0°-60°	2675.8	77.6
0°-90°	3449.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3449.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1236	1236	1236	1236	1236	
5°	1223	1226	1233	1234	1236	116
15°	1164	1170	1180	1189	1191	328
25°	1053	1062	1085	1099	1106	485
35°	901	912	943	972	982	563
45°	724	740	779	819	830	559
55°	539	557	604	645	663	483
65°	354	375	431	473	492	352
75°	180	208	266	311	327	193
85°	44	60	77	77	77	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1236.0	1236.0	1236.0	1236.0	1236.0
2.5°	1228.0	1231.2	1237.6	1239.2	1239.2
5°	1223.2	1226.4	1232.8	1234.4	1236.0
7.5°	1215.1	1216.7	1224.8	1228.0	1229.6
10°	1202.2	1205.4	1213.5	1218.3	1219.9
12.5°	1184.5	1189.4	1199.0	1205.4	1207.1
15°	1163.6	1170.0	1179.7	1189.4	1191.0
17.5°	1141.1	1147.5	1160.4	1171.7	1174.9
20°	1113.7	1121.8	1136.2	1149.1	1153.9
22.5°	1086.4	1092.8	1110.5	1126.6	1131.4
25°	1052.6	1062.2	1084.7	1099.2	1105.7
27.5°	1017.1	1028.4	1050.9	1070.3	1076.7
30°	980.1	991.4	1015.5	1039.7	1047.7
32.5°	941.5	954.4	983.4	1007.5	1015.5
35°	901.3	912.5	943.1	972.1	981.7
37.5°	859.4	869.1	904.5	935.1	944.7
40°	814.4	827.2	864.3	899.7	909.3
42.5°	769.3	783.8	820.8	859.4	869.1
45°	724.2	740.3	779.0	819.2	830.5
47.5°	680.8	693.7	737.1	775.7	791.8
50°	634.1	647.0	688.8	732.3	748.4
52.5°	585.8	603.5	648.6	690.4	709.8
55°	539.2	556.9	603.5	645.4	663.1
57.5°	495.7	510.2	558.5	601.9	619.6
60°	449.0	461.9	513.4	560.1	576.2
62.5°	399.1	418.4	471.6	515.0	534.3
65°	354.1	375.0	431.3	473.2	492.5
67.5°	312.2	331.5	386.3	431.3	452.2
70°	263.9	289.7	346.0	391.1	410.4
72.5°	225.3	247.8	305.8	350.9	371.8
75°	180.3	207.6	265.6	310.6	326.7
77.5°	143.2	170.6	225.3	260.7	268.8
80°	104.6	132.0	183.5	201.2	206.0
82.5°	70.8	96.6	132.0	136.8	138.4
85°	43.5	59.5	77.3	77.3	77.3
87.5°	20.9	24.1	27.4	25.8	25.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)