

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: P389239

Luminaire Tested: **22CZ2-39VHE-S-UNV-L950-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: P389239
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-L950-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3836.9 lumens
Efficiency: N/A
Efficacy: 134.2 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

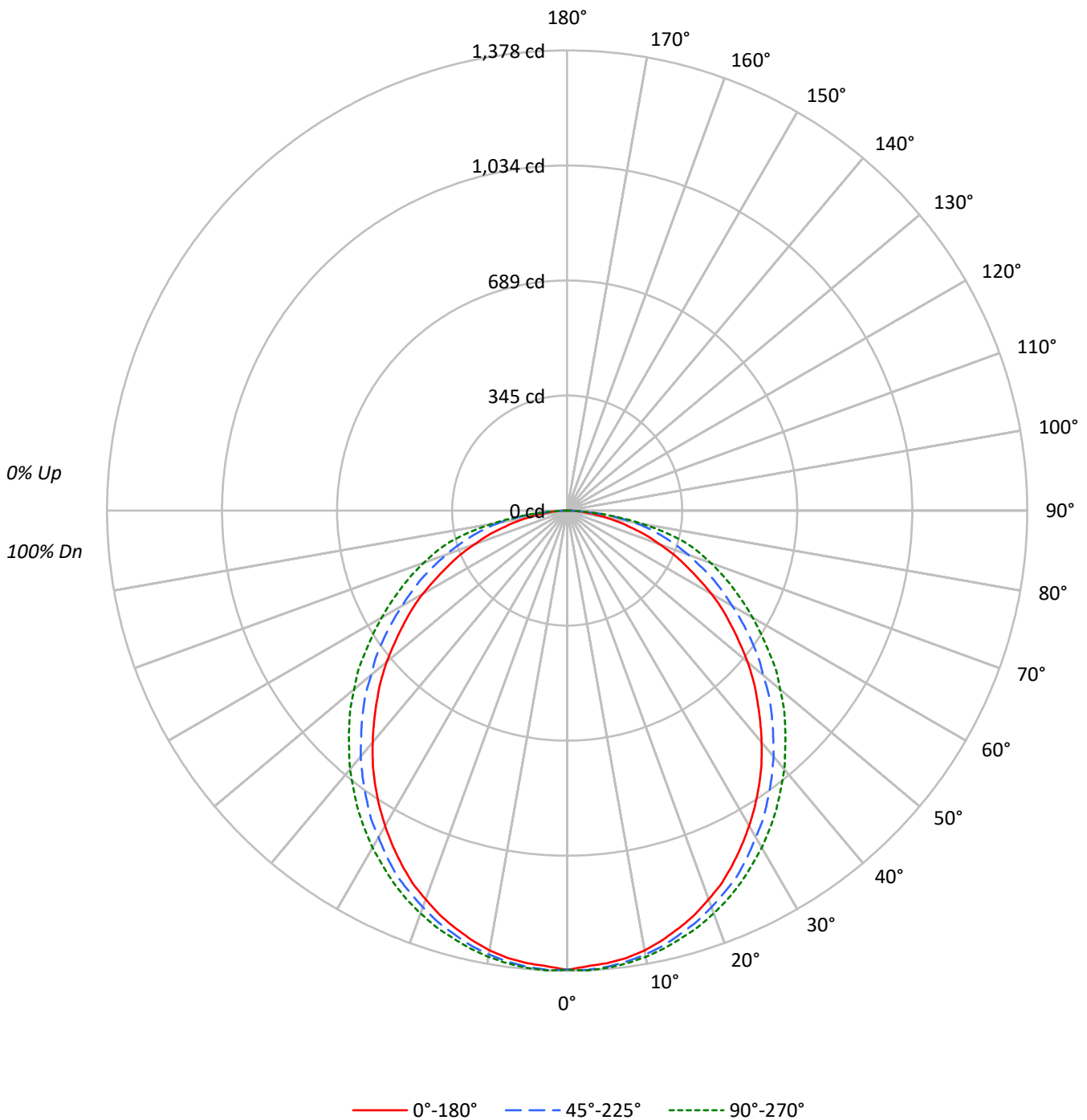
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3700	3700	3700
5°	3675	3704	3714
10°	3654	3688	3708
15°	3606	3656	3691
20°	3548	3619	3676
25°	3476	3583	3652
30°	3388	3510	3621
35°	3293	3446	3587
40°	3182	3377	3553
45°	3066	3298	3515
50°	2953	3208	3485
55°	2814	3149	3461
60°	2688	3074	3449
65°	2507	3055	3488
70°	2310	3028	3592
75°	2085	3071	3778
80°	1804	3163	3550
85°	1491	2652	2652



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.0	3.4
10°-20°	370.0	9.6
20°-30°	553.6	14.4
30°-40°	655.6	17.1
40°-50°	668.2	17.4
50°-60°	598.9	15.6
60°-70°	468.9	12.2
70°-80°	302.3	7.9
80°-90°	89.3	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°	1053.7	27.5
0°-40°	1709.3	44.5
0°-60°	2976.4	77.6
0°-90°	3836.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3836.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1375	1375	1375	1375	1375	
5°	1361	1364	1371	1373	1375	129
15°	1294	1302	1312	1323	1325	365
25°	1171	1182	1207	1223	1230	539
35°	1002	1015	1049	1081	1092	627
45°	806	824	866	911	924	622
55°	600	619	671	718	738	538
65°	394	417	480	526	548	391
75°	200	231	295	346	363	215
85°	48	66	86	86	86	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1374.9	1374.9	1374.9	1374.9	1374.9
2.5°	1365.9	1369.5	1376.7	1378.5	1378.5
5°	1360.6	1364.1	1371.3	1373.1	1374.9
7.5°	1351.6	1353.4	1362.3	1365.9	1367.7
10°	1337.3	1340.9	1349.8	1355.2	1357.0
12.5°	1317.6	1323.0	1333.7	1340.9	1342.7
15°	1294.3	1301.5	1312.2	1323.0	1324.8
17.5°	1269.3	1276.4	1290.7	1303.3	1306.9
20°	1238.8	1247.8	1263.9	1278.2	1283.6
22.5°	1208.4	1215.6	1235.2	1253.1	1258.5
25°	1170.8	1181.5	1206.6	1222.7	1229.9
27.5°	1131.4	1143.9	1169.0	1190.5	1197.7
30°	1090.2	1102.8	1129.6	1156.5	1165.4
32.5°	1047.3	1061.6	1093.8	1120.7	1129.6
35°	1002.5	1015.0	1049.1	1081.3	1092.0
37.5°	956.0	966.7	1006.1	1040.1	1050.9
40°	905.8	920.2	961.3	1000.7	1011.5
42.5°	855.7	871.8	913.0	956.0	966.7
45°	805.6	823.5	866.5	911.2	923.7
47.5°	757.3	771.6	819.9	862.9	880.8
50°	705.3	719.7	766.2	814.5	832.4
52.5°	651.6	671.3	721.5	768.0	789.5
55°	599.7	619.4	671.3	717.9	737.6
57.5°	551.4	567.5	621.2	669.5	689.2
60°	499.5	513.8	571.1	623.0	640.9
62.5°	444.0	465.5	524.5	572.9	594.3
65°	393.8	417.1	479.8	526.3	547.8
67.5°	347.3	368.8	429.7	479.8	503.0
70°	293.6	322.2	384.9	435.0	456.5
72.5°	250.6	275.7	340.1	390.3	413.5
75°	200.5	230.9	295.4	345.5	363.4
77.5°	159.3	189.8	250.6	290.0	299.0
80°	116.4	146.8	204.1	223.8	229.1
82.5°	78.8	107.4	146.8	152.2	154.0
85°	48.3	66.2	85.9	85.9	85.9
87.5°	23.3	26.9	30.4	28.6	28.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)