

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: P388010

Luminaire Tested: **22CZ2-44HE-SQR-UNV-L930-CD1-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: P388010  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-44HE-SQR-UNV-L930-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3537.2 lumens  
Efficiency: N/A  
Efficacy: 101.1 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

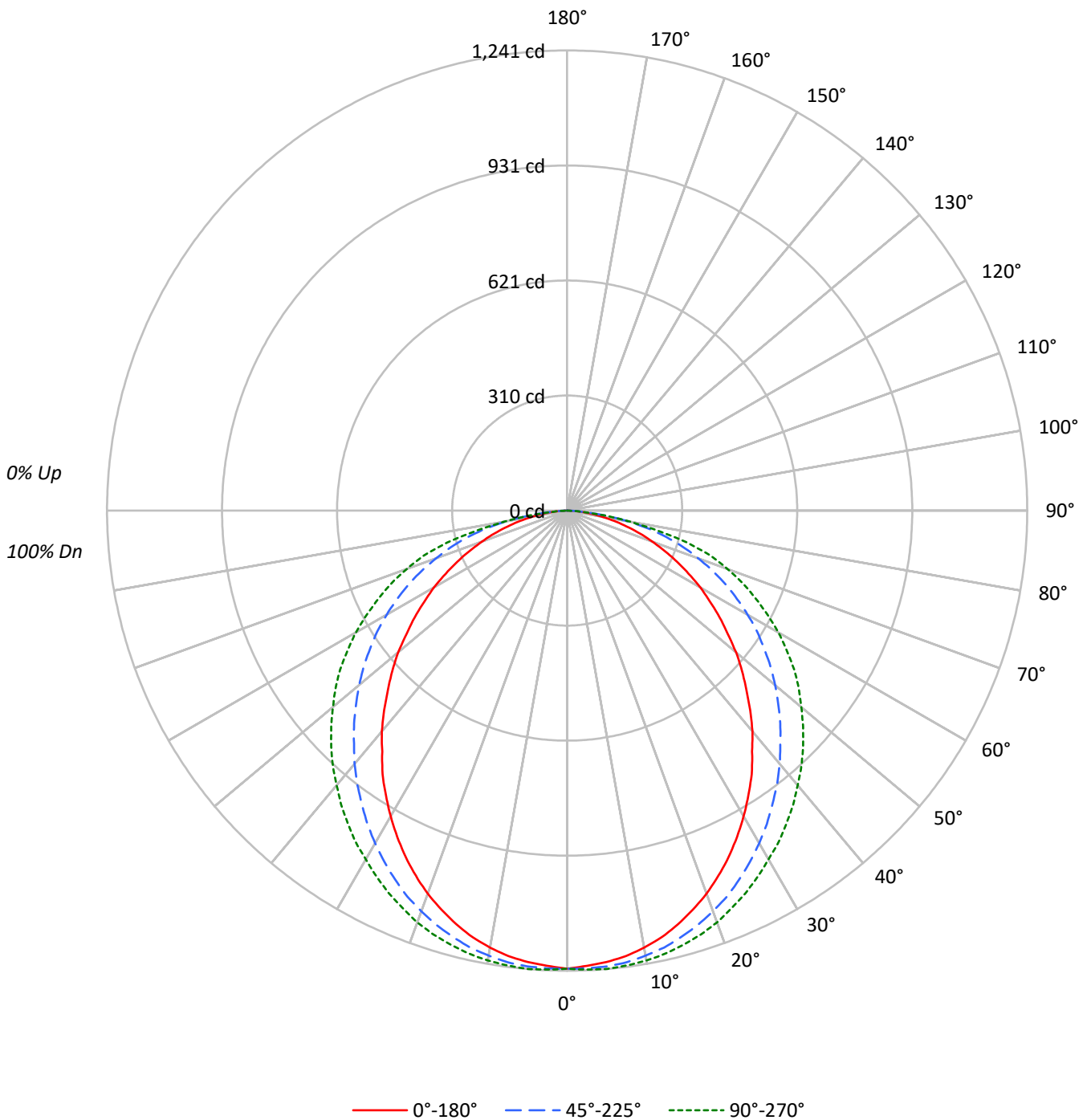
Input Watts (W): 35  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	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	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	3325	3325	3325
5°	3301	3333	3351
10°	3271	3330	3367
15°	3218	3316	3377
20°	3149	3293	3385
25°	3061	3260	3380
30°	2958	3219	3375
35°	2851	3171	3386
40°	2731	3132	3397
45°	2600	3092	3425
50°	2488	3064	3451
55°	2355	3040	3505
60°	2232	3027	3542
65°	2085	3004	3570
70°	1915	2959	3619
75°	1728	2880	3491
80°	1483	2549	2628
85°	1192	1504	1192



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.1	3.3
10°-20°	334.9	9.5
20°-30°	503.0	14.2
30°-40°	599.9	17.0
40°-50°	620.3	17.5
50°-60°	570.3	16.1
60°-70°	454.0	12.8
70°-80°	277.4	7.8
80°-90°	60.3	1.7
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°	955.1	27.0
0°-40°	1555.0	44.0
0°-60°	2745.6	77.6
0°-90°	3537.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3537.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1236	1236	1236	1236	1236	
5°	1222	1226	1234	1239	1241	116
15°	1155	1168	1190	1207	1212	325
25°	1031	1056	1098	1128	1138	474
35°	868	905	965	1016	1031	542
45°	683	732	813	878	900	528
55°	502	557	648	722	747	449
65°	327	383	472	537	561	324
75°	166	215	277	326	336	177
85°	39	47	49	42	39	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1235.6	1235.6	1235.6	1235.6	1235.6
2.5°	1228.9	1230.6	1235.6	1239.0	1239.0
5°	1222.2	1225.6	1234.0	1239.0	1240.7
7.5°	1212.1	1217.2	1228.9	1235.6	1237.3
10°	1197.0	1203.7	1218.8	1228.9	1232.3
12.5°	1178.5	1188.6	1207.1	1220.5	1223.9
15°	1155.0	1168.5	1190.3	1207.1	1212.1
17.5°	1128.2	1145.0	1171.8	1192.0	1198.7
20°	1099.6	1116.4	1150.0	1173.5	1181.9
22.5°	1066.1	1087.9	1126.5	1153.4	1160.1
25°	1030.8	1056.0	1098.0	1128.2	1138.3
27.5°	992.2	1022.4	1067.7	1104.7	1113.1
30°	951.9	983.8	1035.8	1076.1	1086.2
32.5°	909.9	946.9	1002.3	1047.6	1061.0
35°	868.0	904.9	965.3	1015.7	1030.8
37.5°	819.3	862.9	930.1	982.1	1000.6
40°	777.3	819.3	891.5	948.5	967.0
42.5°	730.3	775.6	851.2	913.3	935.1
45°	683.3	732.0	812.6	878.0	899.9
47.5°	639.6	688.3	772.3	841.1	862.9
50°	594.3	644.7	732.0	802.5	824.3
52.5°	545.6	601.0	691.7	762.2	787.4
55°	502.0	557.4	648.0	721.9	747.1
57.5°	456.6	513.7	607.7	678.3	701.8
60°	414.7	470.1	562.4	631.2	658.1
62.5°	369.3	426.4	517.1	584.2	609.4
65°	327.4	382.8	471.8	537.2	560.7
67.5°	285.4	340.8	424.7	486.9	513.7
70°	243.4	298.8	376.1	436.5	460.0
72.5°	206.5	255.2	329.1	384.5	406.3
75°	166.2	214.9	277.0	325.7	335.8
77.5°	129.3	172.9	225.0	246.8	250.1
80°	95.7	129.3	164.5	169.6	169.6
82.5°	63.8	89.0	102.4	104.1	102.4
85°	38.6	47.0	48.7	42.0	38.6
87.5°	13.4	13.4	8.4	5.0	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)