

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: P388325

Luminaire Tested: **22CZ2-44VHE-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: P388325  
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-L940-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

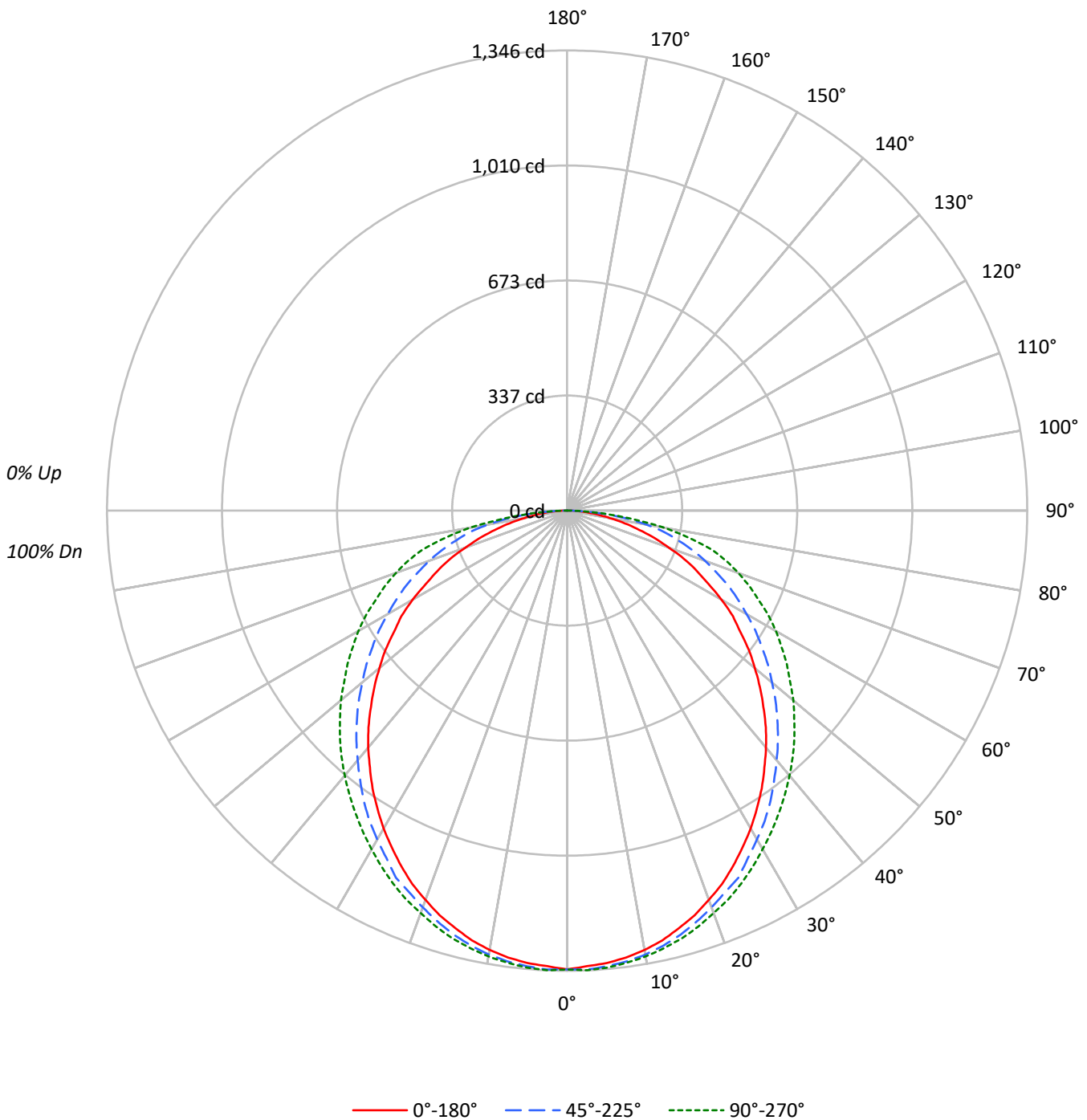
Lumens per Lamp: N/A  
Luminaire Lumens: 3946.5 lumens  
Efficiency: N/A  
Efficacy: 121.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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°	3611	3611	3611
5°	3588	3614	3625
10°	3566	3603	3619
15°	3522	3576	3609
20°	3470	3537	3587
25°	3408	3517	3575
30°	3337	3452	3554
35°	3260	3407	3547
40°	3179	3349	3554
45°	3089	3311	3577
50°	3000	3276	3618
55°	2897	3262	3681
60°	2812	3261	3794
65°	2671	3314	3932
70°	2490	3377	4187
75°	2281	3493	4523
80°	1987	3642	4454
85°	1738	3239	3538



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.9	3.2
10°-20°	361.5	9.2
20°-30°	542.6	13.7
30°-40°	648.4	16.4
40°-50°	674.2	17.1
50°-60°	624.9	15.8
60°-70°	512.6	13.0
70°-80°	346.5	8.8
80°-90°	108.9	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°	1031.0	26.1
0°-40°	1679.4	42.6
0°-60°	2978.6	75.5
0°-90°	3946.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3946.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1342	1342	1342	1342	1342	
5°	1328	1330	1338	1340	1342	126
15°	1264	1270	1284	1291	1295	357
25°	1148	1157	1185	1198	1204	529
35°	992	1006	1037	1068	1080	620
45°	812	827	870	920	940	627
55°	618	637	695	757	784	555
65°	420	443	520	588	618	415
75°	219	256	336	404	435	233
85°	56	78	105	116	115	64
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1341.9	1341.9	1341.9	1341.9	1341.9
2.5°	1334.1	1338.0	1343.8	1345.8	1345.8
5°	1328.3	1330.2	1338.0	1339.9	1341.9
7.5°	1318.6	1322.5	1330.2	1332.2	1334.1
10°	1305.0	1308.9	1318.6	1322.5	1324.4
12.5°	1287.5	1291.4	1303.0	1308.9	1310.8
15°	1264.2	1270.0	1283.6	1291.4	1295.3
17.5°	1240.9	1246.7	1260.3	1272.0	1275.9
20°	1211.8	1225.4	1235.1	1250.6	1252.6
22.5°	1182.6	1190.4	1207.9	1223.4	1231.2
25°	1147.7	1157.4	1184.6	1198.2	1204.0
27.5°	1110.8	1124.4	1145.7	1167.1	1174.9
30°	1073.9	1083.6	1110.8	1136.0	1143.8
32.5°	1033.1	1046.7	1075.8	1101.1	1112.7
35°	992.3	1005.9	1037.0	1068.1	1079.7
37.5°	947.7	963.2	994.3	1031.2	1046.7
40°	904.9	916.6	953.5	998.2	1011.8
42.5°	860.3	873.9	912.7	961.3	976.8
45°	811.7	827.3	870.0	920.5	939.9
47.5°	765.1	780.7	827.3	877.8	901.1
50°	716.6	736.0	782.6	840.9	864.2
52.5°	670.0	687.4	739.9	800.1	821.4
55°	617.5	637.0	695.2	757.4	784.5
57.5°	574.8	588.4	652.5	716.6	743.8
60°	522.4	539.9	605.9	673.9	704.9
62.5°	466.1	495.2	563.2	633.1	664.1
65°	419.5	442.8	520.4	588.4	617.5
67.5°	370.9	396.2	471.9	543.7	576.8
70°	316.5	349.5	429.2	501.0	532.1
72.5°	268.0	302.9	384.5	454.4	487.4
75°	219.4	256.3	336.0	403.9	435.0
77.5°	172.8	213.6	291.3	343.7	363.1
80°	128.2	167.0	235.0	271.9	287.4
82.5°	89.3	122.3	172.8	192.3	196.1
85°	56.3	77.7	104.9	116.5	114.6
87.5°	25.2	31.1	38.8	42.7	40.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)