

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: P389261

Luminaire Tested: **22CZ2-44VHE-S-UNV-L940-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: P389261  
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-L940-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4146.8 lumens  
Efficiency: N/A  
Efficacy: 127.2 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

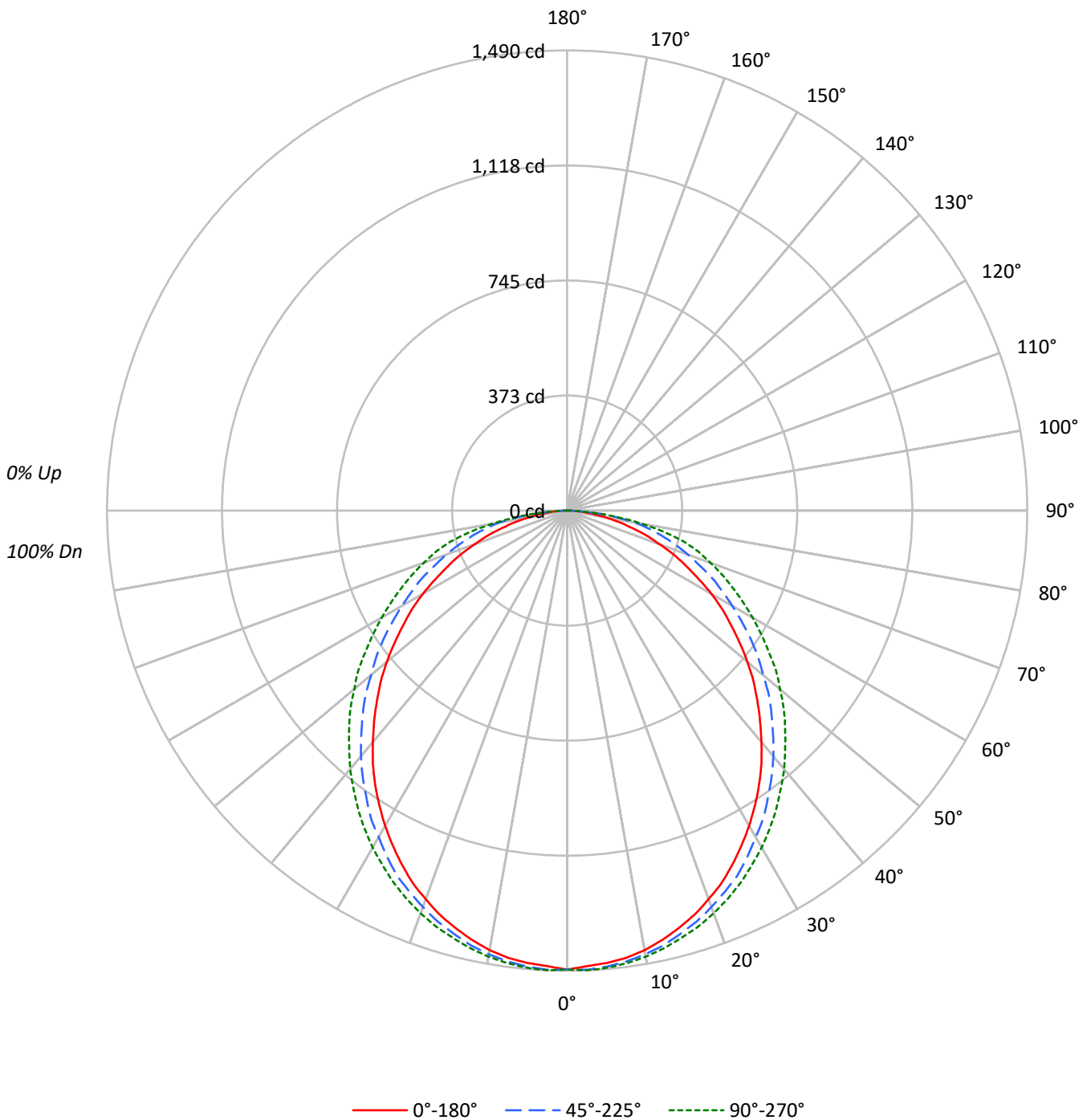
Input Watts (W): 32.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	3999	3999	3999
5°	3972	4004	4014
10°	3949	3986	4007
15°	3897	3951	3989
20°	3834	3912	3973
25°	3757	3872	3947
30°	3661	3794	3914
35°	3559	3725	3877
40°	3439	3650	3840
45°	3314	3564	3800
50°	3191	3467	3767
55°	3041	3404	3740
60°	2905	3322	3728
65°	2711	3301	3769
70°	2496	3273	3882
75°	2253	3319	4084
80°	1949	3419	3839
85°	1612	2868	2868



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.5	3.4
10°-20°	399.9	9.6
20°-30°	598.4	14.4
30°-40°	708.6	17.1
40°-50°	722.1	17.4
50°-60°	647.2	15.6
60°-70°	506.7	12.2
70°-80°	326.8	7.9
80°-90°	96.6	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°	1138.8	27.5
0°-40°	1847.4	44.5
0°-60°	3216.8	77.6
0°-90°	4146.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4146.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1486	1486	1486	1486	1486	
5°	1470	1474	1482	1484	1486	140
15°	1399	1407	1418	1430	1432	394
25°	1265	1277	1304	1322	1329	582
35°	1084	1097	1134	1169	1180	677
45°	871	890	936	985	998	672
55°	648	669	726	776	797	581
65°	426	451	518	569	592	423
75°	217	250	319	373	393	232
85°	52	72	93	93	93	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1485.9	1485.9	1485.9	1485.9	1485.9
2.5°	1476.3	1480.1	1487.9	1489.8	1489.8
5°	1470.4	1474.3	1482.1	1484.0	1485.9
7.5°	1460.8	1462.7	1472.4	1476.3	1478.2
10°	1445.3	1449.2	1458.8	1464.6	1466.6
12.5°	1424.0	1429.8	1441.4	1449.2	1451.1
15°	1398.9	1406.6	1418.2	1429.8	1431.8
17.5°	1371.8	1379.5	1395.0	1408.5	1412.4
20°	1338.9	1348.6	1366.0	1381.4	1387.3
22.5°	1306.0	1313.7	1335.0	1354.4	1360.2
25°	1265.4	1277.0	1304.1	1321.5	1329.2
27.5°	1222.8	1236.3	1263.4	1286.6	1294.4
30°	1178.3	1191.8	1220.9	1249.9	1259.6
32.5°	1131.9	1147.3	1182.2	1211.2	1220.9
35°	1083.5	1097.0	1133.8	1168.6	1180.2
37.5°	1033.2	1044.8	1087.4	1124.1	1135.7
40°	979.0	994.5	1039.0	1081.6	1093.2
42.5°	924.8	942.2	986.7	1033.2	1044.8
45°	870.7	890.0	936.4	984.8	998.4
47.5°	818.4	833.9	886.1	932.6	951.9
50°	762.3	777.8	828.1	880.3	899.7
52.5°	704.3	725.6	779.7	830.0	853.2
55°	648.2	669.4	725.6	775.9	797.1
57.5°	595.9	613.3	671.4	723.6	744.9
60°	539.8	555.3	617.2	673.3	692.7
62.5°	479.8	503.0	566.9	619.1	642.4
65°	425.7	450.8	518.5	568.8	592.0
67.5°	375.4	398.6	464.4	518.5	543.7
70°	317.3	348.3	416.0	470.2	493.4
72.5°	270.9	298.0	367.6	421.8	446.9
75°	216.7	249.6	319.2	373.4	392.8
77.5°	172.2	205.1	270.9	313.4	323.1
80°	125.8	158.7	220.6	241.9	247.7
82.5°	85.1	116.1	158.7	164.5	166.4
85°	52.2	71.6	92.9	92.9	92.9
87.5°	25.2	29.0	32.9	31.0	31.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)