

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: P388317

Luminaire Tested: **22CZ2-44VHE-UNV-L930-CD1-SDWPD1-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: P388317  
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-L930-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

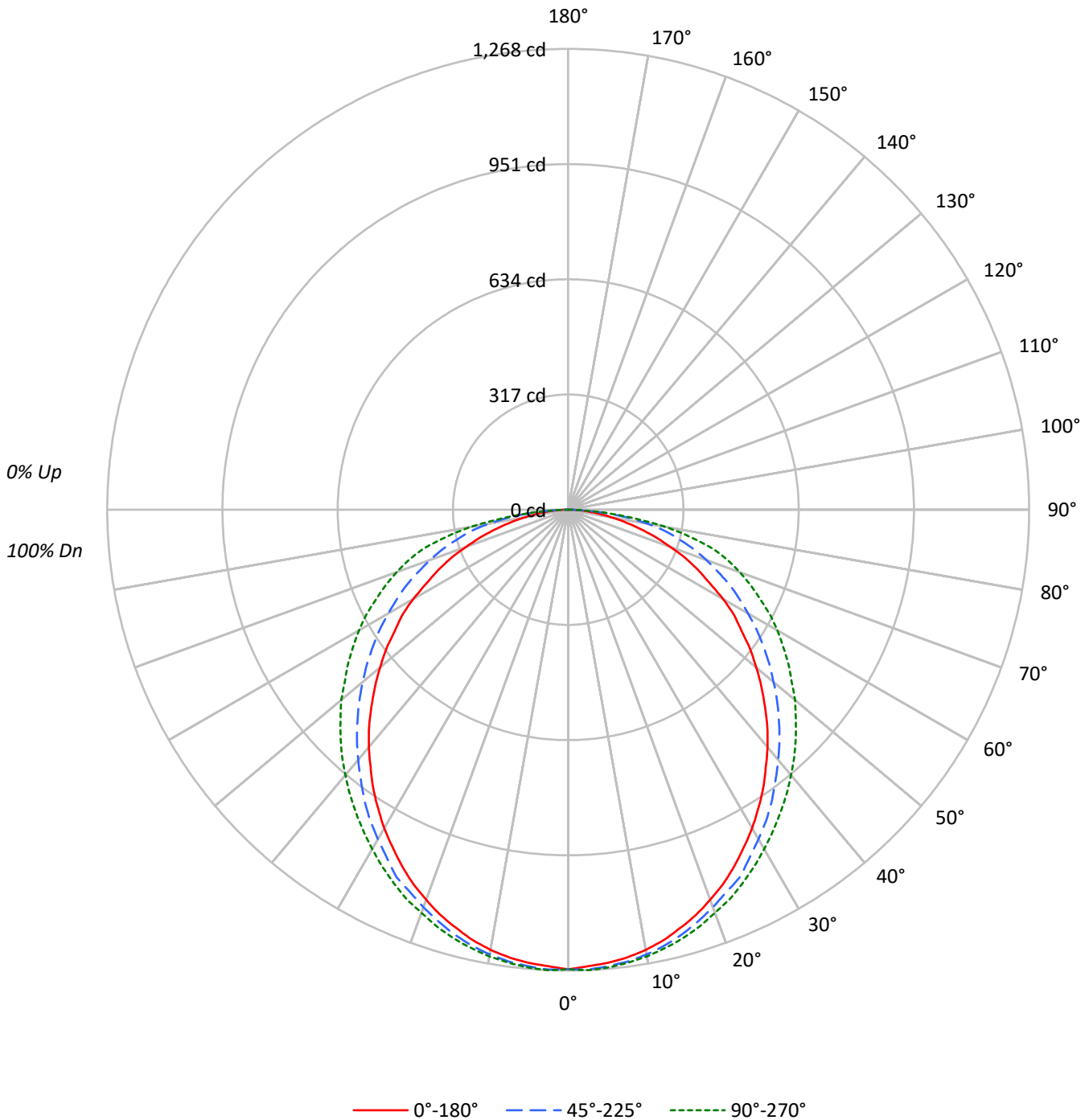
Lumens per Lamp: N/A  
Luminaire Lumens: 3719.1 lumens  
Efficiency: N/A  
Efficacy: 114.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	3403	3403	3403
5°	3381	3406	3416
10°	3360	3395	3410
15°	3319	3370	3400
20°	3270	3333	3380
25°	3211	3314	3369
30°	3145	3253	3349
35°	3072	3210	3343
40°	2996	3157	3349
45°	2911	3120	3371
50°	2827	3087	3409
55°	2730	3074	3468
60°	2650	3073	3575
65°	2517	3123	3706
70°	2347	3182	3945
75°	2150	3292	4262
80°	1872	3431	4197
85°	1639	3051	3335



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.6	3.2
10°-20°	340.6	9.2
20°-30°	511.4	13.7
30°-40°	611.0	16.4
40°-50°	635.4	17.1
50°-60°	588.9	15.8
60°-70°	483.0	13.0
70°-80°	326.5	8.8
80°-90°	102.6	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°	971.6	26.1
0°-40°	1582.6	42.6
0°-60°	2806.9	75.5
0°-90°	3719.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3719.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1265	1265	1265	1265	1265	
5°	1252	1254	1261	1263	1265	119
15°	1191	1197	1210	1217	1221	336
25°	1082	1091	1116	1129	1135	498
35°	935	948	977	1006	1018	585
45°	765	780	820	867	886	591
55°	582	600	655	714	739	523
65°	395	417	490	554	582	391
75°	207	242	317	381	410	219
85°	53	73	99	110	108	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1264.6	1264.6	1264.6	1264.6	1264.6
2.5°	1257.2	1260.9	1266.4	1268.2	1268.2
5°	1251.8	1253.6	1260.9	1262.7	1264.6
7.5°	1242.6	1246.3	1253.6	1255.4	1257.2
10°	1229.8	1233.5	1242.6	1246.3	1248.1
12.5°	1213.3	1217.0	1228.0	1233.5	1235.3
15°	1191.4	1196.9	1209.7	1217.0	1220.6
17.5°	1169.4	1174.9	1187.7	1198.7	1202.3
20°	1141.9	1154.8	1163.9	1178.6	1180.4
22.5°	1114.5	1121.8	1138.3	1152.9	1160.2
25°	1081.6	1090.7	1116.3	1129.1	1134.6
27.5°	1046.8	1059.6	1079.7	1099.9	1107.2
30°	1012.0	1021.2	1046.8	1070.6	1077.9
32.5°	973.6	986.4	1013.8	1037.6	1048.6
35°	935.2	948.0	977.2	1006.5	1017.5
37.5°	893.1	907.7	937.0	971.8	986.4
40°	852.8	863.8	898.6	940.6	953.5
42.5°	810.7	823.5	860.1	905.9	920.5
45°	765.0	779.6	819.9	867.4	885.7
47.5°	721.0	735.7	779.6	827.2	849.1
50°	675.3	693.6	737.5	792.4	814.4
52.5°	631.4	647.8	697.2	754.0	774.1
55°	582.0	600.3	655.2	713.7	739.3
57.5°	541.7	554.5	614.9	675.3	700.9
60°	492.3	508.8	571.0	635.0	664.3
62.5°	439.2	466.7	530.7	596.6	625.9
65°	395.3	417.3	490.5	554.5	582.0
67.5°	349.5	373.3	444.7	512.4	543.5
70°	298.3	329.4	404.4	472.2	501.4
72.5°	252.5	285.5	362.3	428.2	459.3
75°	206.8	241.6	316.6	380.6	409.9
77.5°	162.9	201.3	274.5	323.9	342.2
80°	120.8	157.4	221.4	256.2	270.8
82.5°	84.2	115.3	162.9	181.2	184.8
85°	53.1	73.2	98.8	109.8	108.0
87.5°	23.8	29.3	36.6	40.3	38.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)