

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: P389233

Luminaire Tested: **22CZ2-39VHE-S-UNV-L935-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: P389233
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-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3577.8 lumens
Efficiency: N/A
Efficacy: 125.1 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

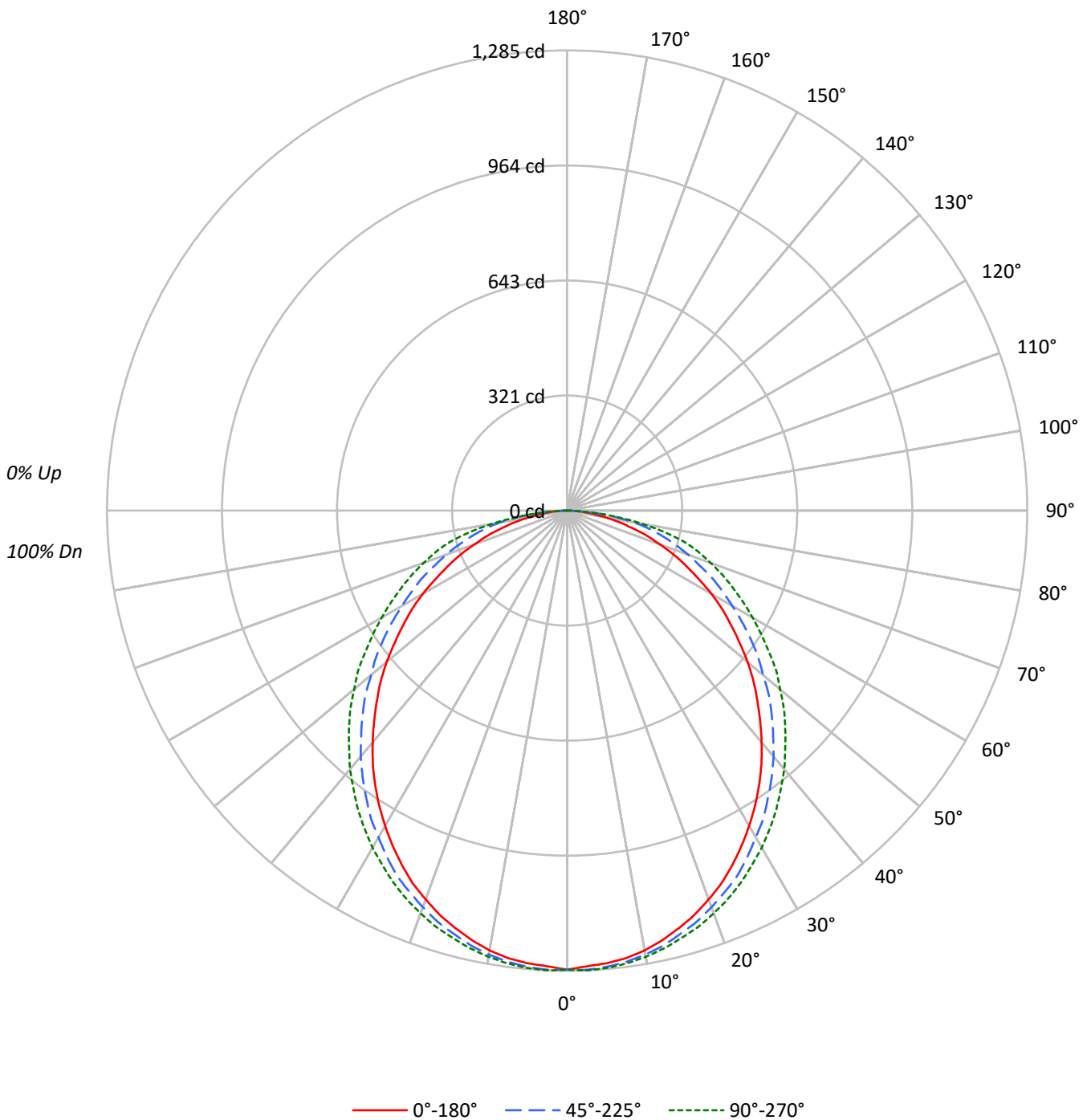
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3450	3450	3450
5°	3427	3454	3463
10°	3407	3439	3457
15°	3362	3409	3441
20°	3308	3375	3428
25°	3241	3341	3405
30°	3159	3273	3377
35°	3071	3213	3345
40°	2967	3149	3313
45°	2859	3075	3278
50°	2753	2991	3249
55°	2624	2937	3227
60°	2506	2866	3216
65°	2339	2849	3252
70°	2154	2824	3349
75°	1944	2863	3524
80°	1681	2949	3312
85°	1392	2473	2473



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.2	3.4
10°-20°	345.0	9.6
20°-30°	516.2	14.4
30°-40°	611.4	17.1
40°-50°	623.1	17.4
50°-60°	558.4	15.6
60°-70°	437.2	12.2
70°-80°	281.9	7.9
80°-90°	83.3	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°	982.5	27.5
0°-40°	1593.9	44.5
0°-60°	2775.4	77.6
0°-90°	3577.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3577.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1282	1282	1282	1282	1282	
5°	1269	1272	1279	1280	1282	120
15°	1207	1214	1224	1234	1235	340
25°	1092	1102	1125	1140	1147	503
35°	935	946	978	1008	1018	584
45°	751	768	808	850	861	580
55°	559	578	626	669	688	501
65°	367	389	447	491	511	365
75°	187	215	275	322	339	200
85°	45	62	80	80	80	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1282.0	1282.0	1282.0	1282.0	1282.0
2.5°	1273.7	1277.0	1283.7	1285.4	1285.4
5°	1268.7	1272.0	1278.7	1280.4	1282.0
7.5°	1260.3	1262.0	1270.4	1273.7	1275.4
10°	1247.0	1250.3	1258.7	1263.7	1265.3
12.5°	1228.6	1233.6	1243.6	1250.3	1252.0
15°	1206.9	1213.6	1223.6	1233.6	1235.3
17.5°	1183.5	1190.2	1203.6	1215.3	1218.6
20°	1155.2	1163.5	1178.5	1191.9	1196.9
22.5°	1126.8	1133.5	1151.8	1168.5	1173.5
25°	1091.7	1101.8	1125.1	1140.1	1146.8
27.5°	1055.0	1066.7	1090.1	1110.1	1116.8
30°	1016.6	1028.3	1053.3	1078.4	1086.7
32.5°	976.6	989.9	1020.0	1045.0	1053.3
35°	934.8	946.5	978.2	1008.3	1018.3
37.5°	891.4	901.4	938.2	969.9	979.9
40°	844.7	858.0	896.4	933.1	943.2
42.5°	797.9	813.0	851.4	891.4	901.4
45°	751.2	767.9	808.0	849.7	861.4
47.5°	706.1	719.5	764.5	804.6	821.3
50°	657.7	671.1	714.5	759.5	776.2
52.5°	607.6	626.0	672.7	716.1	736.2
55°	559.2	577.6	626.0	669.4	687.8
57.5°	514.2	529.2	579.3	624.3	642.7
60°	465.7	479.1	532.5	580.9	597.6
62.5°	414.0	434.0	489.1	534.2	554.2
65°	367.3	389.0	447.4	490.8	510.8
67.5°	323.8	343.9	400.6	447.4	469.1
70°	273.8	300.5	358.9	405.6	425.7
72.5°	233.7	257.1	317.2	363.9	385.6
75°	187.0	215.3	275.4	322.2	338.9
77.5°	148.6	176.9	233.7	270.4	278.8
80°	108.5	136.9	190.3	208.7	213.7
82.5°	73.5	100.2	136.9	141.9	143.6
85°	45.1	61.8	80.1	80.1	80.1
87.5°	21.7	25.0	28.4	26.7	26.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)