

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: P388321

Luminaire Tested: **22CZ2-44VHE-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: P388321  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-44VHE-UNV-L935-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3857.7 lumens  
Efficiency: N/A  
Efficacy: 118.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

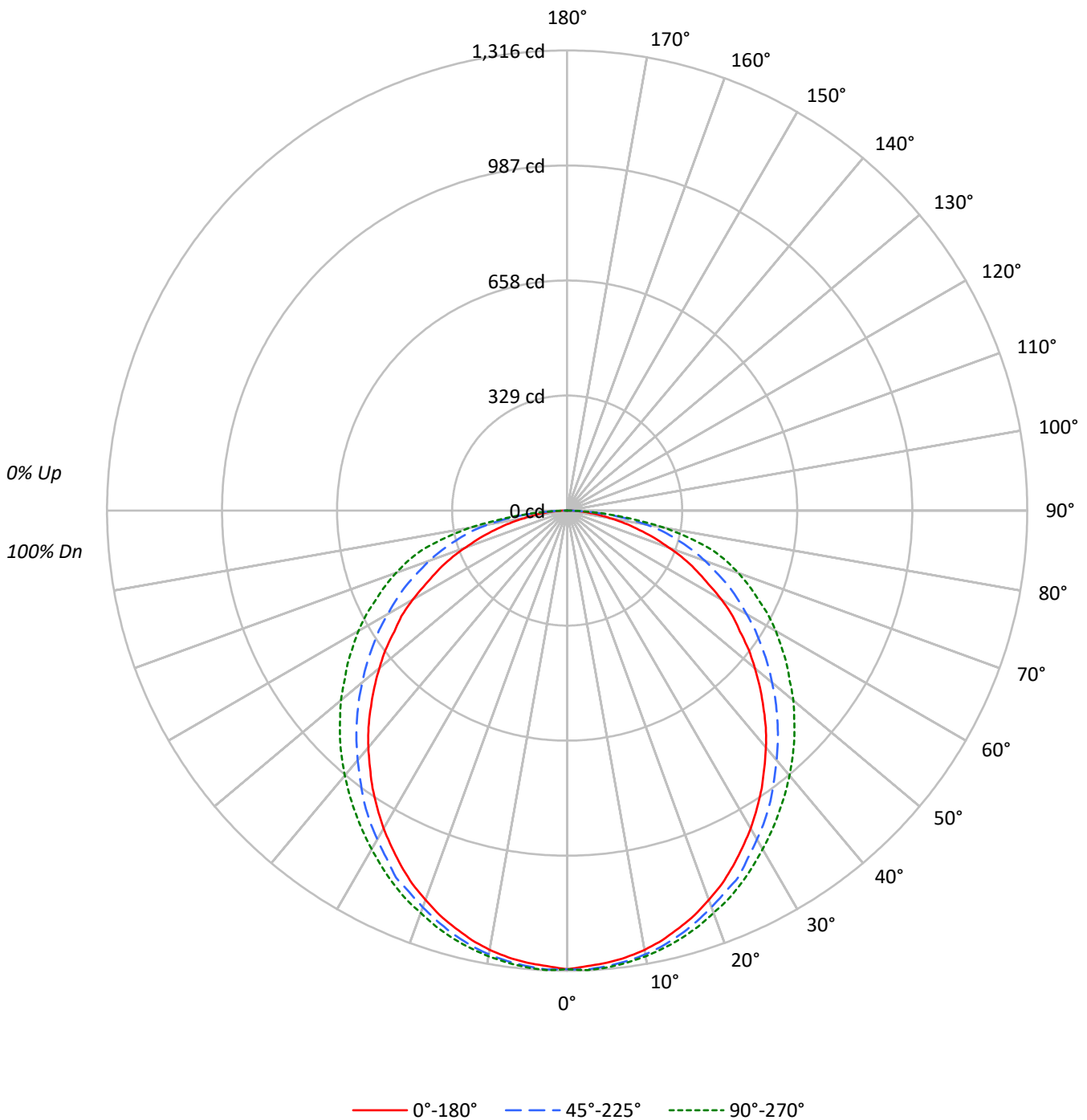
Input Watts (W): 32.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3530	3530	3530
5°	3507	3533	3543
10°	3486	3522	3537
15°	3443	3495	3527
20°	3392	3457	3506
25°	3331	3438	3494
30°	3262	3374	3474
35°	3187	3330	3467
40°	3107	3274	3474
45°	3020	3236	3497
50°	2933	3203	3536
55°	2832	3188	3598
60°	2748	3188	3709
65°	2611	3239	3843
70°	2434	3301	4092
75°	2230	3414	4421
80°	1942	3560	4353
85°	1698	3165	3458



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.0	3.2
10°-20°	353.3	9.2
20°-30°	530.4	13.7
30°-40°	633.8	16.4
40°-50°	659.1	17.1
50°-60°	610.9	15.8
60°-70°	501.0	13.0
70°-80°	338.7	8.8
80°-90°	106.4	2.8
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°	1007.8	26.1
0°-40°	1641.6	42.6
0°-60°	2911.5	75.5
0°-90°	3857.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3857.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1312	1312	1312	1312	1312	
5°	1298	1300	1308	1310	1312	123
15°	1236	1242	1255	1262	1266	349
25°	1122	1131	1158	1171	1177	517
35°	970	983	1014	1044	1055	606
45°	794	809	850	900	919	613
55°	604	623	680	740	767	543
65°	410	433	509	575	604	405
75°	214	251	328	395	425	227
85°	55	76	102	114	112	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1311.7	1311.7	1311.7	1311.7	1311.7
2.5°	1304.1	1307.9	1313.6	1315.5	1315.5
5°	1298.4	1300.3	1307.9	1309.8	1311.7
7.5°	1288.9	1292.7	1300.3	1302.2	1304.1
10°	1275.6	1279.4	1288.9	1292.7	1294.6
12.5°	1258.5	1262.3	1273.7	1279.4	1281.3
15°	1235.8	1241.5	1254.7	1262.3	1266.1
17.5°	1213.0	1218.7	1232.0	1243.4	1247.1
20°	1184.5	1197.8	1207.3	1222.5	1224.4
22.5°	1156.0	1163.6	1180.7	1195.9	1203.5
25°	1121.9	1131.4	1157.9	1171.2	1176.9
27.5°	1085.8	1099.1	1120.0	1140.8	1148.4
30°	1049.7	1059.2	1085.8	1110.5	1118.1
32.5°	1009.9	1023.2	1051.6	1076.3	1087.7
35°	970.0	983.3	1013.7	1044.0	1055.4
37.5°	926.3	941.5	971.9	1008.0	1023.2
40°	884.6	896.0	932.0	975.7	989.0
42.5°	840.9	854.2	892.2	939.6	954.8
45°	793.5	808.7	850.4	899.8	918.8
47.5°	747.9	763.1	808.7	858.0	880.8
50°	700.5	719.4	765.0	821.9	844.7
52.5°	654.9	672.0	723.2	782.1	803.0
55°	603.6	622.6	679.6	740.3	766.9
57.5°	561.9	575.2	637.8	700.5	727.0
60°	510.6	527.7	592.3	658.7	689.1
62.5°	455.6	484.1	550.5	618.8	649.2
65°	410.0	432.8	508.7	575.2	603.6
67.5°	362.6	387.2	461.3	531.5	563.8
70°	309.4	341.7	419.5	489.7	520.1
72.5°	262.0	296.1	375.9	444.2	476.5
75°	214.5	250.6	328.4	394.8	425.2
77.5°	168.9	208.8	284.7	336.0	355.0
80°	125.3	163.2	229.7	265.8	280.9
82.5°	87.3	119.6	168.9	187.9	191.7
85°	55.0	75.9	102.5	113.9	112.0
87.5°	24.7	30.4	38.0	41.8	39.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)