

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: P389257

Luminaire Tested: **22CZ2-44VHE-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: P389257  
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: 22CZ2-44VHE-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: 4053.4 lumens  
Efficiency: N/A  
Efficacy: 124.3 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

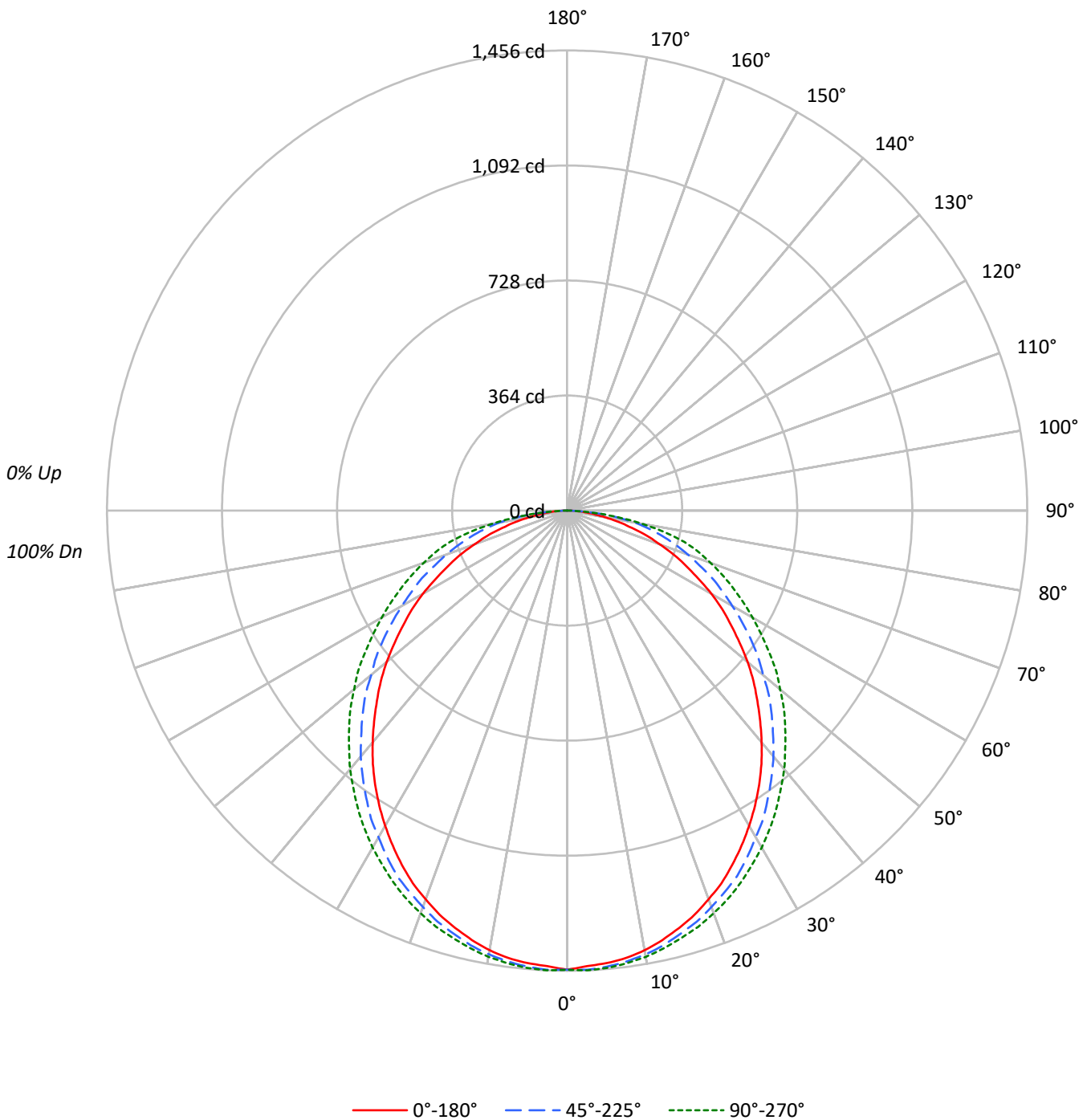
Input Watts (W): 32.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	3909	3909	3909
5°	3883	3913	3924
10°	3860	3897	3917
15°	3809	3862	3899
20°	3748	3824	3883
25°	3673	3785	3858
30°	3579	3708	3826
35°	3479	3641	3790
40°	3362	3568	3753
45°	3239	3484	3714
50°	3119	3388	3682
55°	2973	3327	3656
60°	2840	3247	3644
65°	2649	3227	3685
70°	2441	3199	3795
75°	2202	3245	3991
80°	1905	3341	3752
85°	1578	2803	2803



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.4	3.4
10°-20°	390.9	9.6
20°-30°	584.9	14.4
30°-40°	692.6	17.1
40°-50°	705.9	17.4
50°-60°	632.7	15.6
60°-70°	495.3	12.2
70°-80°	319.4	7.9
80°-90°	94.4	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°	1113.1	27.5
0°-40°	1805.8	44.5
0°-60°	3144.3	77.6
0°-90°	4053.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4053.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1452	1452	1452	1452	1452	
5°	1437	1441	1449	1451	1452	136
15°	1367	1375	1386	1398	1400	386
25°	1237	1248	1275	1292	1299	569
35°	1059	1072	1108	1142	1154	662
45°	851	870	915	963	976	657
55°	634	654	709	758	779	568
65°	416	441	507	556	579	413
75°	212	244	312	365	384	227
85°	51	70	91	91	91	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1452.5	1452.5	1452.5	1452.5	1452.5
2.5°	1443.0	1446.8	1454.4	1456.2	1456.2
5°	1437.3	1441.1	1448.7	1450.6	1452.5
7.5°	1427.9	1429.8	1439.2	1443.0	1444.9
10°	1412.7	1416.5	1426.0	1431.7	1433.5
12.5°	1391.9	1397.6	1409.0	1416.5	1418.4
15°	1367.4	1374.9	1386.3	1397.6	1399.5
17.5°	1340.9	1348.4	1363.6	1376.8	1380.6
20°	1308.7	1318.2	1335.2	1350.3	1356.0
22.5°	1276.6	1284.1	1304.9	1323.9	1329.5
25°	1236.9	1248.2	1274.7	1291.7	1299.3
27.5°	1195.3	1208.5	1235.0	1257.7	1265.2
30°	1151.8	1165.0	1193.4	1221.7	1231.2
32.5°	1106.4	1121.5	1155.5	1183.9	1193.4
35°	1059.1	1072.3	1108.3	1142.3	1153.6
37.5°	1009.9	1021.3	1062.9	1098.8	1110.1
40°	957.0	972.1	1015.6	1057.2	1068.5
42.5°	904.0	921.0	964.5	1009.9	1021.3
45°	851.1	870.0	915.4	962.6	975.9
47.5°	800.0	815.1	866.2	911.6	930.5
50°	745.1	760.3	809.4	860.5	879.4
52.5°	688.4	709.2	762.2	811.3	834.0
55°	633.6	654.4	709.2	758.4	779.2
57.5°	582.5	599.5	656.3	707.3	728.1
60°	527.7	542.8	603.3	658.1	677.1
62.5°	469.0	491.7	554.1	605.2	627.9
65°	416.1	440.7	506.8	556.0	578.7
67.5°	366.9	389.6	453.9	506.8	531.4
70°	310.2	340.4	406.6	459.6	482.3
72.5°	264.8	291.2	359.3	412.3	436.9
75°	211.8	244.0	312.1	365.0	383.9
77.5°	168.3	200.5	264.8	306.4	315.8
80°	122.9	155.1	215.6	236.4	242.1
82.5°	83.2	113.5	155.1	160.8	162.6
85°	51.1	70.0	90.8	90.8	90.8
87.5°	24.6	28.4	32.2	30.3	30.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)